

Code of Best Practice

on Mobile Phone Network Development



Acknowledgements

This Code was drawn up and agreed by representatives of the following organisations:

Central Government

Office of the Deputy Prime Minister

Department of Trade and Industry

Department for Education and Skills

Department of Health

Local Government

Local Government Association (and representatives of a number of Local Planning Authorities)

Mobile Phone Industry

Crown Castle UK Ltd

Federation of the Electronics Industry

Hutchison 3G UK

O2UK

O2 Airwave

Orange

T - Mobile

Vodafone

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Foreword

Modern telecommunications systems have a vital part to play in our national life and bring significant economic and social benefits. But it is essential that the infrastructure needed to underpin these systems is delivered sensitively, keeping the impact on the environment to a minimum.

Strategic planning, combined with proper discussion of and consultation on proposals for developing the telecommunications network, is central to this process. This requires operators, local authorities and local people working together in partnership to produce optimum solutions.

In August 2001, we introduced improved planning arrangements for telecommunications development. These included greater requirements for consulting local people, backed by tougher guidance in Planning Policy Guidance Note 8. The mobile phone network operators also published in 2001 their Ten Commitments to best siting practice for new development. A key objective is to improve dialogue and consultation with local communities in developing mobile phone networks.

This Code of Best Practice, produced jointly by representatives of central and local government and the mobile phone industry, builds on Government guidance and operators' commitments. It provides clear and practical advice to ensure the delivery of significantly better and more effective communication and consultation between operators, local authorities and local people. Standardised practice will promote greater consistency of approach and aid the transparency of the process for all concerned.

We attach great importance to securing good design in development generally. The Code's advice on good siting and design of telecommunications development will help to direct development to the most appropriate locations and to help minimise environmental impact and visual intrusion. This applies not just in environmentally sensitive areas but to all proposals for telecommunications development.

This Code replaces the version first produced in 1996. We are grateful to all those who contributed to it. We hope that everyone involved in planning for telecommunications development will familiarise themselves with it so that they can play their part in achieving its aims. This will be achieved if it is used on a day to day basis by all concerned. We shall monitor the operation of the Code and review it in the light of practical experience.

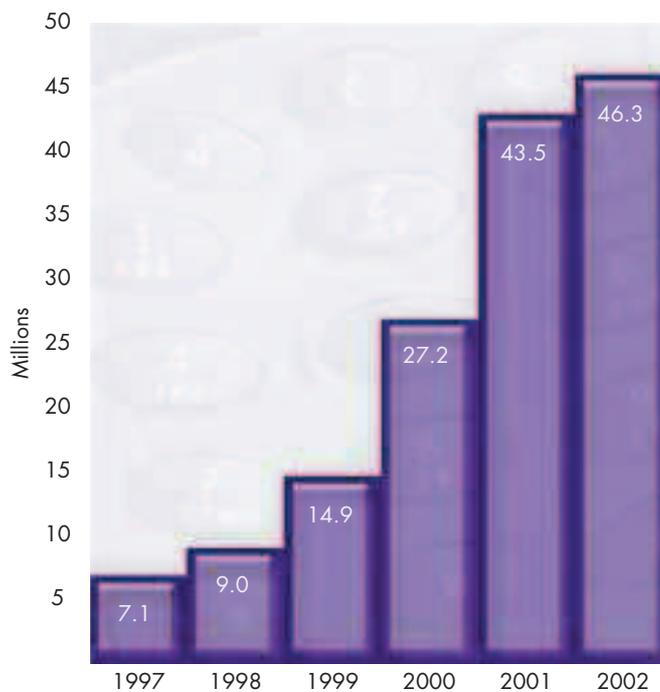




Background and purpose of the code

- 1 Modern telecommunications systems bring significant benefits to both people and businesses. Over 46 million people¹ in the UK use mobile phones for the convenience and accessibility they provide. They also allow the emergency services to be called immediately when they are needed. None of this could happen without the infrastructure that delivers the service.

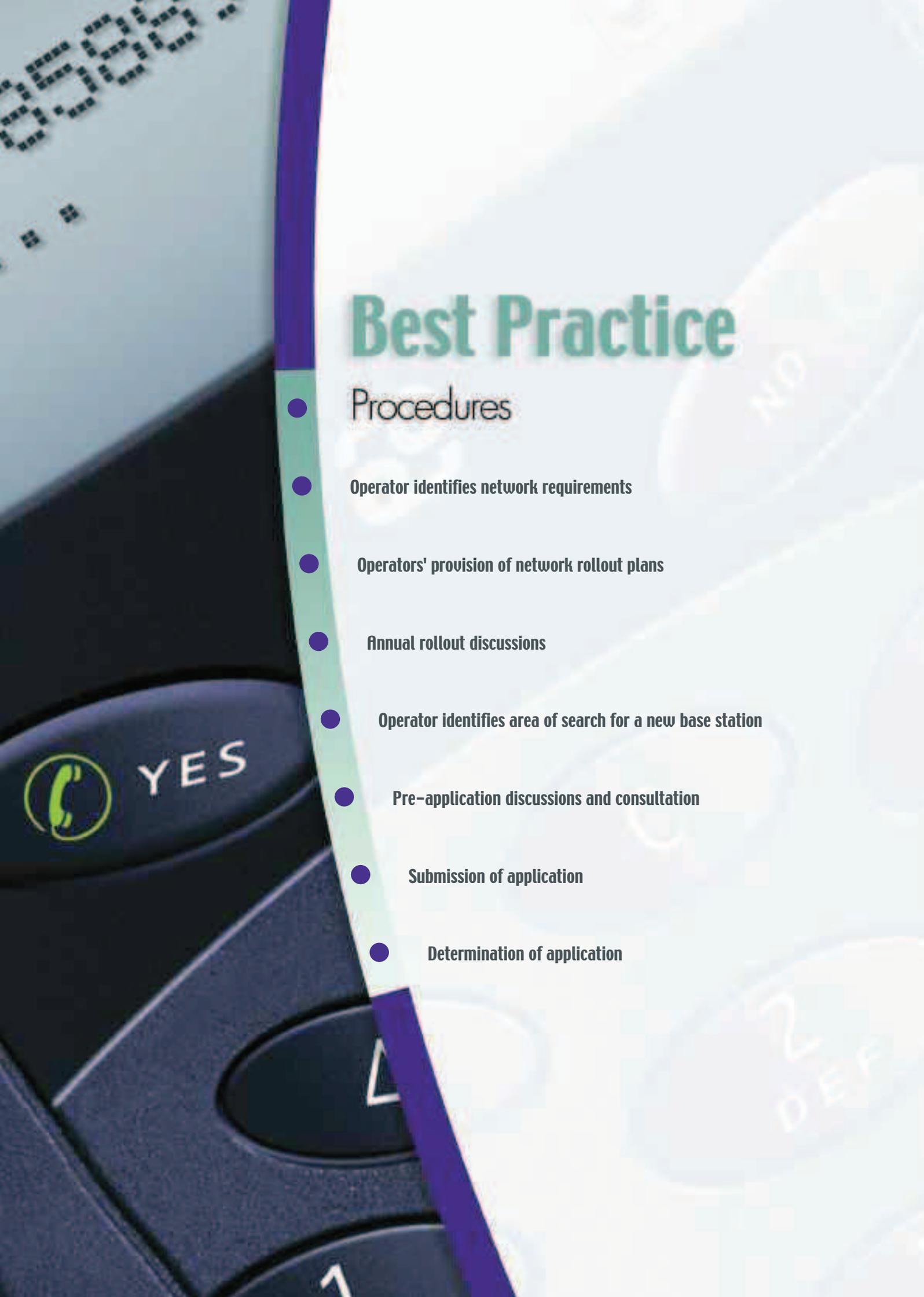
UK Mobile Phone Users 1997-2002 (March)



- 2 This infrastructure must be developed in a strategic way that minimises the impact on the environment and seeks to take into account the public's views. Achieving this is challenging and requires the mobile phone network operators, local authorities and local communities to work together in partnership. Proper and effective communications and consultation between these stakeholders is a fundamental aspect of this partnership.

¹ OFTEL Information Mobile Update published July 2002 - figures for January to March 2002.

- 3 In 1996 the then Department of the Environment and the Welsh Office, together with representatives from the telecommunication industry and central and local government, drew up the original Code of Best Practice. This aimed to: improve communication between the industry and local government; explain the technical aspects of the networks; and set out good practice for the speedy and effective consideration of applications for radio base station telecommunications development.
- 4 This revised Code brings best practice guidance up to date in light of the changes to the planning arrangements introduced in August 2001 in England. It also reflects the changing nature of telecommunications development design and the need for greater local community involvement and consultation in the siting of base stations. The National Assembly for Wales is preparing a separate revised Code.
- 5 The revised Code applies to all mast and antenna development (whether permitted development or otherwise) by mobile phone network operators in England. Other telecommunications operators are also encouraged to follow this guidance wherever applicable.
- 6 The main aims of the Code are to:
 - *encourage better communication and consultation at all stages of network development between operators, local authorities and local people;*
 - *standardise procedures and forms as far as possible in order to help achieve consistency and to aid operators, local authorities and local people;*
 - *explain the technical features of mobile systems; and*
 - *provide good practice guidance on the siting and design of telecommunications development.*
7. ***The Code is non-statutory and does not purport to give a definitive interpretation of the legal planning requirements, which is ultimately a matter for the courts.***



Best Practice

● Procedures

● Operator identifies network requirements

● Operators' provision of network rollout plans

● Annual rollout discussions

● Operator identifies area of search for a new base station

● Pre-application discussions and consultation

● Submission of application

● Determination of application

Best Practice

Procedures

- 8 The flow chart provided at Annex A sets out the main stages that take place in taking forward telecommunications development. The best practice advice that follows reflects each of those stages.

Operator identifies network requirements

- 9 An explanation of how a network operates can be found at Annex B.
- 10 Significant investment is required to acquire and build a radio base station site and operators will only undertake such investment if there is a real requirement for service. This requirement may be:

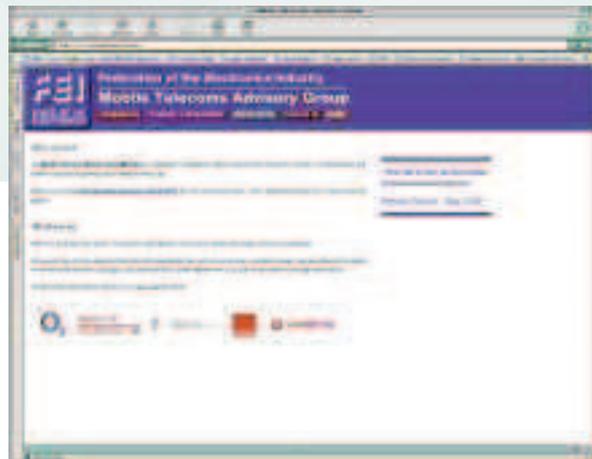
- To provide coverage;
- To provide capacity;
- To improve quality of service;
- To replace an existing site.

Operators' provision of network rollout plans

- 11 The operators have agreed to provide details of their network rollout for the year ahead to all local authorities on an annual basis. These details will be submitted during September and October each year. Where an operator has no plans for the foreseeable future they will advise the local authority.
- 12 The pre-rollout information should include the following:

- A plan showing the locations of the operator's existing sites and search areas or approximate locations of proposed sites for the year ahead, within the local authority area. The plan should also include sites just outside the local authority boundary.
- A schedule identifying existing sites with site name and reference number, address, including town and post code, grid reference and status (e.g. proposed, in planning, in build, operational).
- Where sites ("dots") in dense urban areas overlap and it is difficult to differentiate between them, an appropriate scale plan should be provided.
- A single point of contact who is responsible for co-ordinating the operator input to the discussions.

- 13 Information about the operators standard format and scale for the network plans is available on the industry website www.mobilemastinfo.com



- 14 The pre-rollout information is a forecast of future network development activity in each area. In some circumstances, such as where capacity demands on the network change following the submission of the plans, additional sites or variations to those shown on the plans may be needed. Where relevant, it may be helpful for operators to submit updated rollout plans.

Annual rollout discussions

- 15 These provide a valuable opportunity for operators to share information with local authorities about their rollout plans for the forthcoming year and for local authorities to provide feedback and general advice to the operators to help guide their thinking and plans. The idea is to provide a strategic overview rather than detailed analysis and advice, which can be given at the pre-application discussion stage.
- 16 Prior to discussions, local authorities may find it advantageous to compile all of the operators' annual rollout plans into a single plan for the whole administrative area, which clearly identifies where each operator has development interests. Some authorities have adopted this strategic approach and now use their overall plan to facilitate discussions and to ensure that operators work together where site search areas overlap.



- 17 Local authorities and operators may find the following pointers helpful in preparing for and carrying out annual rollout plan discussions.

Operators

- *Preferable to have a single point of contact for each operator.*
- *Preferable for all operators to attend the same meeting with the local authority. However, it can also be helpful to have the initial rollout meeting between the individual operator and the local authority in order to understand individual characteristics and nuances of rollout plans.*

Local Authorities

- *Preferable to have a single point of contact within the local authority that is responsible for co-ordinating their input into the discussions.*
- *Make available to operators any relevant information from the mast register (see paragraphs below) regarding suitable opportunities for mast or site share.*
- *Identify planning constraints e.g. National Parks, Green Belt, Areas of Outstanding Natural Beauty, Conservation Areas.*
- *Provide guidance on preferred locations and make comments on the operators' proposals for new sites where possible (local policies may frame this guidance).*

- Provide information about where different operators' site search areas overlap.
- Provide information about major development or infrastructure projects which are in the development plan and/or have planning permission.
- Provide information about major forthcoming national/international events that are being held in the area and would result in a significant increased demand for service (even for a temporary period).
- Make operators aware of the Council's policy towards telecommunications development on its own property and any protocols that are in place.
- Any other information that may be helpful – e.g. approaches to consultation, expectations regarding the involvement of local community groups etc.

Other matters

- The aim should be for the annual rollout meeting to be held as promptly as possible following the receipt of all the rollout plans from the operators to the local authority. Ideally it should be within two months.
- A pre-determined agenda for the meeting would be helpful.
- A written record of what was agreed at the meeting should be kept. This could take the form of an action list that is copied to all those present at the meeting.

