General Certificate of Education
Advanced Level Examination
January 2010

Geography GEO4B/PM

Unit 4B Geographical Issue Evaluation
Advance Information Booklet

Date of Issue: 1 November 2009

For this paper you must have:
- the Ordnance Survey map extract (enclosed).

Instructions
- This Advance Information Booklet will be issued on 1 November 2009 in advance of the examination for Unit 4B. You should make yourself familiar with the information in the booklet.
- This material must be kept **unmarked** for use in the forthcoming examination.
- The centre 2-pages contain a map which can be detached for use in the examination.

STUDY ALL THE INFORMATION IN THIS BOOKLET

The information in this booklet comprises the following:

Item 1 Extracts from Physical Activity and the Environment – Costing Report published by National Institute for Health and Clinical Excellence (January 2008)

Item 2 Improving conditions for cyclists

Item 3 Further study of the issues

Item 4 Transport and population in Guildford

An extract from the 1:25 000 Ordnance Survey Explorer map of Guildford is also provided.

Item 1 Extracts from Physical Activity and the Environment – Costing Report published by National Institute for Health and Clinical Excellence (January 2008)

The National Institute for Health and Clinical Excellence (NICE) is the body set up to consider costs and value for money in the National Health Service (NHS).

In January 2008, NICE published a report which looked at the resource implications of implementing NICE public health guidance on physical health and the environment in England. Previous reports from NICE had concluded that there were enormous potential savings for the NHS if the general level of fitness in the population could be improved by encouraging people to make physical exercise a more integral part of their lives. The January 2008 report starts to look at ways of costing the improvements that NICE had recommended.

The **Executive Summary** of the report stated:

Extract 1

Significant resource-impact recommendations

We undertook background research and consultation and analysed the following recommendations designed to encourage physical activity.

- Increase active travel through urban and rural planning.
- Develop and maintain public open spaces that are safe and accessible and encourage physical activity.
- Ensure staircases are designed to encourage their use, ensure existing staircases are clearly signposted and are attractive to use.
- Ensure primary school playgrounds encourage varied, physically active play.

The first of these recommendations was discussed in detail in Section 3.1 of the report.

Extract 2

3.1 Increasing active travel through urban and rural planning

Background

3.1.1 Data from the national travel survey shows that the distance people walk and cycle has declined significantly in the last three decades. The design and layout of towns and cities can encourage or discourage travel by foot or by bicycle.

3.1.2 Between 1994 and 2004, the proportion of primary school children walking to school fell from 61% to 53%.

3.1.3 Recommendation 1. Those responsible for developing new towns, urban extensions, major regeneration projects, siting of services and all other strategies, policies and plans which involve environmental change should ensure the potential for physical activity is maximised. They should ensure that new planning applications always prioritise the need for people to lead active lives.

3.1.4 Recommendation 2. Local transport authorities, transport planners and local authorities should ensure the needs of pedestrians and cyclists (and users of other modes of transport that involve physical activity) are given priority when developing or maintaining streets and roads. This recommendation could be implemented by restricting motor vehicle access, re-allocating road space to cyclists and pedestrians, road-user charge schemes, traffic-calming schemes and creating safe routes to schools.

3.1.5 Recommendation 3. Planning and transport agencies, including regional and local authorities should plan and provide a comprehensive network of routes for walking, cycling and using other modes of transport involving physical activity that offer everyone (including people whose mobility is impaired) convenient, safe and attractive access to schools and other public facilities, workplaces, shops and social destinations. They should ensure that these routes are built and maintained to a high standard.

3.1.6 Recommendation 5. Architects, designers, developers, planners and employers should ensure that workplaces are linked to walking and cycle networks. Where possible, these links should improve the existing walking and cycling infrastructure. They should also ensure that different parts of campus sites are linked by appropriate walking and cycling routes.

3.1.7 For most people, the easiest and most acceptable forms of physical activity are those that can be incorporated into everyday life.

3.1.8 A walkable community has been described as a community in which we can walk to schools, sports fields, friends' homes and shops. The difference between highly walkable and non-walkable communities is an average of about 3 kg of body weight per person.

Assumptions made

3.1.9 Local authorities should have already developed local sustainable travel plans and planning policies to encourage alternative travel methods and discourage personal car use. A change in physical activity levels may be an 'unintended outcome' of local transport or planning policies, for instance, the intervention's primary aim may be to reduce road congestion; however a secondary benefit could be to increase physical activity leading to a healthier population.

