This matter is being dealt with by: #2

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#2	

Dear Sirs

29th August 2019

# Freedom of Information Request – Nottinghamshire County Council, Draft Highway Design Guide

I refer to you email with respect to the above.

The County Council's outlines how it will engage with the public by means of its Public Engagement Policy which can be found at this location - https://www.nottinghamshire.gov.uk/council-and-democracy/get-involved/public-engagement

The Draft Highway Design Guide formal consultation took place between 13<sup>th</sup> December 2018 and 31<sup>st</sup> January 2019 via the County Council's website and where the document remains available for viewing. Additionally, 142 individuals or organisations who the County Council considered may have an interest were invited to make comment via email.

I am unable to provide you with the details of third parties. However, below are the responses to the consultation that have been retained on file redacted and with personal information removed in order to protect anonymity.

All consultation responses have been given consideration, and where appropriate, the draft document has been updated. There is no list of these modifications, nor is there an intension to carry out a further consultation.

Consultation responses:

I was asked to comment on your upcoming design guide.

The only few problematic areas for me (especially given some of the topography in Notts) is the maximum road gradient and the number of dwellings off a private drive. I'd like it lifting from five to say 10-15.

I'd like the gradients increased to 1 in 15 in special topographic circumstances for instance.

Other than that, that's about it.

has worked with **and the provide this response on behalf of our client** Taylor Wimpey is a key stakeholder within Nottinghamshire developing throughout the County.

Introduction

This comprises a response prepared by and and on behalf of a second in response to the Nottinghamshire County Council's Highway Design Guide Consultation Draft, December 2018.

We have responded below in a chronological order and referenced the relevant paragraphs in the consultation draft.

# Section 1

1.2 - The approach in this section of the document sets out in a principle restriction of new access on

roads with higher traffic speeds, highway safety issues, or capacity constraints. This in principle

restriction ignores the opportunity provided by the creation of new access points in addressing high traffic speeds or particular highway safety issues and managing the flow of vehicles on the highway network. We suggest this in principle position is relaxed or includes a caveat that each proposal will be judged on a site-by-site basis.

In addition, the in-principle position of directing access to a side road or minor road should also be relaxed. In many instances the most appropriate point of access may be from a primary route ('A' road or 'B' road).

## Section 2

2.4 - This section sets out that developments will need two points of access. However, no justification is provided for this, and no threshold in terms of scale of development is set for this requirement. The insistence of two points of access may limit the number of available sites which could be brought forward and increase the potential for 'ransom' positions on otherwise deliverable sites. This should section should be amended.

2.5 - This section restricts the provision of a cul de sac to 'awkward' situations. It is not clear what is meant by an 'awkward' situation, and the provision of a cul de sac within a development may in some instances represent the best available design.

2.6 - This section provides an upper limit of 400m to a bus stop for affordable housing and higher density housing. Firstly, 400m should not be used as an upper limit1. The distance to a bus stop is not the key factor in determining when people decide about whether to travel by bus. Bus frequency, bus reliability, overall journey time, the quality of bus fleet, and the availability of wi-fi, are some of the other factors which influence bus travel, and people will be prepared to walk more than 400m to a bus stop for a more frequent, reliable service. It is also unclear why affordable housing has been specifically included in this requirement.

The recommended visibility splays are the upper limit as identified in Manual for Streets, allowing for 5% HGVs. This is not appropriate for residential streets, where the HGV flow will be below 5%, and the appropriate Manual for Streets visibility should be applied.

# Section 3

3.5.1 - In appropriate locations chicanes can provide an acceptable form of traffic calming, without any issues in relation to errant parking, and the statement that chicanes are unacceptable in all instances should be relaxed.

#### Section 4

4.1 - The parking standards and cycle parking standards set out in this section seem sensible. The specifications in relation to garages and driveways for inclusion as parking spaces seem reasonable.

#### Section 5

5.1.5, 5.1.6, 5.1.9 - These sections set out the requirement for the boundary treatment to the highway. It advises that no fencing or site boundaries (excluding safety fences) will be adopted, even existing boundaries and hedges are to be transferred to adjacent properties. It is advised that this is relaxed to allow existing boundaries to be retained in the highway ownership if necessary, to avoid additional signatories being required on highway works adjoining land not in control of either the highway or developer.

5.1.3 - The sub-grade assessment covers the determination of CBR's for design purposes. The paragraph is ambiguous suggesting that site tests be carried out, and that it should be estimated based on soil type. It would be more accurate to base the design on site tests and would suggest an 'equilibrium CBR' be used only where this isn't possible for the design process.

5.1.14 - The sub-base and capping layer thicknesses are set out in the table of this paragraph, including a design thickness for a lower than 2%. In the text it also sets out that when the CBR is 'sufficiently below 2%' that special measures would be required. It is not clear what this means and advise a line be added to the table to state that below a certain threshold (say 1%) that special measures must be designed and approved.

5.1.17 - The design of standard road construction is set out for three different types of standard road construction, with those not fitting these types to be designed on a site-by-site basis based on the DMRB Volume 7. Whilst this would be appropriate for higher grade roads than those included in the table it would not be suitable for lesser roads such as shared surfaces and it is not clear if these are covered under the residential street/access way. Also, within this paragraph there is a section it advises that where alterations or improvements are required the whole road needs to meet the minimum requirements of the new design standard. This could be excessive where only minimal widening is required, therefore it is suggested that this is amended to state in most cases this is required, but exceptions may be allowed following negotiations. This will allow for minor amendments to be made without significant highway works. There is also an error in the wording of this paragraph relating to a design for a 'residential access road' which is not one of the standard design specification, as well as the quoted thicknesses not corresponding to the design table. This will need to be amended accordingly.

5.1.22 - For new junctions this paragraph sets out the need to resurface the whole of the carriageway. Whilst this is advantageous on major new accesses this could be excessive on minor developments and as such would suggest this be amended to suggest that in the majority of cases this is required unless otherwise agreed.