18 Annual rollout meetings arranged and conducted in accordance with the above will help to ensure that clear and consistent advice is available to operators at a relatively early stage in their network planning. For local authorities, they provide an opportunity to guide and influence operators and also to establish at an early stage whether there are any workload implications resulting from the likely level of telecommunications development planned for the area over the coming year. The composite information provided by operators may also be useful in helping local authorities to look at the feasibility of matching operators' requirements with Council owned sites/buildings.

19 Composite rollout plans could be used to facilitate discussions with local stakeholders where sensitive local issues are apparent. Following the discussion, local authorities may wish to take the opportunity to make the composite plan publicly available.

20 The operators should take into account the local authority's comments where possible, in terms of any siting and design issues and local sensitivities. It is important that the operators fully brief any agents they may use on the response of the authority to the rollout plan.

Mast registers

21 Some local authorities are now developing GIS based mast registers, which contain detailed information relating to existing telecommunications sites. Mast registers can be a useful source of information in the context of annual roll out and/or pre-application discussions. They can also aid site sharing and provide information for the public regarding sites within a particular authority area.

22 Mast registers should consist of a simple, straightforward record of all licence notifications, prior approval and planning application decisions, including refusals, for telecommunications development. They should include, as a minimum, the following details:

- type of development
- location
- type of application
- date of decision.

- 23 The register should also be recorded spatially on a map base. Ideally, all the information should be available to be viewed electronically and in hard copy. Local authorities should ensure that the mast register is kept up to date and may make a reasonable charge if anybody wishes to obtain a copy of any of the information.
- 24 In addition to the local authority mast register, the Office of Communications (Ofcom) has made information available to the public about existing mobile phone base stations via their Sitefinder website www.ofcom.org.uk.



Operator identifies area of search for a new base station

- 25 The acquisition process begins with the operator specifying requirements for a new telecommunications development and identifying the search area. This will normally be based on the nominal grid reference given on the rollout plans. The size of the search area will depend on the nature of the area to be covered.
- 26 The operator will carry out a survey in order to identify all potential sites within the search area. Both the operator's database and the local authority's mast register should be interrogated for information about existing sites. Consideration should be given to their suitability for sharing in terms of specific location and height/nature of structure (see section on Mast Sharing). The operator will consider any relevant national and local policies (including where applicable the development plan) and their implications for the proposed location.
- 27 The operator should produce a report detailing all viable site options with recommendations on the relative merits of each site. The report should include a rating of each of these site options in line with the operators' Traffic Light Model for Public Consultation (see Annex D).
- 28 The operators have made a series of commitments designed to improve their practices and procedures. These are detailed in Annex C. Commitment One states that the operators should develop, with other stakeholders, clear standards and procedures to deliver significantly improved consultation with local communities. As a result of this the operators have devised the Traffic Light Model to enable them to rate a site according to likely sensitivities. The model combines elements of subjectivity and objectivity and is intended as a guide to the degree of consultation necessary. Once the rating has been determined, the Consultation Strategy is used to provide the alternatives available in respect of the level of public consultation that may be required to be carried out (see paragraph 38 for further information).
29. Before selecting a preferred site option in a search area the views of the local authority should be sought on the merits of the site and also the rating under the Traffic Light Model.
30. Based on the conclusions of the report, and the feedback from the local authority, one of the site options will be selected by the operator as the preferred one for that particular development.

Suitability of a site

31. Many factors, other than planning and environment, affect a location's suitability for use as a base station site. The main factors are:

- *Access.* In respect of ground based-masts, access for vehicles is required from a public highway. Initially, this is required during the construction stage and thereafter for routine and emergency maintenance and repairs. Agreement must be reached with site providers to designate and make available the land for this purpose and in some cases an access track will be constructed.
- *Electricity supply.* Sites need a reliable power supply. In remote rural areas new cabling may be required for a site from the nearest supply, which could be quite some distance away. The laying of power lines can be a major engineering project and may have considerable impacts on the environment.
- *Technical suitability.* Each site is developed to accomplish a certain task in the network e.g. providing coverage to an uncovered area, extra capacity to a busy area or bolstering current inadequate coverage. A site needs to be located such that it performs its required task. Less than optimum locations can result in additional sites being required.
- *Health and Safety.* The apparatus of all sites has to be maintained regularly and it is the operators' responsibility to ensure a safe working environment in line with national safety standards is provided for maintenance personnel. All sites must be designed to comply with national health and safety legislation and compliance with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) public exposure guidelines as expressed in the EU Council Recommendation of 12 July 1999.
- *Network Link.* All sites must be linked into the network, usually with the use of radio transmission dish antenna. These require a clear and unobstructed line of sight and, therefore, may impact on the height required in order to achieve this. Where this is not practicable, a land line may be used.
- *Agreement with property owner.* The operator must reach agreement with the owner before installing any equipment on their land or property.

Pre-application discussions and consultation

- 32 Pre-application discussions are important in helping to identify the most appropriate solution for any individual development.
- 33 The circumstances of each case and the level of consultation needed will usually differ depending on the location and type of development.

Pre-application discussion with the Local Authority

34 In progressing pre-application discussions with the local authority, the operator should provide:

- *An explanation of their needs in a particular area;*
- *Details of the location and type of telecommunications apparatus or structure intended to be constructed;*
- *Details of any other mobile phone systems on the building or site;*
- *The area of search and details of possible alternative options, where appropriate, which may include other methods of providing the required coverage;*
- *Design options for particular sites;*
- *The proposed Traffic Light Model rating for a proposed site and the proposed consultation strategy (see below).*

- 35 The local authority can then comment on the appropriateness of the siting and design of the proposals.
- 36 This exchange of information can take place in written form in the most straightforward of cases. However, it may be in the interests of all concerned, following the supply of the information by the operator, for a meeting and discussions to take place over the siting of the base station. This will give the opportunity for the local authority to outline any particular local sensitivities as well as giving operators the chance to indicate their operational requirements and the constraints within which they operate. The aim is to ensure that time is not wasted in abortive applications that may be unsuitable, and to guide development into locations that are suitable for the operator and appropriate in terms of their environmental impact and meet planning policy objectives.

Pre-application consultation with local residents

- 37 The changes to the planning arrangements in 2001 were made in order to improve local consultation in relation to telecommunications development proposals. In addition to the legislative requirements, the operators have a commitment to carry out consultation in accordance with the rating determined under the Traffic Light Model.

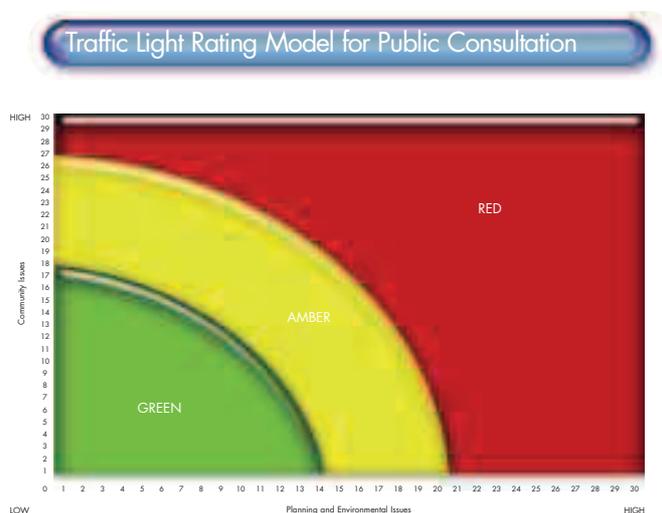
Traffic Light Model

- 38 The Traffic Light Model allows a site to be rated by the operator according to its likely sensitivity in terms of environmental, planning and community considerations. Depending on the rating a plan is devised that sets out the level of consultation.
- 39 The following four documents that comprise the process can be found at Annex D.

- *Site Selection and Planning Model – provides the strategic overview of the consultative approach by the operators;*
- *Traffic Light Rating Model for Public Consultation - a basic outline on how a site is rated;*
- *Guide to using Traffic Light Rating Model for Public Consultation - provides details on rating a site;*
- *Consultation Strategy - sets out the various stages of consultation.*

- 40 Essentially, the Traffic Light Model, together with the Guide, can be used to determine the rating of a site as green, amber or red. The Model operates along two axes - Planning and Environmental issues (horizontal) and Community issues (vertical). The document provides an outline of the model and the Guide provides further details on how this is carried out.

- 41 During the search for all viable site options, each option should be given a rating by the operator (Stage 2.A.1 of the Site Selection and Planning Model).
- 42 During the pre-application discussions, the local authority's opinion should be sought on all options including their respective ratings. During these discussions the authority should identify any issues that may warrant changing the ratings. Following discussion, consideration should be given to amending the rating (Stage 2.A.2).



- 43** As a result of these discussions, a preferred option should be selected based on the technical needs of the operator, the authority's comments and the rating. It is preferable for both parties to agree this option as well as its rating but this may not always be possible (Stage 2.A.3).
- 44** The operator should draw up a consultation plan detailing the methods to be employed together with who is to be consulted and in what manner. It is recommended that the local authority provide an input into the consultation plan, ideally at a pre-application meeting so that the consultation is directed and therefore effective.
- 45** The operators' Consultation Strategy sets out the level of consultation required for a site depending on its rating. Under the Traffic Light Model, if a site is rated green then generally the statutory consultation is deemed to be sufficient. If the site is rated amber or red, the operator should as a minimum send letters to the Parish Council and Ward Councillors. A minimum period of fourteen days should be allowed for comments to be made on the proposals. In the letter details of the preferred option, possible alternatives (if there are any) together with options considered and rejected should be given.
- 46** There are a number of additional consultation tasks that could be undertaken by the operator depending on the characteristics of a site:

- *Letter mail shot;*
- *Erect voluntary site notice;*
- *Informal, drop in session;*
- *Key stakeholder briefing session;*
- *Leaflets;*
- *Public notice placed in local press.*



- 47** The operator should consider on a case by case basis whether these additional consultation methods should be employed.
- 48** Following consultation the operator should consider whether it would be appropriate to inform the consultees of the decision and explain the reasons for the decision.

Members' Code of Conduct

- 49** Elected members who are consulted by an operator about a proposal for telecommunications development should be guided by the national Members Code of Conduct and also any local Code that may be in operation (now usually forming part of the Council's Constitution).

Probity in Planning

- 50** Councillors and officers have different but complementary roles. Both serve the public but councillors are representatives of the electorate, whilst officers are employed in a professional capacity by the council.
- 51** Councillors and officers are required to abide by national and local codes of conduct, which form part of an ethical framework for local government as introduced by Part III of the Local Government Act 2000.

- 52 Whilst discussions between an operator and a council prior to the submission of an application for telecommunications development can be of considerable benefit to both parties it would be easy for such discussions to become, or be seen, particularly by objectors, as part of a lobbying process on the part of the applicant.
- 53 In order to avoid such perceptions pre-application discussions should take place within clear guidelines. Although the term 'pre-application' has been used, the same considerations should apply to any discussions in relation to telecommunications development that take place before a decision is taken. Further guidance can be found in the LGA publication "probity in planning (update) – the role of councillors and officers" (2002).

Consultation with Schools and Further Education (FE) Colleges

- 54 PPG8 makes clear that, where it is proposed to install, alter or replace a mobile phone base station on or near a school or college, operators should discuss the proposed development with the relevant body of the school or college of further education concerned before submitting an application for planning permission or prior approval to the local authority. Operators should therefore carry out a specific pre-application consultation exercise with schools and colleges. This will give them the opportunity to feed in their comments and concerns and to have them considered by the operators at an early stage.
- 55 Operators should discuss and agree with local authorities in advance which particular schools and colleges should be consulted. In any cases of doubt, consultation with the school or college should be undertaken. The following guidelines may be of help in determining which schools or colleges should be consulted.
- 56 A **school** is an institution providing education for children within the nursery (2-5), primary (5-11), and secondary (11-16) education ranges. Schools can be maintained (i.e. funded by Government through local education authorities) or non-maintained/independent (i.e. funded and run by other means).
- 57 A **college of further education** is an institution providing full- or part-time education for students over the age of 16. This includes sixth form colleges (16-19). Institutions may be maintained by a local education authority, a further education corporation (e.g. the institution's governing body) or be an institution designated under section 28 of the Further and Higher Education Act 1992.
- 58 Where school or college playing fields are separate from the institutions themselves the guidelines should be applied to the playing fields separately.
- 59 There are no hard and fast rules for determining whether a base station is near a school or college for the purposes of pre-application consultation. The institutions concerned need to be considered on a case-by-case basis in the light of local circumstances.
- 60 In determining whether a school or college should be consulted the following factors should be taken into account by operators and local planning authorities:

- *the proposed site is on school/college grounds;*
- *the proposed development would be seen from the school/college or its grounds;*
- *the site is on a main access point used by pupils/students to the school/college;*
- *there is a history of concern about base stations within the local community;*
- *the local planning authority has requested consultation with the school/college;*
- *the school/college has requested that it be included in any consultation (DfES has advised schools and colleges that if they wish to be consulted about base stations in their locality they should notify the local planning authority setting out the circumstances in which they would wish to be consulted).*

61 For consultation purposes the following actions should take place as a minimum:

- *Two copies of the standard letter (Annex E) should be sent recorded delivery to the school/ college, one to the head teacher (or Principal in the case of Further Education Colleges) and one to the chair of school governors or equivalent body for FE colleges.*
- *The operator should wait a minimum of 14 days from receipt of the letter to allow an opportunity for the school to respond prior to submitting an application for planning permission or prior approval.*

Site File Records

62 To ensure a complete record of the consultation process is kept, a copy of the completed consultation assessment and any consultations with the school/college should be retained on the operator's site files. This will ensure accurate records that can be referred back to in discussions with the local authority in respect of any subsequent planning submission. Copies of the consultations undertaken should be included with any subsequent application if required by the local authority.

Consultation with other interested parties

63 Operators should consider on a case by case basis whether pre-application consultation would be useful with other interested groups, such as local amenity groups, National Park societies etc.