3.1.10 The government's planning policy guidance formalises the necessity for local authorities to develop transport and urban planning strategies which encourage active travel. The government and partner organisations have also produced a number of additional guidelines to encourage local authorities to work with partner organisations to promote active travel initiatives.

3.1.11 It is impossible to quantify the additional costs incurred as a result of prioritising the needs of walkers, cyclists and active travellers over the needs of sedentary transport users in future transport schemes.

3.1.12 Based on current research, it can be assumed that the long-term health and economic benefits associated with increases in active travel would neutralise any initial costs. Relevant cost–benefit studies actually seem to indicate that the benefits would far outweigh initial costs, possibly by as much as 11 times. However, more research is required to draw definite conclusions.

Cost summary

3.1.14 Many of the recommendations relating to the promotion of active travel through transport and urban planning are already being encouraged by existing guidance and legislation. Therefore, the incremental costs of implementing the recommendations are assumed to be quite low. However, all stakeholders will need to make a full assessment of local practices and circumstances in order to assess the extent to which the built environment in their area encourages active travel and what provisions are necessary in the future.

3.1.16 Three local authorities have been selected by the government to take part in a £10 million initiative to assess and demonstrate the potential to transform levels of walking and cycling. One successful local authority submitted a bid document with estimated expenditure of £5.5 million over five years. This is a significant cost, however it is expected that changing transport priorities from driving to sustainable transport methods would divert some expenditure from other areas.

Other considerations

3.1.19 The cost of planning new developments, road layouts, cycle lanes and other projects will vary significantly depending on the specific details involved. Adding the markings for a cycle lane on the side of the road would incur considerably lower costs than developing a stand-alone cycle lane.

3.1.20 The early experiences of local policies to increase walking and cycling levels appear to demonstrate that their success is not dependent on one individual approach. Schemes to encourage cycling and walking should be specifically tailored to take into account the city's existing historical, geographical and political structure.

Item 2 Improving conditions for cyclists

There are many ways in which conditions for cyclists can be improved. These include:

- building dedicated cycle paths
- building or up-grading paths that can be used jointly by cyclists and pedestrians
- separating sections of the existing road for use by cyclists only
- providing 'bus and cycle lanes' or 'no car lanes' as part of the existing road
- designating cyclist only areas for traffic waiting at traffic lights, etc.
- redesigning junctions and roundabouts to make them safer for cyclists
- signposting roads as cycle routes and putting up warning signs for vehicular traffic
- working with schools to provide signposted safe routes for cycling to school
- educating cyclists, especially young cyclists, to improve their cycling skills
- educating motorists in cycle-aware driving techniques
- providing safe places for the parking of cycles in places such as town centres, schools, work places, public parks and other places that are likely to be popular destinations for cyclists
- establishing a larger body of cyclists so that they become more familiar on the roads and motorists drive in a more cycle-aware way.

Many ways of encouraging people to cycle are described in more detail in the publication *A Sustainable Future for Cycling*, published by the Department for Transport (DfT) and available on the internet at www.dft.gov.uk

This publication includes the following reference to one project to encourage cycling in the three trial towns referred to in the NICE document quoted in **Item 1**.

Sustainable Travel Towns

DfT's Sustainable Travel Towns project (2004–09) has also been effective in increasing levels of cycling (see table below). Each of the towns has put a range of measures in place to encourage greater use of sustainable modes including a focus on information provision and personalised travel planning. This has led to some excellent results so far, particularly in increasing cycling trips.

Town	Research date	Mode	Impact since Sept – Nov 04*
Darlington	Sept–Nov 06	Cycling trips	+79%
Peterborough	Feb–Apr 06	Cycling trips	+25%
Worcester	Mar–Apr 06	Cycling trips	+36%
Darlington	Sept–Nov 06	Car trips	–11%
Peterborough	Feb–Apr 06	Car trips	–13%
Worcester	Mar–Apr 06	Car trips	–12%

*A baseline survey was carried out from Sept–Nov 2004 before improvement started.

