

PROPOSED RESIDENTIAL DEVELOPMENT, HILLOCK LANE, GRESFORD (PLANNING REF: P/2020/0354) – HIGHWAYS TECHNICAL NOTE 02 – OCTOBER 2020 (1856)

Introduction

Croft Eddisons have been instructed by Norris Jones Developments to advise on the traffic and transportation issues relating to the proposed residential development on land to the south of Hillock Lane in Gresford.

This Technical Note has been produced in response to comments received from the highways officers at Wrexham County Borough Council (WCBC) in their Consultation Response dated 20th August 2020 (Planning Ref: P/2020/0354). The WCBC Consultation Response is contained within **Appendix 1**.

This note will provide additional information on the following issues as raised by the highway's officers at WCBC;

- Traffic Impact Hillock Lane/Wynnstay Lane Junction;
- Traffic Impact on Hillock Lane East;
- Traffic Impact on Hillock Lane West;
- Internal Layout;
- Accident Analysis.

The highways consultation confirms that the traffic impact methodology used within the submitted TA is acceptable and provides a robust assessment of the local highway network and that the site is accessible by sustainable modes of transport.

Traffic Impact Hillock Lane/Wynnstay Lane Junction

Within their consultation response, the highways officers at WCBC have requested that further assessment of historic accident data be undertaken at this junction to ascertain whether the junction has a poor highway safety record.

An accident analysis review was undertaken as part of the submitted Transport Assessment (TA) using the Crashmap website, this indicated that there had be no reported accidents at the junction in the last 5 years.

However, as requested, STATS19 data has been obtained from the North Wales Police for the last 5 years. This data, which is contained within **Appendix 2**, indicated that there have been no reported accidents at the junction during the study period. It can therefore be concluded that the existing junction does not have a poor highway safety record.

As stated within the submitted TA, the proposed development is forecast to result in an increase of just 13 two-way vehicles in the Weekday AM peak and 22 two-way vehicle movements in the Weekday PM peak. This equates to 1 additional vehicle at the junction around every 3 minutes. When consideration is given to the actual increase in turning movements out of Hillock Lane this is even lower, with 11 vehicles (additional vehicle every 5 minutes) in the AM peak and 4 vehicles (additional vehicle every 12 minutes).

Based on the above, it can be concluded that the existing junction does not have poor highway safety, in fact there have been no reported accidents at the junction in the last 5 years. Therefore, given the minimal forecast increase in traffic at the junction there is no evidence to suggest that the proposed development will impact on highway safety and that there is no requirement for any mitigation measures at the junction.

Traffic Impact on Hillock Lane East

As requested by the highway's officers at WCBC, STATS 19 data has also been obtained for this section of the highway network. The data obtained from the North Wales Police, indicated that there have been no reported accidents on this section of the network during the 5 year study period. Therefore, this section of the local highway network does not have a poor highway safety record.

Notwithstanding the above, as part of the development proposals improvements are proposed on this section of Hillock Lane which improve forward visibility for vehicles travelling in each direction which will further enhance highway safety. This is confirmed within WCBC's Highway Consultation Response which states the following;

"As part of the proposal, improvements to the road alignment have been proposed which will enable the visibility requirements detailed in MfS2 to be met, improving the safety of Hillock Lane and potentially alleviating the concerns relating to increased traffic flows and SSD."

Therefore, given that STATS19 accident data has indicated that this section of this highway network does not have a poor highway safety record. It is concluded that, there is no evidence to suggest that the proposed development will impact on highway safety. In fact improvements to Hillock Lane will be provided as part of the development to further improve highway safety.

Traffic Impact on Hillock Lane West

Within their consultation response, the highways officers at WCBC state the following regarding Hillock Lane West;

“It appears that the applicant does not have ownership to maintain a footway on the southern section of the Hillock Lane while achieving the required rad width. A footway will only be provided on one side of the road, with a requirement for pedestrians to cross. This will not be the preferred situation as vehicle and pedestrian movements should be segregated whenever possible. Given that the applicant does not have control over the land to improve the highway the required improvement could only be delivered through a Grampian condition, which is not acceptable.”

