

Buckinghamshire County Council

Southern Quadrant Transport Strategy Supplementary Information

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Original

JACOBS, 1180 Eskdale Road, Winnersh, Wokingham, RG41 5TU
Tel 0118 9467000 Fax 0118 9467001

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Buckinghamshire County Council
Southern Quadrant Transport Strategy
Supplementary Information

Introduction

The purpose of this note is to present further information to supplement the Draft Southern Quadrant Transport Strategy (SQTS) information that was released on Wycombe District Council's website on 15th June 2012. The purpose of the SQTS package of information is to provide material supporting the public consultation by Wycombe District Council (WDC) and Buckinghamshire County Council (BCC) on the draft RAF Daws Hill Development Brief and the Draft Southern Quadrant Transport Strategy.

This note provides additional information in response to questions raised during and after the RAF Daws Hill/SQTS briefing session on 13th June.

Traffic Volumes and Traffic Growth in the Southern Quadrant

The following traffic volume information is taken from the High Wycombe Transport Model and from data collected by BCC. More information on the Transport Model can be found in the 'High Wycombe Transport Model – Local Model Validation Report' (June 2012). The information presented in Figure 1 and 2 (overleaf) shows the AM (08:00 – 09:00) and PM (17:00 - 18:00) hourly traffic volumes in the Southern Quadrant area.

The following information on traffic volumes and growth is taken from Manual Classified Count (MCC) data collected by BCC on an annual basis in June between 2005 and 2011. Table 1 presents the traffic volumes broken down by direction. Figures 3 and 4 present the two way (eastbound and westbound combined) traffic volumes just to the east of the Marlow Hill junction.

Table 1: Traffic volumes (by direction) – Daws Hill Lane

Year	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Westbound	Eastbound	Westbound	Eastbound
2005	692	829	614	744
2006	755	781	561	802
2007	634	733	556	811
2008	542	744	545	1025
2009	633	672	517	860
2010	666	720	556	771
2011	691	776	562	812

The level of additional traffic volume assumed at potential development sites in the forecast scenario is shown in Figures 5 to 7 below and on the SQTS information already published. This will add between 100 and 250 vehicles to Daws Hill Lane in each direction during peak hours. The alternative drop off proposal for St Augustine's and St Bernard's schools will reduce traffic volumes on this section of road by 100 to 150 vehicles in each direction in the AM peak. The traffic volumes assumed to be generated by the potential developments in the Southern Quadrant are presented later in this note.

Figure 1: Traffic volumes – AM Peak (08:00 – 09:00)

