

**Pitt Manor,
Winchester**

**Prepared for
Bovis Homes Ltd**

by

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1.0 INTRODUCTION

1.1 This Monitoring Report has been prepared by Stuart Michael Associates Limited (SMA), consulting engineers, on behalf of Bovis Homes Limited. This report reviews the progress of the Residential Travel Plan for the development at Pitt Manor, Winchester (the Site).

Background

1.2 Pitt Manor, situated on the western periphery of Winchester will accommodate up to 200 dwellings, including the associated open space, landscaping, roads and car parking. At the time of survey (Wednesday 26th May, 2021) all 200 units were occupied.

1.3 The development is supported by a Final Travel Plan which has been prepared in accordance with Clause 10.3 of the Section 106 Agreement (S.106) (Planning Applications 13/02322/REM and 10/00122/OUT). This requires that a Final Travel Plan is submitted to and approved by Hampshire County Council (HCC) prior to occupation of the site.

1.4 SMA was appointed by Bovis Homes Limited to act as Travel Plan Coordinator (TPC) for the development in 2014. The Final Residential Travel Plan, prepared and submitted by SMA to HCC, was formally approved on 22nd February 2016.

1.5 Following the approval of the Travel Plan, the Developer was required to implement the Travel Plan. Various measures have, therefore, been implemented during this time. This has included distribution of Residents Travel Packs to each occupant, issue of promotional newsletters and provision of subsidised bus and cycle vouchers to each dwelling that has requested them.

1.6 The Travel Plan has been operational since it was approved in February 2016. To date, 200 Residents Packs have been distributed to all 200, now occupied dwellings on site.

1.7 As agreed with HCC, the Travel Plan is to be monitored biennially over the 5 year monitoring period. Monitoring is to take the form of multi-modal travel surveys, compliant with the TRICS SAM style methodology.

Scope of the Report.

1.8 This document has been produced to report on the results of the multi-modal survey of the development. The surveyed trip generation has been analysed



against the forecast trip generation for the development, identified within the approved Final Travel Plan. This analysis has provided the evidence base required to demonstrate whether the headline targeted 15% reduction in the level of single occupancy car journeys to the site during the AM (08:00-09:00) and PM (17:00-18:00) peak hours has been achieved.

- 1.9 A review has also been undertaken of the Travel Plan measures that have been implemented to date (February 2016 – June 2021). Consideration has also been given to any changes in external influences that may have affected travel choices over the life of the Travel Plan.
- 1.10 This report provides an overview of the monitoring methodologies which have been conducted for the Pitt Manor Travel Plan. It includes an overview of the data collected and the evaluation processes that have been applied to assess the data.

Report Outline

- 1.11 The remainder of this report is structured as follows:

Section 2 provides an overview of the role of the Travel Plan, its aims and objectives for the Travel Plan period (5 years);

Section 3 describes the methodology adopted as part of the monitoring and review process of the Travel Plan;

Section 4 analyses the multi-modal survey data results;

Section 5 compares the multi-modal survey data alongside that of the forecast trip generation for the development;

Section 6 summarises the Travel Plan measures which have been implemented to date;

Section 7 provides a review of the Travel Plan measures in the context of the survey data and identifies any adjustments going forward; *and*

Section 8 summarises the findings of the report.



2.0 THE TRAVEL PLAN

- 2.1 The Travel Plan identifies a range of targets and measures to promote sustainable travel modes for residents of the development and surrounding residential areas, with particular emphasis on encouraging a shift away from private car use where it can be realistically achieved.
- 2.2 A package of measures has been designed which are focussed on efficiently and sustainably managing any anticipated transport related impacts of the development. A supporting Communication Strategy has also been developed, to assist with imparting information to residents. The provision of a Residents Travel Pack to each household is a key measure of the Travel Plan.
- 2.3 The Travel Plan is to be managed by the TPC for an initial period of 5 years, with monitoring of the Travel Plan to be undertaken over the 5 year period. Following this 5 year period, it is anticipated that sustainable travel patterns and choices will be inherent and the Travel Plan obligation will be fulfilled.
- 2.4 The key target of the Travel Plan is to “*achieve a 15% modal shift away from single car occupancy*”. Through the successful implementation of the Travel Plan, it is anticipated that this will produce more environmentally sustainable trips from the development and help to reduce the number of single occupancy vehicle movements by 15%. This will be possible by:
- Reducing the need to travel by private car;
 - Where car use is necessary, increasing car occupancy; *and*
 - Increasing the use of non-car modes by improving accessibility and travel choice for reaching local schools, leisure facilities, shops, places of interest and days out (e.g. Walking, Cycling & Public Transport).
- 2.5 To assist with delivering the Travel Plan, the TPC has developed working partnerships with the local bus operators and cycle retailers. Development of these partnerships has enabled provision of subsidised voucher schemes for use on local bus services or against cycle purchases, as well as the provision of local travel information. These have been distributed to residents to encourage and incentivise sustainable travel options and reduce reliance on the private car.