5.1.25 - The need for deterrent paving is set out within this paragraph for all areas where pedestrians are to be discouraged. This could be interpreted as avoiding any landscaped grass and be seen as excessive adoptable area which would lead to a commuted sum. As such the wording should be amended to suggest deterrent paving can be used as necessary.

5.1.43 - 5.1.46 - This section sets out the landscaping requirements for the highway. The paragraphs are contradictory, suggesting that trees, and hedges etc should be implemented/maintained where possible as well as advising these features wouldn't normally be adopted. It should be clarified what is preferred and any contradictions removed.

5.2.5 - Within this paragraph it is set out that the use of SuDS is not generally considered appropriate for adoption. This is contrary to other national guidance which promotes SuDS, although with the implementation of SfA8 this may be considered as part of the S104 approval process. Whilst not an issue as such it should be noted, particularly with regards to commuted sum or maintenance requirements should SuDS be proposed.

5.2.7 - It is stated that a discharge from a highway drainage system needs to be above the 'average flow' within a ditch/watercourse. It is assumed that this is intended to read base flow and should be amended accordingly.

5.2.15 - It is advised that catchpits be located outside the carriageway and within the verge. Whilst not an absolute requirement it should be noted that often this is not possible on new developments

where the extents of the highway are kept to a minimum as required to avoid additional commuted sums.

5.2.18 - The need for sub-soil drainage is set out within this paragraph. This is anticipated to be excessive in most occurrences and cause potential issues with the discharge requirements which could increase the flood risk to the surrounding area by positively draining ground water. It is suggested that this be amended to advise that consideration be given to sub-soil drainage where necessary, to allow for detailed discussions regarding the suitability.

## Section 6

This sets out the requirements for New Roads, APC and S38 applications. Whilst this is reasonable it should be highlighted that Nottinghamshire County Council are happy to accept private roads without an APC payment if it is designed to a standard where they are content that further private works will not be required in the future and the developer indemnifies the development against future adoption under a S37 agreement.

6.17 - To achieve the final completion certificate no mention is made of the requirement for a stage 4 RSA. It is likely however that this would be required.

## Section 7

7.5 - One of the requirements for the detailed design technical approval drawings is the inclusion of fencing proposals for the highway boundary, this conflicts with paragraph 5.1.5, 5.1.6, 5.1.9 as set out above.

7.9 - Requirements for the detailed AIP application are set out within this paragraph, whilst all elements will be required some parts such as traffic management would be more suited to post technical approval and discussed directly with the contractor.

7.14 - To achieve the final completion certificate no mention is made of the requirement for a stage 4 RSA. It is likely however that this would be required.

#### Section 8

8.13 - The calculation of commuted sums is set based on an assumed lifespan of 60 years (120 for structures) within this paragraph, however the design life of a highway in line with the DMRB Volume 7, Section 2 part 3 HD26/06 is only 40 years and as such it is recommended this be reduced in line with the DMRB guidance.

8.15 - This paragraph sets out the need for a commuted sum on all works associated with a S278 application, beyond minor works, i.e. white-lining, within the extents of the existing highway. It is felt this should be mitigated to only include non-standard construction.

Part	Point	Comment
2.0	2.4	Providing a min of 2 access points to most sites will be impossible
	2.4	Are the access points refer to only carriage way / vehicle accesses or all types of access (pedestrian, cycle) i.e. one vehicle junction with footpath / cycle way link elsewhere?
	2.5	Most sites generally have constraints and some form of Cul-de-sac's/ turning head is likely to be unavoidable. The reduction of these will likely

		mean more highway land take and the provision of less housing density- a direct oppose to planning guidance.
	2.6	Number referencing 2.6 onwards- Bus routes should be
		2.7.
	2.6	Future Development / Ransoms: What about where this access is
		links tied in to a land deal?
3.0		80% of all plots to be within 400m of a bus route will be impossible on some sites, what happens if this cannot be achieved, is the site deemed un developable? What happens in rural areas?
3.1		States Drives/shared drives not within twice the junction
		radii - this could prevent integral house types being
		plotted on corners
3.1		Widening on bends- will possibly allow for increased speeds on bends. Is there a detail similar to 6c's 'speed control bend'?
3.3	3.3.4	Forward visibility splay contradicts the wording that accompanies it. The text refers to the centre line of carriageway, yet the drawing shows 1.5m from the
		kerb. Clarification needed regarding how the forward vis splay should be set out.
	3.5.1	3rd paragraph-'vertical' not 'horizontal'
	3.6.8	Are there any stipulations i.e. numbers of units: which differentiate which type of shared surface can be used?
	3.6.10	shared surfaces- is the introduction of protected zones not contrary to a shared surface?. This effectively appears to be a 2m raised footway?
	3.6.12	Design parameters: What is envisaged as a gateway/entrance feature? Presumably will attract commuted sums? Accessible bin storage to the fronteven on detatched properties. What do Planners think? If 2m pedestrian routes provided to both sides and min width of carriageway is 6.8m this gives a
		corridor width of in excess of a standard residential street? Are the 2m pedestrian areas footpath construction? what does enhances kerb restraint
		comprise?
	3.7	Quality Audit- what is the HA availability in terms of preapp meeting? Is this a free service?
4.0	4.1.5	States additional width may be required to allow access by refuse vehicles and fire appliances to be defined by vehicle tracking. We would not want to
		encourage refuse vehicles to drive of shared drives as these are privately owned and are not to an adoptable standard. This is why we provide bin

		collection points.
4.1	4.1.1	States that to be able to count the garage as a parking space the garage door needs to be a min of 2.3m, a standard garage door width is 2.26m, which would mean that no garage would comply!
4.1	4.1.2	Why have the private drives increased to 6.1m for up and over garage doors
	4.1.4	Long Driveways- are any minimum reversing standards
		applicable?
5.2	5.2.4	Positive drainage connection considered first
		contradicts B Regs Part H?
		General Comment
		Proposal for the roll out - what is the line in the sand? What will the
		situation be for ongoing schemes yet to be approved by planning or
		in the process of being technically approved?
		Tracking - what is the standard requirements for vehicles? "large car"
		is not sufficient
		Commuted sums are mentioned throughout. More guidance is
		required into what these values should be. How can these be
		calculated- what is MP and the rates?

