

DMMason

Engineering Consultants Ltd

HENRY JONES ESTATE

LAND AT 59-61 WEST STREET, HAVANT

TRANSPORT ASSESSMENT

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Old Town
SWINDON
SN3 1NJ**

HENRY JONES ESTATE

LAND AT 59-61 WEST STREET, HAVANT

TRANSPORT ASSESSMENT

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written approval of D M Mason
Engineering Consultants Ltd.

Reference: DMM/AJB/J.020

November 2012

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1.0 INTRODUCTION

- 1.1 D M Mason Engineering Consultants Ltd has been instructed by the estate of Henry Jones to prepare a Transport Assessment in support of the planning application for the redevelopment of land at 59-61 West Street, Havant.
- 1.2 This Transport Assessment describes the site and the adjacent highway network. It describes the proposed development and the access to the site. The Assessment describes access to the site by means other than the private car. It discusses generated traffic flows and the impact of the flows. The Assessment also gives details of multi-modal trip generation and Transport Contributions. It reports on accident data for the adjacent highway network and comments on the data.
- 1.3 This Transport Assessment concludes that the proposed development is acceptable in highway terms.

2.0 DESCRIPTION OF THE APPLICATION SITE

- 2.1 The application site lies on the south side of West Street, Havant. The site is on the west side of The Court House public house. Brockhampton Springs lie on the west side of the site. A Location Plan, drawing J.020/1, an extract from the 1:50,000 Scale Ordnance Survey Map, is given in Appendix 1.
- 2.2 The site presently comprise a builders yard comprising a number of buildings of differing ages. The Henry Jones building fronting West Street is of merit and is to be retained in the redevelopment. Access to the site is made near the western end of the West Street frontage. A Detailed Location Plan, drawing 12.071.001 by HGP Architects is given in Appendix 2. A Site Survey by Premier Surveys Ltd, drawing 5099_Site_R0 is given in Appendix 3.
- 2.3 West Street runs from the junction of New Road and Bedhampton Road to the west to Park Road to the east. It has residential and employment site frontage. It has a lit carriageway of varying width and generally has footways also of varying width on each side. There is on carriageway parking over substantial lengths of West Street, leading to parts of the road having one-way working only between passing spaces.
- 2.4 Adjacent to the site West Street has a carriageway width of 5.7 metres. The footway on the southern side of the street is 1.4 metre except adjacent to the Henry Jones building where it is 0.9 metres wide. The footway on the north side of the road varies in width but is generally wider than 1.6 metres.
- 2.5 The existing access to the site has visibility splays of 2.4 metres by 32 metres looking right and 2.4 metres by 15 metres looking left. The visibility splay looking left to the centreline of West Street is 2.4 metres by 45 metres.

- 2.6 At the western end of West Street, the level crossing adjacent to Bedhampton Station interrupts traffic flow. Waiting lanes on Bedhampton Road and New Road cater for waiting vehicles.
- 2.7 At the eastern end of West Street, the junction with Park Road allows only left in and left out movements.
- 2.8 A signal controlled pedestrian crossing gives access from the site to Havant town centre.

3.0 DESCRIPTION OF THE APPLICATION PROPOSALS

- 3.1 The proposed redevelopment is shown on drawing 12.071.005 by HGP Architects in Appendix 4.
- 3.2 The proposals comprise the removal of all existing buildings save for the Henry Jones building fronting West Street. The Henry Jones building will be refurbished to provide two 2-bed and six 1-bed flats. The remainder of the site will be redeveloped to provide sixteen 3-bed houses.
- 3.3 Access to the site will remain in the existing position.
- 3.4 Cycle storage sheds will be provided in the gardens of houses. A cycle storage cage will be provided in the Henry Jones building.
- 3.5 Twenty car parking spaces will be provided.
- 3.6 A bin collection point will be provided at the site entrance for residents to leave bins on refuse collection day.

4.0 **ACCESS BY MEANS OTHER THAN THE PRIVATE CAR**

4.1 The site lies approximately 750 metres from Bedhampton railway station and approximately 650 metres from Havant railway station. Services from Havant run to Southampton, Brighton, Portsmouth, and London Victoria and Waterloo stations. Network maps for Southern and South West Trains are given in Appendix 5.

