

**ROYAL HOLLOWAY UNIVERSITY OF LONDON**  
**SUSTAINABLE TRAVEL PLAN**

**A Strategic Document Prepared on Behalf of Royal Holloway University of London**

**Final Draft for Comment**

**June 2004**

**IRF/lmb/2002-204 Revision E**

Windsor House, 37 Windsor Street, Chertsey, Surrey KT16 8AT

Tel: 01932 569566 Fax: 01932 569531 E-mail: [chertsey@deniswilson.co.uk](mailto:chertsey@deniswilson.co.uk)

Internet: [www.deniswilson.co.uk](http://www.deniswilson.co.uk)



FS 59565



D e n i s   W i l s o n   P a r t n e r s h i p

**ROYAL HOLLOWAY UNIVERSITY OF LONDON**

**Document Status – Final Draft Revision E**

Produced by:	----- IRF	Date:	February 2003, May & June 2004
Checked by:	----- PO'C	Date:	June 2004
Approved by:	----- IRF	Date:	June 2004



FS 59565

Transportation Planning, Infrastructure Design and Highway Safety



## CONTENTS

1	INTRODUCTION .....	1
2	SUSTAINABLE TRANSPORT TRAVEL PLAN – DEVELOPMENT CONTEXT .....	2
2.1	College 10 Year plan .....	2
2.2	Planning Obligations .....	2
3	EXISTING OPPORTUNITIES FOR SUSTAINABLE TRAVEL .....	4
3.2	Existing Bus Services .....	4
3.3	Rail .....	5
3.4	Existing Pedestrian and Cycling Facilities .....	6
3.5	Parking Strategy .....	7
4	EXISTING TRAVEL PATTERNS .....	8
4.2	Questionnaire Survey .....	8
	<i>Main Mode of Travel</i> .....	9
	<i>Origin of Sample</i> .....	10
	<i>Measures to Encourage Use of Public Transport</i> .....	11
4.3	Vehicular Arrival and Departure Survey .....	12
4.4	Car Occupancy Survey .....	12
4.5	Car Parking Demand .....	12
5	INITIATIVES TO ENCOURAGE SUSTAINABLE TRAVEL .....	13
5.2	Creating a Pleasant Environment .....	13
5.3	Travel Plan .....	13
5.4	Cycle Parking and Supporting Facilities .....	14
5.5	Bus Provision .....	15
5.6	Car Sharing .....	15
5.7	Parking .....	16
5.8	Other Initiatives .....	16
5.9	Targets and Target Dates .....	17
6	SUMMARY AND CONCLUSIONS .....	18

## TABLES

Table 1: - Section 106 Conditions .....	3
Table 2: - Existing Externally Operated Bus Services .....	4
Table 3: - Existing Bus Services Provided By Royal Holloway (Weekday) .....	5
Table 4: - Existing Bus Services Provided By Royal Holloway (Saturday) .....	5
Table 5: - Total Number of Passengers Carried (Royal Holloway Services) .....	5
Table 6: - Total Number of Passengers Dropped Off and Collected from Huntersdale .....	5
Table 7: - Rail Services To / From Egham Station .....	6
Table 8: - Existing Cycle Parking Provision .....	6
Table 9: - Campus Parking Penalty Charges .....	7
Table 10: - Modal Share of Respondents .....	9
Table 11: - Main Mode of Travel by Sample Classification .....	10
Table 12: - Modal Share by Zone .....	11
Table 13: - Measures to Encourage Travel by Alternative Modes .....	11
Table 14: - Average Weekday Arrivals / Departures .....	12
Table 15: - Future Cycle Parking Provision .....	14



## **PLANS**

DWP1 – Site Location Plan

## **APPENDICES**

Appendix A - Travel Questionnaire

Appendix B – Modal Share Data?

Appendix C – Post Code Zones



## 1 INTRODUCTION

- 1.1.1 In responding to the needs and aspirations of Royal Holloway University of London, a ten-year masterplan was produced in 1997 to set out the expansion of the College in the future.
- 1.1.2 The location of Royal Holloway University of London is indicated on Plan DWP 1.
- 1.1.3 A planning application was submitted in 1997 for the construction of several new buildings on campus and changes to the proposed car parking that would be permitted on site.
- 1.1.4 As part of a condition imposed to enable the planning consent to be granted, the College was required under the terms of a Section 106 Agreement (S106) to produce and implement a College Transport Plan for both Staff and Students. The S106 was subsequently signed on 20 June 2002.
- 1.1.5 A Draft College Travel Plan was submitted to Surrey County Council during early 2000. Subsequent to this submission, Royal Holloway have identified that it is necessary to update its strategy of encouraging access by sustainable modes of travel to the campus over and above the measures set out in the 2000 College Travel Plan.
- 1.1.6 A framework document was produced in September 2002 to be agreed with the Highway Authority to allow the conditions of the S106 to be discharged. Surrey County Council subsequently provided comments to the document which were reproduced by the Local Planning Authority, **Runnymede Borough Council** and were forwarded to The Denis Wilson Partnership for consideration.
- 1.1.7 In addition, at the time of the production of the Framework document, it was not possible to carry out surveys of Student / Staff travel patterns as it was not term time and student movements were low. These surveys have now been carried out and the results were discussed within a revised draft document prepared in February 2003.
- 1.1.8 The February 2003 document was subsequently subject to comment by the Surrey County Council Development Related Travel Officer responsible for the Borough of Runnymede. These comments were discussed at a meeting held on 15 April 2004 between representatives of Surrey County Council, Runnymede Borough Council, Royal Holloway and their Transport Planning Consultants, Denis Wilson Partnership.
- 1.1.9 At this meeting it was agreed that this document would form a Framework which would allow Royal Holloway's S106 obligations to be discharged. An Annual Monitoring Report would then be required, recording travel patterns of Staff and Students to the Campus, which would then be provided to the Local Planning and Highway Authorities.
- 1.1.10 It was also agreed that the timetable information for bus and train services and the data obtained from the travel surveys (undertaken in 2002), as presented in the February 2003 document, would form the base line information upon which future surveys would be compared to by the Annual Monitoring Reports.
- 1.1.11 Therefore the measures that will be introduced to encourage sustainable travel to the Campus will be discussed in the following sections. Opportunities for non-car access to the Campus up until the next Masterplan period will also be considered within this document.



