

Design and Print Guidance for local authorities



CONTENTS

01	Introduction	03
02	Design and Development Process	04
	What Are You Trying to Achieve?	
	What Types of Communications Should You Use?	
	Project Management	
	Employing an Agency	
	Design Identity	
	Photography	
	The Design Process	
	Selecting the Paper	
	Paper Coatings	
	Going to Print	
03	Print Processes	12
	Types of Process	
	Litho Printing	
	Screenprint	
	Digital Printing	
	Printing Processes – Pros and Cons	
04	Acknowledgements	17

1.0 Introduction

The main purpose of this guide is to raise awareness and understanding of:

The **design and development process** from the initial concept for a promotional item through to the delivery of the final product and what happens at all stages. This includes an explanation on how a typical local authority waste/recycling officer should work with a design agency or internal design team to develop and deliver promotional material and the timescales involved.

The **print processes** in common use and how they work, including litho, screen-print and digital printing. An explanation of colour, paper and sizes, and how this impacts on the costs of printing, as well as simple finishing options such as shaped/cut leaflets, folding, perforation, lamination and UV coating.

2.0 Design and Development Process

The purpose of this element of the guide is to give an explanation of the design and development process that you will go through in commissioning promotional material for waste management services, whether through an outside design agency or through your own internal design team.

2.1 What Are You Trying to Achieve?

It is important to know what you are trying to achieve through your promotion, for example:

- Introduction of a new recycling service or alternate weekly collection
- Promotion of waste minimisation initiatives
- Promotion of existing services and encouraging people to use them

Promotion should be viewed as part of the waste management service – it is not a separate function. For example, there is no point in providing new services without informing householders how they should use them.

2.2 What Types of Communications Should You Use?

Consider how you want to get your message across and the type of media you might use e.g. direct mail, outdoor advertising, local press.

Direct mail of a simple leaflet	approximately 10-30p/household depending on the delivery method
Roadshow giveaways	approximately £1.00/person
Doorknocking	between £1.50-£3.50 per house (based on number of doors knocked on rather than number of respondents). So, if only 50% of residents are in when you call, costs can be between £3.00-£7.00 per successful contact. However, the average number of people in at first door knock is more likely to be 30%-40% making it more expensive per contact.

Consider the cost effectiveness of the material produced

Although outdoor and local newspaper advertising is expensive it can be a good brand building option if sufficient funds are available. Do not forget the opportunities for branding your own recycling and waste collection vehicles, which are on the street all day across the whole of the district.

Example

The introduction of Alternate Weekly Collection (AWC) is likely to require:

- An introductory leaflet to be delivered to all households receiving the service
- A calendar to inform householders of the day of collection
- Displays to be circulated around the district
- Posters for distribution to town and parish councils
- Website & helpline
- Lorry livery
- Billboards, Adshels and bus advertising
- Newspaper advertising
- Contamination cards/stickers for crews

Consider the media for your project

Plan to measure the effectiveness of your promotion from the outset – consider using WRAP’s ‘Improving the Performance of Waste Diversion Schemes – A Good Practice Guide to Monitoring and Evaluation’, available on the WRAP website at <http://www.wrap.org.uk/monitoringandevaluation>

2.3 Project Management

A plan and a schedule for your promotional work, which integrates with the development of your service is critical.

Example

Based on the introduction of AWC:

- Introductory leaflets must be delivered two to four weeks before the service starts
- Calendars must be delivered with the new bins and boxes
- Displays and posters must be available some time before the launch of the scheme

Reasonable timescales for design and print which should be confirmed with the design agency at the outset can be estimated as follows:

- 15 working days for the development of an identity e.g. logo/design identity
- 10-15 working days for straightforward design e.g. development of a leaflet
- 10 working days for printing and delivery

Timescales must be transparent to everyone involved in implementing the service

However, these are indicative design agency timescales and you should make sure you add sufficient time for internal approval processes.

2.4 Employing an Agency

If you do not have competent in house designer seek to employ an agency preferably with experience of the work you will be doing.

