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Issue No: 1	Name	Signature	Date	Position
Prepared by	Hannah Short		4th August 2010	Transport Planner
Checked by	Toan Chau		4th August 2010	Technical Director
Approved by	Toan Chau		4th August 2010	Technical Director

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1. INTRODUCTION

1.1. Introduction

On behalf of The Priory Campus, URS are providing advice regarding traffic, transport and highways issues for the proposals for the development of additional facilities at an existing community centre known as The Priory Campus, Barnsley. **Plan 1** shows the site location.

This report provides a transport assessment of the potential development proposals in order to assist the determination of a planning application for the site. The report has been prepared in accordance with the Department of Transport's "Guidance on Transport Assessment – March 2007" (GTA).

The Department of Transport's "Guidance on Transport Assessment – March 2007" recommends that the Transport Assessment should address the following issues:

- ***Reducing the need to travel, especially by car*** - ensure, at the outset that thought is given to reducing the need to travel by a careful consideration of the types of uses (or mix of uses) and the scale of development to promote multipurpose or linked trips.
- **Sustainable accessibility** - promote accessibility by all modes of travel, in particular public transport, cycling and walking; assess the likely travel behavior or travel pattern to and from the proposed site; and develop appropriate measures to influence travel behavior.
- ***Dealing with residual trips*** – provide accurate quantitative and qualitative analyses of the predicted impacts of residual trips from the proposed development and ensure that suitable measures are proposed to manage these impacts.
- ***Mitigation Measures*** – ensure as much as possible that the proposed mitigation measures discourage avoidable physical improvements to highways and promote innovative and sustainable transport solutions.

1.2. Scope of the Report

This report considers the transport and traffic related issues relevant to the proposed development. The scope of the report has been determined through discussions and correspondence with officers of Barnsley Council.

Following this brief introduction, Section 2 provides a review of the existing highway network including the existing site operations and accident analysis.

Section 3 then describes the potential development proposals. Section 4 considers the transport planning policy issues whilst Section 5 assesses the accessibility of the site by non-car modes. Section 6 then provides an assessment of the traffic impact of the potential development within the local highway network. Section 7 then analyses the junction capacities. The summary and conclusion are set out in Section 8.

2. EXISTING HIGHWAY NETWORK

2.1. Site Description

The Site is in the residential area of Lundwood approximately 2.5km east of Barnsley town centre. It is centred on National Grid Reference SE 371 067 off Pontefract Road (A628). The site is bounded to the north by St Martins Nursery and Lundwood Health Centre, the east by Pontefract Road, to the south by the Priory Arms pub and Rotherham Road, and to the west by playing fields and open space.

The surrounding area is predominantly residential in all directions interspersed with areas of open space, particularly to the south and east. There are a number of community facilities (including a health centre) and shops to the north and east of the Site.

The site currently consists of a community centre with 83 parking spaces in the eastern portion of the Site. The Priory Campus is an independent voluntary organisation and registered charity that provides numerous services to the local community including projects, courses, events and services. The centre has been operational since February 1995 and includes facilities such as conference facilities, a café, community hall, learning centre, information and resource centre, nursery, GP (3 consulting rooms) and office space. The existing floor space is approximately 34,500 ft^2 (3205 m^2) over two floors.

The proposed additional facilities are to be developed on land currently in use as part of Priory School and Sports College's playing field in the northern portion and open space in the southern portion of the site.

Plan 2 shows the red-line boundary of the site in the context of the surrounding area and the local highway network and existing layout of the site. The Plans are appended to this document.

2.2. Local Highway Network

The Site is located off Pontefract Road (A628), which the main access route from Pontefract and the M62 in the north and Barnsley and Manchester in the west. Pontefract Road is a single carriage way restricted to 30 miles per hour (mph) and furnished with pedestrian footpaths on both sides and street lighting. There are no specified cycling facilities. A bus service is routed along this road but there is no specified bus lane in the vicinity of the site.

Pedestrian and vehicular access to the existing site is gained via a priority junction off Pontefract Road.

Rotherham Road (A633) forms the southern boundary of the Site and provides access to Monk Bretton and Wakefield. Rotherham Road is a single carriage way restricted to 30mph and furnished with pedestrian footpaths on both sides and street lighting. There are no specified cycling facilities and no bus route along this section of the road.

Pontefract Road and Rotherham Road are connected to the south of the Site via a four-way roundabout with Grange Lane known as the Cundy Cross roundabout.

The roundabout provides access to the M1 (Junction 37) via Grange Lane, A635 and A6133, bypassing Barnsley town centre and linking the site to Leeds in the north and Sheffield in the south.

To the south Grange lane forms a roundabout junction with A635 Doncaster Road, A633 Wombwell Lane and Hunningley Lane.

To the north of the site, Pontefract Road forms a signalised junction with Littleworth Lane which includes pedestrian crossing facilities.

2.2.1. Observed Highway Network

The following junctions within and surrounding the site has been agreed with the Council to be assessed as part of this Transport Assessment:

1. Roundabout – A628 Pontefract Road / A633 Rotherham Road / A633 Grange Lane;
2. Roundabout – A635 Doncaster Road / A633 Grange Lane / A633 Wombwell Lane / Hunningley Lane;
3. Site Accesses.

Traffic surveys were obtained from the Council which includes Automatic Traffic Counts (ATC). **Appendix A** provides the traffic survey results.

Analysis of the traffic survey shows morning peak periods to be between 0800 – 0900 hours and evening peak periods to be 1700- 1800 hours. **Figures 1** and **2** shows the existing surveyed traffic flows for the morning and evening peaks respectively in total and heavy vehicles (includes buses). **Figures 3** and **4** shows the existing surveyed traffic flows in Passenger Car Units (PCU)

3. PROPOSED DEVELOPMENT

3.1. Proposed Development

The proposals are to provide additional facilities to the existing community centre to include the following:

- Multi-function community space (including weight management support);
- Gym;
- Domiciliary care;
- Health community dietician;
- Cardiac rehab;
- Excersise referral;
- Relocation and extension of GP practice (6 consulting rooms and 1 treatment room);
- Pharmacy; and
- Changing and communal space;

The new facilities will be located in several new buildings to the west of the existing building. The new buildings will provide approximatley 1800 m^2 in additional floor area. accommodating the GP Surgery and facilitities as described above.

The proposed development also includes a partial refurbishment of the existing building provide connectivity to the new build.

A new access is proposed for the new build located off Rotherham Road. The access has been designed to inlcude a right turn ghost island and has been set back to allow incrased queuing space for vehicles approaching the Cundy Cross roundabout. **Plan 3** shows the site access arrangements.

Parking provision for a total of 150 cars will be provided. 77 spaces for the existing building. A second car park of 73 spaces will be located in the west of the Site, accessible via a new access road off Rotherham Road.

Plan 4 shows the proposed site layout as prepared by Architecture 2B.

3.2. Parking Provision

The existing maximum car parking provision for the site has been derived using the BMBC's SPD32 "Parking, Transport Assessment and Travel Plan".

For the pupose of this reprt, the uses have been categorised as follows:

Existing:	**Proposed:**
GP Surgery – 193m^2. (3 CS)	GP Surgery – 500m^2. (6 CS, 1 TR)
Community Centre facilities – 2169m^2.	Community Centre facilities – 3134m^2.
Offices – 1187m^2.	Offices – 1187m^2.
	Sports facilities – 335m^2.

Note: CS – Consulting Rooms, TR – Treatment Rooms

This equates to the following maximum provisions:

Existing:	**Proposed:**
GP Surgery – 21spaces.	GP Surgery – 40spaces.
Community Centre facilities – 63 spaces.	Community facilities – 87 spaces.
Offices – 40spaces.	*Offices – 21 spaces.*
	Sports facilities – 2 spaces.
Total – 124 spaces.	Total – 150 spaces.

As regards to cycle spaces it is proposed that 30 cycle spaces are provided within the site which equates to 20% of the parking provisions. In additional as recommended by SPD32 motorycle parking is to be provided at a ratio of 1 per 20 car spaces which equates to 8 motorcycle spaces.

It should be noted that the existing car park has 83 car park spaces and during peak operational periods there car parking which significant exceeds the existing provisions. The additional car parking would provide for the existing overspill parking and additional parking for the proposed additional facilities to the benefit of highway safety and in accordance with SPD32.

4. TRANSPORT PLANNING CONSIDERATION

4.1. Background

In order to assess the proposals and develop a transportation access strategy for the proposed development it is necessary to review both national and local transport related planning policies together with the emerging policies.

The following sections outline the relevant planning policies in respect of the proposed development.

4.2. Planning Policy Guidance Note 13 on Transport

Planning Policy Guidance Note 13 (PPG13) on 'Transport' provides advice on how local planning authorities should integrate transport and land use planning.

The key objectives of PPG13 are set out at paragraph 4, for integrating planning and transport at the national, regional, strategic and local level are:

- 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.

A key objective set out in PPG13 at paragraph 19, is to ensure that jobs are accessible by public transport, walking and cycling.

4.3. Local Transport Plan

The current Local Transport Plan for the Barnsley area is the Second South Yorkshire Local Transport Plan (SYLTP2)[1] prepared by the four Councils in South Yorkshire and the Passenger Transport Authority (PTA). The Plan was submitted in 2006 and covers a five year period up to 2011. The Plan sets out how transport strategies will be aligned with other social, economic development, environmental and land use policies. The Plan sets out the following vision for the Region's transport network;

> *"...to improve both our internal and external links in order to support sustainable and transformational economic regeneration."*

They aim to achieve this by delivering strategic initiatives and high quality public transport connections and high quality, car competitive public transport, especially bus.

The South Yorkshire LTP Partnership and the Sheffield City Region are currently developing the Sheffield City region Transport Strategy, incorporating the Third Local Transport Plan. It is currently under consultation and will cover the period 2011 – 2026.

[1] South Yorkshire Integrated Transport Authority (2006); *'Second South Yorkshire Local Transport Plan 2006 – 2011'.*

It will aim to enhance and unlock economic growth in the Region, reduce greenhouse gas emissions, focus on quality of life and make transport safe and secure. Publication of the final strategy is estimated for March 2011.

4.4. Unitary Development Plan

Barnsley Metropolitan Borough Council's (BMBC) Unitary Development Plan (2000) is the statutory development plan for the borough[2]. The plan looks at how much development is required in the borough, where it's best located and how it should be designed. The document sets out the main planning policies by which planning applications for development will be judged.

Volume 1, Section 6 covers a variety of topics under the heading 'Transport'. The UDP states that Council will

> *"Support policies and proposals for re-industrialisation, environmental improvement, and community revitalisation, the development of a progressive transportation strategy based on enhancement of travel opportunities and choice".*

With reference to Transport Assessments (TA) Policy T6 states;

> *"Any proposals to improve access will need to be justified in terms of the wider objectives of improving travel opportunities, benefitting industry and commerce, relief of congestion and environmental improvement / protection."*

Policy T14 states,

> *"Development proposals will be required to include measures to facilitate access to, and where appropriate, by public transport services....This will include site layout, pedestrian routes and road design taking into account in appropriate cases the needs of bus routes including lay-bys, turning facilities and shelters."*

4.5. Local Development Framework, 2011 - 2026

Planning and Compulsory Purchase Act 2004, BMBC's UDP will be replaced by a portfolio of Development Plan Documents (DPD) which make up the Local Development Framework (LDF). The Core Strategy DPD sets out the Council's vision for future development up to 2026[3]. Final consultation closed on the publication version document in April 2010 and is now due for submission.

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[2] Barnsley Metropolitan Borough Council (2000); *'Unitary Development Plan'.*

[3] Barnsley Metropolitan Borough Council (2010); *'Local Development Framework – Core Strategy Publication'*

5. ACCESS TO THE PROPOSED DEVELOPMENT BY CHOICE OF TRANSPORT MODES

5.1. Brief

The accessibility of the proposed development by a range of modes of transport has been considered in particular to objectives in line with PPG13, the Local Transport Plan and local planning guidance.

5.2. Accessibility on Foot

As regards to pedestrian access, the site benefits from good pedestrian infrastructure.

Footpaths are provided on both sides of the roads in the local network. There are pedestrian refuge islands along Rotherham Road and Pontefract Road in the vicinity of the site. A pelican crossing is located near the junction of Grange Lane and Grange Crescent approximately 150m to the south of the Site. To the north of the site, Pontefract Road forms a signalised junction with Littleworth Lane which includes pedestrian crossing facilities.

PPG13 states that, at the local level, walking is the most important mode of transport and offers the greatest potential to replace short car trips, particularly under 2km. **Plan 5** shows the 1km and 2 km "crow fly" walk catchments from the site. As can be seen the residential areas within Monk Bretton, Lundwood and Stairfoot are within the 2km catchment. In addition, there are numerous facilities within or surrounding the Site which are within 2km and therefore accessible by foot, including shops, education, leisure, public transport and employment. In terms of facilities available in the vicinity, the Site is situated such that movement can be highly sustainable.

Pedestrian access to the proposed development will be gained via the existing access off Pontefract Road. A new footway will also be provided from Rotherham Road close to the Priory Arms pub, separate from the new vehicular access point off the same road. An additional new footway will be provided off Pontefract Road, to the south of the existing vehicular access and opposite Lang Avenue. Provision for pedestrian movement throughout the Site will be centred on the new central core which connects the new and existing buildings.

The Trans Pennine Trail passes to the east and south within 500m of the Site. Off road access to the trail is available off Lang Avenue. The Trans Pennine Trail runs largely along disused railway lines and canal towpaths. This section forms part of the north/south trail which begins in Leeds, passing through Barnsley and terminates in Sheffield.

5.3. Accessibility for Cyclists

As part of the proposed development cycle parking will be provided within the site to encourage the use of cycles.

PPG13 states that travel by cycle is suitable for replacing car journeys up to 5km in length. The site and surrounding area benefit from a network of cycle provisions and relatively flat topography.

Plan 6 shows the 2.5km and 5km km "crow fly" cycle catchments from the site. The following local areas are within 5km:

- Barnsley town centre - approximately 2.5km west;
- Cudworth – approximately 2km east;
- Monk Bretton – approximately 1km northwest; and,
- Darfield and Wombwell– approximately 3-4km southeast.

A map showing cycle routes in the Barnsley area is provided in **Appendix B**. The nearest bridleway (off road and accessible to bicycles) is located approximately 2.5km southeast of the Site near Cranford Hall.

As discussed in Section 5.2, the Trans Pennine Trail is located to the east and south of the Site and is accessible to bicycles. The north/south section of the Trail also forms part of the Nation Cycle Network Route 67. A local connection to the Trail extends from Grange Bridge off Grange Lane approximately 500m south of the proposed development.

The ability to link into the existing cycle routes would help to encourage cycling as an alternative form of access for the development, and the layout of the development would be designed to encourage cycle use.

5.4. Accessibility by Bus

Bus routes are provided along Pontefract Road. A bus stop for northbound travel is located approximately 50m north of the site. A bus stop for southbound travel is located on the opposite side of the road. Both benefit from shelters and bus lay-bys.

A number of bus routes operate through these bus stops. Services typically run at a frequency of between 30 minutes and hourly at peak times and a good level of service is provided off peak and at weekends. Barnsley Interchange is located in the town centre, Eldon Street North approximately 2.5km west of the proposed development. The terminus provides access to further bus travel to Wakefield, Rotherham, Doncaster, Sheffield, Huddersfield and Denby Dale.

The key bus routes servicing the site are shown in **Appendix C**. The key bus services are summarised in **Table 5.1**.

Table 5.1 Bus Summary

Service	Route Description	Frequencies					
		Monday – Friday		Saturday		Sunday	
		Daytime	From 18:30	Daytime	From 18:30	Daytime	From 18:30
32	Barnsley – Cudworth	15 mins	30 mins	30 mins	hourly	hourly	hourly
35, 35A	Barnsley – Pontefract	30 mins	hourly	30 mins	hourly	hourly	hourly
36B	Barnsley – Cudworth	hourly	-	hourly	-	hourly	hourly
37, 37B	Barnsley – Cudworth	hourly	-	2 hours	-	-	-
38, 38A	Barnsley – Hemsworth (Circle)	2 hours	-	2 hours	hourly	-	-
46, 47	Barnsley – Pontefract	30 mins	-	30 mins	-	-	-

As can be seen from Table 5.1 the site is highly accessible by way of bus travel.

5.5. Accessibility by Rail

Barnsley Railway Station is located in the town centre, Eldon Street North approximately 2.5km west of the proposed development.

This rail facility links the site to the following destinations:

- Sheffield
- Wakefield; and,
- Huddersfield

Further connections to national destinations such as Birmingham and London can be made at Manchester Piccadilly. Facilities at the station include waiting room, 24hour car parking, cycle storage, a ticket office, public toilets, shops and left luggage. The station is staffed from 06:00 – 19:30 (Monday to Saturday) and 08:45 – 19:30 (Sunday). There is good access for wheel chair users to the station and the trains.

A taxi rank is located outside the station and vehicular access is gained via Eldon Street. The railway station is connected to the Bus Interchange and therefore provides good links to onward travel.

Although the railway station is outside the normal desired walking distance (1.6km) for rail travel, trips made by rail can be linked with cycle or bus travel.

5.6. Sustainable Travel Initiatives

In addition to the physical infrastructure which will be constructed, it is proposed that Travel Plans and associated initiatives are provided to enhance sustainable travel to the site from the offset.