## **2 SUSTAINABLE TRANSPORT TRAVEL PLAN – DEVELOPMENT CONTEXT**

### **2.1 College 10 Year plan**

2.1.1 The continuing development of the 10 year plan for Royal Holloway will allow the College to expand, realise its potential to increase its student numbers, although it is not currently envisaged that there will be a significant increase during the planning period.

2.1.2 The objectives of the ten-year plan are set out below:

- (i) To provide better facilities, without the need for major expansion;
- (ii) To provide additional buildings within the existing developed areas of the main campus;
- (iii) Further residential and academic accommodation will be provided;
- (iv) To provide improved sports and social facilities on the main campus;
- (v) To extend and enhance existing shopping facilities.

2.1.3 Within the College 10 year plan it is recognised that there is a need to work towards the reduction of the use of motor vehicles by staff and students and to use best endeavours to encourage the use of other modes of transport to embrace sustainable development.

### **2.2 Planning Obligations**

2.2.1 Following negotiations with Surrey County Council regarding the planning application for the 10 year masterplan, several conditions were included within the S106 that was attached to the planning permission that are being addressed by the College. As stated in the previous Section, Royal Holloway acknowledges that it is critical to provide greater opportunities to reach the site by sustainable modes of travel than has previously been the case. At the time of the planning consent for the 10 Year masterplan being issued, the S106 required the production of a College Travel Plan to regulate this, identifying a number of points to be considered and this required detailed transport surveys being undertaken to establish existing travel modal share and vehicular demand at the campus.

2.2.2 This work was subsequently carried out but some time has elapsed since this work was undertaken. To identify the latest trends in terms of travel to the campus by staff and students it has been decided that there is a need to undertake revised surveys to ascertain if patterns have changed to allow a comprehensive College Travel Plan to be provided.

2.2.3 These surveys have now been undertaken and therefore allow the Framework document to be finalised prior to the completion of the Comprehensive College Travel Plan. The production of this document will seek to agree the format of the Travel Plan with Surrey County Council.

2.2.4 The requirements of the S106 attached to the planning consent, as they relate to transport, provide a useful context against which to gauge what is ultimately required by the College Travel Plan. Each transport related requirement of the S106 is provided within the table below. The measures that have been and will be implemented to discharge the conditions of the S106 are also provided within this table.



**Table 1: - Section 106 Conditions**

<b>S106 Obligation</b>	<b>Action Taken</b>
<i>Encourage and promote alternative means of transport</i>	This will be dealt with by the measures identified within this report
<i>Make better and more effective use of the existing car parks situated on the property and at Huntersdale and Kingswood, by a variety of measures such as park and ride schemes and overnight parking</i>	Section 4 sets out that the existing parking demand at the Campus shall be quantified, and Royal Holloway will use its best endeavours to implement a park and ride facility at Huntersdale.
<i>Provide an enhanced College bus service including an increased bus frequency between the main campus, Huntersdale, Kingswood and Egham Railway Station</i>	This has already been implemented and further enhancements are being considered at this time
<i>The provision of increased and improved cycle parking provision and storage facilities within and across the property</i>	Improvements to the campus cycle parking provision is proposed and this is dealt with in detail at Section 5
<i>A financial contribution towards the implementation of the Council's A30 Egham Hill Cycleway Scheme, between the property and the junction of the A30 Egham Hill and Egham Railway Station</i>	Royal Holloway will provide a £15,000 financial contribution towards this facility. The Local Authority are well advanced in terms of implementing this improvement
<i>The establishment of a procedure of monitoring and discouraging students and staff from parking inconsiderately on nearby streets involving a permit system supported by a disciplinary code/procedures for breach of any system introduced</i>	This has been implemented. The Campus regulations state that students should not park on the streets surrounding Royal Holloway
<i>The introduction of reasonable practical measures to discourage both students and staff from bringing cars to and using cars for transport to and from the property and encourage car sharing arrangements and utilisation of staggered working hours.</i>	Consideration to this element is given in Section 5
<i>Investigate the provision of a railway halt to be constructed adjacent to the existing railway line, which runs alongside the sports field of the property</i>	The possibility of the implementation of a railway halt has been considered and regrettably cannot be accommodated due to the proximity of Egham Railway Station to the Northeast



### 3 EXISTING OPPORTUNITIES FOR SUSTAINABLE TRAVEL

3.1.1 This section discusses the current opportunities to reach the site by sustainable modes of travel. It is envisaged that the implementation of additional measures encouraging non-car access will complement these existing opportunities.

