Guidance for Digital Roadside Advertising and Proposed Best Practice

Transport for London

04 March 2013

Waterman Transport & Development Limited
Regent House, Hubert Road, Brentwood, Essex CM14 4JE , United Kingdom
www.waterman-boreham.com

Client Name: Transport for London
Document Reference: Final Draft
Project Number: MB/MS/D/TRN 10829

Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2009 and BS EN ISO 14001: 2004)

Issue	Date	Prepared by	Checked by	Approved by
1st Draft	15 Nov 2012	Matthew Brown	Andy McDonald	Matthew Brown
Final Draft	4 March 2013	Matthew Brown	Andy McDonald	Matthew Brown
Comments				

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Foreword

Early in 2012 Transport for London (TfL) instructed The Waterman Group to undertake research into the effects of digital roadside advertising on road safety. Following internal review by TfL's Borough Planning Team, this research was developed into a guidance document by Waterman and vcl^2. The guidance contained within this document has undergone internal review and is fully endorsed by TfL.

1. Introduction

1.1. In the United Kingdom there are existing regulations and guidelines to control roadside advertising in the interests of public safety: (e.g. National Planning Policy Framework, Design Manual for Roads and Bridges, Advertisement Regulations and associated Circulars). However, none of these documents provides clear guidance or consensus regarding the acceptable form of, or location for, digital roadside advertising.

1.2. While a lot of research has been carried out into the impact of traditional forms of roadside advertising on road safety, there is very little research or empirical data available on the relative impact of digital advertising on driver concentration and by association, road safety. As a result, no consensus has yet been reached over its acceptability, and planning decisions are often based on the individual views of Officers, Councillors or Planning Inspectors, commonly without any specific evidence of problems or reference to supporting research.

1.3. Waterman Transport and Development Ltd has therefore been instructed to review the existing research and guidance and to develop new guidelines to best inform the acceptability of specific digital advertising proposals.

1.4. This report will be updated in line with any new research or statistics relating to digital roadside advertising.

2. Existing Research and Guidance

2.1. A review of all of the relevant research and guidance on roadside advertising was undertaken at the outset of this instruction and is summarised in the bibliography.

2.2. A review of accident statistics around existing digital sites was also undertaken, although as these sites only date back to 2009, there is not currently enough empirical data available for use in the first issue of this report.

2.3. Based on the literature review and on our own knowledge and experience of the field it is considered that there is no demonstrable proof that advertisements cause traffic collisions.

2.4. Nevertheless, based on existing research it is also clear that in certain circumstances, advertisements can contribute to driver distraction.

2.5. Such circumstances are where drivers are faced with increased cognitive demand. Research has identified that busy junctions, merges, diverges,complicated road geometries and sections of road with high speed limits or lower speed limits with increased recorded 85th percentile speeds as being locations of such increased cognitive demand.The siting of advertisements in such locations, whilst not uncommon or inherently unacceptable, will require more careful consideration than in areas where the road layout is less complicated and the demands on the driver are lower.

2.6. Based on the above principles, the assessment of whether roadside advertisement is appropriate must be based on consideration of both the location and of the level of distraction.

2.7. Whilst research indicates that digital roadside advertising is not inherently unsafe, moving images or advertising with complex information is likely to add to the level of distraction. The balance is therefore in ensuring that the level of distraction is minimised, particularly at locations where a high level of concentration is required from the driver.

2.8. Digital advertisements are highly controllable and it is therefore possible to provide recommendations to manage the level of distraction by control of type, brightness, form of change and interval between advertisements, as well as giving detailed consideration to appropriate locations and positioning.

2.9. This report will go on to explain the existing methods for assessing the appropriateness of advertising in terms of location and will provide further guidance to manage and minimise the potential for distraction.

3. Current Assessment

3.1. Although there are guiding principles within Annex B of Government Circular 03/2007, at the time of this report being commissioned there is no established methodology for assessing proposals for digital advertising in the context of road safety. This has resulted in an inconsistent approach being taken by decision makers, which has contributed to an overreliance on the appeal system by the advertising industry.

3.2. As most other highways issues are dealt with through quantitative analysis and method, various attempts have been made to develop a methodical approach to site selection and assessment. However, as yet there is no standard guidance or industry consensus and each approach taken by applicants differs.

3.3. The aim of this report is therefore to establish a common best practice approach towards assessment. The following case studies explore Transport for London's approach towards assessing risk on its own land, and the outdoor advertising industry's attempts to self-regulate. Both examples are considered to represent the best current practice towards digital advertising, and whilst differing in approach, are complimentary to one another.

