

8. Transport

- 8.1 This chapter deals with the potential transport impacts associated with the proposed Oldlands Farm Business Park, Bognor Regis.
- 8.2 A Transport Assessment (TA) and two travel plans for both the business park and the Asda foodstore accompany this Environmental Statement (Volume 3).
- 8.3 The Proposals comprise a business park which includes an Asda foodstore in the south west corner of the Site.

Policy Context

Planning Policy Guidance Note 13 (PPG13)

- 8.4 Planning Policy Guidance Note 13 (PPG13) Transport published in March 2001 sets out its objectives at paragraph 4. It states that:

"The objectives of this guidance are to integrate planning and transport at the national, regional, strategic and local level to:

Promote more sustainable transport choices for both people and for moving freight;

Promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling, and

Reduce the need to travel, especially by car.

- 8.5 Paragraph 19 on accessibility states that:

"A key planning objective is to ensure that jobs, shopping, leisure facilities and services are accessible by public transport, walking and cycling. This is important for all, but especially for those who do not have regular use of a car, and to promote social inclusion. In preparing their development plans, local authorities should give particular emphasis to accessibility in identifying the preferred areas and sites where such land uses should be located, to ensure they will offer realistic, safe and easy access by a range of transport modes, and not exclusively by car."

- 8.6 Travel Plans are referred to in PPG13 from paragraph 87:

"Where travel plans are to be submitted alongside a planning application, they should be worked up in consultation with the local authority and local transport providers. They should have measurable outputs, which might relate to targets in the local transport plan, and should set out the arrangements for monitoring the progress of the plan, as well as the arrangements for enforcement, in the event that agreed objectives are not met. They might be designed for the applicant only, or be part of a wider initiative, possibly organised by the local authority, involving other developments in the area."

West Sussex Structure Plan

- 8.7 The Structure Plan together with the Arun District Local Plan form The Development Plan for Arun. The West Sussex Structure Plan covers the period 2001-2016.
- 8.8 In regard to Retail Development policy NE10 indicates in (b) (1) (iv) that new retail development:
- "offers realistic, safe and easy access by a range of transport modes, not exclusively by car".*
- 8.9 Policy NE 13 on transport includes the requirement to widen travel choice and promote walking, cycling and passenger transport.
- 8.10 POLICY DEV 1 indicates development should:
- (4) *"give high priority to pedestrians, those with impaired mobility, cyclists and users of passenger transport, reduce dominance of cars and roads and integrate with existing transport provision.*
- 8.11 POLICY DEV 4 sets out the transport criteria associated with development proposals to ensure choice of travel mode and in particular encouragement of sustainable travel modes.

Arun District Local Plan

- 8.12 The Site is allocated for development as a business park under Policy Site 6 Land to the North of Bersted, Bognor Regis and Feltham.
- 8.13 Policy DEV 27 sets the criteria for retail development which includes:
- it is easily accessible by the highway network and public transport.
 - It includes provision for access by cycle and on foot.
 - It includes appropriate provision to enable access for people with disabilities.
- 8.14 In regard to all these policies:
- The Site offers a range of travel choices;
 - It includes measures to promote public transport, walking and cycling;
 - It provides for people with disabilities;
 - It is well connected to the highway network;
 - It reduces distance travelled by car by retaining shopping trips within Bognor; and
 - It will have travel plans for both the business park and Asda to encourage sustainable travel.

Assessment Methodology

- 8.15 The assessment of transport impact has been based on the Department for Transport document "Guidance on Transport Assessment" produced in March 2007.
- 8.16 Reference is also made to the Guidelines for Environmental Assessment of Road Traffic prepared by the Institute of Environmental Assessment.
- 8.17 The methodology is based on an assessment of baseline conditions for all modes of transport in the area, an analysis of the additional trips of each

- mode of transport using a recognised database such as TRICS and applying this information to each transport network.
- 8.18 Road network capacity is assessed using the roundabout capacity analysis program ARCADY and TRANSYT for traffic signal analysis.
- 8.19 The Site has been allocated in the Arun District Local Plan as Policy Site 6 which also included a relief road and residential development. A transport study and traffic model prepared by Boreham Consulting Engineers was used to assess the transport implications of the proposal and that transport study forms a basis for the current assessment.