#### 3.2 Existing Bus Services

3.2.1 The College at present is relatively well served by public transport facilities, including both public bus services and a separate College bus service. Bus stops are provided within 100m of the site adjacent to both carriageways of the A30. It should be noted that this bus provision is as of February 2003 and the inclusion of this information at this time has been agreed with Surrey County Council.

3.2.2 In terms of buses available to the public, the frequency of service is approximately 7 buses per hour (two way) during the day along the A30 Egham Hill which passes the College main campus. This is summarised in the table below:

**Table 2: - Existing Externally Operated Bus Services**

Service Number	Route	Morning frequency (Two Way)	Daytime frequency (Two Way)	Evening Frequency (Two Way)
P3	St. Peter's Hospital - Virginia Water - Thorpe - Egham -Englefield Green	2 an Hour	2 Every 2 Hours	None
41	Staines - Pooley Green - Egham - Royal Holloway College - Englefield Green - Old Windsor - Windsor - Slough	2 an Hour	2 an Hour	1 Bus
43	Staines - Pooley Green - Egham - Royal Holloway College - Englefield Green - Windsor - Slough	2 an Hour	2 an Hour	2 an Hour
441	Heathrow Airport - Stanwell - Ashford hospital - Staines - Pooley Green - Egham - Englefield Green	2 an Hour	2 an Hour	2 an Hour
500	Frimley Park Hospital - The Meadows - Bagshot - Lightwater - Windlesham - Sunningdale - Virginia Water - Royal Holloway College - Egham - Staines	1 Bus	2 Every 2 Hours	None

3.2.3 The College service also provides a bus service from Egham Railway Station via the main campus, Egham sports centre and Kingswood Halls of Residence at a frequency of 2 per hour, with a further service from Kingswood to Egham railway station.

3.2.4 Royal Holloway also provides a number of free and subsidised services for students. These services provide a circular route from the Egham Station to the Founders building and then onto Huntersdale before returning to Egham station. There is also a circular service provided between Kingswood Halls and main Founders building. The frequency of these services is set out in the following tables: -



**Table 3: - Existing Bus Services Provided By Royal Holloway (Weekday)**

Route Details	Frequency		
	AM Peak	Off Peak	PM Peak
Egham Station - Founders - Huntersdale - Egham Station	1 each hour	1 each hour	1 each hour
Kingswood - Founders - Kingswood	3 each hour	3 each hour	3 each hour

**Table 4: - Existing Bus Services Provided By Royal Holloway (Saturday)**

Route Details	Frequency		
	AM Peak	Off Peak	PM Peak
Kingswood - Founders - Egham Station - Founders – Kingswood	1 each hour	1 each hour	1 each hour

3.2.5 Surrey County Council requested details of bus patronage for the services provided by Royal Holloway. Figures have been obtained from the College and summarised term time figures are provided below in Tables 5 and 6: -

**Table 5: - Total Number of Passengers Carried (Royal Holloway Services)**

	Autumn Term	Spring term	Summer Term	Total
Egham - Founders - Huntersdale - Egham	13,938	11,470	4,143	<b>29,551</b>
Kingswood - Founders - Kingswood - week day	32,979	28,858	8,659	<b>70,496</b>
Kingswood - Founder-Egham-Founders- Kingswood - week end	4,371	3,814	1,346	<b>9,531</b>
Kingswood - Founder-Egham-Founders- Kingswood – vacation				<b>2,376</b>
<b>Subtotals</b>	<b>51,288</b>	<b>44,142</b>	<b>14,147</b>	<b>111,953</b>

**Table 6: - Total Number of Passengers Dropped Off and Collected from Huntersdale**

	Autumn Term	Spring term	Summer Term	Total
Egham - Founders - Huntersdale - Egham	391	258	59	<b>708</b>
Kingswood - Founders - Kingswood - week day	140	118	26	<b>284</b>
<b>Subtotals</b>	<b>531</b>	<b>376</b>	<b>85</b>	<b>992</b>

3.2.6 For the purposes of future monitoring at the Campus, Surrey County Council requested details of how these bus patronage details were obtained. We have been advised by Royal Holloway that the patronage figures are compiled from the bus loading sheets, which record the number of people who use the bus against the timetable. The bus driver completes a form to show the number of students who get onto and off the bus at a particular time and place. It is envisaged that bus patronage details will continue to be obtained in this way in the future.

### 3.3 Rail

3.3.1 Egham railway station is located approximately 1 mile north east of the main campus, as detailed in the table below, identifies the current rail provision at Egham railway station.



**Table 7: - Rail Services To / From Egham Station**

Frequency (per hour)	From London Waterloo	From Staines	From Weybridge
Peak Hours	7	7	2
Off Peak	5	6	1

3.3.2 It can be seen that the rail services to Egham station are quite regular both during the peak hours and throughout the day.

### 3.4 Existing Pedestrian and Cycling Facilities

3.4.1 In the vicinity of the main campus, footways are present adjacent to the A30 Egham Hill from the railway station to the College gates. Therefore, walking to the site is possible via safe pedestrian routes. There are also informal crossing facilities present on A30 between the main campus and Egham Town Centre. These are in addition to the footbridge across the A30 at the main entrance to the campus, which allows safe passage to the bus stop adjacent to the south carriageway of the A30.