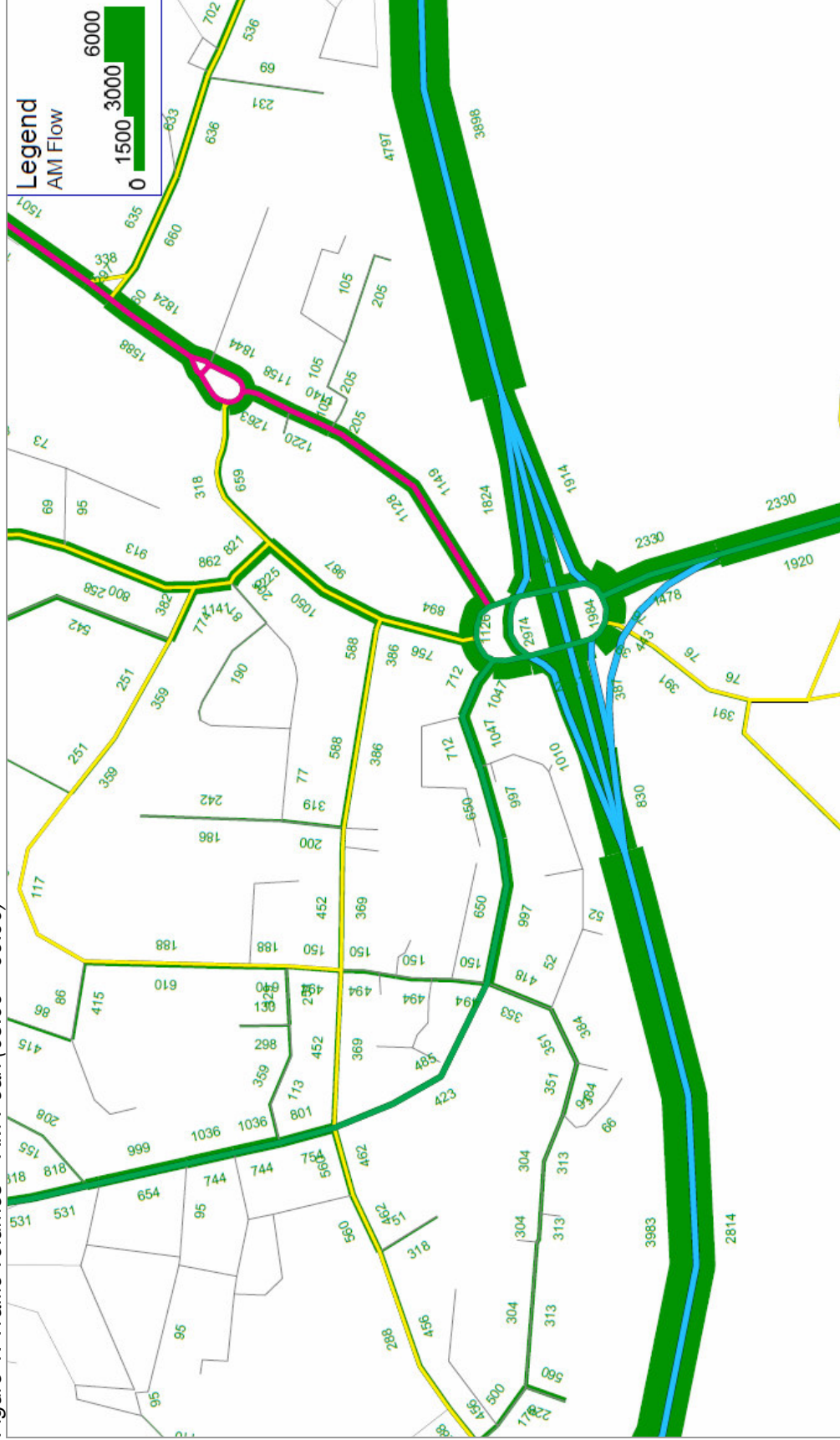


Figure 2: Traffic Volumes – PM Peak (17:00 – 18:00)