The Travel Plan initiatives and commitments are included on a 'without prejudice' basis and are subject to confirmation and agreement by The Priory campus and to discussion with BMBC.

The initiatives and provisions of the Travel Plan are likely to bring sustainable travel benefits, not just to the proposed development, but also to existing occupiers, employees and residents in the area.

It is recognised from the outset that for a Travel Plan to be effective, its initiatives will have to be monitored annually and will need to evolve to remain focused upon the travel needs of travellers to and from the development.

6. TRAFFIC IMPACT

6.1. Brief

This section of the report considers the methodology for assessment of the likely traffic effects of the potential development of the site on the local highway network.

The primary aim is to identify whether any material changes takes place and to assess whether the highway network could accommodate the additional traffic.

6.2. Future Traffic Flows

The normal method of accounting for traffic growth is to apply the Department of Transport's National Road Traffic Forecasts (NRTF). However, it is widely recognised amongst transport planning professionals that these forecasts do not, on the whole, provide a suitable tool from which peak hour traffic growth factors can be derived.

A number of criticisms of NRTF are provided below:

- NRTF are demand forecasts and are not constrained by the available amount of capacity of the highway network under consideration. The levels of traffic predicted by these forecasts may not, therefore, be realistic on any given road network, particularly at peak times when the network has less spare capacity.
- The forecasts implicitly include new development related activity, therefore, to apply growth factors based on NRTF and then add development traffic results in an element of double counting, and hence an overestimate of traffic flows.
- The forecasts relate to annual growth in vehicle mileage for all periods, and provide no indication of peak hourly changes in traffic flow. There is evidence available indicating that peak hour traffic activity is not increasing at a similar rate to off-peak traffic levels, therefore, to apply NRTF to peak hours is again likely to overestimate future traffic flows.

Nevertheless, NRTF Low growth forecasts have been used, which will, for the above reasons, provides a robust prediction of future traffic levels. The year of assessment is to be 2010 and 2020 (submission + 10 years).

Figures 5 and 6, therefore, presents the 2010 Growthed Traffic flows for the morning and evening peak periods respectively whilst **Figures 7 and 8** presents the 2020 Growthed Traffic flows for the morning and evening peak periods respectively.

6.3. Trip Generation

The TRICS database has been used to estimate the vehicular trips generated by the existing and development proposals. For the purpose of this assessment the trip calculations have been based on the following floor areas:

Existing:

GP Surgery – 193m^2.

Community Centre facilities – 2169m^2.

Offices – 1187m^2.

Proposed:

GP Surgery – 500m^2.

Community Centre facilities – 3134m^2.

Offices – 1187m^2.

Sports facilities 335m^2.

Table 6.1 provides the typical peak hour trip rates (morning peak 0800-0900 hours and evening peak 1700-1800 hours) for the various uses. The TRICS Output is provided in **Appendix D**. In addition to the vehicular trip rates, the TRICS output also includes estimates for pedestrian, cycle and public transport trip rates.

Table 6.1 Typical Peak Hour Trip Rates

	AM			PM		
	ARR	DEP	TOTAL	ARR	DEP	TOTAL
GP	4.04	1.705	5.745	2.597	4.145	6.742
Community	0.300	0.180	0.480	0.540	0.660	1.200
Offices	1.584	0.165	1.749	0.149	1.394	1.543
Sports	0.619	0.874	1.493	1.79	1.171	2.961

Table 6.2 and **6.3** summarises the estimated vehicular trip generations for the existing and proposed development respectively.

Table 6.2 Existing Peak Hour Trips

	AM			PM		
	ARR	DEP	TOTAL	ARR	DEP	TOTAL
GP	8	3	11	5	8	13
Community	7	4	10	12	14	26
Offices	19	2	21	2	17	18
Total	33	9	42	18	39	57

Table 6.3 Proposed Peak Hour Trips

	AM			PM		
	ARR	DEP	TOTAL	ARR	DEP	TOTAL
GP	20	9	29	13	21	34
Community	9	6	15	17	21	38
Offices	19	2	21	2	17	18
Sports	5	1	6	0	5	5
Total	54	17	70	32	63	95

Table 6.4 summarises the estimated net increase in vehicular trip generations for each phase of the development with the estimated net housing increases.

Table 6.3 Net Trip Generations

	AM			PM		
	ARR	DEP	TOTAL	ARR	DEP	TOTAL
Existing	33	9	42	18	39	57
Proposed	54	17	71	32	63	95
Net Increase	21	8	29	14	24	38

In addition there is a proposed pharmacy which has been included within the community centre facilities. For the purposes of this report, it has been assumed that trips associated with these additional uses would be made within the site by cross-visitation using non-car modes i.e. by foot as they are within walking distance from the site. As such, it has been assumed that no additional vehicular trips would be generated for these uses.

6.4. Distribution and Assignment of Generated Traffic

The existing traffic movements on the highway network, as obtained from the various surveys, would be used to assign the proposed development traffic onto the local highway network. The proposed distribution takes into account the different distributions for the AM and PM peaks and also inbound and outbound traffic to reflect some of the decisions on route choice which takes place.

Figures 9 and 10 provide the traffic distribution for existing development during the AM and PM peaks respectively.

Figures 11 and 12 provide the traffic distribution for the additional facilities during the AM and PM peaks respectively.

The assigned existing trips are provided in **Figures 13** and **14**. The additional net increases in trips are provided in **Figures 15** and **16**.

The 2010 Base Traffic Flows (No Development) are presented in **Figures 17** and **18** whilst the 2020 Base Traffic Flows (No Development) are presented in **Figures 19** and **20.** It should be noted that there is a degree of double counting as the existing traffic

surveys may already include some of the existing development traffic, however, for the purpose of this assessment, this represents a worst case scenario.

In order to obtain the 2010 With Development Traffic flows, the Total Net Trip Generations (Figures 15 and 16) has been added to the 2010 Base Traffic Flows (Figures 17 and 18). **Figures 21 and 22** present the 2010 With Development Traffic Flows for the morning and evening peak periods respectively.

In order to obtain the 2021 With Development Traffic flows, the Total Net Trip Generations (Figures 15 and 16) has been added to the 2020 Base Traffic Flows (Figures 19 and 20). **Figures 23 and 24** present the 2020 With Development Traffic Flows for the morning and evening peak periods respectively.

6.5. Impact Assessment

Figures 25 and 26 present the percentage impact at the observed junction within the highway network with the development in place for the AM and PM peaks respectively when compared to the 2010 Base Traffic Flow conditions as this represents the worst case impact. **Table 6.4** summarises the impact assessment.

Table 6.4 Percentage Development Impact

Junction	Peak Period	
	AM	PM
Site Access with Pontefract Road	0.4%	0.4
Site Access with Rotherham Road	2.1%	2.6%
A628 Pontefract Road / A633 Rotherham Road / A633 Grange Lane	0.4%	0.6%
A635 Doncaster Road / A633 Grange Lane / A633 Wombwell Lane / Hunningley Lane	0.2%	0.3%

Table 6.4 shows that the traffic impact at the following junctions are well below the 5% threshold, therefore, traffic increases at the following locations are minimal. It can be deduced that the additional traffic as a result of the proposed development would not result in a material impact within the local highway network, therefore, no highway improvements are required.

The increases in traffic as a result of the proposed development are significantly less than general seasonal traffic variations which is generally regarded as 5%.

In addition to the above, the applicant is to provide a Travel Plan for the whole site to enhance sustainable travel to the site from the offset. This may result in reduction of both existing and proposed traffic levels. It is considered that the travel plan initiatives remove a significant level of traffic generated by the site, hence reducing traffic within the highway network.

6.6. Committed Development

It has been confirmed by BMBC that there are no committed development which needs to be taken account of within this assessment. It should be noted, however, that the local Priory School adjacent to the site is to be closed by December 2011, this would result in a reduction in traffic within the local highway network. As such, the operation of the junction within the local highway network is envisaged to operate better than the existing situation.

7. CAPACITY ASSESSMENTS

7.1. Brief

It has been agreed with BMBC that the Transport Assessment should include detailed junction capacity assessments where the impact of the proposed development exceeds 5%. No junctions within the highway network exceeds this 5% threshold, therefore, further details capacity assessments are not required. For completeness, junction capacity assessments have been carried out at the site accesses.

7.2. Site Access / Pontefract Road Priority Junction

The PICADY program has been used to assess the capacity of the Site Access / Pontefract Road Priority Junction. **Tables 7.1** and **7.2** summarises the capacity assessments for the AM and PM peak *periods respectively.* The full ARCADY output is provided in **Appendix I**.

Table 7.1 AM Peak Site Access / Pontefract Road Priority Junction, PICADY Summary

Approach	2010 With Development		2020 With Development	
	RFC	Max Queue	RFC	Max Queue
Site Access	0.020	0	0.031	0
Pontefract Road Right Turn	0.051	0	0.054	0

Table 7.2 PM Peak Site Access / Pontefract Road Priority Junction, PICADY Summary

Approach	2010 With Development		2020 With Development	
	RFC	Max Queue	RFC	Max Queue
Site Access	0.083	0	0.090	0
Pontefract Road Right Turn	0.031	0	0.032	0

The above assessments show that the junction is predicted to operate with significant spare capacity for all scenarios. As can be seen, the proposed development would not have a material operational impact.

7.3. Site Access / Rotherham Road Priority Junction

The PICADY program has been used to assess the capacity of the Site Access / Rotherham Road Priority Junction. **Tables 7.1** and **7.2** summarises the capacity assessments for the AM and PM peak periods respectively. The full ARCADY output is provided in **Appendix I**.

Table 7.1 AM Peak Site Access / Rotherham Road Priority Junction, PICADY Summary

Approach	2010 With Development		2020 With Development	
	RFC	Max Queue	RFC	Max Queue
Site Access	0.022	0	0.023	0
Rotherham Road Right Turn	0.028	0	0.028	0

Table 7.2 PM Peak Site Access / Rotherham Road Priority Junction, PICADY Summary

Approach	2010 With Development		2020 With Development	
	RFC	Max Queue	RFC	Max Queue
Site Access	0.082	0	0.091	0
Rotherham Road Right Turn	0.015	0	0.016	0

The above assessments show that the junction is predicted to operate with significant spare capacity for all scenarios. As can be seen, the proposed development would not have a material operational impact.

8. SUMMARY AND CONCLUSIONS

8.1. Summary

On behalf of The Priory Campus, URS are providing advice regarding traffic, transport and highways issues for the proposals for the development of additional facilities at an existing community centre known as The Priory Campus, Barnsley. A hybrid planning application is proposed for the comprehensive residential-led renewal and redevelopment of Pendleton comprising:

The site currently consists of a community centre with 83 parking spaces in the eastern portion of the Site. The Priory Campus is an independent voluntary organisation and registered charity that provides numerous services to the local community including projects, courses, events and services. The centre has been operational since February 1995 and includes facilities such as conference facilities, a café, community hall, learning centre, information and resource centre, nursery, GP (3 consulting rooms) and office space. The existing floor space is approximately 34,500 ft^2 (3205 m^2) over two floors.

The proposals are to provide additional facilities to the existing community centre to include the following:

- Multi-function community space (including weight management support);
- Gym;
- Domiciliary care;
- Health community dietician;
- Cardiac rehab;
- Excersise referral;
- Relocation and extension of GP practice (6 consulting rooms and 1 treatment room);
- Pharmacy; and
- Changing and communal space;

The new facilities will be located in several new buildings to the west of the existing building. The new buildings will provide approximatley 1800 m^2 in additional floor area. accommodating the GP Surgery and facilitities as described above.

The proposed development also includes a partial refurbishment of the existing building provide connectivity to the new build.

A new access is proposed for the new build located off Rotherham Road with exitsing access off Pontefract Road retained. Parking provision for a total of 150 cars will be provided. 77 spaces for the existing building is provided via the exitsing access. A second car park of 73 spaces will be located in the west of the Site, accessible via the new access road off Rotherham Road. The car parking numbers have been limited in

line with current maximum parking standards with provision for cycle and motorcycle parking.

The development which is proposed would provide a site layout designed in accordance with current best practice to accommodate pedestrians, cyclists and public transport movements.

The traffic impact at the observed junctions are well below the 5% impact threshold, therefore, traffic increases are minimal. The maximum impact at the A628 Pontefract Road / A633 Rotherham Road / A633 Grange Lane roundabout junction is 0.6% whilst the maximum impact at the A635 Doncaster Road / A633 Grange Lane / A633 Wombwell Lane / Hunningley Lane roundabout junction is 0.3%.

It can be deduced that the additional traffic as a result of the proposed development would not result in a material impact within the local highway network, therefore, no highway improvements are required.

Capacity assessments at the site accesses shows that both the Rotherham Road and Pontefract Road show that the junctions would operate with significant spare capacity for all scenarios and with no excess queuing.

In addition to the above, the applicant is to provide a Travel Plan for the whole site to enhance sustainable travel to the site from the offset. This may result in reduction of both existing and proposed traffic levels. It is considered that the travel plan initiatives remove a significant level of traffic generated by the site, hence reducing traffic within the highway network.

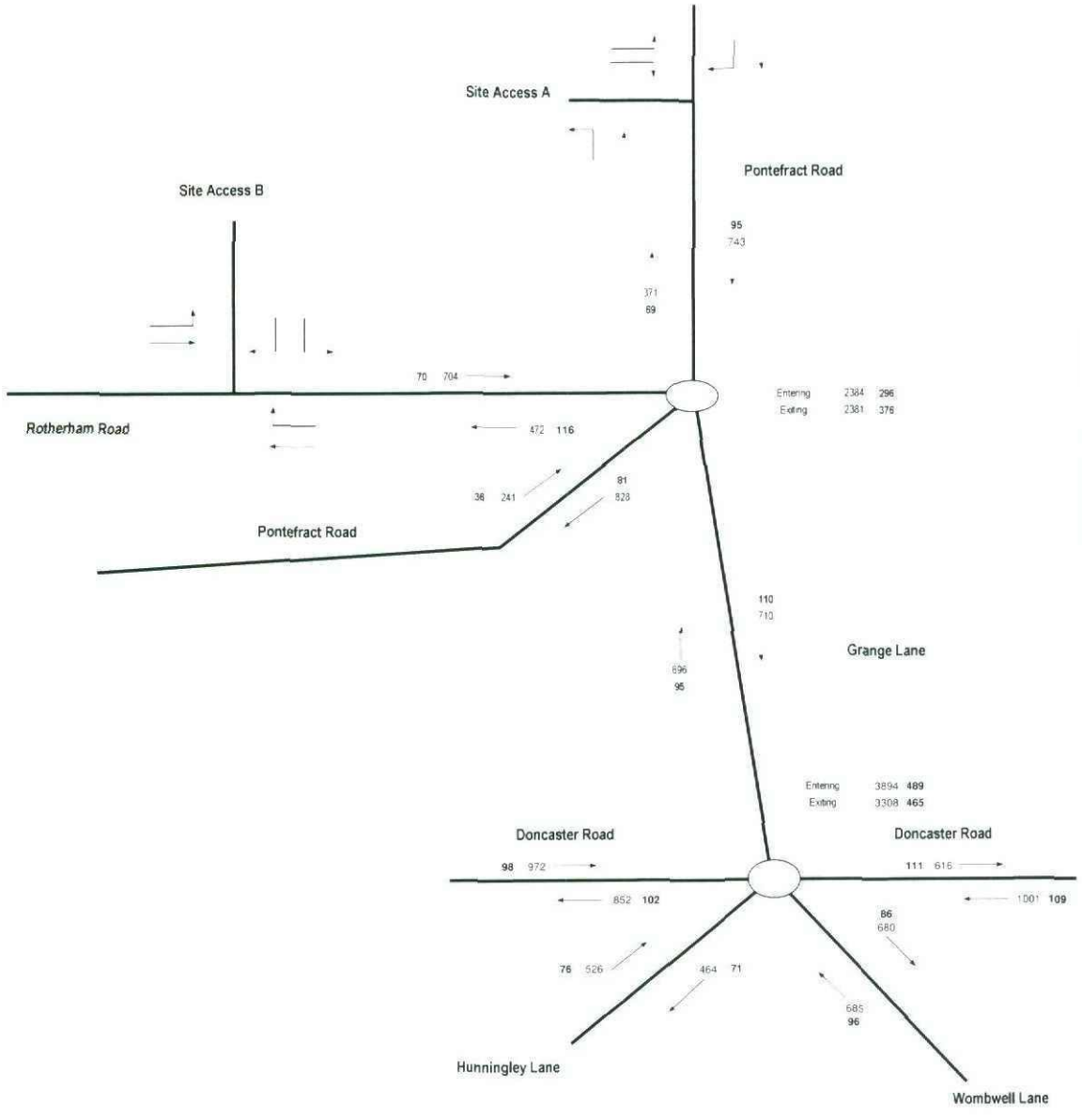
8.2. Conclusions

It is concluded that the development proposals are acceptable in highways and transportation terms.

It is considered that there are no highways or transportation related reason upon which a refusal of the planning application for the proposals would be justified.