3.4.2 As part of a previous planning application the College agreed to provide a financial contribution to Runnymede Borough Council's A30 Egham Hill Cycleway Scheme of £15,000. The construction of this facility is well under way. Cycleways have also been provided along Harvest Road from its junction with the A30 up to where it intersects with South Road. In terms of existing formal cycle parking at the Campus, provision is provided at the following locations, as set out below within the main campus.

3.4.3 It should be noted that the pedestrian and cycling provision is as of February 2003.

**Table 8: - Existing Cycle Parking Provision**

Location	Existing Provision	Improvement Required?
International Building	32	Yes - Inefficient Configuration of hoops -
Athlone	18	Yes - Facility in state of disrepair
Runnymede II	14	Yes – cover to be added, provision to be increased
Kingswood Car Park	12	Yes – No roof
Arts Building	18	No
Bourne Building	20	No
Queens Building	8	No
McCrea Building	20	No
Computer Centre	6	No
Bedford Building	20	No
Founders East Side	6	No
<b>Total</b>	<b>174</b>	-

3.4.4 It should be acknowledged that the table above only provides details of the formal cycle parking facilities. From on site observations, it is clear that cycle parking does take place outside of these particular areas, indicating that there is demand over and above the existing provision. It should also be noted that in some instances, improvements to the existing parking facilities would be required and Royal Holloway has undertaken to invest £90,000 to provide improvements to cycle parking facilities at the Campus. This is being undertaken with Runnymede Borough Council's help and partial financial support.



3.4.4 Monitoring will be carried out at regular intervals to assess future demands.

### 3.5 Parking Strategy

3.5.1 During term time Royal Holloway adopts a pro-active strategy to restrict parking at the main Campus in order to maximise the limited facilities. This is achieved by adopting a system, where only staff and students displaying a valid permit can park on the Campus, with a limited amount of visitor parking.

3.5.2 In terms of those who are eligible for a parking permit, this is restricted to staff and a limited number of students. Students that are eligible for parking permits, those non-resident students living over 1.5 miles are given the highest priority. Of resident students at Runnymede Hall (I and II), only one room per flat is entitled to receive a parking permit.

3.5.3 Staff and Students who park at the site are also restricted in terms of where they can park, with specific zones only available. Students are not permitted to park in areas set aside for staff use. Staff and student vehicles, who park outside of the specific zones or without a permitted permit, are liable to be immobilised by a dedicated wheel clamping team that operates within the Campus. This team has recently been strengthened and a major increase in monitoring is having a dramatic effect on reducing illegal parking around the campus. Penalty fees are charged to both Staff and Students to secure the release of an immobilised vehicle, the charges are set out in the table below. These charges are reviewed regularly.

**Table 9: - Campus Parking Penalty Charges**

	<b>1<sup>st</sup> 24 hours</b>	<b>Each 24 hours or part thereafter</b>
First occasion in the session	£10.00	+£2.00
Second and subsequent occasions in the same session	£20.00	+£2.00
Disabled Spaces	£75.00	

3.5.4 This information is made available in the Staff and Student handbooks and in particular discourages Students from driving to the Campus. The above measures can therefore be considered to provide an active tool in restricting car travel to the Royal Holloway Campus by reducing the opportunity to park and therefore implementing a restraint based approach.



## 4 EXISTING TRAVEL PATTERNS

- 4.1.1 By identifying the current travel characteristics of staff and students to the Campus, it will allow the current modal share in terms of access to be identified and will ultimately form the basis for negotiations with the Highway Authority in setting targets for reduction in car based travel. These figures will also be included within the Final College Travel Plan.
- 4.1.2 At the time of the preparation of the 1<sup>st</sup> Draft Sustainable Travel Strategy, it was not a representative time to undertake surveys as student travel patterns were affected by examinations. Therefore surveys were carried out at a peak time of year, this being the first week in October 2002
- 4.1.3 The surveys consisted of three forms:
- (i) Staff and student questionnaire surveys – undertaken between 1<sup>st</sup> – 7<sup>th</sup> October 2002.
  - (ii) Vehicular arrival and departure surveys over one week between 1<sup>st</sup> – 7<sup>th</sup> October 2002.
  - (iii) Observation of inbound occupancy of vehicles undertaken Tuesday 1<sup>st</sup> October 2002.
- 4.1.4 As set out in paragraph 1.1.9, it was agreed that this information would provide the base line figures upon **which** future travel patterns will be compared to.

### 4.2 Questionnaire Survey

- 4.2.1 Questionnaires were distributed to staff and students via an Internet link. Guidance suggests that it is prudent to warn the survey sample that a questionnaire is about to be undertaken and this was the case in this instance. This ensured that the survey did not come as a surprise to staff and students and appealed to people's better nature, stressed that their participation will ultimately have a real impact in reducing car trips to the campus and the benefits this will have on the environment. A copy of the questionnaire is attached at Appendix A.
- 4.2.2 Future monitoring questionnaires will be undertaken with the guidance of Surrey County Council.
- 4.2.3 In view of the above staff assistance in this matter was requested via e-mail and that of students by erecting posters in the Student Union, Halls of Residence etc. DTLR guidance suggests that ideally a response rate of 25% of staff and students would provide a representative sample.
- 4.2.4 The data collated was processed and assessed by the College Statistics department and sent to DWP for their information and analysis.
- 4.2.5 The base line surveys revealed a response rate of 1140 staff and students, which equates to a sample of 18% being obtained. In terms of the sample of 1140 respondents, the following mix was identified: -
- Full Time Students 59% (677 responses)
  - Academic Staff 35% (404 responses)
  - Part Time Students 3% (27 responses)



