

# Cycle Audit and Review

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## Introduction

Introduction: This leaflet introduces and summarises the recently published *Guidelines for Cycle Audit and Cycle Review*. The Department of the Environment, Transport and the Regions' (DETR) welcomes the introduction of detailed guidance on the practice of carrying out Cycle Audit on new schemes, and Cycle Review on existing networks.

One of the primary objectives of the National Cycling Strategy (NCS), launched in 1996 and supported by the DETR, is to encourage and enable planning and highway authorities to create a cycle-friendly infrastructure. That will help in making existing roads safer and more attractive for cycling, and supplementing them with specific cycle facilities where necessary. Specifically, the NCS recognised that a high priority was to introduce procedures to ensure that cyclists were properly considered in new highways and traffic schemes. It therefore recommended that specific procedures should be developed for use by all highway authorities.

## Publication cover



## Background

The DETR commissioned David Davies Associates to produce a set of Cycle Audit and Cycle Review Guidelines. The project was guided by a steering group, chaired by the IHT, which represented a wide range of highway authorities, relevant professional groups and cycling organisations. Some highway authorities and other interested parties not represented on this

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group were invited to contribute ideas and comments at various stages of the project. The emerging procedures were tested on a variety of schemes, routes and highway authorities.

Cycle audits can be considered as analogous to safety audits insofar as both involve regimes for ensuring that particular issues or interests are fully considered in the planning, design and construction process. However, the Guidelines go one step further by also providing a means of reviewing existing highway and cycle networks.

## Cycle audit

### Type of Scheme to be audited

Ideally, every new scheme should be audited for cycle friendliness. However, the amount of time and effort put into an audit or review should reflect both the current level of cycle use and the likely extent of any suppressed demand. For example, there may be little benefit in spending a great deal of time auditing a remote rural road with steep gradients.

To enable local authorities to decide how best to deploy scarce staff resources, the Guidelines provide a method of prioritising new schemes into the following categories -

**Cycle Pro-active Route** - includes strategic or local cycle networks; and roads that are, or could be, popular with cyclists.

**Cycle Friendly Route** - routes where there is a general desire to encourage cycling, eg distributor routes.

**Cycle Neutral Route** - all other routes where cycling is permitted.

### A separate contained cycle route



### The Stages of Cycle Audit

In principle, the Guidelines recommend that a Cycle Audit should be carried out at four stages in a highway improvement scheme -

**Preparation of a Design Brief** - usually prepared by the Client for the Designer.

**Preliminary Design** - when scheme options are considered.

**Detailed Design** - prior to inclusion in the contract documents.

**Substantial Completion** - once the works are complete, just before the scheme is opened to traffic.

However, it may be necessary to tailor the number and timing of individual stages, depending on the type, size and complexity of the scheme to be audited. This often results in only 2 stages being required. Individual highway authority working practices will also have an influence in this area. Whilst only modest staff resources are required for cycle audit, the benefits can be substantial, eg the opportunity to integrate cycle facilities into a new scheme before construction commences, more widespread expertise in cycle-friendly design, and cyclist accident reduction.

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It is important that a Cycle Audit does not duplicate any work carried out as part of a safety audit. However, when a road safety audit has not been done, a Cycle Audit should also consider cyclist safety. In either event, the relative safety of cyclists using alternative routes should be considered.

**CYCLE AUDIT** can be defined as follows -

*Cycle Audit is a systematic process, applied to planned changes to the transport network, which is designed to ensure that opportunities to encourage cycling are considered comprehensively and that cycling conditions are not inadvertently made worse.*

In short, Cycle Audit is used to examine new highway schemes for cycle-friendliness. It involves auditing schemes (including maintenance) at various stages of design and implementation. It is important to bear in mind that Cycle Audit does not in itself constitute a set of design standards for cycle facilities.

### Basic Principles

The main aim of the Guidelines is to ensure that a good cycling infrastructure is achieved wherever possible. In general terms, this is done by considering five headings -

- Coherence
- Directness
- Attractiveness
- Safety
- Comfort

For example, a new cycle lane should form an integral part of a larger cycle network and have consistent design standards throughout its length (coherence); be as direct as possible and on a route favoured by cyclists (directness); well lit and signed with surroundings that are aesthetically pleasing (attractive); designed so as to reduce the risk of collisions with other road users (safety); and have smooth well maintained surfacing and gentle gradients, and features that avoid complicated manoeuvres and sudden interruptions (comfort).

