

MEMORANDUM

From: Chief Officer, Environment & Technical **To:** Chief Officer Planning & Regulatory
Our Ref: P/2019/0525 **Your Ref:** P/2019/0525
Date: 24 June 2020

TOWN AND COUNTRY PLANNING ACT 1990
TOWN AND COUNTRY (GENERAL DEVELOPMENT PROCEDURE) ORDER 1995

Location: O. S Grid Ref: 3346 5622 Land at Home Farm, Gresford Road, Llay
Development: Erection of foodstore (use class A1), car parking, access and landscaping

Further to memo dated 29/04/20 from Cameron Rose Associates (CRA), in respect of the above, we provide the following comments: -

Traffic Impact Assessment

CRA have revisited the LINSIG modelling of the Crown Crossroads junction, following previous comments and have presented a number of scenarios within their note, namely:

- Do minimum junction 2026 including Home Farm development flows and 7cu flare on the Straight Mile approach;
- Do minimum junction 2026 including Home Farm **and Aldi development flows** and 7pcu flare on the Straight Mile approach; and
- Do something junction 2026 including Home Farm and Aldi development flows, **revised signal timing arrangement and increased flare to 10.4pcu length**, on the Straight Mile approach to the junction.

The results tables below summarise the LINSIG outputs for each with DoS being the degree of saturation, MMQ the Mean Maximum Queue and PRC being the Practical reserve capacity of the junction.

Arm	2026 without ALDI 7pcu long flare				2026 WITH ALDI FLOWS 7pcu long flare				2026 WITH ALDI FLOWS 10.4cu flare + timings adjusted			
	AM		PM		AM		PM		AM		PM	
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
B5102 Straight Mile	95.7%	14	79.8%	7	98.1%	16	89.1%	9	94.1%	13	87.0%	8
B5373 Gresford Road	98.4%	19	80.9%	10	97.2%	19	89.9%	16	97.2%	19	87.8%	15
Llay Road	97.1%	30	81.5%	17	98.7%	32	90.1%	20	97.3%	29	87.9%	20
Rackery Lane	97.4%	21	81.4%	11	98.8%	22	90.5%	14	97.5%	21	88.1%	14
Chapel Lane	66.9%	4	33.0%	2	66.9%	4	33.0%	2	66.9%	4	33.0%	2
PRC		-9.4%		10.4%		-9.8%		-0.6%		-8.3%		2.1%

Although the assessments have been carried out for both highway peak hours there will be little impact from the proposed store in the morning peak hour and therefore the comments have concentrated on the busier PM peak hour.

Without the Aldi development, all arms would operate with degrees of saturation of less than 82% and a PRC of 10.4% which indicates that the junction has spare capacity to accommodate daily fluctuations in flow and that no one arm is excessively congested. Generally, a PRC of 5% minimum would be desirable and DoS up to 90%.

Without further mitigation the PRC would reduce to -0.6% with the addition of the Aldi flows. Degrees of saturation on two arms (Llay Road and Rackery Lane) would increase to just over 90%.

The mitigation measures proposed by CRA are: -

- Extend the flare length on Straight Mile from 7.0pcu to 10.4pcu (ie from around 40m to 60m); and
- Amend the order that the stages are called within each cycle to minimise lost intergreen time, saving 6s per cycle (when Chapel Lane is not called).

By making these adjustments, the PRC for the junction in the PM peak hour increases to 2.1% and the degree of saturation falls below 89%.

For comparison, the results for the previously approved junction, associated with the appeal of 2016 for the Home Farm site, are shown in the table below. Degrees of Saturation of over 100% were deemed acceptable.

Arm	2026 without ALDI Home Farm Results (Curtins)			
	AM		PM	
	DoS	MMQ	DoS	MMQ
B5102 Straight Mile	98.8%	18	83.9%	8
B5373 Gresford Road	98.1%	19	83.2%	9
Llay Road	99.1%	33	84.7%	16
Rackery Lane	100.4%	26	84.4%	11
Chapel Lane	66.6%	4	27.9%	2

The results above show that the queues on individual arms would increase in the evening peak hour with the more significant changes occurring on:

- Gresford Road (increasing from 10 to 15);
- Llay Road (from 17 to 20); and

- Rackery Lane (from 11 to 14).

Whilst the increase in queue lengths would not be classed as a significant impact, as there is already queueing without the Aldi traffic, we consider below whether the longer queues are likely to adversely impact on adjacent accesses and junctions.

Straight Mile:

The queues predicted by LINSIG can be accommodated within the space provided. The nearside lane will remain accessible and would not be blocked by queueing traffic in the offside lane.

Gresford Road:

With the additional traffic associated with the Aldi development the queues are expected to extend beyond the access to the properties shown below, adjacent to the post box. We would ask that the developer provides "Keep Clear" markings across the entrance to assist residents to access their homes and reduce the likelihood of queues blocking back to the signals from any vehicle waiting to turn right in.



Llay Road:

The 2026 predicted queues, without the Aldi traffic, extend to the access shown below (the exit only from a car park). Should the development be approved the queue would be expected to extend to and beyond the access for a longer time. We would therefore request that the applicant provides "Keep Clear" markings at this location.



Rackery Lane:

The queues will not impact on any adjacent accesses.