- Visiting / Other 3% (29 responses)

4.2.6 It should be noted that:

- 12% of all student responded
- 40% of staff population responded

4.2.7 The response rate presented here should be borne in mind when considering the results as this may indicate bias towards staff travel patterns rather than those of students. A large proportion of the students live close to the College and therefore already walk. For this reason the survey which predominately addresses those travelling longer distances is irrelevant. Perhaps the students who responded had particularly strong views in respect of the Sustainable Travel Strategy.

4.2.8 The purpose of this questionnaire survey was to identify the following information: -

- Mode of Travel
- Where drivers park
- Where the sample has travelled from
- What measures would encourage car drivers to use public transport

4.2.9 In terms of the results of the survey, these are provided below: -

***Main Mode of Travel***

4.2.10 The modal share of the respondents is provided below: -

**Table 10: - Modal Share of Respondents**

<b>Mode</b>	<b>Proportion</b>
Car Driver	44%
Car Passenger	4%
Motor Cycle	1%
Bicycle	5%
Walk	27%
Bus	1%
College Bus	4%
Train	13%
Other	1%
<b>Total</b>	<b>100%</b>

4.2.11 Disaggregation of the modal share data indicates the main mode of travel for the sample by students / staff classification was by car. Details of this are provided below, with full results at Appendix B.



**Table 11: - Main Mode of Travel by Sample Classification**

<b>Sample Classification</b>	<b>Main Mode of Travel</b>	<b>Proportion</b>
Full Time Student	Walk	37%
Part Time Student	Car Driver	56%
Academic Staff	Car Driver	55%
Administrative Staff	Car Driver	78%

4.2.12 Clearly this indicates that car drivers constitute the main mode of travel to the Campus, with the exception of full time students who walk. It is considered that the low sample of full time students has had a bearing in the modal share designated to travel by bus, as the College operated services principally cater for links between the Campus and Halls of Residence and given the patronage figures provided in Table 5 and 6 it is likely that this provides a significant level of trips made by students.

***Origin of Sample***

4.2.13 The questionnaire identified the origin of the respondents before arriving at the Campus. The purpose of this was to identify where people travel from and by what mode, which will identify a broad catchment for the Campus.

4.2.14 This catchment has been quantified by using a series of zones based on Post Code district boundaries. The construction of the zones is based broadly on conurbation's in the vicinity of the campus. The number of Post Code Districts used within each zone relates to the distance from the Campus. Therefore the further from the campus the greater the number of postcode districts that will be used to construct the Zone. Details of the make up of the zones are provided at Appendix C.

4.2.15 The details of the respondents travelling from each zone and the core mode of travel are presented below.



**Table 12: - Modal Share by Zone**

<b>Zone</b>	<b>Proportion of Sample Response</b>	<b>Main Mode of Travel</b>	<b>Modal Share of Individual Zone Sample (%)</b>
1	33%	Car Driver / walk	34%
2	0%	Car Driver	100%
3	3%	Walk / Train	29%
4	1%	Car Driver	67%
5	0%	-	-
6	1%	Car Driver	67%
7	1%	Car Driver	100%
8	1%	Walk	75%
9	0%	-	-
10	1%	Car Driver	60%
11	1%	Car Driver	50%
12	1%	Car Driver	70%
13	1%	Car Driver	75%
14	1%	Car Driver	67%
15	1%	Car Driver	67%
16	1%	Walk	67%
17	0%	-	-
18	5%	Walk	42%
19	2%	Walk	63%
20	46%	Walk	32%

4.2.16 These results confirm that the car is the main mode of travel to the Campus, in particular it constitutes much of the travel associated with Zones 1 – 10, i.e. those closest to the Campus. One would normally expect more sustainable modes to make up the highest proportion of the modal share. In our view it should be noted that the results from Zones 18 – 20 should be treated with caution as they reflect that walking is the main mode of travel when the distances to the Campus appear unrealistic to travel in this fashion.

***Measures to Encourage Use of Public Transport***

4.2.17 Those respondents who were identified as Car Drivers were asked what measures would encourage them to travel by alternative modes to the Campus. The details of this are provided below: -

**Table 13: - Measures to Encourage Travel by Alternative Modes**

<b>Suggested Initiative</b>	<b>Proportion of sample</b>
More Frequent Bus Services	39%
Improved Publicity on Public Transport	10%
Secure Cycle Parking	6%
Improved facilities for cyclists	7%
Improved links within the Campus to bus stops	12%

4.2.18 Despite the excellent bus facilities currently provided, it appears the sample would like to see improvements to the existing provision.



### 4.3 Vehicular Arrival and Departure Survey

4.3.1 An Automatic Traffic Count (ATC) was undertaken at the Campus between Tuesday 1<sup>st</sup> October – Monday 7 October 2002 inclusive. Counts were undertaken at the main ingress to the Campus, the ingress to the overflow car park and at the Campus egress after the tennis courts.