Develop a brief based on your proposed campaign and ask a number of agencies to pitch for the work. Include a reasonable amount of work within the brief to make it attractive for good companies to bid for the work. Expect to work with your chosen agency for a period of time.

Example

Based on the introduction of AWC your brief should include elements like:

- Develop 4 design identities from which you will chose one or a combination of the most appropriate elements
- Produce design guidelines based on the chosen design
- Prepare artwork for and print introductory leaflets
- Prepare artwork for and print collection calendars
- Prepare artwork for and produce displays and posters
- Develop designs for lorry livery and liaise with council contractor for application
- Develop newspaper, billboard and Adshel designs and liaise with appropriate media company

Always interview a shortlist of candidates and look at a portfolio of their work – do not simply rely on prices. Some agencies may have a style that you may not like at all and would be totally unsuitable to promote your services. Where possible use an agency that is familiar with local authorities and has some knowledge and experience of waste and recycling.

Make clear from the outset that you will expect to retain the copyright of any work they do for you and ask for a copy of the design files on CD. You can then use another agency in the future should you need to.

Choose an agency taking into account their knowledge and interest in your promotion and their previous work

2.5 Design Identity

Do you already have a design identity for your promotional material?
Does your council have identity guidelines which dictate how promotional material should look?

If not, it would be wise to develop an identity, which can be integrated into all your campaign material. It is important to develop a consistent look and feel as it will aid householders in recalling information and recognising who the communication has come from. Be aware of the massive amount of media clutter there is about in everyday life and how it competes with your message.

If you need to develop an identity for your campaign employ an agency that will come up with three or four design concepts for you to consider. These should include any constraints your authority places on promotional material. Consider also the benefits of including the Recycle Now

campaign iconography. It is always best to test design concepts, however this can be costly if you employ specialist research agencies. An alternative is to test designs and copy on non-recycling/waste related staff or members of the public using on-street survey techniques. This can provide a good insight into people's opinions and feedback on the communication can then be used to modify or improve the communication.

Once you have chosen a design identity ask the agency to produce written and illustrated guidelines on its use, this will include:

- Design features
- Which font you will use consistently and what sizes
- The use of colour, primary palettes which may be based on your council logo, the colour of your vehicles, or some other cues which link to your council or service
- Secondary colours
- Layout including suggested grids for leaflets
- Use of logos – primary and secondary
- Use of national iconography

These guidelines will keep your material consistent and allow you to use more than that one agency in future.

2.6 Photography

Good photographs can be extremely helpful to the finished product and you should consider employing a professional photographer (through the design agency if your project is big enough) to take photographs of your services, equipment, sites, etc. You will be able to use these throughout the project and you will have created a library of images which will be invaluable.

If you chose to employ a photographer create a list of photographs you need and, preferably, ask the design agency to accompany you and the photographer to give some direction as to how they want the photographs taken. Make it clear from the outset to the photographer that the copyright of the photographs will rest with you and you will not have to pay any royalties if you want to use them in the future on other projects. The photographs should be in a digital format and you should be given a copy on CD.

Disclaimers, usage fees, permission (especially for children) should be obtained from all people appearing in the photographs at the outset – if this is not done there may be problems later in publishing the photographs.

2.7 The Design Process

Unless you are dealing with an agency who understands waste management, expect to produce all the text (the copy) for the leaflet yourself. If you come across one that is experienced in both design and waste management it will make your life much easier as they will be able to develop the copy for you.

Use WRAP's Basic Design Principles for either developing or reviewing design guidelines on the WRAP website

Be aware of the image bank available through www.recyclenowpartners.org.uk

Make sure you know exactly what you want to get over to the public, in what order and what size the creative it is likely to be. For example, will it be a 4 page A5 leaflet, a bus advertisement or a billboard. Have a look at examples of work other local authorities have carried out.

Talk to the agency about your needs and what you are trying to achieve and let them develop a design that augments your message (the copy you have provided). Agree a format taking their advice as to whether there is too much text for the creative you are proposing. Discuss the material you will be printing on or the media it will be used in – each process will require particular parameters to be set to create the design file.

