

TECHNICAL NOTE

Project Title: Bognor Regis

Report Reference: JNY10830-18

Date: 17th May 2023

REVIEW OF RESIDENT COMMENTS (MR G.WINCH) DATED 16TH MARCH 2022

Introduction

- 1.1 This Technical Note has been prepared to provide a review of the comments that were presented by Mr Winch who objected to the scheme in March 2022. These comments pre-date the final response from West Sussex County Council (WSCC) Highways dated 28th July 2022 which stated; *'Based on the revised information now submitted, the CHA is now satisfied with the proposal from a highways point of view subject to conditions.'*
- 1.2 The comments presented by Mr Winch in his email dated 16th March are provided in *blue italics* and RPS response in black text.

Site Access (Principles)

*The development of Site 6 was permitted subject to access **NOT** being achieved by means of the existing residential streets north of the A259 (now B2259) as the construction and development traffic would otherwise have had an adverse impact on those residential streets. The developers of Site 6 were, therefore, obliged to deliver the Bognor Regis Relief Road (now A259) in order to secure access.*

It is, therefore, reasonable to conclude that the precedent has been set for the means of securing access to any further large-scale developments on land north of the B2259 - i.e. that it should only be permitted subject to the traffic it generates having no adverse impact on those same residential streets. This would be consistent with West Sussex County Council's Transport Plan (Arun District Policy 2.2.1) which is to discourage HGVs from using unsuitable roads - particularly appropriate when considering the high numbers of HGVs that will require access to the site for construction purposes.

- 1.3 The TA reviews the impact of up to 500 dwellings, although the application is for 480 dwellings and the distribution of traffic is based on the 2011 Journey to work census data which WSCC have confirmed is acceptable in their response dated 31st March 2022. The impact of traffic along Downview Road has been considered in Section 6 of the TA and the junctions at which the traffic will impact have been assessed in detail in section 7 of the TA. It is considered that

the level of traffic that will use Downview Road / local residential roads will not result in any adverse impact given the existing road width and level of use.

- 1.4 The routing of HGV's during the construction process would be secured via condition as part of a Construction Management Plan which will also include restrictions of times that HGV's can travel along particular routes especially where there are existing schools.

Arun District Council's Local Plan sets out policy requirements for strategic employment sites which include the LEC Airfield site. Policies also require measures for the delivery of a Link Road between Felpham Way (B2259) and the Bognor Regis Relief Road (A259) and, specifically, to safeguard its route to enable the LEC Airfield site to be delivered. The LEC Airfield site forms part of the Enterprise Bognor Regis Strategic Employment Land Allocation specified within Policy EMP SP2. The delivery of Enterprise Bognor Regis including the LEC Airfield site is a priority for the Council and, as such, is also identified within the Coast to Capital Local Enterprise Partnership Strategic Economic Plan.

- 1.1 Policy T SP3 specifies that the link road associated with Enterprise Bognor Regis should be safeguarded based on the indicative alignment presented to date. There are no policy requirements for the delivery of a Link Road between the A259 and B2259.

The Link Road will therefore play a key role in connecting the LEC Airfield site with the main road network. However, its exact route is yet to be determined and the Policies Map, as a consequence, only indicates an arrowed line entering the site from the B2259 end. Regardless of that fact, a brochure produced by Enterprise Bognor Regis as part of a public consultation indicated the anticipated route for the Link Road. Part of it passes through the Golf Course application site. The Golf Course application does not, however, seek permission for the Link Road, and the Transport Assessment (TA) states it has not, therefore, been assessed. Nevertheless, the application plans identify a corridor for the Link Road consistent with the Enterprise Bognor Regis illustration.

- 1.2 It is welcomed that it is acknowledged that the application includes for the safeguarding of the Link Road and is consistent with Policy T SP3.

The TA states that this corridor will be safeguarded to facilitate the construction of the road in the future. It further states that if the applicants secure planning permission (with success from Downview Road) then a Section 106 Agreement would include obligations to make the land and finance available in order to construct the section of the Link Road within the red line of the application site only, but the delivery of the whole would be by the District or Highway Authority subject to "certain triggers being hit and criteria being satisfied" (exactly what those triggers and criteria are is not explained!) The TA adds, for clarity, that it will be for other parties to secure planning permission for the Link Road and provide for its delivery on land outside the application red line.