FIGURES

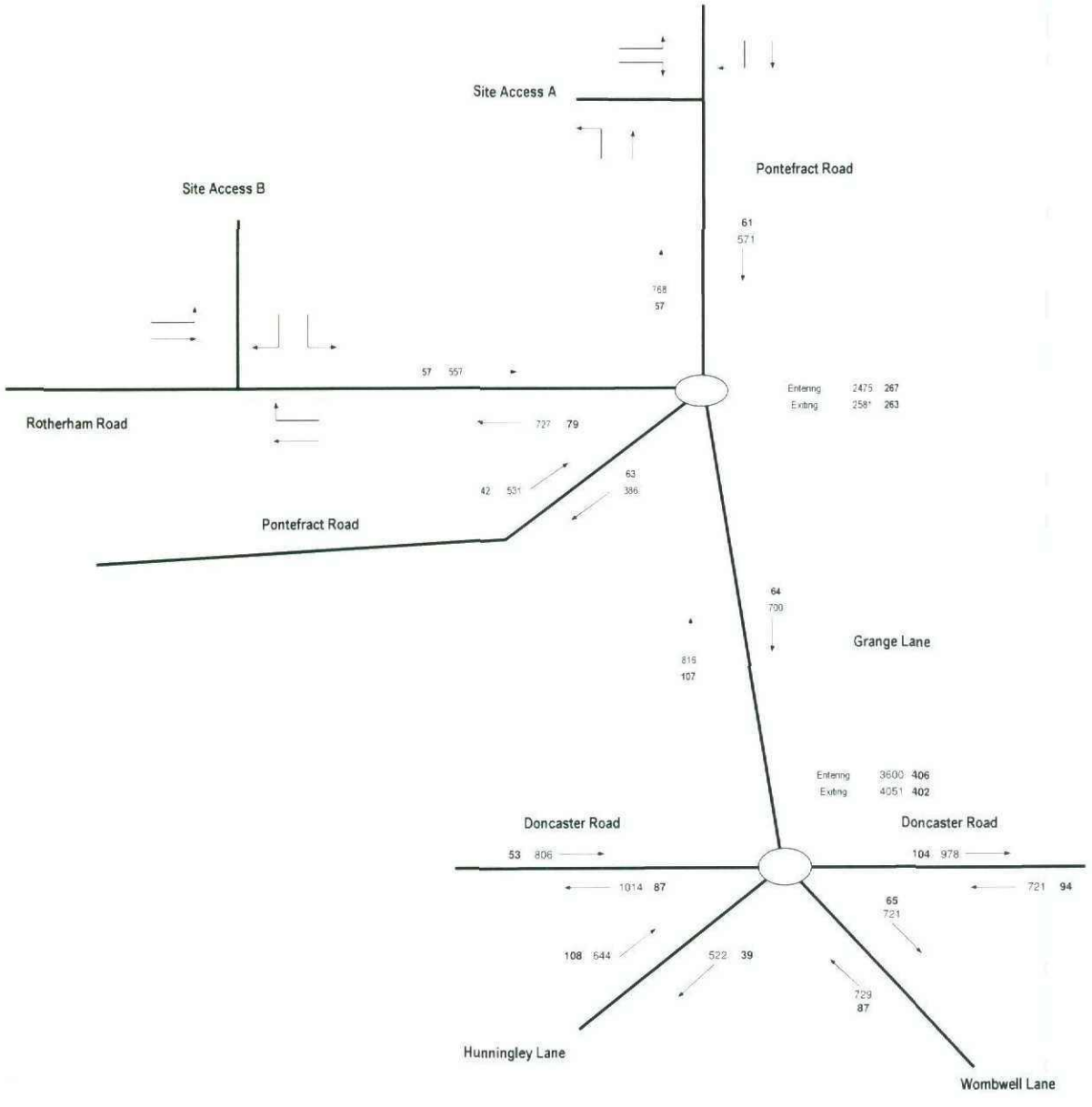
Figure 1: AM Peak Surveyed Traffic Flows
AM Peak: 0800 - 0900



Notes: 123 Total vehicles
123 **HGV**

URS

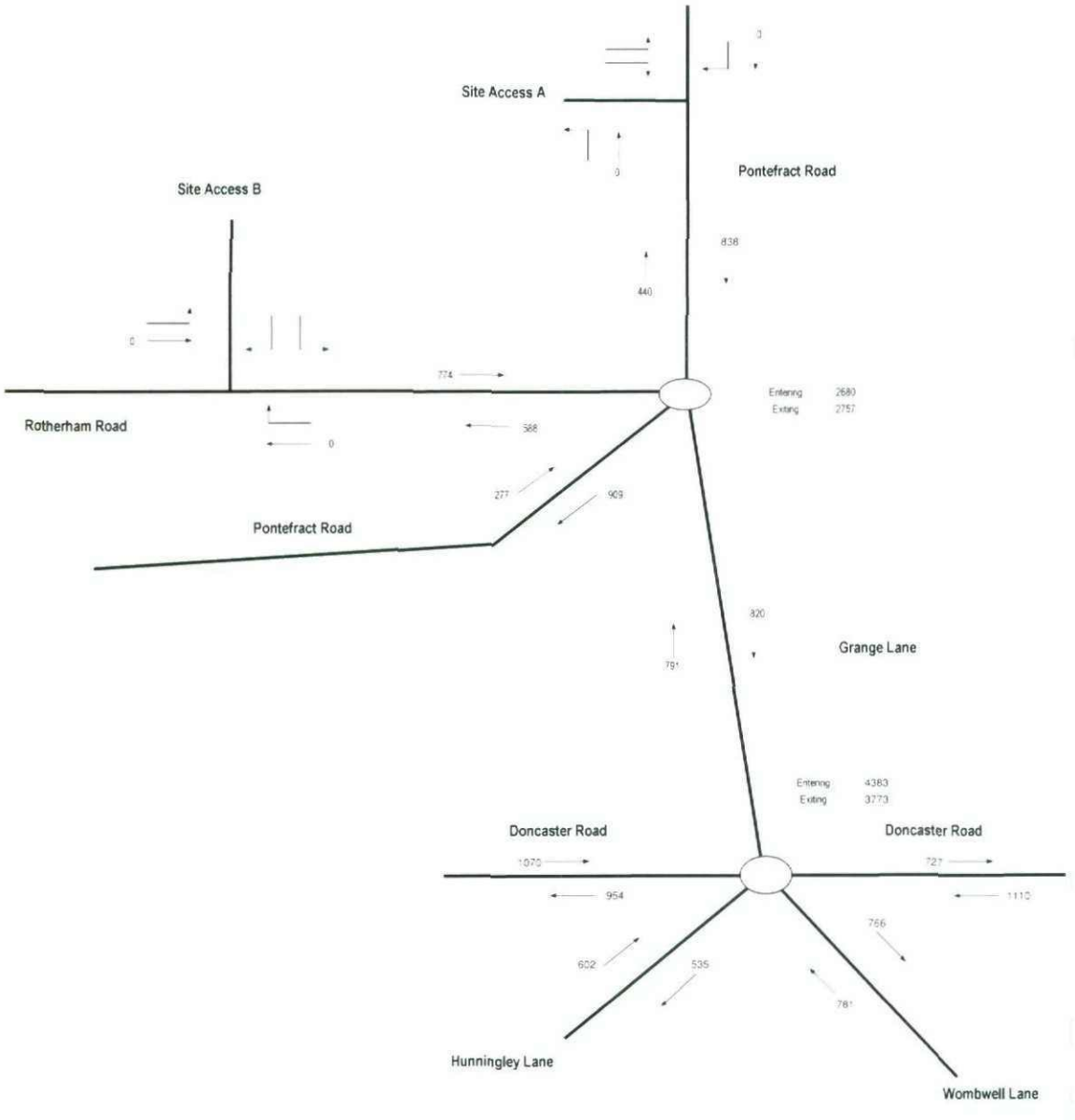
Figure 2: PM Peak Surveyed Traffic Flows
PM Peak: 1700 - 1800



Notes 123 Total vehicles
123 **HGV**

URS

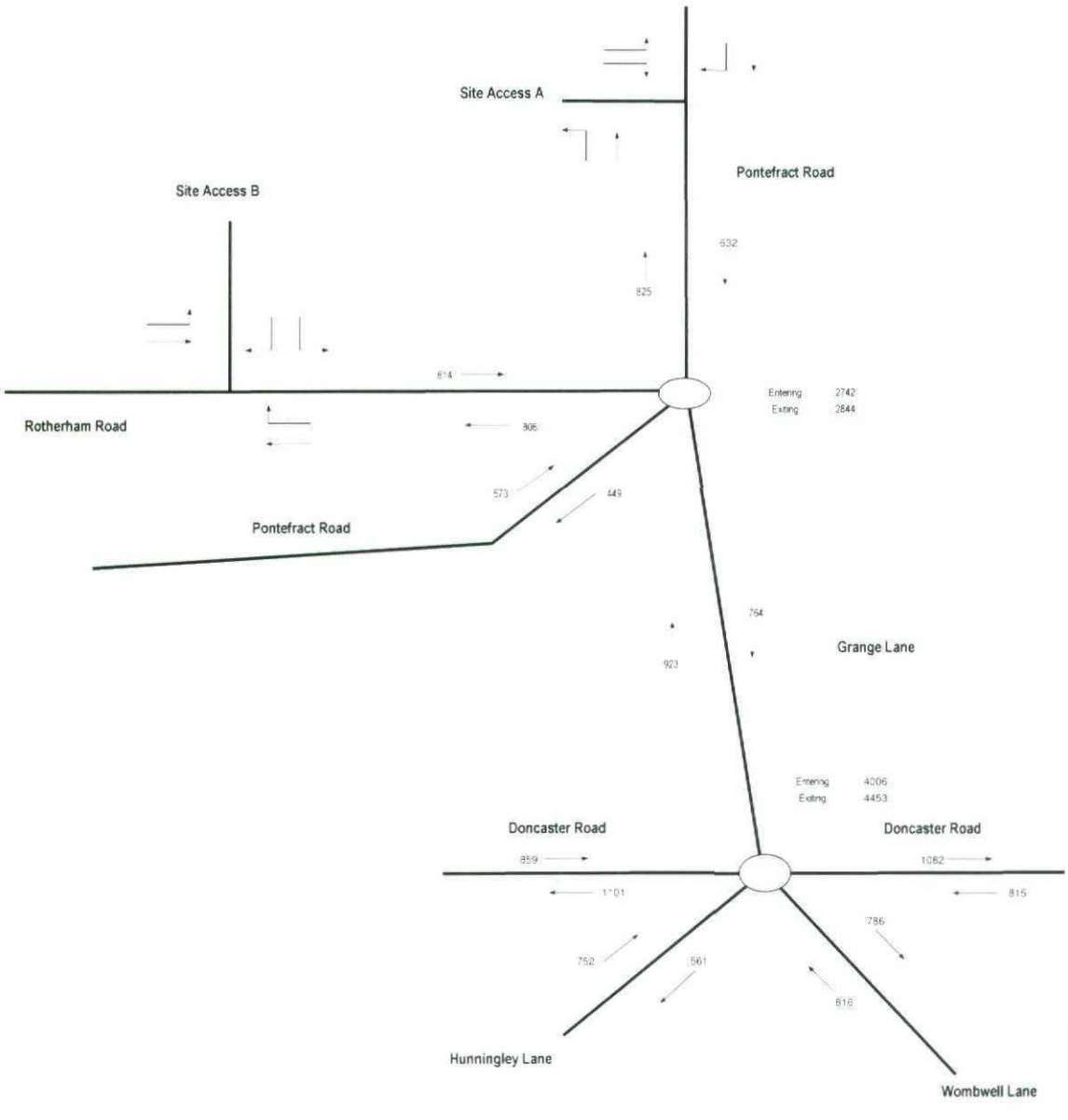
Figure 3: AM Peak Surveyed Traffic Flows
AM Peak: 0800 - 0900



