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Response to Planning application from Hertfordshire County Council (T and CP GDP Order 2015)

Director of Planning

Dacorum Borough Council
Civic Centre
Marlowes
Hemel Hempstead
HP1 1HH

District ref: 4/02601/17/MFA
HCC ref: DA/487/2017 (Amended)
HCC received: 07/03/2018
Area manager: Nick Gough
Case officer: Lindsay McCauley

Location

Land at Frogmore Road
Frogmore Road
Hemel Hempstead
HP3 9RW

Application type

Full application

Proposal

Demolition of all existing buildings and construction of two buildings comprising 184 residential units with associated access, parking, amenity space and landscaping

Amendment

Additional Amendments Received

Decision

Notice is given under article 18 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 that the Hertfordshire County Council as Highway Authority does not wish to restrict the grant of permission subject to the following conditions:

Decision

Hertfordshire County Council (HCC) as Highway Authority does not wish to object to the proposed application, subject to the following planning conditions.

Condition 1: Detailed Plans

Prior to the commencement of the development hereby permitted full details in the form of scaled plans and written specifications shall be submitted to and approved in writing by the Local Planning Authority in consultation with the Highway Authority to illustrate the following:

- i. Roads, footways, foul and on-site water drainage.
- ii. Existing and proposed access arrangements including visibility splays.
- iii. Parking provision in accordance with adopted standard.
- iv. Cycle parking provision in accordance with adopted standard.
- v. Servicing areas, loading areas and turning areas for all vehicles.

The drawings should incorporate the necessary amendments to the access geometries, set out as follows (Note, accesses numbered from left to right on drawing reference 02-02-01 Rev P01):

- Access 1: road width between the junction and start of parking area to be confirmed;
- Access 1: left-hand radius should be increased owing to dominant flow, plus non-perpendicular access alignment (any footway link may be better served on the opposite side to avoid constant overrun);
- Access 2: would be better served by a traditional kerbed bell-mouth type junction owing to the number of vehicles proposed, complete with internal footway link and appropriate junction visibility;
- Access 2: vegetation proximity to be reviewed;
- Internal access ramps and gradients served from Access 2 should be sensitive to the needs of the site and necessary internal visibility;
- Access 3: internal access widths to be confirmed;
- Access 3: left-hand radius should be increased to minimum of 6.0m (dominant flow direction); and,
- Accesses 4 & 5: appear suitable for simple vehicular access construction.

Reason: In the interests of maintaining highway efficiency and safety.

Condition 2: Construction Traffic Management Plan

Construction of the development hereby approved shall not commence until a Construction Traffic Management Plan has been submitted to and approved in writing by the local planning authority. Thereafter, the construction of the development shall only be carried out in accordance with the approved Plan. The Construction Traffic Management Plan shall include details of:

- a. Construction vehicle numbers, type, routing;
- b. Traffic management requirements;
- c. Construction and storage compounds (including areas designated for car parking);
- d. Siting and details of wheel washing facilities;
- e. Cleaning of site entrances, site tracks and the adjacent public highway;
- f. Provision of sufficient on-site parking prior to commencement of construction activities;
- g. Post construction restoration/reinstatement of the working areas and temporary access to the public highway.

Reason: In order to protect highway safety and the amenity of other users of the public highway and rights of way.

Condition 3: Car Parking Management Plan

Prior to first occupation of the development, a Car and Cycle Parking Management Plan shall be submitted to and approved in writing by the local planning authority. It shall include the information prescribed in the TA and the following:

- Details of car parking allocation and distribution;
- Methods to minimise on-street car parking;
- A scheme for the provision and parking of cycles; and,
- Monitoring required of the Car Parking Management Plan to be submitted to and approved in writing in accordance with a timeframe to be agreed by the local planning authority.

The Car Parking Management Plan shall be fully implemented before the development is first occupied or brought into use, in accordance with a timeframe agreed by the Local Planning Authority, and thereafter retained for this purpose.

Reason: In the interests of highway safety and to ensure sufficient available on-site car parking and the provision of adequate cycle parking that meets the needs of occupiers of the proposed development and in the interests of encouraging the use of sustainable modes of transport.

Condition 4: Servicing and Delivery Plan

Prior to the commencement of the use hereby permitted, a Servicing and Delivery Plan shall be submitted to and approved in writing by the Local Planning Authority. The Servicing and Delivery plan shall incorporate the servicing arrangements for the use and adequate provision for the storage of delivery vehicles within the site.

Reason: In the interests of maintaining highway efficiency and safety.

Condition 5: Road Safety Audit

Prior to the commencement of the development hereby permitted a Stage 2 Road Safety Audit, for the proposed highway improvements and access junction shall be completed and submitted for approval by the Local Planning Authority.

Reason: In the interests of highway safety.

Condition 6: Access Gradient for Car Park

The gradient of the vehicular access to the car park shall not exceed 1:20 for the first 5 meters metres into the site as measured from the near channel edge of the adjacent carriageway.

Reason: In the interests of the safety of persons using the access and users of the highway.

HIGHWAY INFORMATIVES:

HCC recommend inclusion of the following Advisory Notes (ANs) to ensure that any works as part of this development are carried out in accordance with the provisions of the Highways Act 1980 and other relevant processes.