Development Phasing

- 8.20 It is proposed to construct business units of 1100 sqm initially together with the Asda store. The remaining 18,400 sqm of business units will be built out over a 14 year period. This is based on a recently undertaken viability assessment.

Test Years

- 8.21 For the purposes of this assessment it is proposed therefore to test the network for design year 2011 partial development and 2025 for full development.

Growth Factor

- 8.22 Combined NRTF and Tempro growth factors are applied to the base network.

Business Park Trip Rates

- 8.23 The trip rates (vehs / 100 sqm) used in the BCE Transport Assessment are to be used again in this assessment.

Table 8.1 Business Park Trip Rates

	AM PEAK			PM PEAK		
	Trip Rates (Veh/100 sqm)	Vehicles		Trip Rates (Veh/100 sqm)	Vehicles	
		1100 sqm	19500 sqm		1100 sqm	19500 sqm
Arrival	1.46	16	285	0.27	3	53
Departures	0.34	4	53	1.51	25	294
Total	1.80	20	351	1.78	20	347

- 8.24 Multimodal trip rates for business parks have been extracted from the TRICS database. The two-way trip rates and equivalent numbers for the development are below.

Table 8.2 Two Way Business Park Trip rates

	AM PEAK			PM PEAK		
	Trip Rate	1100 sqm	19500 sqm	Trip Rate	1100 sqm	19500 sqm
Vehicles	1.631	18	318	1.272	14	248
Total People	2.079	23	405	1.692	19	330
Pedestrians	0.105	1	20	0.078	1	15
Cyclists	0.044	1	9	0.044	1	9

**OLDLANDS FARM BUSINESS PARK, BOGNOR REGIS
ENVIRONMENTAL STATEMENT VOLUME 1**

Public Transport	0.093	1	18	0.096	1	19
------------------	-------	---	----	-------	---	----

Food Trip Rates

- 8.25 Multimodal trip rates have been extracted from the TRICS database. The weekday trip rate (per / 100sqm) and numbers information is as follows:

Table 8.3 Food Trip Rates

	AM PEAK		PM PEAK		DAILY	
Vehicles	5.030	397	12.132	958	135.079	10671
Total People	7.517	594	21.563	1703	238.059	18807
Pedestrians	1.027	81	1.547	122	21.669	1712
Cyclists	0.131	10	0.128	10	1.574	124
Public Transport	0.153	12	0.146	12	3.550	280

- 8.26 In assessing the modal proportions for the business park, the 2001 census provides some information on the travel to work for the daytime population of the Bersted Ward as follows:

- Walk 12%
- Cycle 12%
- Motorcycle 2%
- Train 1%
- Bus 2%
- Car (inc passengers) 71%

Trip Distribution

- 8.27 The trip distribution for the business park is based on the work undertaken in the BCE Transport Assessment.
- 8.28 The trip distribution for the Asda Store is based upon trade draw assumptions provided by retail consultant Jones Lang LaSalle.
- 8.29 Normally pass-by trade of 30% during the PM peak and 10% in the Saturday peak is applied at the access point and distributed in accordance with existing turning movements through the network. However, the retail impact study indicates 65% of Asda's trade will transfer from the Tesco store in Shripney Road, which is significantly overtrading and therefore this is the significant factor in the redistribution of trips in the area. The standard pass-by figures have therefore not been applied in this case.

Committed Development

- 8.30 Planning permission has been granted for a total of 1350 dwellings in Bersted and Feltham. These developments have been included in the BCE Transport Assessment on which this assessment is based.

Baseline Conditions

- 8.31 The Site is located north of Bognor Regis and is bound to the west by the A29 Shripney Road, to the south by the Southern Cross Trading Estate on Steyning Way, to the east by the Bognor to Barnham rail line and to the

north by the proposed relief road to Bognor Regis. The Site is currently agricultural land.

