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REDWOOD PARTNERSHIP
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RESIDENTIAL REDEVELOPMENT AT THE BUILD CENTRE SITE, PARK ROAD WORTHING, WEST SUSSEX BN11 2AR

TRANSPORT STATEMENT

ON BEHALF OF OAKFAWN PROPERTIES

PMcL/2936/TS1

Registered in England No. 7200530
Registered Office: The White House, 2 Meadrow, Godalming, Surrey, GU7 3HN

C O N T E N T S

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DRAWINGS

Architects Michael Cook Associates -Site Plan 5252/01 A

Drawing No. REDW-2936-111 – Highway Access Plan

APPENDIX A

Figure A1 – Local Bus Routes & Bus Stop Location
Figure A2 – Local Cycle routes

APPENDIX B

TRICS output

APPENDIX C

Traffic Accident Plot (West Sussex County Council)

1.0 INTRODUCTION

1.1 The Redwood Partnership has been retained by Oakfawn Properties to produce a Transport Statement on proposals to re-develop the existing Build Centre builder's merchant site on Park Road, Worthing, BN11 2AR. The location of the site is shown in Figure A1 (Appendix A).

1.2 The re-development proposals consist of 14No. residential units with 19 No. car parking spaces including 1No. visitor parking space, together with a site access road to allow for emergency vehicle access. The site has a total area of 0.289 hectares and the existing buildings on the site which consist of offices on the site frontage with Park Road and a merchants building to the rear of the site will be demolished to provide for the proposed development. A reduced copy of the Architect's site development proposals Drg. No. 5252/01/A is attached to the rear of the Transport Statement.

1.3 The Transport Statement will consider the following issues:

- Existing conditions and patterns of movement at the site access
- The nature and scale of the development proposals
- The site access arrangements and visibility splay requirements
- The impact of the development scheme on the adjoining highway network and the need for mitigating measures
- Transport Policy Guidance

1.4 The Highway Authority responsible for highways and transportation issues within the study area is West Sussex County Council, which also has responsibilities for development control issues concerning the site. The local Planning Authority is Worthing Borough Council.

1.5 The Transport Statement should be read in conjunction with other submitted planning documents, namely the Design and Access Statement and architectural plans prepared by Michael Cook Associates.

2.0 EXISTING HIGHWAY & TRANSPORTATION LINKS

2.1 The site is located on the west side of Park Road, Worthing on the east side of Worthing Town Centre. Park Road is a local access road running one-way as a northbound single carriageway with an urban speed limit of 30 mph. The road has street lighting and formal kerbing and is bounded by footways both sides. The frontages on Park Road are predominantly residential except for the site which is a builder's merchant. A small number of light engineering units are located to the south of the site entrance with dropped kerb crossovers and single yellow line waiting restrictions which improves visibility at the existing site entrance. Vehicular access to Park Road is from the south via a simple priority junction from the A259 Brighton Road.

2.2 Park Road is a local access road used primarily by traffic gaining access to residential streets surrounding the site. The main road has a level gradient and is located within a controlled parking zone with marked parking bays on the west side of the road with appropriate gaps at crossovers. The parking restrictions adjacent to the site on Park Road are restricted to permit holders only from Monday – Saturday, 0900–1800 hrs. Double yellow line restrictions are in force opposite the site entrance.

2.3 Park Road is one-way northbound only, therefore the only relevant visibility splay is to the right when leaving the site. Photo2.1 shows the existing visibility to the right from the existing site access, whilst Photo 2.2 shows the layout of the existing access:

Photo 2.1
Existing visibility to right at site entrance onto Park Road



Photo 2.2
Existing site entrance



2.4 As shown in Photo 2.1 the presence of on-street parking moves approaching traffic out the centre of the carriageway so that the outside edge of the parking bay becomes the effective carriageway edge. The location of dropped kerb crossings and single yellow lines to the south of the site entrance provides a clear zone which improves visibility. On-street parking on the main carriageway partially restricts visibility at the end of the visibility splay from the site but visibility is achieved through the windows of the parked cars. It is unlikely that the Highway Authority would have introduced on-street parking in this location if it was considered to be unsafe for the existing site access.

2.5 Access to the site is via a wide concrete bellmouth which allows for articulated lorry access to supply the builder's merchant. The existing site is of insufficient size for an articulated lorry to turn around on the site and large delivery lorries are required to reverse out onto Park Road. Photo 2.3 shows an articulated lorry reversing into Park Road.

Photo 2.3
Articulated lorry reversing onto Park Road



Public Transport - Bus Services

2.6 The site is well located with very good access to local bus services connecting to Worthing Town Centre and other areas beyond. Table 2.1 shows nearby bus stops and walk distances from the site to the bus stops. The location of bus stops are shown in Figure A1 (Appendix A) together with the local bus route map.

Table 2.1 Walk distances to local bus stops (Figure A1)

Bus stop ref	Walk distance from site (metres)
1	230
2	240
3	280
4	360

2.7 The walk distances to and from the nearest bus stops to the site compare well with walk distances suggested the Institution of Highways & Transportation's "*Guidelines for Planning for Public Transport in Developments*" (Para 5.18) which states: "*The Department of the Environment has recommended that the public should not have to walk more than 400 metres to the nearest bus stop*". Table 2.2 below shows the bus service provision and frequency nearest to the site:

Table 2.2 Local Bus Services

Route No.	Route	Frequency	
		Mon-Sat	Sun
2	Worthing – Shoreham - Brighton	Irregular	-
8	Angmering - South Ferring - Ferring - Goring - Worthing	Hourly	-
9	Littlehampton - Angmering - Worthing - Lancing - Shoreham - Holmbush Centre	Hourly	-
16	Tarring – Worthing – East Worthing - Lancing	Hourly	-
106	Cowfold – Steyning - Worthing	1 Journey	
700	Southsea, Portsmouth, Havant, Emsworth, Chichester, Bognor Regis, Littlehampton, Worthing, Shoreham, Hove and Brighton	20 mins	30 mins
Pulse	West Durrington - Worthing town centre - Hospital - Lancing	10 mins	Hourly

2.8 Pedestrian routes between the site and the nearest bus stops are flat providing an easy, attractive and convenient to use walking route. Bus stop locations are within the suggested maximum 400 metre walking distance providing realistic bus links for a development site. Other numerous Worthing Town Centre bus stops are located within 650 metre walk of the site as shown on Figure A1.