It is important to note that the proposed site access arrangement which is displayed in **Plan 1** can be provided within land either under the control of the applicant or land located within the adopted highway boundary, there is no requirement for third party land.

As part of proposals, a 2 metre footway will be located along the entire boundary of the site apart from a short section of just 16 metres at the western corner. At this point an uncontrolled crossing with associated dropped kerbs, tactile paving and footway build-out is to be provided to enable pedestrians to access the existing footway on the northern side of Hillock Lane. This provides a safe and convenient route for pedestrian and is accepted by the highway's officers at WCBC who state the following in their Consultation Response;

“With the proposed pedestrian crossing it is considered that this proposal provides adequate connection to the existing pedestrian network at Hillock Lane and Stancliffe Avenue.”

Therefore, there is no requirement for the footway to be extended along the frontage of the site or a planning condition requiring such provision.

As requested by the WCBC, analysis of the STATS19 data has indicated that there have been no reported accidents on this section of the local highway network and again there is no evidence to suggest that development proposals will result in a negative impact on highway safety. In fact, the proposed site access arrangements will improve visibility from the Stancliffe Avenue junction to the north and the highways officers accept that this provides overall betterment.

Based on the above, the proposed access arrangements and in particular the proposed pedestrian infrastructure provide safe pedestrian movements in the vicinity of the site and there is no requirement for a Grampian condition to provide safe pedestrian access to and from the site.

Accident Analysis

As stated previously, STATS19 accident data has been obtained for the same study area as the previously submitted TA for the last 5 years. As detailed above, this data has indicated that as with the accident analysis in the TA there have been no reported accidents on Hillock Lane or at the Hillock Lane/Wynnstay Lane junction during the study period.

This STATS19 data indicated that there has been one reported accident within the study area at the B5445 Chester Road/Hillock Lane junction. The STATS19 data (**Appendix 2**) states the following regarding the accident;

“One slight injury collision was identified at the junction of the B5445/Hillock Lane. Vehicle 2 stationary on Chester Road indicating and waiting to turn right into Hillock Lane. Vehicle 1 has been travelling in the same direction but failed to stop and has collided with the rear of vehicle 2.”

Comparison of this accident data with the data obtained from Crashmap indicates that this is the same accident.

It is therefore concluded that the analysis contained with the TA includes all of the reported accident data on the local highway and that the local highway network does not have a poor highway safety record.

Internal Layout

Within the highway’s consultation response, the highways officers make reference to the recommended maximum reverse distance of 12 metres as per the MfS document. This is noted and the reverse distances have been shown on the swept path analysis which is displayed on **Plan 2**.

This swept path analysis using 11.2 metre refuse demonstrates that refuse vehicles can manoeuvre within the site safely and such vehicles can enter and exit the site in a forward gear.

The consultation response also states the provision of shared footway/cycleways through the site should be investigated. The provision of shared footway/cycleways was considered following the pre-app comments, but it was felt that the given the internal layout of the site has been designed to keep vehicles speeds low that this would be a safe environment for cyclists to travel through the site.

It should be noted that a traffic free route for pedestrians/cyclists is provided from Hillock Lane along the existing PROW which enables pedestrians and cyclists to access the site away

from the site access junction. Based on the above, it is concluded that the proposed internal highway arrangement meets with the relevant highway design guidance.

Summary

This Technical Note has been produced in response to the Highways Consultation Response from WCBC and the following conclusions can be drawn;