External Influences

- 2.1 The Travel Plans effectiveness in delivering a modal shift in line with its targets can be influenced by a number of external factors. The withdrawal of bus services for example, or increases/reductions in parking charges, can significantly impact upon the attractiveness of a particular mode of travel.
- 2.2 Other external factors such as fuel prices will also have an impact on the number of car trips generated by a development. The recent impacts of Covid-19 has also undoubtedly had an impact on travel behaviour and people choices. This has resulted in a significant reduction in public transport usage, particularly in urban areas, with increases in walking and cycling.
- 2.3 Whilst the impacts of the virus have been severe, at a local level it provided many with an opportunity to think about how and why people travel. With home-working being forced upon many (particularly in the knowledge-based sectors), this has helped to significantly reduce carbon emissions.



3.0 MONITORING METHODOLOGY

3.1 This methodology has been designed in accordance with the HCC desired approach for developments of this scale. This has been adopted to provide the relevant data which will indicate the level of modal shift achieved for the development to date.

Travel Surveys

3.2 HCC require that developments of this size (200 dwellings) should be subject to the TRICS 'Standard Assessment Methodology' (SAM) to monitor the trip generation of the site. As agreed with HCC, this is to be completed in Year's 1, 3 and 5. Data is collected by way of a manual multi-modal survey, to collate the following information:

- Inbound and outbound movements by all travel modes on a typical day;
- Car occupancy; *and*
- Development details including travel plan measures.

3.3 The first multi-modal survey was undertaken Monday 7th March 2016. The second survey, was undertaken on Thursday 7th June, 2018 and the third survey, which this report focusses upon, was undertaken on Wednesday 26th May, 2021. These survey periods did not coincide with any school or public holidays.

3.4 The survey was conducted by TRICS over a 12 hour period (07:00-19:00) across the whole development. At the time of the survey, all of the 200 total units on the site were occupied.

3.5 The results of these multi-modal surveys have been assessed against the TRICS forecast data, to review the trip generation per dwelling.

3.6 An Automatic Traffic Count (ATC) located along Romsey Road, 60m north east of the junction with Pitt Road, was undertaken from Tuesday 5th June – Monday 11th June 2018, refer to **Figure 2.1**.



4.0 MULTI-MODAL TRAVEL SURVEY RESULTS

Multi Modal Survey Results

- 4.1 To establish the current multi-modal trip generation for the development, multi-modal surveys were undertaken at the following junctions which provide access to the development.
- Romsey Road/ Pitt Road (Main Site Vehicular/Pedestrian/Cycle access)
 - Pitt Road Roundabout/ Park and Ride Car Park Entrance (Vehicular/Pedestrian/Cycle access)
 - Pedestrian Route to Kilham Lane (east) (Pedestrian/Cycle access)
- 4.2 The day of survey, was selected to accord with the Department for Transport (DfT) guidance on Transport Assessment (May 2021). The guidance advises that “Recommended periods for data collection are in Spring and Autumn which include the neutral months of April, May, June, September and October.”
- 4.3 This section presents the observed, morning peak hour (08:00-09:00), evening peak hour (17:00-18:00) and daily trip generation (07:00-19:00) at each of these junctions. The full batch of data is attached at **Appendix 1**.
- 4.4 In view of the build out at Pitt Manor and the increased occupation of the development over time, traffic flows are anticipated to increase. The traffic count data is therefore, better compared against the forecast trip generation for the development, to establish whether a reduction from the predicted traffic generation has been achieved.
- 4.5 **Table 4.1** below summarises the multi-modal trip data for the Site.