Public Transport - Rail Services

2.9 Worthing railway station forms an important link on the rail network between London, Portsmouth Harbour and Southampton and is approximately 1200 metres walk distance from the site. There are generally six trains per hour in both directions Monday to Saturday daytime stopping throughout the day at Worthing railway station. The stopping service reduces to three trains per hour on Sundays and provides an effective and realistic mode of travel for healthy residents.

2.10 The location of Worthing railway station is further than the 800 metre maximum guideline distance for rail links for a development site, however the walk distance is marginally over the suggested maximum distance and could still provide a realistic travel mode for most people. The distance is well within that for an economic taxi ride.

Cycle Routes

2.11 Park Road does not have specific cycle routes and cyclists are required to cycle on the carriageway, the local topography is level and carriageway sufficiently wide to encourage cycling as a realistic mode of travel. Cyclists are required to cycle north on Park Road to gain access to other areas, however cyclists are able to walk their cycles approximately 170m south to the A259 Brighton Road to gain shorter access to routes south of the site.

2.12 The majority of Worthing has safe and low speed routes that are conducive to encouraging cycling as a mode of travel to and from the development site. Local facilities are easily accessible by cycling. Worthing also has the benefit of the National Cycle Network route No. 2 which runs along the seafront to Hove and Brighton. The NCN route is shown on Figure A2 (Appendix A).

Pedestrian Routes and Walking

2.13 The site is located on the east side of Worthing Town Centre (Figure A1). The Pedestrian route into the site from the Town Centre is from the A259 Brighton Road and Park Road.

Local footways to the Town Centre are sufficiently wide and level to provide easy access for pedestrians.

2.14 PPG13 (Para 75) states that "*Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres*". Clearly, for there to be a realistic chance of residents walking instead of using the car for local journeys, local services need to be close and should be easily accessible. Numerous local Worthing services are within an easy 2 kilometre walk distance of the site.

Traffic Accident Records

2.15 Recorded traffic accident statistics for the period between 01/03/2004 and 28/02/2009 have been received from West Sussex County Council and a plot of the accident locations is attached in Appendix C. The traffic accident plot shows that between the five year period there has been three recorded slight traffic accidents at the junction of Park Road and Lyndhurst Road approximately 200 metres north of the site access. No traffic accidents have been recorded at the site entrance within this 5 year period.

2.16 A material consideration in this assessment is the safety record in the vicinity of the site. The acceptability of the amended use of the existing accesses which are marginally below full standard due to reduced visibility from on-street parking is a matter of judgement. Whilst the need to comply with Manual for Streets standards is an important consideration, specific circumstances need to be taken into account and the lack of an existing traffic accident record at the site entrances is an important consideration, together with the effect on traffic levels on Park Road brought about by the development.

3.0 DEVELOPMENT PROPOSALS

Scheme Outline

3.1 Oakfawn Properties have submitted a planning application for the redevelopment of the Build Centre builder's merchant site on Park Road, Worthing. The development proposals will include 14No new dwellings consisting of the following:

i) 7No. 3 bed houses

ii) 4No. 3/4 bed houses

iii) 3No. 4 bed houses

iv) 19No. car parking spaces including 1No. visitor space

v) 2No. cycle spaces per dwelling within garden sheds

3.2 The proposed access and parking arrangements are as follows:

i) The re-use of the existing site access off Park Road narrowing the entrance width to 4.8m and providing a crossover at the entrance, giving priority to pedestrians walking along Park Road

ii) 8No. parking spaces located along the north boundary of the site

iii) 8No. parking spaces located along the south-west boundary of the site

iv) 1No. parking space attached to property No. 3 (one within attached garage)

v) 1No. parking space attached to the rear of property No.1

vi) Secure and covered cycle parking for 28No. cycles located in sheds within gardens with suitable access to rear or in garages where provided

Car and Cycle Parking

3.3 The development proposals will provide 19 dedicated parking spaces including 1No. visitor parking space.

3.4 Sussex County Council's car parking standards are contained in Supplemental Planning Guidance adopted November 2005 for Class C3 Dwellings. The Council's car parking standard suggests a maximum car parking provision as Table 3.1:

Table 3.1 – Class C3 Maximum Council Car Parking Standards

Dwelling Type	No.	Parking Standard	Parking Standard (No.)
2 and 3 bed - no garage	7	2 car spaces per dwelling	14
4 bed - no garage	6	3 car spaces per dwelling	18
4 bed with garage	1	garage space	2
Total	**14**		**34**

3.5 In accordance with PPG13 the parking standards are maximum standards. The proposed parking provision has a total of 19No. parking spaces (including 1No. visitor space) which falls below the maximum suggested standard, however we consider this provision to be acceptable when considering the site's urban location as:

i) The Council's parking standards make no allowance for the accessibility of the site and the 'blanket' standard covers all development locations whether located in the Town Centre or rural areas. In our view a car parking provision below the maximum standard is appropriate in areas of very good public transport accessibility

ii) The site is located in an area with very good accessibility for residents and a lower level of car parking will promote more sustainable modes of transport which are readily available to residents

3.6 The Council's cycle parking standard for 2 bed developments is *"2 spaces per dwelling & 1 space per 8 dwellings for visitors"*. There is no cycle parking standard for 3 or 4 bed properties. The development will provide 2 cycle parking spaces per dwelling, 13 No. properties will not have the benefit of a garage so sheds will be provided within the gardens for the appropriate safe, sheltered and dry storage of cycles. Access to the rear of each garden has been provided for all these properties so that cycles do not have to be wheeled

through the property. It is not proposed to provide a single cycle storage space for visitors as suitable access is provided directly to all cycle storage areas associated with each property.