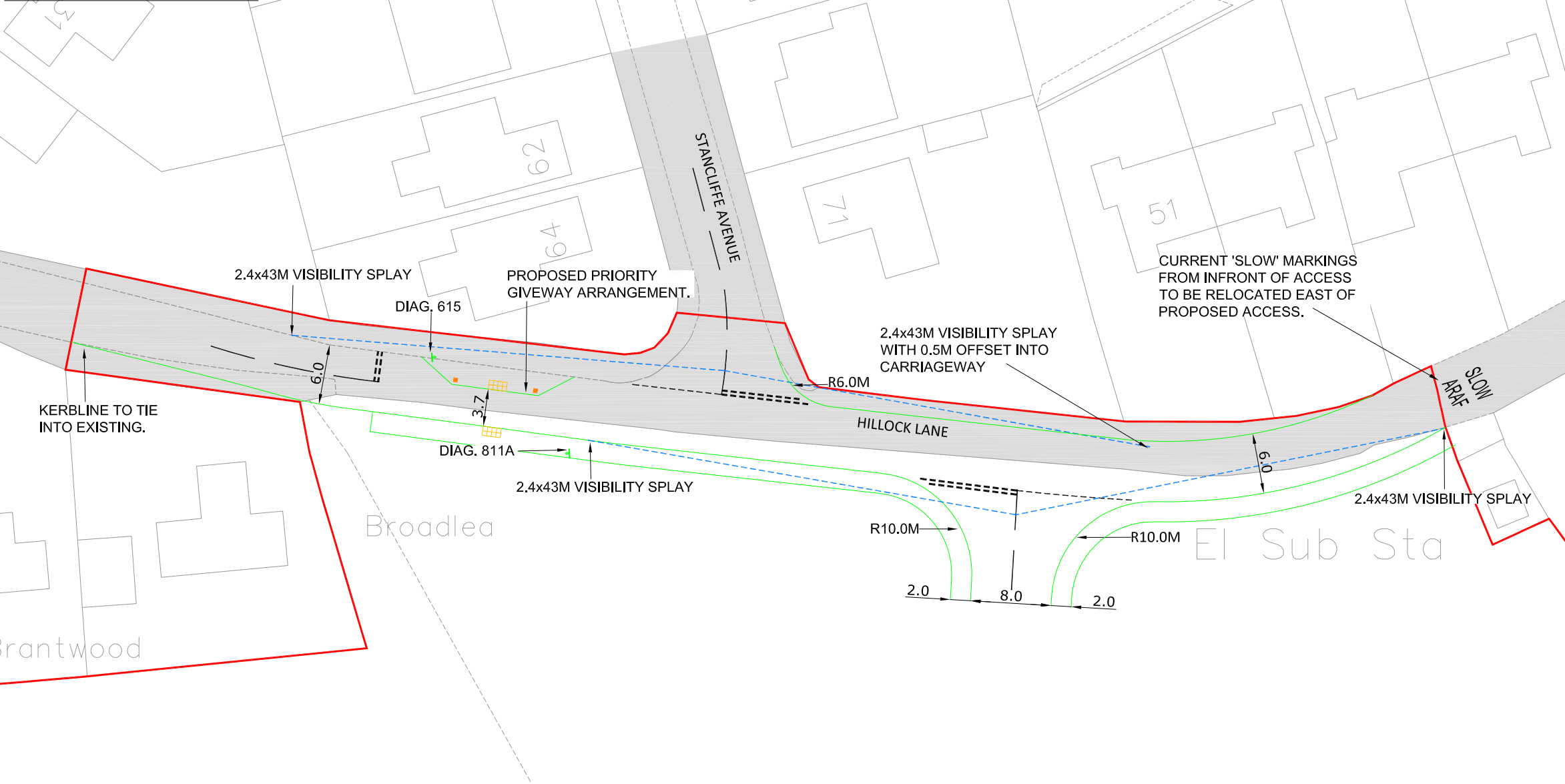
- The proposed development will not result in a material impact on the local highway network.
- The existing local highway network does not have a poor highway safety record and there is no evidence to suggest that the proposals will have a material impact on highway safety. In fact, improvements are proposed on Hillock Lane which will improve highway safety on the network.
- The proposed development can be accessed safely off Hillock Lane with safe linkages to the existing provision on Hillock Lane provided.
- The proposed vehicular access and improvements to Hillock Lane and the Hillock Lane/Stancliffe Avenue junction can be provided without the requirement for third party land.

Based on the above, it is concluded that there are no highways or transportation reasons why planning consent for the development should not be granted.