Road Network

- 8.32 The A29 Shripney Road is an 'A' road within the WSCC Road Network but is not part of the WSCC Strategic Network.
- 8.33 Within the vicinity of the Site the A29 is dual carriageway with street lighting and subject to a 50 mph speed limit. A footway is adjacent to the western carriageway. North of the Site the A29 became single carriageway whilst south from the Site towards the town centre it remains a dual carriageway but subject to a 40 mph speed limit.
- 8.34 The roundabout to the south-west of the Site forms a junction between the A29 Rowan Way and Steyning Way, an access into the Southern Cross Trading Estate.
- 8.35 Rowan Way is an east / west local distributor route across the north of Bognor Regis. It is a single carriageway route with street lighting and subject to 40 mph.

Pedestrian and Cycle Routes

- 8.36 There are footways on both sides of the A29 Shripney Road towards the town centre, on Steyning Way and on Rowan Way.
- 8.37 On the A29 west of the Site, there is one footway on the west side.
- 8.38 Pedestrians use the splitter islands at the roundabout to cross these roads.
- 8.39 There is a shared footway / cycle route on both sides of the A29 Shripney Road towards the town centre.
- 8.40 A plan of existing and proposed cycle routes is included at **Appendix C** of the Transport Assessment (Volume 3).

Public Transport

- 8.41 The bus services in Bognor Regis are illustrated on the plan at **Appendix D** of the Transport Assessment (Volume 3). Most services are operated by Stagecoach.
- 8.42 The 66 / 66A service operates along the A29 between Bognor Town Centre and Yapton via Shripney, Westergate, Barnham and Walberton.
- 8.43 The service runs on an hourly frequency Monday to Saturday 0715 to 1840.
- 8.44 Bognor Regis is a terminus station used by trains operated by Southern. There are 4 trains an hour leaving for destinations of Barnham, Littlehampton and London Victoria.
- 8.45 At Barnham there are connections to other destinations along the coast such as Portsmouth, Southampton and Brighton with a frequency of about 16 trains an hour.

Traffic Surveys

- 8.46 Traffic surveys were undertaken on Friday 21st and Saturday 22nd September 2007 at the following junctions:
 - A29 / Rowan Way roundabout

- A29 / Orchard Way roundabout
 - A29 / A259 gyratory
- 8.47 Together with Automatic Traffic Counts on Shripney Road north and south of the roundabout and on Rowan Way.
- 8.48 Peak hour traffic flows are included at **Appendix F** of the Transport Assessment.

Highway Safety

- 8.49 Personal Injury Accident data has been obtained from WSCC for the 3 year period to September 2007. The accident plan is included at **Appendix G** of the Transport Assessment (Volume 3) and indicates:
- 5 slight accidents at the A29 / Rowan Way roundabout;
 - a series of accidents on Shripney Road north through the village of Shripney; and
 - clusters of accidents at junctions along the A29 towards the town centre.

Proposed Highway Schemes

- 8.50 Planning permission has been obtained for a Relief Road across the north of Bognor Regis. It is anticipated the eastern relief road adjacent to this site could be open in summer 2008. The western relief road will follow later.

Identification And Evaluation Of Key Impacts

Pedestrian Network

- 8.51 The multimodal information from the TRICS database indicates modest levels of pedestrian activity for both the business park and the foodstore.
- 8.52 Nevertheless this mode of travel will be encouraged with an internal network of pedestrian routes connected to the existing external network.

Pedestrian Delay

- 8.53 The guidelines indicate that given the range of local factors and conditions which can influence pedestrian delay, the setting of thresholds is unwise. Instead it recommends assessors use judgement to determine whether pedestrian delay is a significant impact.
- 8.54 The key pedestrian route to the Site is from the south and will require pedestrians to cross Steyning Way and Shripney Road.
- 8.55 The traffic flows on Steyning Way are low and hence pedestrian delay will be minimal. On Shripney Road traffic flows are much greater and therefore pedestrian delay will increase through introduction of the relief road and the development.

