A DATA-LED APPROACH

Recognising the need to provide planners and designers with support in making judgements on key design aspects of busier streets, MfS2 makes extensive use of new research and case studies.

The Link Between Visibility At Priority Junctions And Collisions

The purpose of this research was to identify whether or not a direct relationship can be established between variations in visibility and collision frequency at priority junctions.

A series of ‘high risk’ priority junctions were identified as the basis for research. Uncontrolled crossroads and T-junctions were selected for all classes of road with 20, 30 and 40mph speed limits in Nottinghamshire, Sandwell, Lambeth and Glasgow. Each location was analysed in detail to identify specific collision characteristics.

Detailed statistical analysis confirmed that visibility distance from the side road cannot be seen as a single determining factor at these high risk collision locations.

Case Studies

MfS2 makes extensive use of case studies to demonstrate how MfS principles can be applied to the wider highway network to enhance ‘place’ and safety. Research by CABE for the study includes:

- Walworth Road, London
- London Road, Southampton
- Sheaf Square and Howard Street, Sheffield
- High Row and West Row, Darlington
- Msid Marian Way, Nottingham

The ten schemes delivered as part of DfT’s Mixed Priority Routes, covering city centre, urban and suburban street environments are also referenced extensively.

MfS2 provides a window onto a range of successful schemes that can provide inspiration and guidance.

Copies of the document can be purchased through CIHT and WSP provides training services for MfS and MfS2.

MfS2 has been prepared for the Chartered Institution of Highways and Transportation (CIHT) by a multi-disciplinary team of consultants. The document is endorsed by the Department for Transport (DfT), Communities and Local Government, the Homes and Communities Agency (HCA), the Commission for Architecture and the Built Environment (CABE), the Association of Directors of Environments, Planning and Transport (ADEPT) and English Heritage. All of these organisations contributed to its development. Manual for Streets 2 provides advice and does not set out any new policy or legal requirements.
WHY THE NEED FOR ANOTHER GUIDANCE DOCUMENT!

When published, Manual for Streets (MfS) stated that its principles could be applied to busier streets outside residential areas. This companion document, Manual for Streets 2: Wider Application of the Principles (MfS2), gives guidance on how the MfS principles can be applied to these busier streets, so helping to fill the gap in design guidance between MfS and the Design Manual for Roads and Bridges.

At its core is the premise that roads and streets should be designed to create desired speeds and traffic flow rather than being designed to accommodate existing speeds.

By rethinking the way high streets and non-trunk roads are designed we can change the fabric of our public spaces and the way people behave. It means embracing a new approach to design and breaking away from standard, traditional engineering solutions.

This new document does not supersede MfS; rather it explains how the principles of MfS can be applied more widely. The numerous sources it draws upon include: the Department for Transport’s Mixed Priority Route research study, interim findings from the ongoing Department for Transport’s research study into Shared Space, case studies including detailed research by CABE and further research into the relationship between junction visibility and collisions.

WHAT’S NEW IN MFS2?

Integrating Link and Place Functions
The guide integrates the fundamentals of “Link and Place” allowing the engineer to set the right design strategy – whether a route’s main function is to act purely as a ‘link’ or is interspersed with ‘places’ as the local context changes, to meet the need for local social and commercial activity.

Integrating engineering and urban design elements provides all users of the guidance with a powerful tool for developing new urban realm initiatives.

Understanding Safety at Junctions
MfS2 shows how the reduced sight lines recommended in MfS can be applied to busier streets. It also addresses the issue of reducing street clutter and not resorting to signs, lines, guard rails and bollards as the ‘fall back’ design option.

High risk priority junctions from across the country were assessed, looking at the correlation between poor visibility and collisions. It concludes that visibility is not a significant determining factor in collisions at such junctions.

This allows designers and planners to make sensible choices, reduce sanitised areas associated with visibility splays and to deliver more flexible schemes.

Stopping Sight Distances
Following the publication of MfS some concerns were raised about the use of the stopping sight distances for buses and HGVs, which stop less rapidly. MfS2 provides guidance on when consideration should be given to the HGV/bus element of the traffic flow, with some improved empirical data on stopping distances.

Designers will be able to make informed choices based on the latest evidence, allowing locally sensitive designs to balance physical and environmental constraints.

THE BENEFITS

Busy streets are some of our most important; from an economic, cultural, transport and movement perspective. Any investment made must deliver tangible benefits easily recognisable in real and credible terms.

Market Value
The ‘Quality’ of a street (in terms of materials and design) is shown to have a direct impact upon market prices of local properties. Improvements can deliver change and movement “up market” for local businesses as well as significantly increasing footfall.

This provides a real and immediate benefit to the local economy through increased property values and increased rental values for commercial and retail properties.

Improved Road Safety
Many of our busier streets are hazardous for users, especially the more vulnerable pedestrians and cyclists. Quality design provides a safe and more pleasant environment and can deliver significant reductions in the levels of road casualties.

These reductions result in immediate social cost savings ranging from healthcare costs to loss of earnings.

Reduced Maintenance
MfS2 supports the simple, neat street design approach of reduced street clutter. This results in reduced signing, lining, and protective features and is naturally self-enforcing.

With less street furniture there will be less to maintain, and what is maintained will be done so more effectively through easier access for cleaning machinery and operatives.

Reduced Space
The MfS2 approach to control driver behaviour through reduced carriageway width provides more space for people and other modes of transport. Reduced sight lines can also result in more developable land.

‘WSP led the development of Manual for Streets. We’ve now delivered another important guidance document addressing key design issues on our busier streets. As lead author, we’ve produced Manual for Streets 2 for the Chartered Institution of Highways and Transportation.’

1  CABE: Paved with Gold the Real Value of Good Street Design. (2007)