TECHNICAL NOTE

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Project No:	**ITB7205**
Project Title:	**Pylands Lane, Bursledon and North East Boorley Green**
Title:	**Transport Assessment Addendum** **Technical Note 4 – North East Boorley Green – Trip Rates**
Ref:	**MG/ITB7205-015 TN 4**
Date:	**7 December 2012**

1 Introduction

1.1 This note should be read in conjunction with the transport assessment (report ref ITB7205-009B).

1.2 Officers at Hampshire County Council have requested further information relating to the trip rates used for some of the proposed land uses at the North East Boorley Green development, namely:

- Residential;
- Assisted living / extra care; and
- Employment.

1.3 It is worth noting that the Highways Agency is satisfied that all the trip rates used in the transport assessment are robust.

2 Residential Trip Generation

2.1 As set out in the transport assessment, survey data for privately owned housing developments has been used to assess the traffic generation of the proposed residential development. This does not take account of any affordable homes or apartments some of which are likely to be provided and which normally exhibit lower trip rates that private housing.

2.2 By way of comparison, in April 2012, Sherfield Park (a residential development north of Basingstoke / Chineham and comparable to the Boorley Green site but with no other facilities other than a community centre) was surveyed. The traffic flows are summarised in Table 2.1 below.

Table 2.1 Sherfield Park (Basingstoke) Traffic Flows April 2012 (699 occupied dwellings)

Time	Traffic Flows – All Vehicles		
	Arr	Dep	Total
Weekday AM Peak Hour	58	323	**381**
Weekday PM Peak Hour	254	92	**346**

Source: Consultant

2.3 The Sherfield Park trip rates (based on 699 occupied dwellings) are summarised in Table 2.2 below.

Table 2.2: Vehicular Trip Rates - Sherfield Park

Time	Trip Rate (per dwelling)		
	Arr	Dep	Total
Weekday AM Peak Hour	0.083	0.462	**0.545**
Weekday PM Peak Hour	0.363	0.132	**0.495**

Source: Traffic surveys

2.4 The trip rates used in the transport assessment for Boorley Green are summarised in Table 2.3 below. It can be seen that the Boorley Green trip rates are between 2% and 24% higher than the observed Sherfield Park trip rates.

Table 2.3: Vehicular Trip Rates (Garden Gate) – Houses Privately Owned

Time	Trip Rate (per dwelling)		
	Arr	Dep	Total
Weekday AM Peak Hour	0.152	0.405	**0.557**
Weekday PM Peak Hour	0.382	0.233	**0.615**

Source: TRICS

2.5 It is also worth noting that the North East Boorley Green trip rates make no allowance for any modal shift as a result of the travel plan, although there is a target of 10 percentage points modal shift in the framework travel plan.

2.6 The transport assessment assumed that some 7.5% of residential trip generation would be internal within the site and thus not impacting on the existing external highway network to the site.

2.7 In addition to the primary school, there is employment, a nursery, a small foodstore and leisure / recreation facilities on site. In terms of understanding the potential for the internalisation of journeys, it is useful to consider the start time by journey purpose of car drivers (National Travel Survey 2006 / 10) and this is summarised in Table 2.4 below.

Table 2.4: Vehicular Trip Rates (Garden Gate) – Houses Privately Owned

	AM Peak	PM Peak
Commuting / Business	44%	47%
Education	1%	0%
Escort Education	22%	2%
Shopping	5%	12%
Other personal business	22%	23%
Social / Entertainment	4%	14%
Other	2%	2%
Total	100%	100%

2.8 There is a direct use on the site for many of the above journey purposes and it is considered realistic for at least 7.5% of car driver trips to be contained on site. For example, in the PM peak if only one third of those shopping or on social / entertainment trips were internal (and this excludes any employment internalisation) this would be 8.6% internal and a higher level of internalisation than assumed in the transport assessment.

2.9 Having regard to the above analysis, it is considered that the residential trip rates and level of internalisation of trips used in the transport assessment is robust.

3 Extra Care / Assisted Living Trip Generation

3.1 The trip rates identified for the extra care / assisted living accommodation have been derived from transport assessments undertaken for McCarthy and Stone in Burgess Hill, Basingstoke and Eastleigh. The trip rates are based upon surveys undertaken in 2006 and 2007 at six existing Assisted Living Developments run by McCarthy and Stone. The Basingstoke transport assessment is provided in Appendix A (the relevant surveys are discussed in section 4.6 of that document).

3.2 The trip rates do not allow for any internalisation of journeys or modal shift as a result of the travel plan.

3.3 The trip rates used for the extra care / assisted living accommodation are therefore robust.

4 Employment Trip Generation

4.1 The notional 5% internalisation of employment trips is considered acceptable for the following reasons:

- No allowance has been made for any modal shift as a result of the travel plan, although there is a target of 10 percentage points modal shift in the framework travel plan;

- An analysis of 2001 Census data shows that that some 28% of workers in Botley ward also live in Botley ward suggesting that there is already a propensity for working and living locally; and

- The trips will also include administration staff, cleaners, maintenance etc which often attract a local labour force.