AN1) Storage of materials: The applicant is advised that the storage of materials associated with the construction of this development should be provided within the site on land which is not public highway, and the use of such areas must not interfere with the public highway. If this is not possible, authorisation should be sought from the Highway Authority before construction works commence. Further information is available via the website <https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/highways-roads-and-pavements.aspx> or by telephoning 0300 123 4047.

AN2) Obstruction of public highway land: It is an offence under section 137 of the Highways Act 1980 for any person, without lawful authority or excuse, in any way to wilfully obstruct the free passage along a highway or public right of way. If this development is likely to result in the public highway or public right of way network becoming routinely blocked (fully or partly) the applicant must contact the Highway Authority to obtain their permission and requirements before construction works commence. Further information is available via the website <https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/highways-roads-and-pavements.aspx> or by telephoning 0300 123 4047.

AN3) Road Deposits: It is an offence under section 148 of the Highways Act 1980 to deposit mud or other debris on the public highway, and section 149 of the same Act gives the Highway Authority powers to remove such material at the expense of the party responsible. Therefore, best practical means shall be taken at all times to ensure that all vehicles leaving the site during construction of the

development are in a condition such as not to emit dust or deposit mud, slurry or other debris on the highway. Further information is available via the website <https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/highways-roads-and-pavements.aspx> or by telephoning 0300 123 4047.

AN4) Construction standards for works within the highway: All works to be undertaken on the adjoining highway shall be constructed to the satisfaction and specification of the Highway Authority, by an approved contractor, and in accordance with Hertfordshire County Council's publication "Roads in Hertfordshire - Highway Design Guide (2011)". Before works commence the applicant would need to apply to the Highway Authority to obtain their permission and requirements. Further information is available via the website <https://www.hertfordshire.gov.uk/services/highways-roads-and-pavements/highways-roads-and-pavements.aspx> or by telephoning 0300 123 4047.

S278 Agreement

Any works within the highway boundary (including alterations to the footway and the proposed site access) would need to be secured and approved via a S278 Agreement with the HCC.

The proposed mitigation measures for the following locations would be secured and approved via a S278 agreement:

- Box junction on bridge.
- TRO for keep clear markings in front of Frogmore Road on Durrants Hill Road.
- Box junction at Durrants Hill Road and London Road junction.
- Improvements to London Road junction with Durrants Hill Road.
- Improvements to Lawn Lane junction with Durrants Hill Road.
- TRO for Frogmore Road to enforce no parking by Heavy Goods Vehicles and/or possible weight restrictions set for Frogmore Road.

S106 Agreement

A Travel Plan for the residential and commercial developments, consisting of a written agreement with the County Council setting out a scheme to encourage, regulate, and promote green travel measures for owners, occupiers, and visitors to the Development in accordance with the provisions of the County Council's 'Travel Plan Guidance for Business and Residential Development', which is subject to a sum of £6,000 towards the County Council's costs of administering and monitoring the objectives of the Travel Plan Statement and engaging in any Travel Plan Review.

Contributions for improvements at the Lawn Lane and Durrants Hill Road junction would be sought. The proposed improvements would be to improve pedestrian safety at the junction. Hertfordshire County Council have identified a scheme due for delivery in 2018 / 2019.

Contributions for providing induction loop(s) on Durrants Hill Road near Fourdrinier Way junction will be sought. Contributions would go toward the installation, hardware, software to make it work, reprogramming the black box at the traffic signals and future maintenance.

Description of the Proposal

The proposals are for the demolition of all existing buildings and for the construction of two buildings comprising 184 residential units, with associated access, car and cycle parking, amenity spaces and landscaping. The proposed development will comprise a mixture of 1-bed, 2-bed and family units. The composition of the dwellings, as set out in the Design and Access Statement (DAS) would be as follows:

- 50 x one bedroom flats;

- 122 x two bedroom flats; and,
- 12 x three bedroom flats.

It is proposed that 65% of the dwellings would be privately owner dwellings and 35% would be affordable housing. This equates to 120 privately owned flats and 64 affordable flats.

Site Description

At present the site is occupied by several industrial units across two buildings.

The site covers an area of 1.32 hectares and forms part of the Frogmore Industrial Estate, which is located in the Apsley area of Hemel Hempstead, about 1 km south-east of Hemel Hempstead town centre. The site is located on the eastern side of Frogmore Road and Frogmore Paper Mill to the west.

The site is located near a number of local facilities including retail outlets, a doctor's surgery, pharmacy, public houses, restaurants/takeaways, a Nursery and Apsley Railway Station.

History

Pre-application discussions have been undertaken with Dacorum Borough Council and Hertfordshire County Council as the Highway Authority to inform the application submission. During these discussions it was agreed at which junctions the impact of the proposed development would be assessed.

Analysis

Policy Review

The applicant has provided a Transport Assessment (TA), a Design and Access Statement (DAS) and a Travel Plan (TP) that provide policy review of the following documents:

- National Planning Policy Framework (Department for Communities and Local Government, 2012);
- Manual for Streets (DfT, 2007);
- Roads in Hertfordshire: A Design Guide, Section 1, Chapter 7;
- Dacorum Borough Council Adopted Core Strategy 2013; and
- Dacorum Borough Council Car Parking Standards.