Servicing and Emergency Access

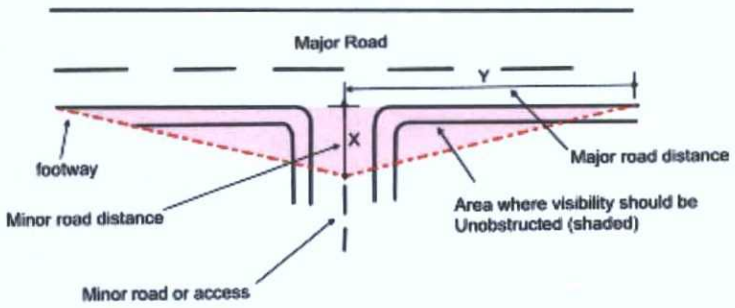
3.7 On refuse collection day, residents will be required to wheel their bins to the refuse collection area located on the north boundary of the site. Refuse vehicles would stop on Park Road as they do at present whilst serving existing properties along this road. Bins will be wheeled to the refuse vehicles from the refuse collection areas by refuse collection operatives.

3.8 The design of the access is of sufficient size so that a fire tender will be able to enter the site in times of emergency and turn around within the area provided. A track swept path for fire tender is shown on the attached Drawing No. REDW-2936-111 and shows adequate space for the vehicle to turn around within the access road.

Visibility

3.9 It is important that drivers emerging from minor roads or accesses have adequate visibility in each direction to enable a safe manoeuvre to be made. Visibility splay envelopes are made up of two elements, the 'x' distance and the 'y' distance. The 'x' distance is the distance along the minor road (site access) from the give way line with the major road and the 'y' distance is the distance along the nearside kerb in both directions from the centre line of the minor road. Figure 3.1 shows the construction of a typical visibility splay:

Fig 3.1 – Visibility splay requirements



3.10 The minimum requirement for the minor road distance (dimension 'x') is dependent upon the type of minor access. Table 3.2 indicates typical requirements:

Table 3.2 Minimum Minor Road distance

Type of Minor Road	x dimension
Less busy minor roads and busy private accesses	4.5 metres
The minimum necessary for motorists to see down a the major road without encroaching upon it	2.4 metres
Single dwellings or small groups of up to half a dozen dwellings or thereabouts	2.0 metres

3.11 The larger 'x' distance of 4.5 metres is used to reduce traffic delay on public roads and allows vehicles to move slowly up to the give way lane and leave the junction without stopping. For private accesses a shorter 'x' distance to be appropriate as a reduced distance introduces an element of traffic calming, lowering vehicle speeds.

3.12 The footway width on Park Road is narrow and there are on-street parking spaces both side of the entrances. This has the effect of moving the effective edge of carriageway 2.0 metres further into the road thereby increasing the x distance by an additional 2.0 metres.

3.13 The standard requirement for the major road distance (dimension 'y') is dependent upon the speed of the major road. In the light of recent research into vehicle stopping distances a recent DfT approved publication "Manual for Streets" suggests for roads with a main road speed of 30 mph a 'y' distance of 43 metres (Table 7.1) and we would consider this publication to be the appropriate standard for development on Park Road. Completely clear visibility splays are not achievable at the Park Road entrance due to on-street parking, however we consider that the situation is acceptable as:

i) A certain level of visibility is achievable through the windows of the on-street parked cars and the increased 'x' distance due to the on-street parking increases the opportunity to see and be seen through gaps in the on-street parking

ii) Existing waiting restrictions and dropped kerb crossing to the south of the site access provide a vehicle free zone which improves visibility

iii) The existence of on-street parking acts as a traffic calming measure for traffic on the main road and motorists driving on the main road would be constantly aware of potential conflicts from side entrances

iv) The on-street parking is not a permanent obstruction and some gaps are permanently available due to the presence of neighbouring crossovers

v) The Council when implementing the existing on-street parking regime would have assessed the safety implications of reduced visibility to all crossovers on Park Road and must have concluded that the visibility at the existing entrance was acceptable

3.14 Details of the proposed access alterations and achievable visibility splay are shown on Drawing No. REDW-2936-111 attached with this statement.

4.0 TRAFFIC ANALYSIS

4.1 The existing site is a Build Centre builder's merchant and is open Monday to Friday 0730-1700hrs and Saturday 0800-1300 hrs. The site generates customer and service delivery traffic throughout the day serving many smaller companies with larger transit vans. The removal of the builder's merchant use will reduce the size of vehicles travelling to the site and totally remove articulated lorries from Park Road which is essentially a residential street (See photo 2.3).

4.2 Daily traffic counts have not been undertaken at the site entrance, however using the Trics traffic database we can estimate the daily number of vehicle movements at the site. The results of the Trics analysis are attached in Appendix B. The site consists in the main of materials stored outside covered buildings, therefore to derive an equivalent gross floor area (GFA) we have assumed that 40% of the 0.289 hectare site is effectively gross floor area. Therefore for this comparison we have assumed that the existing site has a GFA of:

Assumed equivalent existing site GFA = 2890 x 0.4 = 1156m^2 GFA

4.3 The Trics analysis shows a daily trip attraction of 18.695 vehicle movements per day / 100 m^2 GFA, therefore estimated total daily vehicle movements (arrivals and departures) at the site entrance is

Daily vehicle trips (merchants) = 18.695 x 11.56 = 216 vehicle movements

4.4 The development proposals are for 14 dwellings together with 19 car parking spaces. Using the TRICS traffic database to estimate traffic generation to the residential development and have extracted four equivalent sites consisting of private houses. Appendix B provides TRICS data output for these sites.

4.5 The total daily trip rate (arrivals and departures) is 5.778 vehicle movements per dwelling (Appendix B). Therefore:

Daily vehicle trips (residential) = 14 x 5.778 = 81 vehicle movements per day

4.6 The calculation shows that the proposed residential use for the site will generate less than half of the vehicle movements over a typical weekday than the current builder's merchant use for the site. The vehicle attraction to the residential site will be predominantly small cars and the removal of the existing use will remove articulated lorries and larger vehicles from Park Road which is essentially a residential street.

4.7 We anticipate that the relative traffic impact of the development proposals will be negative and will reduce the impact of traffic on Park Road and at the junctions either end. This will provide safety benefits, particularly at the northern end of Park Road where three slight traffic accidents have been recorded.