4.2 The following approximate service frequencies are available:-

Destination Station	Weekday Daytime	Weekday Off-peak	Weekend
Southampton	15 minutes	30 minutes	20 minutes
Brighton	20 minutes	30 minutes	20 minutes
Portsmouth & Southsea	10 minutes	15 minutes	15 minutes
Victoria	30 minutes	30 minutes	30 minutes
Waterloo	20 minutes	20 minutes	20 minutes

4.3 The site lies approximately 300 metres from Havant bus station. A network map for Stagecoach services in Portsmouth and Havant is given in Appendix 5. The following routes and approximate services are available from the bus station:-

Route	Destination	Weekday Daytime	Weekday Off-peak	Weekend	
				Saturday	Sunday
20	Portsmouth	30 mins	---	30 mins	---
21	Portsmouth	30 mins	1 hour	30 mins	1 hour
23	Leigh Pk/Southsea	10 mins	1 hour	10 mins	30 mins
30/31	Hayling Island	15 mins	1 hour	15 mins	1 hour
37	Petersfield	1 hour	---	1 hour	---
39	Wecock Farm	15 mins	---	1 hour	---
700	Brighton/Portsmouth	30 mins	1 hour	30 mins	1 hour
	h				

- 4.4 The site is close to the cycle route from Park Road south to the industrial estates south of the A27. This route also links to the cycle route to central Portsmouth. Link Routes north of New Road provide cycle friendly routes to northern area of the Borough.
- 4.5 The site is within 100 metres of the edge of Havant town centre. The main part of the town centre is accessible by using the signal controlled pedestrian crossing of Park Road.

5.0 **VEHICLE TRIP GENERATION**

5.1 The existing development comprises 1,867 square metres gross floor area of office space. This figure includes the floor area of the demolished portacabin which occupied the south east corner of the site. In addition to this office space, the site also contains further floor area in various B1 light industrial and B8 storage uses.

5.2 The TRICS database has been interrogated for vehicle trip generation from office uses. The TRICS outputs are given in Appendix 6. The TRICS data gives the following trip rates per 100 sqm of development:-

Office	Arrivals	Departures	Total
AM Peak	1.885	0.237	2.122
PM Peak	0.341	1.910	2.251
Daily	7.784	7.613	15.397

5.3 The above trip rates give the following trip generation for 1,867 square metres gross floor area of office space:-

Office	Arrivals	Departures	Total
AM Peak	35	4	40
PM Peak	6	36	42
Daily	145	142	287

5.4 The proposed redevelopment comprises the provision of sixteen 3-bed houses, two 2-bed and six 1-bed flats.

5.5 The TRICS database has been interrogated for vehicle trip generation from houses and flats. The TRICS outputs are given in Appendix 6. The TRICS data gives the following trip rates:-

Houses	Arrivals	Departures	Total
AM Peak	0.203	0.437	0.640
PM Peak	0.382	0.275	0.657
Daily	2.970	2.940	5.910

Flats	Arrivals	Departures	Total
AM Peak	0.102	0.310	0.412
PM Peak	0.257	0.091	0.348
Daily	1.765	1.645	3.410

5.6 The above trip rates give the following trip generation for sixteen 3-bed houses, two 2-bed and six 1-bed flats:-

Houses	Arrivals	Departures	Total
AM Peak	3	7	10
PM Peak	6	4	11
Daily	48	47	95

Flats	Arrivals	Departures	Total
AM Peak	1	2	3
PM Peak	2	1	3
Daily	14	13	27

5.7 The proposed redevelopment therefore gives the following vehicle trip generation:-

Total Proposed	Arrivals	Departures	Total
AM Peak	4	9	13
PM Peak	8	5	14
Daily	62	60	122

5.8 The proposed redevelopment generates fewer vehicle movements in each of the peak periods and daily. The proposed redevelopment will reduce traffic movements on the roads around the site. The proposed redevelopment will be advantageous to all road users.

6.0 **MULTI-MODAL TRIP GENERATION AND TRANSPORT CONTRIBUTION**

6.1 The Hampshire County Council document Transport Contributions Policy: A New Approach to Calculating Transport Contributions in Hampshire dated September 2007 is used to calculate Transport Contributions for development in Havant in accordance with policy DM12. The document gives multi-modal trip rates for various development types. The document gives the following trip rates:-

C3 - Residential	Cost per Trip (£)	Household Occupancy	Multi-Modal Trips (per dwelling)	Cost per dwelling (£)
1 Bed Dwelling	535	1.3	3.7	1980
2-3 Bed Dwelling	535	2.42	7.0	3745
4+ Bed Dwelling	535	3.5	10.2	5457
B - Employment	Cost per Trip (£)		Multi-Modal Trips (per 100sqm)	Cost per 100 sqm (£)
B1 Business	230		18.7	4301
B2 General Industry	230		7.5	1725
B8 Warehouse & Distribution	230		9.4	2162

6.2 The existing development comprises 1,867 square metres gross floor area of office space. This figure includes the floor area of the demolished portacabin which occupied the south east corner of the site.