HCC noted that some policy areas had been overlooked, including some elements of the Dacorum Borough Council Adopted Core Strategy 2013, the Hemel Hempstead Urban Transport Plan and the emerging Two Waters Master Plan. HCC typically require a more detailed analysis of local and national policy as part of any formal planning application.

The applicant has since submitted amendments to the application including a Technical Note and Amended Transport Assessment, including swept path assessments and other design drawings. Following HCC comments on these documents, the applicant again submitted further amendments to address concerns relating to the swept path assessments provided as part of the first amendment and to address comments relating to the site access arrangement geometries.

Transport Assessment

A Transport Assessment (TA) was provided as part of the planning application package for consideration by HCC. This is in line with requirements set out in Roads in Hertfordshire Highway Design Guide 3rd Edition (Roads in Herts).

The applicant has since submitted an amended TA and Technical Note for HCC consideration to address comments in HCC's original response to the planning application. Additional swept path assessment and access arrangement drawings were provided for HCC consideration.

Trip generation

A trip generation profile for both the existing site use and proposed site use were provided in the TA. The TRICS online database was interrogated to obtain trip rates for the trip generation profiles for both lane uses. This approach is considered acceptable for the purposes of this application.

An amended trip generation profile was provided in the amended TA for consideration to address HCC's concerns with the trip generation profile within the original submitted TA.

Existing traffic

For the existing site, the applicant considered the category 'Employment ' Industrial Unit' in TRICS to obtain trip rates which is considered acceptable. The applicant also applied the following TRICS parameters to obtain their trip rates in the originally submitted TA:

- Vehicle only trip rates;
- England sites, excluding Greater London;
- 300 to 43325 SQM GFA;
- Monday - Friday sites; and,
- Edge of Town Centre, Suburban Area and Edge of town sites.

These were considered acceptable for the purposes of the existing site use; however, typically multimodal trip rates would be sought if a suitable number of multi-modal trip surveys from comparable sites were available.

The interrogation yielded the following typical peak hour trip rates per 100sqm:

- AM Peak: 0.232 arrivals, 0.063 departures totalling 0.295 two-way trips
- PM Peak: 0.043 arrivals, 0.204 departures totalling 0.247 two-way trips

To obtain the trip generation profile for the site, the applicant applied the trip rates to a gross floor area of 5491m². The trip generation for the existing site use during typical peak hour trips are set out as follows:

- AM Peak (0800-0900) - 13 arrivals, 3 departures totalling 16 two-way trips
- PM Peak (1700-1800) - 2 arrivals, 11 departures totalling 13 two-way trips

It was noted that these were miscalculated in the TA and the TA stated that the PM arrivals trip rate was 0.430 and the departures was 0.240. This error appeared to be carried through the report. It was stated in the TA that the trip rates, and respective trip generation, were as follows:

- AM Peak: 0.232 arrivals, 0.063 departures totalling 0.295 two-way trips
- PM Peak: 0.430 arrivals, 0.240 departures totalling 0.670 two-way trips

To obtain the trip generation profile for the site, the applicant applied the trip rates to a gross floor area of 5491m²:

- AM Peak (0800-0900) - 13 arrivals, 3 departures totalling 16 two-way trips
- PM Peak (1700-1800) - 24 arrivals, 13 departures totalling 37 two-way trips

It was noted that this would need to be amended in the report as the net trip impact will differ and the impact at neighbouring junctions will be greater.

An amended trip generation profile was provided in the amended TA for the existing traffic. The amended trip generation profile was obtained using the following parameters:

- Multi-modal Vehicles;
- England Sites, excluding Greater London;
- 1000 - 10000 sqm;
- Monday to Friday; and,
- Suburban Area and Edge of Town.

These are considered acceptable for the purposes of the existing site used. The resultant trip rates per 100sqm and associated trip generation based on 5491sqm are as follows:

- AM Peak:
 - Trip Rate: 0.323 arrivals and 0.099 departures
 - No. Trips: 18 arrivals and 5 departures resulting in 23 two-way trips
- PM Peak:
 - Trip Rate: 0.037 arrivals and 0.335 departures
 - No. Trips: 2 arrivals and 18 departures resulting in 20 two-way trips

Proposed Use

The category 'Residential - Flats Privately-Owned' was utilised for the purposes of obtaining trip rates in TRICS for the proposed development. This is considered acceptable. The following parameters were also used in the interrogation of TRICS for obtaining the trip rates in the originally submitted TA:

- Vehicle trip rates only;
- England sites, excluding Greater London;
- 6 - 215 units;
- Monday to Friday;
- Town Centre, Edge of Town Centre, Suburban Area and Edge of town sites.

These were not considered acceptable. Town centre sites conflict with sites in other areas and should not be included in the selection. Furthermore, as the site is residential, a multimodal trip profile would be preferred to demonstrate the number of users expected on public transport, footways and cycle facilities.