This response relates to the consultation on the draft Highway Design Guide ('HDG') that was released in December 2018 by Nottinghamshire County Council ('NCC'). Our understanding of this document is to provide clarity and detail to inform developers on particular highway matters that will assist in gaining their support through planning stages and post-planning adoption stages. It is largely a copy of the response we sent as part of the consultation, however due to the pertinent points we thought it would be prudent to inform you directly of our concerns.

As you know, and the second of the largest developers within the Nottinghamshire region, delivering hundreds of new homes in 2018. This is set to increase over the next few years and therefore we have a high interest in design guides that can affect our ability to meet these numbers and deliver much needed new housing within the region. Considering this and our historic working relationship with NCC, we are therefore perplexed and need to question the consultation process as we were not directly informed about this consultation. On a second general point, the draft document has a confusing page numbering system which will make providing our response more difficult. As principally a housebuilder, this response will be within the context of providing housing and focus on these elements. We offer no comment on parts of the guide that affect other uses e.g. industrial.

In general, this document appears to follow some of the same principles laid out in the 6Cs Highway Design Guide, which we understand as not being used by NCC. This response is also within the context of the 6Cs, as this is the current design guide that NCC successfully used. NCC will be relying on the HDG to make comments throughout the planning process, influencing whether there is support for the schemes or not. However, it needs to be recognised that this is not adopted planning policy, and has a reduced weight when compared with other policies that are adopted and are up-to-date by the relevant Planning Authority. Further, it is concerning that this document, despite being drafted as a 'guide' is onerously stating that there is little room for manoeuvre despite most of the points raised being subjective. The design guide needs to openly state that NCC will work positively with the developer to ensure a compromise is reached. Otherwise, there will be a hostile working environment for the duration of each project that can delay and even stop the delivery of new housing.

This response will go through key points raised and offer alternatives or suggest a re-consideration.

#### Part 1 – General Approach

Within paragraph 1.2, there is a blanket "we will not support planning applications that raise concerns about road safety". As an overarching principle, the set of the view that this is a wholly negative approach and can be used to object to schemes despite the view on road safety being partially subjective. To be clear, the support a safe road design and construction and aim for full adoption of these on all schemes. However, there is an inherent risk with new developments that could always "raise concerns" and this therefore is used to oppose new developments without a robust justification.

Paragraph 1.3 describes when a Transport Assessment and Transport Statement are required for planning applications. In general, the split used for residential dwellings (C3 class) is acceptable.

#### Part 2 - Street Hierarchy and Connection

support the delivery of permeable and highly accessible housing schemes where suited. This section however, appears to be looking at specifying design criteria for layouts and the internal highways. This commentary appears to be an overreach of the remit of the highway authority and this needs to be reduced. It is for the Planning Authority to determine good design for residential streets and the block structure.

Paragraph 2.4 specifies that "developments will usually need at least two access points to the highway network". This is a strong assertion which will not be possible to meet for a lot of development sites. Further, this has the opposite effect of the above as it promotes bad design, creating potential rat-running, removing the possibility of quiet private estates being created.

Paragraph 2.5 takes the above point even further by discrediting the use of cul-de-sacs. This, as above, is pushing for a particular design which is not necessarily one of protecting amenity and desirable. The use of cul-de-sacs is a key design feature for new housing estates, as it discourages wandering and enhances security. The design guide does not support the use of emergency accesses (2.7); and only in the exceptional case if two accesses cannot be provided. An attempt to justify this has been made however; this is in the context of the prior approach of providing two accesses as a minimum. As above, this is not always possible or preferable and as such, sometimes an emergency access may be required. In this case, there needs to be further guidance on how many plots can be served by a single access and how many there needs to be before consideration of an emergency access.

#### Part 3 - Road Design

Part 3 considers the geometry of the roads. This representation will only consider the residential element. The first consideration is that the number of dwellings to be served for each type of road has been removed (when compared to the 6Cs Design Guide) and has been replaced with a percentage of dwellings within walking distance to a bus stop. This appears to shift the focus from a technical exercise to one of planning. The removal of a quantitative assessment of plots to be served from each type of road does not assist in 'guiding' development. Further, there may be development sites that are not within the proximity of a bus stop or in rural areas which are not served by a bus. By focusing the requirement solely around bus provision, there is a shift from providing a technical qualification on road sizes to one that is more subjective and that is unaffected by how big the development is.

Further changes from the previous guidelines include an increase in road size from 4.8m to 5.0m as a minimum and an increase in footway from 1.8m to 2.0m. This upscaling is unsupported by evidence, when it is clear that previous approach was successful.

The guide discourages the use of verges as a design feature by placing them to the rear of the footways. There is zero flexibility in the event that an improved streetscene is desired and verges splitting the footway and road are used.

The portion of the table relating to bus stops does not consider the minimised bus stop (e.g. a bus stop flag) which may be preferable in some instances. For example, this would be more appropriate in a quieter residential area that has a less frequent bus timetable.

There should be clarification on when cycleways are used. The implication from the table suggests that they should be applied to all *Major Residential Street's* and *Residential Street's*. This should not be the case as they are not always suitable and it is acceptable for cyclists to use the actual road in a lot of instances.