### Picture of a cycle lane



Cycle review

### **Type of Scheme to be reviewed**

Most highway authorities will not have the resources to undertake a full cycle review of the entire transport infrastructure immediately. Therefore, the Guidelines offer the following considerations in prioritising the parts of the network for early review:-

- Relevant policies or development pressures
- Existing and potential cycle use levels
- Accident records
- Importance of link to cyclists
- Resources

### **Level of Detail of Cycle Review**

The Cycle Review procedures can be applied with varying levels of detail, ie Preliminary Cycle Review or Detailed Cycle Review. It is preferable to carry out the latter whenever possible. However, the former will still produce useful results even when some information is not available.

### **Image of a road map**



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### **The Stages of Cycle Review**

Three stages are proposed for a Cycle Review -

**Review of Conditions** - an assessment of the infrastructure type and the nature and volume of traffic using it.

**Level of Service Assessment** - an appraisal of the cycle friendliness of the route.

**Assessment of Measures** - suggested methods of improving the route for cyclists.

**CYCLE REVIEW** can be defined as follows -

*Cycle Review is a systematic process applied to existing transport networks, which is designed to identify their positive and negative attributes for cycling and to assess ways in which those networks could be changed in order to encourage cycling.*

## Cycle Audit and Review

Cycle Review is a tool that can be used to examine existing transport infrastructure for ease of use by cyclists. It should be used selectively to help draw up Local Cycling Strategies and to integrate cycling interests into transport plans. The Guidelines include a "sieving" system that should assist local authorities to prioritise routes or networks for early review.

### Hierarchy of Measures

Cycle Audit and Review procedures seek to ensure that the appropriate design solution is selected for a given scheme or network. In first order of preference, these measures are -

- Traffic reduction
- Traffic calming
- Junction treatment and traffic management
- Redistribution of the carriageway
- Off-road provision

It should be borne in mind that these measures are not mutually exclusive. They should ideally be used as part of a larger integrated traffic management solution. Isolated facilities are rarely successful in benefiting cyclists. For example, a cycle track that frequently crosses busy roads will not be popular if a suitable crossing or means of slowing other vehicles down is not provided.

### Another cycle lane



## Cycle Audit and Review

### Who Should Undertake the Audit or Review?

Ideally, the audit/review team should include someone with both an awareness of the Authority's cycling policies and a fairly extensive background in traffic engineering. At least one person involved in the audit/review must be capable of assuming a cyclist's perspective. To reduce the chances of any preconceived ideas and to help ensure the maximum impartiality, the Guidelines recommend that those carrying out an audit or review should be independent of the original planning or design team.

### **Cycle Audit and Cycle Review Documentation**

To help achieve a consistent approach to examining new schemes and existing networks, it is recommended that a standardised approach to documenting a Cycle Audit and a Cycle Review is adopted. This practice also provides a clear historical record of the reasoning behind particular conclusions and recommendations. Blank assessment forms and typical reports on a Cycle Audit and a Cycle Review are therefore included in the Guidelines.



## Further Information

Professional and technical enquiries should be addressed to:

Charging and Local Transport Division  
 3/24 Great Minster House  
 76 Marsham Street  
 London SW1P 4DR

Tel: 020 7944 2131

## References

Guidelines for Cycle Audit and Cycle Review - Institution of Highways and Transportation/ Department of the Environment, Transport and the Regions/ The Scottish Office/ The Welsh Office/ DOE Northern Ireland. Available from the Institution of Highways and Transportation (IHT) at a cost of £25.00. (Phone: 0181 387 2525, or E-mail: iht@iht.org).

Cycle-friendly Infrastructure: Guidelines for Planning and Design, Institution of Highways and Transportation/ Bicycle Association/ CTC/ Department of the Environment, Transport and the Regions (1996). Available from the Institution of Highways and Transport, £15.00. (see contact details above).

The Department of the Environment, Transport and the Regions sponsors a wide range of research into traffic management issues. The results published in Traffic Advisory Leaflets are applicable to England, Wales and Scotland. Attention is drawn to variations in statutory provisions or administrative practices between the countries.

The Traffic Advisory Unit (TAU) is a multi-disciplinary group working within the Department of the Environment, Transport and the Regions. The TAU seeks to promote the most effective traffic management and parking techniques for the benefit, safety and convenience of all road users.

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