

**Appeal: Tesco Stores Ltd, 7 Gavins Mill Road, Milngavie Ref PPA-200-2008**  
**Inquiry Statement: Traffic and Transport**

1. Commenting on the traffic and transport issues requires reference to three sets of documents submitted by the appellants:-
  - Design Statement
  - Detailed layout drawings
  - Transport Assessments
2. Even then dealing with the transport assessment requires reference to three separate reports:-
  - Transport Assessment dated 14 July 2009
  - Supplementary Road Network Analysis dated March 2010
  - Cumulative Network Assessment dated 22 November 2010
3. Each of these assessments is based on a different set of assumptions. In trying to come to a view on the transport implications of the proposed development, it would help considerably to know which of these reports is the one on which the appellants wish to be judged.
4. In Chapter 5 of the 2009 Transport Assessment there is discussion of the traffic that might be generated by the new store including an assessment of the effect of diverted and pass-by trips. We will demonstrate that there are many anomalies, errors and omissions in the submissions regarding the transport elements of this development proposal. These are such that it would in effect be so difficult to access the store that it seems likely that many prospective customers will choose to divert to other stores or pass by the site without stopping. This is not the diversion or pass-by that the developer might have in mind.
5. The following comments are related to the order of the contents of the 2009 Transport Assessment with reference to other documents as appropriate.

**Site Layout and Accessibility**

6. We note there is no reference to a Design and Access Statement amid the supporting information. We realise that Tesco submitted their planning application before the specific statutory requirement for the submission of a Design **and Access** statement came into effect. However, as a service provider, Tesco are bound by the provisions of the Disability Discrimination Act 2005. An Access Statement would have helped them to demonstrate that they recognised their obligations under the Act. We also believe that East Dunbartonshire Council are in default of their statutory duties under the Disability Discrimination Act 2005 by not requiring the developer to submit an Access Statement.

7. We have raised some of these issues in our Hearing Statement on the Design but they are also relevant to discussion of the transport issues. We would also stress that had an Access statement formed part of the Design Statement, many of the following issues would have been unlikely to arise.
8. PAN 68 on Design Statements contains a useful checklist of the points to be considered in the planning of a development. This refers in particular to the need to consider areas of vehicular/pedestrian conflict; use of traffic measures, servicing areas and disabled access.
9. In this respect, the proposed Woodburn Way crossing would be of benefit to some customers. Other pedestrian links would, however, be worse. For example access from the station would require the crossing of busy access roads whereas at present pedestrians cross the little used service access.
10. The 2009 Assessment makes much of provision for cyclists visiting the store. However, the through pedestrian and cycle routes linking the West Highland Way and the town centre to the Allander Way and Lennox Park will be adversely affected by the development. Routes become less direct and involve crossing busy access roads. This deterioration in provision has to be set against the policy of the Council as expressed in Local Plan Policy TRANS 2 which states: "the Council will take a lead role with partner agencies in developing and improving the off road access network and in particular the following strategic off-road routes: (e) the Allander Walkway, upgraded for cyclists as well as pedestrians."
11. Not only is there no taxi rank on site but there is no provision for dial a ride (MyBus) within the site. Both are vital for access by many disabled people.
12. There is no indication of how vehicle drivers are expected to use the recycling area and cars seeking to enter or leave the lay-by seem likely to interfere with the general circulation of traffic to the detriment of safety and capacity. Indeed, one of the good features of the existing store is the separation of servicing and recycling traffic from the main customer parking traffic. With the proposed store, servicing traffic entering the store would turn right across exiting customer traffic and it would have to overrun the centre of the proposed mini roundabout in Gavin's Mill Road. We therefore foresee queuing in Gavin's Mill Road blocking back on to Woodburn Way.
13. In the Design Statement we note that the Client Brief appears to be based on the twin concept of a store needing to be updated and that the "current car park operates at or close to capacity on a regular basis and Tesco believe that a long term solution is required which provides a modern store with sufficient parking." There is no reference in the Design Statement to the role of the parking supply in servicing more general town centre needs.
14. The parking supply figure of 568 spaces appears to be plucked from the air. It bears no relation to national or local plan guidance. It is not related to an analysis of anticipated arrivals and departures nor is there any indication of how the proposed supply would assist access to the town centre.

15. The 568 spaces proposed are divided into three separate car parks. Two of the car parks have a single access and exit. The third has no less than 6 accesses all directly off a two-way road. How is the use of the parking to be managed? What happens when one area is full? Indecision for drivers will affect safety and capacity. Indeed the whole internal road arrangements seem poor with too many potential vehicle/pedestrian and vehicle/vehicle conflicts and decision points for drivers.
16. Why are the Blue Badge spaces and Parent and Toddler spaces divided between two areas? None of these is at the level of the store. Where is the parking for Gavin's Mill? Will the parking spaces be the desirable size recommended in Scottish planning guidance - that is 2.5m x 5m. Many drivers find the minimal 2.4m x 4.8m spaces too narrow and this puts extra pressure on the limited supply of wider Blue Badge and Parent and Toddler spaces.
17. The new bus stop could be of some benefit for the west end of the town centre but it should be stressed that the bus routes serving much of Milngavie and Bearsden (First Glasgow services 109/119/9X and 19X) do not travel along Woodburn Way and therefore do not pass the Tesco site. Justification of expected access by bus is critical to any Travel Plan.

