

**NORTH YORKSHIRE COUNTY COUNCIL**  
**TRANSPORT, ECONOMY AND ENVIRONMENT**  
**OVERVIEW AND SCRUTINY COMMITTEE**

**17 JULY 2012**

**DESIGN STANDARDS FOR DEVELOPER FUNDED HIGHWAY WORKS**

**Report of the Corporate Director – Business and Environmental Services**

**1.0 PURPOSE OF REPORT**

- 1.1 The purpose of this report is to seek Members views on a proposed Policy for the application of appropriate design standards for developer funded road works within North Yorkshire

**2.0 BACKGROUND**

- 2.1 There are two national standards that apply to road design; Design Manual for Roads and Bridges (DMRB) and Manual for Streets (MfS). DMRB is produced by Highways Agency (HA) and is the design standard for the Strategic Road Network (SRN) (Trunk Roads). MfS is advice on road design which was first published in 2007 by the Department for Communities and Local Government and the Department for Transport and initially focussed on the design of lightly trafficked residential estate roads. There is an area of overlap between the two standards.
- 2.2 The two documents apply different standards for visibility splays at accesses. The choice of which standard to apply can make the difference between approval and refusal of development proposals. Whilst this is a matter for engineering judgement the County Council (NYCC) as Local Highway authority (LHA), needs to have robust guidance in place to support officer's judgement in the choice of standard used in assessing developer's proposals through the planning process.
- 2.3 Visibility splays at any entrance or junction are measured along the edge of the main road (the "Y" distance) from a point a set distance back from the edge of the main road (the "X" distance). The "Y" distance is set by the speed of traffic and is not dependent on volumes of traffic using either the main road or the access. It is in the assessment of the "Y" distance that the two standards differ.
- 2.4 A briefing note was approved by the Corporate Director, BES in November 2007 (Appendix 1) which generally indicated that all highways in built up areas with a design speed below 60 kph were to be classified as "streets" and highways

outside the built up area or with design speeds above 60kph were to be “roads”. Experience since then has shown that a more formal policy is required. .

- 2.5 The choice of the appropriate standard to apply is not a straightforward matter. A matrix, attached at Appendix 2, is proposed to enable a defensible decision to be made.

### 3.0 **THE TWO STANDARDS**

#### 3.1 **DMRB**

- 3.2 This is produced by HA as the mandatory design standard for the SRN. It is also used by most LHAs, including NYCC, as the appropriate design standard for major roads. The main emphasis of the standard is providing a safe road network for vehicles. It has been used to design all major bypass schemes within North Yorkshire and is the standard being used for BALB. Carriageways designed to this standard are defined as “roads”

#### 3.3 **MfS**

- 3.4 The reference to MfS is a generic term which is applied to two documents, MfS1 and MfS2. MfS1 was produced as a more appropriate standard to apply to light traffic residential roads. MfS2 expanded on the MfS1 principles and the importance of the public place and applied this to high streets and lightly trafficked lanes in rural areas. It also indicates the strict application of DMRB is rarely appropriate in urban areas. It also bases its stopping distances on research which gives different major road or “y” stopping distances from DMRB. Carriageways designed to this standard are known as “streets”.

- 3.5 The “y” distances required by the two standards are as follows:-

Design Speed		DMRB “y” distance	MfS “y” distance (based on 0% gradient)
mph	kph		
60	100	215 m	Not applicable
50	80	160 m	Not applicable
40	64	120 m	Not applicable
*37	60	90m	62
30	48	90 m	45 m
25	40	Not applicable	34 m
20	32	Not applicable	24 m

\* Threshold for MfS Stopping Distances

- 3.6 The ability for a developer to apply MfS standards will enable some sites to be developed which could not be developed with DMRB. This places pressure on LHA officers to accept MfS standards.

#### **4.0 THE ISSUES**

- 4.1 Officers considering developers' proposals on the existing NYCC highway network need to be able to make a defensible decision on whether DMRB or MfS design standards are to apply based on current advice and sound engineering judgement. The decision is particularly important for applications for accesses to the existing highway network from development.
- 4.2 MfS 2 advice indicates DMRB is rarely appropriate for roads which are not part of the SRN. Whilst this advice may be appropriate for many LHAs the particular character of much of NYCC's highway network means rigid application of the MfS2 advice would be inappropriate.
- 4.3 NYCC's highway network has many inter-urban A class roads with a string of villages along them for example the A170, A684 and A63. Whilst speed limits are reduced through the villages, the place function is always dominated by the movement function of the A road traffic. In these locations it would often be inappropriate to allow design standards to be relaxed below those from DMRB to the street standards advocated by MfS. In the case of the A63 its previous status as part of the Trunk Road network meant that DMRB standards had to be applied. Once it was "de-trunked" and became part of NYCC's highway network MfS advice indicated it would be considered as a "street" with MfS standards applying. This was without any changes on the ground to alter the character of the road for drivers. There are several heavily trafficked B Class roads that also fall in this category.
- 4.4 When considering new roads by developers guidance is much clearer. All new residential estate roads are designed as "streets" to MfS. All new inter urban routes are designed to DMRB. There are some major urban link roads where a hybrid is being developed. The carriageway and side road junctions are being designed to DMRB for 30mph with the pedestrian areas and margins to the carriageway being designed with an MfS philosophy.