Notes Vehicles in Passenger Car Units

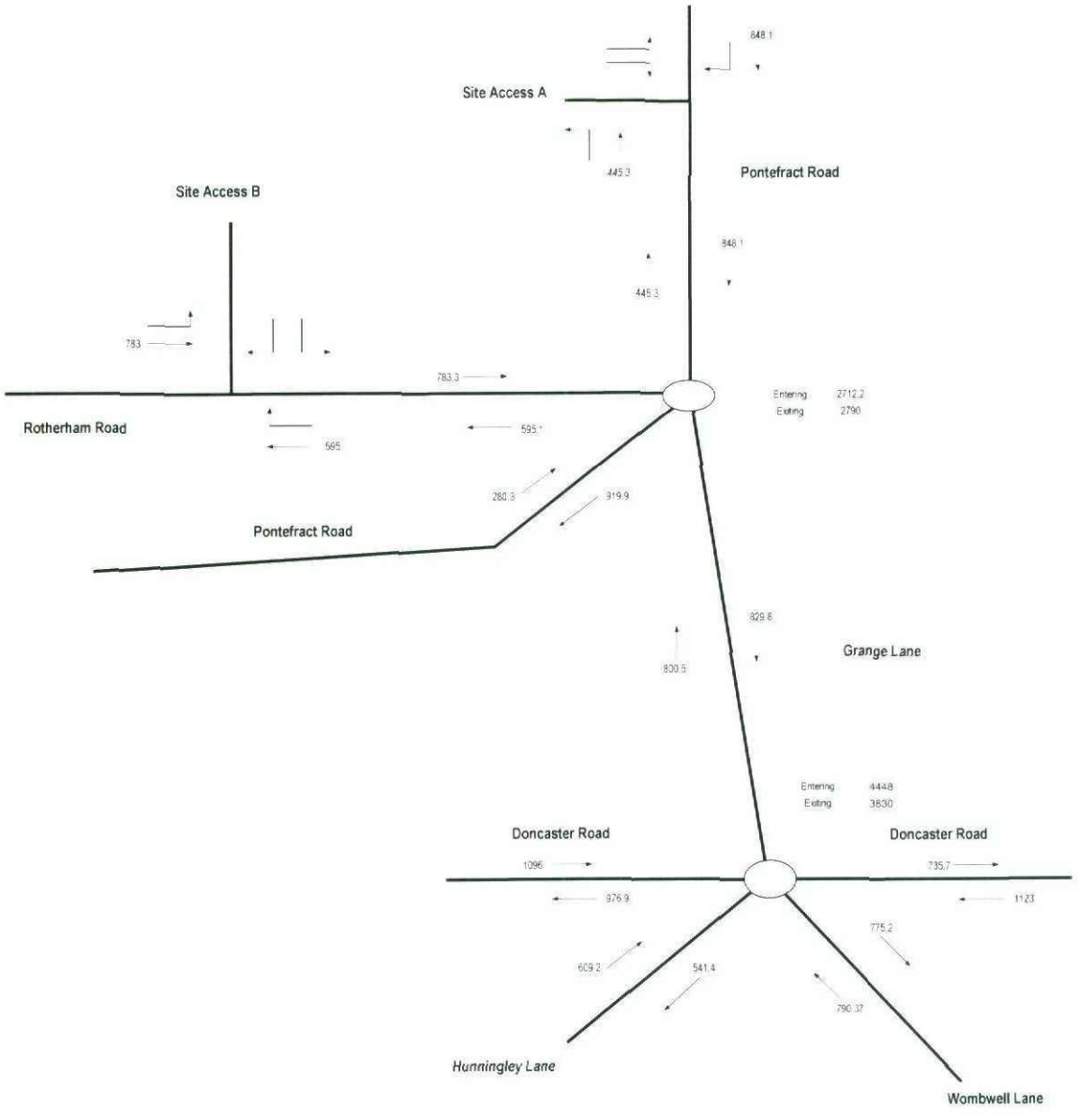
URS

Figure 4: PM Peak Surveyed Traffic Flows
PM Peak: 1700 - 1800



Notes Vehicles in Passenger Car Units

Figure 5: 2010 AM Peak Surveyed Traffic Flows
AM Peak: 0800 - 0900

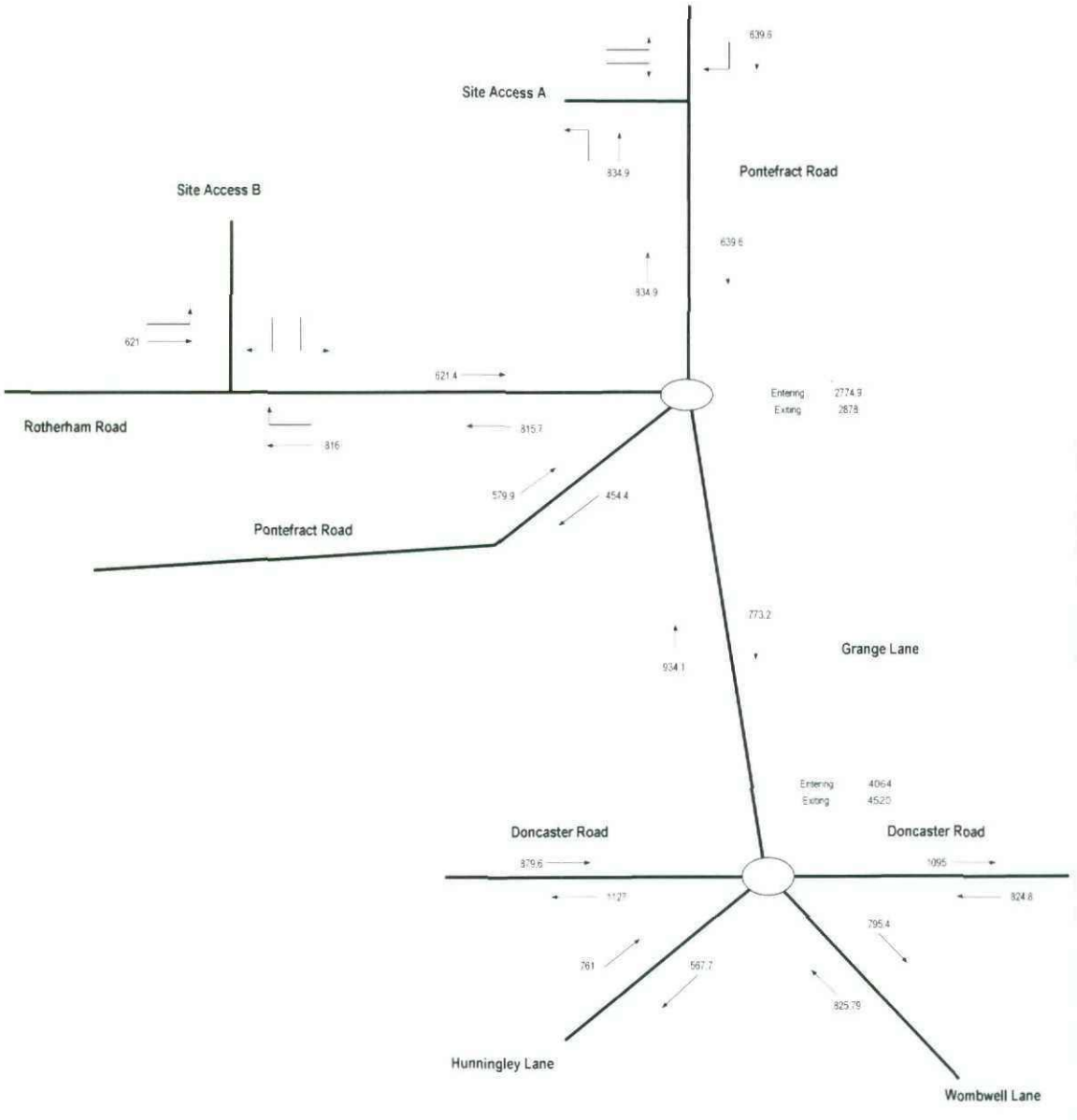


Notes Vehicles in Passenger Car Units

Growth factor 2009-2010 ####
2008-2010 ####

URS

Figure 6: 2010 PM Peak Surveyed Traffic Flows
PM Peak: 1700 - 1800

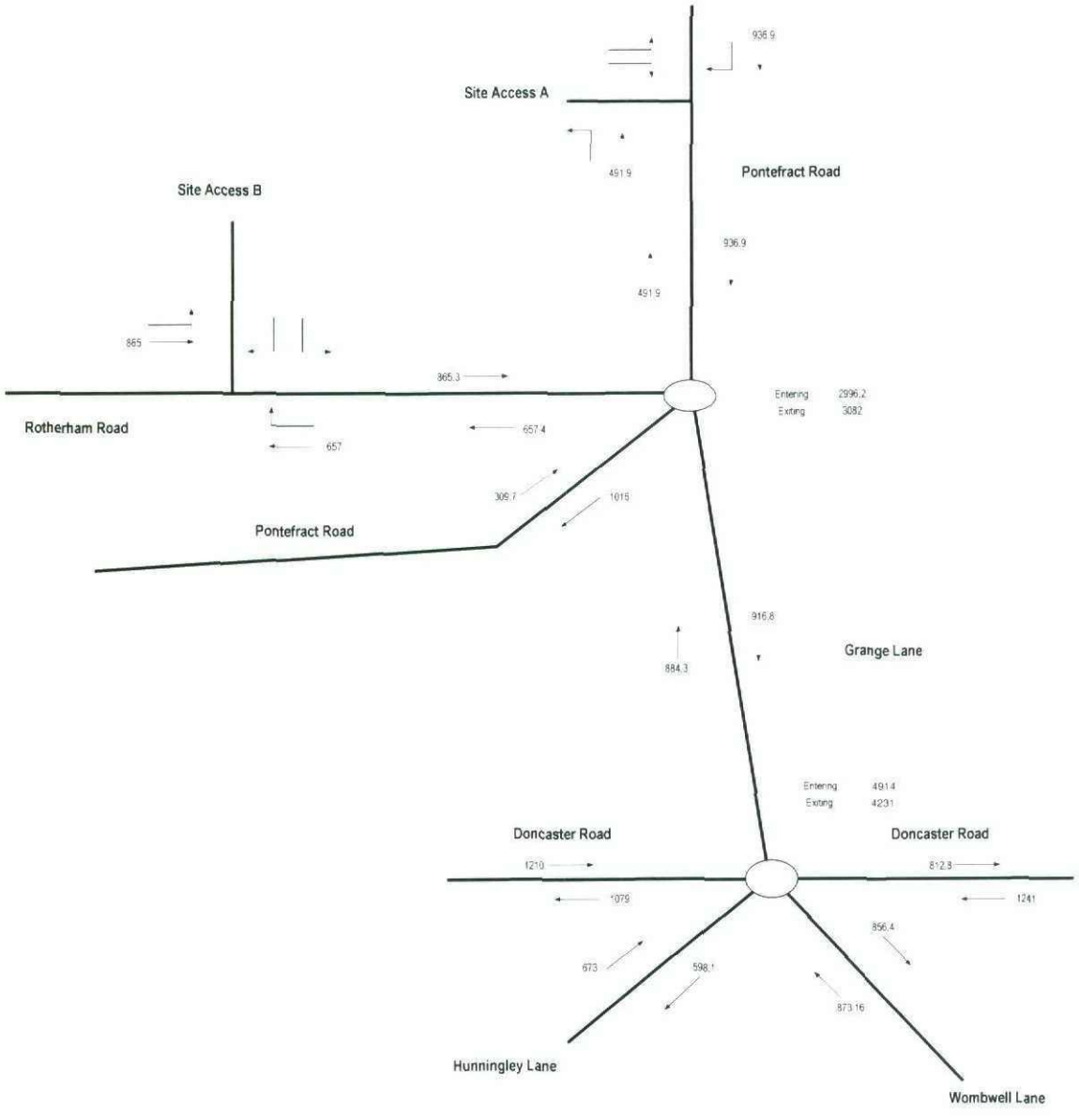


Notes Vehicles in Passenger Car Units

Growth factor 2009 2010 ####
2008 2010 ####

URS

Figure 7: 2020 AM Peak Surveyed Traffic Flows
AM Peak: 0800 - 0900

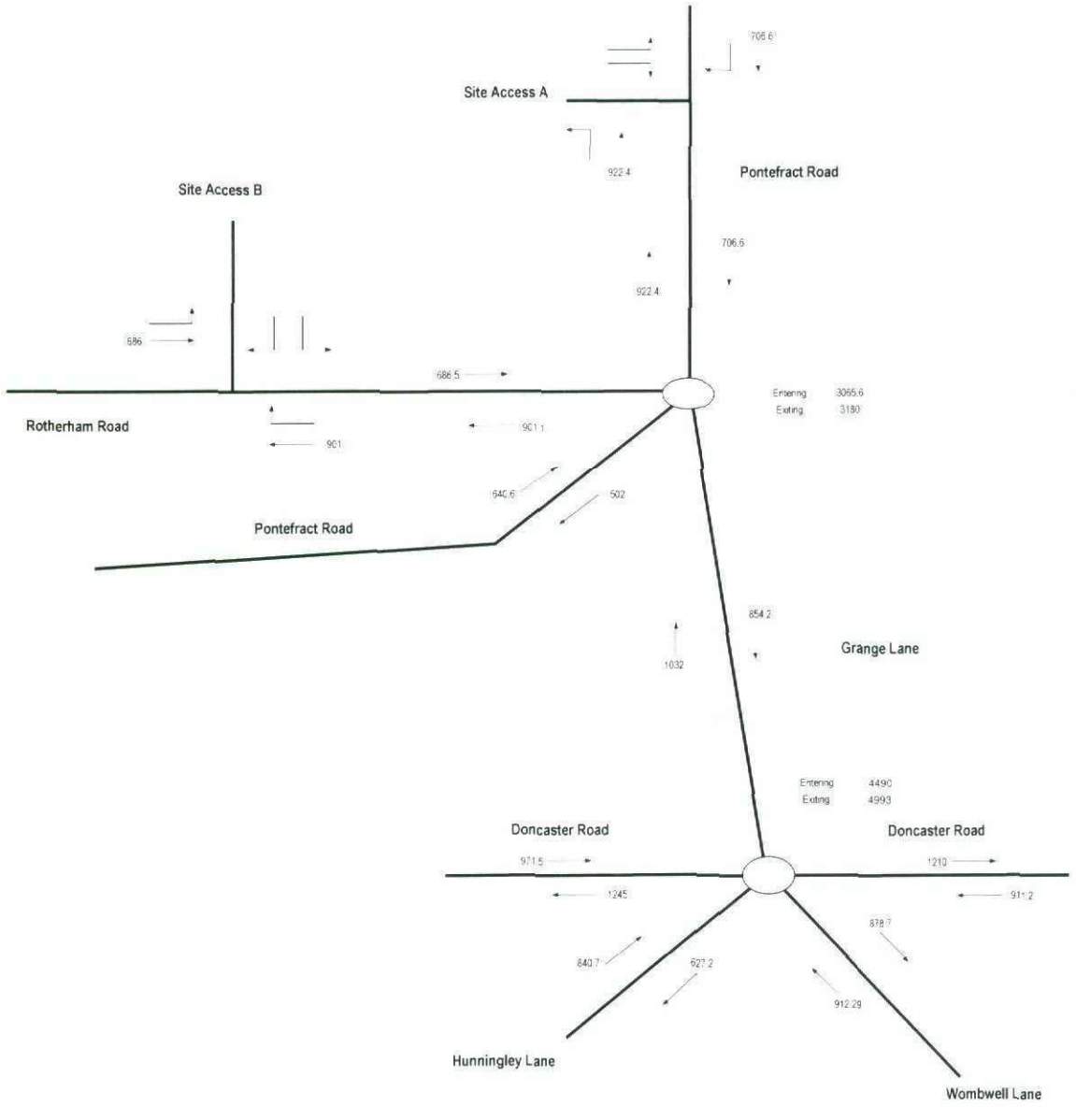


Notes Vehicles in Passenger Car Units

Growth factor 2009 2020 ####
2008 2020 ####

URS

Figure 6: 2020 PM Peak Surveyed Traffic Flows
PM Peak: 1700 - 1800

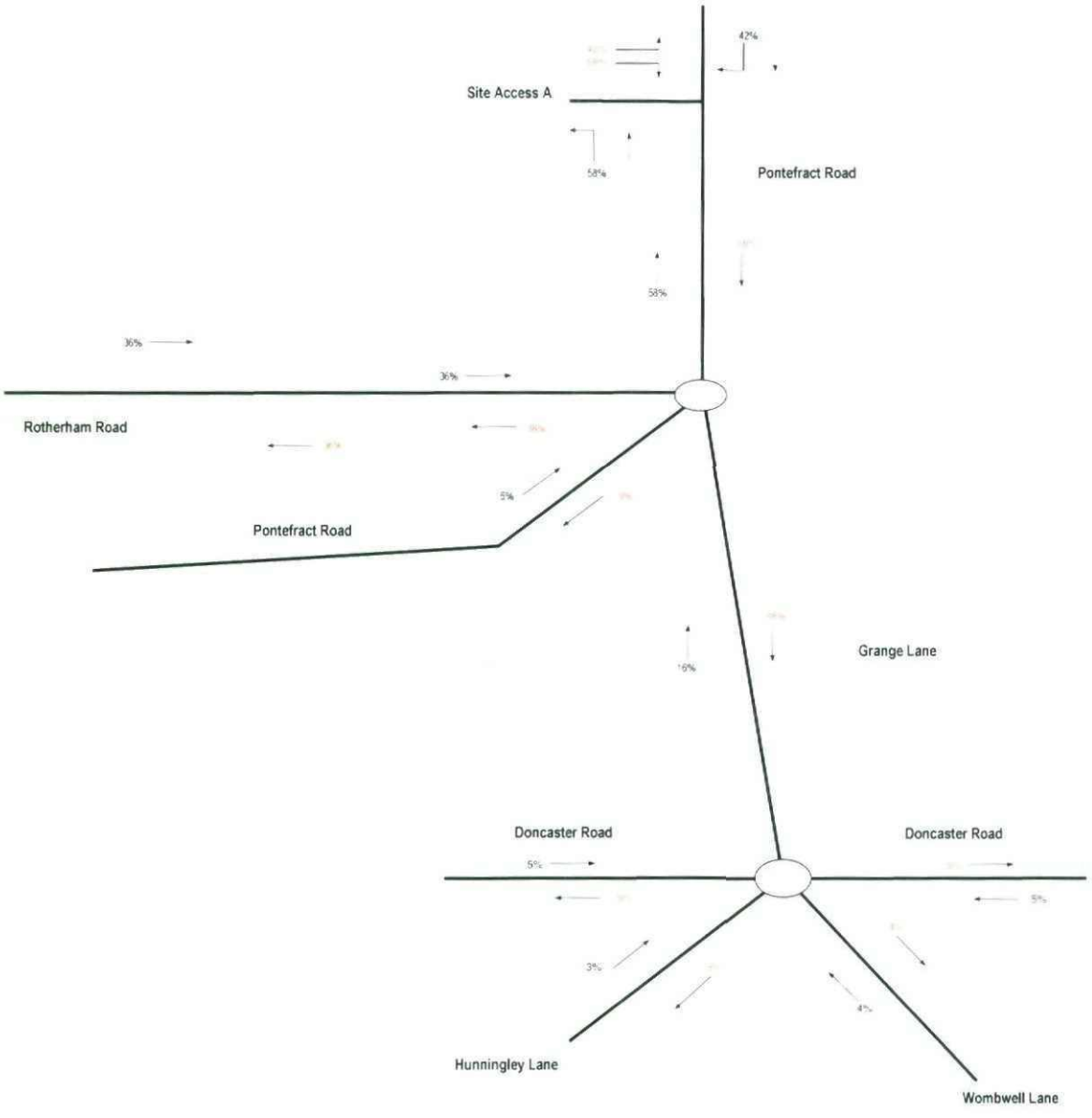


Notes Vehicles in Passenger Car Units

Growth factor 2009 2020 ####
2008 2020 ####

URS

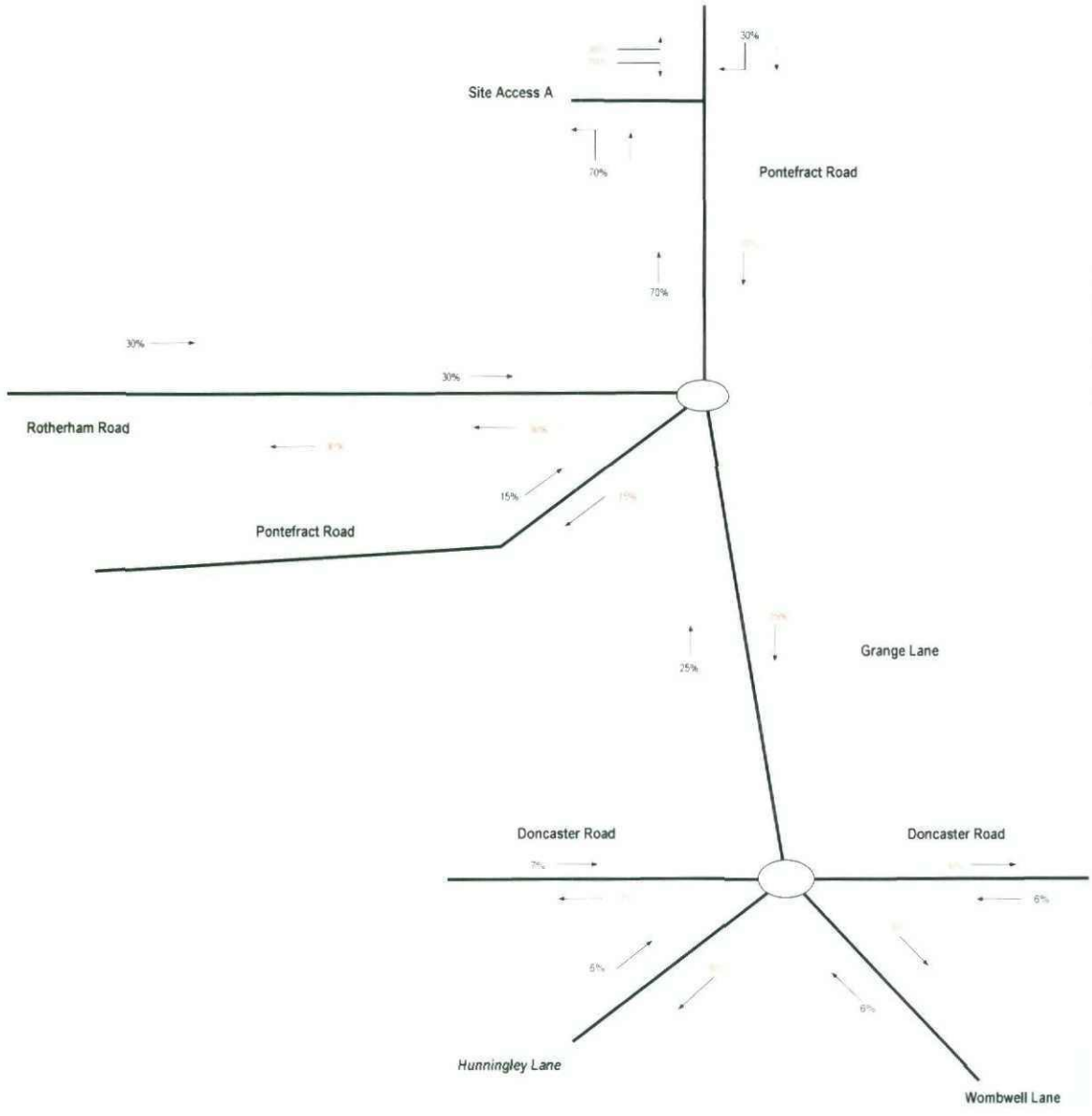
Figure 9: AM Peak Existing Development Distribution
AM Peak: 0800 - 0900