If you are just getting the agency to provide you with the design expect to give them the specification the printer, newspaper, bus or billboard company will expect the design file to be in – or at least a contact so that they can get the information themselves.

You will be expected to provide logos and photographs all in the right format and at the right resolution. The agency will explain what they want and help with any conversions at a cost.

Expect to receive draft designs electronically by pdf (portable document format). This is much quicker and easier than printed copies which can be very time consuming. All PCs should have acrobat reader loaded on to them, which will allow you to open pdfs.

The first draft of a creative will be the first time you see your copy and the design put together using your design guidelines. There should be an expectation that it will be about right but that some changes might be required. Review what you have and discuss any amendments with the agency.

Most agencies will make a reasonable number of amendments before the final version but please don't expect several designs and major changes to the copy to be 'reasonable'. If you expect them to produce a 4 and a 6 page leaflet for the same purpose just so that you can see how they look or you have not taken enough care over the copy, expect to pay for the design of two leaflets.

Laying out the artwork for a four page A5 leaflet where the copy, photographs, logos and illustrations are available and the design guidelines are clear can take between 1 and 2 days – this time can double if elements are missing.

Amendments, however minor, can have a significant impact on the design – especially text changes which may need realignment of text boxes, images, adjustment of text size not just on the affected page but on adjacent pages as well.

Ask a few people not directly involved in the service to proof read the original copy and the final pdf for you prior to the final set of amendments you send to the designers.

ROTATE have a collection of good and bad examples which they can let you look at

Logos and photographs must be in the right format and at the right resolution

Laying out the artwork is not a short process

When you have a pdf which you are happy with you will be expected to 'sign it off' - the agency will have a procedure for this. The responsibility for the correctness of the creative is yours.

2.8 Selecting the Paper

A very important part of the design process is selecting the paper on which you will be printing. It is essential that consideration is given to the paper type, its weight and fitness for purpose.

There are a vast number of types of paper available at differing recycled contents, weights, coating and whether to use rolls or sheets amongst other factors. The main issues involved in paper selection are summarised below. Further help can also be provided by both WRAP's Recycled Paper Advocacy Team, and from the guidance brochures they provide (see 2.9).

WRAP's Recycled Paper Advocacy Team (RPAT)

Recycled Content

Recycling is necessary to provide an alternative to landfilling of paper waste. The procurement of recycled content paper is now part of the Government's sustainability policy and is increasingly becoming a significant part of private companies' Corporate Social Responsibility (CSR) agendas. Many local authorities are also adopting 'buy recycled' policies.

WRAP runs a Recycled Paper Advocacy Team which provides free advice and support to businesses, local authorities and central government looking to switch to recycled content paper. It provides advice on:

- [the benefits of procuring recycled content paper](#)
- [quality and cost issues](#)
- [product availability/suitability](#)
- [facilitating trial material where appropriate](#)

Several procurement guides are also available:

- [Specifying recycled content in office paper and publications for your organisation](#)
- [Specifying recycled content in business process services for your organisation](#)
- [Specifying recycled content in tissue paper in your organisation](#)

Use a paper that has a recycled content of 50% or more (where recycled content includes pre and post consumer waste but excludes mill broke and any virgin pulp comes from a sustainable source).

Use a recycled paper which looks recycled only if you want that effect – otherwise go for a bright white finish as it shows the colours better. Settle on one type of paper for all leaflets as it will show your colours more consistently. Discuss this with the agency as they will have experience of the options.

Paper Weights and Printability

Paper and card is made in many different weights which are specified as "the grams per square metre of paper" noted as gsm, g/m² or gm⁻².