4.2 The 5% internalisation of employment journeys is therefore robust.

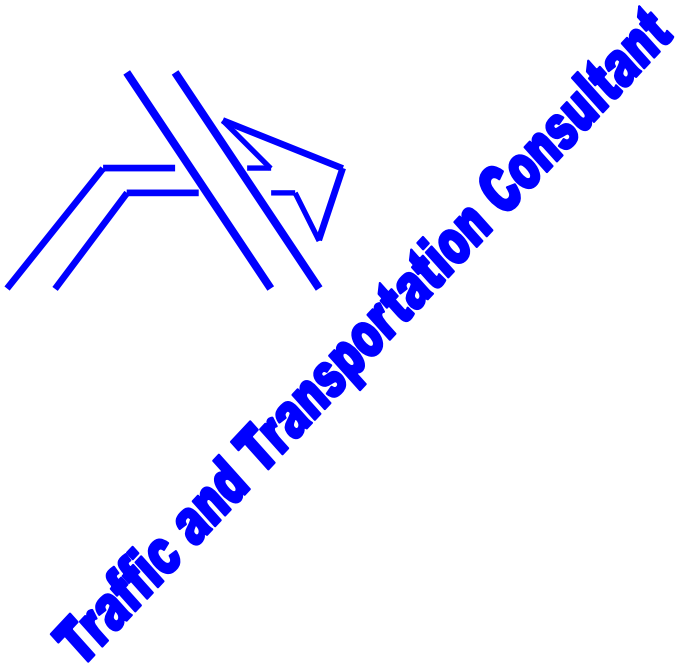
5 Conclusions

5.1 In conclusion, the trip generation and resultant traffic generation distribution and assignment exercise contained in the transport assessment is robust.

APPENDIX A

McCarthy and Stone
Basingstoke Transport
Assessment

Dr Allan J Burns



PROPOSED RETIREMENT HOUSING DEVELOPMENT

BY

MCCARTHY AND STONE DEVELOPMENTS LIMITED

SITE AT NEW ROAD/SOUTHERN ROAD, BASINGSTOKE

REPORT ON TRANSPORT CONSIDERATIONS

MAY 2010

This report has been prepared by :-

Dr. Allan James Burns

Qualifications:-

B.Sc. Hons	(Civil Engineering - University of Wales)
M.Sc.	(Transportation Planning and Traffic Engineering - Southampton University)
Ph.D	(University of Southampton – thesis subject "Transport and Related Characteristics of the Residents of Private Category II Sheltered Housing for the Elderly")

Chartered Engineer

Member of the Institution of Civil Engineers

Member of the Institution of Highways and Transportation

Experience:-

Fifteen years (1970 to 1985) in the Transportation Section of the County Surveyor's Department of Hampshire County Council, the last 11 years as team leader responsible for the transport input to all local plans throughout Hampshire. Evidence was presented at a number of local plan inquiries, and advice and evidence given on planning appeals.

From 1985 to present day, independent traffic and transportation consultant working on a wide variety of development proposals, including housing, retirement housing, employment uses, leisure facilities, shopping, public houses, mineral extraction and car boot sales.

Since 1985 - visiting lecturer at Southampton University on aspects of Transportation at both undergraduate and postgraduate levels.

Advising McCarthy and Stone on transport and car parking issues for some 20 years.

1. Introduction

1.1 This report has been prepared at the request of the Planning Bureau. It considers a proposed retirement housing development on land between New Road and Southern Road, Basingstoke.

1.2 The proposed development is made up of two components. The largest of these is a development of 63 Assisted Living Extra Care apartments, which will be accessed from New Road. There would also be a development of 34 Category II Type Retirement Housing units, accessed from Southern Road.

1.3 The report considers the likely traffic generation of this proposal and also addresses the issue of car parking.

2. The Characteristics of Retirement Housing for the Elderly

2.1 The likely traffic generation and car parking requirements can best be understood if one has a proper understanding of the nature and transport characteristics of the residents of this form of housing. A number of major surveys have been undertaken involving McCarthy and Stone and these have provided the information given in this section of this report.

2.2 McCarthy and Stone has unrivalled experience in developing retirement housing for the elderly, having implemented well over 900 Category II developments throughout England, Scotland and Wales. The company also retains an on-going interest in the operation of these developments. Assisted Living Extra Care developments are a relatively new product and so the experience here is more limited.

Category II Type Retirement Housing for the Elderly

2.3 This has been defined as:-

"grouped flatlets to meet the needs of the less active elderly people"

2.4 The key wording here is "less active elderly people", although residents are not normally inactive. The communal facilities provided typically include a residents' lounge, where the residents can meet other residents or visitors, and can hold social events. There is normally a communal laundry facility. The apartments have a number of safety features including a "care line" alarm system, allowing the residents to call for assistance, if an emergency arises. A guest suite (en suite bedroom) is normally provided to allow visitors to stay overnight.

2.5 There is a house manager who looks after the communal areas and provides residents with general assistance as required. When he or she is on duty, the residents' alarm system would normally be connected through to the house manager. At other times it is linked to a central control, where the necessary assistance can be organised. It should be noted, however, that such developments are not nursing homes. The only "full time" member of staff is the house manager, who will not normally have any medical qualifications and who, in the event of illness or an accident, would only provide assistance as a non-qualified person, and who would summon qualified medical assistance. No restaurant facilities are provided within the development.

2.6 In line with the definition of Category II Type Retirement Housing for the elderly, the age of residents will normally be restricted such that they must be 60 years of age, or over, except that where a resident over the age of 60 has a partner of 55 years of age or over, this partner may also occupy an apartment. This is normally controlled by a planning condition or legal agreement, although it is also a standard clause in the resident's lease.

