

PE1236/KK

10 August 2012

Our Ref: N1/10 & N13/2
Your Ref:

Alison Wilson
Assistant Clerk to the Public Petitions Committee
T3.40
The Scottish Parliament
EDINBURGH
EH99 1SP

Dear Ms Wilson

Consideration of Petition PE1236

I refer to your letter dated 19 June 2012 to both Nestrans and Aberdeenshire Council to ask about the outcome of the work being undertaken by Nestrans in relation to the provision of a grade separated junction at Laurencekirk and requesting that an update be given to the Committee regarding this work. This reply has been prepared in agreement with Aberdeenshire Council and as such forms a joint response to your request for information from both organisations.

It was agreed at a meeting of Nigel Don MSP with officers of Nestrans and Aberdeenshire and Angus Councils that Nestrans would review the studies undertaken to date in relation to the Laurencekirk junctions with the A90 Trunk Road and in particular revisit the report by JMP Consultants Ltd on behalf of Transport Scotland that is entitled Laurencekirk Expansion – A90 (T) Appraisal as this report was completed in March 2010 and was based on allocations within the Main Issues Report for the emerging Aberdeenshire Local Development Plan. Since then the Local Development Plan (LDP) has been developed and was adopted by Aberdeenshire Council on 1 June 2012. Nestrans has therefore investigated the potential trip generation of the housing and employment allocations now set for Laurencekirk within the adopted LDP and also considered the trip generation of the other development allocations within the LDP for the Kincardine & Mearns area and the potential scale of additional traffic growth in the Laurencekirk / A90 junctions area as a result.

It is intended that this work will allow a case to be put to Transport Scotland in support of constructing a grade separated junction at Laurencekirk at the earliest opportunity. It is hoped that the findings will emphasise the role that the strategic trunk road network across Scotland should be playing and the safety and economic concerns that the at-grade junctions and 50 mph limit at this location have on an otherwise derestricted inter urban trunk road. Unfortunately this work has been

delayed, but is nearing completion and I will highlight some of the key points to hopefully provide a useful summary of the expected main outcomes from this work that may be of interest to the Committee.

In comparing the sizes of settlement along the stretch of the A90 between Dundee and Stonehaven, it is noted that the most comparable location in size to Laurencekirk is at Newtonhill, which had a grade separated junction with the A90 constructed in the early 1990s by Grampian Regional Council when it had a population of just over 2,000. The population of Laurencekirk had exceeded this level by 2008 and is projected to almost double in the period from 2008 to 2023 should the allocations within the LDP be achieved. This rate of expansion is significantly in excess of other existing settlements.

In addition to the turning movements between Laurencekirk and the A90, which will be increased through further development within Laurencekirk, it should be noted that there is a significant volume of traffic accessing the A90 via the A937 road from the Montrose area. The turning movements to/from this arm in the AM and PM peak hours, whilst less than the overall total to/from Laurencekirk across the 3 separate junctions, are greater than those experienced at any one single access point from Laurencekirk.

In looking at the May 2009 traffic surveys undertaken on the A90 at Laurencekirk on behalf of Bear Scotland Ltd, it is noted that the turning flows in and out of Laurencekirk are greater in the hour following the peak hour of 0700-0800. Without information on the queue lengths and waiting times during the peak hour, it is difficult to surmise whether this increase in flow is purely reflective of the journey demands in each hour, or whether it is indicative of some peak spreading as a result of difficulties accessing or turning right off the Trunk road during the busiest hour in the AM for mainline flows?

The 2-way, 12 hour flows recorded on the minor roads during the May 2009 survey have been factored to 24 hour levels and the trip generation included from the Transport Assessment for the Blackiemuir Avenue planning application for 210 houses in Laurencekirk, that was approved in 2011. This indicates that there is already likely to be in excess of 3,000 vehicles per day on both the A937 at the north junction with the A90 and the A937 from Montrose at the south junction at present without any further development occurring. Although the choice of junction type is best determined on a range of issues including cost/benefit analysis, environmental considerations and road safety issues, it is noted that the Design Manual for Roads and Bridges Vol6 section 2 – TA 23/81 Junctions and Accesses : Determination of Size of Roundabouts and Major/Minor Junctions states that for dual two lane carriageways, major/minor junctions are unlikely to be cost effective where the minor road flow is expected to exceed about 3,000 vehicles Annual Average Daily Traffic 2-way. It may already therefore be appropriate to give consideration to an alternative form of junction layout at both the A90/A937 north and south junctions.

The prevalence of accidents involving right turning vehicles at this location is a concern given the higher proportion of over 60s in Laurencekirk in comparison to Aberdeenshire as a whole and the fact that elderly drivers are recognised to

experience greater problems turning right as their reaction times are lower and visual deterioration more prominent.