#### **5.0 THE PROPOSED MATRIX**

- 5.1 The proposed matrix (Appendix 2) enables officers to make a professional judgement given the location of the site and establish which standard is appropriate.
- 5.2 It is based upon the place and movement matrix contained in MfS2. These balance the emphasis needed to be given to the "place" function against the "movement" characteristics for the particular location. The matrix has been prepared to take account of the particular characteristics of NYCC's highway network.
- 5.3 Appendix 3 gives examples of how existing roads within North Yorkshire would fit in the matrix.

## **6.0 CONSULTATION**

- 6.1 The proposed matrix has been considered at a meeting of the “North Yorkshire Development Management Officer’s Group”; this is part of the North Yorkshire Planning Officer’s Group (NYPOG) network and is attended by all ten Planning Authorities within North Yorkshire.
- 6.2 The group welcomed the matrix as it would enable robust advice to be provided by the LPAs. The prudence of revisiting the advice and updating it with robust advice that has been the subject of consultation was also noted.
- 6.3 The proposed policy will be the subject of a report to the Executive which will include the views of this committee.

## **7.0 PROGRAMME FOR DELIVERY**

- 7.1 To secure formal adoption by NYCC and to give the policy maximum weight it is proposed that a report is produced for the Executive and the formal adoption is sought through the full County Council meeting.
- 7.2 It is hoped that, following adoption by NYCC, the ten individual Planning Authorities within North Yorkshire will also adopt the guidance and matrix within their own planning processes.

## **8.0 EQUALITIES IMPLICATIONS**

- 8.1 Consideration has been given to the potential for any equality impacts arising from the recommendation. It is the view of officers that the recommendation does not have an adverse impact on any of the protected characteristics identified in the Equalities Act 2010.

## **9.0 FINANCE**

- 9.1 There are no financial implications associated with the introduction of these proposals.

## **10.0 CONCLUSIONS**

- 10.1 Advice is needed on when to apply DMRB and MfS. The prudence of revisiting the advice and updating it with robust advice has been identified.
- 10.2 New advice based upon a matrix comparing “movement” and “place” functions is proposed. This will provide a robust position from which to assess developers’ proposals.

10.3 The new advice needs to be formally adopted as NYCC Policy. It is also hoped that, the ten individual Planning Authorities within North Yorkshire will also adopt the guidance and matrix within their own planning processes.

**11.0 RECOMMENDATION**

11.1 Members views are sought on the proposal to adopt a policy that uses the matrix in Appendix 2 is accepted as the appropriate mechanism for guiding engineering judgement in determining when Design Manual for Roads and Bridges (DMRB) or Manual for Streets (MfS) standards should apply.

DAVID BOWE  
Corporate Director – Business and Environmental Services

Author of Report: Pam Johnson

Background Documents: None

- Review then → **DB for approval.**
- Construction Manual will go to

**BRIEFING NOTE REGARDING CHANGES IN REQUIREMENTS FOR VISIBILITY AT JUNCTIONS** *Full Council in due course. Suggest that Gordon approves this interim*

**1.0 PURPOSE OF REPORT**

1.1 To seek approval of amendments to the requirements for visibility splays at junctions in the light of the revised guidance outlined in the Department for Transport's document "Manual for Streets".

*update which would eventually be ratified by Full Council as part of CM approval.*

**2.0 BACKGROUND**

2.1 The County Council's Residential Highway Design Guide was published in 1994 and work is currently under way to revise and update it as a guide for developers as part of the Construction Manual.

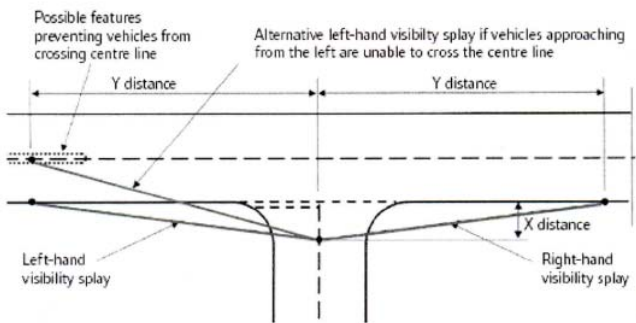
2.2 In Spring 2007 the Department for Transport published the document "Manual for Streets" (MfS) which superseded previous guidance on estate layout design given in "Design Bulletin 32" and its companion document "Places, Streets and Movement". The new document focuses on lightly trafficked residential streets but many of its key principles could be applied to high streets and roads in rural areas.