The chapter of Shared Surfaces appears to oppose the use of these, particularly as there is emphasis on "providing safe corridors for pedestrians". As pointed out in the guide this has been done with footways and the guide is clear in that no other approach will be endorsed or encouraged. The take-away message therefore is that shared surfaces do not appear to be supported by the authority. This goes further to discourage the use of them by requiring a Quality Audit; which is likely to find them unsuitable as visually impaired users will not have their needs satisfied. This chapter needs to be reconsidered in the context of the guidance issued recently by the Department for Transport (dated 28/09/2018) in which a pause on shared surfaces has only been considered in highly trafficked areas and that it does not apply to streets within new residential areas; particularly of low pedestrian traffic. The HDG approach to shared surfaces is therefore overly negative and needs amending.

Part 3.7 considers the use of *Quality Audits* on all projects and at different stages. The use of an audit at pre-application stage would require significant design which is not usually prepared at this stage. This should be removed.

#### Part 4 – Residential Parking

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This section goes in to detail on the appropriate methods of providing parking for new dwellings. As alluded to previously, this appears beyond the remit of the Highway Authority and is a planning consideration. It is to the Planning Authority's discretion as to how parking is provided in a development, which will involve a mixture of solutions.

Paragraph 4.1.1 requires a minimum number of spaces relative to the number of bedrooms. There is little justification for this, especially as these were not present within the 6Cs document and are considered a planning consideration. The reasoning for this appears to be to reduce excessive onstreet parking. There are generalities suggested that would result from the excessive on-street parking however no evidence to support these assertions and there is no recognition that on-street parking is an acceptable form of parking. Further, by specifying against bedroom numbers, it calls into question what constitutes a bedroom; specifically a bedroom that would be used by someone who owns a car.

Paragraph 4.1.2 highlights the required driveway lengths. For the avoidance of doubt, driveway is understood to also allow for a space for parking. 'Driveway' will therefore consider all types of parking bays. It has been accepted minimum, highlighted within the 6Cs that the minimum length in front of a garage needs to be 5.5m. This has been extended to include driveways without a garage. This is a significant deviation from the 6Cs without any justification considering 4.8m is an acceptable setback to accommodate a car.

Further clarity is needed within paragraph 4.1.3 as to when the extra 5.0m is required for a driveway. Currently, it is not clear if this should apply to ensure there are two spaces (so a total of 10.5m minimum is required) or whether the extra 5.0m needs to be added on over and above the minimum requirement for 2 spaces.

Paragraph 4.1.5 details how wide driveways need to be. This is a confusing paragraph which needs further clarification. For example, in all instances a vehicle is accessible from both sides which would imply a 3.6m driveway width is necessary to all driveways. This is overly onerous and needs rethinking. This is then widened even further if the driveway is set at 90 degrees to the road (nearly all driveways), however this is then confused with the perceived requirement of a 6.0m aisle width to aide manoeuvring.

Paragraph 4.1.10 confirms non-perpendicular driveways is unacceptable and only in 'exceptional circumstances'. This on the face of it would appear onerous and reduce flexibility in design for awkward areas. If a driveway can be accessed and egressed safely then this should be supported irrespective of angle.

#### Parts 5-9

No comments are made on these sections are they appear unchanged from previous guidance.

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#### Conclusion

To conclude, the nature of the guide will stretch beyond delivering safe streets to dictating design that is unjustified. The majority of the points in HDG that are raised above are unfounded and need re-thinking; otherwise the new guide will restrict development, reduce efficiencies and encourage wasting of land by reducing densities. The general thrust of the National Planning Policy Framework is the opposite. This is the overarching critique of the document. It appears to be a planning-led guide however this is not being promoted by a Planning Authority. The HDG needs to reflect its intention – to clarify the requirement for road adoption and nothing more and be properly consulted with all relevant parties, particularly the development industry which, from our understanding, has been largely ignored.

I have reviewed the design guide and would like to make the following comments:

- Junction approaches are normally required to be 90 degrees to priority roads for at least twice the kerb radius, does this include the length covered by the kerb radius itself?
- A maximum gradient of 1:20 is identified but often a relaxation to 1:12 is allowable, particularly where a separate pedestrian access is proposed that provides a maximum 1:20 gradient.
- A fixed same side junction spacing of 90m is identified for industrial roads, however should be based on the visibility requirement, which may be lower than 90m.
- Pedestrian visibility splays are shown from the edge of the access in the diagram on page 26, however other diagrams show it from the edge of the vehicle positioned centrally within the access.
- A minimum driveway length of 5.5m is identified even where there is no garage or roller shutter doors; in my experience 5m is sufficient in these cases.

I hope these comments are of use and if you have any questions or would like to discuss please let me know. **Second Second Second** welcomes the opportunity to comment on the draft Nottinghamshire County Council Highway Design Guide. The following comments have been provided by a number of leading experts on public realm, urban design and highway engineering, including people who were directly involved in producing Manual for Streets.

The council has faced a major challenge in developing its own guidance from the starting point of documents that were largely based on the withdrawn Design Bulletin 32 and Roads in Urban Areas (1966), to incorporate latest best practice, new statutory duties, the Public Sector Equality Duty, new precedents in the Common Law, altered policies within the planning system, and changes in scientific understanding, including knowledge about active lifestyles, public health, air pollution, and of the limitation in the abilities of children to judge the speed and distance of oncoming traffic.

Our advice is that the current draft needs to be developed to address the changes outlined above, and set out in detail below.

We are also aware that councils are operating under severe financial constraints, with funding at a minimum, and professional staff being very severely overstretched. Nonetheless, given the immense importance of well design streets and public realm to quality of life, and the many hundreds of millions of pounds that will be spent each year on new development in Nottinghamshire, we strongly recommend that the council allocates significant resources and time to create guidance that reflects national policy and current best practice, and will create the high-quality environments that the citizens of Nottinghamshire deserve. The highway authority has huge potential to act for the common good.

#### **General Requirements for the Guidance**

It must be drafted to:

discharge current statutory duties including:

**Equality Act 2010, Public Sector Equality Duty** : to have due regard to the need to advance equality of opportunity of people with protected characteristics under the Equality Act, including elderly people, disabled people, and people of different gender. "Due regard" means a vigorous and open-minded inquiry before settling upon a course of action. (Ali vs Newham 2012 EWHC 2970).