The Golf Course is not identified in the Arun Local Plan for residential development, but that it should form part of a Gap Between Built Developments. Nevertheless, there appears to have been some commitment on the part of the District Council to discuss possibilities for some development of the Golf Course at a future date. It is concluded therefore that the application being made at the present time is premature, and it should only have been advanced once meaningful discussions had taken place and there was reasonable prospect of residential development being permitted. In that event, the means of access would have been determined and included as part of the formal application.

- 1.3 The provision of a link road as part of the Enterprise Bognor Regis Policy Site EMP SP2 has been taken into consideration as part of this planning submission and land is identified that would allow the provision of a link to come forward should this site be developed. Clearly the link road is not being prejudiced but rather the safeguarding of its route which would of course be in conflict with the existing use of the site as a golf course, though the residential proposal would help facilitate the link road should it ever come forward. Policy Site EMP SP2 is not committed and an application for this site has not yet been submitted so there is no guarantee that this proposal will come forward within the Local Plan period.
- It needs also to be mentioned at this point that the Map of Advisory HGV Routes forming part of West Sussex County Council's Transport Plan specifically identifies the A259 Bognor Regis Relief Road as the appropriate local route for construction traffic servicing new developments, replacing the former route (now the B2259).*
- 1.4 Figure 05 within the WSCC LTP identifies the key strategic routes which Lorry's should use and in the notes Figure 05 advises that;
1. All lorry movements in the County are expected to use these routes except for local access.
 2. Local access trips using roads not shown on the map must be made in accordance with traffic signing and these roads should be avoided as far as possible.
- 1.5 The condition to provide a Construction Management Plan will identify the key routes for HGV's accessing the site and will where possible be directed via the 'A' roads.
- I have no doubt, therefore, that had such discussions taken place and resulted in the Golf Course being included for residential development within a review of the current, or a future Local Plan, then the applicants would have been required to secure access only from the A259 via the Link Road especially as the latter would pass through the application site itself at a very short distance from the A259. This would have satisfied the need to ensure access would be via the most convenient and safest route for all vehicular traffic - i.e. initially for construction traffic, and subsequently for the vehicular traffic generated by the completed development. Since only about 10% of the car traffic leaving and returning to the completed development would be destined for Felpham village itself (according to the distribution figures set out in the TA), it would be advantageous to the substantial majority of residents to have direct access to the A259 - i.e. those travelling to and from other destinations, say 90% or thereabouts.*
- 1.6 The distribution of traffic movements to and from the site has been based on the 2011 journey to work census data which has been agreed with WSCC, this distribution obtained from the census does not suggest the distribution as suggested by My Winch which is considered to be speculative.
- Therefore, having due regard to the fact that the proposed B2259-A259 Link Road is proposed to pass through the site at a short distance from the A259, it is reasonable to conclude that the applicants would, in discussing the potential for development of the Golf Course, have investigated with the District and Highway Authorities how they could secure access to the A259 via the Link Road. This is particularly appropriate if one bears in mind that the Local Plan requires the District Council to give priority to advancing the LEC Airfield site for employment purposes. However, the TA makes no mention of any such discussions taking place or being requested by the applicants.*

- 1.7 At the current time, Arun District Council (ADC) have decided to pause the local plan review which would have been the process for such discussions to take place. It also needs to be advised that the applicant is only one of several parties that would need to be consulted. It is unclear at this time what ADC / WSCC highways plans are for the link road and should this proposal progress forward then the applicant would be happy to participate in that process.

From the foregoing it could be reasonably concluded that the applicants have not sought, or intend to secure access by way of the most logical means (and for which the precedent has already been established). They are, instead, seeking what may appear to be a relatively inexpensive access solution (though one which would have a considerable adverse impact on the existing residential streets in the northern part of Felpham).

- 1.8 At this stage there are no proposals to take access off a potential link road.