Pedestrian Amenity

- 8.56 Pedestrian amenity is defined as the relative pleasantness of a journey and is considered to be affected by traffic flow, traffic composition and pavement width / separation from traffic. The definition also includes pedestrian fear and intimidation and can be considered in a much broader category i.e. the overall relationship between pedestrians and traffic. The guidelines suggest that the significant changes in pedestrian amenity would be where traffic flows are half or double.

- 8.57 The relief road increases traffic on Shripney Road south of Rowan Way by about 20% and hence will not bring significant changes to pedestrian amenity. The development traffic will make little difference to pedestrian amenity.

Fear and Intimidation for Pedestrians

- 8.58 The impact is dependant upon the volume of traffic, its HGV composition, its proximity to people or the lack of protection by such factors as narrow pavement widths.
- 8.59 The guidelines suggest that an initial indication can be achieved by considering:
- average traffic flow;
 - HGV flow; and
 - average speed.

- 8.60 According to the guidelines Crompton 1981 indicates the following degrees of hazard:

Extreme

- 1800+ vehicles / hour;
- 3000+ HGV's / day; and
- 20 mph + average speed.

Great

- 1200 – 1800 vehicles / hour;
- 2000 – 3000 HGV's / day; and
- 15 – 20 mph average speed.

Moderate

- 600 – 1200 vehicles / hour;
- 1000 – 2000 HGV's / day; and
- 10 – 15 mph average speed.

- 8.61 Steyning Way falls below the moderate category whilst Shripney Road will fall into the extreme category for general traffic flow but with moderate levels of HGV traffic.

Public Transport

- 8.62 The multimodal information from the TRICS database indicates modest levels of public transport use for both the business park and the foodstore.
- 8.63 However this mode of travel will be encouraged by designing the scheme to accommodate bus services without creating significant diversion for the existing bus route.

Operational Traffic

- 8.64 The traffic analysis for the proposed residential developments and the relief road was included in the BCE Transport Assessment and this document forms the basis of the analysis for this particular development.
- 8.65 The traffic analysis was based on the following assumptions:
- The business park traffic has trip rates and a distribution similar to the analysis in the Borehams Transport Assessment; and
 - Based on the retail impact assessment the Asda foodstore will draw 65% of its trade from the nearby Tesco foodstore which is overtrading. There is, therefore, a high redistribution of traffic locally on the network.
- 8.66 The impact of traffic on the network is illustrated in the following tables.

Table 8.4 AM/PM Peak Hour

AM PEAK HOUR	2007 (vehs)	2011 (vehs)	Dev (vehs)	% Impact	2025 (vehs)	Dev (vehs)	% Impact
Site Access Roundabout		2089	300	14.3	2392	631	26.4
A29/ Rowan Way Roundabout	1791	2647	53	2.0	2953	100	3.4
Western Relief Road /Rowan Way Roundabout		1457	56	6.9	1668	101	6.1
Eastern Relief Road Roundabout		1248	38	3.0	1429	53	3.7
A29 / A259 Gyratory	2979	2451	37	1.5	2806	87	3.1
PM PEAK HOUR	2007 (vehs)	2011 (vehs)	Dev (vehs)	% Impact	2025 (vehs)	Dev (vehs)	% Impact
Site Access Roundabout		2396	694	29.0	2785	1020	36.6
A29/ Rowan Way Roundabout	2294	3603	70	2.0	4188	236	5.6
Western Relief Road /Rowan Way Roundabout		1951	77	3.9	2269	143	6.3
Eastern Relief Road Roundabout		1404	77	5.5	1632	94	5.7
A29 / A259 Gyratory	3283	2828	83	2.9	3289	134	4.0

- 8.67 This analysis demonstrates that apart from the Site access roundabout, the Proposals will not have a significant impact on the network.