Submission of application

64 Telecommunications development will normally fall into one of three categories:

- *Permitted development.*
- *Permitted development that requires prior approval.*
- *Development that requires an application for planning permission and/or listed building consent.*

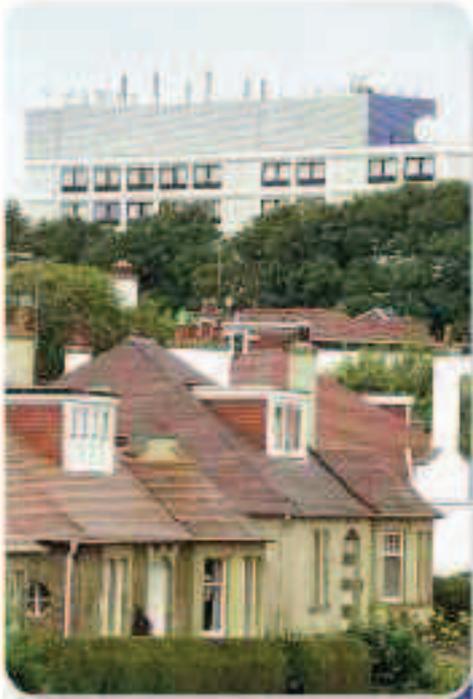
65 As the information required by a local authority is broadly the same as for an application for prior approval and for planning permission these are treated the same for the purposes of best practice.

Permitted Development

66 It should be noted that not all permitted development requires prior approval. This can range in some cases from the installation of additional antennas on an existing radio mast, to the development of a whole base station on a building, including equipment cabinets less than 2.5 cubic metres in volume and a set of antennas.

67 Historically, there was a condition requiring the operator to give the local authority written notice (normally 28 days) before installing any telecommunications apparatus that did not require prior approval or planning permission. This process was known as the 'licence notification'.

68 There is no longer a statutory requirement to carry out 'licence notifications'. However, best practice suggests that operators should continue to notify the local authority of the installation of mobile phone antennas.



Antennas on a building roof

Development that requires an application for prior approval or planning permission

- 69** The quality of information submitted as part of an application for telecommunications development is very important. It should always be clear and complete. Good quality submissions can help explain to local people and consultees as well as officers and elected members exactly what is being proposed and its likely impact. By adopting high standards unnecessary time and effort in trying to explain proposals can be avoided and help allay concerns that ambiguous and incomplete information can cause. In addition, good quality submissions are likely to result in speedier and better informed decisions. Commitment Ten of the operators' Commitments to best siting practice is to develop standard supporting documentation for all planning submissions whether for planning permission or prior approval.
- 70** By adhering to the guidance set out below, operators will be able to achieve the quality of submissions that this Code is seeking to deliver.

Drawings

- 71** **Site Location Plan** – (minimum scale 1:2500 although within primarily rural areas a scale up to 1:50000 may be appropriate). Should show:

- *general location of the site within the area clearly outlined in red;*
- *the position of buildings within 100m of the site;*
- *at least two public highways for reference where feasible.*

- 72** **Site Layout Plan** – (minimum scale 1:500). Should show:

- *the boundaries of the site;*
- *the position of existing and proposed equipment including all antennas and radio equipment housing as well as ownership by individual operator;*
- *any means of enclosure;*
- *the position of any adjoining buildings and/or trees;*
- *any landscaping proposals;*
- *the means of access.*

- 73** A clear differentiation between existing and proposed equipment should be made. If this cannot be achieved separate drawings should be submitted.



Lattice mast in the Lake District that uses trees as screening

74 Elevations – (minimum scale 1:100). Should show:

- details of height, width, materials and external appearance of the equipment and any radio equipment housing. Also any colour proposals;
- similar details of any structure and/or buildings to which the equipment will be attached;
- details of any equipment that is to be removed (if applicable);
- any adjacent buildings, trees, safety/ security fencing or other telecommunications equipment.

Equipment on buildings

75 Where proposals relate to the installation of equipment on buildings the following additional plans may be required:

76 Roof Plan – (appropriate scale e.g. 1:100). Should show:

- the whole roof of the building;
- details of existing and proposed equipment including all antennas, radio equipment housing, access platforms and air conditioning plant.

77 Existing and Proposed Cross sections. This should be provided where proposed equipment is partially hidden in the elevations by other existing equipment or roof structures.

Maps

78 An O.S. base map to an appropriate scale (usually 1:25,000) showing the cell centre and existing sites within the cell and also the location of adjoining cells and sites.

79 An O.S. base map to an appropriate scale (usually 1:50,000 or 1:25,000) highlighting all alternatives that have been considered. This should focus on existing masts and structures and include all alternatives detailed in Section 6 of the Supplementary Information Template (Annex F).

Notifications

80 GPDO applications for prior approval. Evidence that the Developer's Notice was served before the application was submitted should be provided.

81 Applications for planning permission. Evidence should be provided that the owner or agricultural tenant of the land to which the application relates, has been notified of the proposed development.

Supplementary Information (Annex F)

82 The following additional information should be provided:

- *Site details – name, reference and location of proposal with reference to address and National Grid Reference;*
- *Site type (macro or micro);*
- *Confirmation of whether the local authority's mast register and/or the industry site database was checked for suitable sites;*
- *Details of annual-rollout and pre-application discussions with the local authority;*
- *Rating of site under Traffic Light Model (Green, Amber or Red);*
- *Details of consultation carried out under the Ten Commitments (if relevant);*
- *Details of consultation carried out with the particular school or further education college (if relevant);*
- *Details of consultation carried out with CAA/Secretary State for Defence/Aerodrome operator (if relevant);*
- *Area of search;*
- *Details of the proposed structure including the type of structure and its dimensions, height of existing building and details of the size of the equipment housing and materials;*
- *A statement explaining the reasons for the choice of design;*
- *Technical Information including the frequency, modulation characteristics, power output and height of the proposed antenna;*
- *Technical Justification – details about the purpose of the site and why the particular development is required;*
- *Details of alternative sites rejected with a justification for rejecting them. This should include existing masts, structures and other buildings within the search area;*
- *An explanation if no alternatives considered;*
- *Any other relevant additional information;*
- *Name and postal address of applicant and/or agent as well as their e-mail address, fax and telephone contact number.*

Declaration of Conformity with ICNIRP Public Exposure Guidelines

- 83** All applications for planning permission or prior approval should be accompanied by a signed declaration that the equipment and installation has been designed to be in full compliance with the requirements of the radio frequency (RF) public exposure guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). An example of the ICNIRP declaration of conformity is shown at Annex G.
- 84** The ICNIRP public exposure guidelines have been taken as the numerical basis for the EU Council recommendation of 12 July 1999 (Reference 1999/519/EC) "on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)".
- 85** Compliance with the ICNIRP public exposure guidelines is normally determined by mathematical calculation, and implemented by careful location of antennas, access restrictions and/or barriers and signage as necessary. Operators shall ensure that members of the public cannot unknowingly enter areas close to the antennas where exposure may exceed the guidelines.

- 86 The calculation of the RF field produced by an antenna should be based on recognised, standard methods. Examples of the calculation methods that can be used are defined in CENELEC EN 50383 "Basic Standard for the calculation and measurement of electromagnetic field strength and SAR related to human exposure from radio transmitters".
- 87 The emissions from all mobile phone network operators' equipment on the site is taken into account when determining compliance.
- 88 In order to minimise interference within their own networks and with other radio networks and cellular networks, operators will operate their networks in such a way that radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.

Further Information (to be provided where applicable)

- 89 A Visual Impact Assessment – This should consist of a before and after photomontage of the radio base station, fencing, landscaping and access (where applicable).
- 90 Acoustic report – Where a proposed installation involves equipment that may generate noise (e.g. air conditioning equipment) and it is situated close to residential buildings, the local authority may ask for an acoustic report so that they can assess the likely noise and disturbance to the occupiers. A specification report from the equipment manufacturers may be sufficient.

General

- 91 Plans should be provided on separate sheets and be no smaller than A4 size.
- 92 At least four copies of the application form, drawings, plans and Standard Supplementary Information Template should be provided.

Determination of the application

- 93 Under the prior approval regime a local authority has 56 days beginning with the date on which it receives a valid application, in which to make and notify its determination on whether prior approval is required to siting and appearance and to notify the applicant of the decision to give or refuse such approval. There is no power to extend the 56-day period. If no decision is made, or the local authority fails to notify the developer of its decision within the 56 days, permission is deemed to have been granted.
- 94 The introduction and observance of this Code by operators and authorities alike should assist in processing prior approval applications within the time period allowed. Earlier sections in the Code draw attention to the need for the inclusion of clear and up to date policies on telecommunications in any statutory plans, and the importance of early discussions with operators before formal submission of proposals. Also, the use of standard forms and notices (see Annex H) should help to streamline the process of dealing with prior approval applications. Where authorities require changes to siting and/or appearance with the aim of protecting amenity early contact and, where appropriate, negotiation with the operator will clearly be important.
- 95 In responding to applications for a prior approval determination, authorities may wish to take into account the advice offered in the following paragraphs.

Timescales

- 96** The 56-day period starts on the date of receipt of a valid application by the local authority. The period finishes on the day of the receipt by the applicant of a decision or, if no decision has been made, when 56 days from receipt of a valid application by the local authority has elapsed.
- 97** Local authorities therefore need to ensure that they have in place robust administrative systems for dealing with prior approval applications which include an element of contingency. This is particularly important at the beginning and end of the process.
- 98** Local authorities may wish to adopt quality assurance principles in designing suitable administrative arrangements.
- 99** At the beginning of the process, registration needs to be completed within a matter of a few working days. This includes checking whether the submission is valid (i.e. the minimum requirements as set out in the GPDO have been met), identification of consultation and publicity requirements (including for parish and town councils) and setting these in motion, plus allocating the file to a named officer. A standard checklist may be a useful means of ensuring that all the above tasks are completed.
- 100** At this early stage it is advisable that the number of working days actually available within the 56-day period is calculated and is communicated to all relevant staff.
- 101** The priority to be given to prior approval applications should be carefully considered so that the authority ensures it always makes a decision within the allotted time and avoids permission being granted by “default”.
- 102** It is not sufficient for a local authority to have made a decision within 56 days for the requirements of the legislation to have been met. It is the receipt of that decision (in the form of a valid legal notice) by the applicants that constitutes compliance. Reliable and verifiable means need to be used to ensure that there is no room for doubt regarding when an applicant received a decision. The responsibility rests with the local authority to decide what means it uses for ensuring that the applicant receives a valid decision within the 56-day period.

Maladministration

- 103** A “deemed approval” arising from an inability of a local authority to make a decision and notify within the 56-day period where they have decided that prior approval is required for the siting and/or appearance of the development may constitute maladministration.

Delegation

- 104** The 56-day period may make it difficult for authorities to use the committee system in determining prior approval applications and therefore effective arrangements to delegate decision making to officers may be needed.
- 105** The term “delegation” here means a chief officer or other senior officer taking executive action on behalf of the Council to determine –

- *whether or not prior approval is required;*
- *whether to give or refuse approval where it is decided that a prior approval application is required;*
- *planning applications for telecommunications development.*

- 106** Delegation is a discretionary power. It is not a process that will change the outcome of an application or a transfer of power from elected members to officers.
- 107** From time to time proposals for telecommunications development (prior approval and/or planning applications) are controversial and/or sensitive. The local authority should consider whether in such circumstances elected members should make the decision (within the time allowed). Members can add particular value to the process through balancing the conflicting pressures of difficult proposals.
- 108** Discussions on prior approval and planning applications by planning committees should always be held in public. In the interests of making decision making more open, transparent and accountable, local authorities should provide the opportunity for stakeholders - the public, operators and others to speak at planning committee meetings.

Publicity

- 109** Additional publicity for prior approval applications should be considered in order that people likely to be affected by the proposed development can make their views known to the authority.
- 110** Where local authorities consider additional publicity with respect to prior approval applications may be helpful they should give due consideration to:

- *The relevance and amount of information to be made available;*
- *The timeliness of providing this information;*
- *Access to this information;*
- *Any special needs of the local community;*
- *Allowing sufficient time for any comments received to be evaluated.*

- 111** PPG8 makes clear that, where an application has been submitted to install, alter or replace a mobile phone base station on or near a school, local authorities should consult the relevant body of the school or college of further education concerned. See earlier best practice guidance about which school or college should be consulted.

Specialist advice

- 112** Certain aspects of telecommunications development (whether in relation to prior approval or planning applications) are complex and the expertise required to verify whether or not certain technical constraints/ arguments are valid is unlikely to be held within a local authority. In these circumstances (which are likely to be rare) a local authority should seek outside help.
- 113** A decision on whether or not an "expert opinion" is required should be made as early as possible. Before going ahead with employing specialist advice, a local authority also needs to be clear about the exact nature of the problem it is dealing with so that the scope of the advice received is sufficiently focussed to be of benefit.

Training

- 114** Given the continuing scale and pace of change in the telecommunications industry it is important that all who are involved in the planning aspects, including agents and consultants, keep up to date with legislation and the latest guidance and technological advances so that at all times the public receive the highest quality of advice.
- 115** It is recognised good practice that councils should ensure that their members receive training on the planning process when first serving on the planning committee as well as being updated regularly on changes to legislation or procedures. This is particularly relevant in the case of telecommunications development.
- 116** Local authority officers may benefit from training as part of a Continuous Professional Development (CPD) requirement and also as part of a personal development plan arising out of a staff appraisal scheme and the commitment that many authorities have made to Investors in People (IiP).
- 117** Commitment Four of the operators' Commitments is to establish professional development workshops on technological developments within telecommunications for local authority officers and elected members. A number of successful workshops have already been held across the country. This is an ongoing programme. Local authority officers and/or members are encouraged to take up the opportunity that these workshops offer or make alternative arrangements.
- 118** The wide use of this Code should serve to raise the threshold of understanding of telecommunications development in planning authorities generally.
- 119** There may be merit, where resources allow, in having a particular officer designated to deal with telecommunications matters. This officer can keep abreast of developments and advise staff dealing with individual applications on the relevant legislation and on technical and other related areas. However, authorities should bear in mind that this approach could cause difficulties if, for example, the officer in question was on leave or moved to another authority.