In not seeking to access to their site by way of the most logical means (i.e. via the A259) leads one to consider that the applicants are placing themselves in a position whereby they will be able to exercise control over the timing of, and costs to the others who will be relied upon to deliver the Link Road - i.e. that they control an area of land which will be critical to its completion. It has to be borne in mind in this respect that the road will be of no direct benefit to applicants or the residents of the development for which they are seeking planning permission if they secure access via Downview Road. It should be noted that, whilst the TA commits the applicants to safeguarding the land and financing the construction of the Link Road within their red line boundary by means of a Section 106 Agreement, it does not commit them to freely dedicating the land at the appropriate time for publicly maintainable highway purposes.

The application should not, therefore, be determined unless and until the matter of accessing the site from the A259 via what may be described as the northern end of the proposed Link Road has been fully investigated. Such an investigation should be led by Arun District Council and the Local Highway Authority. In this regard the owner of the land between the application site and the A259 should be involved as one of the parties who is also required by the Local Plan to safeguard that part of the route.

- 1.9 There is no conflict with the development plan, the Link Road is not a committed scheme and WSCC Highways do not object to the proposal. Indeed, the feasibility of the Link Road hasn't been established, there is no business case, even in outline, or committed funding. The development proposal is therefore not premature, on the basis that it would not undermine the plan making process.

Once this has been agreed then the TA should be revised to take account of the altered distribution of traffic and its effects on the various nodes already included in its scope. The future predictions should also take account of the B2259-A259 being completed with the relevant volumes of traffic being assigned to that route.

I therefore OBJECT to the proposal on the grounds that proper consideration has not been given to securing access to the site by the safest and most convenient means and, if permitted it would have an adverse impact on highway safety and the existing residential roads within the northern part of Felpham village.

In the event that there is no prospect of the access issue being satisfactorily resolved then it becomes necessary to consider in some detail the applicant's proposals for accessing the site via Downview Road.

Site Access (Proposed)

A proposed arrangement for the site access is illustrated in the TA stating that a Stage 1 Safety Audit is provided as an Appendix. I have, however, been unable to find the relevant Appendix and cannot therefore interrogate the audit. Nevertheless, I note that the TA does not make any reference to the fact that street parking to the point of saturation and a high level of vehicle manoeuvring occurs at the start and end of each school day at the northern end of Downview Road and in the adjoining residential roads.

The TA also fails to refer to probability of such parking and vehicle manoeuvring extending along and off the new access road which could severely restrict the free-flow of traffic in and out of the development at times.

- 1.10 It is acknowledged that vehicles parking along Downview Road and the local residential roads during the school drop off/ pick up times which is not uncommon where schools are located within residential areas. The proposed access to the site will form a continuation of Downview Road creating new junctions with Golf Links Road and Shirley Drive, vehicles should not park within close proximity to a junction and therefore it is considered that the existing on road parking associated with the short school pick up period is unlikely to restrict free-flow from the access.
- 1.11 Downview Road itself is in excess of 6m wide, whilst there will be periods when vehicles will park on both sides, this is not a regular occurrence and vehicles accessing the site will be able to manoeuvre as residents do currently, it is also noted that Downview Road is a bus route in part and it has not been advised that buses using this route have any difficulties in gaining access.
- 1.12 The Stage 1 RSA is included in Appendix 8 of the TA together with the designers response.
The TA also makes no reference to, and provides no statistical information about the considerable numbers of pedestrian and cycle movements which occur within the proposed access area principally at the start and end of each school day, including that leaving and accessing Site 6.
- 1.13 The level of pedestrian/cycle movements along Downview Road has not been surveyed as there is a good network of footways together with a 1m verge along the majority of its length. The surveys included in the TA also show that the existing speeds along Downview Road are low enforced through the provision of speed cushions making a safe route for pedestrians and cyclists to use.
- 1.14 Whilst during construction there will be an increase in HGV movements, these would be controlled to access the site at certain times of the day to avoid the school peak periods. The width of Downview Road and footway provision and slow speeds are considered of an acceptable level not to affect the ability of pedestrians to safely cross Downview Road.
- 1.15 The traffic data included in the TA identifies that the peak hour movements along Downview Road are 355 two-way in the AM Peak and 261 two-way around 3pm in the afternoon. These surveys are from a point approx. mid-way along Downview Road.
- 1.16 A review of pedestrians ability to cross Downview Road was not included in the TA as it was considered that the volume of traffic and speeds were sufficiently low not to require an assessment.