6.3 The existing B1 office development on the site will therefore generate 349 multi-modal trips per day.

6.4 The proposed redevelopment comprises the provision of sixteen 3-bed houses, two 2-bed and six 1-bed flats.

6.5 The proposed development will generate the following multi-modal trips:-

Units	No.	Trip Rate	Trips per Day
1-bed units	6	3.7	22.2
2 & 3-bed units	18	7.0	126
Total			148.2

6.6 The existing development generates 349 multi-modal trips per day. The proposed development generates 148 multi-modal trips per day. The number of multi-modal trips generated by the site reduces with the proposed redevelopment.

6.7 Paragraph 6.3 of the Hampshire document states:-

‘6.3 Where a site has a previous use, the net increase in multi-modal trips will be used to calculate the contribution. Where a site has been dormant for 5 years or more all traffic generated by a proposed new use of the site will be considered to be new to the network. This means that all multi-modal trips generated by the new development will be used to calculate the contribution.’

6.8 There is no net increase in multi-modal trips from the site following redevelopment. The Transport Contribution is therefore nil.

7.0 PARKING PROVISION

7.1 The Havant Borough Council Residential Parking and Cycle Provision Supplementary Planning Document adopted March 2010 (the SPD) give details of the parking standards to be applied for development in Havant.

7.2 The SPD requires long stay cycle parking of one space for 1-bed units and two spaces for 2-bed or larger units. Cycle storage sheds will be provided in the gardens of houses. A cycle storage cage will be provided in the flatted redevelopment of the Henry Jones building.

7.3 The SPD requires short stay cycle parking of one loop/hoop for all units. One cycle parking loop will be provided on each dwelling.

7.4 The SPD notes:-

‘5.4 Havant Town Centre offers the widest choice in alternative transport modes with a mainline train station, with regular services to a variety of locations, and also a bus station that provides services across the borough and to Portsmouth, Chichester and beyond. Havant Town Centre also provides a range of shops and services which lessen the need for individual travel. This is considered to be the most accessible and sustainable part of the borough.

5.5 Proposals within the Havant Town Centre boundaries will be expected to have a reduced or even zero standard of vehicle parking provision in order to maximise the use of land and discourage the use of private motor vehicles. For this reason the standard here will be a maximum. A reduced standard can also apply in instances where a site is located less than 800 metres from the centre of the town (when measured as an on the ground walking distance, not ‘as the crow flies’). This should be demonstrated in the design and access statement accompanying applications.

7.5 The SPD gives the following parking requirements for allocated parking provision:-

Table 4 Vehicle Parking			
Zone	Standard	Havant town centre	Waterlooville town centre
Size of dwelling			
1 Bed Unit	1 space	Max 1 space	1 space
2 Bed Unit	2 spaces	Max 1 space	1 space
3 Bed Unit	2 spaces	Max 1 space	1-2 spaces
4+ Bed Unit	3 spaces	Max 2 spaces	1-2 spaces

7.6 It will be assumed that the junction of West Street, North Street, East Street and South Street is the centre of Havant town centre. The proposal site is therefore some 350 metres from the centre of Havant town centre. The parking standards for Havant town centre are therefore appropriate.

7.7 The proposal development provides 20 car parking spaces. One space will be allocated for each 3-bed house. The flats will have no parking allocated. There will be four visitor parking spaces.

7.8 The proposed redevelopment meets the parking standards in the SPD.

8.0 ACCIDENT DATA

- 8.1 Accident data has been obtained from Hampshire Police for West Street including its junctions with Bedhampton Road/New Road and Park Road. The data obtained covers the period 1 January, 2007 to 29 February, 2012, that is 5 years and 2 months.
- 8.2 During the study period, 12 accidents causing 12 slight injuries occurred in the study area.
- 8.3 Three accidents causing three slight injuries occurred at the junction of West Street and Bedhampton Road. Two involved shunts of vehicles waiting to turn from West Street. The remaining accident was caused by a vehicle turning right from West Street into the path of an on-coming vehicle.
- 8.4 One accident occurred at the level crossing on West Street when a car clipped a cycle causing the rider to fall from the cycle. A slight injury was caused.
- 8.5 A car was edging from Staunton Road due to obscured visibility. A motorcycle on West Street struck the car causing a slight injury.
- 8.6 A car leaving a sub-station pulled into the path of a moped on West Street. A slight injury occurred.
- 8.7 A car leaving Union Road failed to give way and collided with a car on West Street. A slight injury was caused.
- 8.8 A car turning from Park Road South into West Street struck a cyclist on West Street. A slight injury was caused.

- 8.9 Four accidents occurred on Park Road at the signal controlled pedestrian crossing adjacent to West Street. All accident occurred on Park Road southbound. All accidents caused slight injuries. Two children ran into the road against red pedestrian signals. One person over retirement age crossed the road as the lights changed and was struck. A car waiting at a red light was struck in the rear.
- 8.10 There is no pattern of accidents on West Street which give rise to the need for remedial action.