4.3.2 The average weekday vehicle arrival and departure details are provided below

**Table 14: - Average Weekday Arrivals / Departures**

	<b>Arrivals</b>	<b>Departures</b>	<b>Two Way</b>
AM Peak	418	97	515
PM Peak	115	359	474
Daily	2927	2837	5764

### 4.4 Car Occupancy Survey

4.4.1 Identification of the number of occupants of vehicles entering the site was undertaken during the core hours of demand at the Campus. Core hours are identified as being between 07:00 – 18:00 and this survey was undertaken on Tuesday 1 October 2002. As with other travel data collated in respect of this document, it has been agreed with Surrey County Council that the results of the 2002 surveys should be used as the baseline figures against which the results of the future surveys will be compared to.

4.4.2 The results of this exercise indicate that over the survey period, 3,247 individuals arrived at the Campus by car, arriving in 2,507 vehicles. Of these 3,247 individuals, 1,622 shared a car journey to the Campus. This indicates that over the day some 50% of vehicle movements to the Campus are multi occupancy journeys.

4.4.3 Of the typical peak periods, 467 individuals arrived during the AM peak within 382 vehicles. During this time scale, 140 individuals undertook a multi occupancy journey. During the PM peak, 171 individuals arrived at the Campus within 98 vehicles, of which 109 individuals undertook a multi occupancy journey.

### 4.5 Car Parking Demand

4.5.1 A car park accumulation exercise was undertaken on the basis of the recorded ATC data. This has indicated that the peak utilisation of the car was between 13:00 – 14:00 on Thursday 3 October 2002, this figure equating to 101%. It is important to note that whilst this demand equates to a greater number of parking spaces than is actually provided, this is because the calculation used also takes into account vehicle movements internally that are circulating around the Campus and moving out of spaces. In reality, the number of parking spaces in use will be lower.

4.5.2 It should also be noted that the Survey Information is obtained in October, which represents the peak period for the entire academic year.



## 5 INITIATIVES TO ENCOURAGE SUSTAINABLE TRAVEL

5.1.1 This section will set out a number of initiatives that Royal Holloway shall implement to encourage sustainable travel to the main campus. A number of issues have been identified and these shall be used as headings within the following sections.

### 5.2 Creating a Pleasant Environment

5.2.1 Whilst the character of the Royal Holloway Campus is already a pleasant environment for use by pedestrians and cyclists, research carried out by DWP in 1997 identified that there are a number of areas where this could be improved.

5.2.2 In many areas, footways adjacent to the Campus roads are of reduced width and in some instances, footways are not provided at all. By providing additional footways, this will improve the environment for pedestrian movements. In addition, a campus wide night time lighting survey has been carried out by the College, identifying areas that can be improved upon so as to provide a safer environment for pedestrians, particularly during the winter months.

5.2.3 Royal Holloway will reduce the speed limit on campus to 10 mph. Currently vehicle speeds are limited to 15 mph within the majority of the Campus and 5 mph around the Founders Building. This will assist in putting the emphasis firmly upon sustainable travel, as opposed to car based movements.

### 5.3 Travel Plan

5.3.1 It has been previously acknowledged that the Highway Authority requires a Travel Plan to be provided within the S106 in order to promote more sustainable and environmentally friendly travel choices, encapsulating the initiatives discussed within this section and this document fulfils this obligation. As well as providing details of the current travel characteristics, as set out in the previous chapter, targets will be required in terms of decreasing car based journeys and increasing the number of trips made by sustainable modes of travel. Surrey County Council have stipulated that targets for reduction in car based trips to the Campus will have to be set and these will need to be agreed with the Highway Authority as part of the negotiation process.

5.3.2 Royal Holloway has recognised that a Travel Coordinator is required to oversee the day to day running of the Travel Plan and ensure the strategy is a success. This post will form part of the Facilities Management Department. As soon as the post is filled the necessary contact details will be forwarded to both Runnymede Borough Council and Surrey County Council.

5.3.3 **Publicity will** be provided in terms of existing opportunities for travel by sustainable modes along with any proposed measures to be introduced. The Travel Plan would finally need to identify that monitoring will be required in future years to ensure the necessary targets in terms of a reduction in car based trips are realised and achieved.



## 5.4 Cycle Parking and Supporting Facilities

5.4.1 At present the opportunities for cycle parking within the Campus is limited to catering for 174 cycles. As set out previously, there are instances of cyclists not parking at the designated parking zones and on site observations indicate that there are instances where improvements can be achieved. In view of this, it is proposed to increase the level of parking provision to cater for 321 cycles at the locations set out below as part of a £90,000 improvement scheme. Indeed, this is also being moved forward as Royal Holloway have submitted a Planning Application to implement Cycle Sheds using funding from the Local Planning Authority. This also provides details of the proposed works that will be undertaken to improve the existing facilities.

**Table 15: - Future Cycle Parking Provision**

Location	Proposed Provision	Improvements Proposed
Founders Building	40	Formalise Security Racks
Runnymede I	44	Formalise Security Racks
International Building	32	Re-configuration of hoops -
Athlone	50	Refurbish existing store
Runnymede II	30	cover to be added, provision to be increased
Kingswood Hall	15	Formalise Security Racks
Kingswood Car Park	12	Provide roof over hoops
Arts Building	18	No
Bourne Building	20	No
Queens Building	8	No
McCrea Building	20	No
Computer Centre	6	No
Bedford Building	20	No
Founders East Side	6	No
<b>Total</b>	<b>321</b>	-

5.4.2 Whilst Surrey County Council have indicated that they believe more cycle parking should be provided than is currently proposed, it is important to consider that the response of the questionnaire survey do not indicate that this will assist in providing a modal shift away from the private car. It is our view that the additional cycle parking facilities will provide for those who did indicate that additional cycle facilities would encourage a modal shift away from the private car.