### **Person Trip Assessment and Trip Generation**

18. We note the on going discussion between the appellants and the Council regarding this matter which is critical to the whole transport assessment. However, just as critically, we are concerned at what appears to be a lack of robust analysis regarding seasonal effects, different days of the week and different times of the day. For example, the existing Tesco car park is known to be full at times other than the Saturday midday identified. This has implications for the safe operation of junctions on the adjacent road network.
19. The need for a Travel Plan is stressed in the guide to Transport Assessment and Implementation. We are astonished that the Council should apparently be prepared to accept one six months after the date of opening and effectively restricted to consideration of employees only. We believe there is a need for a Travel Plan with identified modal split targets as an integral part of the proposals to justify the provision for travel by each mode.

### **Traffic Impact**

20. The traffic data on which the 2009 Assessment is based appears to date from May 2007. It was then factored using Scottish Government "low traffic growth" predictions to arrive at the notional 2011 (year of opening) figure. We have to question why May and how do we know that the measured figures were typical of that month? We would normally have expected any turning volume counts to have been supplemented by the deployment of automatic traffic counters on Gavin's Mill Road and at key points on the local road network to check for variations over a period of at least 4 weeks around the survey dates.

21. The same considerations apply to the latest Cumulative Network Assessment which is based on a similar limited two day turning volume survey conducted in early November 2010. Why was there no consideration of traffic at other times of the year? The new analysis does at least make some allowance for traffic generated by other development but we are concerned that we are now invited to believe that there has been a reduction in traffic since 2007 solely on the basis of two spot counts taken at different times of the year.
22. One aspect that is unaffected by any argument regarding percentages is the number of vehicles actually going into or out of Gavin's Mill Road. It seems that currently some 442 vehicles enter the site in the Friday peak hour (387 on Saturday) and 437 exit (472 on Saturday). Although the retail floor area would more than double, the number of vehicles expected to enter/leave during the peak hour is projected to increase by less than 50%. This needs further justification.

### Traffic Modelling

23. The consultants have used the computer program TRANSYT to model the capacity of the junctions along Station Road/Woodburn Way. While properly used in the correct context, TRANSYT is a very effective model (it is good for calculating traffic signal settings for a system of linked traffic signal controlled junctions) it is less effective where some junctions are uncontrolled as at Buchanan Street and Fulton Way and particularly where these junctions are in close proximity to each other. The Planning guide on Transport Assessment and Implementation refers to the use of micro-simulation traffic modelling techniques and we believe that programs such as PARAMICS and VSSM would give a better understanding of the complex patterns of movement and of the many transient effects when there are frequent uncontrolled junctions and bus stops. Indeed a single microsimulation model could have dealt with all the other junctions that have instead been modelled using various different means.
24. The consultants argue that because they have "calibrated" their TRANSYT model of the existing situation such that it indicates queues similar to those that they have measured, this validates the model. The first page of the TRANSYT output, however, carries the following message from the developers of the program: "The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution."
25. It is too easy to argue that because the answers look right, it must be right. We will demonstrate that the model is flawed in terms of the parameters that have been used and the manner in which it has been used. It is also worth stressing that the queues listed in the TRANSYT output are average queues and they may be much longer on certain signal cycles. TRANSYT is not very useful for modelling transient effects. As residents of Milngavie we know that the queues at the junctions on Woodburn Way and Station Road during the evening peak and at weekends are often much, much longer than the queues claimed by the consultants and this has a knock-on adverse impact on the capacity of adjacent junctions.