PLANS



NORTH SOUTH AERIAL VIEW



NOTES

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY.
THE DRAWING WILL BE SUBJECT TO CHANGE FOLLOWING LOCAL AUTHORITY REVIEW AND CONFIRMATION OF PUBLIC HIGHWAY AND THIRD PARTY LAND BOUNDARIES.

- INDICATIVE SITE BOUNDARY
- DENOTES NEW KERBS
- EXISTING ADOPTED HIGHWAY
- LAND REQUIRED TO EXTEND FOOTWAY TO TIE INTO EXISTING FOOTWAY PROVISION

DIAG. 615

DIAG. 811A

PLAN 1

B	PRIORITY GIVEWAY ARRANGEMENT		LB	JC	FEB 20
A	MINOR DESIGN AMENDMENT		LB	JC	FEB 20
REV	DETAILS		DRAWN	CHECKED	DATE

CLIENT: **NORRIS JONES PROJECTS**

PROJECT: **HILLOCK LANE, GRESFORD**

DRAWING TITLE: **PROPOSED SITE ACCESS ARRANGEMENT**

SCALES: **1:500 @ A3**

DRAWN: LB	CHECKED: JC	DATE: JAN 20
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Croft Transport Planning & Design
340 Deansgate
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M3 4LY

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Tel: 0161 837 7380
Web: www.crofts.co.uk

DRAWING NUMBER: 1856-F02	REVISION: E
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APPENDICES

APPENDIX 1

WCBC Highways Consultation Response

MEMORANDUM

From: Chief Officer, Environment & Technical **To:** Chief Officer Planning & Regulatory
FAO: Matthew Phillips

Our Ref: **Your Ref:** P/2020/0354

Date: 20th August 2020

Land of Hillock Lane, Gresford, Wrexham LL12 8YN
Proposed residential development of 109 units with associated access and highway improvements.

Further to your consultation dated 31/07/2020 in respect of the above, I comment as follows:-

Traffic Surveys

Previous submissions had raised concern that the traffic surveys undertaken were limited to one day and did not provide adequate data to assess the development. I confirm that additional traffic data has been presented and it includes one week of ATC survey on Hillock Lane and additional junction counts. It is noted that the junction count data has been factored up to account for higher flows recorded on another day by the ATC survey and this has helped to ensure a robust assessment.

Future Traffic Growth

Future year traffic estimates have been provided for 2025, 2030 and 2035 as requested by WCBC. The growth rates used have been correctly extracted from the National Trip End Model using TEMOPRO. No additional committed development has been included as there are no major committed developments in the vicinity of the site.

Development Trip Generation Rates

The TA states that the development trips have been calculated using trip rates from Bryn ISA Section 78 Planning Appeal, as agreed with WCBC. The trip rates cited in the TA do not match those from the Bryn ISA development provided in the supporting document appendix, so it is not clear how these rates have been established. As the trip rates used are generally higher than the Bryn ISA rates, they should be accepted as providing a robust assessment of the likely trip distribution.

Trip Distribution

The use of observed turning movements, rather than 2011 census journey to work data, to allocate the distribution of development trips provides an appropriate robust assessment.

Junction Capacity Assessments

Three junctions have been assessed using Picady, as agreed with WCBC.

- Site Access/ Stancliffe Avenue/Hillock Lane
- Chester Road/ Hillock Lane
- Wynnstay Road/ Hillock Lane

That the Picady results show no capacity or queueing issues at any of the key junctions assessed in the base or future years even with development traffic added.

Hillock Lane/Wynnstay Lane junction

Visibility at this junction has previously been noted as inadequate in both directions. The junction is below the standard specified in Manual for Streets for a new junction, but as an existing junction it would not necessarily be expected to meet the full standard. However, a significant increase in traffic would not be supported at this below standard junction, particularly if there is a pre-existing collision issue on the surrounding. Further presentation and analysis of the existing collision situation is required.

The forecast increase of 13 two-way vehicles in the Weekday AM peak and 22 two-way vehicle movements in the Weekday PM peak. The assessment shows that the development will produce a 21% increase in traffic on the junction in the AM peak and 28% in the PM peak. Given that this junction is sub-standard and the applicant does not have control over the land to improve the junction and therefore it could only be delivered through a Grampian condition it is not acceptable.