Best Practice

Siting and Design

- **General principles for telecommunications development**

- **Mast and site sharing**

- **Installation on existing buildings and structures**

- **Camouflaging and disguising equipment**

- **Using small scale equipment**

- **Erecting new ground based masts**

- **Area guidance**

Best Practice

Siting and Design

- 120** Current planning guidance on the importance of securing good design in proposed developments is set out in Planning Policy Guidance note 1 (PPG1). Applicants should take account of the need for good design. Local authorities are encouraged to reject poor design. PPG8 also emphasises the importance of good design in relation to telecommunications development.
- 121** To spread good practice, in 2000, DTLR with the Commission for Architecture and the Built Environment (CABE) published 'By Design'. This guide looks at the tools local authorities have to help deliver better design and how to use them effectively.
- 122** "By Design" makes it clear that the fundamental urban design principles of a scheme should not be relegated for later consideration. They must be acceptable at the time any consent is granted. Key recommendations of "By Design" that are relevant to mobile phone mast development are:
- *Considerations of design and layout must be informed by the context, having regard not just to any immediate neighbouring buildings but the townscape and landscape of the wider locality. The local pattern of streets and spaces, building traditions, materials and ecology should all help to determine the character and identity of a development.*
 - *The scale, massing and height of proposed development should be considered in relation to that of adjoining buildings; the topography; the general pattern of heights in the area; and views, vistas and landmarks.*

General principles for telecommunications development

- 123** The Government's general policy on telecommunications development is to facilitate the growth of efficient and effective telecommunication systems whilst keeping the environmental impact of such development to a minimum. The siting and design of telecommunications equipment, if undertaken with care and sensitivity, will be vital in achieving this policy aim. Good siting and design should not only be respected in environmentally sensitive areas but also be applied to all telecommunications development. In all circumstances, the sensitivity to context of the proposed development should be considered.



Antennas on a building



Lamp post microcell



Ornate lamp post microcell

124 Operators should seek the local authority's advice and consult with local people on individual design proposals at the pre-application stage.

125 In particular, the following general design principles should be regarded as important considerations in respect of telecommunications development:

- *Proper assessment of the character of the area concerned. This can protect and enhance positive features which contribute to the sense of the place. It can also identify poor quality elements and seek out opportunities to achieve discernible improvements in these cases. A Landscape Character Assessment may be useful;*
- *Design should be holistic and three dimensional showing an appreciation of context;*
- *Analysis of the near and far views of the proposal and to what extent these will be experienced by the public and any residents;*
- *Proposals should respect views in relation to existing landmarks and distant vistas;*
- *Proposals should seek to preserve the skyline and any roofscapes visible from streets and spaces;*
- *Choice of sustainable materials in the construction of the development; and*
- *Choice of complementary designs, materials and colours to produce a harmonious development and to minimise contrast between equipment and its surroundings.*

126 The options for the design used by an operator will be affected by site conditions, technical constraints, landscape features and capacity requirements. The main options would include:

- *Mast and/or site sharing;*
- *Installation on existing buildings and structures;*
- *Camouflaging or disguising equipment;*
- *Using small scale equipment;*
- *Erecting new ground based masts.*

Mast and site sharing

- 127** It has been a longstanding Government policy objective to encourage telecommunications operators, wherever practicable, to share masts and sites as a means of reducing overall mast numbers.
- 128** Commitment Three of the operators' Ten Commitments is to publish clear, transparent and accountable criteria and cross-industry agreement on site sharing, against which progress will be published regularly. On 31 March 2001 the operators entered into a new service level agreement, committing themselves to sharing sites wherever practicable. A national site share database has been established by the operators and a dedicated cross operator working group meets regularly to enhance criteria and procedures. The operators provide Communities and Local Government with quarterly site share figures.



Two operators site sharing





129 There are a number of infrastructure providers who between them own or control several thousand installations or buildings available for sharing.

130 Whilst mast sharing should always be considered, it should be borne in mind that mast sharing may not be the optimum solution in all cases. Masts with several systems can, in certain cases, look quite ungainly and unsightly, which could lead to increased visual intrusion. Other constraints on mast sharing could include:

- **Coverage problems.** *The existing mast may be poorly located or not have the sufficient height to give the required coverage;*
- **Radio interference.** *Antennas need a set amount of vertical separation. This could lead to the visual impact of the mast significantly increasing;*
- **Structural loading.** *The existing mast may not be able to safely hold extra equipment. The existing masts may need to be strengthened or replaced with a bigger structure with a consequent effect on visual amenity.*

131 In cases where the overall mast size increases as a result of mast sharing, local authorities will need to determine whether this outcome is preferable to a completely new site or site sharing.

132 Often, a viable alternative to mast sharing is site sharing/co-location. This is where more than one mast is placed in close proximity on a single site. However, a proliferation of masts near to one another could cause greater visual intrusion so it is vital that the masts are designed sensitively in order to reduce their cumulative visual impact. One way of doing this is to make the masts appear as a single group. Proper assessment of individual sites and consideration of the local landscape will be needed to identify any problems that may arise. Operators will want to explore ways of overcoming these issues before submitting applications to the local authority.

Opposite: Two operators site sharing
Centre (main picture): Site and Mast sharing by many telecommunications operators.

Installation on existing buildings and structures

133 The use of existing buildings and structures by the operators as sites for the installation of their telecommunications equipment is an established measure which has greatly helped to reduce the environmental impact of their networks. Examples of buildings which may be used include:

- Office blocks
- Churches
- Water towers
- Floodlighting towers
- Electricity pylons
- Chimneys
- Broadcast masts

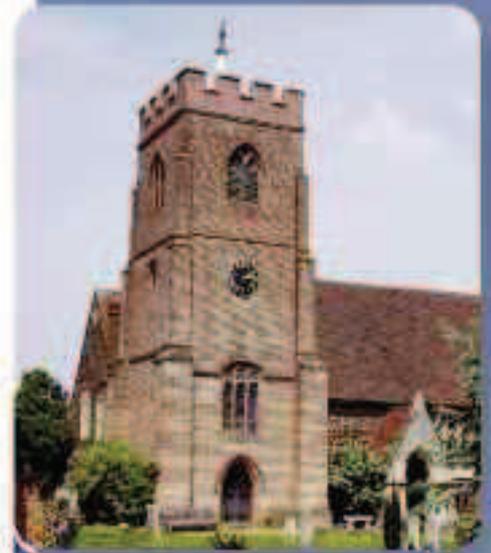
134 Operators will need to bear in mind the height, scale and architectural style of the building or structure as this will have a significant influence on the design of the equipment used. Extra care will need to be taken when installing equipment on listed buildings or on structures and/or buildings located in areas of historic and architectural importance.

135 When placing equipment on buildings and/ or structures operators should aim for development to:

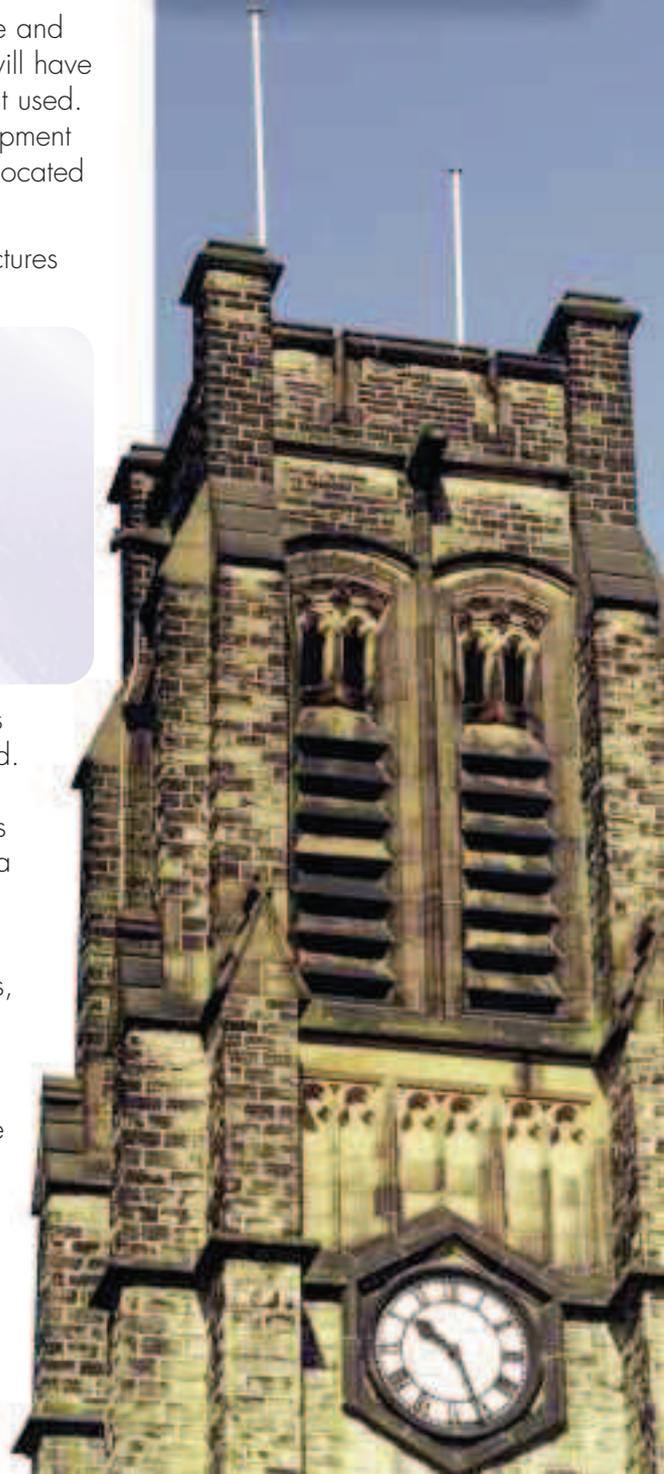
- Be painted to correspond with the background or to reduce contrast;
- Keep in proportion to the building or structure;
- Respect architectural style;
- Have minimal impact above the roof line;
- Not be detrimental to views and general skyline;
- Avoid creating clutter;
- Use clean lines and maintain symmetry.

136 It is important that the siting of equipment on buildings and structures does not come across as being ill-considered. Careful planning and placing of equipment to achieve symmetry and balance can help to overcome this. As with site sharing, making the equipment appear as a single group will help result in a more visually acceptable scheme.

137 In using existing building and structures, operators should bear in mind structural limitations that may restrict their use as potential sites. For example, many older buildings were not designed to take on the extra weight of telecommunications equipment. It is vital that operators discuss with the local authority any matters that could restrict siting options as a result of this type of consideration.



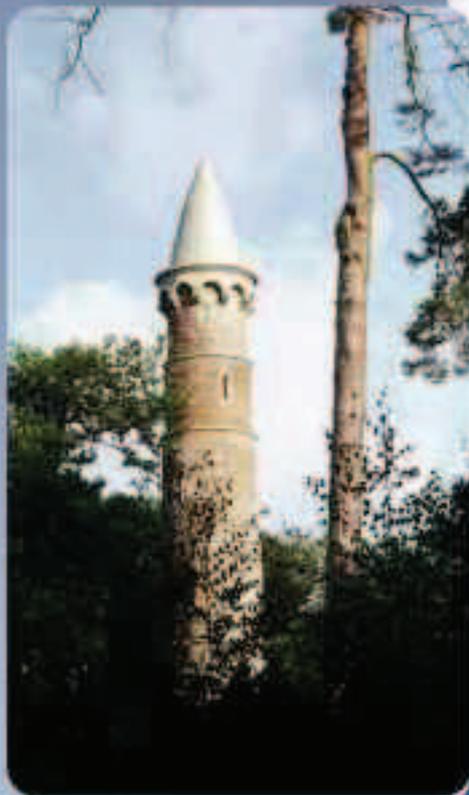
Antenna concealed in church weathervane



Left:
Antenna painted to reduce contrast



Flag pole antennas



Antenna installed inside folly



Antennas painted to reduce contrast

138 In order to facilitate the use of buildings and structures to site telecommunications equipment, local authorities may wish to encourage the designers of new buildings and structures to include a provision to this effect within their plans and designs. This may include space especially below the roofline for the siting of antenna and the use of Glass Reinforced Plastic, GRP, (see section on camouflaging and disguising equipment) which will enable antenna to be placed behind the facade of a building. Effective provision in this way will enable telecommunications equipment to be seen as integral to the building itself rather than “bolted on” as an afterthought.

139 Opportunities should be considered where dual benefits could be gained from the refurbishment of disused or derelict buildings or structures to house telecommunications equipment.



Above: Line of site dish on a gasometer



Left: Antennas on the roof of an office

Left: (main picture) Antenna disguised as flagpoles on the Church tower. A microwave dish is mounted behind the existing parapet wall of the tower. Equipment cabins are sited within the Church and feeder cables are internal to the building

Camouflaging and disguising equipment

140 In the last few years, operators have made great strides in developing their techniques for camouflaging and disguising their equipment. This can be seen in the newer, more modern masts which are frequently able to blend into their surroundings far more effectively in contrast to some of the older, larger, and often unsightly, first-generation masts. The innovative use of colours and shapes by operators have been successful in disguising equipment and this practice should be encouraged to continue wherever appropriate. The use of street furniture may also be suitable to disguise small antennas.

141 Larger antennas may also be effectively concealed by similar methods. These can include familiar features such as:

- *flagpoles*
- *street lamp posts*
- *signs*
- *church towers*

142 In addition, the use of GRP, which can be moulded into any shape and coloured appropriately, can be very useful in harmonising features into the landscape. It can, for example, be used to simulate masonry and stone features such as chimneys and plinths. It can also be disguised as wood and various forms of metal.

143 Which option to choose depends on the local conditions and factors as well as the sensitivity of the area. All of the options have the advantage of using existing features and as such avoid the need to create new and unnecessary forms of development. Local authorities are encouraged to explore with operators other possible structures within the locality on which antennas can be concealed in this way.

144 Another option is to use masts disguised as trees. However, their effectiveness can be lost if poorly sited or designed so it is important that they:

- *mix well with the existing local tree types;*
- *are placed with groups of other trees;*
- *are placed with newly planted trees.*

145 A more novel approach is to camouflage development by placing antennas in, or as part of, commissioned works of art. These can enhance the landscape or public areas particularly if based on a design chosen locally through the use of local artists or involvement of the local community or a combination of both in the design process.



Antennas concealed behind GRP shrouds that blend in with building details at Canary Wharf



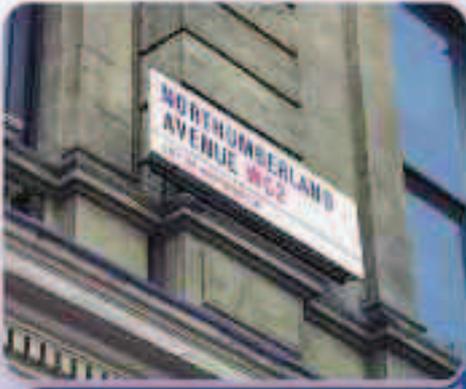
Antenna placed behind louvres in church tower.