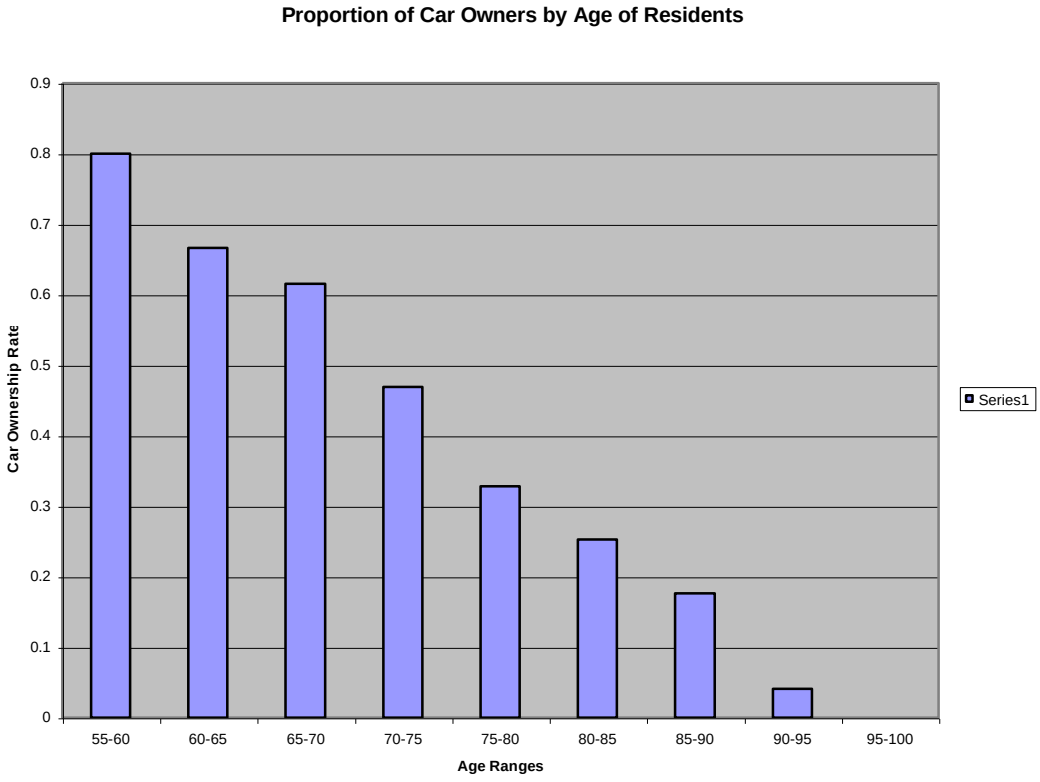
2.7 However, based on extensive survey work, undertaken in 1996, it was found that the average age of entry to McCarthy and Stone developments of this description was 75 years and 6 months, well above the minimum age restriction. It is believed that this reflects the fact that, in the majority of cases, elderly people do not want or need the facilities provided by this form of housing until they are well into their 70s.

2.8 Subsequent, albeit less exhaustive, research suggests that this average age of entry is rising and may now stand at approximately 78 to 79 years of age.

2.9 Clearly as time passes, the average age of residents in a development will tend to increase further, perhaps stabilising after many years when some of the original residents are no longer in occupation and have been replaced by younger people.

2.10 These age characteristics are important, when considering car ownership, as indicated in Figure 1, below. This data was obtained from a recent substantial survey of this form of housing. It gives the car ownership levels of various age groups of residents in Category II retirement housing. It shows that, where one of the residents in an apartment is between 55 and 60 years of age, the car ownership rate is likely to be in the order of 80%, but this steadily declines to zero car ownership for residents over the age of 95. The graph shows this significant decline as the ages of residents increase.

Figure 1. Car Ownership Levels by Age Group of Residents

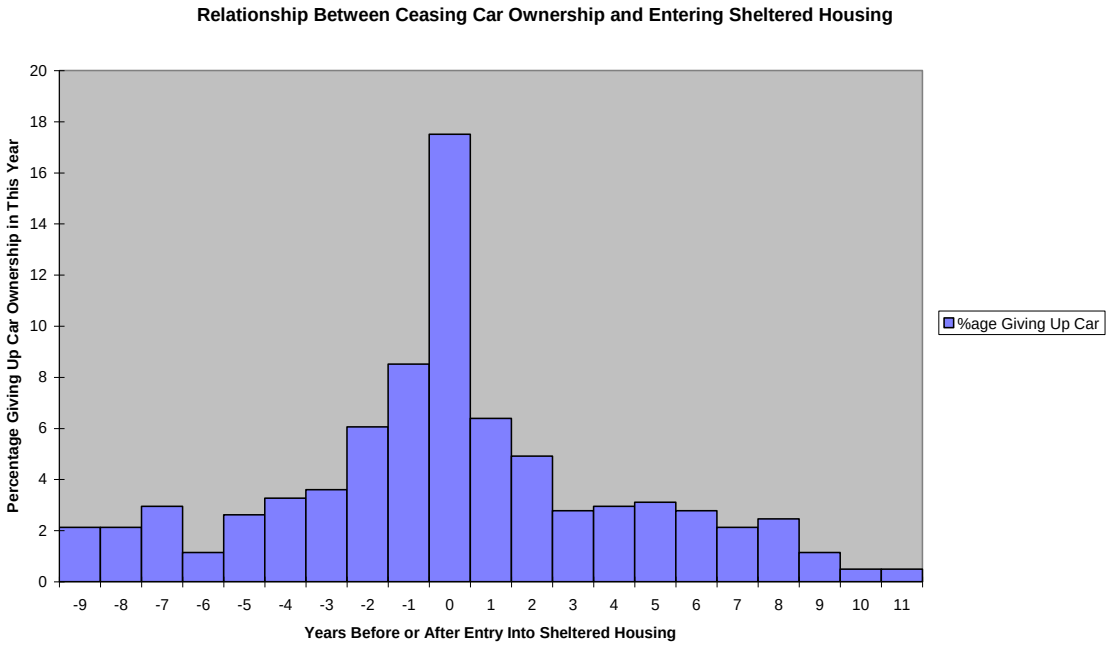


2.11 Given the age profile of residents, very few would be in the youngest age group and the majority will be over the age of 75 and so will have a relatively low car ownership level.