Case Study 1: Transport for London (TfL) Approach

3.4. In order to provide a more consistent approach to assessing proposals for advertising on its own land, in 2011, Transport for London (TfL) sought to develop a method of assessment which would identify low risk sites within its land portfolio.

3.5. Following internal consultations between TfL's Safety, Risk, and Design Services Department, and the Commercial Property and Development Planning teams, a standard risk assessment process was agreed, which would involve a site visit and desk based assessment of the proposals by two qualified safety assessors. The assessment was based upon the completion of a standardised "Advertising Safety Guidance Form" (ASGF), an example of which is included at ***Appendix A***.

3.6. Following completion of an ASGF, assessors would either recommend a site as suitable or unsuitable for advertising, orthat a further Road Safety Audit needs to be be undertaken. Following a safety audit a site would either be deemed acceptable; acceptable with conditions; or unacceptable.

Case Study 2: Outdoor Media Centre (OMC) Approach

3.7. The OMC (formerly the Outdoor Advertising Association) is a trade and marketing body for outdoor advertising made up of board members and associates from various outdoor media owners and agents. In January 2011 the OMC published a code for digital roadside advertising which mirrors current guidance and pledges not display sequential images at a changeover of any less than five seconds unless specific consent has been granted. A copy of this voluntary code is at ***Appendix B***.

4. Best Practice for Assessment

4.1. Taking into consideration all existing guidance, research and established practice, the following is recommended as best practice guidance for the consideration of the acceptability of sites for roadside digital advertisements:

General

- Adverts should not resemble existing traffic signs or provide directional advice.
- Adverts in proximity to traffic signs or signals require detailed analysis to ensure that no conflict occurs.
- Adverts in proximity to schools, hospitals, low bridges and pedestrian crossings also require detailed analysis to ensure that no conflict occurs.
- Advertising should not obstruct required sight lines at corners, bends or at a junction, or at any point of access to the highway. The desirable sight lines should be assessed in accordance with the guidance contained within the Design Manual for Roads and Bridges or Manual for Streets as appropriate based on the type and speed of the road in question.
- All advertising structures must leave sufficient clearance for vehicles on the carriageway. The recommend clearances are detailed in the Traffic Signs Manual.
- All structures must leave sufficient clearance for the maintenance of transport assets, such as bridges.

Locations

- Static digital advertising is likely to be acceptable in locations where static advertising exists or would be accepted.
- Sites at locations with high collision rates require detailed analysis
- Sites adjacent to rural roads may not be acceptable if there are otherwise low levels of information in the external environment.
- Locations with tight geometry or major junctions, merges, diverges or pedestrian crossings and located in the urban environment would require detailed analysis.
- Proposals should be considered on a site by site basis to ensure that the individual circumstances and physical constraints are fully assessed,
- The acceptability of individual sites should take account of appropriate measures to mitigate their impact by control of brightness, form of change and interval between advertisements.

Longitudinal Spacing Between Digital Advertisements

4.2. The acceptable distances between the screens need to be assessed on a site by site basis to ensure that suitable spacing can be achieved, based on typical road speeds and highway layouts.

4.3. Drivers should only see the details of a roadside digital advertisement one screen, or a pair of synchronised screens, at a time. This is to ensure that multiple images do not change at different times, which can add to driver distraction.

Position

4.4. Digital advertisement is likely to best be located alongside the nearside carriageway or overhead to reflect where official road signs would normally be located. This approach will locate the

advertisement in driver's eye line and reduce the risk of drivers turning attention away from the road.

4.5. Other location may be acceptable if they are within the eyeline of drivers and do not create unacceptable risks of diverting attention.

Orientation

4.6. Digital Advertisements are best orientated to face the oncoming driver as would be the case with official road signs.

Minimum Message Display Duration

4.7. The minimum message display duration should ensure that the majority of approaching drivers do not see more than one or two messages. This reduces the risk of driver's attention being focused on the digital display for long periods in anticipation of the next image.

4.8. At sites where the cognitive demands on a driver may be higher, restricting the rate of change further to reduce the risk of a driver seeing more than one message at a time on a digital advertisement should be considered. The following formula can be applied to reduce the risk of drivers seeing more than one image:

4.9. Maximum sight distance to the digital advertisement (Metres / Speed limit (Metres / sec) = minimum display duration (sec)

4.10. Where the advert is visible in the same view as traffic signals, the timing of the signals should where possible be taken into account when calculating the message display.