- 1.17 However, to determine how easy it is to cross Downview Road an assessment is needed of the level of gap in the traffic flows. The current minimum gap is around 10 seconds (AM Peak), this is expected to reduce to around 6 secs with the proposed development traffic. The Department of Transport 'Traffic Signs Manual Chapter 6' advises in 13.2.2 that an acceptable gap for the majority of people is 4 -6 seconds at normal urban traffic speeds
- The presence of the vehicular access to Mid Acre Close serving three dwellings located immediately to the north-east radius of the proposed new junction arrangement is also not referred to or mention made of the availability or otherwise of an intervisibility splay between it and the access road.*
- 1.18 Mid-Acre Close is a driveway access serving three properties and joins onto Shirley Drive, the proposed access arrangement does not affect the visibility from this access as the arrangement with Shirley Drive will be changed requiring vehicles exiting Shirley Drive and Mid Acre Close to give way to vehicles accessing the site. Visibility splays from Shirley Drive and Golf Links Road are shown on the proposed access drawing.
- A table junction is proposed to regulate the speed of traffic and visibility splays are shown on the submitted plan. These features will not, however, render it safe when it is used as a crossing point for multiple users at critical times during the day and where saturation on-street parking and vehicle manoeuvring must be a primary consideration.*
- 1.19 The provision of the speed table is to maintain the 20mph speed limit that is currently in force along Downview Road. This will be a crossroad arrangement and as such it is unlikely that vehicles will park close to the junction as they would block access. It should also be noted that currently on street parking at this section of Downview Road includes vehicles accessing the golf course which will no longer be present once the course is relocated.
- Close by the main access point, and to the west of the proposed Community Facility, an emergency access is shown on the submitted plan. It is indicated that this conforms to the minimum width requirements of the Fire Authority (The Fire Authority's comments also are not to be found in the Appendices as stated in the TA). However, whereas a 'parallel' emergency access is normally acceptable for relatively small developments, for larger developments such as the one for which the application is being made, an emergency access should be sought where it can be connected to the local highway network at a point which is remote from the main access.*
- It should be noted that the emergency access as proposed will not suffice in the event of a major incident occurring at the Community Facility itself when multiple numbers of emergency vehicles and personnel may be required to attend when both the main and emergency accesses could be occupied for a considerable period of time, thus preventing vehicular traffic (including that needing to attend other emergencies) from entering or leaving the development.*
- I therefore OBJECT on the grounds that the proposed access to the site would be prejudicial to safety on the public highway, and inadequate provision is being proposed for emergency vehicles to attend the development.*
- 1.20 There are no standard requirements for the location of an emergency access, the primary purpose of an emergency access is to provide an alternative route into the site should the site access be blocked, and in many cases as advised in 'Manual for Streets' the provision of an emergency access is not always required. The access width conforms to the standard access

width requirements for emergency vehicles and consultation has been made with the emergency services and their response is included in Appendix 7 of the TA who confirmed that the proposal was acceptable.

Downview Road (Use by Construction Traffic)

The TA provides no data concerning the numbers of HGVs which will require access to the site via Downview Road. There is no doubt that these will need to be counted in their thousands over the assumed construction period 2025-31.

Further, the only references to Downview Road relate to the fact that it has a carriageway, footways and verges; that it serves Downview School; that it is subject to a 20mph speed restriction, and has speed cushions installed.

The TA does not record that the carriageway is in very poor condition and, in places, is considerably deformed. This is due to lack of structural maintenance over a protracted period, multiple poorly executed reinstatements following upgrading of, or repairs to underground services, and deterioration accelerated by it being used by hundreds of HGVs during the expansion of Downview School in recent years. This has resulted in frequent potholing and is indicative of structural failures. These facts alone render it as highly unsuitable for intensive use by HGVs.

The TA should therefore include a detailed condition report for Downview Road, and proposals to mitigate any further damage which will be occasioned by the intensive use of the road by HGVs required to construct the proposed development.