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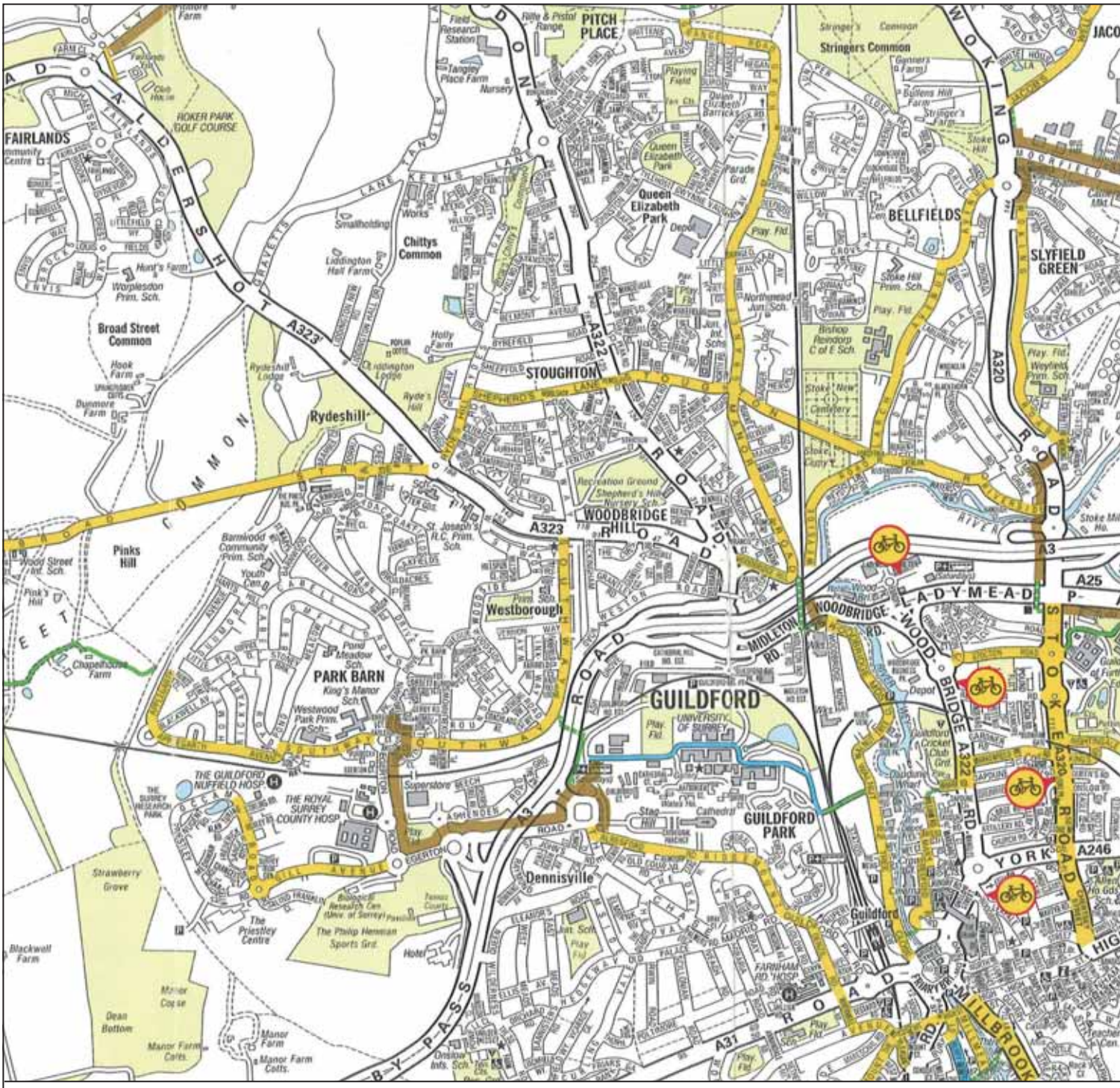
Figur



Key to Cyc

Sign-posted routes where cyclists will be on-road. May include destination signs and cycle lanes painted on the road.

These indicate where off-road cycling facilities have been implemented adjacent to the highway. Usually a shared or segregated pedestrian/cyclist footway.