5.0 TRANSPORT POLICY GUIDANCE

5.1 Transport planning policy and guidance that is relevant to the proposed development is set out in the following documents:

i) PPG13 - Transport

ii) West Sussex Transport Plan 2006-2016

5.2 The common themes running through these documents are:

- Promoting sustainable transport alternatives to the private car, particularly healthy alternatives such as walking and cycling, but also including bus travel which is less environmentally damaging than the equivalent car trips;
- Promoting brownfield development as a sustainable alternative to out of town development in order to reduce the need and length of car trips

PPG13 – Transport

5.3 PPG13 provides government guidance on transport issues particularly as they relate to transport planning. The objectives of the guidance are to reduce the growth in the length of motorised journeys and encourage alternative means of travel which have less environmental impact and tend to reduce reliance on the private car.

5.4 The PPG13 guidance note states that Local authorities should:

"Not require developers to provide more spaces than they themselves wish".

The site's car parking provision is lower than the Council's Class C3 Use (Dwellings) parking standards but is considered an appropriate level in an area with very good accessibility to public transport which will encourage modes of travel other than the private motor car.

5.5 *"Accommodate housing principally within existing urban areas, planning for increased intensity of development for both housing and other uses at locations which are highly accessible by public transport, walking and cycling"*

The centrally located site will provide residents and visitors with a choice of using local public transport or walking or cycling instead of using the private motor car.

West Sussex Transport Plan 2006-2016

5.6 West Sussex Transport Plan 2006-2016 is the County Council's transport strategy with the key aim of "*delivering safer, less congested/polluted roads and a major emphasis on accessibility during the next decade*". **The development proposals will reduce traffic along Park Road with the removal of the existing builder's merchant use and replacement with a residential development.**

5.7 *"Demand Management Strategy….. Reducing car dependency through the way new developments are located and accessed, and the amounts of car parking provided are also part of this approach….."*

The development is located on a brownfield site close to Worthing Town Centre served by very good bus and rail services readily available throughout the day for residents and visitors. The location of the site will encourage walking and cycle trips to work in Worthing. The car parking provision is below maximum standards.

5.8 *"Reduce the need to travel and transport goods by encouraging the purchase of local products."*

The location of the site within an urban area will reduce vehicle trips as residents will not have lengthy vehicle trips to less central locations for work, shopping and other services.

5.9 The proposals have been reviewed in the light of current planning and transport policy and support policy objectives by developing on a brownfield site adjacent to a very good level of public transport infrastructure.

6.0 CONCLUSIONS

6.1 The re-development proposals consist of 14No. Residential units with associated car parking, together with a site access road for refuse collection and emergency access. The site has a total area of 0.289 hectares and the existing buildings on the site which consist of offices on the site frontage with Park Road and a merchants building to the rear of the site will be demolished to provide for the proposed development.

6.2 The site is well located with very good access to bus services connecting to Worthing Town Centre and other areas. Bus stop locations are well within the suggested maximum 400 metre walking distance providing realistic bus links for a development site. The location of Worthing railway station is further than the 800-metre maximum guideline distance for rail links for a development site, however the walk distance is marginally over the recommended maximum and could still provide a realistic travel mode for most people.

6.3 The location of the development site is well placed to encourage cycling as a mode of travel by providing adequate, secure and covered facilities within each dwelling. PPG13 (Para 75) states that "*Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres*". Clearly, for there to be a realistic chance of residents walking instead of using the car for local journeys, local services need to be close and should be easily accessible. Numerous local Worthing services are within an easy 2 kilometre walk distance of the site.

6.4 In accordance with PPG13 the parking standards are maximum standards. The proposed parking provision is a total of 19No. parking spaces which falls below the maximum suggested standard, however we consider this provision to be acceptable when considering the site's urban location as:

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6.5 On refuse collection day, residents will be required to wheel their bins to the refuse collection area located on the north boundary of the site. Refuse vehicles would stop on Park Road as they do at present whilst serving existing properties along this road. Bins will be wheeled to the refuse vehicles from the refuse collection areas by refuse collection operatives. The design of the access is of sufficient size so that a fire tender will be able to enter the site in times of emergency and turn around within the area provided. A track swept path for fire tender is shown on the attached Drawing No. REDW-2936-111 and shows adequate space for the vehicle to turn around within the access road.

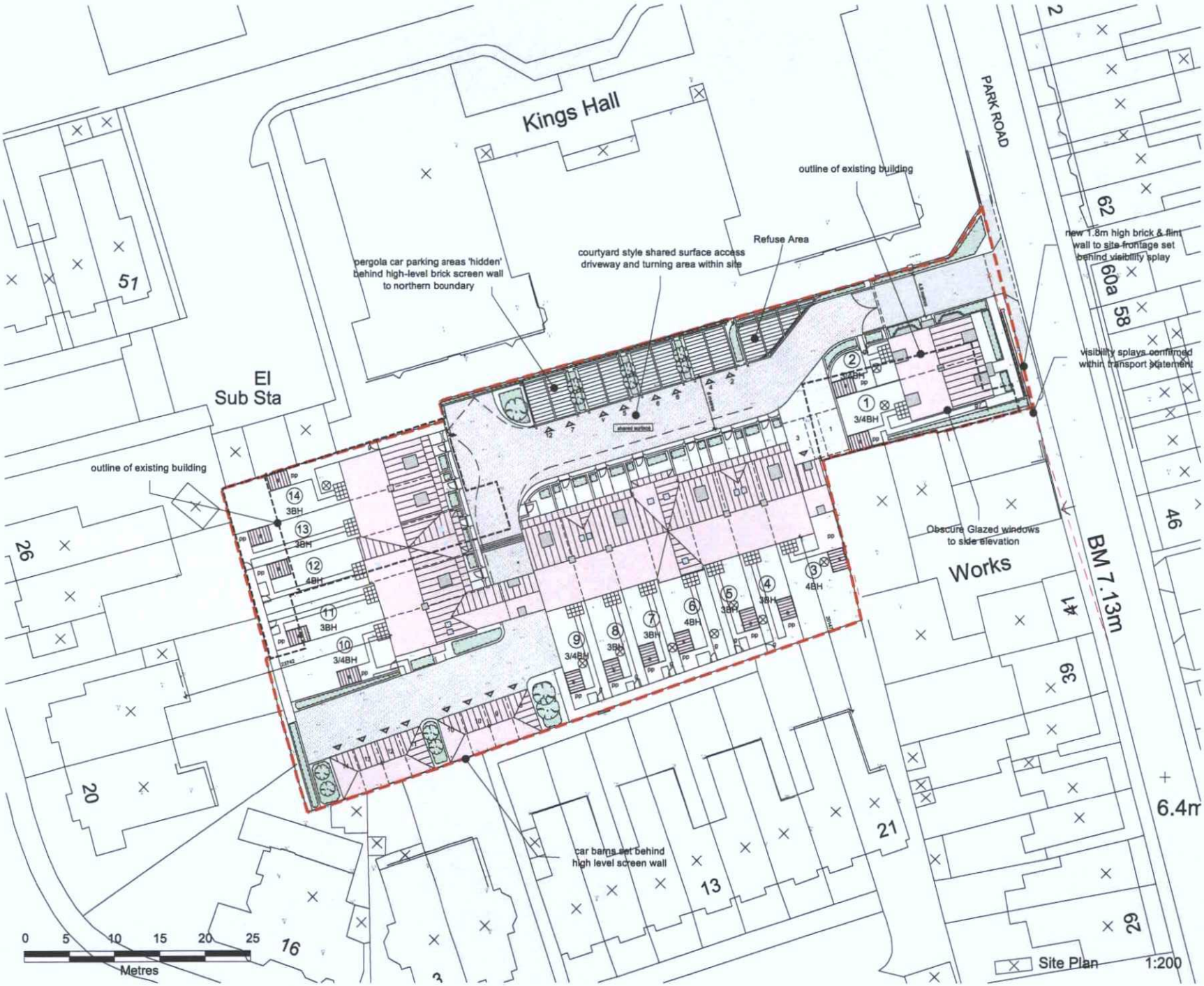
6.6 The existing traffic attraction to the builder's merchant use and the potential traffic attraction to the proposed residential use has been calculated using the Trics traffic database. The calculation shows that the proposed residential use for the site will generate less than half of the vehicle movements over a typical weekday than the current builder's merchant use for the site. The vehicle attraction to the residential site will be predominantly small cars and the removal of the existing use will remove articulated lorries and larger vehicles from Park Road which is essentially a residential street. We anticipate that the relative traffic impact of the development proposals will be negative and will reduce the impact of traffic on Park Road and at the junctions either end. This will provide safety benefits, particularly at the northern end of Park Road where three slight traffic accidents have been recorded in the last five years.