Hillock Lane east of site access

Concerns have previously been raised by WCBC about the capacity of Hillock Lane to support new development due to its narrow width.

The section of Hillock Lane between the site access and Wynnstay Lane is used to access the villages of Holt and Farndon as well as the Wrexham Industrial Estate. The road narrows to 2.7m at its narrowest, such that it is difficult for two vehicles to pass and any substantial increase in traffic would not be supported. The future year traffic estimates provided in the TA suggest that the development would create a 31% increase in two-way traffic in the AM peak and a 41.5% increase in the PM peak. This is a significant increase in vehicle movements and this would not be acceptable.

As part of the proposal, improvements to the road alignment have been proposed which will enable the visibility requirements detailed in MfS2 to be met, improving the safety of Hillock Lane and potentially alleviating the concerns relating to increased traffic flows and SSD.

Further presentation and analysis of the existing collision situation is required as there is a substantial increase in traffic flows predicted if this development is allowed to proceed.

Hillock Lane west of site access

Between the site access and the developed section of Hillock Lane to the west, the developer has been required to widen the road in order that it can accommodate two-way traffic. In previous discussions there has been uncertainty as to whether the necessarily land can be obtained.

From Plan 2, it appears that the applicant does not have the land ownership to maintain the footway on the southern side of Hillock Lane while achieving the required road width. A footway will be provided only on one side of the road, with a requirement for pedestrians to cross. This will not be the preferred situation as vehicle and pedestrian movements should be segregated whenever possible. Given that the applicant does not have control over the land to improve the highway the required improvement could only be delivered through a Grampian condition, which is not acceptable.

Further presentation and analysis of the existing collision situation is required as there is a substantial increase in traffic flows predicted if this development is allowed to proceed.

Site Access Junction and Hillock Lane Improvements

It has previously been agreed that Access junction on Hillock Lane would require:

- widening carriageway to allow the simultaneous passage of vehicles,
- provide footways on both sides of the carriageway and
- improve visibility at the Stancliffe Avenue / Hillock Lane junction.

The proposal includes highway improvements at the site access linking it to the existing residential section of Hillock Lane and improving the Stancliffe Avenue/Hillock Lane junction.

Consideration has been given to a DMRB standard junction with right turn lanes at the Stancliffe Avenue/Hillock Lane/Site Access junction. As a 30mph road in a residential area, it is agreed that it is appropriate to apply the standards set out in Manual for Streets as the traffic flows and speeds are not high enough to require right turn lanes, as per DMRB requirement.

Concern had been raised that the applicant did not have sufficient land ownership to widen the full extent of the carriageway a short distance west of the junction with Stancliffe Avenue. However, the applicant has indicated that a 6m wide carriageway with 2m footway could be provided subject to acquiring 3rd party land (Broadlea). The plans submitted provide adequate highway width, although not with full width footways on both sides of the road.

Stancliffe Avenue/ Hillock Lane junction

Visibility at the existing Stancliffe Avenue / Hillock Lane junction is sub-standard. While it may not be possible to achieve the standard required of a new junction, betterment has been provided to improve the visibility at this junction.

Secondary Site Access

Consultation already undertaken with the North Wales Fire Service confirms that no secondary access is required as part of this development, although where possible one should be provided as previously requested during Pre application discussions.

Hillock Lane/Chester Road Junction

At Hillock Lane/Chester Road, pre-application advice recommended that a ghost island be considered. The current proposal is for a smaller development than was originally proposed and the expected traffic flows therefore do not indicate a need for a ghost island. The Picady assessment has shown that the junction has sufficient capacity to accommodate the expected development traffic.

Road Safety

It is agreed that there is very little history of road accidents in the vicinity of the site, which suggests no existing safety issues, however a full summary analysis of the collision information should be requested for the study area to encompass all the key junctions detailed above.