Antenna in combination with local CCTV scheme



Antenna in combination with local CCTV scheme



Antenna concealed in street sign



Antenna concealed in GRP chimney pots close to York Minister



Antennas mounted on a tree

Using small scale equipment

146 As the demand for mobile phones has significantly risen in recent years, the operators have looked at ways of improving the coverage and increasing the capacity of their networks, particularly in urban areas. One way has been the development of microcells and picocells which give coverage over often very small areas such as individual streets and buildings. This kind of development is often regarded as de minimis and is inconspicuous by its very nature. The antennas for such cells will be very small and can be very effectively integrated into the streetscape. Examples include antennas concealed as security boxes on shop fronts, as street signs and on CCTV equipment.

147 Additional ways in which small scale antenna can be concealed include:

- *painting them to reduce contrast with their background;*
- *installing them in areas that are inconspicuous;*
- *keeping equipment to the minimum and as uncluttered as possible;*
- *avoiding contrast with or compromising architectural detail;*
- *concealing cable runs or exploiting architectural detail to minimise impact.*



Left: Antennas painted to match their background



Antenna colour matched with existing advertising signs



Antenna disguised as an endplate



Antenna installed on CCTV equipment



Microcell Antenna

Erecting new ground based masts

148 Taking into account all the options discussed in this section for effective siting and design, there will still be instances when there is no feasible alternative to a free standing ground based mast. However, this does not mean that the principles of good siting and design are any less important. There are many ways by which the environmental and visual impact of a ground-based mast can be greatly reduced. These include:

- *Placing a mast near to similar structures. For example, industrial and commercial premises, road signs, lamp posts;*
- *Placing a mast within an existing group of trees (this may also include planting new trees to help integrate it into the landscape). This option is obviously more successfully implemented in or near wooded areas. However, care should be taken to avoid the unnecessary loss of existing trees;*
- *Using simple and unfussy designs. Masts which have complex designs are more likely to dominate and be in discord with the landscape and have adverse visual impacts;*
- *Appropriate colouring. Masts seen against the sky, for example, are best left in their galvanised state or painted pale grey. Against a wooded backdrop a matt green or brown colour scheme would be more applicable.*

Design innovation by operators

149 If the impact of telecommunications development is to be minimised then it is essential that the telecommunications industry continues to develop innovative mast designs. The use of outside designers by operators will enable them to take on board fresh ideas. Operators are encouraged on a site by site basis to collaborate with each other in seeking new design initiatives. It would also be beneficial for operators to include the local authority and local community in the design process on a site by site basis.

150 The process for developing new designs for the network rollout programme involves input from many different internal teams - planning, acquisition, design and operations. The process for approving designs ensures that any new idea is practical, acceptable and robust to meet the needs of those involved or affected by the network rollout programme.



Monopole placed near to lamp posts



20 metre pole painted green



Trees used to screen the mast



Monopole painted green and grey



Telecommunications industry developing innovative mast designs

Area Guidance

151 Operators should bear in mind that there are certain locations where sensitive siting and design are of increased importance. These include:

- *Conservation Areas;*
- *scheduled ancient monuments and their settings;*
- *listed buildings and their settings;*
- *public open spaces.*

152 Operators should, as far as is practicable, try to avoid such areas. In doing so they may wish to consider certain locations which are more suitable for development. These include:

- *industrial areas;*
- *major road and rail traffic corridors;*
- *water and sewage facilities;*
- *tall structures such as pylons and floodlighting towers.*

Conservation Areas

153 For sites located within conservation areas particular attention needs to be paid to the siting and location of any apparatus. Special attention should be paid to the desirability of preserving and enhancing the special character and appearance of the conservation area. PPG 15 (Planning and the Historic Environment) (para 4.19) advises "If any proposed development would conflict with that objective, there will be a strong presumption against the grant of planning permission". Installations therefore need to be carefully located to ensure there is no adverse impact on the Conservation area or from sites that lie adjacent to a conservation area.

Listed Buildings

154 Both internal and external alterations normally require listed building consent. PPG 15 advises that whilst the listing of a building should not bar all future change, planning authorities are required to have "special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses" (para 3.3). It goes on to advise that applicants must justify their proposals and provide full information to the local authority to enable them to assess the likely impact on the building and its setting. In some cases a schedule of works may be required if there are proposed alterations relating to the interior of the building.

155 Overall, code operators should consult the relevant local authority at an early stage if any telecommunications installation involves a listed building or is to be located within a conservation area.



Antennas on an electricity pylon



Mast located in an industrial area





Site Share painted green



Electricity cable marker at Loch Lomond used to incorporate antennas



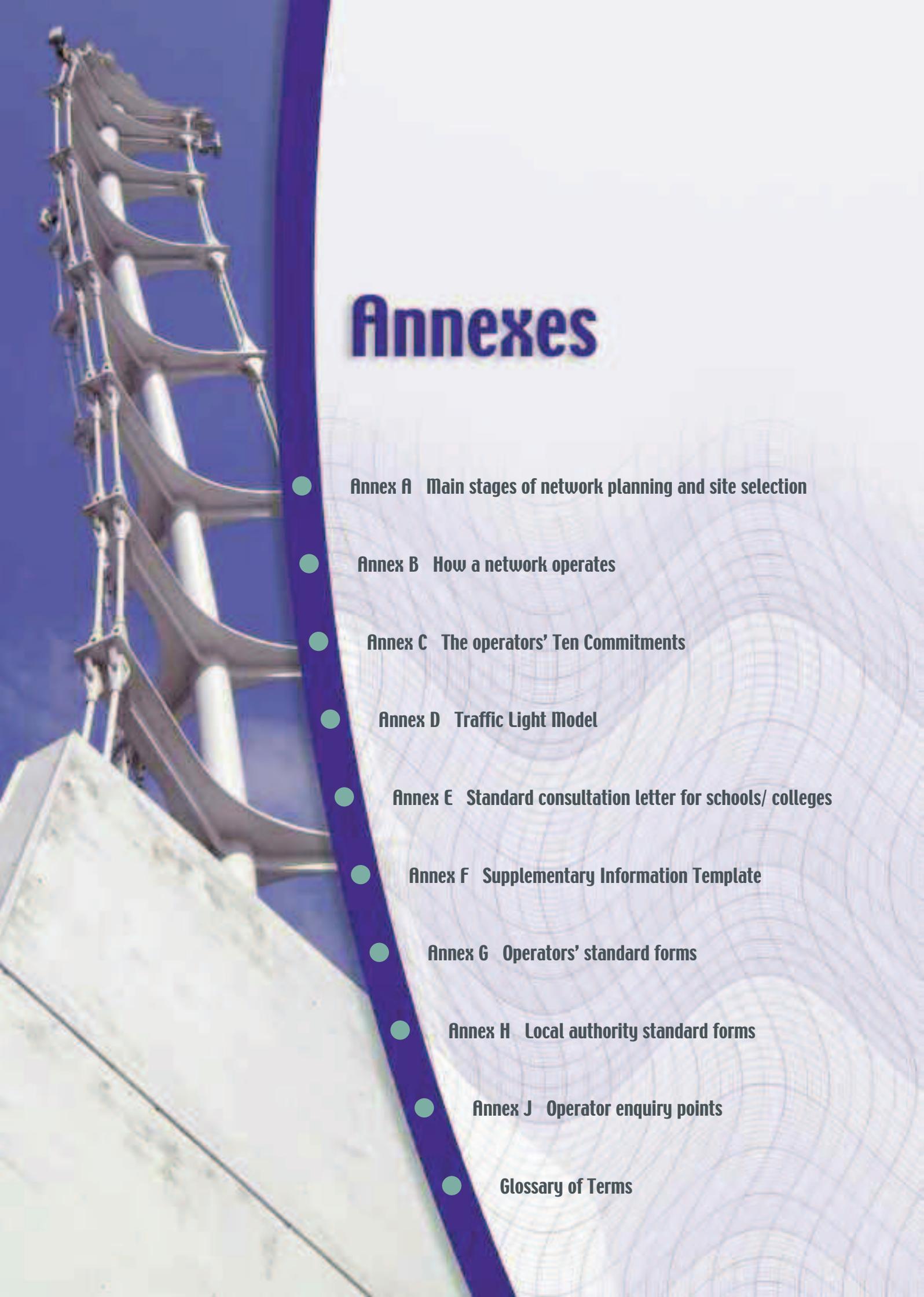
Monopole mast painted green with antennas

Rural Areas

- 156** Telecommunications development in rural areas raises a number of issues. While telecommunications networks can bring substantial benefits to both business and social users in rural areas, such development, if insensitively sited, can detract enormously from the natural landscape and setting. Advice on Sustainable Development in Rural Areas can be found in PPS7.
- 157** As advised in PPG8, designated rural areas such as National Parks and Areas of Outstanding Natural Beauty should be avoided if alternative locations are suitable. A strategic approach to the siting of equipment in these areas is particularly important. Necessary development in designated areas will need to be sited sensitively, avoiding particularly sensitive areas and designed to a very high standard taking into account the means by which equipment can be concealed and disguised (see section on camouflaging and disguising equipment).
- 158** In siting development in rural areas, operators should try to avoid prominent locations, especially those on or near sites popular with visitors. Visual impact can be minimised by using slim, simply shaped masts painted to blend in with the background.
- 159** Similar considerations should be given to development in Green Belts. Advice on development in Green Belts can be found in PPG2 (Green Belts). PPG8 'Telecommunications' also provides advice on environmental considerations in Green Belts. The primary aim of Green Belt designation is the protection of openness. Bulky or complex structures will have an adverse impact on such areas and should be avoided.
- 160** Use should be made, wherever possible, of existing structures in rural areas, such as farm buildings and pylons to limit the number of freestanding masts.

Left: (Main Picture)
 Antenna concealed behind new GRP clock faces
 Overleaf:
 Monopole mast painted green





Annexes

● **Annex A** Main stages of network planning and site selection

● **Annex B** How a network operates

● **Annex C** The operators' Ten Commitments

● **Annex D** Traffic Light Model

● **Annex E** Standard consultation letter for schools/ colleges

● **Annex F** Supplementary Information Template

● **Annex G** Operators' standard forms

● **Annex H** Local authority standard forms

● **Annex J** Operator enquiry points

● **Glossary of Terms**

Annex A – main stages of network planning and site selection

Network Planning

Operator identifies network requirements

Draft network plan prepared

Annual rollout discussions between operator and local authority

Finalise network plan

Site Selection

Area of search identified for new base station

Operator undertakes site search, including consideration of mast register, existing buildings and structures, plus planning siting and design issues

Site options identified and initial rating for each applied against site selection and planning model – traffic light model for public consultation

Planning authority consulted on alternative options

Preferred option selected, and detailed technical assessment undertaken of construction and design issues

Pre-application discussion with planning authority

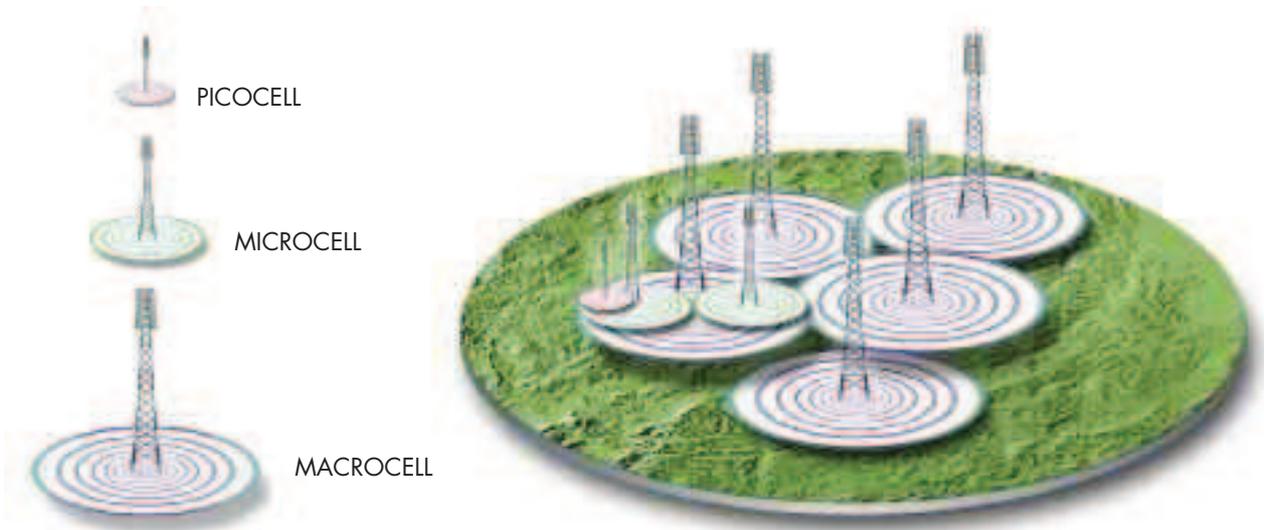
Public consultation by the operator with the local community and identified stakeholders

Proposal finalised and planning application (or notification) submitted

Determination of application

ANNEX B – How a network operates

- 1 Mobile radio telecommunications work on the basis of a series of cells. Each cell requires a radio base station to enable it to function.



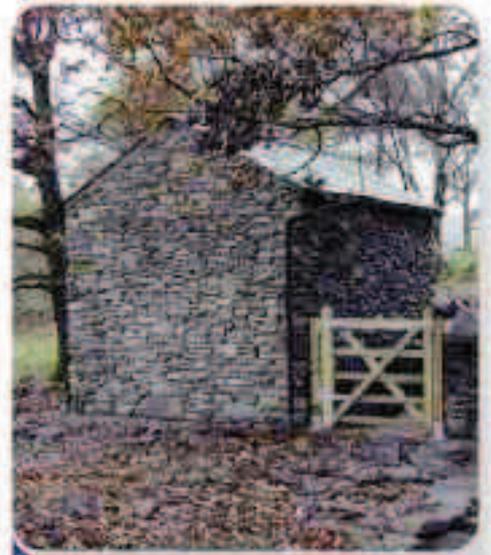
- 2 The base stations are linked together via dish antenna links or occasionally a land line. Mobile switching centres (telephone exchanges) enable the calls to be transferred to their final destination.