9.0 CONCLUSIONS

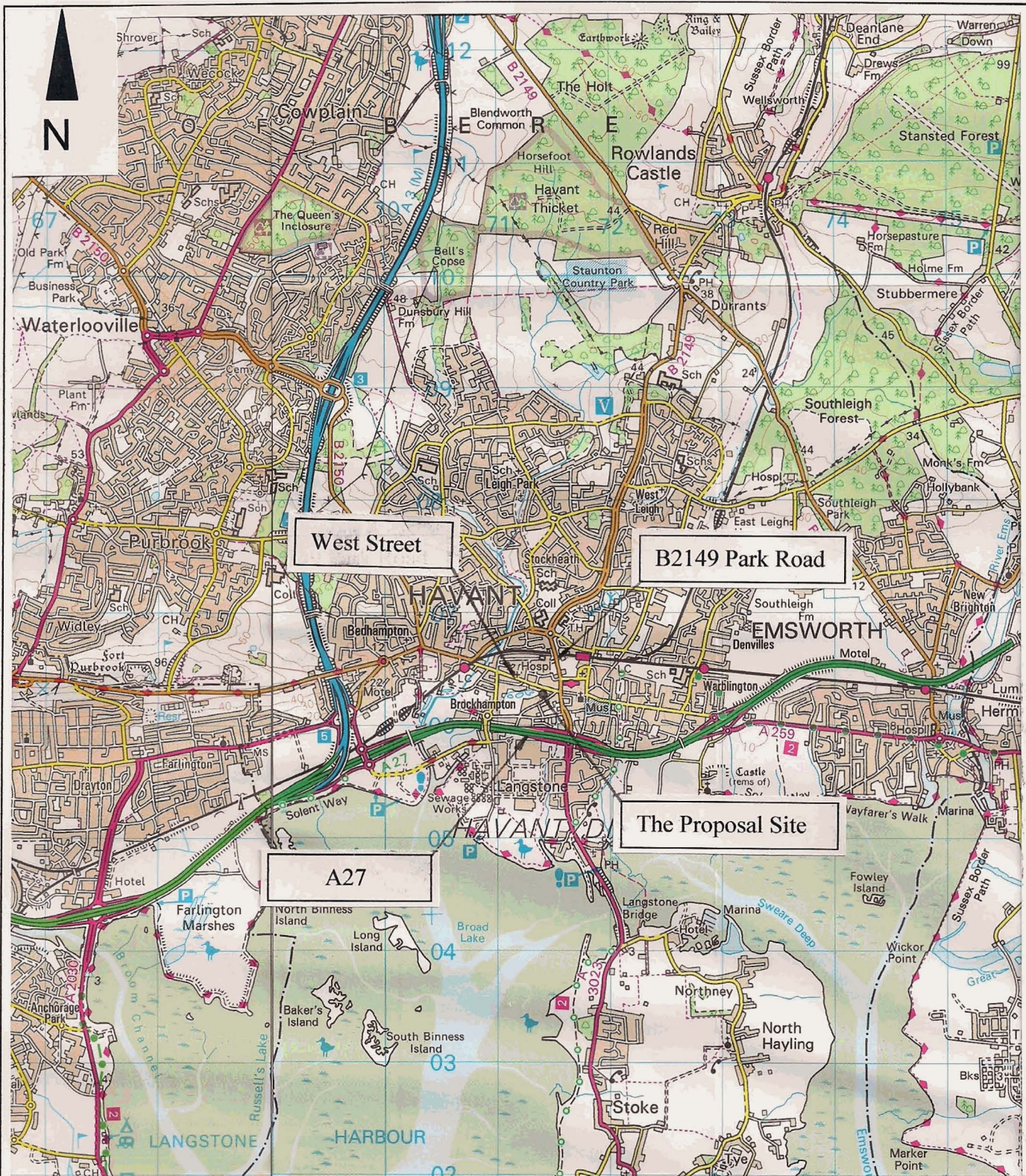
- 9.1 This Transport Assessment supports the planning application for the redevelopment of land at 59-61 West Street, Havant.
- 9.2 The site presently comprise a builders yard comprising a number of buildings of differing ages. Access to the site is made near the western end of the West Street frontage. The existing access to the site has visibility splays of 2.4 metres by 32 metres looking right and 2.4 metres by 15 metres looking left.
- 9.3 The proposals comprise the removal of all existing buildings save for the Henry Jones building fronting West Street. The Henry Jones building will be refurbished to provide two 2-bed and six 1-bed flats. The remainder of the site will be redeveloped to provide sixteen 3-bed houses. Access to the site will remain in the existing position. Twenty car parking spaces will be provided.
- 9.4 The site lies approximately 750 metres from Bedhampton railway station and approximately 650 metres from Havant railway station. The site lies approximately 300 metres from Havant bus station. The site is close to the cycle route from Park Road south to the industrial estates south of the A27. The site is within 100 metres of the edge of Havant town centre. The site is highly accessible.
- 9.5 The existing development comprises 1,867 square metres gross floor area of office space. This figure includes the floor area of the demolished portacabin which occupied the south east corner of the site. The TRICS database has been interrogated for vehicle trip generation. The existing development generates 287 trips per day.