Notes
10% Site Access Arrivals

URS

Figure 10: PM Peak Existing Development Distribution
PM Peak: 1700 - 1800



Notes
10% Site Access Arrivals

URS

Figure 11: AM Peak Net Increase Distribution
AM Peak: 0800 - 0900

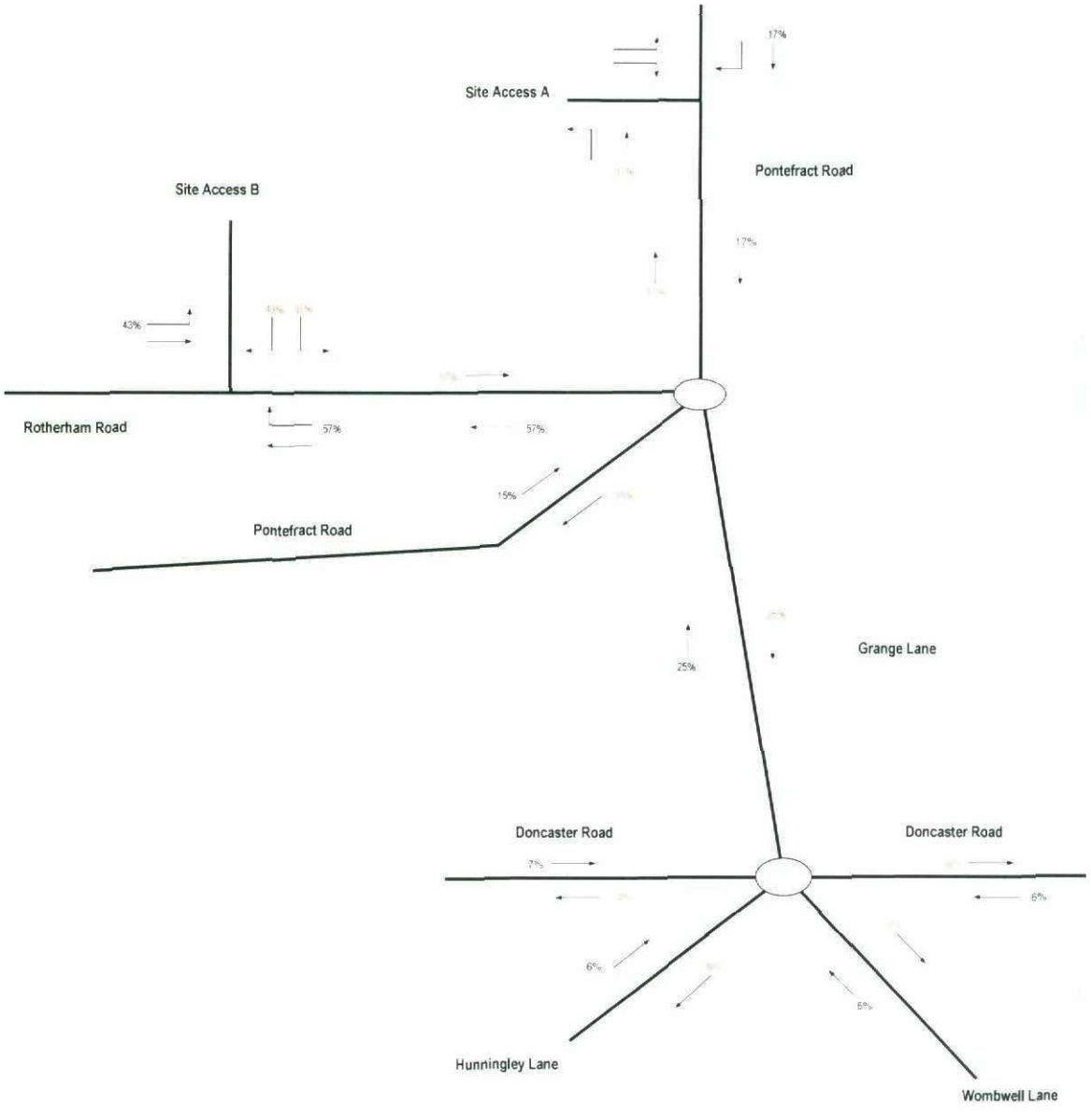


Notes

10% Site Access Arrivals

URS

Figure 12: PM Peak Net Increase Distribution
PM Peak: 1700 - 1800



Notes
10% Site Access Arrivals

URS

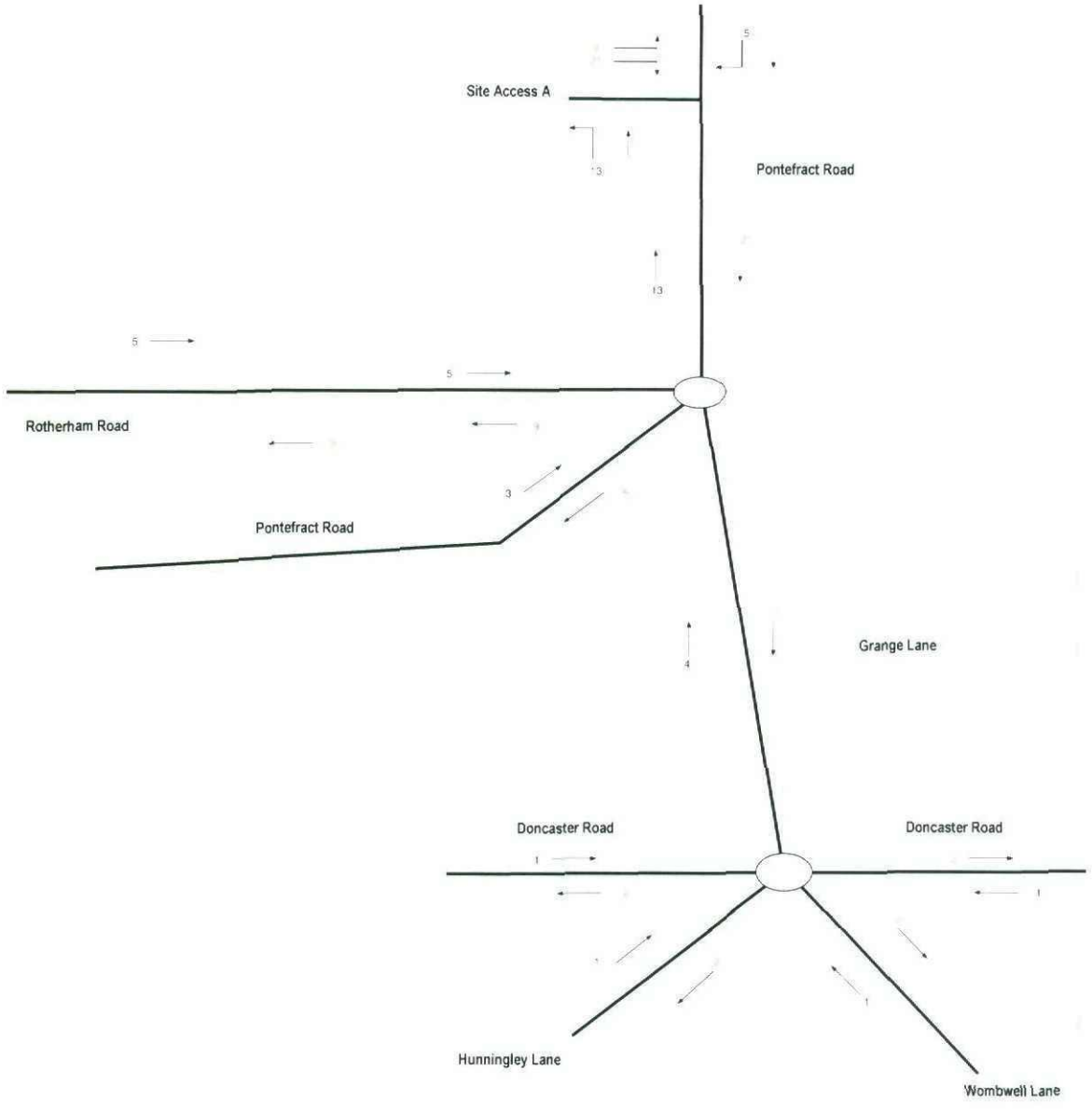
Figure 13: AM Peak Existing Development Trips
AM Peak: 0800 - 0900



Notes
33 Site Access Arrivals

URS

Figure 14: PM Peak Existing Development Trips
PM Peak: 1700 - 1800



Notes
18 Site Access Arrivals

URS

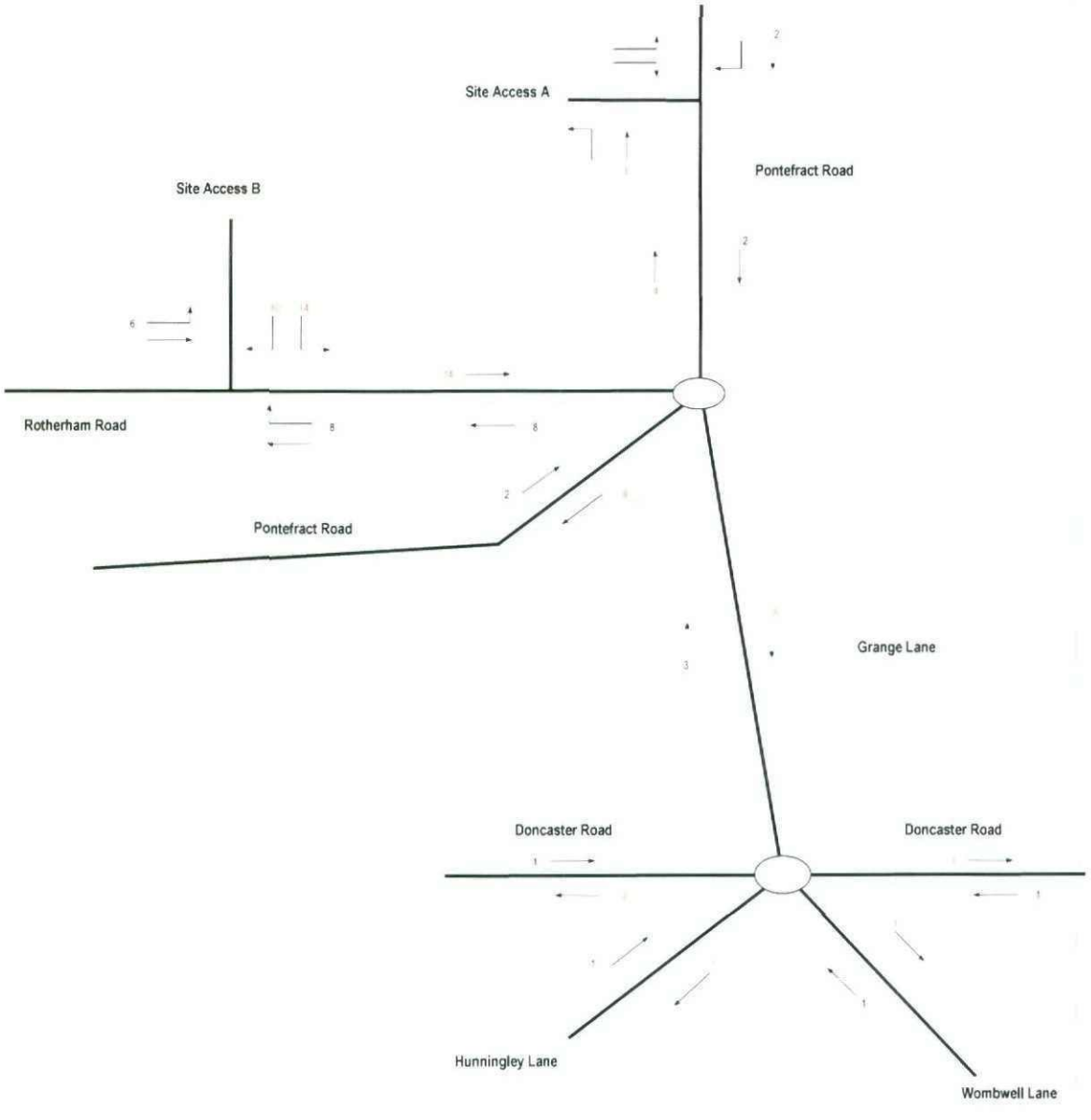
Figure 15: AM Peak Net Traffic Increase
AM Peak: 0800 - 0900



Notes
8 Site Access Departures
21 Site Access Arrivals

URS

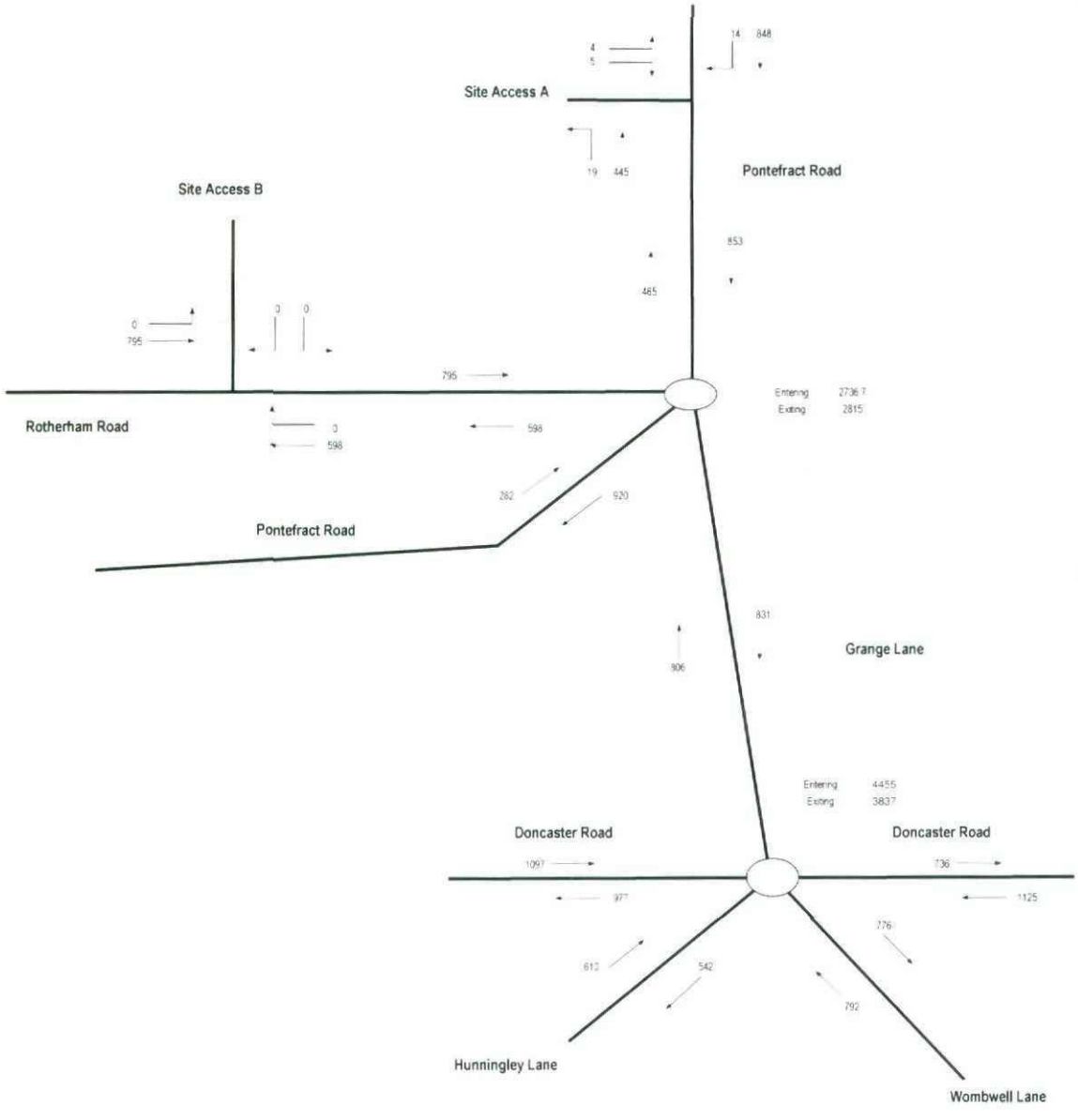
Figure 16: PM Peak Net Traffic Increase
PM Peak: 1700 - 1800