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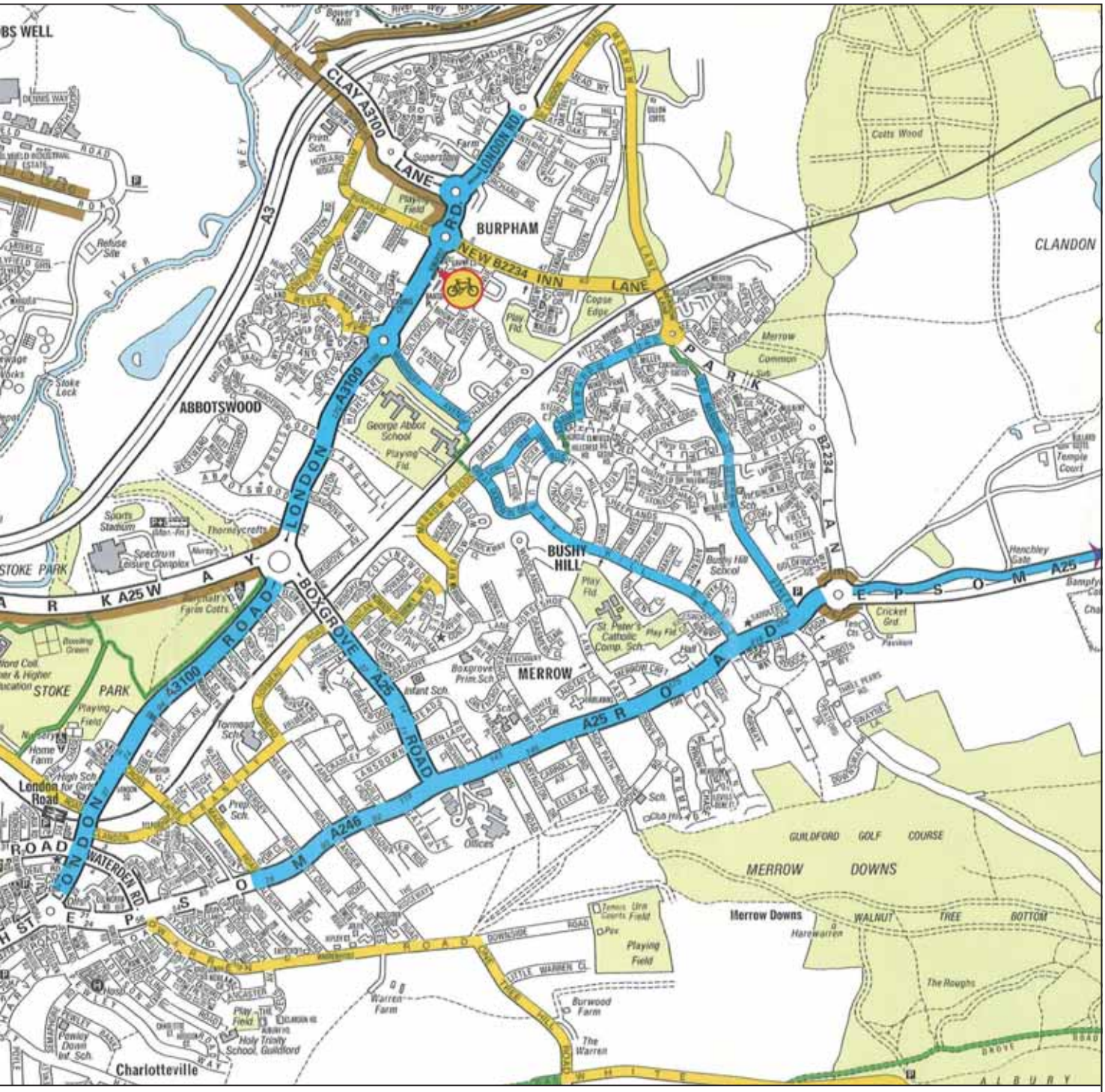


cle Routes

ffic-free cycle routes that are a mixture of cial tracks and official routes such as through ks. Also includes bridleways that have been nsidered by cyclists to be suitable for cycling.

Routes that have been recommended by local cycle forums and user groups for getting around by bicycle. They do not include any cycling facilities and may include short stretches of busier roads where no alternatives exist.

ase walk your cycle on this section of the route.

Cycle shop

There is no source material printed on this page.

Cycling England

Another trial project was undertaken by a DfT funded organisation called Cycling England. The project set up six towns as Cycling Demonstration Towns in a scheme that started in October 2005. Some of the results of the first few years of the project, and some of the hopes for the future of the project, are described on pages 18–23 of *A Sustainable Future for Cycling*.

Links to Schools

A third project of note is the Links to Schools project. This has been run by Sustrans, a charity that is trying to encourage cycling through the development of the National Cycle Network of routes. It was described as follows:

What are Links to Schools?

The primary aim of Links to Schools is to connect young people to their schools by way of traffic-free and traffic-calmed walking and cycling routes, creating a safe and attractive environment to give parents the confidence to allow their children to travel to school by foot and bike.