- 9.6 The proposed redevelopment comprises the provision of sixteen 3-bed houses, two 2-bed and six 1-bed flats. The proposed redevelopment will generate 122 trips per day using TRICS data.
- 9.7 The proposed redevelopment generates fewer vehicle movements in each of the peak periods and daily. The proposed redevelopment will reduce traffic movements on the roads around the site. The proposed redevelopment will be advantageous to all road users.
- 9.8 The Hampshire County Council document Transport Contributions Policy: A New Approach to Calculating Transport Contributions in Hampshire dated September 2007 is used to calculate Transport Contributions for development in Havant in accordance with policy DM12. The existing development comprises 1,867 square metres gross floor area of office space and will generate 349 multi-modal trips per day. The proposed redevelopment comprises the provision of sixteen 3-bed houses, two 2-bed and six 1-bed flats. The proposed development will generate 148.2 multi-modal trips per day. There is no net increase in multi-modal trips from the site following redevelopment. The Transport Contribution is therefore nil.
- 9.9 The Havant Borough Council Residential Parking and Cycle Provision Supplementary Planning Document adopted March 2010 (the SPD) give details of the parking standards to be applied for development in Havant. Cycle storage sheds will be provided in the gardens of houses. A cycle storage cage will be provided in the flatted redevelopment of the Henry Jones building.

- 9.10 The SPD gives the following parking requirements for allocated parking provision. The proposal development provides 20 car parking spaces. One space will be allocated for each 3-bed house. The flats will have no parking allocated. There will be four visitor parking spaces. The proposed redevelopment meets the parking standards in the SPD.
- 9.11 Accident data has been obtained from Hampshire Police for West Street including its junctions with Bedhampton Road/New Road and Park Road. The data obtained covers the period of 5 years and 2 months. There is no pattern of accidents on West Street which give rise to the need for remedial action.
- 9.12 The site is highly accessible. The proposed redevelopment generates fewer vehicle movements in each of the peak periods and daily. The proposed redevelopment will be advantageous to all road users. The proposed redevelopment meets the parking standards in the SPD. This Transport Assessment therefore concludes that the proposed development is acceptable in highway terms.

Appendix 1

Drawing J.020/1, Location Plan, Extract
from the 1:50,000 Scale Ordnance Survey Map.



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161 Marlborough Road,
Old Town, SWINDON, SN3 1NJ
01793 611712

PROJECT

Land at West Street, Havant

DRAWING TITLE

Location Plan

DATE

Nov, 2012

SCALE

1:50,000

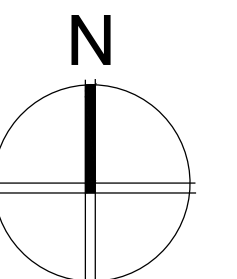
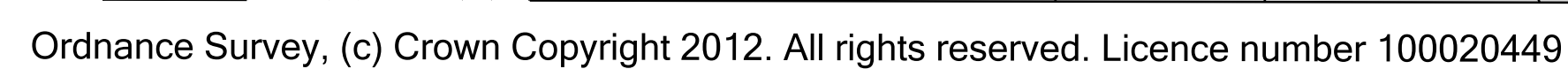
DRAWING No.

J.020/1

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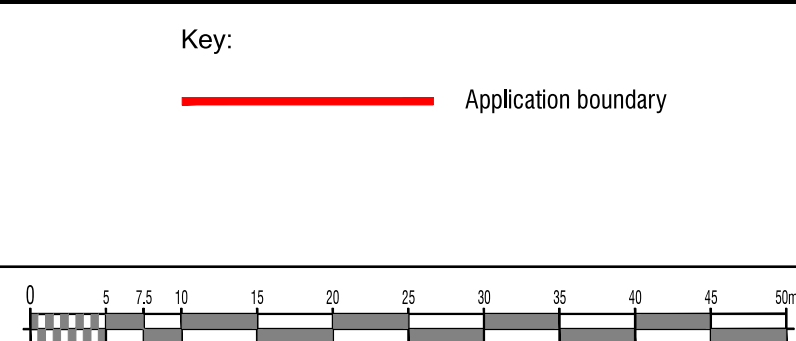
Appendix 2

Detailed Location Plan, Drawing 12.071.001 by HGP Architects.