Notes
14 Site Access Arrivals

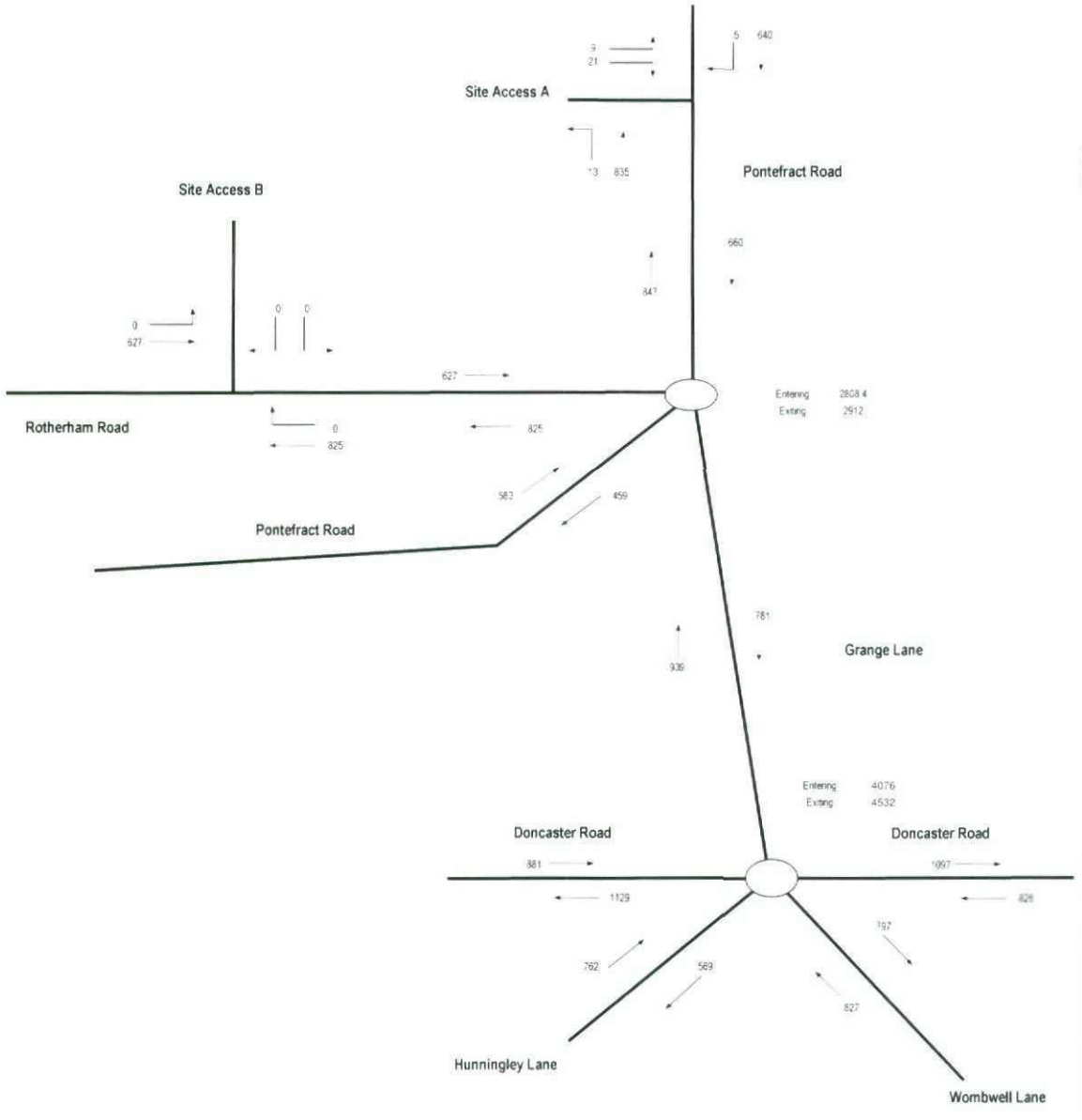
URS

Figure 17: 2010 AM Peak Base Traffic Flows
AM Peak: 0800 - 0900



Notes Vehicles in Passenger Car Units

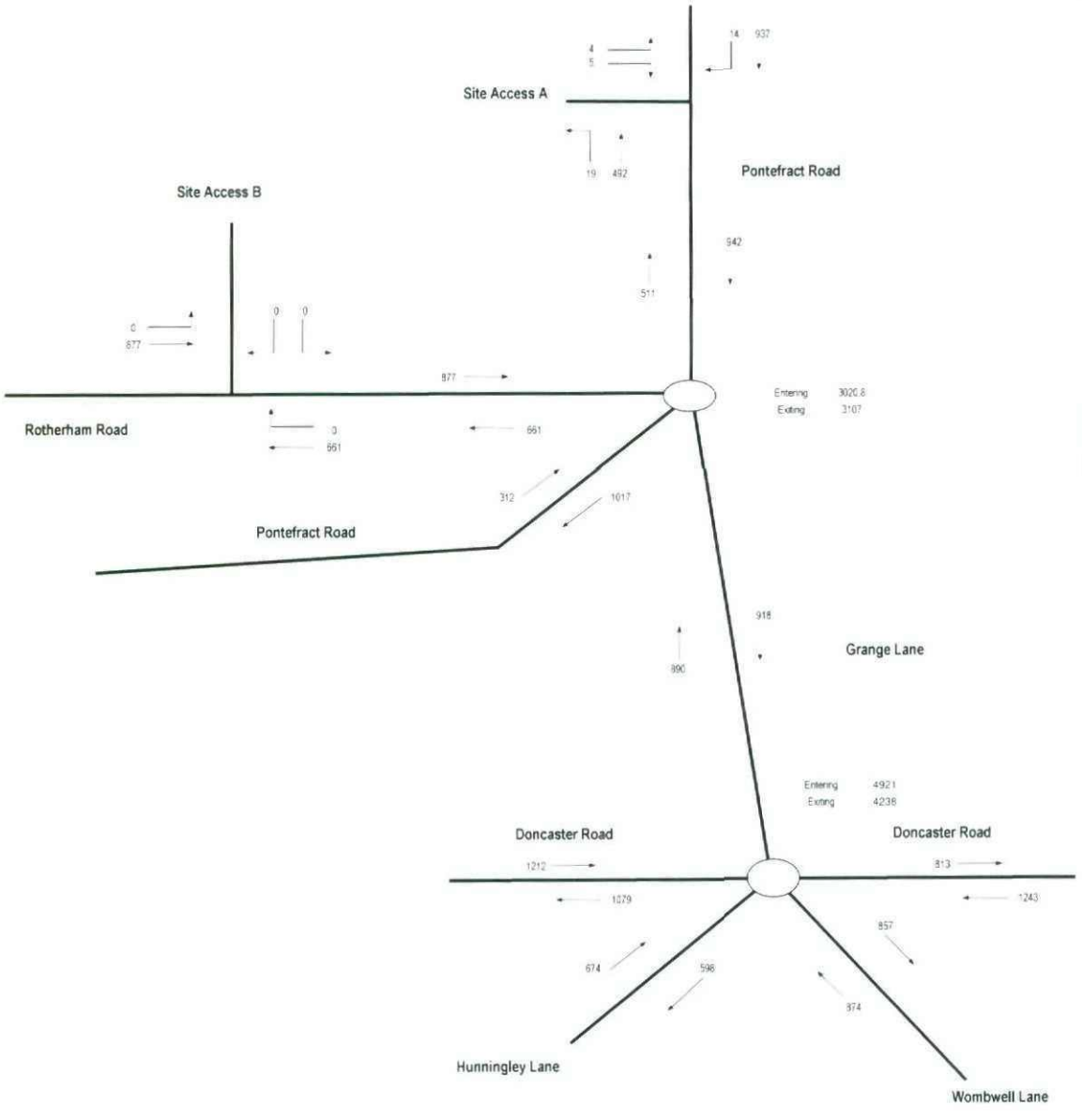
Figure 18: 2010 PM Peak Base Traffic Flows
PM Peak: 1700 - 1800



Notes Vehicles in Passenger Car Units

URS

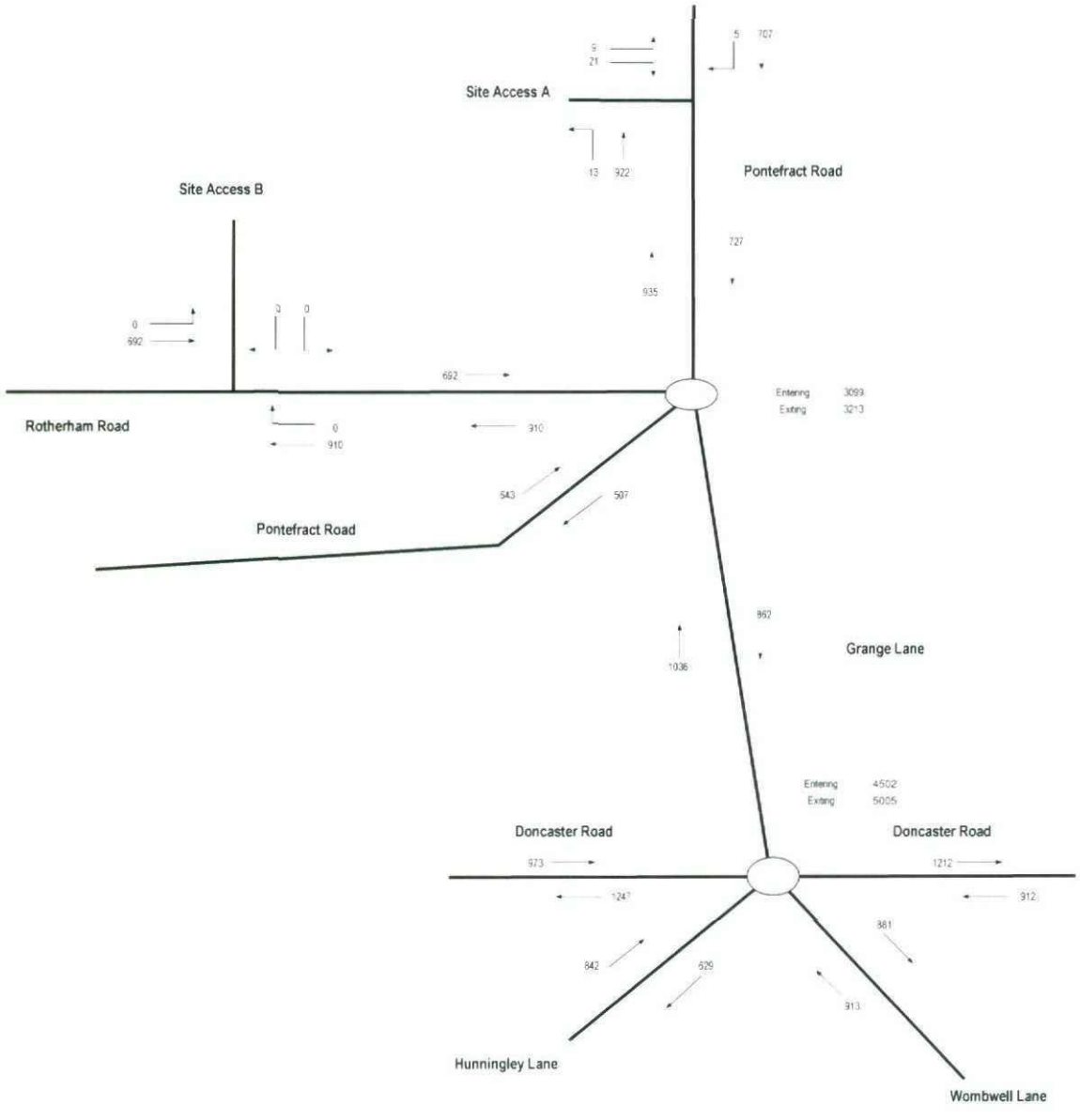
Figure 19: 2020 AM Peak Base Traffic Flows
AM Peak: 0800 - 0900



Notes Vehicles in Passenger Car Units

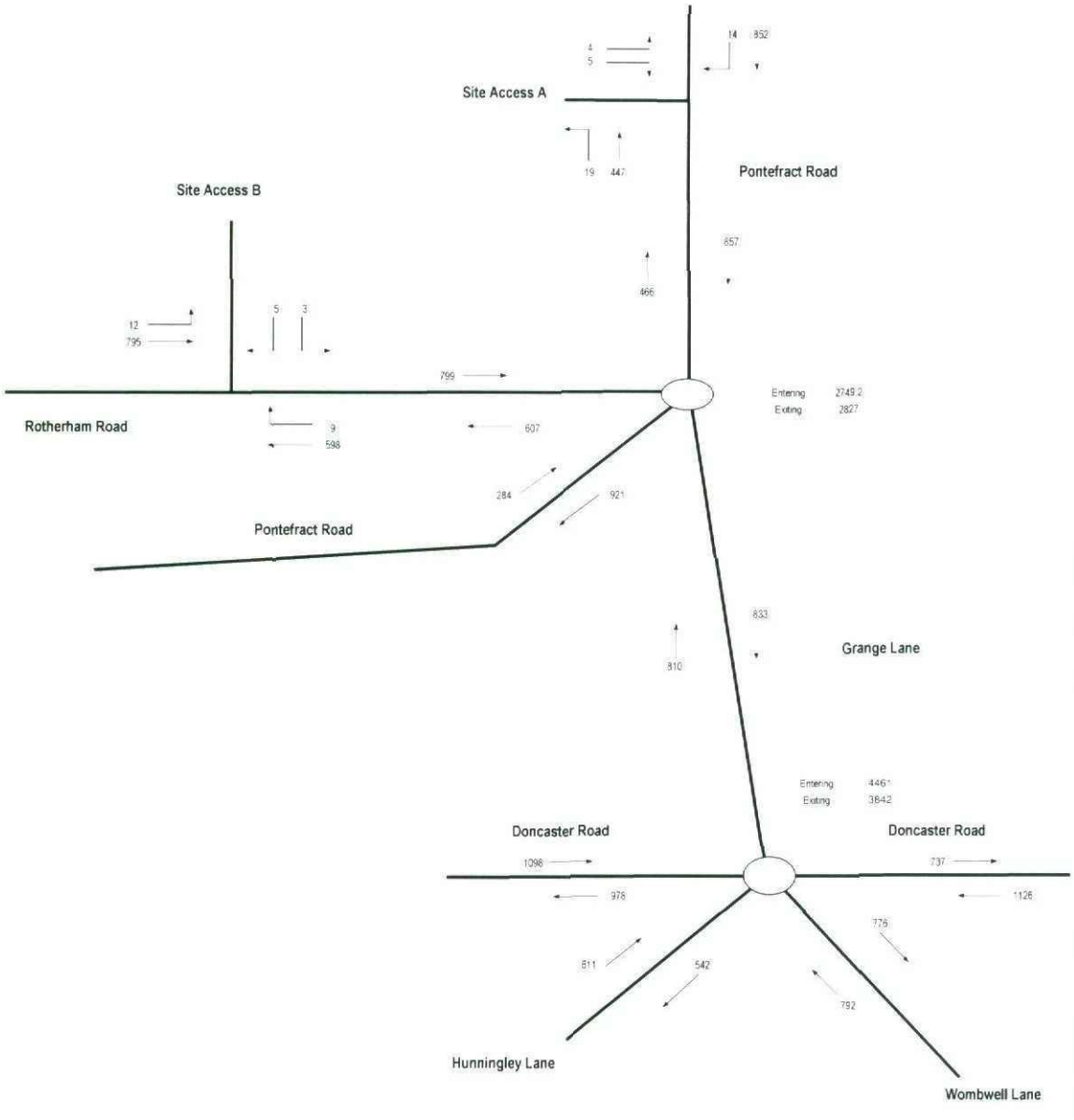
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Figure 20: 2020 PM Peak Base Traffic Flows
PM Peak: 1700 - 1800