6.7 The proposals have been reviewed in the light of current planning and transport policy and are fully compliment policy objectives. The location of the development in an urban area will have the effect of reducing the length of motorised journeys from residents, visitors and service deliveries. The parking provision proposed within the development strike an appropriate balance between providing for access by the private car and at the same time providing restraint thereby encouraging the use of nearby public transport and other convenient modes of travel.

DRAWINGS

CDM 2007 Health & Safety Information:

This information relates only to 'Significant Hazards' identified on this drawing and is to be read in conjunction with the Designer's Risk Assessment Register.



Schedule of Accommodation

Plot 1	3/4 Bed House	109.18sqm / 1175sqft
Plot 2	3/4 Bed House	111.82sqm / 1203sqft
Plot 3	4 Bed House	103.71sqm / 1116sqft
Plot 4	3 Bed House	88.57sqm / 953sqft
Plot 5	3 Bed House	89.32sqm / 961sqft
Plot 6	4 Bed House	134.37sqm / 1446sqft
Plot 7	3 Bed House	89.32sqm / 961sqft
Plot 8	3 Bed House	88.57sqm / 953sqft
Plot 9	3/4 Bed House	103.73sqm / 1116sqft
Plot 10	3/4 Bed House	112.51sqm / 1211sqft
Plot 11	3 Bed House	89.32sqm / 961sqft
Plot 12	4 Bed House	134.37sqm / 1446sqft
Plot 13	3 Bed House	89.32sqm / 961sqft
Plot 14	3 Bed House	89.32sqm / 961sqft

Total; 14 Houses

19 car parking spaces
(including 1 visitor space)

2 cycle spaces per dwelling

Site Area: 0.289 Hectares
Density: 48.44 Dw/Ha

Key

s	1.8m x 2.4m Timber Shed
pp	Permeable Paved Refuse Storage
⊗	External Clothes Drying Area

N.B. Please see Transport Statement prepared by the Redwood Partnership for a detailed transport analysis