- 8.68 The A29/ A259 gyratory will have a maximum 4% impact in 2025 which is below 5%, commonly considered to be a significant impact. It is considered therefore because of this and its distance from the Site, no detailed analysis of the junction is required.
- 8.69 Detailed capacity analysis has been undertaken on the following junctions and included in the Transport Assessment.
- A29 / Relief Road / Site Access Roundabout;
 - A29 / Rowan Way Roundabout;
 - Rowan Way / Western Relief Road Roundabout;
 - Eastern Relief Road Roundabout / Residential Development Access.
- 8.70 The results indicate:
- the Site access roundabout has capacity in all conditions;
 - the A29 / Rowan Way roundabout has capacity in 2011 with development but indicates some stress in both 2025 base and with development conditions;
 - the Rowan Way / Western Relief Road roundabout operates well although by 2025 the Rowan Way (East) arm is close to capacity;
 - the Eastern Relief Road / Residential Development access has capacity in all conditions.
- 8.71 With regard to the A29 / Rowan Way roundabout the redistribution of flows arising from the Asda store improves the balance of flows on the roundabout, particularly with the removal of some of the u-turning traffic. However by 2025 both A29 approaches are queuing.
- 8.72 The daily traffic flows for the network used in the noise and air quality assessments are indicated in Figures 8.1 and 8.2.
- 8.73 The flows demonstrate:
- the change of the relief road will bring to the local network: and
 - the effect of the Asda foodstore in redistributing traffic on the local network because of the large diversion of trade from the nearby Tesco.

Construction Traffic

- 8.74 It is anticipated that the duration of the construction for the development of the foodstore would be around 50 weeks. The table below provides a preliminary indication of construction vehicle movements.

Table 8.5 Construction Traffic

WORKS PERIOD	CONSTRUCTION WORKS		
	TYPE	DURATION	DAILY MOVEMENTS (HGV's unless stated)
Construction Period (52 weeks total - 50 weeks + 2 weeks buffer)	Materials	3 Days	30
	Concrete Mixers	6 Weeks	6
	Steelwork Deliveries	6 Weeks	1 per week
	Cladding & Roofing	8 weeks	2 per week
	Ground Floor Slab	2 weeks	1 per week
	Brickwork	8 weeks	1 per week
	Car Park Base	2 weeks	2
	Drainage Materials	8 weeks	1 per week
	Blacktop	4 weeks	4

Landscaping	4 weeks	12 over 2 weeks
Fit Out	2 weeks	16 over 2 weeks
Workers	Throughout at peak 100 cars / LGV	

- 8.75 This level of traffic will have an insignificant impact on the road network.

Mitigation Measures

Pedestrian and Cycle Network

- 8.76 In order to encourage pedestrian movement to and from the Site the following measures will be introduced:

- an extensive pedestrian and cycle network within the Site to provide safe and convenient access for these modes of travel.
- connection to the external pedestrian and cycle network by improvements across Steyning Way in the form of a raised table crossing. Traffic flows are too low for a formal crossing.
- introduction of a toucan crossing (for both pedestrians and cyclists) on Stripney Road, south of the Rowan Way roundabout.

Public Transport

- 8.77 The Site will include a bus corridor to enable bus services to access the Site without a significant diversion.
- 8.78 The proposal will require the construction of a right turning lane on A29 for buses to enter the Site.
- 8.79 The proposal will encourage the use of this mode of travel.

Travel Plans

- 8.80 The business park and Asda foodstore will include travel plans to encourage sustainable modes of travel. This is a commitment secured through condition of S106 agreement comprising the following elements:

- A Travel Plan Co-Coordinator – to be responsible for developing initiatives internally and externally and co-ordinating the monitoring and review process.
- Travel Surveys – to establish staff travel patterns and the reason why particular modes are preferred.

- 8.81 Measures to encourage walking include:

- providing details and plans of safe routes to staff;
- providing ride home, for staff who walk, in an emergency; and
- encouraging walking as an aid to fitness.

- 8.82 Measures to encourage cycling include:

- providing covered secure cycle parking;
- providing information on cycle routes to staff;
- providing incentives not to bring a car to work;
- providing a ride home facility in the event of an emergency; and
- encouraging cycling as an aid to fitness.

