

Fifth Avenue Entrance / Exit Re-positioned  
Hirwaun Industrial Estate

Road Safety Audit (Stage 1) | November 2008

**CAPITA SYMONDS**

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Project No: CG/3533


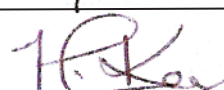

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Hirwaun Industrial Estate  
Road Safety Audit (Stage 1)

	Name	Signature	Date
Author	A. J. Lookus		9/11/08
Checker	H. Keel		10/11/08
Approver	A. J. Lookus		21/11/08

### Issue Record

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# CAPITA SYMONDS

**Fifth Avenue Entrance/Exit Re-Positioned**

**Hirwaun Industrial Estate**

**Road Safety Audit (Stage 1)**

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## 1. Introduction

A Stage 1 Road Safety Audit for the Fifth Avenue Entrance/Exit Re-Positioned Scheme was commissioned by Environmental Visage Ltd in an e-mail dated 30 October 2008.

A Road Safety Audit is defined in Standard HD 19/03 as "The evaluation of Highway Improvement Schemes during design and at the end of construction (preferably before the scheme is open to traffic) to identify potential road safety problems that may affect any users of the highway and to suggest measures to eliminate or mitigate those problems. The audit process includes the accident monitoring of Highway Improvement Schemes to identify any road safety problems that may occur after opening."

The procedures and practices associated with Road Safety Audits are set out in Standard HD 19/03 and the IHT Guidelines for the Safety Audit of Highways. The main procedural and practice features recommended in these documents include:

- Road Safety Audits should be undertaken at pre-set times in a schemes planning and implementation;
- Road Safety Audits should be performed by a team which is independent of the design team;
- The Audit Team should have specialist expertise in the fields of Road Safety Engineering and Accident Investigation and Prevention;
- Road Safety Audits should be carried out with the purpose of identifying design and/or construction features which should be modified in the interests of road safety and should seek to provide constructive recommendations as to how any design or construction difficulties can be resolved; and
- The Audit should be carried out on the basis of the information supplied to the Audit team and should only address matters that have an adverse bearing on road safety in the context of the chosen design, with no attempt to comment on the justification or appropriateness of the chosen scheme.

In addition to the above features, Standard HD19/03 includes a model illustrating the recommended layout of the report document.

In view of the above points, no responsibility for the design or construction of the scheme can be accepted by the Auditors.

It is confirmed that the Road Safety Audit undertaken in respect of this particular scheme has been carried out in accordance with the procedures and practices detailed above. It is also confirmed that this is a Stage 1 Audit, i.e. one carried out on the completion of preliminary design (Order Publication Report Stage) before publication of draft Orders and for development-led Highway Improvement Schemes before planning consent where possible.

## **2. Road Safety Audit Team**

The Audit Team consisted of:

A J Rookes IEng, MIHT, FSoRSA, FIHIE (Team Leader)  
Technical Director, Capita Symonds

H Kear MIHIE  
Road Safety Engineer, Capita Symonds

The Audit was undertaken after a site visit, detailed examination of the submitted documents and a team meeting.

## **3. Scope of the Road Safety Audit**

3.1 This Audit reviews, from the Road Safety aspect, the Fifth Avenue Entrance/Exit Re-Positioned Scheme, including its interfaces with contiguous lengths of road and abutting side roads. The proposals are shown in the documents listed in the section entitled 'Information Forming the Basis of Audit' and broadly consists of:

- (a) Provision of a new access to a proposed development site on Fifth Avenue;
- (b) Provision of a new access and a new exit to/from the proposed development site on Ninth Avenue;
- (c) Provision of an internal network of roads within the proposed development site; and
- (d) Closure of an existing access to the proposed development site on Fifth Avenue.

3.2 No departures or relaxations from standard have been declared.

3.3 No design speed has been declared, although the Audit Team noted that the site is located within a 30mph area.

3.4 The site was visited during the afternoon of Tuesday 4 November 2008. The weather was overcast and the road surface was dry throughout the time of the site visit.

## **4. Information Forming the Basis of the Audit**

This Road Safety Audit was undertaken on the scheme detailed in the following drawing:

**Drawing No**  
8016 PL 003 Rev. E                      Proposed Site Plan


## 5. Declaration

We confirm that this Road Safety Audit has been undertaken on the documents listed in the section entitled 'Information Forming the Basis of the Audit' in accordance with the recommended procedures and represents an independent assessment of the road safety implications of this scheme's design.