2.12 As indicated above, as the development becomes established, the average age of the residents increases. Figure 1 suggests that this would result in a decline in car ownership, and this is supported by results from other studies. **Consequently, car ownership levels, and the associated car parking requirements will tend to be highest in the early few years of the development, once all the apartments are sold. Car ownership and car parking demand will tend to fall over succeeding years.**

2.13 It has also been found that, of those residents who have given up car ownership, as the majority eventually will, some 18% did so in the same year that they entered this form of housing. The rate of giving up car ownership was also relatively high in the years immediately before and after entering this form of housing. This is illustrated in Figure 2, below. This indicates that the decision to move into this form of housing may well represent a lifestyle change, which, for many, includes the decision to give up the car.

Figure 2.



Note- 16.7% of gave up car ownership 10 or more years before entry and 3.7% did so 12 or more years after.

2.14 Two further factors influence car ownership. The first is the low occupancy of apartments, with an average of about 1.19 persons per apartment. The second is the gender of the residents. Typically, 75% of residents are female. There is a tendency for women to have a lower car ownership than men and to give up car ownership at an earlier age. Indeed a report on the findings of the latest National Travel Survey (*Barbara Noble – Travel Characteristics of Older People – 2000*) indicates that *" three quarters of women aged 80 and over live in households without a car."* This applies to women in the community as a whole and those that have moved into retirement housing are likely to have an even lower car ownership level.

2.15 Surveys have also shown the reasons why residents choose to enter this form of housing. The most frequently referred to reason was "security", with 53% of residents giving this reason. Other important reasons were "previous house/garden unsuitable" 43%, "nearer to family" 35%, "death of spouse" 27%, "health reasons" 25% and "companionship" 24%.

2.16 These reasons tend to show the nature of the lifestyle change being sought and the need for security is very important in the design of the development. For example, it indicates why vehicular accesses to such developments would not normally be adopted.

Assisted Living Extra Care Retirement Housing for the Elderly

2.17 Assisted Living Extra Care is a relatively new concept in retirement housing for the elderly. This form of development caters for the even less active, or "frail" elderly.

2.18 This is a form of housing pioneered by McCarthy and Stone. Assisted Living developments are designed to meet the needs of the elderly who require an element of support to allow them to live a relatively independent life. As with Category II housing, it consists of individual apartments for the residents with a number of communal facilities. There is a residents' lounge, where residents can relax and socialise with other residents and/or visitors. There is also a communal laundry and a guest suite (one en-suite bedroom) where friends or relatives can stay when visiting a resident.

2.19 In this form of retirement housing there is an increased provision for the residents. There is an estate manager, similar to a house manager, on duty 24 hours per day (using a shift system) to provide support for the resident, as required. There is also a dining room where residents can purchase a hot lunch every day of the week, if they care to do so. Other pre-prepared meals may also be purchased. Consequently, there is a chef in place over the lunch and pre-lunch period, along with a waiter/waitress to serve the meals.

2.20 On a more individual basis, residents are provided with a basic domiciliary package. However, they can purchase additional flat cleaning services, if they feel a need for this. They can also purchase additional healthcare services. The overall service package available to residents will be tailored meet their individual needs and can change over time, as their needs may increase.

2.22 In line with the likely increased frailty and associated additional needs of the residents, the average age of entry is somewhat higher than in Category II housing. The recent survey shows an average age of entry of 81 years 11 months.

2.23 The occupancy of Assisted Living apartments is marginally higher than in Category II developments, but is still only 1.215 persons per apartment.

2.24 There is a higher proportion of male residents, possibly reflecting their need for the additional services provided in this form of housing. Some 69% of residents were found to be female and 31% male.

2.25 The main reasons for entering this form of housing were given as being *"previous dwelling being unsuitable", "health", "to be nearer family",* with *"death of spouse"* and *"increased security"* also being significant reasons.

3. Traffic Generation – Existing Uses

3.1 The site has been occupied by a car showroom and servicing facility, which is the authorised use of the site, as shown in photograph 1, below. As a very general guide, such a facility would be expected to generate, on average, some 16 vehicle movements per 100 sq metres gross floor area, including external sales areas.

Photograph no. 1

3.2 The morning peak hour (0800-0900) generation would be expected to be made up of some 14% of the daily inbound and 6% of the daily departing vehicle movements. The evening peak hour (1700-1800) generation would be expected to be made up of some 6% of the daily inbound and 11% of the daily departing vehicle movements.

3.3 The overall site area is approximately 7000 sq metres. Although there is little if any unused land within the site, I will assume, for the purposes of this report, that only 75% of the site is used "productively" and so would generate traffic, this would give a gross floor area of 5250 sq metres.

3.4 At an average generation of 16 vehicle movements per 100 sq metres, we get a likely vehicle generation of some 840 vehicle movements per day, i.e. 420 to the site and 420 from the site.

3.5 The two-way morning peak hour generation would be expected to be some 84 vehicle movements (59 inbound and 25 outbound) and in the evening peak hour generation would be 71 vehicle movements (25 inbound and 46 outbound).

4. Traffic Generation – Proposed Uses

Category II Type Retirement Housing

4.1 Detailed surveys at 18 comparable McCarthy and Stone developments to that proposed here have shown that the average traffic generation is 1.13 vehicle movements per 12 hour day (0700-1900) per elderly persons apartment. These surveys were undertaken between 1998 and 2003, with the majority being in 2000. The table below lists the developments surveyed.