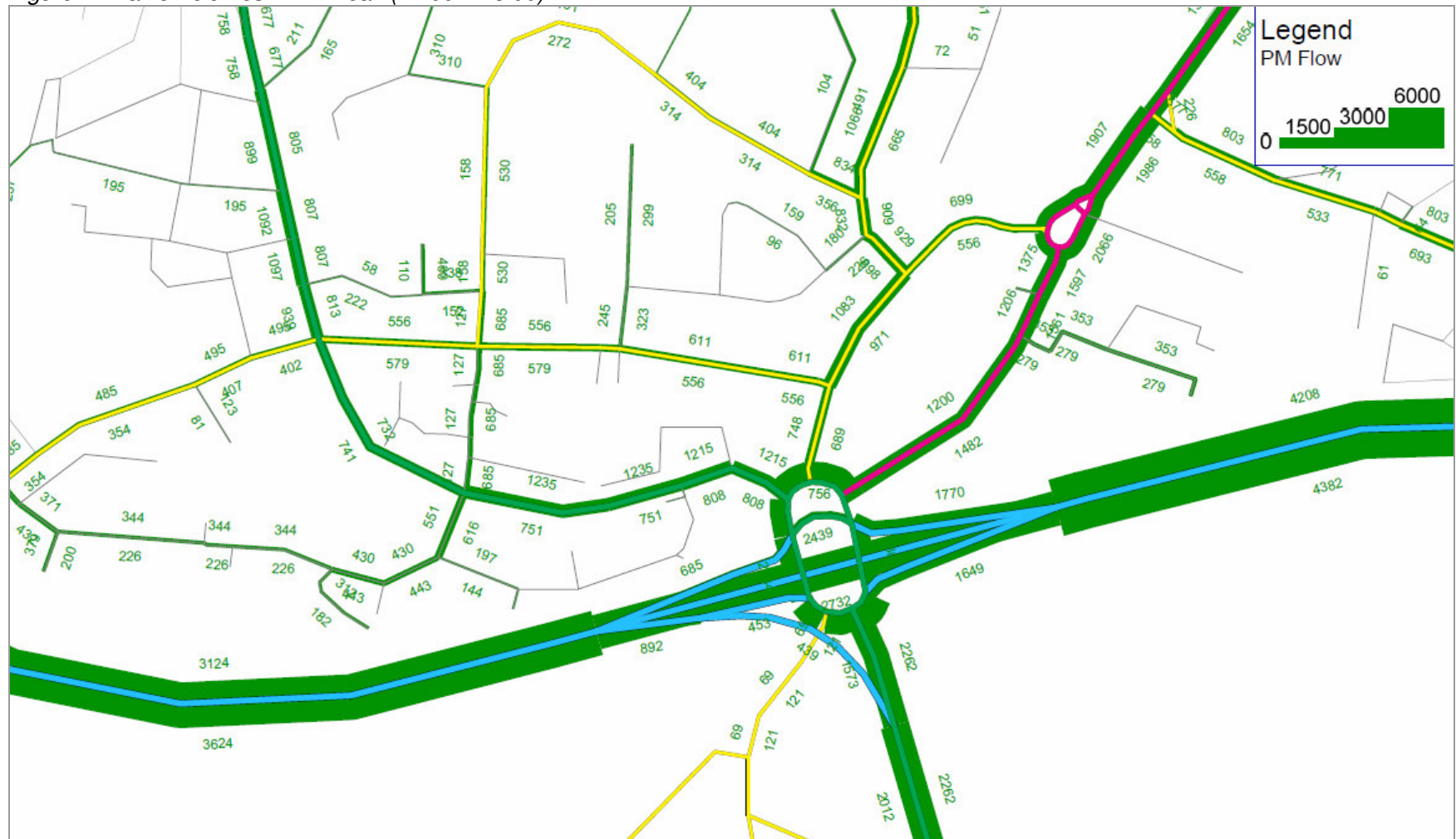


Figure 3: Traffic volumes (two-way) – Daws Hill Lane AM Peak

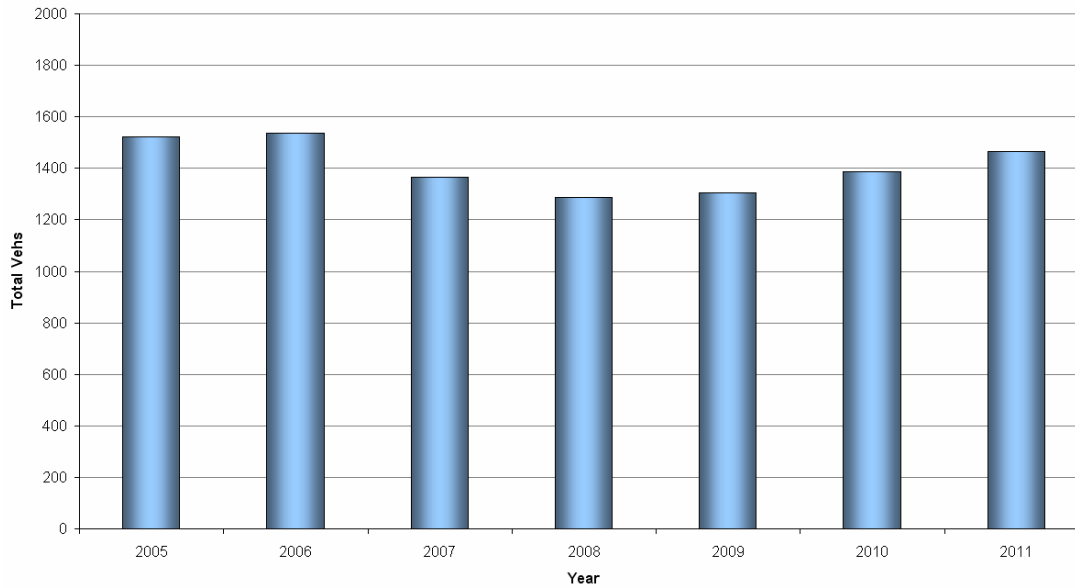
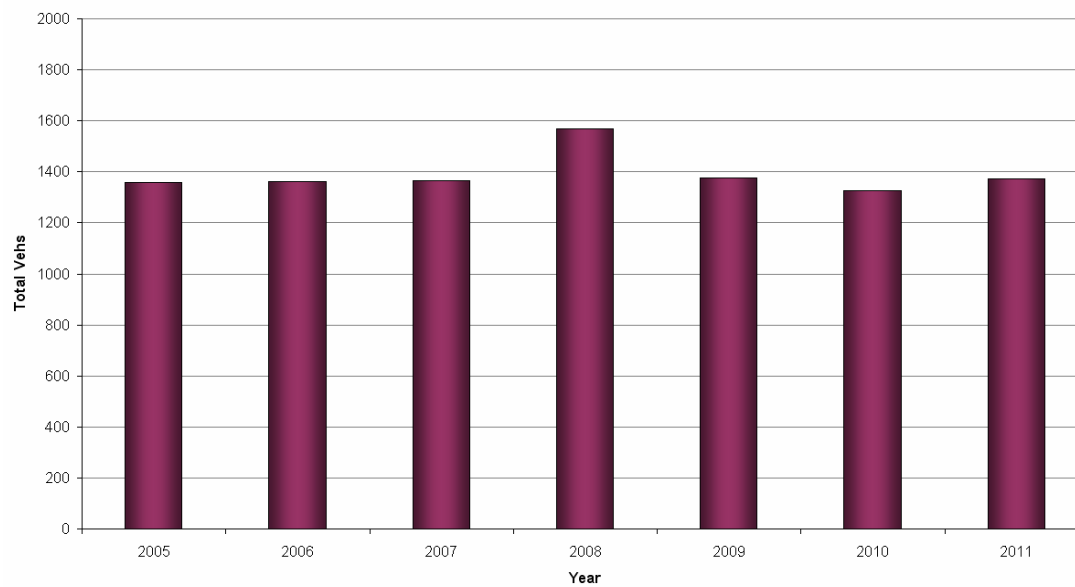