A	25-08-10	Site layout revised to planner comments

REVISIONS

client: Oakfawn Properties

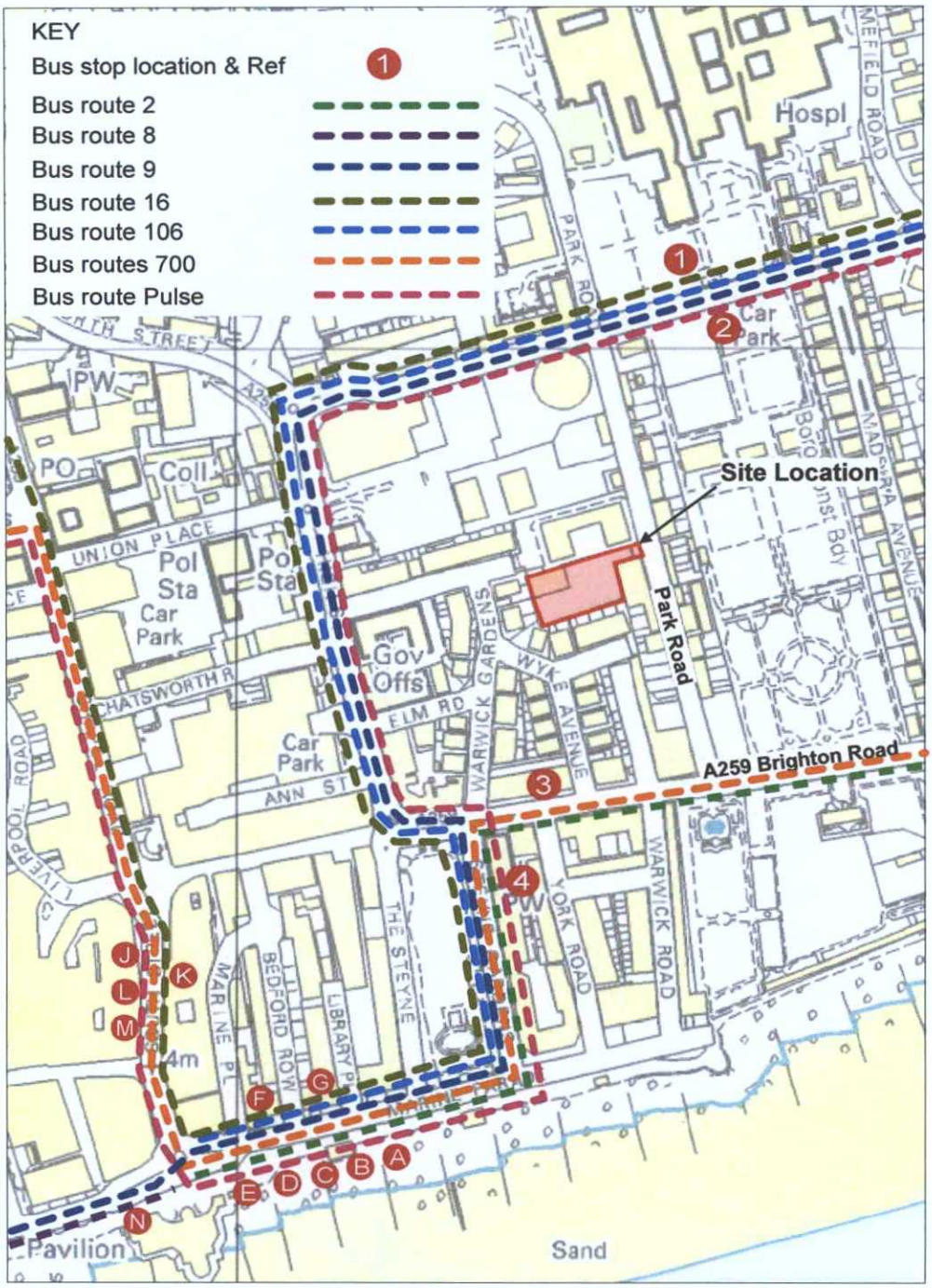
project: Build Centre Park Road, Worthing

drawing: Site Plan

MICHAEL COOK ASSOCIATES

scale: 1:200 @ A1
date: Sep '08
drawn: AM
drawing no: 5252/01
revision: A

APPENDIX A



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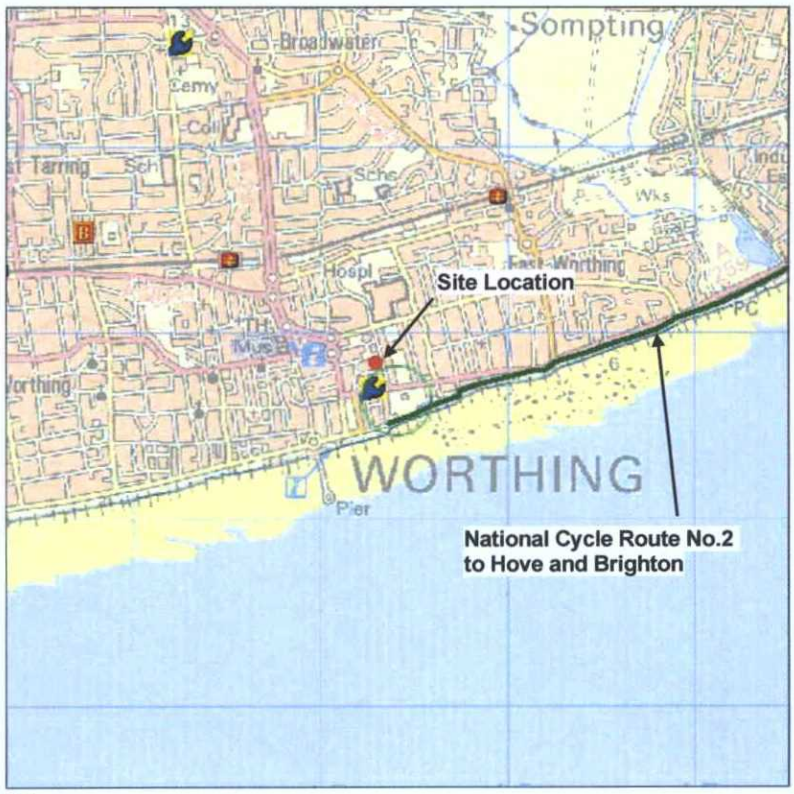
Redwood Partnership Licence number 100037558

Note: Shown are inbound routes only

Local Bus Routes and Bus Stop Location

FIGURE A1

N



Key

- National Cycle Network on-road route
- Other signed on-road cycle route
- National Cycle Network traffic-free route
  (including some forest tracks and paths alongside busy roads)
- Other traffic-free cycle route
- Proposed future National Cycle Network route
- Access points

Other features (as shown at smaller scales)

- Motorway
- A-Road
- B-Road
- Waterway

Local Cycle Routes Plan

FIGURE A2

APPENDIX B

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : L - BUILDER'S MERCHANTS

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	EG	EALING	2 days
02	**SOUTH EAST**		
	SC	SURREY	1 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days

Main parameter selection:

Parameter: Gross floor area
Range: 1350 to 2600 (units: sqm)

Date Range: 01/01/85 to 18/05/03

Selected survey days:

Monday	2 days
Tuesday	1 days
Friday	1 days

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	1
Suburban Area (PPS6 Out of Centre)	3

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	2
High Street	1

LIST OF SITES relevant to selection parameters

1	**EG-01-L-01**	**JEWSON, ACTON**	**EALING**
	HIGH STREET		
	ACTON		
	Total Gross floor area:	1350 sqm	
2	**EG-01-L-02**	**BUILDERS MERCHANTS, ACTON**	**EALING**
	BOLLO BRIDGE ROAD		
	ACTON		
	Total Gross floor area:	2120 sqm	
3	**GM-01-L-01**	**TRAVIS PERKINS, STOCKPORT**	**GREATER MANCHESTER**
	OLDMOOR ROAD		
	BREDBURY		
	STOCKPORT		
	Total Gross floor area:	2600 sqm	
4	**SC-01-L-01**	**BUILDER CENTRE, LEATHERHEAD**	**SURREY**
	GARLANDS ROAD		
	LEATHERHEAD		
	Total Gross floor area:	1390 sqm	