Rev	Date	Description	By	PM
REVISIONS				

PLANNING



CLIENT
Vail Williams

Scale @ A1: 1/500
Date: © November 2012

TITLE
West Street, Havant
Location Plan
and application boundary

Drawing No:
12.071_001

Revision:



HGP
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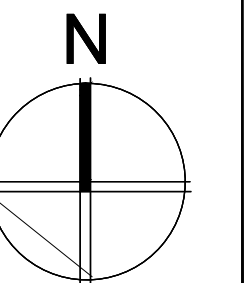
P Architects Ltd.
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Black clims. on site.

Appendix 3

Site Survey by Premier Surveys Ltd, Drawing 5099_Site_R0.

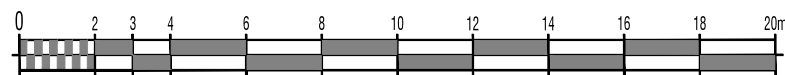
Appendix 4

Drawing 12.071.005 by HGP Architects.



Rev	Date	Description	By	PM
REVISIONS				

PLANNING



CLIENT
Vail Williams

TITLE
West Street, Havant
Proposed Site Plan

Scale @ A1: 1/200
Date: © November 2012

Drawn by: CK
Checked by: GG

Drawing No:
12.071.005

Revision:

HGP
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12.071.005

Appendix 5

Network Maps for Southern Trains and South West Trains.

Network Map for Stagecoach Services Portsmouth and Havant.