To contact the RPAAT or to obtain the procurement guides please call WRAP helpline on 0808 100 2040 (quote: paper advocacy) or visit www.wrap.org.uk/advocacyteam

Specific types of documents will require different thicknesses. For example:

- Lightweight for flyers and leaflets say 100-130 grams per square metre (gsm)
- Card for leaflets with a return postcard say 230 gsm (a requirement from the Post Office)
- Laminated on both sides for a recycling calendar that may be delivered via the recycling boxes and may get wet (note only use lamination when necessary as the paper can not be recycled)

“Show through” is the ability of the paper to stop show-through of text or images from the other side – this is dependant on the amount of filler in the paper and its weight amongst other factors. It also depends on what is called the strike-through of the ink (how far the ink is absorbed into the paper) or hold-out (the paper’s capacity to keep ink on the surface). So even though a paper may be thicker or heavier it may show through more if it is more absorbent. A minimum weight for leaflets should be considered as 100 gsm which will ensure only a nominal amount of show-through of print from the other side.

The less absorbent a paper the better it will reproduce half tones and colours as the ink tends to sit on the surface of the paper much more. The type of paper and the finish will affect the way the colours reproduce.

To keep consistency throughout a project or campaign the same paper should be used throughout if possible

2.9 Paper Coatings

The finish on paper can be specified – usually gloss, silk/eggshell and matt. This is created in the manufacturing process. After the paper is made and coated it is passed through rollers called calendars which can either impart a texture or make the paper smooth and glossy. Glossy paper is rolled at higher pressures to create a glossy finish and as a result is thinner for the same weight.

During printing gloss paper tends to dry quicker and does not require so much drying time before it can be handled and trimmed. Silk and matte papers tend to get a coating in line on either a separate coating unit or by using one of the spare plates. This allows quicker handling and turn around. Some printers make a charge for this coating others do not – hence a quote for a print run on gloss paper may be cheaper than a quote for silk or matte.

2.10 Going to Print

In the case of printed material it is usually better to let the design agency deliver the complete job from design to delivered print. They will be responsible for delivering to you the right quantity and quality of print at the right time. They will take responsibility for:

- Providing the artwork to the printer in the right format – there are various options which can throw up their own problems which they can fix but you are unlikely to be able to unless you are expert in the industry standard software

- Making sure the proofs from the printer closely match the final pdf you signed off and nothing has shifted or changed form. These are usually digitally printed on colour corrected printers or for expensive and high quality work 'wet proofs' can be specified
- Checking the final print for reproduction and consistency

If you decide to arrange printing yourself be prepared to take on these points.

It is also best to get the agency to liaise directly with media organisations such as newspapers, billboard companies and Adshel and to deliver the artwork direct and solve any problems which may occur e.g. sizes, colours.

3.0 Print Processes

The purpose of this element of the guide is to give guidance on some of the print processes in common use and how they work, including litho, screen-print and digital printing. It contains an explanation of colour, paper finishes and sizes and how this impacts on the economics of printing. Simple finishing options such as shaped/cut leaflets, folding, perforation and UV coating are also covered.

3.1 Types of Process

Printing for relatively small quantities is usually carried using one of three common printing processes:

- Offset Lithography – Litho
- Screenprint
- Digital

Litho would be normally used for print runs over 1000 copies – the other two processes tend to be more economical and used for smaller quantities. Litho is also by far the most common printing process for this type of work and will be covered in greatest detail.

Print runs in excess of 100,000 copies are likely to favour Web Off-Set printing which is not covered in this document.

3.2 Litho Printing

Litho printing is probably the most common type of printing. It relies on the transfer of ink from plates (which are made digitally from the design artwork) to the paper via a rubber blanket or roller (hence the term offset). This protects the plate during the printing process by giving it a consistent surface to transfer the ink too.

The machines or presses which do the printing come in different formats depending on whether they are fed from paper on a roll (newspapers) or sheet fed. The similarity though is that the inks are transferred by plates housed in a series of identical units. To allow full colour reproduction, presses with multiple plates/units are required and they are usually made in 4 – 7 unit formats. Each unit houses one plate and is used to print one colour.