I therefore OBJECT on the grounds that Downview Road is unsuitable for intense use by HGVs.

- 1.21 A Transport Assessment does not include assessment of construction traffic as it only assesses the peak hour periods, construction traffic movements would normally be considered as part of an Environmental Impact Assessment and only if there is a significant level of HGV movements over a 24hour period. The duration of construction is identified in the TA as being between 2026 and 2031 (5 years), using information for typical construction movements associated with residential developments the construction of circa 500 dwellings over a 5 year period is typically likely to see around 1-2 additional HGV per hour and 7-8 per day, this will vary depending upon the phase of construction.
- 1.22 The number of HGV's may be slightly more per hour if restrictions during school periods is put in place.
- 1.23 Downview Road is an adopted public highway and is constructed to appropriate standards that would accommodate the use of this road for all vehicle types. The maintenance of this road is a matter that WSCC need to address. From a site visit that was carried out in November 2021, the road surface appeared to be in a good condition.

Downview Road (Safety and Traffic Speeds)

Whilst the TA acknowledges Downview Road is subject to a 20mph Order, and has speed cushions installed, it also states that the measured 85th percentile speed of traffic northbound is 29.2mph and 27.8mph southbound- i.e. 15% of traffic travels at speeds greater than the 85th percentile measured. Whilst the actual average speeds are not given,

it should be noted that when the 85th percentile speeds are as stated then the actual average speeds are probably well in excess of 20mph. One has to assume that at some point works could be undertaken to repair the road and improve the riding quality and, in such an event, traffic speeds in all probability would increase.

The TA also does not address the fact that the speed management measures already imposed fail to ensure the 85th percentile speed is physically controlled to 20mph. It also fails to recognise that speeds are also controlled by the poor riding quality - the southbound being poorer than the northbound - due to the reasons outlined above. This is evident from the differential in the measured northbound and southbound measured 85th percentiles.

- 1.24 Traffic calming in the form of speed cushions are provided along the full length of Downview Road. The provision of speed cushions is required as this is a bus route and full speed humps are not generally accepted on bus routes as they tend to result in passenger discomfort.
- 1.25 The speed surveys included in the TA Appendix 3 did include average speeds which are lower than the 85th percentile speed (22.7mph northbound and 22.1mph southbound). As advised above, the condition of Downview Road was not considered to be in a poor state at the time the surveys were conducted and therefore it is considered that these are typical speeds.

The TA also fails to provide any data relating to the saturation on-street parking within the northern section of Downview Road at the start and especially the end of the school day. It also fails to provide data relating to the high numbers of pedestrian movements along and crossing the road, a substantial proportion of which are young children (some unaccompanied) toddlers and parents walking to and from Downview School.

It also fails to note the high numbers of cyclists riding to and from Felpham College, many of which turn into and out of Outerwyke Road, Goodwood Avenue and George the Fourth Avenue.

- 1.26 Downview Road has a good provision of footways along both sides of the road and along most of the roads length, a verge of 1m is provided. The peak hour traffic movements along Downview Road are in the AM network peak period and also around 3pm in the afternoon. A review of pedestrians ability to cross Downview Road was not included in the TA as it was considered that the volume of traffic and speeds were sufficiently low not to require an assessment.
- 1.27 Using the methodology set out in Department of Transport 'Traffic Signs Manual Chapter 6' the current minimum gap is around 10 seconds (AM Peak), this is expected to reduce to around 6 secs with the proposed development traffic. An acceptable gap for the majority of people is 4 -6 seconds at normal urban traffic speeds and shorter gaps where traffic is slower. The minimum gap between vehicles even with the proposed development is therefore well above the recommended minimum levels.
- 1.28 The proposed development will also include a footway/cycleway link that will allow pedestrians/ cyclists to use the off road routes to access the schools/ college and connect with the existing cycle network.