These parameters yielded the following trip rates:

- AM Peak: 0.059 arrivals, 0.181 departures totalling 0.240 two-way trips
- PM Peak: 0.180 arrivals, 0.090 departures totalling 0.270 two-way trips

Resulting in the following number of trips for 184 flats:

- AM Peak: 11 arrivals, 33 departures totalling 44 two-way trips
- PM Peak: 33 arrivals, 17 departures totalling 50 two-way trips

An interrogation of the TRICS online database using similar parameters for a multi-modal interrogation, excluding Town Centre sites, yielded the following trip rates:

- AM Peak: 0.068 arrivals, 0.217 departures totalling 0.285 two-way trips
- PM Peak: 0.214 arrivals, 0.104 departures totalling 0.318 two-way trips

Resulting in the following number of trips for 184 flats:

- AM Peak: 13 arrivals, 40 departures totalling 53 two-way trips
- PM Peak: 39 arrivals, 19 departures totalling 58 two-way trips

It was noted that the net increase between the amended trip rates would be 9 two-way and 8 two-way trips for the AM and PM peaks, respectively. These increases are equivalent to a 20% and 16% increase in trips overall. This net difference in proposed trip generation, in conjunction with the miscalculated existing trips, would result in a larger net impact which may impact the operation of the surrounding highway network.

HCC noted that vehicular trip rates for 'Flats Privately Owned' have been applied to all 184 units and the affordable element has therefore not been accounted for. This is acceptable for the purposes of the assessment as it provides a robust assessment.

An amended trip generation profile was included in the amended TA for the proposed land use. The amended trip generation profile was obtained using the following parameters:

- Multi-modal Vehicles;
- England Sites, excluding Greater London;
- 50 - 154 units;
- Monday to Friday; and,
- Suburban Area and Edge of Town.

These are considered acceptable for the purposes of the proposed site use. The resultant trip rates per unit and associated trip generation based on 184 units are as follows:

- AM Peak:
 - Trip Rate: 0.066 arrivals and 0.201 departures
 - No. Trips: 12 arrivals and 37 departures resulting in 49 two-way trips
- PM Peak:
 - Trip Rate: 0.181 arrivals and 0.104 departures
 - No. Trips: 33 arrivals and 19 departures resulting in 52 two-way trips

Saturday Peak Hour

Further traffic surveys were undertaken as part of the original TA for a Saturday at Durrants Hill Road to demonstrate the number of two-way trips occurring on Durrants Hill Road during the Saturday peak. The traffic data taken on Saturday demonstrated that the peak total traffic on Durrants Hill Road was 517 two-way vehicles, compared to a weekday evening peak period total of 1408 two-way vehicles. This demonstrates that traffic on Saturday is significantly less than the traffic on a weekday. This was backed up by the paragraph in the Executive Summary, which states: 'The traffic on Durrants Hill Road during the 12:00-13:00hrs peak shopping on the Saturday was about 74% and 63% of the amount of traffic that used Durrants Hill Road during the weekday AM and PM peak periods, respectively.'

The peak hour trip forecast on a Saturday, based trip rates obtain by taking traffic volumes of for Ebbens Road and divided it by the number of dwellings, is expected to be 38 arrivals and 33 departures. This is at least 21 more vehicles than TRICs predicts for the AM and PM forecasts which are normally higher than a weekend peak.

It was noted that it is unusual to use two methods for forecasting trip generation. However, the impression from the original TA was that the Saturday was considered to appease residents. Whilst this may be the case, the Saturday peak hour trips are notably higher than the weekday predicted trips and there was concern that the TRICS assessments may not represent what may actually occur at the site based on the survey at the residential development near the proposed development site.

HCC recommended that suitable justification and/or a sensitivity test is provided, which addresses the discrepancy between the AM and PM Peak trip generation compared to the Saturday trip generation.

Alternatively, HCC suggested that surveys can be undertaken at the same residential development to ascertain the trip rates for the AM and PM peak hours at the site. These trip rates can then be applied to the proposed development to provide an appropriate trip generation for the AM and PM peak hours.

The applicant has addressed the discrepancy between the Saturday peak hour trip rates and the proposed TRICS trip rates. They have provided a sensitivity test using the trip rates generated by Ebbens Road development and applied them to the appropriate weekday peak hour.

HCC also noted that multi-modal trip generation would have been preferred for the trip generation in the original submission, in order to gain an understanding of any additional pressure on walking/cycling infrastructure and public transport as well as the local highways. HCC noted that it would require trip generation to be assessed multi-modally as part of any formal planning application.

A multi-modal trip generation profile was not provided as part of the amended TA. However, the applicant has since provided HCC with an updated section of the TA which includes a multimodal trip generation profile. It was demonstrated that there would not be a severe impact on sustainable transport modes and infrastructure.

Net impact

As stated above, the existing and proposed trip generation profiles required further justification and the net impact was therefore not considered appropriate for the purposes of assessment.

The amended TA has provided an amended net trip generation profile which is considered acceptable. The amended net trip generation profile was determined to be as follows:

- AM Peak: -6 arrivals and 32 departures resulting in 26 two-way trips
- PM Peak: 31 arrivals and 1 departures resulting in 32 two-way trips

Sensitivity Test

The applicant has provided a sensitivity test in the amended TA for consideration. The applicant used the trip rates generated by the Ebbens Road Housing Estate for the Saturday peak period and determined the hours where the highest number of departures occurred to provide the AM peak rates and the hour where the highest number of arrivals occurred to provide the PM peak rates. This approach is considered acceptable for the purposes of the sensitivity test.