Table 1 House Manager, Residents' and Visitor Trips

Development	**Town/City**	**House Manager Trips**	**Resident and Visitor Trips**
Fairview Court	Kingston Upon Thames	4	78
Diamond Court	Somerton – N Oxon	0	53
Grayrigge Court	Grange Over Sands – Cumbria	0	24
Homedee House	Chester	0	36
Albion Court	Northampton	0	56
Elphinstone Court	Kilmacolm – Scotland	2	96
Bourne Court	Caterham	0	24
Glendower Court [1]	Cardiff	6	195
Ailsa Craig View	Prestwick- Scotland	2	51
		Mean =1.55 Say 2	
Homegower House	Swansea	2[2]	142
Mumbles Bay Court	Swansea	2[2]	104
Haldenby Court	Swanland – Hull	2[2]	51[3]
Hometide House	Gosport	2[2]	38[4]
Homeryde House	Gosport	2[2]	23[4]
Homefort House	Gosport	2[2]	42[4]
Forest Dene Court	Sutton	2[2]	137
Redwood Court	Ewell	2[2]	18
Crosfield Court	Watford	2[2]	89[5]
	Totals	**32**	**1257**

Notes:- 1. Two House Managers 2. Estimated

3. Based on average of 5 weekday flows 4. Friday Count (survey included weekend)

5. Average of 3 weekdays

4.2 However, some more recent additional survey work has been undertaken at 4 similar developments in the south of England. These developments are shown in Table 2, below.

Table 2. Traffic Generation (Vehicle Movements per 12 hour day – 0700-1900)

Development	Date of Survey	No of Apartments	Vehicle Movements (12 Hr)	Generation per apartment
Charlwood Court Torquay	**Thurs 3 April 08**	**40**	**77**	**1.925**
Stevens Court, Winnersh	**Wednesday 2 April 08**	**34**	**67**	**1.971**
Homelawn House, Bexhill-on-Sea	**Tuesday 1 April 08**	**79**	**154**	**1.949**
Faregrove Court, Fareham	**Friday 4 April 08**	**48**	**49**	**1.021**
Totals		**201**	**347**	**1.726**

Note 1. – None of the observed vehicles were large commercial vehicles. There were a small number of light goods vehicles, minibuses and 1 ambulance.

4.3 It should be noted that the traffic generation at all of the 4 developments surveyed in 2008 were within the range of the results from the previous larger survey. Therefore there is no certainty that the generation has increased significantly, although the initial survey findings suggest that this may be the case. I will use the higher traffic generation estimate, at 1.726 vehicle movements per 12 hour day, in the following traffic generation assessment.

4.4 Using this generation rate, the proposal for 34 Category II retirement apartments would be expected to generate some 59 (say 60) vehicle movements per 12 hour day.

4.5 Based on the larger survey, it is possible to estimate a likely hourly split of this traffic generation. This is shown in Table 3, below. It can be seen that the likely generation is only 4 vehicle movements in the morning peak, 2 in and 2 out, in the normal morning peak hour (0800-0900). The generation in the evening peak would be likely to be identical, at 4 vehicle movements with 2 in and 2 out. This traffic would be use the Southern Road access.

Table 3. Distribution of Trips Throughout 12 Hour Day

Time	% of Arrivals	% of Departures	Tunbridge arrivals	Tunbridge Departures
0700-0800	**3.5**	**3.1**	**1**	**1**
0800-0900	**5.2**	**6.3**	**2**	**2**
0900-1000	**10.4**	**10.4**	**3**	**3**
1000-1100	**12.5**	**10.4**	**4**	**3**
1100-1200	**12.0**	**10.4**	**4**	**3**
1200-1300	**12.3**	**11.5**	**4**	**3**
1300-1400	**9.0**	**13.2**	**3**	**4**
1400-1500	**6.4**	**7.8**	**2**	**2**
1500-1600	**10.1**	**6.8**	**3**	**2**
1600-1700	**8.2**	**7.0**	**2**	**2**
1700-1800	**5.9**	**7.5**	**2**	**2**
1800-1900	**4.5**	**5.6**	**1**	**2**
Totals	**100**	**100**	**31**	**29**

Assisted Living Extra Care Apartments

4.6 Surveys have also been undertaken at six of the existing Assisted Living Developments. The results of the survey are shown in Table 4, below.

Table 4 Traffic Generation (Vehicle Movements per 12 hour day – 0700-1900)

Development	Date of Survey	No of Apartments	Vehicle Movements (12 Hr)	Generation per apartment
Llandudno	**Mon 24 July 06**	**66**	**82 (0)**	**1.24**
Chichester	**Fri 28 July 06**	**60**	**88 (0)**	**1.47**
Tonbridge	**Thur 29 Nov 07**	**53**	**158 (0)**	**2.98**
East Grinstead	**Wed 28 Nov 07**	**52**	**122 (0)***	**2.35**
Edenbridge	**Tues 27 Nov 07**	**52**	**60 (0)**	**1.15**
Redhill	**Mon 26 Nov 07**	**57**	**99 (0)**	**1.74**
Totals		**340**	**609 (0)**	**1.79**

The bracketed figure is the number of heavy goods vehicles recorded as visiting the development.

** At Easy Grinstead there was one vehicle visit to the site that was recorded as unauthorised parking, making up 2 vehicle movements. Some 22 visits (44 movements) involved off-site parking. There was no specific notification of any off-site parking for the other developments.*

4.7 Applying this average trip generation rate to the proposed development of 63 apartments, we obtain a likely traffic generation of 113 vehicle movements per 12 hour day, i.e. 57 in and 57 out.

4.8 Again, the survey data allows the hourly trip generation figurers to be estimated. The are shown in Table 5, below.

Table 5 Hourly Distribution of Vehicle Movements (Daytime 0700-1900)

Time Period	Arrivals%	Departures%	Basingstoke Arrivals	Basingstoke Departures
0700-0800	**5.1%**	**2.8%**	**3**	**2**
0800-0900	**5.1%**	**5.5%**	**3**	**3**
0900-1000	**11.3%**	**8.0%**	**6**	**5**
1000-1100	**9.6%**	**12.1%**	**5**	**7**
1100-1200	**7.8%**	**10.4%**	**4**	**6**
1200-1300	**12.3%**	**11.1%**	**7**	**6**
1300-1400	**8.2%**	**10.0%**	**5**	**6**
1400-1500	**10.2%**	**10.4%**	**6**	**6**
1500-1600	**8.9%**	**5.9%**	**5**	**3**
1600-1700	**10.6%**	**12.1%**	**6**	**7**
1700-1800	**7.8%**	**6.9%**	**4**	**4**
1800-1900	**3.1%**	**4.8%**	**2**	**3**
Totals	**100%**	**100%**	**56**	**58**

4.9 It can be seen that the generation of this development would be limited to 6 in the morning peak (3 in and 3 out) and 8 in the evening peak (4 in and 4 out). This traffic would be using the New Road access.