For most printed literature in common use

The entire colour spectrum can be reproduced reasonably well by just using four colours:

- C – Cyan
- M – Magenta
- Y – Yellow
- K – Black

This is known as the CMYK or four colour process. There are other processes such as Hexachrome which utilises six different colours to simulate more accurately the colour spectrum but this one in particular is used for high quality print work.

If there are colour photographs to reproduce a four plate press will be required. For two colour work a two plate press can be used. Two colour printing can be very effective and will be slightly lower cost as there are fewer plates to make and a two unit press can be used.

Colours will be reproduced reasonably accurately but there may be some inconsistency from one piece of work to another. If an accurate colour reproduction is required, for example where there is a corporate colour that needs to be reproduced exactly, it will be necessary to print using an ink specially mixed to the required colour rather than expecting the CMYK blend to reproduce it exactly each time.

For a job with colour photographs and a specific colour requirement a five plate press will be required. If there is a need for special colours or finishes presses with more plates are needed. Special finishes can include: metallic finishes, varnishes, coatings, etc.

The international standard for colours is the PANTONE matching system which allows consistent reproduction of colours. So a specific colour can be specified for each print with a guarantee that the colour will be consistent from one job to the next. There are books of swatches available for colour matching and checking.

For four colour printing there is no need to specify a PANTONE as the printer will simply use the CMYK colours to reproduce the range. If there is a specific colour in addition to this it will need to be specified. For example PANTONE 376 is the Recycle Now lime green – looked up in the PANTONE swatches a difference can be seen when it is printed on coated and uncoated paper. Most paper used for printing leaflets is coated (“photocopier paper” and newspapers are printed on uncoated).

Remember that the colour will change if the ink is printed on different types of paper

In contrast to four colour printing a one or two colour print job will need to have the PANTONE colours specified as there is no separation to CMYK. A two colour job can be printed by separating the two colours into CMYK but then the economics are lost because it becomes a four colour job.

Artwork to Press for Litho Printing

Artwork is supplied by the designer as a computer design file. The industry standards are Quarkexpress or Adobe InDesign which are layout packages in which single to multiple page documents can be produced.

The printer receives the file and using his copy of the design software (or other specialist software) separates the colours in the artwork to CMYK.

This gives four colour separations which are then used to produce printing plates – this is in most cases a computer controlled automated process.

The artwork is laid out electronically to fit the size of paper which the press uses. This is normally B3 or B2 which is similar to A3 and A2 but with an extra margin to allow for trimming and an area for the press to grip during the printing process.

Laying out allows the printer to make economies not only in paper but also in the number of plates he has to produce - the term for this laying out is called imposition. In the simplest example by fitting the artwork for a four page A5 leaflet on one side of B3 (finished 4 x A5) means that he only has to produce one set of plates and not two. The leaflets are printed on one side of the sheet and the stack is turned over, reversed and the back of the paper printed. This is very useful to know because if the printer has a choice of a B2 press he can print 2 A5 4 page leaflets using only one set of plates – this can save as much as £500 in producing new plates and setting the machine.

Laying out is very important as it allows the printer to make economies

Usually the printing is carried out on machines where the plates are in line – yellow, magenta cyan and black are printed in turn and the paper passes from one colour unit to the next automatically. The paper may be coated at the end (depending on the type of paper used) and allowed to dry.

Finishing for Litho Printing

Finishing is the term applied to any process after the paper is printed.

Specialist coatings can be applied to the printed paper; the most common are:

- **Laminating** – a plastic coating sealed on to the paper usually on both sides. If a job is to be laminated it should not be printed on matte paper as during the process air can become trapped in the pores as cause silvering. Gloss laminate is usually less costly than matte laminate. Only laminate when you need a waterproof print surface which can be wiped over with a damp cloth (the negative side of lamination is that the paper fibre can not be recovered during recycling and the whole sheet ends up in the mills waste stream)
- **UV varnish** – a specialist varnish which is applied to areas of the print and cured by exposing it to UV light. This gives a high gloss finish to areas of the print and is especially effective on photographs

Generally after the specialist finishes are applied the print can be perforated, die cut, folded or bound and trimmed to size – these processes are usually called finishing. The order can be different depending on the equipment used; for example, perforation can be carried out during the printing process.