The resultant trip rates are as follows:

- AM Peak: 0.151 arrivals, 0.184 departures for a total 0.335 two-way trips
- PM Peak: 0.204 arrivals, 0.180 departures for a total 0.384 two-way trips

The associated trip generation is as follows:

- AM Peak: 28 arrivals, 34 departures for a total 62 two-way trips
- PM Peak: 38 arrivals, 33 departures for a total 71 two-way trips

The applicant used this trip generation to provide amended junction modelling to demonstrate the impact on the highway network. This is acceptable.

Impact on the highway

Junction assessment

During the discussions with Dacorum Borough Council and Hertfordshire County Council it was agreed that the impact of the proposed development would be assessed at the following junctions:

- Durrants Hill Road/Frogmore Road;
- Lawn Lane/Durrants Hill Road; and,
- London Road/Durrants Hill Road.

HCC noted that justification may need to be provided as to why the Durrants Hill Road signalised bridge, A4251/A414 junction and The Plough junction have been omitted. HCC stated that they were aware that there are congestion hot spots in the area surround the Durrants Hill Road Bridge and the Lawn Lane / Durrants Hill Road junction.

In order to gauge the potential impact of the proposed development, each of the junctions had been modelled with and without the anticipated development related traffic; these are known as the Do Nothing and Do Something scenarios. This was considered acceptable.

Capacity assessments had been undertaken using the industry standard computer modelling software packages for non-signalised and signalised junctions, 'Junctions 8' and 'LINSIG 3'. This was considered acceptable.

The applicant had stated in the original TA that junction geometries had been taken via google images and this was not considered acceptable. In particular, the visibility at the junctions would not be accurately measured using google.

It is known that there is existing congestion in the area, in particular surrounding the bridge on Durrants Hill Road between Fourdrinier Way and Frogmore Road and at Lawn Lane/Durrants Hill junction during peak times.

The bridge on Durrants Lane is a single lane bridge which is signal controlled to control vehicles crossing the bridge. The bridge is a key contributor to congestion in this location and the addition of the traffic onto the highway from the proposed development is likely to exacerbate existing queuing. Queuing from the signals at the Durrants Hill Road Bridge tend to queue back to Frogmore Road during busy periods. This queuing would impact the operation of the junction. The applicant should consider the signals at this location and compare the baseline model to existing queue lengths to ensure that the modelling is providing a representative result. The applicant should consider the additional traffic generated by the site and the impact these trips will have on the queuing at the bridge.

Lawn Lane / Durrants Hill junction is congested and there are issues with the safety at the junction, in particular with right turning vehicles from Lawn Lane into Durrants Hill Road as vehicles have to wait for a red signal to turn. This is unsafe for pedestrians, in particular school aged children, crossing at these lights. HCC are currently reviewing possible schemes to improve pedestrian facilities at this junction.

The junction modelling could not previously be confirmed as the trip generation required amendment. Therefore, the junctions required remodelling. It was suggested that for the 2017 base scenario, the applicant confirms the queuing observed in the junction modelling to the queueing observed on site to validate the models.

The applicant has since provided revised junction modelling considering the above changes to the trip generation profile. The results of the revised junction modelling demonstrate that:

- The Durrants Hill Road / Frogmore Road T-junction would continue to operate within capacity;
- The Durrants Hill Road / London Road T-junction would continue to operate within capacity;

- The Durrants Hill Road / Lawn Lane signalised junction would experience a negligible increase in delay and the PRC of the junction would be minimally reduced compared to the do-nothing scenario; and,
- The Durrants Hill Road signalised bridge would be negligibly impacted by the proposed development.

This is considered acceptable.

Sensitivity Test

The applicant has carried out additional junction modelling to demonstrate the impact on the highway network if the site produces a higher trip generation than the agreed TRICS trip rates. The modelling demonstrated:

- The Durrants Hill Road / Frogmore Road T-junction would continue to operate within capacity;
- The Durrants Hill Road / London Road T-junction would continue to operate within capacity;
- The Durrants Hill Road / Lawn Lane signalised junction would experience a notable increase in delay and the PRC of the junction would be significantly reduced compared to the original assessments; and,
- The Durrants Hill Road signalised bridge would be negligibly impacted by the proposed development.

Highway safety

Highway safety records have been considered within the TA for the three junctions that were agreed to be assessed following the discussions with Dacorum Borough Council and Hertfordshire County Council.

HCC provided Personal Injury Collision data for the five year period between 01/01/ 2012 and 31/12/2016 at these junctions. The results indicated that in total across the three junctions six collisions took place, all were slight in nature. HCC do not anticipate that any existing highway safety issues will be exacerbated by the development proposals.

HCC notes that Durrants Hill Road cannot accommodate any more traffic until the safety issues surrounding pedestrians crossing during peak times at the Lawn Lane / Durrants Hill Road junction is rectified. It is noted that at present there are four schools whose pupils must cross the junction and the lights are set so that traffic has to wait in the intersection before turning into Durrants Hill Road. This results in right turners turning during pedestrian phases which may ultimately result in a collision.

HCC also note that as a consequence of the safety concerns at the junction, parents of children attending the nearby Scouts facility are choosing to drive because of the danger crossing the road. Additional traffic at the junction would increase the frequency of conflict and would exacerbate the existing safety issues at the location.