Notes Vehicles in Passenger Car Units

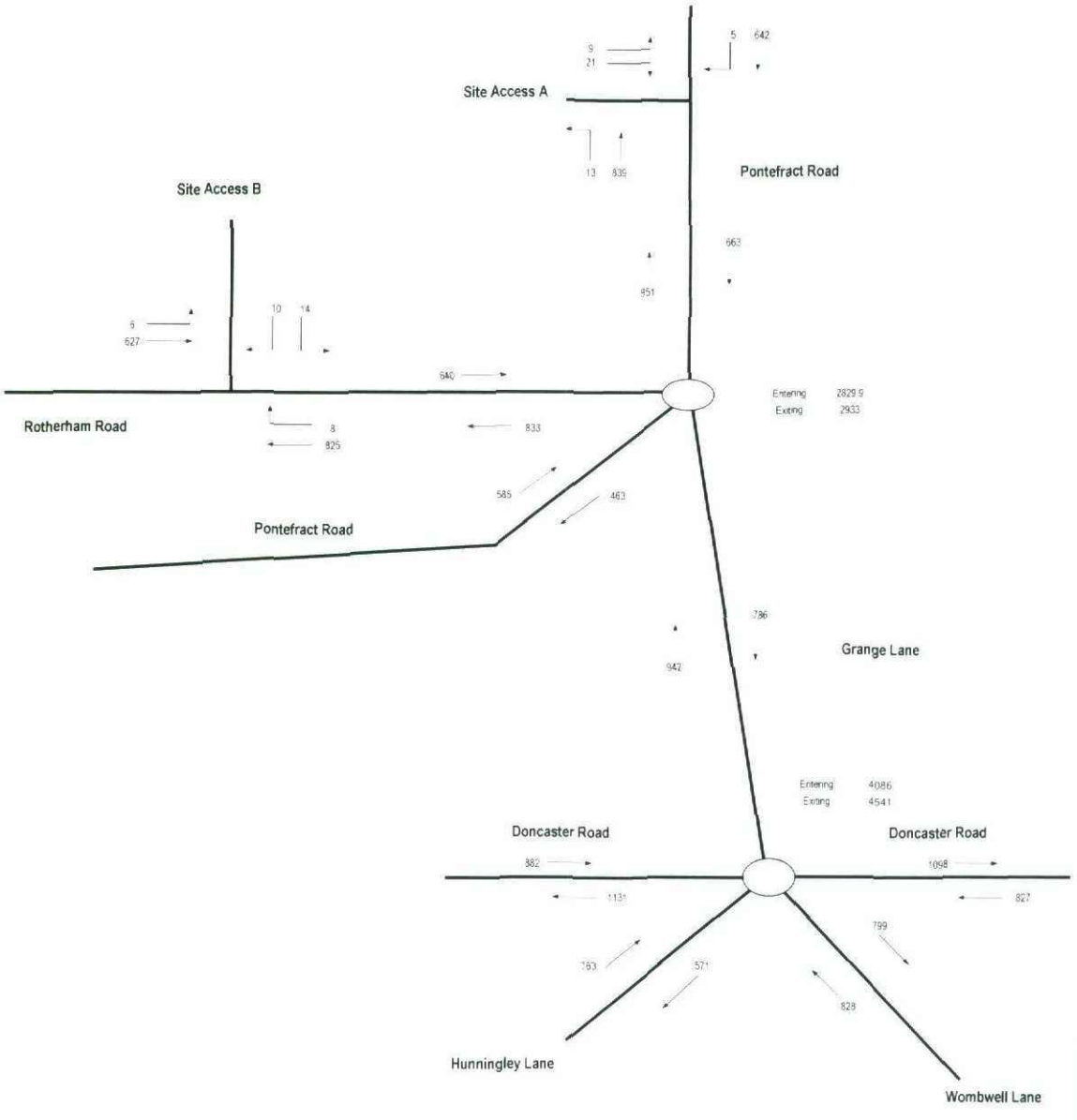
Figure 21: 2010 AM Peak With Development Traffic Flows
AM Peak: 0800 - 0900



Notes Vehicles in Passenger Car Units

URS

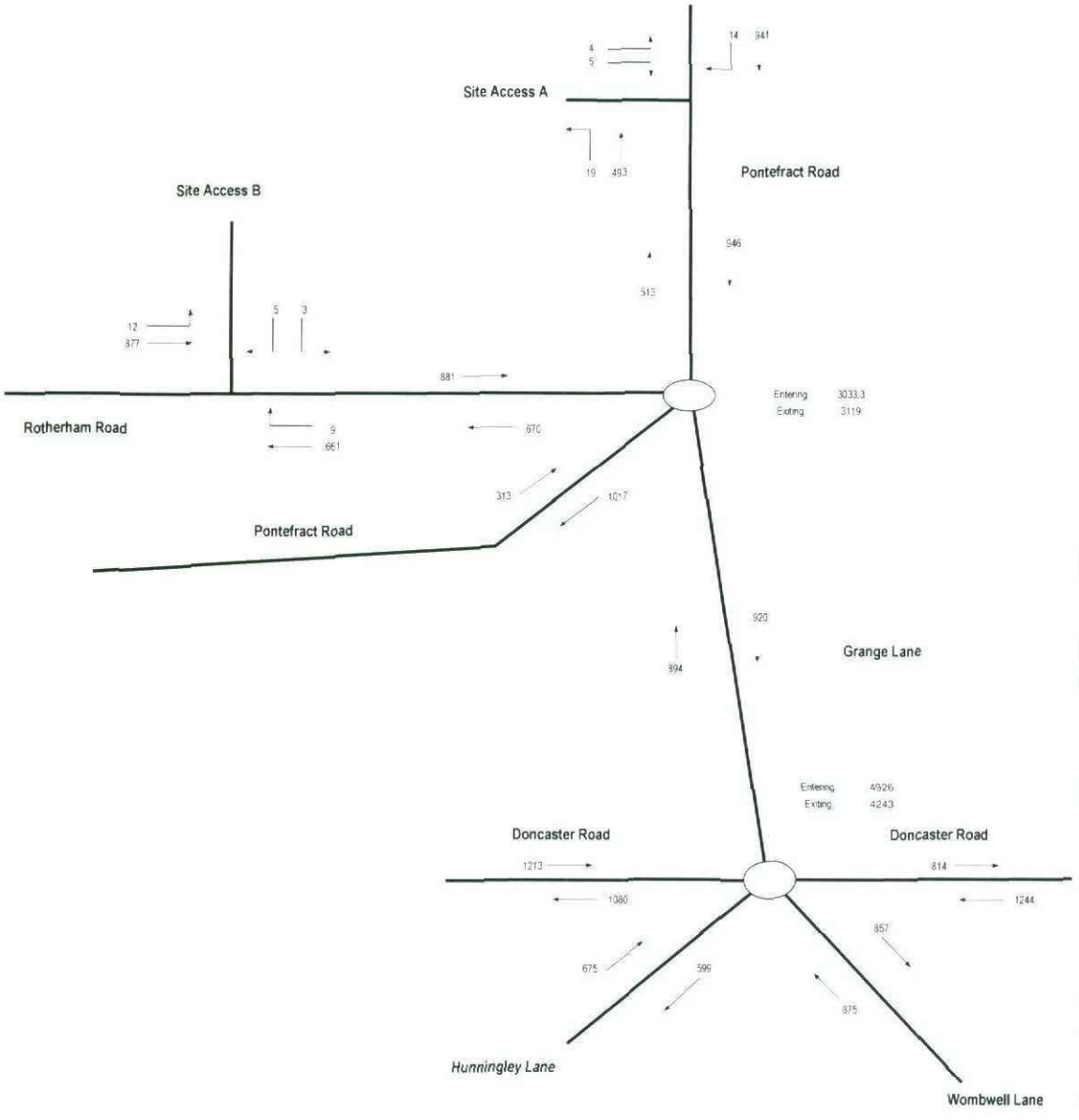
Figure 22: 2010 PM Peak With Development Traffic Flows
PM Peak: 1700 - 1800



Notes Vehicles in Passenger Car Units

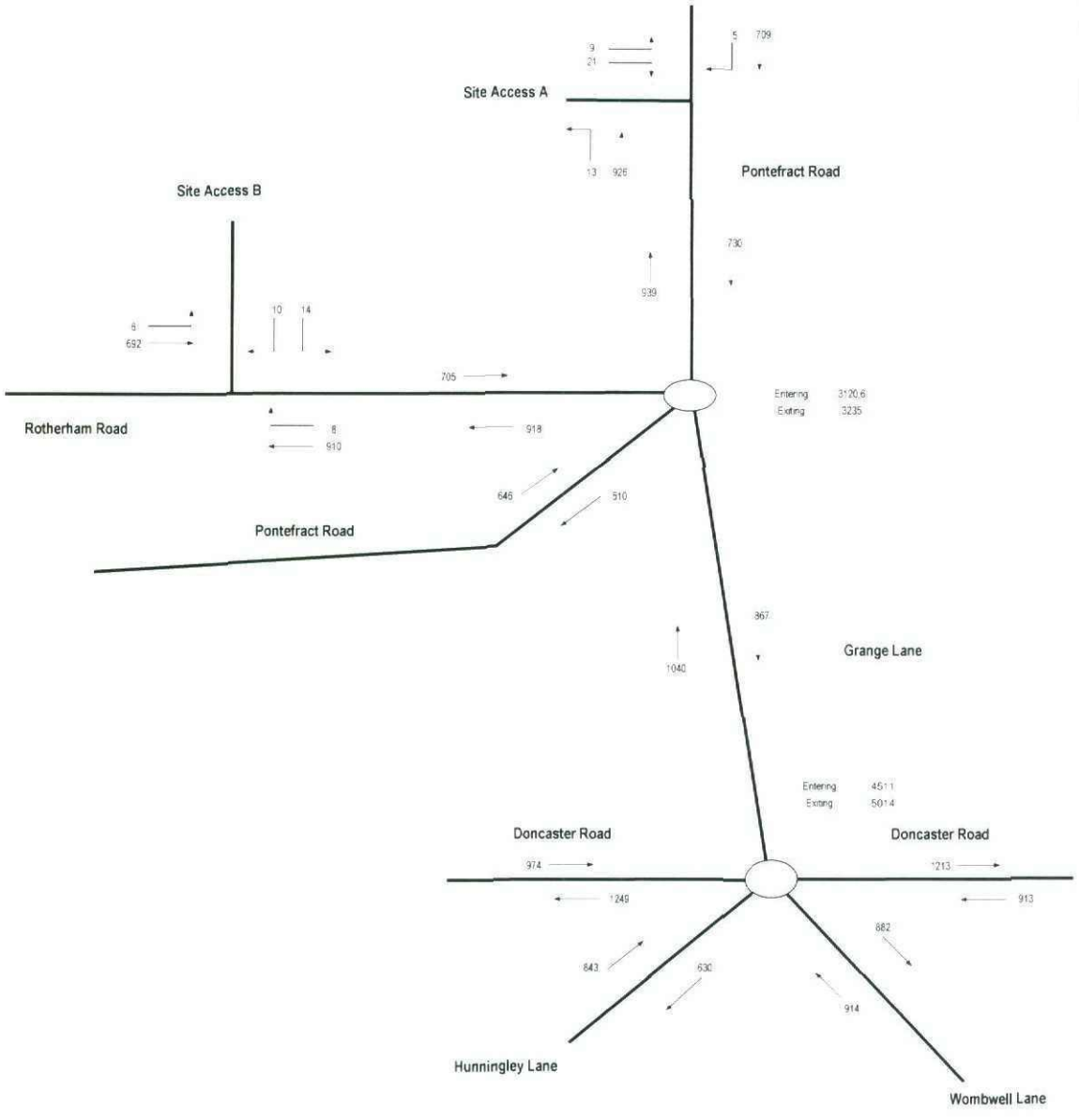
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Figure 23: 2020 AM Peak With Development Traffic Flows
AM Peak: 0800 - 0900



Notes Vehicles in Passenger Car Units

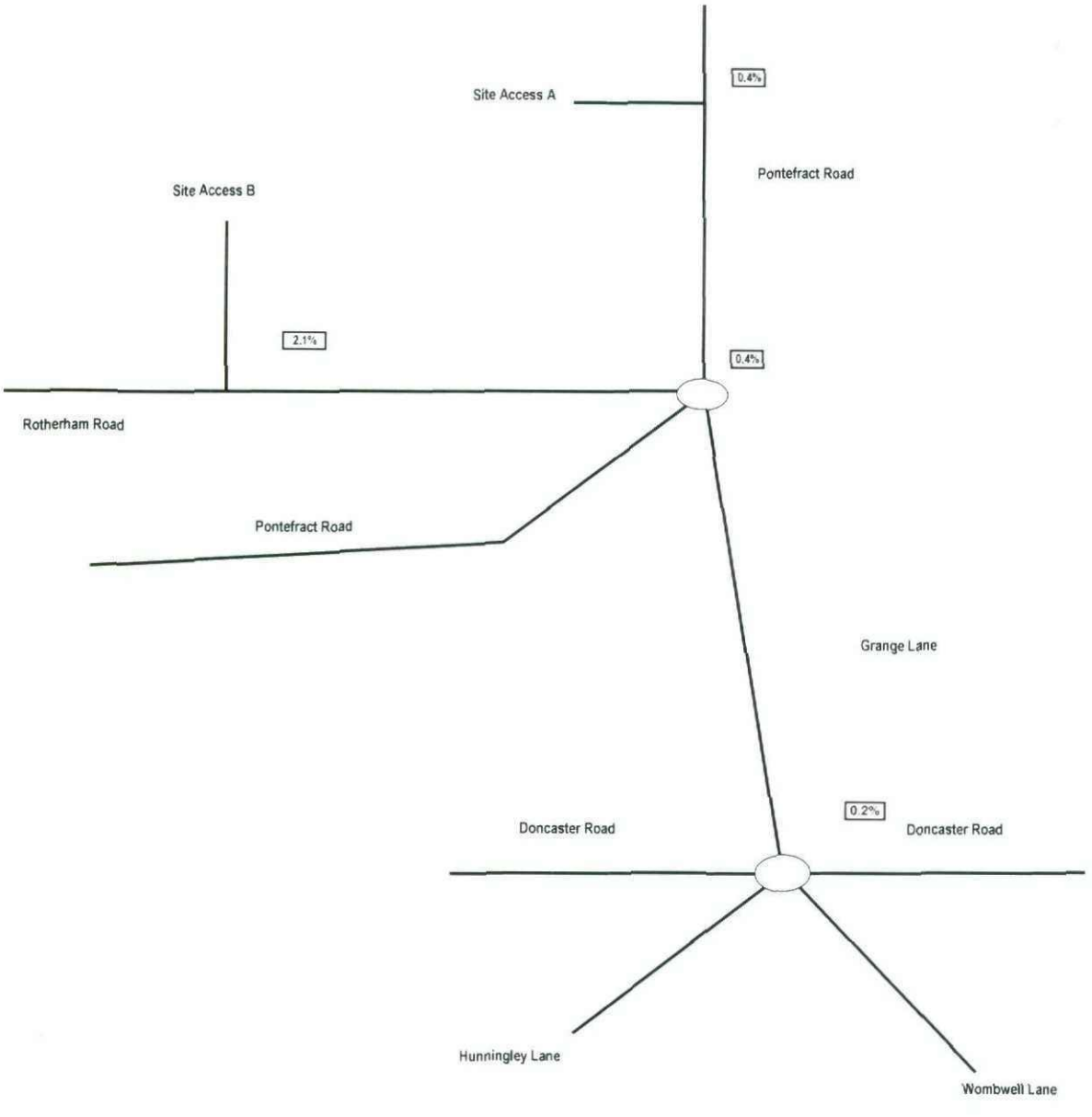
Figure 24: 2020 PM Peak With Development Traffic Flows
PM Peak: 1700 - 1800



Notes Vehicles in Passenger Car Units

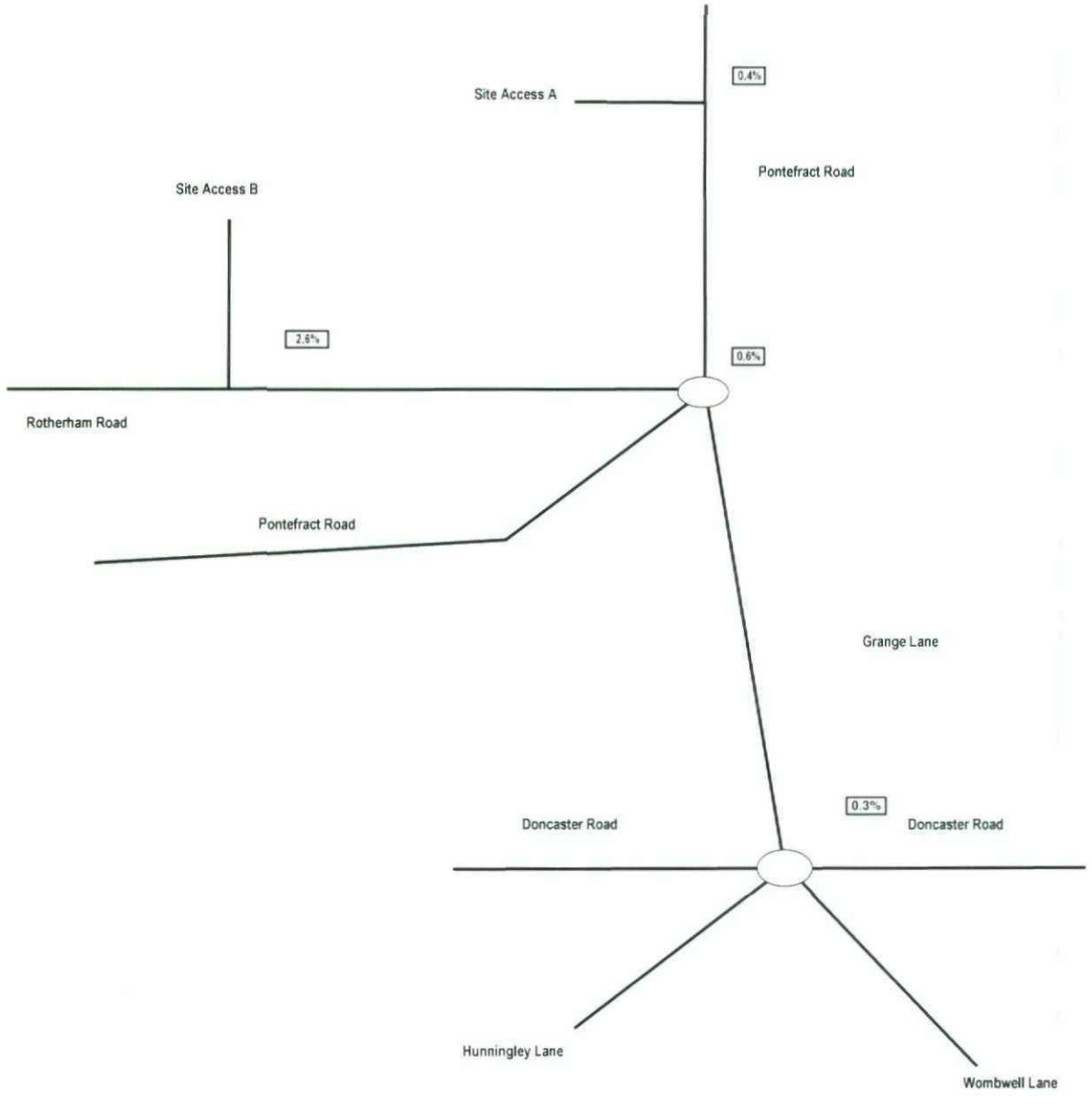
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Figure 25: Net Traffic Impact
AM Peak: 0800 - 0900