A practical examples include examining whether blind, disabled or elderly people would be disadvantaged by streets with footways that are interrupted by sideroads with 6 metre or 10 metre radius kerbs, as opposed to streets with 1 or 2 metre radius kerbs, or where the carriageway at the entrance of the sideroad is raised to the level of the footway, to form a level surface, and to slow turning traffic. NB the domestic refuse collection service and its impacts, including the sizing of vehicles and their impact, also falls under the Public Sector Equality Duty.

Health and Social Care Act 2012 - taking steps to improve public health.

legislation and guidance on air quality, traffic being a major source of air pollution.

have regard to other statutory duties that are addressed to the council as a whole. such as:

## Public Services (Social Value) Act 2012

**Children Act 1989** – duty to safeguard and promote the welfare of children in their area who are in need.

discharge the **Common Law duty of care** owed by highway authorities to all road users not to be negligent when they exercise their powers to create or maintain highways. (**Yetkin vs Newham 2010, EWCA Civ 776**). As a minimum, the guidance must have regard to the reduced abilities of children to judge the speed and distance of oncoming vehicles. It must have regard to the relationship between vehicle speed and accident causation and severity of injury.

the effect of the Equality Act and the Common Law duty of care is that all streets (with very few exceptions) should be safe and readily useable by both children, and elderly and disabled people. This should include protection through the use of 20mph target speeds or less, and appropriately designed junctions and crossings.

#### comply with the National Planning Policy Framework (2018):

"110. Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

be consistent with the Ministry for Housing, Communities and Local Government **Planning Practice Guidance** - including the hierarchy – to consider the needs of the most vulnerable users first: pedestrians, then cyclists, then public transport users, specialist vehicles like ambulances and finally other motor vehicles

reflect Manual for Streets I and II and current best practice such as "Streetscape" (2018).

reflect the **Nottinghamshire County Council Corporate Plan and other relevant highlevel policies and plans** to which this guidance is a subordinate but must make a vital contribution:

"A great place to bring up your family"

"A great place to enjoy your later life" : "Our ambition is to make Nottinghamshire a place where as many people as possible are healthy and happy as they grow older."

The perspective from which the guidance is written should be that of the entire council, with its broad objectives and responsibilities, in addition to the more narrowly drawn perspective of the highway authority. The highway authority function of the council has a tremendous contribution to make to these higher-level objectives.

meet the **Wednesbury Test**, (Associated Provincial Picture Houses Ltd. v Wednesbury Corporation [1948] 1 KB 223)

create developments that are more like traditional towns, with a mix of employment, housing, shops, leisure and recreation facilities, rather than segregated and zoned developments that generally require car ownership and use.

The guidance needs to address all the above issues and must show the "due regard" required under the Equality Act. Without this it would be open to challenge.

The guidance must encourage development to reflect current government best practice guidance on the design of streets and neighbourhoods, failing which such development would constitute poor design, and would invite refusal under the National Planning Policy Framework.

The draft needs to be consistent with the Chartered Institution of Highways Code of Professional Conduct, in relation to being up to date, and giving due weight to all relevant law, facts and best practice guidance, and the wider public interest, in order to give those who subsequently use it the confidence that they will be complying with their professional code.

Highways represent an extremely important element in urban design. The design and layout of streets are critical to success. The geometrical standards and rules in the guidance should be an integral part of the urban design process, and contribute to excellence in new development

The guidance, as well as promoting innovation, should enable and encourage development that emulates Nottinghamshire's finest streets, villages and towns. Standards based on DB32 and Roads in Urban Areas generally do not permit this to happen.

Areas that need to be added

- A golden thread showing how the highways design guidance fulfils the councils' high-level policy objectives and central government policies and statutory duties; and its relationship with local plans.
- Statement of objectives (including health, wellbeing, enabling active travel), and about placemaking and the key role that streets and highways designers and engineers have to play.
- Coverage of the interrelationships between topics for example how excellent cycling and walking facilities will reduce the need for parking, and highway capacity, and how this in

turn will reduce the area of impermeable surfaces that will require to be drained and managed to guard against increased down-stream flood risk; or how enabling active travel supports the councils corporate plan objectives on health, and the attainment of lawful standards of air quality.

- Photographs and illustrations that will inspire good or excellent design
- Low traffic neighbourhoods design considerations and street hierarchy
- Street types
  - o Urban streets with active frontages, and frontage access
    - Conventional High Streets
    - Boulevards
    - Streets with service lanes
  - $\circ$  Cycleways
  - o Dedicated cycle and pedestrian routes, including cycle paths and footpaths.
  - The distributor road model of design should be strongly discouraged in urban areas, owing to severance, land-take, unsuitability for pedestrians, and poor natural surveillance: environments where women can be adversely affected by concerns over personal security (this is a Public Sector Equality Duty issue) (see also Manual for Streets)
  - o Play streets
  - o School streets
- Junction types as advocated in Manual for Streets
- Side road entrances with raised footways
- Public spaces squares etc
- On street parking alternative arrangements eg 90 degrees, chevron, parallel, alternate side, central.
- Trees
- Suds
- Vehicle crossovers that comply with the Equality Act/Manual for Streets
- Streetscene

#### **Detailed Observations**

#### 1.1 Introduction

The text states that there has been no national standard for non-strategic roads since DB32. DB32 was not a standard, it was national guidance. It had the same status as Manual for Streets, which replaced it in 2007.

#### Permeability

"2.2 One of the main principles promoted by Manual for Streets (MfS) is to create networks of streets that provide permeability and connectivity to main destinations with a choice of routes."

Section (1.2 Principles of access to the highway network) on new accesses which blocks the improvement of permeability by restricting access onto existing routes, needs to be brought into line with Manual for Streets. Manual for streets advocates not merely "Internal permeability" but permeability across an entire urban area.