Figure 4: Traffic volumes (two-way) – Daws Hill Lane – PM Peak



Traffic Volume Increase in Flackwell Heath (without Strategy)

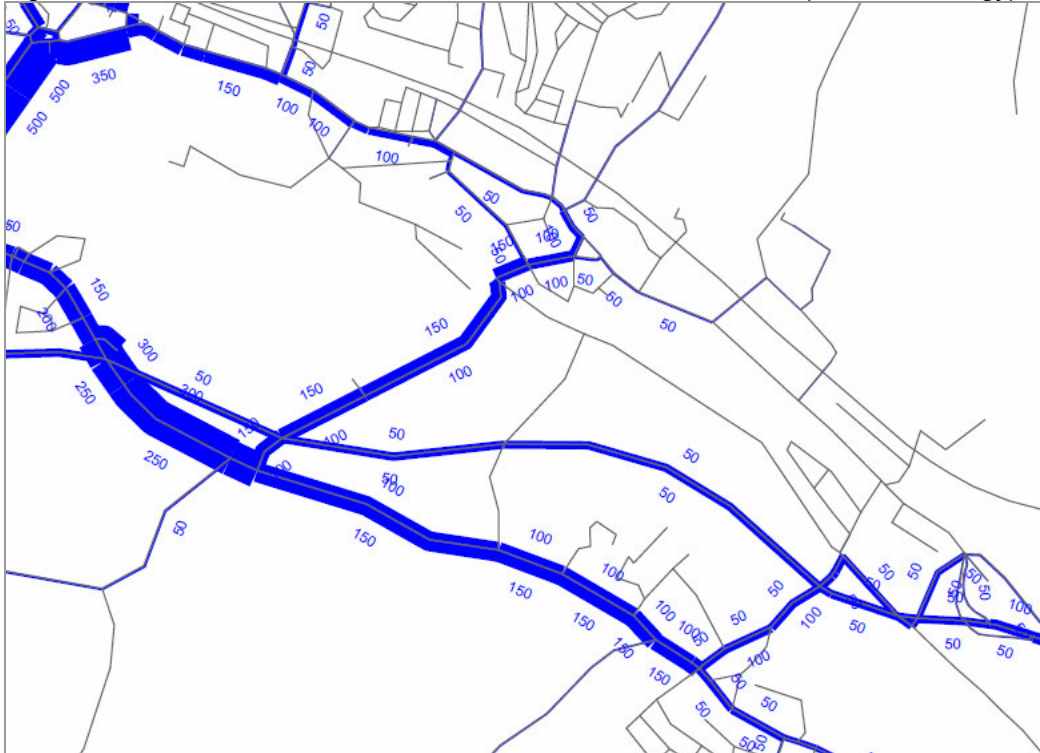
The SQTS package of information (Page 5 – Key Transport Challenges – Future Development) includes a figure showing the potential 'highest' peak hour traffic growth from 2010 to 2022 (PM Peak) without the benefits provided by an effective Transport Strategy. The AM Peak figures are presented in Figure 5. Furthermore, Figures 6 and 7 present the potential development-related traffic growth in the Flackwell Heath area, as an extension to the information presented in the SQTS package of information.