Die cutting is not always an expensive option especially if the pattern is relatively simple. £200 - £300 spent on having a die made can make a big difference on the impact a piece of publicity material will have. The printer will arrange for the die to be made from an outline supplied by the designer.

Folding can be very simple, for example folding an A4 sheet in half to produce a four page A5 leaflet or it can be quite complex. Complex folds usually require both die cutting and folding – but can be very effective. It

is always worth talking to a printer about the types of cutter he already has available for producing common items such as folders for holding promotional material. Die cutting and folding are usually carried out on specialist machines.

Printed material is usually trimmed to size and pack in boxes in types which can be easily handled. The printer usually arranges delivery as required.

3.3 Screenprint

Screenprint is used for short run work and can be used for printing on a variety of materials, even or uneven and many different types such as: paper, cloth, glass, and used for printing things such as: t-shirts, circuit boards, CDs as well as posters, stickers, etc. It is a non impact printing process and can be used to print on delicate materials.

Screenprinting is a simple and direct way of delivering ink through a stencil which is mounted on a screen that protects the stencil and maintains registration. It is usually associated with simple prints/posters and has its origins in craft work and is still undertaken in a manual way. It has also been developed in a way which bears comparison with litho printing where a number of screens are made from a computer file. These are then used with different colour inks to produce similar effects to litho (but not to the same quality).

Generally used for simple designs with dense colours where half tones are not required

3.4 Digital Printing

There are a number of different techniques which fall under the term digital but they all share the same benefit that print is produced direct from a computer design file. There is no making up of print plates or stencils and the print is made directly, all colours being applied simultaneously – or apparently so. The most familiar type of digital printer is an inkjet or colour laser type printer which is very similar to those type connected to most PCs.

The paper choice is more limited and the paper is normally produced specially for the process

There are great advantages to this type of printing for small runs as it is easy to customise print, address it individually and print only what is required in the knowledge it can be changed easily for the next print run which will be no more expensive because there are no new plates to make.

The advantage of digital printing is that every print costs the same whether it is the first or the thousandth; the disadvantage is that it is somewhat more expensive than litho which becomes cheaper as more copies are printed. A break even point occurs somewhere between 500 and 1000 copies – below that digital is cheaper, above it digital becomes more expensive as the price of litho reduces.

Common uses would be printing any short run work, posters, and printing on a variety of material such as vinyl which can be used to produce banners, lorry livery, stickers, etc.

3.5 Printing Processes – Pros and Cons

Litho

- Advantages – extremely flexible and cost-effective for most jobs and will print on a wide range of stock
- Disadvantages – higher set up costs than digital

Screenprint

- Advantages – non impact and prints on any kind of substrate and can be used to print brilliant saturated colours
- Disadvantages – small print runs only and not recommended for four colour work and small type

Digital

- Advantages – cost effective for short runs, print can be personalised and very fast turn around
- Disadvantages – expensive compared to litho on long runs, a more limited range of recycled content papers

4.0 Acknowledgements

This document was written by Stefan Wilczak, Associate, MEL Research Ltd. for ROTATE.

Published by
The Waste and Resources Action Programme,
The Old Academy, 21 Horsefair, Banbury,
Oxon OX16 0AH

Tel: 01295 819900

Fax: 01295 819911

www.wrap.org.uk

WRAP helpline: 0808 100 2040

For more detailed advice and assistance you can contact ROTATE at WRAP:

Tel: 01295 819661

E-mail: rotate@wrap.org.uk

www.wrap.org.uk

Disclaimer

While steps have been taken to ensure its accuracy, WRAP cannot accept responsibility or be held liable to any person for any loss or damage arising out of or in connection with this information being inaccurate, incomplete or misleading. The listing or featuring of a particular product or company does not constitute an endorsement by WRAP and WRAP cannot guarantee the performance of individual products or materials. For more detail, please refer to our Terms & Conditions on our website www.wrap.org.uk.

August 2006