5.4.3 In addition, **the College will** introduce formal Motor Cycle and Scooter parking at the Campus to provide secure facilities for those who choose to travel by these modes of transport.

5.4.4 The results of future monitoring exercises will assess whether this continues to be the case and if the results indicate that more cycle parking would required, this can be provided at that time.

5.4.5 It is important to undertake these works as previous Local Authority research indicates that the provision of secure cycle parking is a crucial incentive in encouraging travel by this mode and its lack of availability is a major deterrent to potential cyclists. Research conducted by the DTLR also indicates that upon the implementation of secure cycle parking at colleges, the usage of these facilities was particularly good, often with a demand for addition provision.



5.4.6 In addition, other areas of demand have been identified through on site observations indicating informal parking, such as adjacent to the eastern side of the Founders Building. In view of the above, it is considered that the implementation of secure cycle parking would be of positive benefit in respect of encouraging non-car travel. Whilst the type of secure cycle parking has yet to be fully determined, it is envisaged that it **will** take the form of the following:

- (i) Sheffield Racks positioned in small groups
- (ii) Covered cycle store, fitted with cycle racks for registered cyclists only
- (iii) Uncovered cycle cage
- (iv) Individual cycle lockers
- (v) Under cover cycle racks

5.4.7 Ultimately, it will be necessary to ensure that the cycle parking itself is located in proximity to the final destination of the users, as placing cycle parking at or very near cyclists' destinations is important. In this instance it will be necessary to provide these facilities in proximity to the various buildings within the Campus. This is because cyclists will only be prepared to park more than a short walk from their parking place if there is a significant gain in security. The facilities will be well lit, clearly signed, affording clear access into the parking area.

5.4.8 **Showering facilities will be made available** for those arriving by bicycle who wish to refresh themselves prior to commencing duties at the Campus. It is expected that these would be provided within the largest buildings at the Campus wherever possible and would also be available for other individuals who travel by other modes of travel as required.

## 5.5 Bus Provision

5.5.1 It is clear from the results of the questionnaire that the addition of more bus services will encourage a shift away from the private car.

5.5.2 Whilst Royal Holloway has recently improved the provision of its free and subsidised bus services, it will monitor the patronage of these facilities in the future to identify if further improvements or additional bus facilities are required.

## 5.6 Car Sharing

5.6.1 Car sharing involves two or more people travelling together instead of using separate cars and in this instance, given the staggered nature of lectures for students, would probably be most applicable to staff. They may pool their cars and alternate between them or regularly use a single vehicle and contribute to the running costs. Indeed, Royal Holloway have expressed an interest with Surrey County Council in participating in the Surrey wide car sharing scheme.

5.6.2 From analysis of the survey data, it will be possible for the Travel Coordinator to identify from postcode data any members of staff that live in proximity to each other and could potentially share a car journey to the Campus. A database will be compiled of such information which will allow the Travel Coordinator to reveal to those Staff and Students who are interested in car sharing of individuals that live close to one another and who could potentially car share. This will have the effect of creating an opportunity to reduce sole occupancy car trips and allow multi occupancy trips to take place which are far more sustainable.



- 5.6.3 Surrey County Council has requested details be provided of how the car sharing scheme would operate as part of the proposals.
- 5.6.4 The format of the car sharing scheme will be based upon the guidelines presented in the document "A Travel Resources Pack for Employers".
- 5.6.5 In the first instance, those Staff and Students who are willing to Car Share will be identified through the Travel Survey. Those who express an interest in car sharing will be provided with a registration form and their details stored on a database. This database will be secure and will only be accessed by the Travel Coordinator. It will be necessary to ensure that Royal Holloway's registration under the Data Protection Act covers the organisation sufficiently to allow a Car Sharing scheme to operate.
- 5.6.6 Once the database has been compiled, the Travel Coordinator will advise those Staff and Students who are willing to car share of individuals who live close with whom they could share a journey to the campus. **The College will actively advertise and market this so that those individuals who do not join straight away will be able to do so at a later date, if required.**
- 5.6.7 It should also be noted that it is proposed to make Staff and Students aware of the considerable financial benefits associated with Car Sharing so that individuals can see for themselves how taking part in the scheme would be advantageous to them.

## 5.7 **Parking**

- 5.7.1 As discussed previously, the college provides restrictive parking where only certain students, generally those who reside over 1.5 miles from the Campus are allocated a parking permit. This would continue to be the case in the future. This could be taken a step further where staff that live within 1.5 miles of the Campus and have the opportunity to arrive at the Campus by sustainable modes of travel, **would not be allocated parking permits and this will be debated through appropriate College committees.**
- 5.7.2 As stated in Section 2, the S106 requires consideration to be given to reducing parking on adjacent streets. By definition, this is very difficult to police, as the adjacent streets are public highway and indeed other individuals apart from student's park here. The College will continue to actively discourage Staff and Students from parking here by means of disciplinary action backed up by College Regulations, where possible.