Communication Network



- 3 In order for radio base stations to communicate with a mobile phone it requires antennas, which transmit and receive low powered radio signals from the radio base station to the phone. Antennas may be fixed to a mast, structure or existing building.
- 4 The radio base station also requires radio equipment, which needs to be located close to the antenna. The radio equipment will generally be located in a purpose built cabin or within an existing building. The antenna are connected to the radio equipment by cables, known as feeders as they carry the radio signal. In order to minimise the loss of signal the length of feeder needs to be kept to a minimum.
- 5 Radio signals are susceptible to interference and need clear visibility around the site; this means that some locations are not suitable for base station sites. The antennas need to be placed so they can cover the area of the cell and this means that they need to be placed high, often on a building or telecommunications mast. The height required will vary depending on the type of antenna, the area to be covered, surrounding topography and heights of adjacent buildings or trees.
- 6 The number of base station sites depends on the area to be covered and the number of people who want to use the service. A new base station may be required:

- *To provide coverage. For example, to provide coverage to an area that currently has no coverage; it could be a town, village, or a section of road or railway. It may be a very restricted and specific area that requires coverage, which may limit the flexibility of the site location, as it needs to fit in with surrounding sites.*
- *To provide capacity. There will often be existing coverage. However, each base station can only deal with a certain number of calls at any one time (its capacity). Typically, a 2G macrocell has capacity for 100-150 calls with microcells having a much smaller capacity at 20-30 calls. If the demand for the service exceeds the maximum capacity of the existing site an additional base station is required to give everyone who needs to use the service the ability to do so. This is the principal reason why additional base stations are required within built up areas, particularly in town centres.*
- *To improve quality of service. An area may have coverage but the requirement may be for an enhanced service to users.*
- *To replace an existing site. There will be occasions where an existing site needs to be replaced. For example, where the land or building on which the apparatus is to be redeveloped the existing site may need to be relocated. A similar situation can occur when an operator's lease on a particular site comes to an end and is not renewed by the site owner.*



National Park local stone cabin to house equipment



Radio equipment network

Fig. A



Signals can be lost due to relief.

Fig. D



If antenna is placed in the middle of a flat roof, the signal cannot reach the outer sides and at street level X

Fig. B



Loss of signal by reflection from walls and other objects.

Fig. E



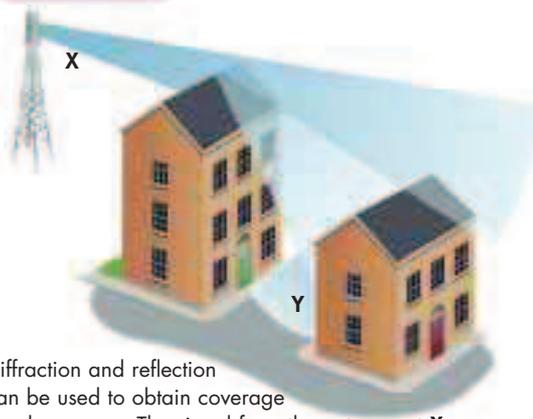
Signals can however 'bend' round obstructions to some extent (diffraction).

Fig. C



Loss of signal by attenuation when passing through a building.

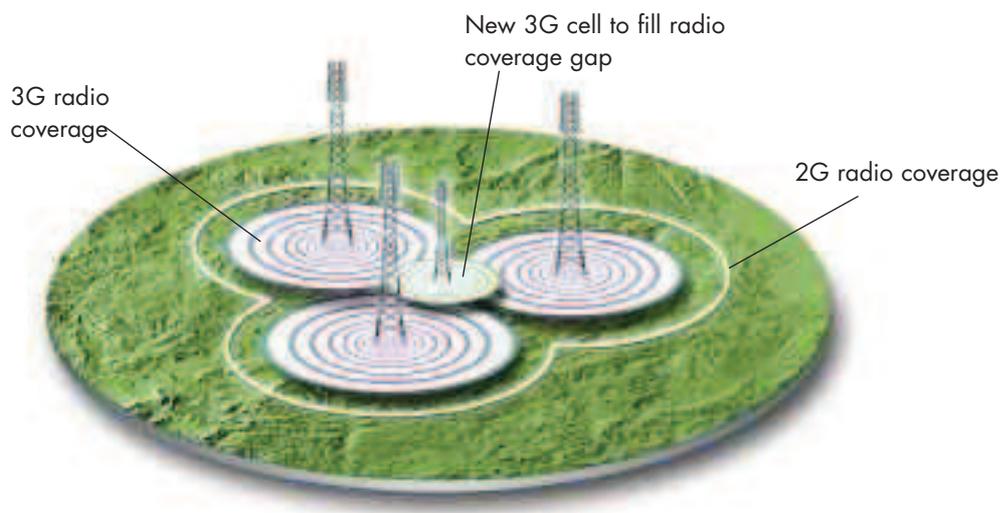
Fig. F



Diffraction and reflection can be used to obtain coverage in urban areas. The signal from the antenna at X can reach street level at Y by use of these effects.

3G mobile radio base station sites

- 7 There are some differences between 2G and 3G mobile radio base station sites.
- *3G sites operate at a different frequency.*
 - *As a result of the higher frequency radio signals from a 3G site, they do not cover the same area, as would a 2G site from the same location. (A reduction in cell size will normally limit the choice of suitable sites for base stations).*
 - *Generally a 3G site will not require as much height as a 2G site. However where an operator has an existing 2G site then usually the operator will site its 3G equipment on the same site.*
 - *A 3G site's coverage will vary depending on the demand placed upon it. The more a site's capacity is used the smaller the overall coverage footprint becomes.*
 - *Because of the amount of data that will be carried on 3G, the number of dish links between radio base stations to a mobile switching centre is less. To avoid unnecessary numbers of mobile switching centres some chain ends will have to feed into high capacity optical fibre networks.*



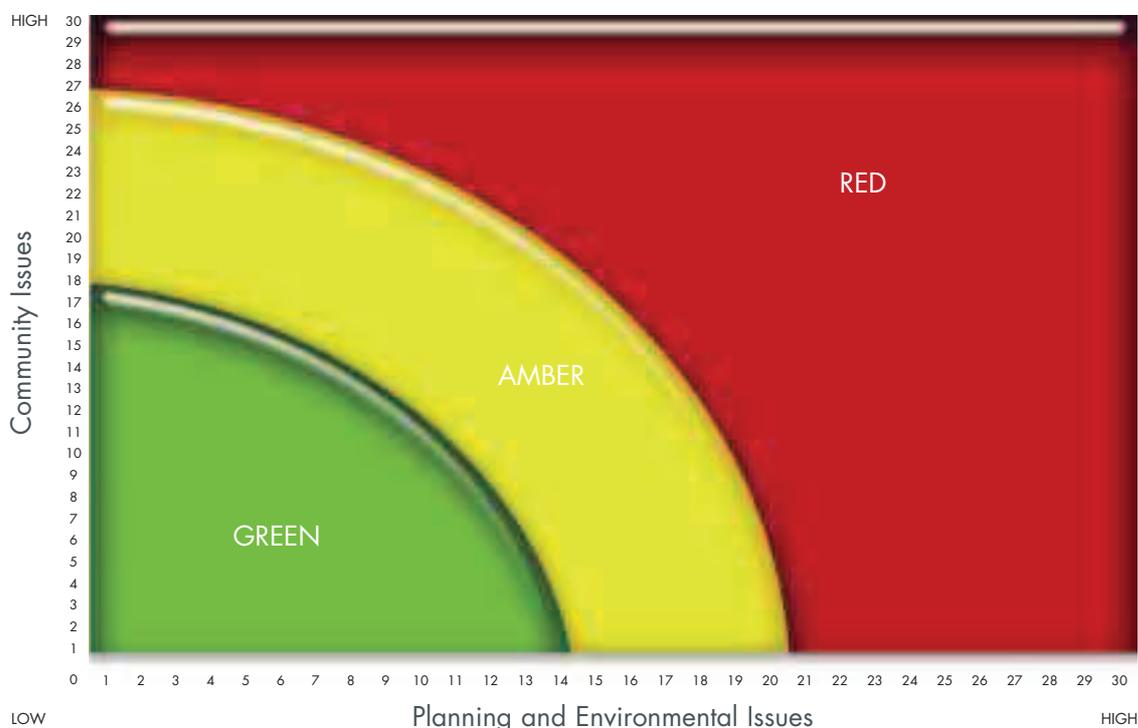
ANNEX C – Operators Ten Commitments

The Ten Commitments are to:

- 1** *develop, with other stakeholders, clear standards and procedures to deliver significantly improved consultation with local communities*
- 2** *participate in obligatory pre-rollout and pre-application consultation with local planning authorities*
- 3** *publish clear, transparent and accountable criteria and cross-industry agreement on site sharing, against which progress will be published regularly*
- 4** *establish professional development workshops on technological developments within telecommunications for local authority officers and elected members*
- 5** *deliver, with the Government, a database of information available to the public on radio base stations*
- 6** *assess all radio base stations for international (ICNIRP) compliance for public exposure, and produce a programme for ICNIRP compliance for all radio base stations as recommended by the Independent Expert Group on Mobile Phones*
- 7** *provide, as part of planning applications for radio base stations, a certification of compliance with ICNIRP public exposure guidelines*
- 8** *provide specific staff resources to respond to complaints and enquiries about base stations, within ten working days*
- 9** *begin financially supporting the Government's independent scientific research programme on mobile communications health issues*
- 10** *develop standard supporting documentation for all planning submissions whether full planning or prior approval*

Annex D – Traffic Light Model

Traffic Light Rating Model for Public Consultation



Community Issues

Views and attitudes of Local communities	Previous residents activity and likely community views.	0-15
Social Political	Council policy on telecommunications/views of Local Planning Authority, Level of influence of local and key stakeholders and Non Government organisations, Involvement of MP, LPA own land and Property.	0-10
Media	Likely media interest, regional/local media coverage, previous media interest, other sites that have raised the profile of the issue.	0-5

Planning and Environmental Issues

Sensitive Land Use	Site in relation to residential property, homes and schools and other sensitive land uses such as nurseries, playgroups, playgrounds and hospitals.	0-15
Siting and Appearance	Siting – existence of topographical features and natural vegetation, flora and fauna, impact on skyline or horizon, townscape clutter, site in relation to existing masts, structures or buildings (including historical or traditional character), views of recognised importance. Appearance - height in relation to surrounding land; appearance of the installation; materials, colouration, dimensions (other than height), overall shape; solid or open framework, transmission solutions (i.e. impact of dish). Type of site - new site, upgrade, swap out, mast share.	0-10
Planning	Development Plan Policies including Green Belt designation, Precedents/Site History, Impact on sites of special land use designation such as National Park, AONB, Conservation Area, SSSI, Listed Buildings.	0-5

The Traffic Light Model must be used to give an overall Rating for each proposed site. The Model combines elements of subjectivity and objectivity and is intended as a guide to the degree of consultation necessary. Once the Rating has been determined then the Consultation Strategy is used to provide the options available in respect of the level of public consultation. It is important to seek LPA input into the process. The rating for each site is to reviewed at least once – in particular after pre-application consultation.

Guide to Using Traffic Light Rating Model for Public Consultation

The guide is to assist in ascertaining the amount and type of public consultation that is required for any proposed site. The public consultation that is carried out under this process will be in addition to that already carried out by the Local Authority for applications for planning permission or prior approval.

The graph should be used to rate a site as green, amber or red. The Traffic Light Model operates along two axis; 'Planning and Environmental issues' (horizontal) and 'Community issues' (vertical).

Planning and Environmental Issues – horizontal axis

The horizontal axis is used to ascertain planning and environmental issues relating to the proposed site. The axis is graded 0-30, where 0 indicates very low concern or no concern and 30 where there are likely to be major concerns to the proposal.

The grading along this axis is made up from three categories; Sensitive Land Use, Siting and Appearance and Planning. Each category identifies the key elements that will determine the level of consultation required. The categories have different levels of influence and have, therefore, been given different levels of weight.

The Sensitive Land Use category is graded from 0 – 15, the Siting and Appearance category from 0 – 10, and Planning from 0 – 5.

The highest score within each category will apply and not a cumulative score.

The person using the Traffic Light Model will use the tables below to determine the score in each of the categories. Some of the categories are objective (Sensitive Land Uses) whilst the others allow some form of subjectivity. A degree of common sense must be applied when giving a Site a Rating as there may be other reasons not mentioned in this Guide that will affect it's sensitivity.

The horizontal axis rating is calculated by adding the score given in each of the categories on that axis.

Sensitive Land Use 0 - 15

Residential property or homes 0 – 15

Location of site in relation to building	
Located on a residential tower block	10 - 15
next to	10 – 15
in close proximity	5 – 10
far from	0 – 5

Nurseries, playgroups, play grounds, recreation grounds (with children's areas) 0 – 15

Location of site in relation to building	
next to	10 – 15
in close proximity	5 – 10
far from	0 – 5

Schools 0 – 15

Location of site in relation to boundary	
Located on	15
next to	10 – 15
close proximity	5 – 10
near to	0 - 5
far from	0

Hospital Property 0 - 10

Buildings or grounds	
Located on	0 – 10
Elsewhere	0

Other sensitive land use to be treated on its own merits but could score 0 – 15.

Siting and Appearance 0 - 10

This category is more subjective based on the factors set out in the box. A score must be given based on the implications of the issues in the category for that particular site.

Siting and Appearance 0 – 10

High Environmental Impact	5 – 10
Low Environmental Impact	0 – 5

Siting – matters to be considered include existence of topographical features and natural vegetation, flora and fauna, impact on skyline or horizon, townscape clutter, site in relation to existing masts, structures and buildings (including historical or traditional character), views of recognised importance

Design – matters to be considered include height in relation to surrounding area, appearance of the installation, material, colouration, dimensions (other than height), overall shape, solid or open framework, transmission solutions (i.e. impact of dish)

Site type – new site, upgrade, swap out, mast share

In respect of upgrades, swap outs, or mast shares it is anticipated that the score under siting and appearance will be less than for new installations. The matter that is being given consideration is the impact of the proposed alteration in comparison to the existing installation.