Mode	AM (08:00-09:00)				PM (17:00-18:00)			
	ARRIVALS	DEPARTURES	TOTALS	%	ARRIVALS	DEPARTURES	TOTALS	%
Car	20	64	84	42%	49	36	85	64%
LGV	5	1	6		3	3	6	
Motorcycle	0	0	0	0%	0	0	0	0%
Car/LGV/Motorcycle Multi Occupancy Vehicles (Car Share)	12	29	41	19%	19	13	32	23%
Bicycle	0	0	0	0%	0	2	2	1%
Bus/Tram	1	9	10	5%	9	0	9	6%
Rail	0	0	0	0%	0	0	0	0%
Pedestrians	18	54	72	34%	7	2	9	6%
TOTAL	56	157	213	100%	87	56	143	100%

**Table 4.1 – Multi-Modal Arrivals/Departures for Pitt Manor
(200/ 200 units occupied)**

4.6 It is shown in **Table 4.1** that of the 90 two-way movements of Cars and LGVs recorded during the AM Peak, 41 of these vehicles were multi-occupancy vehicles (car share). Similarly, during the PM Peak, of the 91 two-way movements of Cars and LGVs, 32 of these were multi-occupancy vehicles (car share).

Multi Modal Two-Way Trip Generation

4.7 The total observed two-way trip generation for the development has been calculated from **Table 4.1** and is provided within **Table 4.2** below.

	AM	PM	DAILY	AM	PM	DAILY
Mode	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS
Single Occupancy Vehicle	50	59	509	22%	37%	34%
Multi-Occupant Vehicle (Car-Share)	96	79	635	42%	50%	43%
Bicycle	0	2	7	0%	1%	1%
Bus/Tram	10	9	84	4%	6%	6%
Rail	0	0	1	0%	0%	0%
Pedestrians	72	9	243	32%	6%	16%
Total People	228	158	1479	100%	100%	100%

**Table 4.2 - Summary of 2021 Two-Way Multi-Modal Trips
(200/ 200 units occupied)**



Observations

4.8 Based upon the recorded data, the following observations can be made:

- As expected, the predominant travel mode is the private car for the PM peak periods and daily scenario, however, the majority of vehicle users are sharing car journeys;
- Walking proved to be the most common alternative travel mode to the car, representing 32% and 6% of trips during the AM and PM peak hours respectively and 16% of trips daily;
- Car sharing represented approximately 43% of trips during both the AM peak hour and over the course of the day, whilst car sharing represented approximately 50% of trips in the PM peak hour; *and*
- Travel by public transport was similar to walking trips during the PM peak (6%) and throughout the day (6%).

ATC – Romsey Road

4.9 The ATC (**Appendix 2 refers**) located along Romsey Road recorded a 5-day average weekday morning (08:00-09:00) traffic flow of 1,666 two-way movements and a 5-day average weekday evening (17:00-18:00) traffic flow of 1,906 two-way movements. These flows do not include pedal cycles or motorcycles movements.

4.10 Vehicle speeds have also been recorded as part of the ATC surveys along Romsey Road with the average and 85th percentile two-way speeds provided in **Table 4.3.**

Location	Average Speed (mph)	85 th Percentile Speed (mph)
Romsey Road, 60m north east of the junction with Pitt Road – <i>north-eastbound</i>	27.0	34.0
Romsey Road, 60m north east of the junction with Pitt Road – <i>south-westbound</i>	29.3	35.6

**Table 4.3 – Vehicle Speeds on Romsey Road
 (157 of 200 units occupied)**

4.11 As **Table 4.3** indicates, both average and 85th percentile speeds along Romsey Road are below the 40mph speed limit.



5.0 ANALYSIS OF MULTI-MODAL TRIP DATA AGAINST TARGETS AND PROJECTED TRIP GENERATION

Observed Modal Split Comparison against the Travel Plan Targets

5.1 The vehicular modal split for the development has been calculated from the recorded trip generation for the Site (**Table 4.2 refers**). This is reproduced at **Table 5.1** below.

	AM	PM	DAILY	AM	PM	DAILY
Mode	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS	TOTALS
Single Occupancy Vehicle	50	59	509	22%	37%	34%
Passenger in Multiple-Occupant vehicle (Car-Share)	96	79	635	42%	50%	43%
Bicycle	0	2	7	0%	1%	1%
Bus/Tram	10	9	84	4%	6%	6%
Rail	0	0	1	0%	0%	0%
Pedestrians	72	9	243	32%	6%	16%
Total Vehicular Share	50	59	509	22%	37%	34%
Total Sustainable Travel Mode Share	178	99	970	78%	63%	66%

Table 5.1 : Pitt Manor 2021 Modal Split (200/ 200 units occupied)

5.2 The output targets proposed for the development were set out in the Travel Plan for The Pitt Manor site. These are reproduced below:

Outcome 1: To ensure that the development does not exceed the TRICS residential development trip rate in the AM (0.474) or PM (0.539) peak periods at both the interim period (3 years after 1st occupation) and at full occupation years.