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	3	1620	0.802	3	1620	0.453	3	1620	1.255
08:00 - 09:00	4	1865	0.992	4	1865	0.938	4	1865	1.930
09:00 - 10:00	4	1865	0.938	4	1865	1.072	4	1865	2.010
10:00 - 11:00	4	1865	1.247	4	1865	1.126	4	1865	2.373
11:00 - 12:00	**4**	**1865**	**1.327**	**4**	**1865**	**1.461**	**4**	**1865**	**2.788**
12:00 - 13:00	4	1865	1.113	4	1865	1.059	4	1865	2.172
13:00 - 14:00	4	1865	0.818	4	1865	0.898	4	1865	1.716
14:00 - 15:00	4	1865	1.113	4	1865	0.938	4	1865	2.051
15:00 - 16:00	4	1865	0.563	4	1865	0.724	4	1865	1.287
16:00 - 17:00	4	1865	0.523	4	1865	0.483	4	1865	1.006
17:00 - 18:00	4	1865	0.000	4	1865	0.107	4	1865	0.107
18:00 - 19:00	0	0	0.000	0	0	0.000	0	0	0.000
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:			9.436			9.259			18.695

Parameter summary

Trip rate parameter range selected:	1350 - 2600 (units: sqm)
Survey date date range:	01/01/85 - 18/05/03
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Optional parameters used in selection:	NO
Surveys manually removed from selection:	6

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	WF	WALTHAM FOREST	1 days
03	**SOUTH WEST**		
	GS	GLOUCESTERSHIRE	1 days
13	**REPUBLIC OF IRELAND**		
	CS	SLIGO	1 days

Main parameter selection:

Parameter: Number of households
Range: 7 to 4334 (units:)

Date Range: 01/01/85 to 13/05/08

Selected survey days:

Tuesday	2 days
Thursday	1 days

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town Centre	3

Selected Location Sub Categories:

Built-Up Zone	1
No Sub Category	2

LIST OF SITES relevant to selection parameters

1	**CS-03-A-01**	**TERRACED, SLIGO**	**SLIGO**
	CIRCULAR ROAD		
	SLIGO		
	Total Number of households:	46	
2	**GS-03-A-01**	**SEMI D./TERRACED, GLOUCESTER**	**GLOUCESTERSHIRE**
	KINGSHOLM ROAD		
	KINGSHOLM		
	GLOUCESTER		
	Total Number of households:	73	
3	**WF-03-A-01**	**TERRACED, WALTHAMSTOW**	**WALTHAM FOREST**
	CLEVELAND PARK AVENUE		
	WALTHAMSTOW		
	Total Number of households:	53	

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

VEHICLES

Calculation factor: 1 HHOLDS

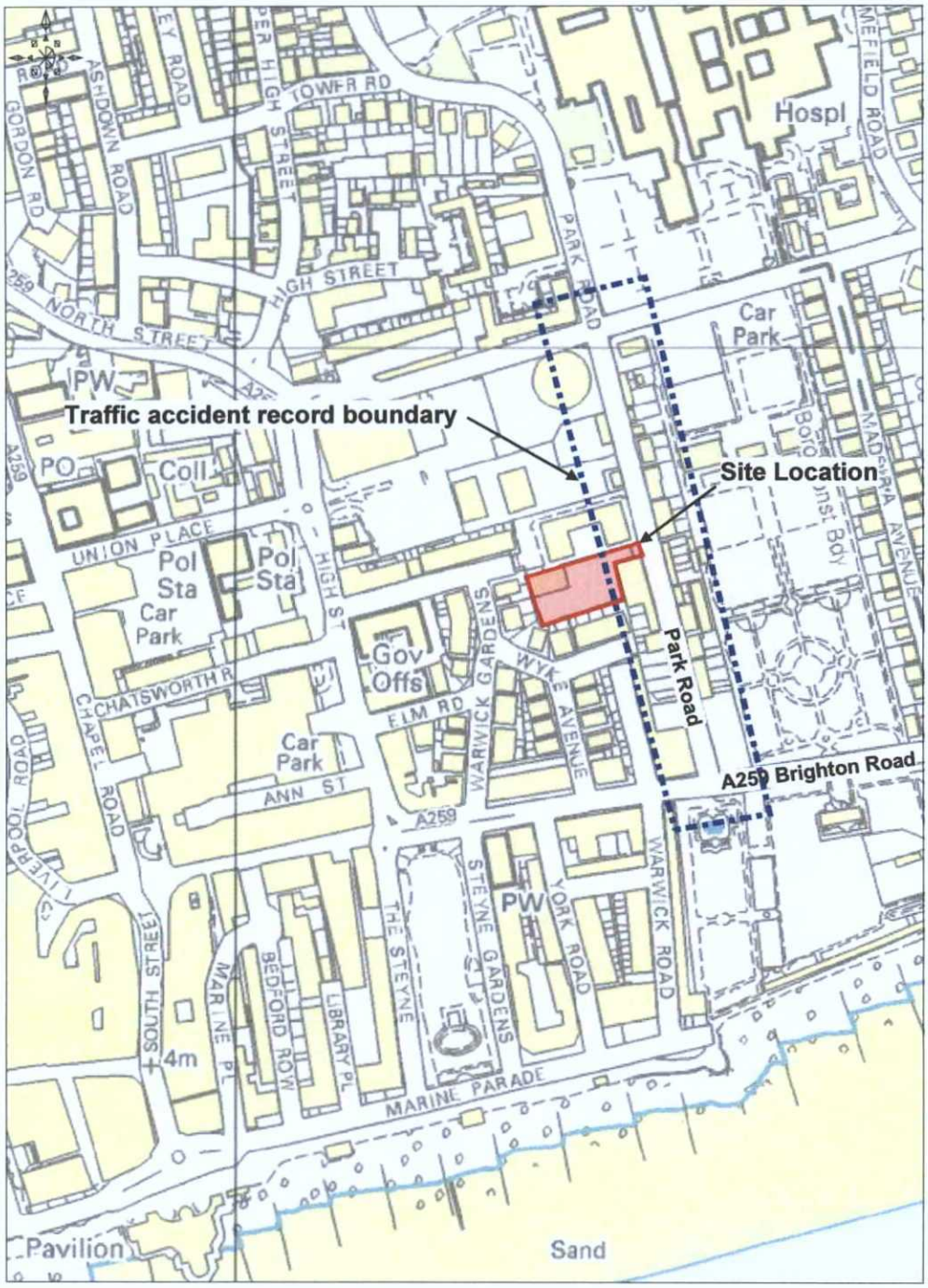
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	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	3	57	0.047	3	57	0.221	3	57	0.268
08:00 - 09:00	3	57	0.157	3	57	0.291	3	57	0.448
09:00 - 10:00	3	57	0.285	3	57	0.192	3	57	0.477
10:00 - 11:00	3	57	0.221	3	57	0.157	3	57	0.378
11:00 - 12:00	3	57	0.180	3	57	0.221	3	57	0.401
12:00 - 13:00	3	57	0.267	3	57	0.238	3	57	0.505
13:00 - 14:00	3	57	0.267	3	57	0.203	3	57	0.470
14:00 - 15:00	3	57	0.302	3	57	0.238	3	57	0.540
15:00 - 16:00	3	57	0.273	3	57	0.279	3	57	0.552
16:00 - 17:00	3	57	0.244	3	57	0.308	3	57	0.552
17:00 - 18:00	**3**	**57**	**0.419**	3	57	0.221	**3**	**57**	**0.640**
18:00 - 19:00	3	57	0.233	**3**	**57**	**0.314**	3	57	0.547
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:			2.895			2.883			5.778