A letter was written to Transport Scotland on 11 Jan 2012 to enquire about their long term policy view as to whether the current 50mph is intended to be a permanent speed restriction on the Trunk Road network, or is merely intended to remain in place as an interim measure in advance of a long term solution being brought forward to remove the need for this limit as was the case at 2 junctions on the A90 at Forfar.

Transport Scotland replied to confirm that the Order that came into force on 4 November 2005 revoked the Temporary 50mph Speed Limit Order that was in force prior to this date and will remain in force for the foreseeable future. They advised that any amendment to the A90/A937 Laurencekirk/ Marykirk junction would however be required to be designed in accordance with DMRB standards, using a mainline design speed of 120 kph and allow an order to be promoted that would revoke the 50mph speed limit and introduce the national speed limit. It is therefore questioned how the permanent introduction of a 50mph speed restriction on the Trunk Road network, that has been in place for 7 years, sits with the principles of Scotland's National Transport Strategy and the aim to minimise delays and improve journey times between centres of economic growth?

The number of trips generated within the Laurencekirk Expansion – A90 (T) Appraisal undertaken by JMP appear to have been significantly underestimated and this will in turn have underestimated the potential future impact at the junctions. In particular the employment trips represent only **a tenth** of the potential trips that could be generated as the report states that 20 hectares of employment land with a 30% gross floor area would result in 6,000m² rather than 60,000m². The employment trips are then later completely discounted from further assessment within the study as they were considered to contribute only a nominal amount of additional traffic. Had the correct conversion been applied however, a potential 657 AM and 521 PM peak hour 2-way external trips would remain after a further 30% reduction has been applied for internal trips and the possible impact of this would seem to warrant investigation.

An assumed mode shift to rail for housing and employment generated trips of 3 - 5% in line with the rates recorded at Montrose and Stonehaven rail stations, which have a greater frequency of service and larger population bases, may be optimistic and therefore underestimate the number of vehicular trips on the road network in Laurencekirk if it is not achieved

The level of housing generated trips assumed in the study seems low when compared with those derived using trip rates from other Transport Assessments, given that only a 43% driver mode share is assumed and a further 10% reduction is later applied for internal trips, which are likely to already be accounted for within the walking and cycling mode share. Even comparison with the traffic flows observed in 2009, prior to any further development that would almost double the size of Laurencekirk, suggests that the housing generated trips may be underestimated. The difference is particularly noticeable in the PM peak where the development

generated trips are on average around 40% (260 vehicles) less than may be expected.

The use of National Road Traffic Forecasts (NRTF) at a low growth rate is surprising given the growth rates that have been observed on the A90 at Laurencekirk in the past, which have been recorded as approaching high growth levels between 1999 to 2008. To help quantify the scale that this may have overestimated the performance of the junctions when being assessed in future years, the 13.9% low growth rates used between 2009 to 2023 in comparison with the 24.9% potential growth if high growth rates continue to be reached throughout this period would result in only approximately 3,000 extra trips per day on the A90 Trunk Road mainline flows at this location rather than an increase of approximately 5,400 extra trips that may more realistically be experienced.

Nestrans has calculated the trip generations for all the housing and employment land allocations for the Kincardine & Mearns area within the LDP. Trip distribution rates were derived from the 2001 Census using ward based origin and destination data. This allowed an estimate to be made of the number of trips that may travel to/from or pass by the A90/ Laurencekirk junctions. Even without any further development within Laurencekirk itself, the cumulative impact of the other allocations could result in around 40% more trips in each of the peak hours than was observed in 2009, of which approx 10% growth can be attributed to trips generated by housing allocations and 30% to employment. This level of generated trips more than surpasses the predicted growth even at high NRTF growth levels (24.9%) and also exceeds the number of trips predicted to be generated by the allocations for Laurencekirk, which are now set within the LDP at 885 houses and 11 hectares employment land to 2023. The trips generated by Laurencekirk housing and employment allocations alone would result in growth between 2009 and 2023 of around 25% on the A90 north of the settlement and approximately 16% on the A90 south of the settlement.

Consideration has still to be given at this stage to any further potential traffic growth in the area as a result of the development allocations that may be made in the emerging Main Issues Report for the North Angus area.

The work undertaken to date has highlighted that the predictions for future traffic levels have been underestimated and therefore the case for an improved solution has also been underestimated. It is anticipated that the final summary report on the above findings will considerably enhance the argument for upgrading the junctions at Laurencekirk.

I hope that this brief summary information on the main findings of the work undertaken to date is of assistance to the Committee and I will be happy to provide a copy of the final report, with full details of the potential trip generations and any assumptions and calculations made therein, once it has been completed.

Yours sincerely

Derick Murray
Director
cc Ewan Wallace, Aberdeenshire Council