Planning 0 - 5

Development Plan policies (site specific) 0 – 5 Precedents/Site history 0 – 5

Positive stance towards proposal	0
Neutral stance	0
Negative stance	5

Previous applications refused	5
No history of telecommunications proposed	0
Previous applications successful	0

Located within special land use 0 – 5

National Park	
AONB	
SSSI	5
Others i.e. World Heritage Site, Registered Park or Garden, Archaeological site, Special Landscape Area, Heritage Coast Zone, National Nature Reserve, In Green Belt land	
Within 50m of Conservation Area	0 - 5

Location in relation to sensitive site 0 - 5

On a Listed Building	5
Within 50m of Listed Building	0 - 5
Greater than 50m	0

Community Issues – vertical axis

The vertical axis is used to ascertain community issues. The axis is again graded 0-30, where 0 indicates low concern and 30 where there are likely to be major concerns to the proposal.

The grading along the vertical axis is made up from three categories; View and attitudes of Local Communities, Social and Political, and Media. Each category identifies the key elements that will determine the level of consultation required. The categories have different levels of influence and have, therefore, been given different levels of weight.

Views and Attitudes of Local Communities from 0 – 15, Social and Political is graded from 0 – 10, and finally Media from 0 - 5.

The highest score within each category will apply and not a cumulative score.

The person using the Traffic Light Model will use the tables below to determine the score in each of the categories. A degree of objectivity has been provided but a score can be given anywhere between the upper and lower limits.

The vertical axis rating is calculated by adding the score in each of the categories on that axis.

The vertical axis is the most likely to be reviewed, in particular, the stance of the Ward Councillor, Views and attitudes of local communities, level of influence of local and key stakeholders views and attitudes of local communities and Media. In the event that there is a major change such as the formation of a resident's objection group then this would warrant a review but in any event a review should be carried out after the pre-application consultation.

Views and attitudes (or likely) of local communities 0 - 15

Previous residents activity

Considerable opposition	10 – 15
Some opposition	5 – 10
Little opposition	0 – 5

Social Political 0 - 10

Council Policy on Telecommunications 0 -10

Stance of Planning Committee 0 – 10

All refusals	10
Some refusals (less than 50%)	5
mostly approvals (greater than 50%)	0

Involvement of MP 0 – 10

Significant previous involvement	10
No previous involvement	0

Local and key stakeholders and Non Government Organisations 0–8

Active interest	8
Some interest	4
No interest	0

LPA own land and Property 0 - 10

Moratorium on all land and property	10
Partial Moratorium i.e. residential	5
No moratorium	0

Media 0 - 5

Previous media interest 0 – 5

Significant negative publicity	5
No interest	0

Does the Rating feel Right?

It is important to appreciate that a degree of common sense must be applied in determining a Rating for a particular site. Once the Rating has been given and it is obvious that it is not appropriate then a final review should be undertaken. The Rating can be amended but only if there are compelling reasons, in other words this health check should only be used on rare occasions. A full written justification must be given as to why the Rating was changed and may have to be reviewed as all sites are.

Consultation Strategy

(Site selection and Planning Model 2.A.4)

STAGE 1- Area Wide LPA Consultation

This level of consultation should be carried out irrespective of Site or Community Rating.

<i>Ref</i>	<i>Consultation Method</i>	<i>Party Consulted</i>	<i>Objective of Consultation</i>	<i>Timing</i>
1.A.1	Annual Review Letter	Local Planning Authority - Officers	Provide Information on future plans	Annually - September
1.A.2	Pre roll out Letter	Local Planning Authority - Officers	Provide Information on future plans	Prior to major phase
1.A.3	Map of Sites (current and proposed)	Local Planning Authority - Officers	Provide Information on future plans	Sent with 1.A.1 & 1.A.2
1.A.4	Schedule of Sites (current/proposed)	Local Planning Authority - Officers	Provide Information on future plans	Sent with 1.A.1 & 1.A.2
1.A.5	Meetings	Local Planning Authority - Officers	Identify areas of concern and interested parties	Annually
1.A.6	Update Database	Local Planning Authority - Officers	Identify areas of concern and interested parties	Ongoing
1.B.1	Presentation	LPA Officers & Elected Members	Identify areas of concern and interested parties	Prior to major phase

STAGE 2- Site Selection & Identify Consultation Strategy

<i>Ref</i>	<i>Consultation Method</i>	<i>Party Consulted</i>	<i>Objective of Consultation</i>	<i>Traffic Light Rating</i>		
				Green	Amber	Red
2.A.2	Pre-Application contact with LPA	Local Planning Authority - Officers	Obtain LPA view on the preferred and other options	●	●	●
2.A.5	Pre-Application Meeting Offer	Local Planning Authority - Officers	Obtain LPA view on the preferred and other options	●	●	●
2.B.1	Tour of Options	Local Planning Authority - Officers	Obtain LPA view on the preferred and other options	0	0	

STAGE 3- Pre-Application Site Specific Community Consultation

<i>Ref</i>	<i>Consultation Method</i>	<i>Party Consulted</i>	<i>Objective of Consultation</i>	<i>Traffic Light Rating</i>		
				Green	Amber	Red
3.A.1	Letter to Ward Councillor	Ward Councillor	Obtain feedback from local representatives		●	●
3.A.2	Letter to Parish Council	Parish Council	Obtain feedback from local representatives		●	●
3.B.1	Consultation Letter Mail Shot	Neighbours & Other Stakeholders	Obtain the views of neighbours and stakeholders	0	0	
3.B.2	Erect Voluntary Consultation Notice	All (local community)	Obtain Feedback from local community	0	0	
3.B.3	Informal 'Drop In' Session	All (local community)	Obtain Feedback from local community and others	0	0	
3.B.4	Key Stakeholder Briefing session	Invite all stakeholders	Obtain Feedback from local community and others	0	0	
3.B.5	Leaflets	All (local community)	Obtain Feedback from local community and others			0
3.B.6	Public Notice Placed in Local Press	All (local community)	Obtain Feedback from local community and others			0

STAGE 4 - Planning Submission

<i>Ref</i>	<i>Consultation Method</i>	<i>Party Consulted</i>	<i>Objective of Consultation</i>	<i>Traffic Light Rating</i>		
				Green	Amber	Red
4.B.1	Site meeting with Planning Officer	Local Planning Authority - Officers	Gain LPA officer support	0	0	
4.B.2	On Site Visual Demonstration	LPA & All other stakeholders	Alleviate concerns	0	0	
4.B.3	Planning Committee Meeting	Planning Committee Members	Gain LPA Member support	0	0	

KEY

●	Should be undertaken	0	Optional	Generally not necessary
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Site Selection and Planning Model

Stage 1

Area Wide LPA Consultation (Annual and Pre-Roll out)

Essential

- 1.A.1 **Annual Review Letter**
 - Sent in Sept/Oct
 - Enclose Map of Sites and spreadsheet
- 1.A.2 **Pre roll-out Letter**
 - Only sent before major phase
 - Enclose Map of Sites and spreadsheet
- 1.A.3 **Map of Sites**
 - Map of LPA Area with boundary and sites marked
 - Proposed sites i.e. pre-application
 - Live sites
- 1.A.4 **Schedule of Sites**
 - Cell No
 - Site Name
 - Address
 - Town
 - Post code
 - Easting/Northings
 - Status
- 1.A.5 **Meeting**
 - Offered annually with LPA to discuss issues
- 1.A.6 **Update database**

Optional

- 1.B.1 **Presentation**
 - Only before a major phase
 - To LPA Officers and possibly elected members

Stage 3

Community Consultation

Essential (Amber and Red sites) Should be agreed with LPA - See 2.A.2

- 3.A.1 **Letter to Ward Councillor**
 - Identify the Ward Councillor for the area
 - Standard letter - 'Ward Councillor Consultation'
- 3.A.2 **Letter to Parish Council Clerk**
 - Identify the Parish Council for the area
 - Standard letter - 'Parish Council Consultation'

Optional Should be agreed with LPA - See 2.A.2

- 3.B.1 **Consultation letter Mail Shot**
 - Standard Letter 'Public Consultation'
 - Send to public living within determined area,
 - local stakeholders and interest groups
- 3.B.2 **Erect Voluntary Site Notice**
 - Erect standard 'Voluntary Site Notice'
 - Operator/agent contact details
- 3.B.3 **Informal 'Drop In' Session**
 - Wallboard presentations
 - Other literature
- 3.B.4 **Key Stakeholder Briefing Session**
 - Description of proposal
 - Identification of issues
 - Explanation of proposal
 - Answering questions
 - Stakeholder discussion
- 3.B.5 **Leaflets**
 - To be deposited in community venues such as Doctors, Churches, libraries etc.
- 3.B.6 **Public Notice Placed in Local Press**
 - Description of proposal
 - Operator/agent contact details

Stage 2

Site Selection & Identify Consultation Strategy

Essential

- 2.A.1 **Information Gathering and Site**
 - Identification
 - Check LPA Mast Register
 - Obtain information and examine existing databases (eg. MSA)
 - Identify sites in search area
 - Identify options in Report
 - Allocate initial Traffic Light Rating
- 2.A.2 **LPA Consultation & Opinion**
 - Identify the LPA case officer that will be dealing with the application
 - Request their opinion on the sites identified
 - Offer a pre-application meeting (see 2.A.5)
 - Record their views in Consultation Plan
 - Identify areas of concern, discuss and agree where possible community consultation strategy.
 - Re-appraise Traffic Light Rating
- 2.A.3 **Site Selection**
 - Select preferred option based on;
 - Technical needs of operator
 - LPA opinion
 - Community information
 - Re-appraise Traffic Light Rating
- 2.A.4 **Identify Consultation Strategy**
 - Using the Consultation Strategy identify:
 - Who to consult
 - How to consult
 - Record strategy in a Consultation Plan
- 2.A.5 **Pre-application Meeting Offer**
 - Discuss merits of preferred site and other options
 - Discuss design options

Optional

- 2.B.1 **Tour of Options**
 - Discuss merits of preferred site and other options on site

Stage 4

Planning Submission

Essential

- 4.A.1 **Prepare Planning Submission**
 - In accordance with Operators guidelines
 - Checklist of documents
 - complete standard planning application template
 - Provide standard Supporting Information including ICNIRP Certificate
 - 4.A.2 **Application Support**
 - If appropriate provide additional information to support the application
- Optional**
- 4.B.1 **Site Meeting with Planning Officer**
 - Discuss merits of proposal site in relation to other options
 - Discuss merits of proposed design in relation to alternative design solutions
 - 4.B.2 **On site Visual Demonstration**
 - Demo, for LPA, Members, Parish Council etc.
 - Pump-up mast
 - Elevated platform or Cherry-picker
 - Balloon
 - 4.B.3 **Attend Planning Committee Meeting**
 - Present and respond as appropriate

Annex E– Standard consultation letter for schools/colleges

Our ref:

Date:

Chair of School Governors
FE College Board of Governors

RECORDED DELIVERY

Dear

Proposed XXX(company name)Telecommunications site at XXX

XXX(company name) is in the process of seeking a suitable site in the XXX area for a new mobile radio base station. The purpose of this letter is to provide you with information as to the proposal and the opportunity for you to seek further detailed information about the site from us should you wish to do so.

Government Guidance (Planning Policy Guidance Note 8 – Telecommunications August 2001 – Para 62) advises that mobile telecommunications operators are to notify you as Chair of Governors (or as appropriate) of our proposal to install a telecommunication site where it is near to a school.

A site has been selected at this location because (Justification as appropriate.) We would value your comments on this proposal, in advance of our formal planning submission to XXX (local authority name). This will help us to address any queries or comments you may have in respect of our proposed development.

The site, as currently proposed, is

Provide site details e.g. type of structure, use of existing building, precise location(plan and address), drawings (if available), design initiatives utilised, approx distance to school boundary. brief description of proposed development

In response to the ‘Stewart Report’, the government has stated that emissions from radio base stations should meet the International Commission on Non-Ionizing Radiation Protection (ICNRP) guidelines for public exposure adopted in the UK. I confirm that the above proposed installation will comply with these guidelines. In fact, because of the very low power utilized by telecommunications sites the emissions will be many times lower than the ICNIRP threshold.

We would be grateful if you could consider this letter and the accompanying information about the proposals and let us know your views no later than 14 days from receipt of this letter. Any comments received from you within this period will be considered by us and will be submitted with our application to the Council.

Should you require any additional information in respect of the above proposals then please do not hesitate to contact XXX(as appropriate-maybe individual or help line no, needs to include name and full telephone number).

Yours sincerely

CC Head Teacher
Principal of College

Annex F– Supplementary Information Template

SUPPLEMENTARY INFORMATION

1. Site details

Site Name		Site Address	
NGR			
Site Ref Number		Site Type ¹	

2. Pre Application Check list

Site selection

Was an LPA mast register used to check for suitable sites by the operator or the LPA?	yes	no
if no explain why		
Was the industry site database checked for suitable sites by the operator?	yes	no
if no explain why		

Annual roll out consultation with LPA

Date of last annual rollout information/ submission	
Name of contact	
Summary of outcome/Main issues raised	

Pre-application consultation with LPA

Date of written offer of pre-application consultation	
Was there pre-application contact	yes no
Date of pre-application contact	
Name of contact	
Summary of outcome/Main issues raised	

¹ Macro or micro

Ten Commitments Consultation

Rating of Site under Traffic Light Model	Green	Amber	Red
Outline Consultation carried out			
Summary of outcome/Main issues raised			

School/College

Location of site in relation to school/college (include name of school/college)
Outline of consultation carried out with school/college. (include evidence of consultation)
Summary of outcome/Main issues raised

**Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator consultation
(only required for an application for prior approval)**

Will the structure be within 3km of an aerodrome or airfield?	Yes	No
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified	Yes	No
Details of response		

Developer's Notice

Copy of Developer's Notice enclosed	Yes	No
Date served		

3. Proposed Development

The proposed site

Enclose map showing the cell centre and adjoining cells

Type of Structure (e.g. tower, mast, etc):	
Description	
Overall Height	
Height of existing building (where applicable)	metres
Equipment Housing	
Length	metres
Width	metres
Height	Metres
Materials (as applicable)	
Tower/mast etc – type of material and external colour	
Equipment housing – type of material and external colour	

Reasons for choice of design

4. Technical information

ICNIRP Declaration attached ICNIRP public compliance is determined by mathematical calculation and implemented by careful location of antennas, access restrictions and/or barriers and signage as necessary. Members of the public cannot unknowingly enter areas close to the antennas where exposure may exceed the relevant guidelines. When determining compliance the emissions from all mobile phone network operators on the site are taken into account.	Yes	no
---	-----	----

Frequency	
Modulation characteristics ²	
Power output (expressed in EIRP in dBW per carrier) In order to minimise interference within its own network and with other radio networks, (NAME OF OPERATOR) operates its network in such a way that radio frequency power outputs are kept to the lowest levels commensurate with effective service provision. As part of (NAME OF OPERATOR)'s network, the radio base station that is the subject of this application will be configured to operate in this way.	
Height of antenna (m above ground level)	

5. Technical Justification

Enclose predictive coverage plots.