- 8.83 Measures to encourage public transport use include:

- seeking negotiated discounts for staff with operators: and
 - providing updated public transport information and display it prominently in store and in staff areas.
- 8.84 Measure to reduce car travel include:
- providing incentives to encourage car sharing for staff;
 - encouraging car sharing clubs by helping to match staff who travel from similar areas; and
 - organising rides home in an emergency for staff.

8.85 Periodic surveys will enable information to be obtained that will allow the setting of achievable targets which will be subject to a monitoring and review process. It is proposed that the Travel Plan Co-ordinator will work with West Sussex County Council, the local community and public transport operators to monitor and review the Travel Plan.

Road Network

- 8.86 The capacity analysis indicates the road network will cater for anticipated traffic flows in 2011.
- 8.87 It is anticipated the business park will take 14 years to build out and by 2025 the A29 / Rowan Way junction is under stress using the traffic model as a basis for assessment.
- 8.88 Detailed analysis indicates signalling the junction will cater for anticipated traffic flows. However this is an assessment based on predicted modelled flows with traffic growth applied.
- 8.89 The need for this junction improvement should therefore be assessed once the relief road has been opened and traffic patterns on the network settled down.

Cumulative Effects

- 8.90 The traffic modal produced by Boreham Consulting Engineers included the traffic flows associated with the residential developments in Feltham and Bersted.
- 8.91 The analysis therefore has allowed for these developments.

Summary

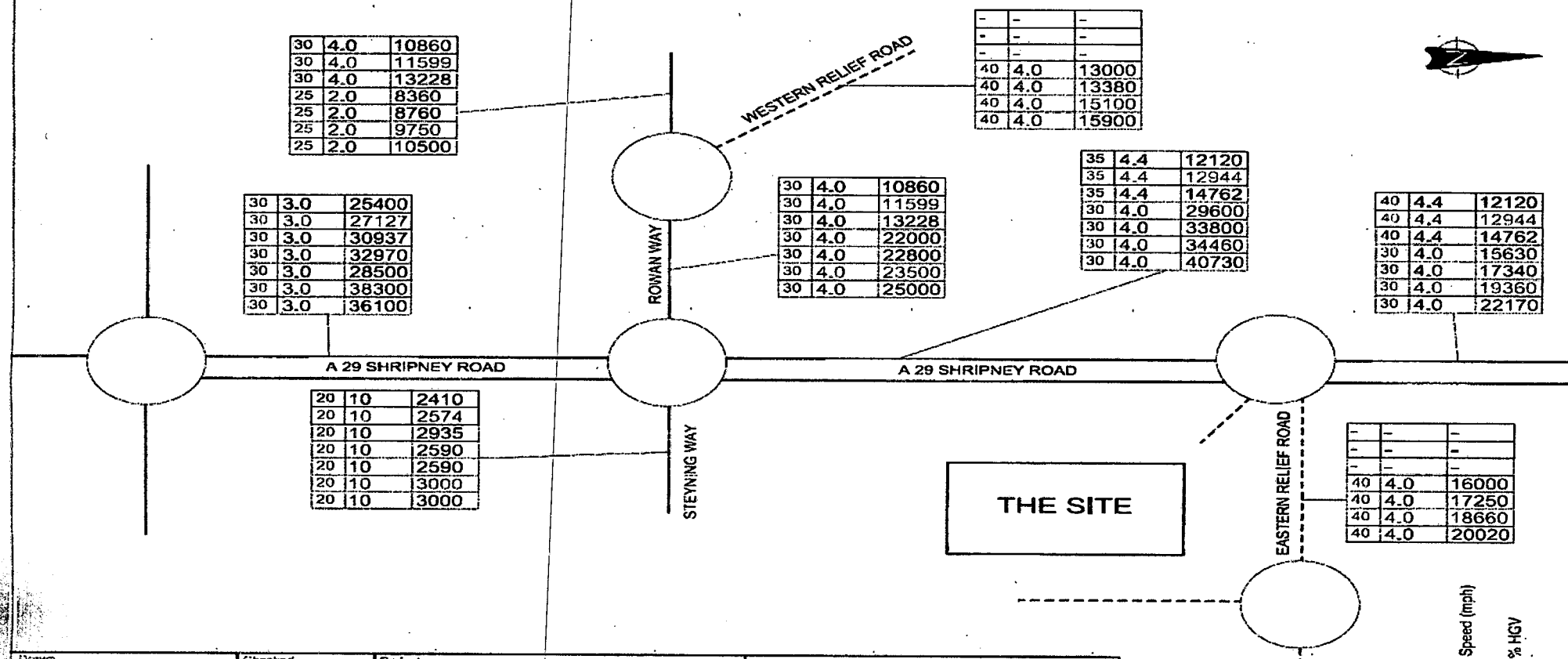
- 8.92 The development site is located between the built up area of Bognor Regis and the proposed relief road which has planning permission.
- 8.93 The Site is allocated for a business park within Arun District Local Plan Policy Site 6.
- 8.94 The proposals comprise a business park of 19,500 sqm and an Asda foodstore.
- 8.95 The pedestrian and cycle environment will be enhanced with an internal network of pedestrian and cycle routes linked to the existing external network.
- 8.96 Improvements will comprise improved crossing facilities on Steyning Way and Shripney Road.
- 8.97 Bus services will be diverted into the Site using a bus only corridor within the Site and therefore minimising the diversion for the bus route.