Proposed Mitigation

HCC have reviewed the proposed mitigation options in the amended TA and have the following comments:

- Proposals for induction loop on Durrants Hill Road near Fourdrinier Way junction would be beneficial to the highway network and Durrants Hill in general. This is suitable to avoid potential blockage of the single lane bridge;
- Box junction on bridge;
- TRO also for keep clear markings in from of Frogmore Road on Durrants Hill Road. This would be acceptable and expected;
- Box junction at Durrants Hill Road / London Road junction - this would be acceptable;

- Noted regarding additional improvements to London road junction with Durrants Hill Road;
- Noted regarding changes to Lawn Lane junction with Durrants Hill Road; and,
- Consultation with Canal and Rivers Trust would be expected and contributions likely required to facilitate improvements to the shared path.

Other suggestions for mitigation include:

- HCC would require a TRO for Frogmore Road to enforce no parking by HGVs;
- HCC would want to seek contributions for improvements at the Lawn Lane and Durrants Hill Road junction, this if for pedestrian safety;
- HCC would require mitigation to potentially link the signals at the bridge to the signals at London Road / Durrants Hill Road, i.e. have the signals go green at the same time but turn the signals to red at the bridge slightly before the signals change on London Road (linking southbound movements);

Any proposed changes to signals would need to be agreed with HCC.

Highway layout

Vehicle site access

HCC acknowledged that at present there is a lack of detail in terms of the vehicular access to the site. All that is specified is that the site will be accessed via the priority junction on Frogmore Road.

HCC will require further information such as detailed drawings and swept path analysis in line with the requirements set out in Roads in Herts as part of any formal planning application.

HCC had no issue with the access arrangements for the development in principle. However, the applicant was required to provide the kerb radii, visibility splays, gradient, width, etc. of the access arrangements to demonstrate that they are safe and suitable for the scale of the development.

Swept path assessments were also be requested to demonstrate that the access can accommodate two way movement. These were provided in the amended TA and are discussed in the swept path assessment section.

The applicant had submitted access arrangement drawings as part of the amended TA. A conceptual review was undertaken of the drawings and the following comments should be considered as part of any future submission:

- The access dimensions appear non-standard and in some cases inappropriate; Area 1 and Area 2 radii and access widths are also non-standard (and potentially inappropriate for access widths shown)
- Area 1 footway should not overlap the access extent
- Standardised accesses should incorporate a footway link into the site
- It is anticipated that indicative (i.e. minimum) vehicular visibility would be plotted for an access layout GA.

The applicant has since submitted amended access arrangement drawings and the following comments are required to be addressed within the Section 278 Works drawings and will be conditioned as part of this response:

- Access 1 (from left to right) road width between the junction and start of parking area to be confirmed
- Access 1 left-hand radius should be increased owing to dominant flow, plus non-perpendicular access alignment (any footway link may be better served on the opposite side to avoid constant overrun)
- Access 2 would be better served by a traditional kerbed bell-mouth type junction owing to the number of vehicles proposed, complete with internal footway link and appropriate junction visibility

- Access 2 vegetation proximity to be reviewed
- Internal access ramps and gradients served from Access 2 should be sensitive to the needs of the site and necessary internal visibility
- Access 3 internal access widths to be confirmed.
- Access 3 left-hand radius should be increased to minimum of 6.0m (dominant flow direction)
- Accesses 4 & 5 appear suitable for simple vehicular access construction

Pedestrian access

Again, HCC acknowledges that at present there is a lack of detail in terms of the pedestrian access to the site. The applicant is required to provide information pertaining to pedestrian and cyclist access to the site and include this information on and detailed design submissions. Further information such as the location of pedestrian access points are required.

It is noted that the developer has agreed to providing contributions to Canal and Rivers Trust for improvements to pedestrian/cycle facilities.

Swept Path Assessment

The applicant is required to provide swept path assessments for the following scenarios:

- Demonstrate that two vehicles manoeuvring within the car park can safely pass;
- Demonstrate that a large personal vehicle can enter and depart the more difficult to access parking spaces; and,
- Demonstrate that a vehicle can safely enter the car parking areas while there is a vehicle waiting to depart.

The applicant had provided swept path assessment drawings for the proposed car park. A conceptual review had been undertaken of the swept path drawings and the following comments were to be considered for any future submissions:

- Inappropriate vehicle use - swept-path analysis should use a larger standard vehicle to ensure the layout can accommodate the largest possible likely use (i.e. a large car with length greater than 4.8m)
- Internal turning should also incorporate parking manoeuvre(s), including those into and out of worst-case parking bays
- Internal turning manoeuvre inappropriate (Figure 2 Rev P1)
- Apparent tracking of the footway upon access
- Greater than 90-degree access may encourage overrun (Area 2)
- Swept-path appearing to drive through proposed vegetation (Area 2 Figure 2, Rev P1)
- Swept-path appearing to drive through proposed parking bays (Area 2 Figure 2, Rev P1)
- No details of Area 1 access
- Bin Store appears to be at the rear of the site - swept-path analysis should therefore include 11.6m refuse collection vehicle
- Poor quality PDF

The applicant has since provided new swept path assessment drawings and HCC have the following comments:

Drawing 02-01-01 Rev P01 Tracking Layout (number by manoeuvre):

Top Viewport

1. Minor conflict with boundary - could be rectified with more appropriate starting point. Not considered to be significant
2. Minor conflict with boundary. Not considered to be significant