Display Screen Form and Message Sequencing

4.11. Digital Advertising should not contain moving images or sequencing of images over more than one advert.

4.12. There should be no message sequencing where a message is spread across more than one screen image.

The Rate of Change

4.13. Research has shown that the period of change is an area where there could be some additional distraction to drivers. The intervals between successive displays should be essentially zero, as a slow merge or bright-dark-bright sequence is more visually compelling than a bright-bright sequence and hence has more potential for distraction.

4.14. It is recommended that the rate of change should best be set to be in effect instantaneous. This could be controlled by condition with a view that such a condition could be altered by agreement in the future if alternative guidance is provided in the UK.

Information Displayed on the Screen

4.15. The nature of advertising content is outside the scope of this report to a certain extent as the advertising standards agency is responsible for the advert content. However, the research investigated suggests the following best practice:

- Phone numbers / web addresses details should be avoided in most circumstances.
- Advertising that requires excessive eye dwell time to assimilate information should be avoided.

Lighting

- The Institute of Lighting Professionals (ILP) Technical Note 5 gives guidance on the maximum brightness of signs.
- Digital advertisements are dimmable over a very wide range. The actual values should therefore be agreed with the LPA during application stage.
- Night time levels of luminance can be based on the luminance of other signs and surfaces such as floodlit buildings in the area. Typical values in urban areas would be in the range of 100-300 Cd/m2.
- Day time levels of luminance would need to be higher to ensure that the signs remain visible. This should be controlled by light sensors to measure the ambient brightness and dimmers to control the lighting output to within acceptable limits.
- Light sensors and other display controls can effectively be set to reflect local approach to street lighting.

5. Summary and Conclusion

5.1. Research indicates that digital roadside advertising is not inherently unsafe but should be operationally managed in accordance with the site specific constraints of the location.

5.2. Sites at locations with increased driver cognitive demand should not immediately be excluded or discounted, but should be subject to detailed assessment.

5.3. An assessment method similar to that adopted by TfL (***Appendix A***) should be used to assess the appropriateness of the location and the level of risk in a methodical rather than subjective manner.

5.4. Controls over the use of digital adverts should follow the best practice guidelines in this report and should be secured by special condition, with more careful management required in higher risk locations. As a minimum, the OMC roadside digital code should be complied with (***Appendix B***).

5.5. Not all sites will be appropriate for advertising, but with appropriate controls, digital advertising should be no more or less acceptable than traditional forms of advertising (i.e. backlight, poster and paste, vinyl etc).

Bibliography and Summary of Research

Publications:

Planning Policy Guidance 19 (PPG19) Department of the Environment Welsh Office (March 1992) (Withdrawn March 2012)

National Planning Policy Framework Department of Communities and Local Government (March 2012)

Town and Country Planning (Control of Advertisements) (England) Regulations 2007

Outdoor Advertisements and Signs: A Guide to Advertisers Department of Communities and Local Government (June 2007)

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Design Manual for Roads and Bridges Advice Note TA57/87 Department for Transport (January 1989)

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Research:

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APPENDICES

A. Advertising Safety Guidance Form – ASGF

Advertising Safety Guidance Form – ASGF

Document ID	
Prepared By	
Checked By	
Issue Date	

A: Site Characteristics

DP Area Team:	Central
Borough:	e.g. Southwark
Road Number:	e.g. A2 Old Kent Road
Location Description:	Give brief description of where advert will be located, e.g. 'on western flank wall of 344 Old Kent Road at first floor level'.
Grid Reference:	Eastings and Northings
Assessor's Name:	Enter assessor's name
Time:	Enter time of site visit, if one has been made
Date:	Enter date of site visit, if one has been made
Weather:	Enter weather and light conditions at time of site visit, if one has been made.
Advert Display Size:	If known, enter size of advert, e.g. 48 sheet or 6m x 4m. If other, enter known details.
Advert Display Type:	If known, enter details about advert display, i.e. Illuminated or non-illuminated? Static or scrolling? Will traffic information or news headlines be displayed?
Advert Orientation:	Is the advert single or double sided? What is the main audience of the advert (i.e. Northbound drivers, pedestrians etc)?