Outcome 2: Achieve a modal split for sustainable modes for the development, (60%), during the AM and PM peak hours over the life of this Travel Plan

Outcome 3: To achieve an increase in modal share for bus travel from 10% to 14% over the life of the travel plan.

Outcome 4: To reduce the modal split for single occupancy car journeys from 47% to 40% over the life of the Travel Plan.

Outcome 5: To achieve a 15% reduction in single occupancy car journeys, to be transferred to sustainable modes by the end of the Travel Plan period.



Provisional Target	Time Scale		2018 (171 dwellings)		
	Occupation	Year 5	AM	PM	DAILY
Outcome 1: To ensure that the development does not exceed the TRICS residential development trip rate in the AM (0.474) or PM (0.539) peak periods at both the interim period (3 years after 1st occupation) and at full occupation years).	AM: 0.474 PM: 0.539	AM: 0.474 PM: 0.539	AM: 0.586	PM: 0.592	5.019
Outcome 2: Achieve a modal split for sustainable modes for the development, (60%), during the AM and PM peak hours over the life of this Travel Plan.	60%	60%	78%	63%	66%
Outcome 3: To achieve an increase in modal share for bus travel from 10% to 14% over the life of the Travel Plan.	10%	14%	4%	6%	6%
Outcome 4: To reduce the modal split for single occupancy car journeys from 47% to 40% over the life of the Travel Plan.	47%	40%	22%	37%	-
Outcome 5: To achieve a 15% reduction in single occupancy car journeys, to be transferred to sustainable modes by the end of the Travel Plan period.	47%	40%	22% SOV/78% Sustainable Modes	37% SOV/63% Sustainable Modes	-

Table 5.2 – Analysis of Observed Modal Split (2021) versus Outcome Targets

Observations

5.3 Tables 5.1 and 5.2 indicates that:

- The proportion of single occupancy car trips are lower during both the AM (22%) and PM (37%) Peaks compared to the initial targets set;
- The proportion of all trips by sustainable modes is higher than the projected modal split over the life time of the Travel Plan (60%) during both the AM (78%), PM (63%) and daily (66%) scenarios.

Travel Plan Targets

5.4 The modal split for the development indicates that progress has been made towards achieving the Output Targets. This is discussed in further detail under **Section 7.0**.



5.5 From the summary above, the following observations can be made:

- The observed trip generation demonstrates that the total vehicular trip generation per household is higher than that forecast, during both peak periods.
- Travel by sustainable travel modes is significantly higher than forecast during both peak periods (78% and 63% respectively) and over the 12-hour assessment period (07:00-19:00), for the daily scenario (66%).



6.0 TRAVEL PLAN MEASURES

6.1 The Travel Plan was implemented in time for the opening of the sales suite, ahead of the 1st occupation in June 2016. The Travel Plan has, therefore been operational for 5 years at the time of preparing this report.

6.2 The following measures have been implemented during this time:

- Preparation and distribution of a Residential Travel Pack
- Distribution of subsidised sustainable travel vouchers to encourage and incentivise travel via sustainable modes
- Distribution of Walking and Cycling maps
- Issue of bus timetables and route maps
- Issue of rail timetables
- Design of a sustainable travel webpage
- Resident Inductions to newly occupied dwellings

6.3 Residential Travel Pack: These have been distributed to each of the occupied households on the development. To date these have been issued to 200 dwellings. The packs have been designed to promote the opportunities for sustainable travel to connect to local services and facilities.

6.4 The packs have been distributed by hand by the TPC to each household individually. A welcome letter was also included within the pack introducing the Travel Plan to residents and to set out the purpose of the Travel Pack.

6.5 Sustainable Travel Voucher: To encourage residents to travel by local bus services or cycle, each occupied household has been provided with a subsidised travel voucher. The voucher can either be redeemed against travel on local bus services or against cycle purchases made at local cycle stores.

6.6 Newsletter: A newsletter was also included within the Travel Pack to residents providing information applicable to Summer such as 'Tips for Cycling in the Summer' and local cycle event information.

6.7 Printed Materials: Residents have been provided with bus and rail route maps and timetables to assist with journey planning. Walking and cycling route maps indicating journey distance and time to key destinations within Winchester have also been distributed to residents.