Notes

Figure 26: Net Traffic Impact
PM Peak: 1700 - 1800

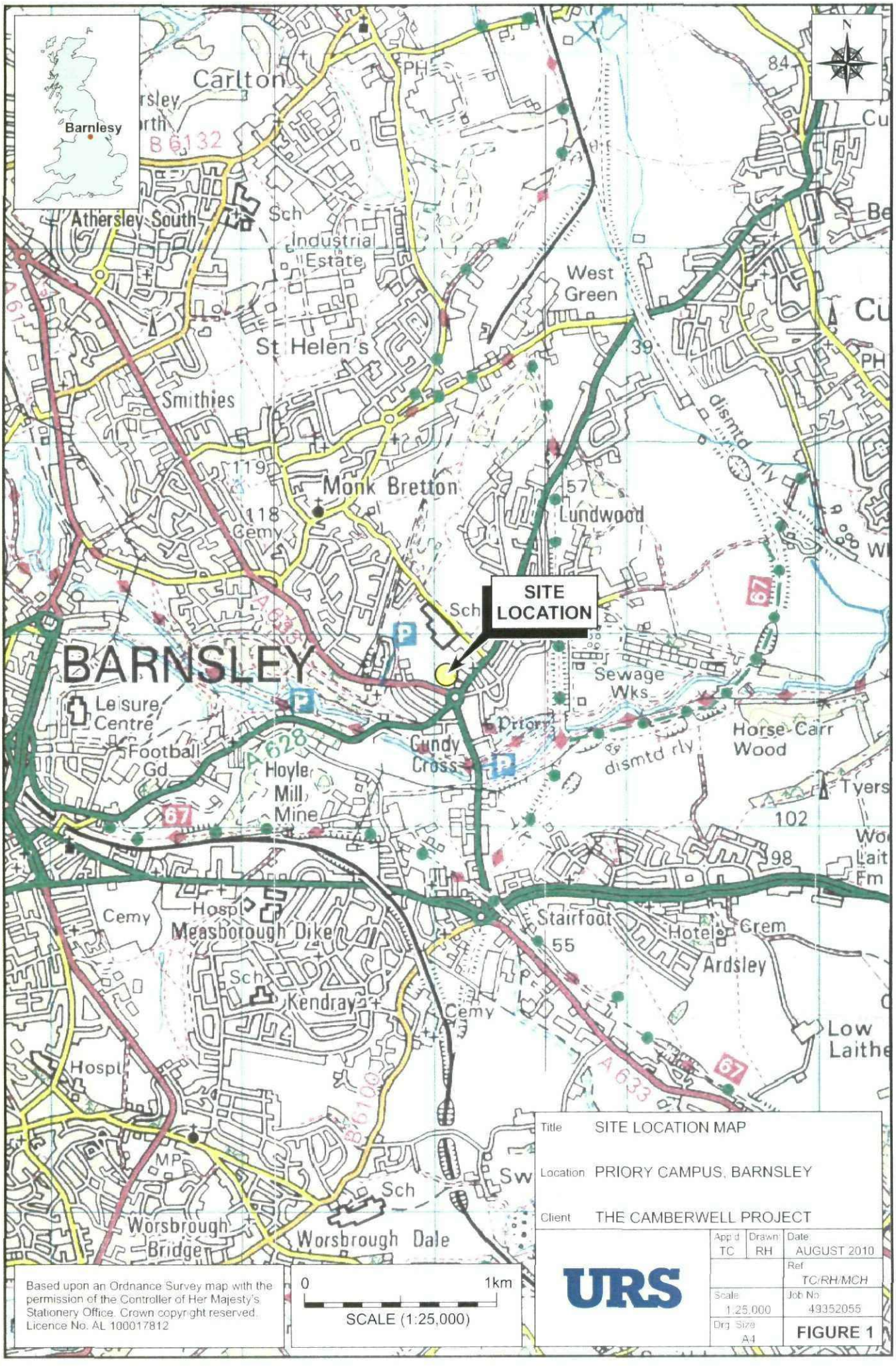


Notes

URS

PLANS

PLAN 1 – Site Location


Barnsley
N
SITE LOCATION
BARNSLEY
Carlton
Athersley South
Industrial Estate
West Green
St Helen's
Smithies
Monk Bretton
Lundwood
Sewage Wks
Horse Carr Wood
Leisure Centre
Football Gd
Hoyle Mill Mine
Cundy Cross
Priory
Hospl
Measborough Dike
Kendray
Stairfoot
Ardsley
Worsbrough Bridge
Worsbrough Dale
A628
A633
B6132
B6100
dismtd rly
Based upon an Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Crown copyright reserved. Licence No. AL 100017812
0
1km
SCALE (1:25,000)
Title SITE LOCATION MAP
Location PRIORY CAMPUS, BARNSLEY
Client THE CAMBERWELL PROJECT
URS
App'd TC
Drawn RH
Date AUGUST 2010
Ref TC/RH/MCH
Scale 1:25,000
Job No 49352055
Drg Size A4
FIGURE 1

PLAN 2 – Red Line Boundary

PLAN 3 – Site Access Arrangement



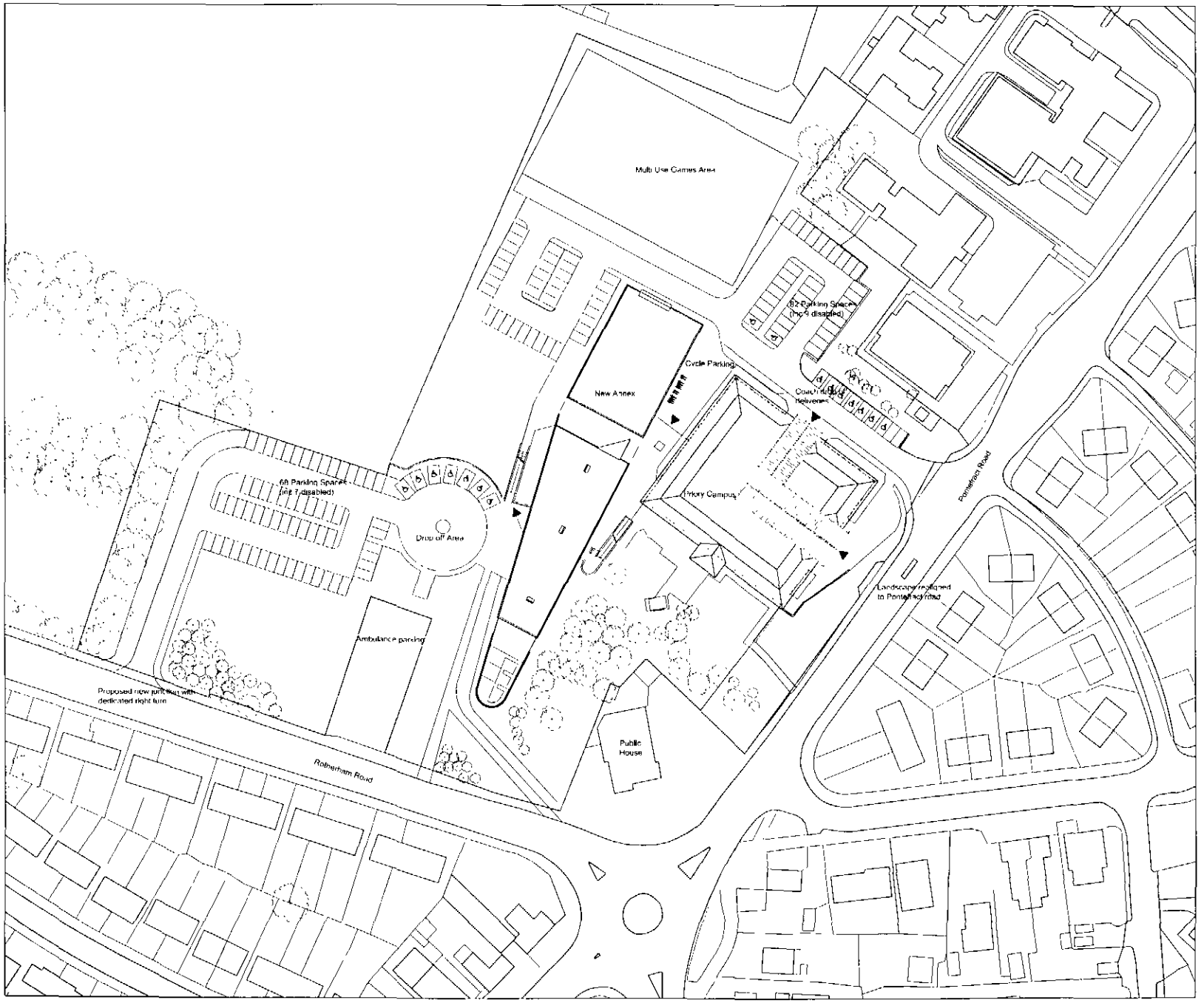
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The Priory Campus
Barnsley
Site Access Arrangement

URS

Appd. T.C.	Drawn T.C.	Date Aug 10
A3.		Ref 49352055/01
Scale 1:1000		Job No 49352055
Drg. Size A3.		

PLAN 4 – Site Layout



NOTES

Contractor must verify all dimensions on site before commencing any work or shop drawings.

Any errors, discrepancies in the information contained in this drawing or variations between drawings and site conditions must be reported to the Architect before any work is executed.

Only figured dimensions to be taken from this drawing. Do not scale drawing.

Drawings based on Ordnance Survey and/or existing plans, buildings, services and drawings provided by the Surveyor, Structural Surveyor, Mechanical and Electrical Engineer and other Consultants.

Work within the Construction (Design & Management) Regulations 2007 as per the Health & Safety Plan, have been considered.

This drawing is Copyright and must not be reproduced without consent and may be subject to CDM 15

Rev. Description Drawn Chkd Date

Planning Issue

architecture | 2B

Project
Proposed Annex
Priory Campus
Barnsley

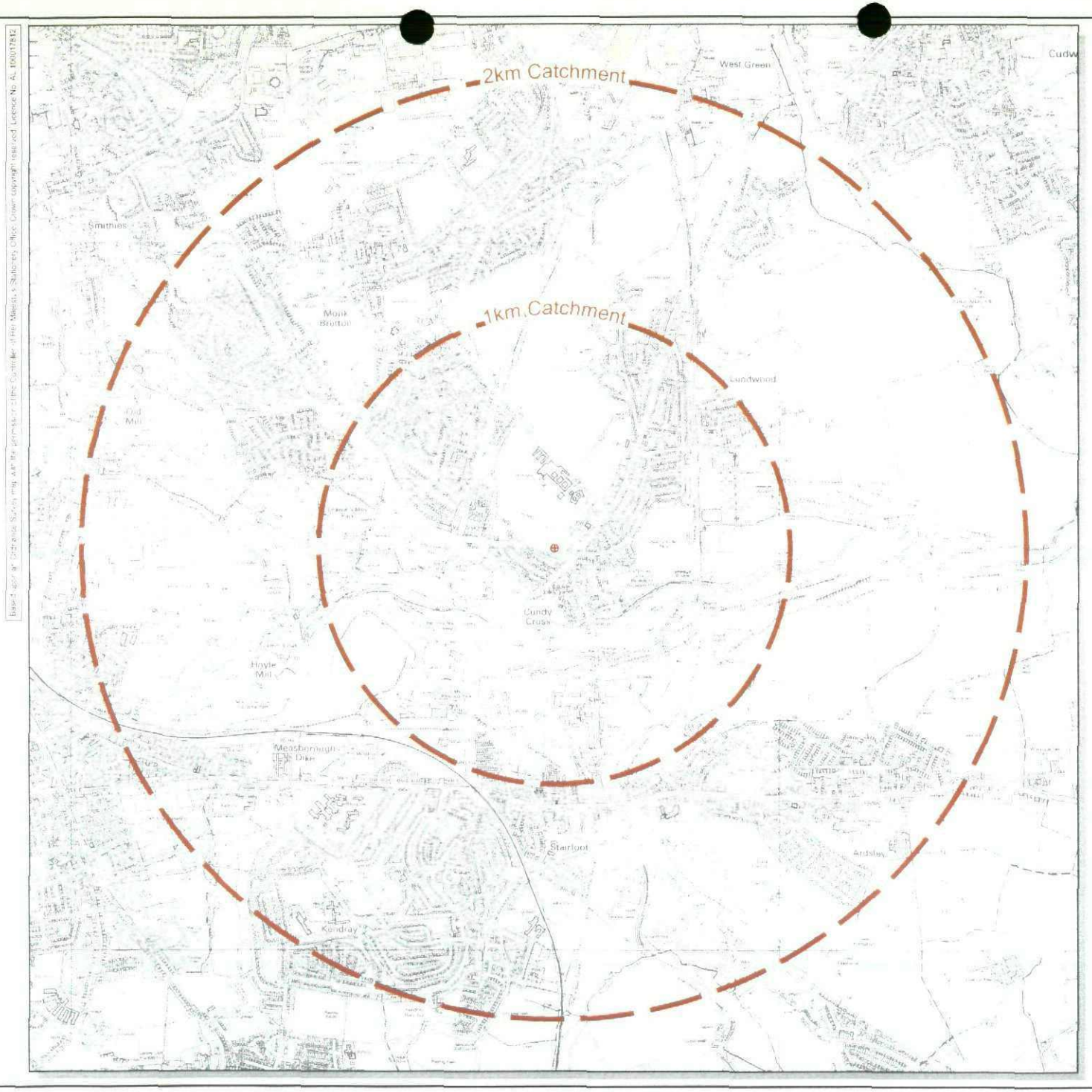
Drawing Title
Proposed Site Plan

Scale	Date	Drawn	Checked
1:1000 @ A3	04/08/2010	ZM	

Drawing Number: Revision:
2009-521-010

Ground Floor, Unit 2 Wharf Street, The Calls, Leeds, LS2 7EQ
T: 0113 247 4567
F: 0113 246 0568
www.architecture2b.com

PLAN 5 – Walk Catchment



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0 1km
APPROXIMATE SCALE

Title 1km & 2km CATCHMENT AREAS

Location PRIORY CAMPUS, BARNSLEY

Client THE CAMBERWELL PROJECT

URS

App'd	Drawn	Date
TC	RH	AUGUST 2010

Ref TC/RH/MCH

Scale AS SHOWN

Job No 49352055

Drg. Size A3

FIGURE 1

PLAN 6 – Cycle Catchment


5km Catchment
2.5km Catchment
ROYSTON
BARNSLEY
WORSBROUGH
DARFIELD
Cudworth
Grimethorpe
Brierley
Shafton
Shafton Two Gates
Hiendley
Darton
Mapplewell
Carlton
Monk Bretton
Wombwell
Smithley
Blacker Hill
Birdwell
Hoyland Common
Brampton
Dodworth Bottom
Stainborough Castle
Keresforth Hill
Higham
Barugh Green
Gilroyd
Ardsley
Edderthorpe
Low Valley
Brierley Major
Upper Cudworth
Belle Green
West Haigh Wood
Cudworth Common
Low Laithes
Crofford Hall
Middlewood Hall
Broombill
Old Moor
Hemingfield
West Melton
Haw Top
Warren Fm
Motton Park
Lee Lane Fm
Aps Fm
Blacker Hill
New Lodge
Athersley North
Athersley South
Industrial Estate
St Helen's
Smithies
Wilthorpe
Redbrook Fm
Leisure Centre
Sewage Wks
Hoyle Mill Mine
Hoyle Carr Wood
Tyers Hall Fm
Cook House Fm
Opencast Workings
Worsbrough Common
Worsbrough Country Park
Worsbrough Bridge
Worsbrough Dale
Ward Green
Bound Hill
Open Fm
Wentworth Castle
Roundgreen
Obelisk
Broome Road Wood
Manor Fm
Cliffe Fm
Wombwell Wood
Plain Common
Upper Hoyland
Hermit Hill
Windmill Hill
Ringstone Hill
Brierley Gas
Grimethorpe Hall
New Park Spring
Deerne Way
Dearne Valley Walk
Trans Pennine Trail
Boundary Walk
Barnsley Boundary Walk
Swathe
Stairfoot
Hoyle Mill
Kendray
Hospital
Cemy
Sch
PH
Leisure Centre
Sewage Wks
Industrial Estate
Shaw Lands
Kingstone
Footh Gd
Twr
Mon
Turnoc
Trams
Old
Sub Sta
El Sub Sta
Pond
Weir
Mill
Dismtd Rly
Woods
Wood
Lane
Hall
Fm
Hill
Bridge
Dale
Common
Valley
Park
Walk
Trail
Boundary
Swathe
Stairfoot