Southern Network Map

Key

Regular service

Limited service

Brighton Mainline route

West London route

Metro route

Oxted route

Redhill route

Mainline West route

Mainline East route

Coastway West route

Coastway East route

Gatwick Express route

Key stations

Other train operator route

Ferry service

Limited Southern service station

London Underground interchange

London Overground interchange

DLR interchange

Tramlink interchange

Eurostar interchange

Airport interchange

Ferry service interchange

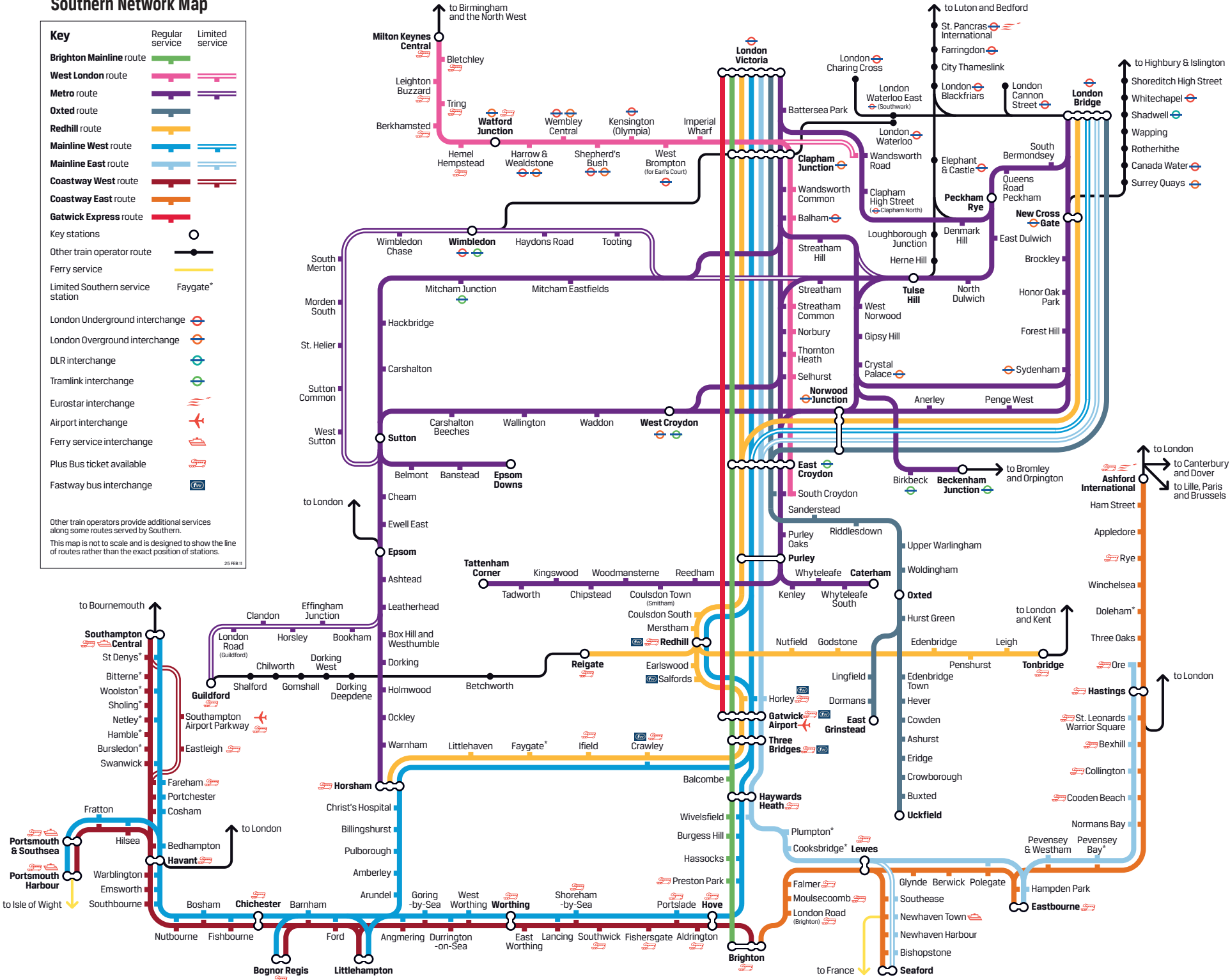
Plus Bus ticket available

Fastway bus interchange

Other train operators provide additional services along some routes served by Southern.

This map is not to scale and is designed to show the line of routes rather than the exact position of stations.

25 FEB 11



- Stations managed by South West Trains
- Other services
- Bus links
- Ferry links
- Connections to London Underground



Main Bus Routes in Portsmouth & Havant



KEY

Main Bus Service Routes

20	21
23	30
31	37
39	700

Railway line and station
 Hospital



Appendix 6

TRICS Vehicle Trip Rate Details for Offices, Houses and Flats.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	CI CITY OF LONDON	1 days
	MR MERTON	2 days
	SK SOUTHWARK	1 days
02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	KC KENT	4 days
	SC SURREY	1 days
03	SOUTH WEST	
	DC DORSET	1 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	2 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
	TV TEES VALLEY	2 days
	TW TYNE & WEAR	3 days
10	WALES	
	WR WREXHAM	1 days
12	CONNAUGHT	
	CS SLIGO	1 days
15	GREATER DUBLIN	
	DL DUBLIN	2 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
 Actual Range: 1386 to 3500 (units: sqm)
 Range Selected by User: 933 to 3734 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 05/12/11

Selected survey days:

Monday	8 days
Tuesday	6 days
Wednesday	6 days
Thursday	6 days
Friday	1 days

Selected survey types:

Manual count	27 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	6
Edge of Town Centre	8
Suburban Area (PPS6 Out of Centre)	7
Edge of Town	4
Neighbourhood Centre (PPS6 Local Centre)	2

Selected Location Sub Categories:

Industrial Zone	2
Commercial Zone	6
Residential Zone	5
Retail Zone	1
Built-Up Zone	8
High Street	1
No Sub Category	4

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	27	2435	0.208	27	2435	0.038	27	2435	0.246
07:30 - 08:00	27	2435	0.468	27	2435	0.049	27	2435	0.517
08:00 - 08:30	27	2435	0.893	27	2435	0.120	27	2435	1.013
08:30 - 09:00	27	2435	0.992	27	2435	0.117	27	2435	1.109
09:00 - 09:30	27	2435	0.824	27	2435	0.169	27	2435	0.993
09:30 - 10:00	27	2435	0.520	27	2435	0.236	27	2435	0.756
10:00 - 10:30	27	2435	0.287	27	2435	0.228	27	2435	0.515
10:30 - 11:00	27	2435	0.266	27	2435	0.228	27	2435	0.494
11:00 - 11:30	27	2435	0.286	27	2435	0.227	27	2435	0.513
11:30 - 12:00	27	2435	0.248	27	2435	0.224	27	2435	0.472
12:00 - 12:30	27	2435	0.231	27	2435	0.363	27	2435	0.594
12:30 - 13:00	27	2435	0.283	27	2435	0.303	27	2435	0.586
13:00 - 13:30	27	2435	0.350	27	2435	0.351	27	2435	0.701
13:30 - 14:00	27	2435	0.356	27	2435	0.227	27	2435	0.583
14:00 - 14:30	27	2435	0.283	27	2435	0.272	27	2435	0.555
14:30 - 15:00	27	2435	0.181	27	2435	0.284	27	2435	0.465
15:00 - 15:30	27	2435	0.205	27	2435	0.245	27	2435	0.450
15:30 - 16:00	27	2435	0.228	27	2435	0.301	27	2435	0.529
16:00 - 16:30	27	2435	0.205	27	2435	0.608	27	2435	0.813
16:30 - 17:00	27	2435	0.192	27	2435	0.859	27	2435	1.051
17:00 - 17:30	27	2435	0.149	27	2435	1.051	27	2435	1.200
17:30 - 18:00	27	2435	0.071	27	2435	0.605	27	2435	0.676
18:00 - 18:30	27	2435	0.038	27	2435	0.338	27	2435	0.376
18:30 - 19:00	27	2435	0.020	27	2435	0.170	27	2435	0.190
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			7.784			7.613			15.397