Apart from safety, there are of course, other direct benefits to communities. By reducing the number of cars taking children to and from school, there is less congestion and pollution and less potential for accidents outside school gates. Walking and cycling also provide everyday exercise, encouraging children to be more active and healthy.

The whole community benefits since links also connect people to their work, to their shops and to green spaces. Traffic-free routes are also great spaces in their own right – a linear playground for children and adults alike.

Sustrans' Links to Schools project began in October 2004, with the majority of schemes being completed between spring and autumn 2005, creating 147 links connecting over 300 schools to their communities, enabling up to 200 000 children to walk or cycle to school.

Item 3 Further study of the issues

During your period of preparation for this examination you should consider:

- the issues connected with transport, walking and cycling to and from one or more schools or colleges which may be in your own area and/or for one of the schemes mentioned in the website below
- how some of the ideas mentioned in the Advance Information Booklet might be applied to the area or areas that you study
- how you might research these issues further, including through fieldwork.

Links to Schools schemes in 15 areas were surveyed for the publication *Walking and Cycling: Links to Schools*, published by Sustrans and the DfT at www.dft.gov.uk

This includes brief results of the surveys of the 15 schemes studied (on pages 12–35) and details of the methodology employed for the survey (on pages 36–40). Some details of the methodology are also given below.

Methodology

The surveys consist of a short intercept survey and a concurrent manual count of all route users passing the survey site. The survey and count are conducted at a single point on a route. Each survey is conducted for four days: three weekdays and one weekend day during the school term. The survey and manual count are conducted for 10 hours, between 7.30 am and 5.30 pm, by approved enumeraters. The number of people refusing to participate is recorded. The manual count records legitimate route users observed: those walking, jogging, cycling, horse riding, etc.

The **manual count** records:

- the numbers in each half hour period passing in each direction
- their mode of travel
- gender and age.

The **intercept survey** is interviewer-administered and accompanied by precise instructions. The first adult in the next group to pass the interviewer is stopped and interviewed. Refusals are noted. The questionnaire asks about:

- the trip: mode being used, trip type classification (utility, leisure, recreation or touring), details about duration and length, for recreational/leisure trips whether it is a short or day trip, circular, 'out and back' or part of a tour and for utility trips the nature of the function, the location of the origin and destination points, where the route was joined/will be left, the use of other modes on the trip, and whether a car was available for the trip
- the respondent and their group: gender, age group, composition of the group, home postcode, car ownership, employment status, ethnicity and whether registered disabled.

Note: this survey was carried out by a professional organisation.

Item 4 Transport and population in Guildford

The following is an extract from the website published by the Borough Council of Guildford, Surrey.

Environment

Situated 30 miles (48 km) south of London, Guildford is an exceptionally beautiful Borough, containing rolling chalk downs, ancient woodland and a patchwork of fields and hedgerows. Approximately 70% of the Borough lies within the green belt and much of its southernmost rural parts are within the area known as the 'Surrey Hills', an Area of Outstanding Natural Beauty. The town centre itself is only a 15 minute walk from the North Downs. Guildford also boasts a large variety of restaurants, bars and cafés, several theatres, a gallery, a museum and a world-class leisure complex. This combination makes the borough a vibrant place to live, work or visit.

Transport

Guildford is located at the centre of a comprehensive communication network, which is highly accessible to UK, European and world markets. Central London is only 30 miles (48 km) away and is connected to Guildford by excellent road and rail links. Guildford is also only 40 minutes away from Heathrow and Gatwick, Britain's largest international airports.

Guildford Borough covers the town itself, several outlying villages and some very rural areas. Population density varies considerably across the Borough, with over 50 persons per hectare in some wards of the town and less than one person per hectare in the most rural ward. (See **Figures P2** and **P3** on the following pages.)