No member of the Road Safety Audit team has been involved in scheme design.

### Audit Team Leader

A J Rookes IEng MIHT FSoRSA FIHIE  
Technical Director  
Capita Symonds  
Ty Gwent  
Lake View  
Llantarnam Park  
Cwmbran  
NP44 3HR

..... Signed  
.....21/11/08..... Date

### Audit Team Member

H Kear MIHIE  
Road Safety Engineer  
Capita Symonds  
Ty Gwent  
Lake View  
Llantarnam Park  
Cwmbran  
NP44 3HR

## **6. Site Specific Comments and Recommendations**

For the location of the points raised in this section of the report, see the Reference Plan (Figure 1).

### **6.1 Problem**

Location: All junctions throughout the proposed development site.

Summary: Visibility for drivers and riders emerging from side roads will be restricted by trees.

Visibility will be restricted by the trees to be provided in the verges adjacent to all junctions both within the site and where the access roads junction with Fifth and Ninth Avenue. Drivers and riders emerging from the side roads will consequently have poor visibility with resultant turning vehicle accidents.

#### **Recommendation**

*Provide visibility splays clear of all obstructions. The splays at the Fifth and Ninth Avenue junctions to be of at least 4.5 x 90m and the splays on the internal site roads to be of a dimension to suit the site speed limit.*

### **6.2 Problem**

Location: Junction of westerly site access road and Fifth Avenue.

Summary: The junction arrangement will create poor crossing conditions for pedestrians.

The mouth of the access road is wide and as a consequence pedestrians walking along the northern footway of Fifth Avenue will have to cross 22m of carriageway to reach the relative safety of the opposite footway. This movement will be undertaken in conflict with turning vehicles and vehicle/pedestrian collisions will consequently occur.

#### **Recommendation**

*Narrow the width of the junction and provide facilities to assist pedestrian crossing movements.*

### **6.3 Problem**

Location: The site access roads from Fifth and Ninth Avenue.

Summary: No pedestrian facilities have been provided

Apart from a short length of footway at the more southerly access road into the site from Ninth Avenue, no pedestrian facilities have been provided on the main access roads into the site. Pedestrians will consequently be forced to walk in the carriageway in conflict with passing vehicles.



## **Recommendation**

*Provide footway routes into the site on all site access roads.*

### **6.4 Problem**

Location: Junctions of the more westerly site access road and the Gate Control and Emergency/Maintenance accesses.

Summary: Visibility for emerging drivers and riders will be curtailed by the Greenwall.

Visibility to the left from the Gate Control access and in both directions from the Emergency/Maintenance access will be curtailed by the Greenwall. Drivers and riders emerging from the side roads will consequently have poor visibility with resultant turning vehicle accidents.

## **Recommendation**

*Provide visibility splays clear of all obstructions of a dimension to suit the site speed limit.*

### **6.5 Problem**

Location: More southerly entrance to the development site on Ninth Avenue.

Summary: Vehicles are likely to enter the development site at higher than desirable speeds.

Due to the easy entry radius, vehicles are likely to enter the site at higher than desirable speeds. These speeds will directly conflict with site activities and pedestrians who will have 20m of carriageway to cross when walking along the western footway of Ninth Avenue.

In addition, higher speed motorcyclists and possibly pedal cyclists could lose control and fall from their machines as they bank and turn on the cattle grid.

## **Recommendations**

1. *Tighten up the entry radius; and*
2. *Review the necessity for and location of the proposed cattle grid. This review should include the appropriateness of a cattle grid on a pedal cycle lane.*

### **6.6 Problem**

Location: Coach bay in the car parking area at the eastern side of the site.

Summary: Coaches will have difficulty in entering and leaving the bay.

The entry taper into the bay is short and a coach leaving the bay will have some difficulty in turning into the car park exit road without completing reversing

manoeuvres. Coaches will consequently have to complete the manoeuvres very slowly with potential shunt type collisions with vehicles entering the car park.

**Recommendation**

*Modify the entry taper and exit arrangements from the coach bay to enable the movements to be completed more easily.*



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Please contact:

Capita Symonds  
Ty Gwent  
Lake View  
Llantarnam Park  
Cwmbran NP44 3HR

Tel: +44 (0)1633 463333  
Fax: +44 (0)1633 463399