Parameter summary

Trip rate parameter range selected:	1386 - 3500 (units: sqm)
Survey date date range:	01/01/04 - 05/12/11
Number of weekdays (Monday-Friday):	27
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	3

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	BN BARNET	1 days
	KI KINGSTON	2 days
	KN KENSINGTON AND CHELSEA	1 days
	SK SOUTHWARK	1 days
	WE WESTMINSTER	1 days
03	SOUTH WEST	
	CW CORNWALL	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LE LEICESTERSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	ST STAFFORDSHIRE	1 days
	WM WEST MIDLANDS	1 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	HI HIGHLAND	1 days
12	CONNAUGHT	
	GA GALWAY	1 days
	RO ROSCOMMON	1 days
14	LEINSTER	
	KK KILKENNY	2 days

Filtering Stage 2 selection:

Parameter: Number of dwellings
Actual Range: 9 to 31 (units:)
Range Selected by User: 8 to 34 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 18/10/11

Selected survey days:

Monday	3 days
Tuesday	4 days
Wednesday	4 days
Thursday	11 days
Friday	2 days

Selected survey types:

Manual count	24 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	14
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

Selected Location Sub Categories:

Residential Zone	19
Built-Up Zone	2
No Sub Category	3

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	1	30	0.133	1	30	0.033	1	30	0.166
07:00 - 08:00	24	17	0.080	24	17	0.234	24	17	0.314
08:00 - 09:00	24	17	0.203	24	17	0.437	24	17	0.640
09:00 - 10:00	24	17	0.157	24	17	0.251	24	17	0.408
10:00 - 11:00	24	17	0.188	24	17	0.203	24	17	0.391
11:00 - 12:00	24	17	0.203	24	17	0.181	24	17	0.384
12:00 - 13:00	24	17	0.196	24	17	0.191	24	17	0.387
13:00 - 14:00	24	17	0.217	24	17	0.191	24	17	0.408
14:00 - 15:00	24	17	0.242	24	17	0.203	24	17	0.445
15:00 - 16:00	24	17	0.307	24	17	0.280	24	17	0.587
16:00 - 17:00	24	17	0.382	24	17	0.275	24	17	0.657
17:00 - 18:00	24	17	0.365	24	17	0.244	24	17	0.609
18:00 - 19:00	24	17	0.297	24	17	0.217	24	17	0.514
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			2.970			2.940			5.910

Parameter summary

Trip rate parameter range selected: 9 - 31 (units:)
 Survey date range: 01/01/04 - 18/10/11
 Number of weekdays (Monday-Friday): 24
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
 VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	CN CAMDEN	1 days
	HK HACKNEY	1 days
	KN KENSINGTON AND CHELSEA	1 days
02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	OX OXFORDSHIRE	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
10	WALES	
	DB DENBIGHSHIRE	1 days
14	LEINSTER	
	WT WESTMEATH	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days

Filtering Stage 2 selection:

Parameter: Number of dwellings
 Actual Range: 6 to 20 (units:)
 Range Selected by User: 6 to 20 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 21/10/11

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	2 days
Thursday	3 days
Friday	5 days

Selected survey types:

Manual count	13 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	3
Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	7
Neighbourhood Centre (PPS6 Local Centre)	1

Selected Location Sub Categories:

Residential Zone	8
Built-Up Zone	3
No Sub Category	2

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	13	14	0.037	13	14	0.155	13	14	0.192
08:00 - 09:00	13	14	0.102	13	14	0.310	13	14	0.412
09:00 - 10:00	13	14	0.053	13	14	0.118	13	14	0.171
10:00 - 11:00	13	14	0.091	13	14	0.070	13	14	0.161
11:00 - 12:00	13	14	0.091	13	14	0.075	13	14	0.166
12:00 - 13:00	13	14	0.070	13	14	0.118	13	14	0.188
13:00 - 14:00	13	14	0.075	13	14	0.075	13	14	0.150
14:00 - 15:00	13	14	0.080	13	14	0.043	13	14	0.123
15:00 - 16:00	13	14	0.070	13	14	0.064	13	14	0.134
16:00 - 17:00	13	14	0.123	13	14	0.086	13	14	0.209
17:00 - 18:00	13	14	0.257	13	14	0.091	13	14	0.348
18:00 - 19:00	13	14	0.150	13	14	0.107	13	14	0.257
19:00 - 20:00	2	15	0.333	2	15	0.200	2	15	0.533
20:00 - 21:00	2	15	0.100	2	15	0.033	2	15	0.133
21:00 - 22:00	2	15	0.133	2	15	0.100	2	15	0.233
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			1.765			1.645			3.410

Parameter summary

Trip rate parameter range selected:	6 - 20 (units:)
Survey date date range:	01/01/04 - 21/10/11
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0