All of these matters should have been addressed and quantified within the scope of the TA with proposals being advanced to mitigate against the increased risks to safety along

Downview Road occasioned by the intensification of its use by HGV construction traffic, and traffic generated by the completed development. In this respect it should be noted that the spacing of traffic calming measures should ensure that the zone is self-enforcing (i.e. vehicle speeds are kept at, or below an average speed of 20mph) and to encourage a smooth style of driving (Local Transport Note 01/07). In connection with this last point it would normally be advisable to introduce horizontal as opposed to vertical speed management measures.

I OBJECT therefore on the grounds that the development, if permitted, would be prejudicial to highway safety especially within Downview Road.

- 1.29 The implementation of the traffic calming features along Downview Road were not implemented as part of this development proposal and this matter if applicable should be directed at WSCC.

Downview Road/ Felpham Way (B2259)

The TA advances proposals to alter the junction to enable it to operate more efficiently during peak hours (normally 8.00-9.00am and 5.00-6.00pm). Part of the alterations include minor radius kerb realignments and the provision of staggered crossing island refuges for pedestrians within the mouths of Downview Road and Felpham Road.

In another submitted document swept path profiles for heavy vehicles (namely a rigid HGV; a refuse lorry, and a bus) are included. It will be seen that in order to execute the left turn from Felpham Way (West) into Downview Road, all three vehicles will need to enter the outside dedicated right-turn lane on the traffic signal approach in order to avoid the pedestrian refuge whilst also avoiding overriding the northwest radius kerb. The need for such vehicles to enter a dedicated right-turn lane in order to execute a left turn is prejudicial to road safety in that it is likely to cause confusion for the drivers of other vehicles especially those travelling along the nearside dedicated ahead/left turn lane, and other road users including pedestrians and cyclists. Additionally, it is likely to be only drivers of HGVs who have experienced making the turn previously who will know that they need to enter the right-turn lane. Drivers approaching for the first time will normally expect to execute the turn from the inside dedicated ahead/left turn lane, but will inevitably experience difficulties with the prospect then of their vehicles overriding the radius kerb and the mouth of Drygrounds Lane.

- 1.30 The swept path analysis shows HGV's using the two-lanes on B2259 western arm to turn left into Downview Road. The requirement for large vehicles to use two-lanes at a signal junction to manoeuvre around bends is not uncommon, and in this location the need to use both lanes is the same as the existing situation. The proposed development will not see a significant increase in HGV movements with the exception of during the construction period, however during the construction period HGV's will be directed via the A259 so will therefore be turning right into Downview Road and left out.

It should be noted that swept path profiles have not been submitted for articulated or draw-bar trailer HGVs which will form a significant number of the vehicles needed to construct the development. It has not therefore been demonstrated that such vehicles would be able to complete the manoeuvre without overriding the kerbed radius.

- 1.31 The most common type of HGV vehicle that will access a construction site will be dumper type vehicles (approx. 10-12m in length) with the occasional access needed for low bed

trailer type vehicles. These vehicles will be no greater in length than a typical refuse vehicle or a max legal articulated vehicle both of which have been tracked using AutoTrack and issued to WSCC for review. In addition, more rigid type vehicles such as a single decker bus and a rigid lorry were also tracked in Appendix 14 of the TA.

The TA presents a modified LINSIG output to demonstrate the effective operational efficiency or otherwise of the MOVA signaled junction. The results show that, at present the junction performs within its design capacity, although some arms are approaching saturation (i.e. in excess of 85%) with a 120 second cycle time. (85% normally signals a warning to modelers that a junction's design capacity is being approached, and 100%+ that a junction is failing to perform within its design capacity.)

It goes on to demonstrate its future performance when adding in traffic generated by predicted natural growth, and that generated by other developments in the area for which planning permission has been granted. In a rather confusing statement reference is also made regarding traffic generated by strategic sites as being taken into account, but those strategic sites are not identified (and no specific reference is made about the LEC Airfield site). Further analyses then add the Golf Course development both for 120 and 169 second cycle times. It concludes that in all these scenarios the junction will not perform positively within its design capacity. It therefore introduces the modifications described above to allow it to perform more efficiently, and indeed the results indicate that it will have positive reserve capacity. However, this is reliant on a regular 169 second cycle time, but the TA does not draw attention to the fact that MOVA could increase the length of cycles at times when demand becomes excessive.