*DM 08/11/07*

**3.0 THE CHANGES REQUIRING ATTENTION**

3.1 Among the changes in the guidance detailed in MfS are new requirements for visibility at junctions. It takes a more realistic view of a driver's ability to stop based on driver reaction times and given the improvements to braking systems on modern vehicles. It recommends shorter visibility distances along the kerbline – the "y" distance - which should be kept clear of obstructions. It also changes the criteria in respect of the "x" distance from where the driver would normally be looking. See Sketch below

*I agree with this approval I will ask Gordon to approve.*



*Authorised 15/11/06*

- 3.2 The MfS relates specifically to “the street” and makes a distinction between it and “a road”. The latter being described “as essentially highways whose main function is accommodating the movement of motor traffic.” On the other hand a street is described as a highway with important public realm functions beyond the movement of traffic, it is typically lined with buildings and public spaces, its principal functions being -

**place** – essentially what distinguishes a street from a road and arises from its relationship with the buildings and spaces that frame it. A place takes into account a streets local distinctiveness, visual quality and propensity to encourage social activity.

**movement** - providing movement for – in order of priority - pedestrians, cyclists, public transport, specialist service vehicles and other motor traffic

**access** – to buildings and public spaces which front the street and are directly accessible on foot.

**parking** – is a key function of many streets its quality having a significant impact on the quality of the street scene

**drainage, utilities and street lighting** – streets are the main conduit for drainage and utilities.

- 3.3 While the guidance is primarily for designers of new developments they will invariably impact on the existing highway network as all new roads have to link to highways that are maintained at the public expense if they are to be adopted under the terms of the Highways Act 1980. This causes a problem for those Officers charged with the responsibility for making recommendations to Planning Authorities as to the acceptability of development proposals in highway terms on behalf of the County Council in its role as the highway authority. They will have to come to a view as to whether an existing highway is a “street” or a “road” as defined by MfS before they can apply the appropriate standard for the visibility requirements.

- 3.4 It is proposed therefore that as a general rule all highways in built up areas will be classified as “streets” provided that the measured 85 percentile speed is less than the specified speed limit or 60kph (37mph) whichever is the lesser. The corollary of this is that all other highways outside built up areas and those where the 85 percentile speed criterion is not met will be “roads” and NYCC standards will apply.

- 3.5 The differences in the requirements for visibility are detailed in the following table:

		30 kph 19mph	40kph 25 mph	50kph 31mph	60kph 37 mph
X distance	MfS	2.4 or 2.0 absolute minimum *			
	NYCC	2.0 – 9.0m *			
Y distance	MfS	23m	33m	45m	53m
	NYCC	33m	45m	70m	90m

\* the X distance varies according to the number of dwellings and / or type of use

#### 4.0 NEED FOR AMENDMENT

- 4.1 At the present time recommendations to Planning Authorities in relation to visibility splays are based on the County Council's Residential Highway Design Guide. As these are more onerous than those given in the national guidance outlined in MfS – which the developer may have followed - a recommendation to refuse the application would be made if visibility criteria could not be met. The applicant could then appeal to the Secretary of State, the Planning Inspector may decide that the MfS standard is adequate, find for the appellant and award costs against the County Council.
- 4.2 To maintain consistency in the responses to planning application consultations, it is recommended that the Asset Management team keep a register of any exceptions to the general rule outlined in paragraph 3.4 above.

#### 5.0 CONCLUSION

- 5.1 The change in the guidance from the Department for Transport will be used by developers immediately as it may allow a site to be developed that previously would be precluded due to highway visibility problems. It is important therefore that the County Council are in a position to react to this eventuality without falling foul of the Planning Appeal procedure. To achieve this it is important that the relevant Officers are able to apply the new standards rather than those detailed in the current Residential Highway Design Guide.
- 5.2 The differentiation between "road" and "street" will be crucial in determining the visibility requirement at junctions and which standard is applied. It would seem that provided we have a robust and consistent categorisation of the highways within the County we will be able to defend our recommendations at Planning Appeals.

#### 6.0 RECOMMENDATION

- 6.1 That the requirements for visibility splays at junctions as detailed in the Manual for Streets be applied to those highways which are considered to be "streets" as outlined in paragraph 3.4 in preference to those detailed in the County Council's Residential Highways Design Guide.