Figure 5: Traffic Volume Increase – Southern Quadrant – AM Peak – (without Strategy)



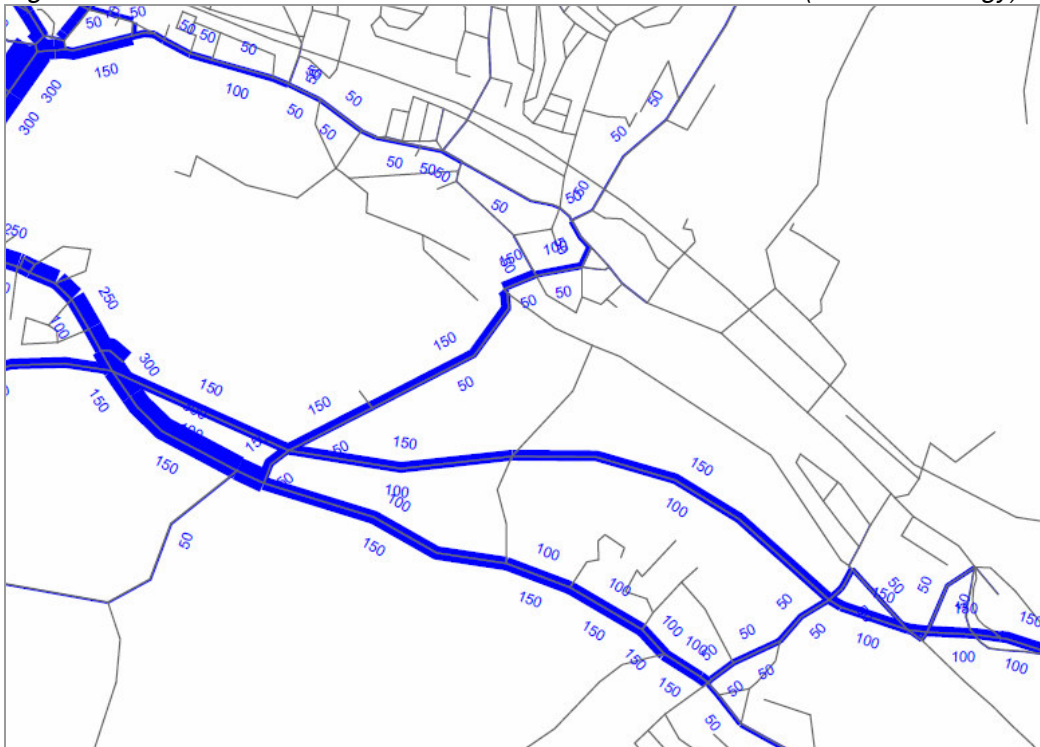
Note 1: Information shown is vehicle numbers rounded to nearest 50

Figure 6: Traffic Volume Increase in Flackwell Heath area – AM - (without Strategy)



Note 1: Information shown is vehicle numbers rounded to nearest 50

Figure 7: Traffic Volume Increase in Flackwell Heath area – PM - (without Strategy)



Note 1: Information shown is vehicle numbers rounded to nearest 50

To supplement the traffic volume information, junction modelling has been undertaken on the junction of Heath End Road/Swains Lane/Straight Bit/Chapel Road to assess the implications of the traffic volume increases. Table 2 presents summary junction modelling information.