Overall Traffic Generation

4.10 The overall traffic generation of the proposed development is likely to be in the order of 173 vehicle movements per 12 hour day. However, these movements are split between New Road and Southern Road, with 113 likely to use the former and 60 the latter. As indicated above, the peak hour generation levels would be relatively low

4.11 It should be noted that the proposal would be likely to result in a very significant reduction in vehicle movements over a day, from some 840 to less than 200. It is clear, therefore, that such levels of generation would be unlikely to have any significant impact on the operation of the highway network adjacent to the site or further afield.

5. Access to and Accessibility of the Site

5.1 Both vehicular accesses to the application site have more than adequate visibility from points 2.4 metres back from the edge of the carriageway, measured along the centre lines of the proposed accesses. This is in line with the guidance in the Manual for Streets and also the approach adopted by Hampshire County Council, as Highway Authority. Indeed visibility is achieved from more than the 2.4 metres required at the New Road access. As both New Road and Southern Road are currently restricted to one-way operation, from east to west, visibility would only be required towards the east. However, good visibility is also available towards the west, which would allow for this current traffic direction arrangement to be changed in the future.

5.2 The traffic generation figures provided above show that the maximum impact of the proposal would be 7 vehicle movements per hour on any part of New Road and 4 vehicle movements per hour on any part of Southern Road. Clearly this is not significant and would not materially affect the operation of either road.

5.3 Southern Road is a residential road with traffic calming features. The proposed development is a residential one, with very low levels of traffic generation and no more servicing needs than any other residential use. An access to this Category II development is, therefore, wholly appropriate from this road.

5.4 New Road can readily accommodate the development that would generate slightly higher levels of commercial traffic. There would be no vehicular route through the overall site.

5.5 The site is also located close to town centre car parks, including one immediately to the west of the footway that runs along the western side of the site. This is shown in photograph no. 2, below.

Photograph no. 2

5.6 The site is well located for access to the shopping area at London Street/Winchester Street, Basingstoke. This road is pedestrianised and contains the post office, several banks, hairdressers and newsagents, amongst other services, and is a relatively short walk from the main shopping centre. Good pedestrian access is available, with a subway crossing under New Street being located adjacent to the western boundary of the site, as shown in photograph no. 3, below.

5.7 Residents will also have good access to public transport with the bus stop, with shelter, being located adjacent to the pedestrian subway, also as shown in photograph no. 3, below. The bus stop serves local services, which have a relatively high frequency.

Photograph no. 3.

5.8 For pedestrian who might not wish to use the subway, there is a signal controlled pedestrian crossing immediately to the east of the site, as shown in photograph no. 4, below.

Photograph no. 4

6. Car Parking – National and Local Guidance

6.1 Car ownership is very low in this form of housing. This allows a relatively low level of parking provision to be made, when compared with other forms of residential development. This is in line with the guidance in PPG 13. This includes the following comment:-

> *"Car parking also takes up a large amount of space in development, is costly to business and reduces density.* ***Reducing the amount of parking in new development (and in the expansion and change of use in existing development) is essential,*** *as part of a package of planning and transport measures, to promote sustainable travel choices."*

6.2 In addition, in paragraph 51, PPG 13 advises that authorities should:-

> ***"not require developers to provide more spaces than they themselves wish, other than in exceptional circumstances which might include for example where there are significant implications for road safety which cannot be resolved through the introduction or enforcement of on-street parking controls."***

There are clearly no exceptional circumstances here that would require increased provision.

6.3 PPS 3 states that:-

"Local planning Authorities should, with stakeholders and communities, develop residential parking policies for their areas, taking account of expected levels of car ownership, the importance of promoting good design and the need to use land efficiently".

However, there is no indication that this would negate the above guidance from PPG 13. Both sets of guidance should be taken into account.

6.4 Further guidance is provided in the Manual for Streets. This includes, in paragraphs 8.3.6 and 8.3.15:-

"Provision below demand can work successfully when adequate on-street parking controls are present and where it is possible for residents to reach day-to-day destinations, such as jobs, schools and shops, without the use of a car. This will normally be in town and city centres where there will be good public transport and places can be accessed easily on foot and by cycle. For residents who choose not to own a car, living in such an area may be an attractive proposition."

and

"In town centres and other locations with good accessibility by non-car modes, and where on-street parking is controlled, it is often appropriate to omit visitor car-parking spaces."

6.5 The local car parking standards for residential development is given in "Residential Parking Standards – Supplementary Planning Documents", which was published in July 2008. This guidance does allow for some flexibility. In paragraph 2.5 its states:-

"However, it is acknowledged that there will be exceptions where the anticipated level of car ownership may well be more or less in some development schemes and any proposed increase or reduction in the application of parking standards would need to be supported by a Transport Assessment/Travel Plan as set out in Section 6 , including any proposed transport improvements or financial contributions. Provision below predicted demand can work successfully, as outlined in ***"Manual for Streets"*** *where it is possible for residents to reach day by day destinations, such as jobs, schools, shops, without the use of the car. However, whilst car usage may be less in certain circumstances, car ownership levels may not be reduced and provision for adequate parking will remain a priority."*

6.6 It should be noted that this report gives clear evidence of the likely level of parking demand for these forms of development, as might be included in a Transport Assessment. Furthermore, the residents of the developments will be provided with "Green Transport", as described below, as might be included in a Travel plan.