"We will look to severely restrict access to the most important high-standard routes."

"We will normally consider restrictions on new accesses for vehicles from 'A' and 'B""

These connection restrictions and connection rules in 3.1 need to be brought into line with Manual for Streets. As they stand they will tend to give the type of disconnected developments and poor connectivity which are criticised in Manual for Streets.



# 2.6

"Higher density development (greater than 30 dwellings per hectare)" 30 dwellings per hectare is low density – this should be rephrased.

Bus routes – "80% of dwellings should be within 400m of bus stops to avoid indirect bus routes." this is an interesting approach. Clearly there is thought and ambition in the approach to public transport.

# 3.1

This section needs to be developed beyond its current basis of Roads in Urban Areas (1966) and Design Bulletin 32 1977 which was withdrawn by the DfT in 2007. It also needs to reflect the duties, guidance and policies identified in the General section above.

The "Function" rules that state that streets may only connect to a street either one up or down in the hierarchy are an example. These rules hinder the creation of permeable networks. Current best practice guidance encourages mixed use development and mixed streets.

**Number of dwellings** – the evidence base and justification for of the private driveway restriction should be given, or the requirement removed.

**Gradients on footways** – it is unclear why there should be a minimum gradient of 1:100. Steeper gradients and steps can provide useful and direct routes on steeper sites, and provided there are alternative access routes which are suitable for wheelchair users, there should be no objection. Steeper gradients can bring health benefits to the general population.

To reflect the Equality Act and the recommendation in Manual for Streets, footways should continue at the same cross fall at driveway entrances. A 1:12 crossfall at driveways, across the width of the footway is an interruption of the footway and contrary to the drawings in MfS.

**Bus stops** – this is an interesting recommendation, which needs to be thought through carefully, as it will be a factor in forming the layout.

**Carriageway widths** - the carriageway widths should be taken from Manual for Streets in association with forward visibility. There should be scope for variation including schemes that avoid having parallel kerbs, but incorporate variations in the carriageway width along the street. The effect of wider carriageways on increased vehicle speed should be mentioned, along with measures can be taken to reduce the optical width of carriageways.

**Carriageway longitudinal gradient** – on sites with a steep gradient, it is entirely sensible to permit steeper gradient streets, provided acceptable disabled persons access can be provided. Unnecessary restrictions on gradients may serve to block sustainable development and the use of what in other respects are highly suitable sites.

**Target Speed** - The maximum design speed should be 20mph on all urban streets which children are entitled to use, or required to use, such as the walk to school. The council needs to avoid exposing itself to liability claims (see Kane v New Forest District Council). The same concerns

apply to the need to create an environment that is safe for use by elderly, blind and disabled people, who are all covered by the Public Sector Equality Duty.

Quality Audit - the requirement for Quality Audits for proposals that deviate from guidance will discourage non-standard designs. Designs that reflected central Government guidance would under this regime, need to go through quality audit, whereas a DB32 layout would not.

The council may wish to consider whether there is scope for a Quality Audit -Lite that could be applied to all schemes.

**Carriageway centre-line radius** – the 20m minimum radius will preclude use of sharp bends to reduce traffic speeds.

**Turning heads** – there appear to be errors in this row.

Junction radii must reflect the guidance in Manual for Streets, and user hierarchies in the Planning Practice Guidance. They also must comply with the Public Sector Equality duty under Equality Act. The guidance should promote tight junction radii that put pedestrians and cyclists first, and make crossing easier for blind, partially sighted and elderly people – all of whom are covered by the Equality Act. The duty is to have due regard to meeting their needs, and this means a robust consideration of the options before settling on a decision. If the standards are copied from withdrawn guidance there is self-evidently no due regard and a breach of the Equality Act duty. Domestic Waste Collection is also subject to the Public Sector Equality Duty even when carried out by a private contractor. The turning requirements of refuse collection vehicles are subordinate.

From Manual for Streets



- Pedestrian can easily establish priority because vehicles turn slowly.
- Pedestrian cannot normally establish priority against fast turning vehicles.

Below are examples of side road entrances with tight corner radii, with footways that are continued level across the junction. They are best practice and should be included in the NCC guidance.





**Junction spacing** - the requirement for this to be greater than the visibility splay is not consistent with guidance in Manual for Streets, which contains no such provision. Urban block structure and grain should be the determinants – reflecting efficient plot sizes and pedestrian and cycling permeability.

The row does not seem to be logically consistent – there will be no junctions on private drives.

**Crossroads** – Crossroads should be encouraged, not "only be used in exceptional circumstances". The section needs to have regard to Manual for Streets. Cross-roads are a traditional feature of urban areas. They improve pedestrian and cyclist movement and ease of navigation, which is also important for people with dementia.

**Right-left staggers** – these reduce queuing on the priority street, but they do not reduce conflicting movements. Left-Right staggers may be easier for elderly drivers.

**90-degree junctions** – There needs to be flexibility here, and a discussion on character and urban form and optimal layouts of individual sites.

**Verges** – "To be located to the rear of foot or cycle ways". Pedestrians and cyclists should be kept at a distance from moving traffic in the interests of removing them from polluted air at the carriageway edge, and from immediate danger. Nearly 8 percent of pedestrian fatalities occur through vehicles striking pedestrians while they are on the footway. Conventional verges, planted with trees should be encouraged. Verges should not be located to the rear of foot or cycle ways.

**Footway widths**. Adequate footway widths are to be encouraged. And the guidance should promote flexibility rather than rigid rules which could compromise good design. A single local shop will have a different requirement to a parade of shops, or a new high-street. Combined with the car parking requirements in subsequent sections the requirements could lead to unacceptably low density design.

**Pedestrian visibility splays** – the purpose of these requirements should be clearly stated and the science and evidence base cited. There is the potential for compromising street scene and wasting land, without demonstrable benefit.

**Cycleways** – this section needs greater detail to make the link with the Nottinghamshire Cycling Design Guide . The guide should include Boulevard as a specific street type.