Table 2: Traffic Modelling Statistics: Flackwell Heath (2022 without Strategy)

	AM Peak		PM Peak	
	RFC	Queue (m)	RFC	Queue (m)
Swains Lane	0.45	<50	0.70	<50
Straight Bit	0.70	<50	0.80	<50
Chapel Road	0.15	<50	0.20	<50
Heath End Road	1.00	100	0.70	<50

Note 1: Information shown is queue length rounded up to nearest 50m

Note 2: RFC is Ratio Flow to Capacity rounded to nearest 0.05

In accordance with the RAF Daws Hill development brief, WDC/BCC would require the assessment of traffic associated with development proposals on rural and non-strategic urban routes, such as key routes through Flackwell Heath, with junction improvement proposals to ensure that the road network continues to operate without severe congestion. The Transport Strategy measures focus upon the need to ensure that additional traffic volumes are accommodated on primary routes, minimising growth on ‘rat runs’.

Traffic Volumes in the vicinity of the A404/Sports Centre junction

The current traffic volumes at this location are taken from the High Wycombe Transport Model as presented in Figures 1 and 2 above. Growth in traffic volumes associated with potential new developments and changes in school access arrangements will result in forecast traffic volumes at the access to the Handy Cross hub site as per Table 3.

Table 3: Forecast traffic volumes (2022) – Sports Centre access/egress

	AM	PM
Entry	900	600
Exit	500	800

Note 1: Information shown is vehicle numbers rounded to nearest 50

As part of the development of the Handy Cross hub site, the Sports Centre junction and local access junctions will be reconfigured and upgraded in order to accommodate the forecast traffic volumes, providing access and egress for local traffic. Proposals for the Handy Cross hub have been consulted upon through public exhibitions in Spring 2012 and final plans of the revised junctions will be presented on the WDC website as part of the formal planning application process.

An overall summary of the junction modelling for the Sports Centre junction is presented in the SQTs material. For the Fair Ridge junction, the access and egress arrangements are also summarised in the SQTs material. As a supplement to this, junction modelling has been undertaken on the Fair Ridge egress. The information shows that this junction will continue to operate within capacity with the forecast traffic volumes, with typical average waiting times on the Fair Ridge arm of the junction of around 20 seconds.

Traffic Volumes from potential development sites

Table 4 presents the traffic volumes assumed from potential development sites for the purposes of the development of the SQTs only. The precise nature and quantum of land use at particular sites is not yet confirmed and therefore the actual traffic volumes established through the planning process may vary from those assumed in the SQTs. Further information regarding live planning applications is available on the Wycombe District Council planning portal website.

Table 4: Traffic volumes assumed for key development sites

	Land Use Quantums	AM Peak	PM Peak	Source:
Handy Cross Hub	- Office Employment - Sports Centre - Food Store - Hotel - Coachway/ P&R	arr - 1030 dep - 280	arr - 526 dep - 1032	TA produced as part of the planning application
RAF Daws Hill	- 550 dwellings - Care Home - Office Employment	arr - 203 dep - 303	arr - 238 dep - 195	Scoping TA for RAF Daws Hill
Cressex Island	- Bulky Goods retail - Home Store	arr - 77 dep - 20	arr - 347 dep - 390	TRICS (Trip Rate Information Computer System)

Note 1: TA = Transport Assessment

Note 2: arr = arrivals, dep = departures

Note 3: Land Use description excludes ancillary uses

Alternative Options at the A4010 New Road/John Hall Way/Cressex Road

A review of the potential to improve this junction by introducing signals was assessed as part of the development of the SQTs. The initial concept was to introduce a junction that incorporates the pedestrian crossing on the northern arm of the junction into the signalisation of the junction, with flared approaches on each arm. The junction was modelled and shown to operate over-capacity with the forecast volumes. The signalised junction would not provide performance benefits in comparison to a roundabout arrangement. Table 5 presents a summary of the queuing results for each arm of the junction.

Table 5: Signalised junction option - A4010 New Road/John Hall Way/Cressex Road

	AM	PM
New Road	300	250
Cressex Road (East)	50	200
John Hall Way	200	600
Cressex Road (West)	300	250

Note 1: Information shown is queue lengths rounded to nearest 50m