26. We are concerned that having decided to use TRANSYT, the consultants have modelled some junctions but not the access to the busy Marks & Spencer car park. Yet one of the conditions that the Council seeks to attach to the development is a requirement for changes to the arrangements at this junction. There is probably more traffic going in and out of this car park during much of the day than uses the Buchanan Street or Fulton Way junctions and traffic often queues on Woodburn Way. Any increase in TESCO traffic will exacerbate the situation and there is no way of knowing if the proposed mediation measures will be adequate or even appropriate if the junction is not included in the modelling.
27. The new pedestrian crossing proposed by the appellants for Woodburn Way will have a significant effect on traffic movement. In the recent Cumulative Network Assessment, the consultants acknowledge that traffic could be delayed by 50 seconds at the crossing each time the “green man” was called and yet for some inexplicable reason, this was not included in any of the modelling. We anticipate that pedestrian demand would be high and we would expect this facility to double cycle to minimise the delay to pedestrians.
28. Even the proposed new bus stop will have a significant effect whenever a bus stops since it reduces the capacity of the road by half. This is something which, again, a microsimulation model could have accommodated.
29. TRANSYT is critically dependent on the parameters that are used (particularly the saturation factors) and the way that links (the approaches to stop lines) and nodes (such as junctions) are modelled. The saturation flow for a link is expressed in passenger car units per hour (pcu/hr) and is essentially the flow that the link could accommodate were it to run non-stop. The two main factors affecting this notional capacity are the width of the approach and whether it involves turning movements. A typical single lane approach to a junction would have a capacity of 1800-2000 pcu/hr whereas a single lane where all traffic has to negotiate a right angle turn after crossing the stop line would have a reduced capacity of typically around 1600 pcus.
30. In the case of the latest Cumulative Network Assessment (Figure 4), the links associated with dedicated turning movements are 14, 21, 24, 25, 26, 34, and 71. The saturation flows associated with these links are 1641, 1983, 1694, 1720, 1790, 1689 and 1700 pcu/hr respectively. Some of these values seem high and the value for link 21 in particular seems improbable. The capacity of links 71 and 72 on Strathblane Road are also unrealistic. Although two lanes are modelled, these are very narrow and a bus waiting to turn right from link 71 will block link 72.
31. Probably the most serious flaw in the link capacity modelling applies to the eastbound Woodburn Way approach to the Gavin’s Mill Junction. In the Observed and Base model (Figure 2), this is modelled as two links with the dedicated right turn lane giving access to Tesco as a separate link 36. In the model with the new Tesco, link 36 is eliminated in favour of a super size link 35. This is plainly poor modelling. Although the signal phasing has been changed to give separate stages for east and westbound traffic, the access to Tesco is still from a single dedicated lane. Diagram 12A shows that on Friday/Saturday, 330/351 vehicles turn right compared with

558/483 going straight ahead or left from the other two lanes (that flare out to three lanes at the stopline). The net effect is to underestimate the effect on the capacity of the junction. The approach must still be modelled as two separate links if the results are to have any credible meaning.

32. It also has to be noted that the modelling has been based on a scenario where the existing “all red” pedestrian crossing phase has been eliminated (on the basis according to the Supplementary Road Network Analysis “to better reflect the level of usage”). With the new Tesco in its proposed site, we would suggest the usage is likely to be much higher than at present and the junction should be modelled on the basis that the pedestrian crossing is called each cycle. This will have a significant adverse impact on the capacity of the junction.
33. The above should give an idea of our concerns at the inadequacy of the modelling which we believe is seriously flawed and misleading. It is therefore nonsense to suggest that there would be “no net detriment.” There will be detriment for motorists outwith peak hours as a result of that change of the phasing of the Gavin’s Mill Road traffic lights and there will certainly be detriment for pedestrians since the proposed cycle time of 120 seconds is much longer than that which prevails at present at the Station Road pedestrian crossing and at the Gavin’s Mill Road junction. This means that pedestrians will have to wait much longer between “green man” crossing phases.

## In Conclusion

34. When the deficiencies in the modelling are combined with the lack of an Access Statement and basic errors in the layout drawings, we believe that Tesco and their consultants have far from demonstrated that the proposed development can be accommodated in terms of the impact on local transport networks for those on foot, or who seek to travel by bus, taxi or by car.

## List of Documents

Scottish Planning Policy 2010  
PAN 68 Design Statements, Scottish Executive, 2003  
PAN 78 Inclusive Design, Scottish Executive, 2006  
Transport Assessment and Implementation Guide, Scottish Executive, 2005  
Planning, Building, Streets and Disability Equality, Disability Rights Commission, 2005  
East Dunbartonshire Local Plan, East Dunbartonshire Council

Design Statement, Ian Burke and Associates  
Layout Drawings, Ian Burke and Associates  
Transport Assessment dated 14 July 2009, Arup Scotland  
Supplementary Road Network Analysis dated 15 March 2010, Arup Scotland  
Cumulative Network Assessment dated 22 November 2010, Arup Scotland  
East Dunbartonshire Council Planning Board Report, 13 April 2010

## **Witnesses**

Grahame Lawson has 36 years local authority experience in the field of transportation and is a Fellow of the Chartered Institution of Highways and Transportation. From 1996 to 2004, he was Head of Planning, Transportation and Building Standards in North Lanarkshire Council. Prior to this, he was with Strathclyde Regional Council for 21 years, latterly as Chief Engineer in charge of transport planning and all transport modelling. He was intimately involved in the development of the use of the Transyt computer program in the early 1970s and used Transyt throughout his professional career. For the last 14 years he has been an adviser to Government on transport issues as they relate to the interests of disabled people. He has been a resident of Milngavie since 1975.

Peter Swinson BSc MSc MRTPI. His two degrees cover Geography and Economics and Urban and Regional Planning respectively. He has been a resident of Milngavie for 30 years. He worked as a town planner in his early career and then for 23 years as a social and economic development professional for the Scottish Development Agency and Scottish Enterprise, rising to Senior Director. For the past 12 years he has run his own economic development consultancy business, primarily in Eastern Europe.