- 6.1 Resident's Inductions: At the time of distributing the Residential Travel Packs the TPC endeavoured to meet with each household to introduce the Travel Plan and promote the benefits to residents. The face to face interaction enabled the TPC to discuss the Travel Plan with residents and raise awareness of the sustainable travel options available. It also enables the TPC to discuss existing travel patterns and explore how travel patterns could be changed. The key objective of this is to inform each resident and incentivise them to adapt their existing travel patterns.



7.0 TRAVEL PLAN REVIEW

7.1 This review is based upon the findings of the **surveys (multi-modal and ATC)** and the analysis of this data versus the forecast trip generation for the Pitt Manor Site. This data has been reviewed against the forecast targets for the development set out in the Travel Plan.

Vehicle Trip Generation

7.2 The observed vehicular trip generation is higher than the forecast trip generation during both the AM and PM peak hours as well as throughout the day. This is summarised in **Table 5.2**.

Multi-Modal Trip Generation

7.3 The multi-modal survey results indicate that travel by sustainable travel modes accounts for 78% of all trips associated with the site during the morning peak period (08:00-09:00). During the evening peak period (17:00-18:00) 63% of all journeys are made by sustainable modes. This is higher than the level proposed after 5 years, therefore, it is considered that the Travel Plan is working successfully to reduce the number of car trips associated with the development.

7.4 Throughout the life of the Travel Plan further measures will be promoted to help to encourage and incentivise residents to travel more sustainably. This will help to maintain and improve upon the good progress that has already been made.

7.5 In view of the current level of trips made on foot, compared to other alternative modes, it is considered that walking presents a suitable method of travel locally. As such the Travel Plan measures will focus on further encouraging travel on foot to access local facilities, this can be achieved by:

- Further distribution of maps indicating walking routes and associate journey times to key trip ends.
- Promotion of the health benefits and cost savings to be achieved from walking.

7.6 It would prove beneficial to promote the benefits of cycling to residents in the context of travelling over distances of up to 5km. Such distances can often be travelled quicker by bicycle than by car. Measures to encourage cycling would be similar to those to encourage walking.



Travel Plan Programme

- 7.7 The Travel Plan will be entering its final few months and will look to build upon the range of successful measures implemented to date. Whilst the measures discussed in Section 6.0 will continue to be implemented, a number of new, additional measures will be introduced to further encourage sustainable travel choices.
- 7.8 Distribution of Residents Travel Information Packs, along with the typical information contained within the packs (e.g. bus/rail timetables, sustainable travel vouchers, newsletter, pedestrian/cycle route maps) will continue to be provided to each new occupant on site.
- 7.9 With the site being fully occupied, it will be necessary to liaise with residents on a regular basis, to establish existing travel behaviour and to understand motives behind their travel choices. Household Travel Questionnaires will be prepared and distributed to each occupied dwelling, to understand travel patterns. This information will then be analysed and provided to the Council in a report. This information will also be used to determine what additional measures might be promoted by the TPC.
- 7.10 Over the next few months continued liaison with key stakeholder groups will take place to help promote sustainable modes. This will include liaison with bus operators, the Council, local businesses and residents.
- 7.11 Further updates will be provided to the Council until the end of the Travel Plan period.



8.0 SUMMARY

- 8.1 This report has analysed the findings of the first travel survey for the development and has also reviewed the TP measures implemented to date.
- 8.2 At the time of the survey, all units at the Pitt Manor Site were occupied.
- 8.3 The main aim of the Travel Plan seeks to achieve a 15% modal shift from single occupancy car journeys, whilst increasing travel by sustainable travel modes. The modal shift target has been based upon Local Ward Census Data (2011) and identified a modal shift from 47% to 40% of total vehicle trips over the life of the Travel Plan.
- 8.4 The proportion of single occupancy car trips are lower during both the AM (22%) and PM (37%) Peaks compared to the initial targets set.
- 8.5 The proportion of all trips by sustainable modes is higher than the projected modal split over the life time of the Travel Plan (60%) during both the AM (78%), PM (63%) and daily (66%) scenarios.
- 8.6 Based on the outcomes of this report, it is recommended that continued promotion of sustainable modes is made, by providing Residents Packs to new occupants and additional promotional material to existing residents. This additional promotion will help to encourage car sharing, walking, cycling and travel by local bus services. Connecting to the rail station by bus or cycle will also be further incorporated into the Travel Plan measures.
- 8.7 In view of the findings of this report, it is considered that the development is indicating positive signs of reducing the overall trip generation for the development. With the continued delivery of the Travel Plan it is anticipated that there will be a continued reduction in car trips and a modal shift towards Public Transport, Walking and Cycling.