Reason(s) why site required e.g. coverage, upgrade, capacity (map attached if required)

² The modulation method employed in GSM is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase Modulation.

The modulation method employed in UMTS is QPSK (Quad Phase Shift Keying) which is another form of Phase Modulation.

6. Site selection process – alternative sites considered and not chosen
 Enclose map highlighting all alternatives that have been considered by the operator.

Site ³	Site Name and address	NGR	Reason for not choosing ⁴

If no alternative site options have been investigated, please explain why
Additional relevant information

Contact Details

Name	_____	Telephone	_____
Operator	_____	Fax no	_____
Address	_____	Email address	_____

Signed	_____	Date	_____
Position	_____	Company	_____
	_____	(on behalf of the above operator)	_____

³ ETS - Existing Telecomm site, ES - Existing Structure, RT - Roof Top, GF - Greenfield

⁴ SP - Site Provider, RD - Redevelopment Not Possible, T - Technical Difficulties, P – Planning
 O – Other

Annex G – Operators' standard forms

Declaration of Conformity with ICNIRP Public Exposure Guidelines ("ICNIRP Declaration")

(Operator name)
(Operator address)

Declares that the proposed equipment and installation as detailed in the attached planning / GPDO application at:

(Address).....
.....
.....

is designed to be in full compliance with the requirements of the radio frequency (RF) public exposure guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP), as expressed in EU Council Recommendation of 12 July 1999 * "on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)".

* Reference: 1999/519/EC

Date:

Signed:

Name:

Position:

(Footer - operator name and registered number / office)

Developer's notice as required under the Town and Country Planning (General Permitted Development) Amendment (England) Order 2001

Proposed Development at:

Address:

Grid Ref:

I give notice that (insert company address) on behalf of (insert name of company) will be applying to (insert Local Planning Authority and address) under paragraph (4) (b) of Part 24 of Schedule 2 of the Town and Country Planning (General Permitted Development) Amendment (England) Order 2001 for its determination as to whether the prior approval of the authority will be required to the siting and appearance of

description of proposed installation to include its siting and appearance and the height of the mast

.....
.....

The application and accompanying plans may be available for public inspection at the offices of the above Authority at (insert Local Planning Authority address) during usual office hours.

Any Individual and organisation wishing to make representation about the siting and appearance of the proposed development may do so in writing to the Local Planning Authority at the address above (Please quote site address given above). Any representations must be received no later than (insert date not less than 14 days from the date of the notice)

Signed

On behalf of

Dated

Annex H – Local authority standard forms

FORM 1

Name of applicant/agent	Name of Council
Address	Address
	Date

DEVELOPMENT BY TELECOMMUNICATIONS CODE SYSTEM OPERATORS

ACKNOWLEDGEMENT OF APPLICATION FOR DETERMINATION AS TO WHETHER PRIOR APPROVAL IS REQUIRED FOR DEVELOPMENT PERMITTED BY PART 24 OF SCHEDULE 2 TO THE TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) ORDER 1995 (AS AMENDED)

Dear Sir/Madam

I acknowledge receipt of your application dated * received on

In respect of

.....

..... †

at ‡

The application fulfils the requirements of the relevant legislation and, therefore, you should receive determination(s) as to whether prior approval is required or not, and, if it is required, as to whether approval for the siting and appearance of the development is given or refused, within 56 days of the above-mentioned date on which the Council received your application.

The application is incomplete and does not fulfil the requirements of the legislation. Only when a complete application containing the further information specified in the attachment to this letter has been received will the 56 day period specified in paragraph A.2(4) of the above-mentioned Part 24 commence.

The Council's contact for this application is

The Council's reference/application number is

insert date

† insert brief description of development

‡ insert location

* Delete if inapplicable

FORM 2

**DEVELOPMENT BY TELECOMMUNICATIONS
CODE SYSTEM OPERATORS**

DETERMINATION BY THE LOCAL PLANNING AUTHORITY THAT THE PRIOR APPROVAL OF THE AUTHORITY IS **NOT REQUIRED** FOR THE SITING AND APPEARANCE OF DEVELOPMENT PERMITTED BY PART 24 OF SCHEDULE 2 TO THE TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) ORDER 1995 (AS AMENDED)

Applicant
Agent
Description and location of proposed development:
Application number
Date of application
Date of receipt of application

The * hereby determine
the prior approval of the local planning authority is not required for the siting and
appearance of the development in the above-mentioned application.

Signed (Council's authorised officer)

On behalf of (Council)

Date

* insert name of local planning authority

FORM 3

**DEVELOPMENT BY TELECOMMUNICATIONS
CODE SYSTEM OPERATORS**

DETERMINATION BY THE LOCAL PLANNING AUTHORITY THAT THE PRIOR APPROVAL OF THE AUTHORITY IS **REQUIRED** FOR THE SITING AND APPEARANCE OF DEVELOPMENT PERMITTED BY PART 24 OF SCHEDULE 2 TO THE TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) ORDER 1995 (AS AMENDED)

Applicant
Agent
Description and location of proposed development:
Application number
Date of application
Date of receipt of application

The * hereby determine the prior approval of the local planning authority is required for the siting and appearance of the development in the above-mentioned application.

Signed (Council's authorised officer)

On behalf of (Council)

Date

* insert name of local planning authority

FORM 4

**DEVELOPMENT BY TELECOMMUNICATIONS
CODE SYSTEM OPERATORS**

DETERMINATION BY THE LOCAL PLANNING AUTHORITY THAT THE PRIOR APPROVAL OF THE AUTHORITY IS **GIVEN** FOR THE SITING AND APPEARANCE OF DEVELOPMENT PERMITTED BY PART 24 OF SCHEDULE 2 TO THE TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) ORDER 1995 (AS AMENDED)

Applicant
Agent
Description and location of proposed development:
Application number
Date of application
Date of receipt of application
Date of local planning authority's determination that prior approval to the siting and Appearance of the development is required:

The * hereby give approval for the siting and appearance of the development proposed in the above-mentioned application in accordance with the plans ref.....

Signed (Council's authorised officer)

On behalf of (Council)

Date

* insert name of local planning authority

FORM 5

**DEVELOPMENT BY TELECOMMUNICATIONS
CODE SYSTEM OPERATORS**

DETERMINATION BY THE LOCAL PLANNING AUTHORITY THAT THE PRIOR APPROVAL OF THE AUTHORITY IS **REFUSED** FOR THE SITING AND APPEARANCE OF DEVELOPMENT PERMITTED BY PART 24 OF SCHEDULE 2 TO THE TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) ORDER 1995 (AS AMENDED)

Applicant

Agent

Description and location of proposed development:

.....
.....
.....
.....
.....

Application number

Date of application

Date of receipt of application

Date of local planning authority's determination that prior approval to the siting and

Appearance of the development is required:

The * hereby refuse approval for the siting and appearance of the development proposed in the above-mentioned application for the following reason(s)

.....
.....
.....

Signed (Council's authorised officer)

On behalf of (Council)

Date

* insert name of local planning authority

Annex J– Operator Enquiry Points

Enquiries about radio base stations

Each of the operators has dedicated staff dealing with enquiries and complaints received by phone, by letter or as an e-mail. Commitment Eight of the Ten Commitments is to "provide specific staff resources to respond to complaints and enquiries about radio base stations within ten working days". The operators are committed to ensuring that concerns from both the public and local authorities are dealt with promptly and efficiently.

Hutchison 3G UK

Tel: 0845 604 3000
www.three.co.uk

O2 UK

Network Consultation Help Desk
O2 (UK) Ltd
PP1E1
1 Brunel Way
Slough, Berks.
SL1 1XL

Tel: 01753 564 306
Email: networkconsultation@o2.com

Airwave

Email: rupert.cazalet@airwavesolutions.co.uk

Orange

Tel: 07980261071
Email: site.information@orange-ftgroup.com

T-Mobile UK Ltd

T-Mobile Community Affairs Team
Hatfield Business Park
Hatfield, Hertfordshire
AL10 9BW

Tel: 0870 321 6047
Email: networkinfo@t-mobile.co.uk

Vodafone

Tel: 01635 677706
Email: emf.advisoryunit@vodafone.com
www.vodafone.co.uk

Glossary of Terms

2G

The second generation or GSM is the technology currently used in the operation of mobile phones at 900MHz and 1800MHz.

3G

Third generation is the generic term used for the next generation of mobile communications systems. The new systems will enhance the services available today and will offer multimedia and internet access and the ability to view video footage. The third generation technology used in the UK is called UMTS. These services operate at 2200 MHz. (2.2GHz).

Aerial/Antenna

A device which transmits and receives radio waves. There are different designs in operation including Omni-directional antennas, sectored antennas and dual/tri-band antennas.

Analogue

First mobile phone technology which was phased out in the UK in 2001 with the introduction of second generation technology (GSM).

Base Station

A base station is a macrocell, microcell or picocell site and consists of radio transmitters and receivers in a cabin or cabinet connected to antennas by feeder cable.

Cabin

A structure which protects radio transmitters and receivers from damage. They can be in the form of large cabins or smaller cabinets.

Cell

A geographic area over which a radio base station transmits and receives radio signals to and from customers to provide service coverage.

Dish Antenna

Dish antenna operate on a line of sight basis and transmit and receive highly focussed radio waves in one direction. Dish antennas usually have the function of linking a base station, sometimes through a series of links, to a base station control site. It is usually by this means that a base station is integrated into the wider network.

Electromagnetic Waves/Fields

Electromagnetic waves are emitted by many natural and man-made sources. Electromagnetic waves are used to transmit and receive signals from mobile phones and their base stations. The type of electromagnetic waves mobile phones use is called radio frequency (RF) waves/fields.

Feeder cable

The co-axial cable which connects an antenna to a base station transmitter or receiver.

Frequency

Frequency is the number of times per second at which an electromagnetic wave oscillates. It determines the wave's properties and usage. Frequencies are measured in hertz (Hz). 1 Hz is one oscillation per second, 1 kHz a thousand, 1 MHz is a million and 1GHz is a thousand million. Frequencies between 30 kHz and 300 GHz are widely used for telecommunication, including broadcast radio and television, and comprise the radio frequency band. Mobile telephone systems currently operate at 900MHz and 1800MHz. 3G will operate at 2GHz.

GSM

GSM - Global System for Mobile Communications is the international, pan-European operating standard for the current generation of digital cellular mobile communications. It enables mobile phones to be used across national boundaries. GSM systems are operated by O2UK and Vodafone at 900 and 1800 MHz, and by T-Mobile and Orange at 1800MHz.

Hand-off

As a mobile customer moves from one cell to another the call is automatically transferred from one base station to another in a process known as hand-off.

ICNIRP

The International Commission on Non-ionizing Radiation Protection (ICNIRP) is an independent scientific body which has produced an international set of guidelines for public exposure to radio frequency waves. These guidelines were recommended in the Stewart Report and adopted by the Government. The mobile network operators have accepted these guidelines and work within them.

Macrocell

A macrocell provides the largest area of coverage within a mobile network. The antennas for macrocells can be mounted on ground-based masts, rooftops or other existing structures. They must be positioned at a height that is not obstructed by terrain or buildings. Macrocells provide radio coverage over varying distances depending on the frequency used, the number of calls made and the physical terrain. Macrocell base stations have a typical power output in tens of watts.

Mast

A ground-based or roof-top structure that supports antennas at a height where they can satisfactorily send and receive radio waves. Typical masts are of steel lattice or tubular steel construction. New slimmer versions of masts are now available which can be painted to blend in with their surroundings, disguised as trees or used in conjunction with street lighting and CCTV cameras. Masts themselves play no part in the transmission of the radio waves for mobile telecommunications.

Microcell

Microcells provide additional coverage and capacity where there are high numbers of users within urban and suburban macrocells. The antennas for microcells are mounted at street level, typically on the external walls of existing structures, lamp-posts and other street furniture. Microcell antennas are usually smaller than macrocell antennas and when mounted on existing structures can often be blended into building features. Microcells provide radio coverage over distances, typically between 100m and 1000m and operate at power levels substantially below those of macrocells.

Mobile Switching Centre

All base stations have to be linked to a Mobile Switching Centre (MSC), which will have a significant number of radio dishes linked by direct line of sight to outlying base stations. These can be installed on large radio masts or on buildings. The MSC integrates each base station into the network and enables the calls to be connected within the same or a competing network. The MSC also controls the handing off process as customers move from one cell to another.

Picocell

A picocell provides more localised coverage than a microcell. These are normally found inside buildings where coverage is poor or there are a high number of users such as airport terminals, train stations or shopping centres.

Radio Base Station

See base station.

Second Generation

See 2G.

Sectorized Antenna

Antenna which transmits or receives higher signal levels in a horizontal direction. The antenna is split into several sectors (typically 3 or 6) to provide 360 degree coverage.

Stub Mast

A roof-mounted mast structure which supports multiple antennas at a height where it can satisfactorily send and receive radio waves. A stub mast is typically 4m - 6m high and of steel lattice construction. Stub masts themselves play no part in the transmission of radio waves.

Third Generation

See 3G.

Transmitter

Electronic equipment that generates radio frequency electromagnetic energy and is connected to an antenna via a feeder cable.

UMTS

Universal Mobile Telecommunication System (UMTS) is part of the international vision of a global family of third generation mobile communication systems. The UK refers to this as 3G.

Wavelength

Wavelength is the distance in metres between any two 'similar' points on a radio wave. This portion of the wave is referred to as one complete cycle. The lower the frequency of a wave the longer the wavelength.

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