- 1.32 With regard to the LEC Airfield site, whilst this was not specifically included in the impact analysis, this is not a committed development site and there is no requirement to include site allocations as part of a Transport Assessment analysis unless specifically requested by the highway authority. Local Plan allocations are limited on the level of information that can be provided in terms of access and impact and therefore including such data would be based on assumptions rather than technical evidence.
- 1.33 The TA did however include committed development sites that had been submitted for planning within the local area and background growth from Temprow. In addition, whilst there was limited information available, the strategic development sites on Land West of Bersted and Land at Barnham, Eastergate and Westergate were also added. Therefore the level of traffic increase identified provided within the TA ensured that a suitably robust assessment was undertaken and would be considered overly sufficient to account for traffic that would be associated with sites such as the LEC Airfield should this come forward.
- 1.34 With regard to the signal timings, as part of the traffic surveys the typical signal timings were recorded over the hours assessed, the reason for this is that MOVA, which is an intelligent operating system, alters the length of the green time depending upon the level of traffic. The observations made identified that the green timings varied from 120 seconds and 169 seconds, the TA therefore reviewed both signal timings. This was explained to WSCC within Technical Note JNY10830-08, within this TN the phasing was amended to reflect more accurately the operation of the lights as discussed with WSCC. The results even with the shorter green time, still showed that with the mitigation measures there

would be a significant improvement in the operation of the junction based on the projected baseline trips.

At this point it is also necessary to note that LINSIG and other modelling software suites only ever provide estimates based on previous observations. They do not necessarily take account of local driver behavior and cannot, therefore, be fully relied upon. With this in mind it needs to be stated that at certain times of day some drivers knowing where delays are likely, may divert along other local roads. Data relating to such diverting has not been quantified within the scope of the TA

- 1.35 Within the TA, the output tables 7.11 and 7.12 include observed queues, these are used to ensure that the model is providing good reflection of how the junction operates. It is acknowledged that LINSIG cannot be 100% accurate especially where MOVA is operating, however it is considered that the results provided do give a suitable basis on which to assess the developments impact.

It is most important to note, however, that the TA does not present data relating to the end of the school day peak (somewhere between 2.30 - 3.45pm) when considerable volumes of cars travel through the junction both to Felpham College and Downview Road to collect students and children and then return; when at the same time students from Felpham College are in abundance either walking or cycling. Neither does it provide data relating specifically to the numbers of students crossing Downview Road and Felpham Road during the pedestrian phases.

- 1.36 The assessment of impact within a Transport Assessment is based on the impact that occurs during the busiest peak periods on the local highway network, whilst there may be a slightly higher level of traffic using Downview Road during the school pick up period, the traffic movements on the local highway network as a whole will be less. The data included in the TA does identify that the AM Peak (08:00-09:00) is the busiest period throughout the day.

In order for the junction to operate within its design capacity the TA proposes introducing a more complex phasing sequence which will result in the two separate pedestrian phases across both Downview Road and Felpham Road. This will require pedestrians needing to be corralled safely within staggered crossing island refuges between phases. The TA fails to demonstrate that proposed refuges are of a sufficient size to safely corral the relevant numbers of people, or the lengths of time they will need to be corralled.

- 1.37 The proposed staggered crossings are the same width as the existing staggered crossing facilities that are located on B2559 and conform to the appropriate design standards.

The LINSIG programme provides information about actually observed and predicted vehicle queue lengths. Relevant queue lengths are considered, as a rule of thumb, to be the mean maximum length that remains once a green phase for a particular arm ends. Actual observed average queue lengths are usually estimates inasmuch that the backs of queues can be very fluid and a judgement has to be made by the observer as to which vehicles are actually queueing as the phase ends - particularly difficult if the queue is moving slowly - and which are effectively just joining the queue. It can be assumed, however, that the maximum length within some sequences could be twice the average as stated, and in some sequences there might be no queues. There are numerous variables which affect queue lengths so there is likely to be some considerable variation to the numbers given in any forecast during any one hour period.

