1.5.17 Where possible, the bus services would be scheduled to link with the times of trains at Aviemore railway station. Notice boards showing bus and train timetables should be displayed prominently at key points throughout the development and especially at bus stops.

1.5.18 As in the case of cyclists, consideration should be given to offering incentives to new residents to allow them to purchase bus season tickets. By offering such positive encouragement from the outset, it would be hoped that as many people as possible would make use of the public transport services.

1.5.19 Taken together, these measures to promote walking, cycling and public transport should provide both encouragement and opportunity for residents to make use of sustainable transport from the outset of the development.

Minimising car-parking provision

1.5.20 Scottish Planning Policy 17 (SPP 17) sets the maximum parking provision allowed for different types of development. Residential development is specifically excluded from any requirement to minimise car parking provision but the other uses within the development are not. The proposed development would comply with the Highland Council guidelines and, in doing so, would not exceed the maximum provision allowed under SPP 17.

Facilities for the disabled

1.5.21 There would be parking spaces for use by disabled badge holders located adjacent to the main entrance points to all of the public buildings, retail and commercial units, the hotel, and the leisure facilities.

Monitoring

1.5.22 It is proposed that the modal split of each of the individual elements of the development should be monitored 12 months after the completion of the development and, thereafter, on an annual basis for a period of five years.

1.5.23 This would ensure that all movements were considered in the monitoring exercise and would provide a comparable basis to that used in the 2001 census, thus making valid the assessment of modal split.

1.6 Person Trip Generation, Modal Choice and Person Trip Distribution

Person trip data

1.6.1 In order to predict how people would move to, from and within the proposed development, the TRICS multi-modal trip rate database was interrogated. The current version was used.

1.6.2 Trip rates were extracted for each of the proposed uses – residential, hotel, primary school, nursing home, shops etc, and other commercial / offices. Where possible, data from multi-modal surveys were extracted to allow predictions to be made of walking, cycling and public transport trips as well as

those by vehicular modes. Copies of the extracted data are included in Appendix 1 to this Transport Assessment.

1.6.3 These trip rates were used to predict the total daily movements as well as the peak hour movements. The peak hour trips were then distributed onto the road network to establish the extent of any changes in the traffic flows on the network.

Daily Travel Characteristics

1.6.4 From the output of the TRICS database, figures for the expected number of journeys to and from each element of the development per day were derived. These figures include journeys by all means including walking, cycling and public transport.

1.6.5 According to TRICS, the number of weekday (7am to 7pm) person-trips generated by the housing elements of An Camas Mòr in its fully developed stage would be 7340. The trip making pattern of housing developments is typically at its highest on weekdays during school terms. Such figures were used in these analyses.

1.6.6 The equivalent figures from TRICS for the number of person-trips generated by a hotel with 40 employees (approximates to 60 bedrooms) would be 690 over the twelve-hour period between 7am and 7pm. It is acknowledged that the 'bar' element of the hotel may well generate its peak patronage later in the evening but these 'bar- peak' movements would have no effect during the working day or during its peak hours.

1.6.7 The primary school would also generate one of its daily peak flows, the afternoon peak, well before the evening peak hour for general person trips and would have virtually no effect during that time. Over the 12-hour day, a primary school with 40 employees would generate a total of 1305 person trips.

1.6.8 The number of person trips predicted to be generated by the nursing home throughout the 12 hour working day is 298 based on it being of a size compatible with 40 employees.

1.6.9 The local shopping element of the development would be of approximately 1800 sqm in gross floor area. According to the TRICS database, this would generate a total of 4420 person trips during the 7am to 7pm time period.

1.6.10 The commercial, studio and offices elements of the development were taken as an office development since this is the most onerous use within the general description 'commercial'. TRICS shows that this would lead to a total weekday (7am to 7pm) person-trip generation of 838 people-movements.

1.6.11 When the person-trip totals from all the development components were added together, the total, based on the TRICS database was found to be 14891 person-trips per weekday (7am – 7 pm).

Peak Hour Travel Characteristics

1.6.12 The TRICS database also provided information as to the peak hour person-trip movements (see Appendix 1). These are predicted to be as shown in table 1.1 below.

Table 1.1 – Peak hour (8am – 9am and 5pm – 6pm) Person-trip movements within, to and from the Proposed Community (see paragraph 1.6.13)

	AM IN	AM OUT	AM TOTAL	PM IN	PM OUT	PM TOTAL
Residential	192	763	954	562	299	861
Hotel	15	33	48	33	18	51
Primary school	353	70	423	7	15	22
Nursing home	7	2	9	8	10	18
Shops etc	206	191	396	183	182	365
Studios / Offices	90	8	98	8	75	83

1.6.13 It should be noted that the person-trip movements shown in Table 1.1 are the figures for each land-use on a 'stand-alone' basis. In reality, some of the residential trips 'OUT' in the morning peak hour may also appear in the table as, for example, trips 'IN' at the primary school, the shops or the studios / offices.

Modal Split

1.6.14 This section describes how journeys will be made (excluding freight) to and from the site. Modal split information was extracted from the TRICS database for each of the land-use components of the development. This is shown both in tabular form by mode and as a 'all-day' 'pie charts' in Appendix 1. This information is summarised in table 1.2 below.

1.6.15 The sites surveyed within the TRICS database have varied 'travel plan effectiveness'. Some have no travel plan, others have fairly sophisticated plans in operation. As a result, the TRICS figures represent 'average' figures. For a totally new site, such as An Camas Mòr, where it is intended, from the outset to implement an effective travel plan, the modal split should be much more biased towards sustainable transport than the TRICS figures would suggest.