## 5.8 **Other Initiatives**

- 5.8.1 Royal Holloway will examine the possibility of rewarding staff who travel to the Campus by sustainable modes of transport financially. For example a mileage rate could be given to those who arrive by bicycle.
- 5.8.2 Car Free Days will take place concurrently as to similar days that are run nationally.
- 5.8.3 Another option is the introduction of travel diaries for staff and students to identify the modes of travel used for a journey to the Campus and the distance travelled. This could identify which individual travels the greatest distance per term by sustainable modes of travel. This person could be offered a financial reward for this achievement. Consideration has previously been required in terms of staggered working hours. By definition, the limited number of lectures required to be attended by students and staff ensures that this is currently the case.



5.8.4 Royal Holloway **will establish** various constituencies that will operate within the College with the task of improving awareness of sustainable travel patterns to the Campus. In addition, it is expected that these constituencies will also consider the views of Staff and Students as they relate to Transport and ensure that Senior Management at the Campus are aware of these views. This may well involve the creation of a web page within the College web site that provides details of all the travel opportunities to the Campus.

## 5.9 **Targets and Target Dates**

5.9.1 Given the results of the surveys which indicate that the private car is the main mode of travel to the Campus it is considered that the following targets be set: -

1. Reduce those driving to the Campus by 5% to a modal share of 39%
2. Increase those car sharing to 6% from 4%.

5.9.2 It is anticipated that these points will be achieved due to the implementation of car sharing scheme by the next 1st monitoring period, which will be undertaken annually at the start of October; this being the time when the number of Staff and Students at the Campus is at its peak.

3. Increase those cycling to the Campus to 7% from 5%.

5.9.3 This will be achieved through the implementation of additional secure cycle parking and the opening of the cycleway adjacent to the A30.

4. Increase those arriving at the Campus by bus to 6% from 5%.
5. Encourage greater participation in the follow up survey by providing greater publicity as to the importance in environmental terms of the benefits of non car travel. This will be of particular importance to the students. Consideration may be given, subject to the view of the Highway Authority, as to extending the length of time the survey is carried out.

5.9.4 Clearly, the above points will need to be agreed with the Highway Authority, who may wish to add further suggestions as to the targets.



## 6 SUMMARY AND CONCLUSIONS

- 6.1.1 This report has been prepared on behalf of Royal Holloway University of London and supersedes documents prepared in September 2002 and February 2003.
- 6.1.2 The purpose of this document is to produce a framework for agreement with the Local Highway Authority (Surrey County Council) in respect of the production of a College Travel Plan. The College Travel Plan is a requisite of the S106 that was attached to the planning consent of the 10 Year Masterplan proposals. The purpose of the production of this Travel Plan is to encourage, wherever possible, access to the Royal Holloway Campus by staff and students using modes of travel other than the private car. This will therefore allow the discharging of conditions as set out within the S106 Agreement.
- 6.1.3 As part of this Framework document, it will be necessary to undertake an Annual Monitoring Report of Travel patterns to the Campus, considering both Staff and Students. These surveys will be undertaken annually at the start of October when Student numbers at the Campus are at their peak. The results of these surveys will be compared to results previous collated and this strategy has been accepted by Surrey County Council.
- 6.1.4 It should be noted that the baseline data of the travel survey is as collated from the surveys undertaken in October 2002, as set out in the February 2003 report.
- 6.1.5 The report has set out the requirements of the S106 and this has provided a context in which to develop the Sustainable Travel Strategy. It is important to note that many of the requirements of the S106 have already been implemented.
- 6.1.6 The report has also demonstrated that there are, at present, good opportunities to arrive at the site by non car modes of travel, with up to 9 public bus services per hour passing the Campus throughout the day. In addition, Royal Holloway also provides 5 buses per hour for students and staff operating between the off Campus Halls of Residence, the Campus itself and Egham Railway Station. Patronage data reflects these services are well used. There are also good opportunities to arrive at the Campus on foot and by bicycle. Royal Holloway also adopts a pro-active strategy to restrict parking at the Campus and discourage on street parking by students on the surrounding roads.
- 6.1.7 In terms of the strategy of the framework, surveys of current vehicle movement patterns into and out of the Campus have been undertaken to identify the existing level of car park utilisation. Surveys of staff and student travel patterns have been undertaken through the use of electronic questionnaires to be issued by e-mail. This data has been used to update the previous survey results and was undertaken in October 2002 to allow a representative sample of the travel patterns to the Campus to be identified when Student and staff numbers are at their peak.
- 6.1.8 A series of initiatives have been put forward within this document to encourage further, wherever possible, sustainable travel to the Campus. Such measures include the implementation of a Travel Plan (required by the S106 in any event) increased cycle parking, investigation into the possibility of providing park and ride facilities, increased bus service to the Campus, car sharing and reducing the number of parking permits issued.
- 6.1.9 A need to appoint for a Travel Coordinator has been recognised by Royal Holloway and the Local Planning and Highway Authorities will be advised of the contact details of this individual as soon as they are appointed.



- 6.1.10 Royal Holloway will seek to establish various constituencies that will operate within the College with the task of improving awareness of sustainable travel patterns to the Campus.
- 6.1.11 In conclusion it is our view that this Sustainable Travel Strategy presents a decisive series of measures and presents a firm framework upon which to base a Travel Plan upon and will ultimately provide a real opportunity for an increase in sustainable travel to the campus.