Traffic Assessment Summary:

In summary, given that previous investigations suggest that background traffic flows in this part of North Wales are not increasing year on year, and bearing in mind the modelling

results accepted as part of the Home Farm appeal the operation of the junction with the development is now considered acceptable. We recommend that the mitigation measures proposed by CRA at the traffic signals and the additional minor measures to mitigate against queues blocking accesses should be included as conditions to any future approval.

Road Safety Assessment

We note the responses to our road safety review (Ref: 400757 WA01 02) issued on 27th March 2020.

The location of the zebra crossing and bus stop on Gresford Road are now agreed. The applicant / agent has acknowledged that vegetation will need to be cut back and maintained on the northern side to allow suitable visibility for pedestrians and approaching motorists. We request that the applicant / agent illustrates on a plan the visibility splay of a pedestrian waiting to cross at the zebra crossing on the northern side of Gresford Road and identifies the extents of the vegetation to be removed. Visibility of pedestrians at the crossing point is a safety concern and therefore the proposed crossing can not be approved until concerns are satisfied.

As previously noted, the current development proposals are heavily focused on access to the site by private car with little thought to Active Travel. In the past it has been requested that applicant / agent provides facilities for active travel to the site, yet it does not seem to have been provided.

The plans indicate that the proposed zebra crossing leads pedestrians to an internal pedestrian footpath within the development extents. A bus stop is proposed on the northern side of Gresford Road that also provides a link to the internal footway. It is not proposed to provide a pedestrian footway on the public highway. There is the concern that without pedestrian facilities within the adopted highway pedestrians walking to the development from the east will not use the zebra crossing facility and will likely use the vehicular entrance to the site to access the development. Since there are no facilities for wheelchair users / pushchairs pedestrians may walk in the carriageway to access the site, putting pedestrians at risk of a collision with vehicles. It is therefore requested that a pedestrian footway is provided on the northern side of Gresford Road, from the proposed zebra crossing, incorporating the bus stop and development site vehicular access, up to the development site boundary line and that uncontrolled dropped crossings points are provided on the southern and northern sides of Gresford Road and also the vehicular access point to allow for safe pedestrian connectivity to the site.

There is currently no provision for pedestrians to cross Llay Road at the Crossroads Junction. There is the concern that there will be more pedestrian movements associated with the development site, therefore it is requested that an uncontrolled crossing is provided on Llay Road to aid pedestrians crossing Llay Road in advance of the junction. The appropriate location to be agreed with highways when a site visit can be undertaken.

With regard to the entrance on Straight Mile (In only) it is noted that the speed limit is to be reduced to 40mph on this road. Coupled with the presence of a new housing development access to the north, this is expected to reduce approach vehicle speeds. However, it should be noted that the long straight nature of this road with good forward visibility may still lead to some speeds in excess of 40mph. This may present difficulties for some vehicles turning left into the store entrance leading to shunt type conflicts due to the restricted nature of this access. As such we request that additional signing is provided in advance of the store in order to reduce shunt type collisions occurring. The left turn access should be designed in accordance with current Highway Standards. A detailed layout and

safety audit of the proposed left turn is required to demonstrate that the proposed access meets appropriate standards and is safe for all road users.

Detailed design drawings are required of the proposed zebra crossing and all other highway works associated with the development for highway approval.

HGV Movements

The point regarding left turning HGVs exiting the store entrance on Gresford Road is noted. However, additional swept path information is still required to ensure HGVs can turn fully within the service yard and not conflict with other vehicles entering/ leaving the main store access.

In addition, clarification is sought with regard to expected delivery times of service vehicles to ensure conflicts with customer vehicles are limited. This is due to the close proximity of the main store entrance and service yard within the Aldi store. Delivery times will be included in the service delivery management plan as part of the conditions for the site.

Conclusion

Once the above matters have been satisfied a list of highway planning conditions will be provided by Wrexham Highways DC.

SUBMISSION OF FURTHER DETAILS

No part of the development shall commence until a scheme detailing the construction of the following has been submitted to and approved in writing by the Local Planning Authority:

delete as appt *

- 1) *Detailed layout, design, drainage, lighting and construction / upgrade of the signal controlled junction at Crown Crossroads*
- 2) *Detailed layout, design, drainage, lighting and construction of zebra crossing along Gresford Road*
- 3) *Details of a new bus stop, hardstanding along Gresford Road including raised bus stop kerbs, yellow bus stop box marking (Welsh over English)*
- 4) *Detailed layout, design, drainage, lighting and construction of main access and 2m footway and dropped crossing points along Gresford Road east of proposed Aldi access*
- 5) *Details of proposed Keep Clear road markings (Welsh over English) along B5373 Gresford Road and B5102 Llay Road*
- 6) *Details of proposed advanced warning signs on Straight Mile*

SAFETY AUDITS

No part of the development shall commence until a Stage 1 / 2 – Independent Safety Audit has been submitted for the proposed scheme and approved in writing by the Local Planning Authority. A Stage 3 Independent Safety Audit shall be submitted for approval post construction.

Note to Applicant:

The progression of this application from a highway's perspective has been impacted by the current COVID 19 situation. Any further site visits associated with this application will be dependent on Government rules.

A handwritten signature in brown ink, appearing to read 'SPR' followed by a horizontal line.

Chief Officer, Environment & Technical