Parameter summary

Trip rate parameter range selected:	7 - 4334 (units:)
Survey date date range:	01/01/85 - 13/05/08
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Optional parameters used in selection:	NO
Surveys manually removed from selection:	4

APPENDIX C



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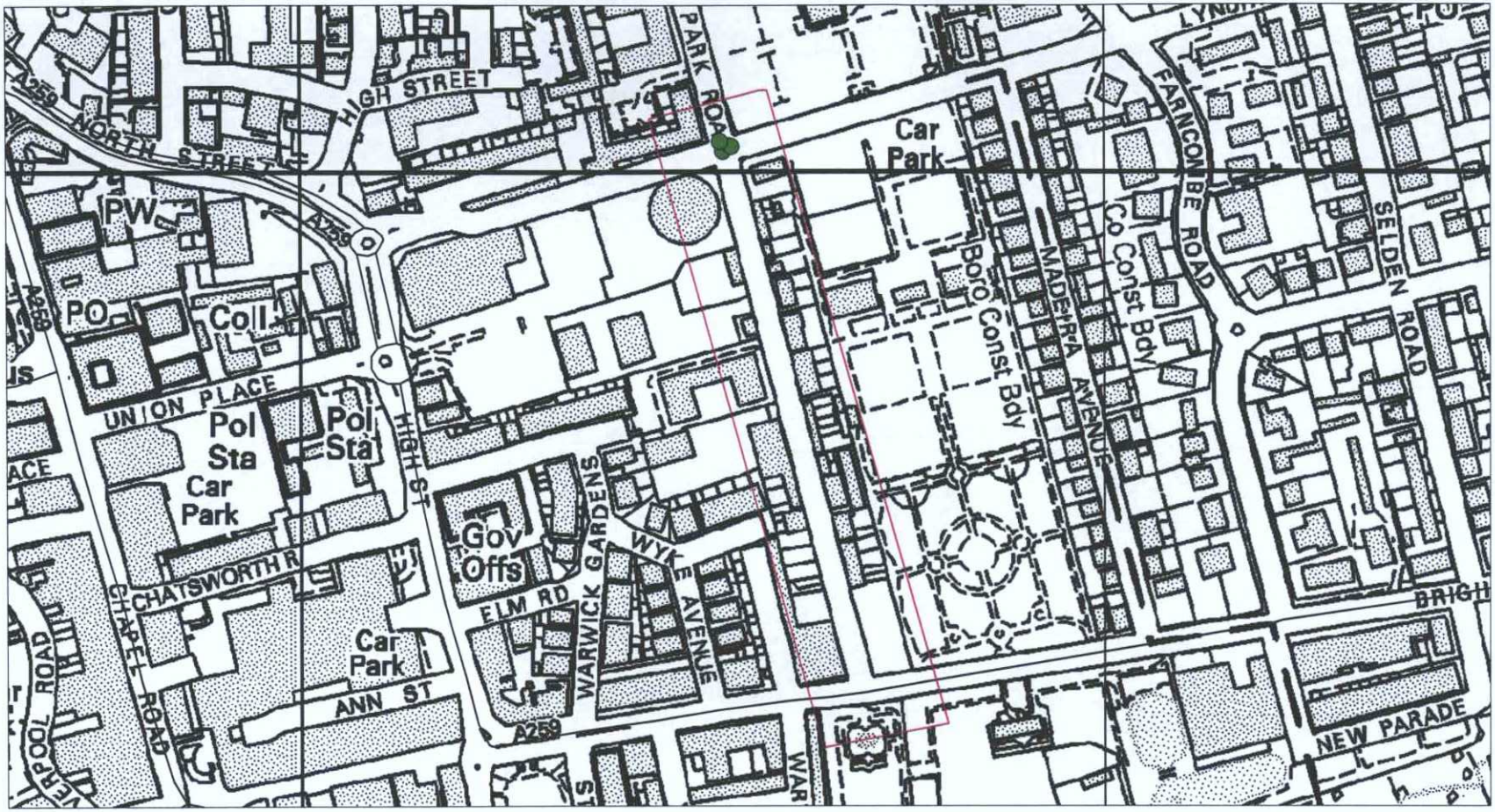
Redwood Partnership Licence number 100037558

Site at Park Road, Worthing - Traffic Accident Record Boundary Plan



Accident Severity	
Slight	3
Serious	0
Fatal	0

Casualty Severity	
Slight	5
Serious	0
Fatal	0

Casualty Class	
Driver	3
P.Riders	1
Pass.	1
Ped.	0

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AREA		DRAWN	EW
ROUTE No.		CHECKED	
FILE No.	09065	DATE	17 March 2009

Rev	Date	Amendment	Name

West Sussex County Council

Park Road Worthing
5 years accident data from 1 March 2004 to 28 February 2009

DRG No.

SCALE NTS

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