Road= DMRB Standards	
Street = MfS Standards	

Assessment Matrix

	No Place status	Some Place Status	Significant Place Status
<b>A Roads</b> NYCC categories 2;3a and 3b	60 mph speed limit Vehicles take priority Through traffic dominates Any pedestrians intimidated by traffic Generally in open countryside No sense of space	Generally 60 or 40 mph speed limit Vehicles take priority Through traffic dominates Pedestrians feel intimidated by traffic Some limited sense of space	Usually 30 or 40 mph speed limit Vehicles take priority Through traffic dominates Pedestrians feel intimidated by traffic space functions subservient to traffic
			20 or 30 mph speed limit speeds at or below limit vehicles respect pedestrians at peak pedestrian times heavy pedestrian footfall particularly at peak pedestrian times pedestrians feel safe road and footway lighting
<b>B and C Roads</b> All NYCC categories	60 mph speed limit Vehicles take priority Through traffic dominates Any pedestrians intimidated by traffic Generally in open countryside No sense of space	Generally 60 or 40 mph speed limit Vehicles take priority Through traffic dominates Pedestrians feel intimidated by traffic Some limited sense of space	Usually 30 or 40 mph speed limit Vehicles take priority Through traffic dominates Pedestrians feel intimidated by traffic space functions subservient to traffic
			20 or 30 mph speed limit speeds at or below limit vehicles respect pedestrians at peak pedestrian times heavy pedestrian footfall particularly at peak pedestrian times pedestrians feel safe road and footway lighting
<b>Unclassified Roads</b> All NYCC categories	60 mph speed limit Vehicles take priority Through traffic dominates Any pedestrians intimidated by traffic Generally in open countryside No sense of space	Generally 60 or 40 mph speed limit Vehicles take priority Through traffic dominates Pedestrians feel intimidated by traffic Some limited sense of space	Usually 30 or 40 mph speed limit Vehicles take priority Through traffic dominates Pedestrians feel intimidated by traffic space functions subservient to traffic
		30 mph speed limit speeds at or below limit vehicles subservient to pedestrians pedestrian usage pedestrians feel safe	20 or 30 mph speed limit speeds at or below limit vehicles respect pedestrians at peak pedestrian times heavy pedestrian footfall particularly at peak pedestrian times pedestrians feel safe road and footway lighting
<b>Estate Roads</b> NYCC categories 4a and 4b	Industrial Estate roads HGVs dominate Vehicles take priority No sense of space	30 mph speed limit speeds at or below limit vehicles subservient to pedestrians pedestrian usage pedestrians feel safe	20 or 30 mph speed limit speeds at or below limit vehicles respect pedestrians pedestrian usage pedestrians feel safe may be lit



EXAMPLES OF EXISTING ROADS WITHIN NORTH YORKSHIRE AND HOW THEY WOULD FIT IN THE MATRIX			
	No Place status	Some Place Status	Significant Place Status
<b>A Roads</b> NYCC categories 2;3a and 3b	<ul style="list-style-type: none"> <li>A684 between villages</li> <li>A170 from Sutton bank to Helmsley</li> <li>A19 South of York</li> <li>A63 east of the A1</li> <li>BALB</li> </ul>	<ul style="list-style-type: none"> <li>A61 at Carlton Miniott</li> <li>A167 Darlington Road , outside Sam Turners</li> <li>A684 Aiskew</li> </ul>	<ul style="list-style-type: none"> <li>A63 Hambleton</li> <li>A684 at West Witton</li> <li>A170 Aislaby</li> </ul>
			<ul style="list-style-type: none"> <li>A61 Thirsk Market Place</li> <li>A170 Helmsley</li> </ul>
<b>B and C Roads</b> All NYCC categories	<ul style="list-style-type: none"> <li>B6265 from A1 to Masham</li> <li>B6271 form Northallerton to Scorton</li> <li>C1 from Hutton Rudby to Stokesley</li> </ul>	<ul style="list-style-type: none"> <li>B6265 At Nosterfield</li> <li>C422 Ripon Bypass to Clock Tower</li> <li>B1448 Thirsk to South Kilvington</li> </ul>	<ul style="list-style-type: none"> <li>B1448 South Kilvington</li> </ul>
			<ul style="list-style-type: none"> <li>B1448 South Kilvington</li> <li>B1263 Scorton Green</li> </ul>
<b>Unclassified Roads</b> All NYCC categories	<ul style="list-style-type: none"> <li>White Horse Bank</li> <li>Horne Road from Catterick to Tunstall</li> </ul>	<ul style="list-style-type: none"> <li>Brompton Road Northallerton</li> <li>Dolly lane</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
		<ul style="list-style-type: none"> <li>Northallerton Road Brompton</li> </ul>	<ul style="list-style-type: none"> <li>Northallerton High Street</li> </ul>
<b>Estate Roads</b> NYCC categories 4a and 4b	<ul style="list-style-type: none"> <li>Standard Way industrial Estate</li> </ul>	<ul style="list-style-type: none"> <li>Broomfield Avenue</li> <li>Gravel Hole Lane</li> </ul>	<ul style="list-style-type: none"> <li>L'Espece Street</li> </ul>