- 8.98 The road network and junctions will cater for anticipated traffic in early years of the development. It will be necessary to reassess the Rowan Way / A29 roundabout once the relief road is open in order to check whether mitigation measures are necessary at that junction.
- 8.99 The assessment includes the cumulative Impact of the proposed residential developments in Feltham and Bersted.

Table 8.7 Summary of Transport Effect

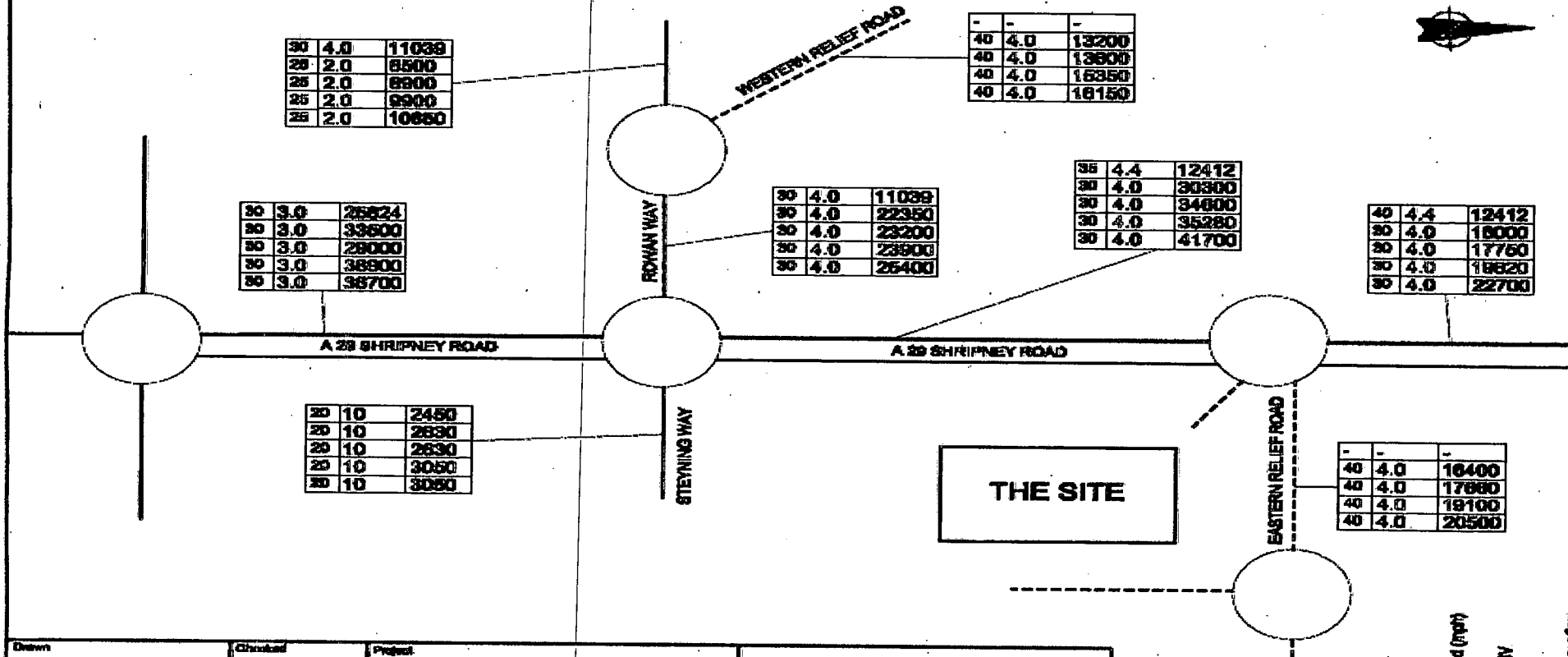
Issue	Description of Effect	Geographical Significance	Effect	Significance	Duration
		I N R D L			
Transport	Addition of development traffic on wider network		* Adverse	Minor	Long-term
	Pedestrian and Cycle Amenity		* Neutral	Minor	Long-term
	Fear and Intimidation for Pedestrians		* Adverse	Minor	Long-term
	Public Transport		* Neutral	Minor	Long-term
	Construction Traffic		* Adverse	Minor	Short-term