6.7 In line with the Manual for Streets guidance referred to here, the site is extremely well located for access for *"day to day"* destinations likely to be required by the elderly residents. Consequently, there is a case for reducing the provision of spaces below that indicated in the standards.

6.8 The standards indicate that, if the car parking spaces are allocated, the provision should be increased by 20% to allow for visitors. The current policy of McCarthy and Stone is to allocate car parking spaces. However, this report will clearly indicate how visitor parking is dealt with.

6.9 Standards are given for "Special Needs" developments. However, there does not appear to be any specific guidance for Extra Care Assisted Living Schemes or, indeed, Category II Retirement Housing. In "Inner Urban" areas, a standard of 0.75 spaces per unit is indicated for developments for the "Active elderly with warden control". However, neither proposal is for the "active elderly", as indicated above.

6.10 The following evidence is used to derive the appropriate level of car parking for each of these two parts of the proposal:-

Car Parking Provision – Category II Type Retirement Housing

6.11 The most recent surveys of 3 of the Category II developments have been analysed to assess the level of resident parking and visitor parking.

6.12 The surveys noted the registration numbers of vehicles parked in the development at the start of the survey (0700) and it is assumed that these vehicles are owned by the residents, unless there is any indication to the contrary. The surveys then noted the registration number, and times, of all arrivals and departures.

6.13 Analysing this data shows how many vehicles are parked at any one time and, using the registration number data, these can be split between residents' vehicles and visitors.

6.14 The peak parking demand for each of these, i.e. residents and visitors, is shown in table 2, below.

Table 6 Parking In Category II Developments

Development	No of one bedroom apartments	No of two bedroom apartments	Total no of bedrooms	Peak Resident Parking Demand	Peak Visitor Parking Demand
Fareham	39	10	59	16	4
Torquay	28	12	52	9	7
Winnersh	25	9	43	9	4
Totals	**92**	**31**	**154**	**34**	**15**

Resident Parking

6.15 It has been found that owners of two bedroom apartments have approximately twice the car ownership of those in one bedroom apartments. Using this assumption allows us to relate the car parking requirements to the number of bedrooms.

6.16 Based on the data from these three developments, the average demand for resident parking would be 0.22 car spaces per bedroom. The range in this data is from 0.17 at the Torquay development to 0.27 at the Fareham development.

6.17 Based on the above, it is suggested, therefore, that at least 0.25 spaces per bedroom should be provided for the residents. For the current proposal of 34 apartments, of which 16 are two bedroom apartments, this would provide a total of 50 bedrooms and this would indicate a requirement for 12 to 13 resident parking spaces. However, given the highly accessible location of this site, a slightly lower provision would be appropriate. It is suggested that 12 spaces be reserved for residents, who would have permits to use them.

Visitor Parking

6.18 The average peak demand for visitor parking is 0.12 spaces per apartment. The use of this average would suggest the provision of 4 visitor parking spaces for this development. However, applying the 20% increase in spaces, as indicated in the adopted standards, this would suggest an additional 2 spaces.

6.19 It is the company's approach that full visitor parking provision would only normally be provided in locations where off-site parking would not normally be available. In this location, there is a large off-street public car park adjacent to the site, and on street parking is controlled. Consequently, there is the option for some or all of the visitor parking to be provided off-site, without having any significant adverse impact on the highway network or environment of the area.

Proposed Provision.

6.20 The proposed provision here would be 12 spaces allocated for residents and 2 spaces kept available for visitors, i.e. a total of 14 spaces. The possible peak demand for a further 2 visitor parking spaces can be accommodated in nearby parking areas. It may well be that many visitors would undertake visits whilst also visiting the shops in the area, where the use of local car parks would be wholly appropriate.

Car Parking Provision – Assisted Living Extra Care Development

6.21 The six developments included in this assessment, as referred to above, include a total of 228 one bedroom apartments and 112 two bedroom apartments, giving a total of 340 apartments. The proportion of two bedroom apartments is some 32.9%. It has been established that residents in these larger apartments have car ownership levels some 2.37 times the levels in one bedroom apartments. Consequently, in considering the car parking levels referred to below, it should be noted that these overall figures may be reduced for developments with lower than 32.9% two bedroom apartments and increased where this provision of two bedroom apartments is higher.

6.22 In determining the level of car parking proposed at a new development, the location of the development should be considered, with possibly lower provision being made in highly accessible locations and higher provision in more remote locations. Furthermore, the company's approach is that if there is off-site car parking readily available, on-site parking could be reduced such that visitors might be expected to park off the site.

6.23 In order to assess the overall normal demand, the survey data from the 6 developments has been analysed to determine the peak level of car parking within the sites. The results are shown in Table 7 below.

Table 7.

Time Period	Llandudno	Chichester	Tonbridge	East Grinstead	Edenbridge	Redhill	Totals
Apartments	66	60	53	52	52	57	340
Starting Level	**26**	17	25	7	16	14	105
0700-0800	**26**	17	28	9	17	17	114
0800-0900	24	18	29	11	20	17	119
0900-1000	24	21	30	13	18	19	125
1000-1100	24	21	32	14	16	20	**127**
1100-1200	22	**23**	26	12	16	19	118
1200-1300	24	19	28	**15****	17	**22*****	125
1300-1400	25	20	30	12	17	16	120
1400-1500	24	20	29	11	15	15	114
1500-1600	23	19	30	8	**21**	15	116
1600-1700	24	19	**34***	11	**21**	14	123
1700-1800	25	20	**34**	12	**21**	14	126
1800-1900	**26**	21	29	10	**21**	14	121
Peak Cars (per Apartment)	26 (0.39)	23 (0.38)	34 (0.64)	15** (0.29)	21 (0.40)	22*** (0.38)	127 (0.37)

* *Includes Royal Mail delivery van* ** *Includes taxi pick and another pick up.*

** * *Includes short-term stop of ambulance.*

6.24 The table shows that the overall peak hour for parking demand was 10 to 11 a.m., when there were 127 vehicles parked in the 6 developments. This equates to 0.37 vehicles per apartment. Such provision would be likely to meet the majority of car parking needs of residents, staff and visitors.