- 5. No issue
- 8. Minor conflict with boundary. Not considered to be significant
- 10. No issue
- 11. Minor conflict with boundary. Not considered to be significant
- 13. No issue
- 15. No issue
- 16. Minor conflict with boundary. Not considered to be significant
- 18. Conflict with vegetation and/or boundary. Offsets required (details within response comments below)
- 20. Conflict with vegetation and/or boundary. Offsets required (details within response comments below)

Bottom Viewport

- 3. No issue
- 4. No issue (potential impact with access alteration - see comments below)
- 6. No issue
- 9. Conflict with vegetation and/or boundary. Offsets required (details within response comments below)
- 12. Conflict with vegetation and/or boundary. Offsets required (details within response comments below)
- 14. Minor conflict with boundary. Not considered to be significant
- 17. Conflict with vegetation and/or boundary. Potential boundary wall issue.
- 19. No issue

Drawing 02-01-02 Rev P1 Tracking Layout (number by manoeuvre):

- 7. Conflict with vegetation and/or boundary. Offsets required (details within response below)

Drawing 02-01-03 Rev P01 Refuse Vehicle Tracking Layout (number by manoeuvre):

- 1. Swept-path suitable (reverse in manoeuvre). No details of turning refuse vehicle within the site (if appropriate)
- 2. Swept-path suitable (reverse in manoeuvre). No details of turning refuse vehicle within the site. Possible visibility issue for vehicles emerging from car parking area (ramp gradients also to be sensitive to stopping). Access layout inappropriate (see comments below)
- 3. Swept-path suitable (reverse in manoeuvre). No details of turning refuse vehicle within the site. Possible visibility issue for vehicles emerging from car parking area. Access layout inappropriate (see comments below)

Refuse and Servicing Arrangements

Servicing arrangements would occur from Frogmore Road, which is consistent with the existing arrangements. This is considered acceptable to HCC. However, it was noted on the drawings (see above) that the bins appeared to be stored at the rear of the car park. Further information will be required by way of a Servicing and Delivery Management Plan on how this will be managed.

Parking

Car parking provisions and layout

It is stated in the TA that the applicant will provide 236 under croft and off-street car parking spaces that will be accessed from Frogmore Road. The provision of disabled spaces, electric charging spaces and cycle spaces was not confirmed in the TA.

The Dacorum Borough Council Car Parking Standards state the following car parking requirements for residential use outside of the defined zones 1 and 2:

- One Bedroom: 1.25 spaces per dwelling;
- Two Bedroom: 1.5 spaces per dwelling; and,
- Three Bedroom: 2.25 spaces per dwelling.

Based on the composition of flats, 50x one bedroom, 122 x two bedroom and 12 x three bedroom, the applicant would be required to provide a maximum of 273 car parking spaces. 236 car parking spaces represents 86% of the parking provision. This is acceptable to HCC; however, it is ultimately the decision of DBC to determine the suitability of the car parking provision.

The car park is proposed to be a mix of under-croft parking and off-street open air parking spaces. The applicant will need to provide swept path assessment so the car parking area to demonstrate that a large vehicle can safely enter and depart from the parking spaces and that vehicles can safely manoeuvre within the car parks.

Disabled parking provisions

Dacorum Borough Council Car Parking Standards require that for residential use 1 disabled space is provided for every dwelling built to mobility to standard. It is not clear from the submitted plans how many spaces are designated disabled spaces; however, it is ultimately the decision of DBC to determine the suitability.

Cycle parking provisions

Dacorum Borough Council Car Parking Standards for residential use state that 1 cycle parking space should be provided per unit if there is no garage or shed provided. It is stated in the TA that 1 secure cycle parking spaces would be provided per dwelling. This is considered acceptable to HCC; however, it is ultimately the decision of DBC to determine the suitability of the cycle parking provision.

The cycle parking will be provided within the under-croft parking area. This is considered acceptable.

Accessibility

Public transport

Bus

The public transport infrastructure surrounding the site provides easy access to and from a range of locations. HCC notes that a map showing the locations of the local bus stops in relation to the site would have been of use, particularly if advised walking/cycling routes were identified.

The closest bus stops are located on Lawn Lane, approximately 400m from the furthest point of the site, meaning most dwellings are within the recommended maximum distance to a bus stop. HCC notes that given the shape of the site, residents from the eastern part of the development may be over the recommended distance. There are also bus stops located on London Road, approximately 500m from the site.

HCC notes that the closest westbound stop to the site, located on Lawn Lane, has a shelter but not easy access kerbing and is in a lay-by. The closest eastbound stop, also located on Lawn Lane, has neither a shelter nor easy access kerbing and the footway width is somewhat limited which would make improvement problematic.

HCC notes that the eastbound stop on London Road is located on a build out between parking bays which also forms an access to parking at the rear of a row of shops, it has no easy access kerbing or shelter and due to its location cannot be improved. The westbound stop on London Road has both easy access kerbing and a shelter.

A summary of the bus services available on Lawn Lane and London Road is included within Table 3.4a of the TA. HCC will require a review of walking/cycling routes to these bus stops as part of any formal planning application.