With these factors in mind I undertook some personal observations on Wednesday 9th March 2022 during the end of school peak hour for comparison with the TA's PM peak. Accepting that there may have been queue lengths twice the length of the average I have doubled the number stated in the TA I therefore record the following: Maximum queue observed lengths in Downview Road 18 (TA) compared to 38 (mine)(not including 6 cars queued in Goodwood Avenue waiting to join the queue); Felpham Way (East) 24 (TA) compared to 30 (mine); Felpham Road 6 (TA) compared to 20 (mine), and Felpham Way (West) 30 (TA) compared to 40+ (mine), and on this link I know from experience that it becomes saturated within the end of school peak when delays at the junction adversely impact on the operational efficiency of the Drygrounds Lane Close roundabout.

- 1.38 The Downview Road/ B2259 junction operates using MOVA and therefore will vary the green time depending upon the level of traffic being experienced. To compare queue lengths is not a practical approach as the junction will be adjusting the green time each cycle. Also the survey company undertook a review of queues by video and could therefore determine the max queues on each arm during the same time period/ cycle of lights, this is not something that an individual can easily do.
- 1.39 It should also be noted that Mr Winch refers to the PM peak, however we had automatic traffic counters down for a 2 week period on Downview Road and the results show that the AM Peak (08:00 – 09:00) had the highest volume of traffic. With some 100 two-way vehicles more along Downview Road compared to the 15:00 – 16:00 period.

Therefore I conclude that had modelers tested for the end of school day peak, then the results are likely to have demonstrated a far less operational efficiency than that suggested in the TA's prediction for the PM peak.

Furthermore, whilst it seems the modelers have taken into account other developments which have been granted planning permission in the area, it has not positively stated that account of the LEC Airfield site has been taken with the B2259-A259 Link Road advance or completed. With this scenario traffic will need to be assigned to that route, both in terms of development generated and diverted traffic, all of which will materially affect the performance of the Downview Road/Felpham Way (B2259) and all other junctions which have been tested within the scope of the TA.

It is doubtful, therefore, that the TA has specifically taken the LEC Airfield site into account. If it had then the modelers would have needed to provide provisional junction capacity results for the future Link Road junctions with the B2259 and A259. These are not recorded in the TA. It is concluded, therefore, that the TA does not provide a reliable forecast of traffic conditions.

I therefore OBJECT to the development on the grounds that the applicants have failed to demonstrate that the junction of Downview Road with Felpham Way would be able to operate safely and efficiently during critical periods of the day.

- 1.40 It has been demonstrated that the TA provided a suitably robust assessment.

Highway Junctions (Others)

The TA provides analyses and predictions for a number of other junctions which are likely to be impacted by the traffic generated by the development if vehicular access is permitted

via Downview Road. All of these predictions would become invalid if permission for access had been sought from the A259 Bognor Relief Road. With this in mind I OBJECT to the proposal on the grounds that traffic generated by development if permitted would unnecessarily exacerbate delays to traffic at junctions which are already approaching their design capacities within or close to Felpham.

- 1.41 I disagree with this statement as many will work or access facilities that are within Bognor or to the southeast of Felpham and the best route would be along B2259. Mitigation is proposed on junctions where the impact is considered to be material.

Having gone into some detail in respect of my OBJECTIONS to the development on the grounds that it will, if permitted, be prejudicial to safety on the publicly maintainable highway, and adversely impact on the operational efficiency of the local highway network, I also wish to confirm that I OBJECT to the development for the following reasons:

The site is not allocated in the Arun District Council Local Plan for residential development, but is identified as a Gap between built environments and, should, therefore be refused on principle, especially as the site should, because of its size, be considered as a major development rather than a windfall site.

That if the site is deemed unsuitable as an 18 hole golf course because it is liable to partial and occasional flooding, then there are several other re-uses to which it could be put which would be in keeping with retaining it as a 'green strategic gap' - e.g. reconfiguring the site to include a 9 hole golf course which will still enable 18 holes to be played, alongside facilities such as a golf-driving range and/or a pitch and putt course, tennis courts, country park, nature reserve etc.

If permitted, the development would lead to additional demands on already overstretched amenities and facilities including schools, health centres, sewage works, water supplies, and the loss of a recreational green space where wildlife can continue to prosper.