6.25 It may be noted that the development at Tonbridge had a significantly higher peak demand. However, it should also be noted that this is the least accessible site, being located well away from the shop and associated facilities of Tonbridge centre. The inclusion of this site in the calculation of the peak demand would tend to inflate the demand figure derived above, leading to a higher provision than might prove to be necessary in a highly accessible site.

6.26 Applying this peak demand figure to the proposed development at Basingstoke would indicate a peak parking demand of 23 spaces, including visitor parking. Given that the proportion of 2 bedroom units is proposed at being 39.6%, i.e. 25 of the 63 apartments, and that this is more than 32.9% referred to in paragraph 6.21 above, this might be increased slightly. However, given that this is a highly accessible site, where there are good alternatives to car use, and consequently a lower requirement for car ownership, it is assessed that this estimate of 23 spaces is a realistic guide to the likely peak demand for parking spaces.

6.27 As shown in the table above, the starting demand, which is likely to equate to the resident parking plus any for the estate manager, is 105 spaces for the 340 apartments. This is a rate of 0.31 spaces per apartment. Applying this the current proposal would suggest a demand for 19.53 for the residents and estate manager.

6.28 Consequently, it would be proposed that 19 spaces should be allocated to the residents and 2 to visitors, giving an overall provision of 21 spaces. As indicated above, any excess demand for visitor parking can be met in the adjoining public car park.

General Comment

6.29 The proposal of McCarthy and Stone to allocate parking spaces, which would be subject to an annual charge, has largely been introduced to attempt to discourage resident from owning a car. The developments are normally very well located and so the need to own a vehicle is limited. Once all the allocated parking spaces have been reserved, other potential residents will have a choice to make the decision on whether to purchase an apartment, knowing that they will not be able to park at the site. Unless they can make other arrangements, they would have to either give up their car or not move to the development.

6.30 This clear knowledge of the situation ensures that the decision to move to the development is a better informed one.

Management

6.40 There would be signs provided at the access to each of the parts of the development, indicating that the car park is private and unauthorised use is prohibited.

6.41 As indicated above, the majority of car parking spaces will be allocated to residents, who would be permit holders. Their spaces would normally be marked for their use only. If residents found these spaces occupied by another person's vehicle, they would be expected to report this to the estate manager.

6.42 The spaces marked for visitor use could be located away from the site entrance. This should discourage unauthorised use. However, if anyone using one of the visitor spaces does not come to the entrance to the development and undertake a visit, but instead leaves the site, this would also normally be reported to the estate manager. One of the characteristics of this form of housing is that at least one of the residents is likely to observe a vehicle entering or leaving the car park.

6.43 If an unauthorised vehicle is parked within the car park, the estate manager could note the registration number of the vehicle and place a note on it advising the driver that if this unauthorised use were to be repeated, measures would be taken, which could include wheel clamping.

6.44 The company does not expect a significant problem of this nature. However, the situation would be monitored and, if required, appropriate measures adopted, such as a sign warning drivers of the risk of being clamped.

7. Green Travel Initiative

7.1 As indicated above, the traffic generation of the proposed development is relatively low. Some of the trips generated will be made by residents, in their own vehicles or in vehicles of their family and friends. There will be a number of trips made by visitors, including family and friends, but also by carers and, where needed, by medically trained persons. There will also be a small number of trips made by the house/estate manager and any other staff.

7.2 The ability of McCarthy and Stone to influence all of these trips, in terms of encouraging use of non-car modes of travel is limited. However, in line with the approach adopted at all of the company's new developments over the past few years, residents and others will be given detailed travel information, to allow them to make a more informed choice.

7.3 Residents of the proposed development would be encouraged to consider the benefits of giving up car ownership. The high cost of running a car, particularly when undertaking low annual mileages, is higher than most people would understand. This is pointed out, as are the safety considerations.

7.4 They will also be advised of the shops and services within walking or buggy ride in the area and of the availability of non-car modes of travel. This includes details of bus and rail services, information on local services for the elderly, such as "dial-a-ride" services in the area and local taxi companies, with whom the company will try to negotiate a discount for residents.

7.5 All of this is achieved by every resident and many prospective residents being provided with a "sustainable transport" brochure. The details for the current proposal would be worked up following the grant of planning consent and before the start of the sales period, so that it can be as up-to-date as possible.

7.6 This information can be provided on the notice board in the development, where not only residents, but also staff and visitors can obtain the detailed information provided.

7.7 The company will also investigate other opportunities to encourage residents and visitors to use public transport. Although this is already an attractive option, given that all the residents would be likely to qualify for free bus travel.

7.8 It should also be pointed out that such developments will normally include a store, with charging points, for the electric buggies that are often used by residents. Provision is also made for cycle parking, albeit this will not normally be used by residents, but is available for staff and visitors.

8. Conclusions

8.1 The site is very well located for access to the central shopping area of Basingstoke and frequent public transport services.

8.2 The traffic impact of the proposed development would be significantly lower than the impact of the existing use of the site, both through the whole day and in the peak traffic periods.

8.3 The site accesses are of an acceptable design, including providing more than adequate visibility for drivers leaving the accesses.

8.4 The car parking is appropriate, taking into account the nature of the development and its likely residents, along with the highly accessible location of the site and the proximity of alternative off-street car parking.

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