These services are summarised below:

Lawn Lane

- 1 Leverstock Green - Adeyfield (Circ): Mon - Sat Hourly, No services Sun
- 300 Stevenage - Hemel Hempstead: Mon-Fri Half Hourly, Sat Hourly, No services Sun
- 318 Hemel Hempstead to Watford: Mon - Sat Hourly, No services Sun
- 5 Marlowes - Bennetts End: Mon - Sat every 10 mins, Sun every 20 mins
- 501 Aylesbury - Watford: Mon - Fri every 20 mins, Sat half hourly, No services Sun

London Road

- 500/501 Aylesbury - Watford: Mon-Fri every 20 mins, Sat half hourly, no Sun
- H19 Abbots Langley - Hemel Hempstead: Tues & Thurs, 1 per day in each direction

The above summary illustrates the variety of bus routes available, including local town services and inter-urban routes. Route 5 from the Lawn Lane stops is the most frequent local service and would give residents access to the town centre. The 300 and 500/501 bus routes are key inter-urban routes within Hertfordshire with regular timetables and good coverage of the day. The 300 would give residents access to St Albans, Welwyn Garden City and Stevenage and the 500/501 to Aylesbury and Watford.

Rail

Apsley Railway Station is the closest station, it is located approximately a 1.1km walk away from the site. Apsley Railway Station lies on the West Coast Main Line, which runs from London to Scotland via Birmingham and Manchester. It is served by the London Midland Train Operating Company. A summary of the direct services to and from the station is shown in Table 3.4b of the TA.

Again, HCC notes that a map showing the location of the Railway Station in relation to the site, and suggested walking/cycling would be of benefit. Further detail is sought as to the specific services, for example whether bicycles are allowed on the trains, this would be conducive to sustainable travel for longer journeys.

Walking and Cycling

Unlike the Public Transport section, a summary of the benefits of suitable walking and cycling infrastructure has been provided within the TA.

It is noted in the TA that there are street lights on the footways along the roads in the vicinity of the site. There is a shared pedestrian and cycle path along the Grand Union Canal to the east of the site, with a footbridge located near to the site. HCC notes that the proximity of The Grand Union Canal and associated shared use path should encourage walking and cycling.

Hemel Hempstead is served by Sustrans National Cycle Route 57 which runs from Welwyn Garden City to Farrington, near Cheltenham, where it meets Route 48.

The existing footways provide access to local amenities including Apsley Mills Retail Park, Apsley Railway Station and the retail offer and amenities on London Road.

HCC notes that the site appears reasonably well situated in terms of access to the facilities within Apsley.

Travel Plan

A Framework Travel Plan (TP) has been produced with the purpose of encouraging sustainable transport modes to reduce the reliance on private vehicles, and to ensure minimal impact to highway safety and function as a consequence to the development.

The FTP states that the Travel Plan (TP) will be drawn up in accordance with the County Council's document Hertfordshire's Travel Plan Guidance which is available via www.hertfordshire.gov.uk/travelplans or travelplan@hertfordshire.gov.uk.

HCC Travel Plan Guidance requires a Travel Plan for this development. A Travel Plan Evaluation and Support Fee of £6000 is required.

HCC has the following comments on the TP that has been produced:

- It is an interim rather than framework TP, framework TPs are for developments with multiple site occupiers/land uses;
- TP co-ordinator contact details are required, as well as the details of a second person in case of personnel change. A forecast of time to be allocated to this role and proposed frequency on site is also required;
- Thought needs to be given to the appropriate membership of the Steering Group and the frequency of meetings;
- Appropriate residential TP contributions and possible uses need to be finalised, guidance can be found at www.hertfordshire.gov.uk/travelplans;
- Car parking detail is lacking including provision of disabled parking, electric vehicle parking and car share spaces etc.;
- Modal shift targets need to be confirmed once monitoring has taken place;
- Monitoring needs to take place annually for a period of 5 years with a review after each phase of monitoring;
- Reference is made to a 7 day taster voucher for local buses, this may be problematic due to the fact that there are multiple bus operators using the local stops, discussion would need to be made between the developer and local bus operators.

Construction

A Construction Traffic Management Plan will be required to ensure that construction vehicles would not have a detrimental impact on the highway network within the vicinity of the site and a condition will be required to provide adequate parking for construction vehicles on-site to prevent on-street conflict and impacts to the highway safety. It will also need to take account of vulnerable pedestrians and delivery and servicing arrangements to ensure conflict is avoided at all times.

Planning Obligations / Community Infrastructure Levy (CIL)

Dacorum Borough Council adopted a Community Infrastructure Levy (CIL) in July 2015.

Contributions towards local strategic schemes will be sought by DBC via CIL.

Developer contributions sought by S106 agreement could go towards upgrading the nearest westbound stop on Lawn Lane which would benefit from easy access kerbing (£8000 approx) and display screen (£8000 approx). The westbound stop on London Road also lacks a display screen which would be of benefit in this location (£8000 approx).

The TA lists suggested improvements to improve traffic flow and safety, including box junctions, mirrors, changes to signal operation, and keep clear markings. However, the impacts of these improvements have not been considered within junction modelling. When this has been done to the satisfaction of the highway authority it may be that elements are secured by planning obligation.

A Section 106 Agreement will be required to secure Travel Plan Monitoring fees, contributions would also be sought for improvement schemes in the area, in particular schemes to improve pedestrian and cycling infrastructure and mitigate any parking displacement.

Conclusion

HCC as highway authority has reviewed the application submission and does not wish to object to the proposed development, subject to suitable planning conditions.

Signed

Date 07/03/2018