**Turning Heads** "Turning heads can be 'disguised' to avoid them becoming a dominant presence in a street. " Turning heads should either be designed as places or eliminated. This should be illustrated

#### **Visibility Splays**

This should be illustrated using the tight corner radii given in Manual for Streets, not the radii used in the withdrawn DB32.

#### Pedestrian visibility splays

This diagram implies a cross fall right across the footway, and is at variance with the details in Manual for Streets, as well as the Public Sector Equality Duty. It should be re-drawn.

#### **Speed Restraint**

This section needs to reflect Manual for Streets, and its evidence base, Transport Research Laboratory Report 661. It should cover subjects including layout, placemaking, reduced visibility by the placing of buildings, tracking, squares, courtesy crossings, side friction, reduced carriageway width, reduced forward visibility etc

Examples of speed restraint by providing a high quality environment, clear signally to the driver that it is a place for people, plus limited forward visibility:





"3.5.1 In accordance with the requirements of Part 3.1of this guide, 'Geometry of Residential Roads' we will require all new roads will be required to achieve target design speeds of between 15 and 30mph depending on their classification."

The primary basis of speed restraint should not be the classification of the street, but the safety and wellbeing of the type of user anticipated. The evidence is conclusive on consequences of impacts at speeds above 20mph, as is the research on the ability of children to judge speeds of oncoming traffic travelling in excess of 20mph. In view of this research, the creation of new 30mph urban streets which will be used by children risks the highway authority being unable to defend claims for liability in negligence.

3.7 – it is the Equality Act 2010 – not the Equalities Act.

# Obstacles in the highway

This section should make clear whether it means carriageway, footway, the adopted highway etc.

This should also cover

- waste collection systems, including underground cassette type systems.
- trees which are successfully used as a traffic calming measure in new development and appear also in existing streets in Nottinghamshire.

"Only in exceptional circumstances would the highway authority consider a ramp in the highway" This presumably applies to vehicle crossovers in the footway portion of the highway?

#### Set-back

0.5 metre set-back – this will be a ubiquitous detail. The impact on streetscene, density and maintenance should be carefully considered.

#### Driveways

The guidance needs to be open to alternate forms of driveways as opposed to fully surfaced driveways, in the interests of enabling infiltration, greener appearance and overall sustainability. **Commercial parking** 

The existing standards would lead to very low-density development. It would be impossible to recreate the traditional towns in Nottingham under these requirements. As this has a profound effect on the design and density of urban areas, it should be covered by SPDs, for each town, rather than dealt with in a blanket way.

"the design of commercial premises should include access for the movement and parking of goods vehicles that are compatible with the Freight Transport Association publication 'Designing for Deliveries'. In drawing up their guidance the FTA did not have regard to the planning of towns, or councils public health or equality duties. This approach leads to statutory duties and the efficient design of towns being subordinated to guidance produced by external bodies who know nothing of the town, its problems and its potential. It should be a consideration, not an overarching requirement.

# **Cycle Parking**

The requirements seem to be light.

# 5.17 – Staggered barriers

The guidance needs to reflect modern best practice. The safety of pedestrians needs to be addressed first and foremost by ensuring safe vehicle speeds

#### 5.18 – Pedestrian Guardrails

This section needs to reflect current best practice and research.

#### 5.1.36 Road markings

The omission of centre lines is a traffic calming measure and should be referenced.

This section needs to clarify the difference between the Traffic Signs Manual, which is DfT Guidance, and the Traffic Signs Regulations and General Directions 2016– which is the law.

5.1.41 Alternative 'heritage' street lighting

- this should reference illuminance levels not wattage

- it need not be heritage lighting, but columns and luminaires that are other than standard galvanised type.

There should be a reference to mounting street lights on buildings and the necessary wayleaves. In many settings, this may offer a better solution that providing columns, including reducing clutter.

#### Trees

The guide says – "these will not normally be adopted", but then in the following paragraph: "We will adopt trees that have been successfully retained on verges and other highway related land providing you pay a commuted sum to cover their long-term maintenance."

Trees have a profoundly beneficial effect on public health and wellbeing. The guidance should give much greater encouragement. It could reference guidance produced by the Trees in Design Action Group.

## Drainage

The guidance should reflect the fact that the principal need for drainage capacity in urban areas is impermeable surfaces, and, in particular, the extent of the areas of carriageway highway and parking spaces that are impermeably surfaced. If this can be reduced, then the provision of drainage can also be reduced.

"All highway water should be drained direct into a piped system vested or to be vested to a water company. This is the method we prefer."

This guidance needs to be updated to include SuDS - see the recent CIRIA SuDS Manual

Soakaways should be located a minimum of 5m from structures – "structures" should be defined more precisely – eg buildings, as opposed to the surfaced highway, or highway structures.

#### **Utility Services**

It is essential that only planting with a shallow route system (should read root)

There should be a section on underground waste systems.

#### 6.14 Section 38 plan example

This should be something that reflects latest best practice, and not DB32.

# 7.7.4 Pedestrian crossing facility

Add to the list of documents the DfT Guidance on the Use of Tactile Paving

#### Introduction

Just a few years ago who would have predicted that plastic bags would be banned, that our coal power stations would be shut down and electric cars would be on the ascendant. The fabric of new homes, which are now air-pressure tested, is reaching peak efficiency so we are now looking outside and sustainable urban drainage has been introduced. The remaining significant area is the incredibly CO2 inefficient tarmac which generates 20 times the CO2 of a gravel drive. Do we really want to park our CO2 efficient electric cars on a CO2 wasteful tarmac drive?

Gravel is a sustainable material. Research confirms that gravel drives emit less CO2, prevent flooding, deter burglars and car thieves and are a more affordable alternative throughout their lifecycle when compared to other surfaces.