* L = Local



Drawn DAVID HOWSON		Checked GK		Project OLDLANDS FARM BUSINESS PARK BOGNOR REGIS		COTTEE Transport Planning		2007 BASE		00 00000 00000	
Scale NTS		Date DEC 2007		18 HOUR FLOWS		Fir Lodge Threshelford Business Park		2011 BASE		00 00000 00000	
Drawing No. 0704/NOISE 18HR				Figure 8.1		Faxing Essex CO5 9SE		2025 BASE		00 00000 00000	
						Tel : 01376 573400		2011 BASE WITH RELIEF ROAD (RR)		00 00000 00000	
						Fax : 01376 573480		2011 BASE + RR + DEVELOPMENT		00 00000 00000	
						email : info@cottee-tp.co.uk		2025 BASE + RR		00 00000 00000	
								2025 BASE + RR + DEVELOPMENT		00 00000 00000	

Figure:	8.1		
Title:	Noise 18 Hour Flows		
Project:	Oldlands Farm		
Date:	20/12/07	Scale:	NTS



Drawn DAVID HOWSON	Checked GK	Project OLDLANDS FARM BUSINESS PARK BOGNOR REGIS	COTTEE Transport Planning 1st Lodge The Waterlarks Business Park Farningham Sussex PO26 6SS Tel : 01273 573400 Fax : 01273 573400 email : info@cottee-tp.co.uk	2007 BASE 2011 BASE WITH RELIEF ROAD (RR) 2011 BASE + RR + DEVELOPMENT 2025 BASE + RR 2025 BASE + RR + DEVELOPMENT	<table border="1"> <tr> <th>Speed (mph)</th> <th>% HGV</th> <th>24-hour flow</th> </tr> <tr><td>00</td><td>00000</td><td>00000</td></tr> <tr><td>00</td><td>00000</td><td>00000</td></tr> <tr><td>00</td><td>00000</td><td>00000</td></tr> <tr><td>00</td><td>00000</td><td>00000</td></tr> <tr><td>00</td><td>00000</td><td>00000</td></tr> </table>	Speed (mph)	% HGV	24-hour flow	00	00000	00000	00	00000	00000	00	00000	00000	00	00000	00000	00	00000	00000
Speed (mph)	% HGV	24-hour flow																					
00	00000	00000																					
00	00000	00000																					
00	00000	00000																					
00	00000	00000																					
00	00000	00000																					
Scale NTS	Date DEC 2007	24 HOUR FLOWS Figure 8.2																					
Drawing No. 0704/AIR QUALITY 24HR																							

Figure:	8.2		
Title:	Air Quality 24 Hour Flows		
Project:	Oldlands Farm		
Date:	20/12/07	Scale:	NTS