Table 1.2 – Daily Person-trip Totals by Mode of Travel, by Development Land-use and Modal Split Percentages of Daily Total for each Land-use

	VEHICLE OCCUPANTS	PUBLIC TRANSPORT	PEDESTRIANS	CYCLISTS
Residential	5777 – 78.7%	177 ------ 2.4%	1074 ---- 14.6%	311 – 4.2%
Hotel	382 – 55.4%	59 ------ 8.6%	250 ---- 36.2%	3 – 0.4%
Primary school	524 – 40.2%	96 ------ 7.4%	683 ---- 52.3%	2 – 0.2%
Nursing home	207 – 69.5%	29 ------ 9.7%	58 ---- 19.5%	4 - 1.3%
Shops	2716 – 61.4%	34 ------ 0.8%	1619 ---- 36.6%	51 - 1.2%
Studios / Offices	523 – 62.4%	70 ------ 8.4%	236 ---- 28.2%	9 - 1.1%
Totals / Modal Split percentages	10129 – 68.0%	465 ------ 3.1%	3920 ---- 26.3%	380 – 2.6%

Person Trip Distribution

1.6.16 To establish where the residents of the proposed development would be likely to work or study, the results of the 2001 national census were examined as they applied to Aviemore. These are summarised in section 1.3. Of particular relevance to the likely trip distribution pattern is census table UV36 – "Distance travelled to place of work or study (Scotland)".

1.6.17 This table indicates that, of the 2397 people who were resident in Aviemore in 2001, 676 were not currently working or studying. Additionally, 142 worked or studied mainly from home, 8 worked outside the UK and 12 worked at an offshore installation.

1.6.18 The remaining 1559 people travelled from home to a place of work or study. As such, they are the equivalent of the person-trip figures derived from the TRICS database.

Table 1.3 – Person-trips for Aviemore from 2001 Census by Distance Travelled to Place of Work or Study (census categories adjusted to correspond to TRICS database)

DISTANCE FROM HOME	NUMBER OF TRIPS	PERCENTAGES OF TOTAL	MODIFIED PERCENTAGES
Less than 2km	821	52.66	57.13
2km – 5km	52	3.34	3.62
5km – 10km	95	6.09	6.61
10km – 20km	215	13.79	14.96
20km – 40km	121	7.76	8.42
More than 40km	133	8.53	9.26
No fixed place	122	7.83	0
Total	1559	100.00	100.00

NB – The trips to 'No fixed place of work or study' were re-apportioned to the other distance categories on a pro rata basis. This gave the 'Modified percentages' shown in the table.

1.6.19 The figures in Table 1.3 indicate that, at the time of the 2001 census, more than half (57.13%) of all journeys made by Aviemore residents to work or study were less than 2 kilometres (or one and a quarter miles) in length. At the other end of the scale, 17.68% of all journeys to work or study were more than 20 kilometres (12.4 miles) in length.

1.6.20 The 'modified percentages' from Table 1.3 were applied to the numbers of person-trips that were predicted by the TRICS database to be generated by the residential component of the proposed development (Table 6.1 above). This provided an indication of the distances that the occupiers of the residential elements of the new community would travel to work or study. This produced the numbers shown in Table 1.4 below

Table 1.4 – Peak Hour Person-trip Movements for Proposed Residential Element (1500 units) at An Camas More by Distance Travelled to Place of Work or Study

DISTANCE FROM HOME	MODIFIED %AGES	AM IN	AM OUT	PM IN	PM OUT
Less than 2km	57.13	110	436	321	171
2km – 5km	3.62	7	28	20	11
5km – 10km	6.61	13	50	37	20
10km – 20km	14.96	29	114	84	45
20km – 40km	8.42	16	64	47	25
More than 40km	9.26	18	71	52	28
Total	100.00	192	763	562	299

*** All figures in the table were rounded to the nearest whole number. Accordingly, the totals in this table may appear to be incorrect but correspond with the control totals from Table 6.1 above.**

1.6.21 Thus, of the total of 763 people leaving the residential elements of the development during the morning peak hour, 436 would travel less than 2 kilometres and a further 27 would travel between 2 and 5 kilometres. These figures indicate that more than 60% of all people (both adults and children) leaving the residential elements of the development in the morning peak hour would be travelling within An Camus Mòr and Aviemore.

1.7 Road Traffic Generation, Distribution, Assignment and Impact Assessment - 2028

Introduction

1.7.1 This chapter of the report deals with estimates of the additional vehicular trips that will result from the proposed development and their distribution on the surrounding road network. From these figures, a series of traffic calculations was carried out to assess the capability of the existing road network to accommodate the likely traffic flows. Where appropriate, these results were then compared with the corresponding results of the 'without development' calculations. This comparison gave a measure of the traffic impact of the development.

Base Traffic Flows

1.7.1 The existing traffic flows in the area around the site were surveyed on behalf of Munro Consultants by two separate firms of survey contractors, Count On Us and PMA Data Collection Ltd. The results of these surveys are given in Appendix 2 and are summarised, diagrammatically, in Appendix 3.

Design Year

1.7.2 It is suggested in the Transport Assessment and Implementation Guide that any proposal should be examined for the traffic conditions pertaining one year after the opening or completion of the proposed development. If planning consent is granted during 2009, the development would be completed during