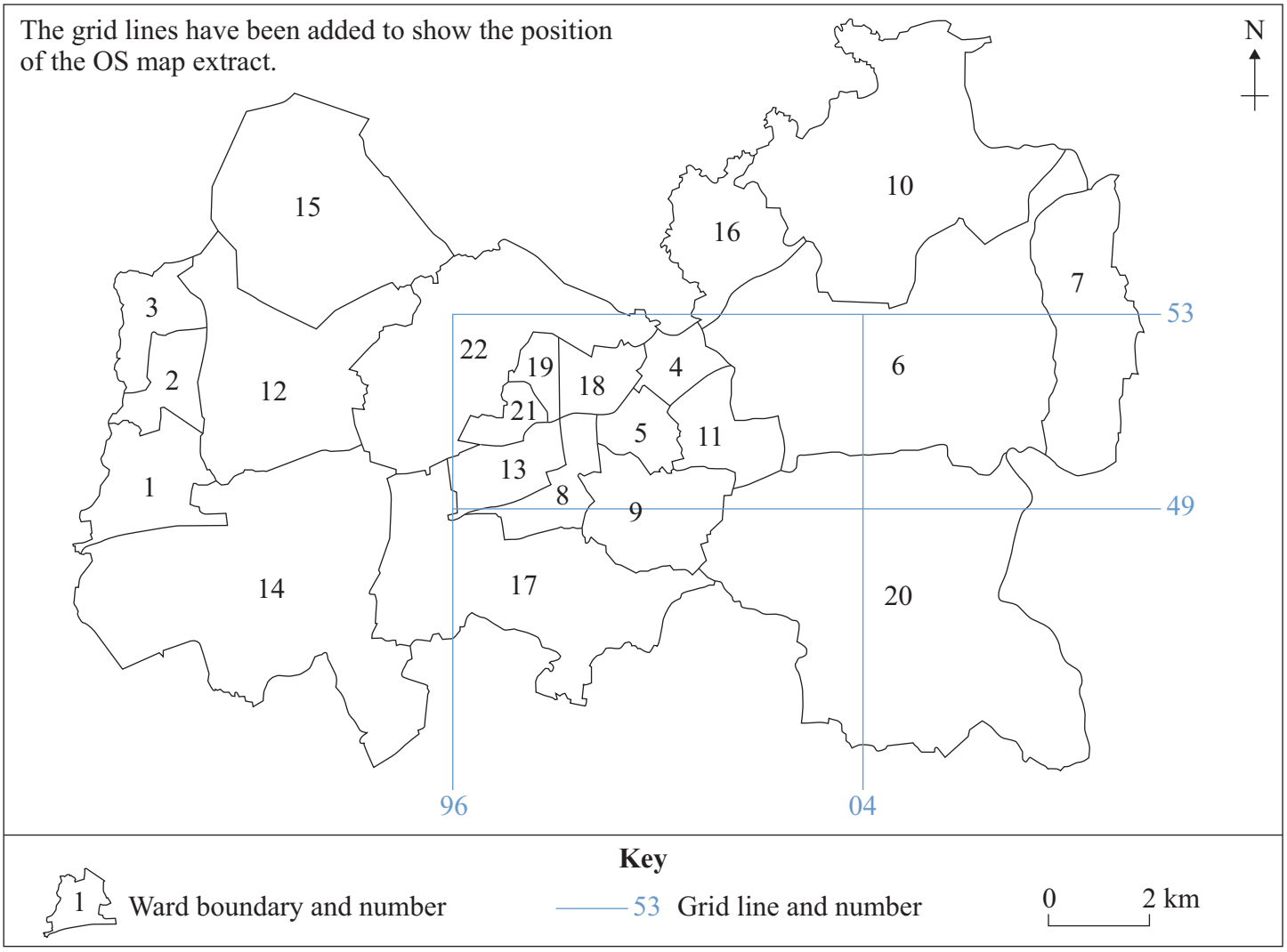
Figure P2

Population density in wards of Guildford Borough

Ward number on map	Ward	Population density (persons/ha)
1	Ash South and Tongham	12.95
2	Ash Vale	16.03
3	Ash Wharf	18.84
4	Burpham	22.57
5	Christchurch	17.97
6	Clandon and Horsley	2.50
7	Effingham	2.13
8	Friary and St Nicolas	22.90
9	Holy Trinity	9.75
10	Lovelace	1.02
11	Merrow	17.48
12	Normandy	1.82
13	Onslow	22.46
14	Pilgrims	0.78
15	Pirbright	2.22
16	Send	5.95
17	Shalford	2.60
18	Stoke	20.72
19	Stoughton	54.47
20	Tillingbourne	1.18
21	Westborough	53.53
22	Worplesdon	4.61

Figure P3

Ward boundaries in Guildford Borough



If the data in **Figure P2** is studied in conjunction with the Ordnance Survey map and the cycling map, **Figure P1**, it should be possible to identify areas of the Borough where population density is high and where access to public open space and to routes that are attractive and safe for cycling and walking is comparatively difficult. This will present certain issues to the councillors and planners of Guildford if they are to help people to meet targets for achieving greater fitness through taking part in more regular physical exercise.

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