Footways

Previous advice has indicated that footways should be provided on both sides of Hillock Lane to the desirable minimum width of 2m and with the footway on the southern side of the road extending across the entire frontage of the development.

It is not clear that it will be possible to provide a continuous 2m footway on both sides, however, with the proposed pedestrian crossing, it is considered that this proposal provides adequate connection to the existing pedestrian network at Hillock Lane and Stancliffe Avenue.

East of the site access Hillock Lane does not have footways or lighting, however it does not link to any amenities that residents would walk to and any anticipated use by pedestrians would be for leisure journeys. While additional footways provision is welcomed they would not be expected on a route that is rural in nature where pedestrian movements are unlikely.

Sustainable Transport Options

The proposed improvements to footway provision on Hillock Lane connect the site to the existing footways along Hillock Lane and Stancliffe Avenue. Many of the village amenities on Chester Road would be accessible within a 10-15 minute walk from the existing edge of the site, although it should be remembered that the actual walking time from many properties will be greater than this.

There is no specific segregated provision for cyclists, which should be investigated further.

Bus stops are available on Chester Road, but at 900m from the site access they are more than double the 400m preferred distance recommended by the CIHT guidelines in 'Providing for Journeys on Foot'. While public transport use is possible for residents its inconvenience means that those with the option are likely to use cars.

An appropriate residential travel plan has been submitted and liaison with bus operators is recommended to ensure full information is provided.

Walking, cycling and public transport are reasonable options for residents, although the distance to Chester Road and bus stops mean that there is likely to be a high proportion of car use from this development.

Internal layout and car parking

Previous advice has asked that any proposed footway links through the site should take the form of shared footway / cycleway links. This has not been indicated on the site layout plan and should be investigated further.

The submitted site layout plan (Drg No. 4121 / SK17 Rev C) indicates that parking provision will comply with LPGN 16 maximum standards (excluding garage spaces) which would be considered an over provision, but is acceptable. Any proposed driveways will need to comply with WCBC Standard Driveway Requirements.

Previous advice stated that all proposed turning heads must comply with WCBC Standard Details and be capable of accommodating the turning movements of an 11.2m long refuse vehicle. It is important that any proposed bin store / compound proposed for shared private driveways are of adequate size / design to accommodate the required number / type of bins and are suitably located to serve such a development ie/ in close proximity to the adjoining adopted highway. Manual for Streets recommends that refuse vehicles reverse no more than 12m within residential estates.

Suitable swept path details still need to be provided to support this application.

Conclusion

Approval cannot be recommended because of the anticipated increase in traffic on Hillock Lane to the east of the site. This section of road, and Hillock Lane/Wynnstay Lane junction to the east of the site are narrow and cannot accommodate any significant increase in traffic.

In addition, the required highway improvements would require the acquisition of third party land and the use of Grampian Conditions which is not recommended.



Chief Officer, Environment & Technical

APPENDIX 2

STATS19 Data



**HEDDLU
GOGLEDD CYMRU
NORTH WALES
POLICE**

Response Date: 23/09/2020

2020/677 – Stats 19

In response to your recent request for information regarding;

We require some accident data (Stats19) for some junctions in Wrexham.

Clarification sought:

Please would you clarify which roads/junctions you require the information for?

Clarification received:

The area/ junctions we need are shown below;



Method

Injury collision data are sourced from the Home Office Stats19 returns via AccsMap (geographical information system). Please note that calendar year 2019 and 2020 data are considered provisional and therefore subject to change. There is also a delay in recording CY2020 data on the Stats19 system due to the COVID-19 pandemic.

The time period of 01/01/2010 to most recent has been used.

Findings

One slight injury collision was identified at the junction of the B5445/Hillock Lane. Vehicle 2 stationary on Chester Road indicating and waiting to turn right into Hillock Lane. Vehicle 1 has been travelling in the same direction but failed to stop and has collided with the rear of vehicle 2.

THIS INFORMATION HAS BEEN PROVIDED IN RESPONSE TO A REQUEST
UNDER THE FREEDOM OF INFORMATION ACT 2000, AND IS CORRECT AS AT 21/09/2020