## Representation

It is noted that the document makes reference at 4.1.9 to surfacing and drainage. The paragraph states 'Driveways to be surfaced in a bound material (not loose gravel) within 5m of highway and must be drained to prevent the unregulated discharge of surface water onto the highway.' The welcomes the inference that beyond such 5m exclusion, loose gravel

would be supported as a driveway treatment, however, the **second such shift exclusion**, however, would stress that gravel driveways are a suitable, effective and safe driveway surfacing material in their own right, and their use should be maximised.

Paragraph 4.1.9 does not make clear the reasons as to why driveways must be surfaced in a 'bound material', and why 'loose gravel' is specifically excluded within 5m of the highway.

## Benefits of Gravel Driveways

## Sustainability

An increasing number of housebuilders and developers are incorporating sustainable, eco-friendly products into their supply chain on the back of pressure from some local authorities. Forward-thinking councils have produced Energy Strategy documents, outlining how they aim to reduce greenhouse gas emissions as part of a wider Carbon Management Programme, in line with the Government's energy agenda and advice from the Carbon

## Trust.

Energy savings are not restricted to the inside of the home. Recent research has uncovered that a typical asphalt drive (measuring two and a half car lengths) generates a colossal 260kg of CO2. In contrast, a gravel driveway emits just 13kg of CO2 - a saving of 247kg per drive. When we consider the number of driveways within a large metropolitan area, this reduction in CO2 emissions will significantly impact the local authority's carbon management targets.

Gravel driveways also prevent contaminants entering public drainage systems. Hard surfaced drives, such as asphalt, concrete and paving, collect car pollution (engine oil, petrol and brake dust etc.) that is washed off into the drains after periods of heavy rain. According to the Environment Agency, many drains carry rainwater directly to streams or rivers where such pollution damages wildlife and the wider environment.

#### A Natural Drainage Solution

Many local authorities have recently launched 'depaving' strategies, encouraging homeowners and landlords to depave their driveways to reduce the risk of flooding in urban areas. As more cars take to the road, homeowners have been forced to pave over gardens to provide a low-maintenance, off-street parking solution. Hard paving driveways, and the subsequent loss of vegetation, reduces the amount of rainfall that can be drained naturally and increases the volume of driveway 'run off' that enters surface water drainage systems. It is believed that existing urban drainage systems will be inadequate to cope with the level of increased run-off if the public continue to pave driveways. The Environment Agency advocates the use of permeable driveways to help eradicate this UK-wide issue. Gravel driveways, in particular, allow rainwater to soak through the surface into the ground below providing an additional defence against flooding in urban environments.

#### Compliance with Building Regulations and Guidance

A gravel driveway is compliant with Approved Document Part M (Building Regulations

2010). This guidance is reiterated in the NHBC's Technical Guidance Document Chapter 10.2 Drives,

Paths & Landscaping.

Conclusion

The **second second seco** 

The **set out a number of key benefits of gravel driveways and** further information is available on our website at

I wish to offer the following comments in response to the draft highways guide. For the record I offer my comments as a freelance urban designer who advises both public and private sector clients.

My comments are as follows:

1. The document fails to accord with the ethos and principles of Manual for Streets. For instance, it is surprising to see corner radii that far exceed those set out in MfS; and far exceed those being approved and constructed in the City - that are functioning well for vehicles whilst also improving the quality of the street environment for pedestrians and cyclists.

2. The document fails to recognise the failings of recent highways schemes across the County for those at the top of the user hierarchy: pedestrians and cyclists.

3. The document is geared towards the creation of roads - not streets.

4. The document fails to consider and address what streets need to 'do' in the 22nd century (the streets created under any adopted guidance will 'spend' more time in the next century than this one). For instance, the document fails to address water management, habitat creation and modal shift.

5. The document fails to address issues related to modal shift, local congestion (in particular tackling local mileage trips) public health and air quality - matters the County must take a leadership role in.

6. Whilst a cross reference is made to separate cycling guidance, this in itself demonstrates the lack of holistic thinking in the document. For instance this document must address cycle infrastructure in the form of Protected Cycle Ways and new provisions such as Parallel Crossings.

This document is a backwards - not a forward step.

I very much hope that if the County receives similar objections it will seek to engage with consultees. I would be more than happy to discuss my comments further.

If a decision is made to take the document in its current form to Council or one of its Committees with a recommendation for adoption, I request that I am notified.

Thank you for forwarding this document which will have limited impact on interaction with **Exercise 1**. However, you invited our comments. Our teams have examined the document and report as follows:

One aspect that could perhaps be considered for inclusion within the document, i.e. within Section 7 titled "Off-site Highway Works, Junctions & Section 278" would be wording to the effect that:

"It should be emphasised that works which directly affect the Strategic Road Network (SRN) will need to be considered separately by Highways England and are as such not bound by the contents of this document. The SRN both borders and runs through the County and certain locations interfaces directly with the Local Road Network.

For the avoidance of doubt all works which affect the SRN shall be designed fully in accordance with the Design Manual for Roads and Bridges (DMRB) and specified in accordance with the Manual of Contract Document for Highway Works (MCHW)".

Another observation is that the content at times made reference to DMRB and specific parts therein. For example page 20 refers to TD 42/95 when describing the geometry of a compound curve. Given that the DMRB is currently being re-written with updated documents carrying a completely new referencing convention, references to TD, BD, HD, TA etc will soon be obsolete. The document also refers to currently outdated documents. For example Page 34 refers to HD 42/04 in the context of "non-motorised user audits, whereas, DMRB Volume 5 Section 1 Part 5 now lists HD 42/17 being titled Walking, Cycling & Horse-Riding Assessment and Reviews. As stated above, this document will also soon be updated and if nothing else will incorporate a new referencing convention. There will no doubt be other references to outdated DMRB documents within the NCC narrative. However, given the time it will take for the DMRB to be fully re-written, NCC may have to accept that certain references may be incorrect or obsolete unless they are made less specific.

I trust this is of some assistance.

Yours faithfully

Nottinghamshire County Council