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Adverts will not normally be permitted if:

1. ADU is proposed to be installed within the controlled zigzag area or within 20m of a pedestrian crossing* (either on the approach or the exit), bus stops or change in carriageway characteristics (i.e. bus lane start, speed limit change)

Yes / No

2. ADU is proposed to be installed within 100m of a school or hospital entrance or exit.

Yes / No

3. ADU is proposed to be installed on footway unless Disability Discrimination Act (DDA) compliant

Yes / No

4. ADU is proposed to be installed where a slip road merges onto a high speed road

Yes / No

B: Sketches

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INSERT IMAGE/MOCK-UP HERE

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INSERT MAP OF LOCATION HERE

C: Site Specific Analysis - Issues for consideration

Issue	Comments	Checked	Issue	Comments	Checked
Traffic signals: Are there signals close to the advert? Does the advert obscure them? Will the advert be seen behind the signals? Will the advert cause the driver to look a significant distance from the signals?			**Maintenance / Installation:** Can the advert be serviced safely (cleaning, poster change etc)? Is there a safe place for vehicles to stop and service the site?		
Traffic signs: Are there traffic signs close to the advert? Are they safety critical? Does the advert obscure them? Will the advert be seen behind the signs? Will the advert cause the driver to look a significant distance from the signs?					
Footways Will the advert impact on pedestrians or cyclists? This is particularly relevant for signs located in the footway. What is the remaining footway width and pedestrian flow? Does the advert effect pedestrian sightlines?					
Any other Visibility and Sightline issues for road users?			**Any other comments?**		

D: Site Specific Analysis - Accident record

Is the collision rate at the junction higher than the borough average for this type of site?

Yes / No (If yes proceed to questions below)

Table 1: Collision Data for the 36 Month Period Prior to the Site Visit
Please enter details of accident study area here - which links and nodes have been considered?

Collisions in the 12 month period ending:	Fatal	Serious	Slight	Total
12 Months period to [date]				0
12 Months period to [date]				0
12 Months period to [date] (this should be the most recent, i.e. 2009/10)				0
Total Collisions	0	0	0	0

Please use this box to make any notes on the accident analysis.

Table 2: Collision Totals and Percentages for the Main Collision Types
Comparative collision rate from Levels of Collision Risk in Greater London (issue 12) Table XX

	Pedestrians	Wet	Dark	P2W	KSI	Pedal Cycle	Total
Number of Collisions							0
Percentage of Total (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Comparative Collision* (%)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

*Each Collision type as a proportion of total collisions at relevant suitable sites.

Below borough average collision rate
Above borough average collision rate

E: Conclusions

Based on the above analysis, should the proposed advertisement be permitted in its current form? If not, why not?					
Do you recommend that a safety audit is carried out? Yes / No					
If the assessor is of the opinion that the advertisement should not be permitted, are there changes that could be made to the proposal that would address the above concerns? This may include changing the type, size, content or orientation of the display, or through the use of appropriate planning conditions.					
Assessed by:		Signed:		Date:	
Checked by:		Signed:		Date:	

B. Digital Large Format Roadside Code

DIGITAL LARGE FORMAT ROADSIDE CODE

INTRODUCTION

Digital technology is changing the delivery of information. There are digital cameras, digital phones, digital television, digital radios, digital newspapers and now digital billboards.

Digital billboards will be one of the main growth areas for outdoor companies over the next few years as the industry seeks to adapt the old fashioned billboards for the digital era we are now in.

On billboards, digital technology still produces poster images but these are changed electronically via computer, hence no need for traditional billposting with ladders and vans or the paper and vinyl sheets on which the poster images are traditionally printed.

Digital technology is simply thus a new non-manual way to post billboard advertisements.

The use of modern technology to deliver images on to roadside billboards allows not only useful commercial information to be dispersed to the general public, but enables police and government agencies to deliver speedy emergency information and quick communication to the public.

Typically at present a digital billboard advertisement is displayed for 6 to 8 seconds and then fades away. A new message then appears.

THE CODE

- Mirroring current roadside legislation, there shall be no moving images, animation, video or full motion images displayed unless consent has been granted for such displays.
- The advertising copy on digital roadside billboards should not change more frequently than every 5 seconds unless consent has been granted for such displays
- The luminance level of a digital roadside billboard shall comply with the Institute of Lighting Engineers Technical Report no 5 (2003).
- Roadside digital displays in England will conform to the five 'Standard Conditions' specified in Schedule 2 of The Town and Country Planning (Control of Advertisements) (England) Regulations 2007, in Wales in Schedule 1 of The Town and Country Planning (Control of Advertisements) Regulations 1992, in Scotland in Schedule 1 of The Town and Country Planning (Control of Advertisements) (Scotland) Regulations 1984. and in Northern Ireland in Schedule 1 of The Planning (Control of Advertisements) Regulations (Northern Ireland) 1992.

Outdoor Media Centre

January 2011

Waterman

Transport for London

*Project Office