

Safe, Sustainable Development

Aims and Guidance notes for Local Highway Authority requirements in Development Management



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Norfolk County Council

Norfolk County Council (NCC) is the Local Authority for the whole of Norfolk. We provide a range of services for people who live, work, do business or visit here. They include education, social services, highway maintenance, waste disposal, libraries, museums, fire and rescue, economic development and trading standards.

For further details of our services visit www.norfolk.gov.uk.

NCC grants planning permission for a range of developments within Norfolk, including minerals extraction, waste management and disposal and NCC's own developments (for example: - schools and libraries).

All other planning applications, including applications for residential, office, industrial, and retail development are determined by the relevant Local Planning Authorities (LPAs) comprising the District/Borough/City Council or the Broads Authority.

Where development would have an effect on the transport network, the LPAs consult NCC as Local Highway Authority (LHA) on any relevant highway and transportation issues relating to the proposal. The following aims and guidance notes will be used by NCC as LHA in providing our advice to the LPA.

This document is offered as general guidance; a suitably experienced or qualified professional should be consulted regarding its interpretation and/or potentially acceptable departures.

The Safe, Sustainable Development document is part of a suite of transport policy and guidance documents that sit below the Local Transport Plan. The Norfolk Local Transport Plan describes the council's strategy and policy framework for transport and is used as a guide for investment priorities as well as being considered by other agencies when determining their planning or delivery decisions. The Local Transport Plan strategy covers the period 2020-2036.

This document will be reviewed every two years or sooner if there are significant policy changes.

If you need this document in large print, audio, Braille, alternative format or in a different language please contact Norfolk County Council on 0344 800 8020, text relay 18001 0344 800 8020 or developer.services@norfolk.gov.uk and we will do our best to help.



Foreword

In order to provide an inspirational place with a clear sense of identity and community, NCC recognises the fact that not only is the quality of buildings around us extremely important but so too is the quality of the place in which those buildings are situated.

Public highways have a significant influence in shaping the place in which we live. They function as a means of connecting communities together and play a vital part in the overall quality of life for our residents, affecting the way in which they are able to move around and access the wider world. They also play an essential part in the economic vibrancy and strength of our economy.

In order that we promote a safe and sustainable environment in accordance with the National Planning Policy Framework (NPPF), the existing quality and variation of development that goes towards making Norfolk such a wonderful place to live and work, thereby aspiring people to high levels of achievement, needs to be continuously improved in future developments.

The following aims and guidance notes are intended to act as best practice and provide general guidance for use by local authorities, developers, designers, Councillors, and the community on what is likely to be acceptable to the LHA. The intention is to ensure good design is achieved, thereby improving the safety and quality of the places in which we live.

In the consideration of development and its impact on the local highway network and those using it, the LHA gives due regard to equality as part of meeting the Equality Act 2010 and the Public Sector Equality Duty. In doing so it will consider the potential impact, in relation to accessibility and other factors on people with protected characteristics. Where possible it will identify mitigating actions to reduce identified negative impact.

This booklet does not necessarily cover all of the issues that may be relevant to you and if in any doubt we will be very pleased to assist with your enquiries.

Please visit www.norfolk.gov.uk for further information.



Martin Wilby

Cabinet Member for Highways, Transport and Infrastructure



Tom McCabe

Executive Director of Community and Environmental
Services

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List of Abbreviations

AADT	Annual Average Daily Traffic	LLA	Local Lighting Authority
ACA	Abortive Cost Agreement	LPA	Local Planning Authority
ADEPT	Association of Directors of Environment, Economy, Planning & Transport	LTP	Local Transport Plan
APC	Advanced Payments Code	MfS	Manual for Streets
CIL	Community Infrastructure Levy	MfS2	Manual for Streets 2
CLG	Communities and Local Government	MRN	Major Road Network
CoM	Corridor of Movement	NH	National Highways
CMS	Central Management System (Street Lighting)	NCC	Norfolk County Council
CTMP	Construction Traffic Management Plan	NPPF	National Planning Policy Framework
DfT	Department for Transport	NRH	Norfolk Route Hierarchy
DMRB	Design Manual for Roads and Bridges	PO	Planning Obligation
DDBA	Developer Design and Build Agreement	PQQ	Pre-Qualification Questionnaire (Approval of Contractors)
DDHABA	Developer Design and Highway Authority Build Agreement	PRN	Principal Road Network
EHA	Eastern Highways Alliance	SHWA	Small Highway Works Agreement
GTA	Guidance for Transport Assessments	SRH	Strategic Route Hierarchy
HADBA	Highway Authority Design and Build Agreement	SSD	Stopping Sight Distance
HADDBA	Highway Authority Design and Developer Build Agreement	SUDS	Sustainable Urban Drainage Systems
HGV	Heavy Goods Vehicle	TA	Transport Assessment
IDA	International Dark-Sky Association	TP	Travel Plan
ILP	Institute of Lighting Professionals	TRO	Traffic Regulation Order

LDF	Local Development Framework	TS	Transport Statement
LED	Light-Emitting Diode	UNESCO	United Nations Educational, Scientific and Cultural Organisation
LHA	Local Highway Authority		

1. Norfolk's Aims in Development Management



Aim 1 Climate change & Net Zero

1.1 Need

Reduction of carbon dioxide emissions is an internationally recognised priority in order to slow and mitigate the damaging effects of climate change. The transport sector is one of the largest emitters of carbon dioxide in the UK accounting for 34% of UK carbon dioxide emissions in 2019 (Department for Business, Energy and Industrial Strategy, 2020).

Nationally, the Climate Change Act (2019 revision) has prompted a drive towards net zero with the UK government committing to the achievement of net zero by 2050. This has been progressed by the recent publication of the Department for Transport's Decarbonising Transport Plan, in July 2021, which sets out how government aims to reduce carbon emissions across the transport sector to achieve the UK's legally binding 2050 net zero target. Aligning to this, Norfolk County Council has its own targets, outlined in the Environmental Policy (2019), to achieve net zero in the council's operations by 2030 and to work towards carbon neutrality within the council's wider areas, also by 2030.

New development and its travel impacts need to contribute to the county council's commitment to decarbonisation.

1.2 Requirements

- Provide evidence to show NCC how the development minimises its carbon impact from its travel demand and will need to identify measures to mitigate carbon emissions through reducing the need to travel and promoting low emission travel choices.

Aim 2 (Transport Sustainability). Minimising travel to ensure people can access facilities they need by appropriate transport modes, encouraging walking, cycling and public transport use and reducing the use of private cars especially for shorter journeys.

2.1 Need

The consideration of Transport Sustainability is a material planning consideration. It must be taken into account when considering whether or not to apply for planning permission and forms part of the suitability assessment undertaken by the LHA. However, sustainability is not just about the environment - it's also about supporting economic development, improving safety and creating equal opportunities for everyone in society.



We need to ensure that the places we create today meet the needs of the present without compromising the ability of future generations to meet their own

needs. Emphasis needs to be placed on encouraging a shift away from use of the private car - towards walking, cycling and public transport. It is acknowledged that some disabled people will still need to use private transport either as a driver or passenger.

People need to be able to reach employment and facilities; families and friends, without over reliance on car travel which has created local air quality problems, safety issues and contributes to climate change. Over dependence on car use also increases isolation for people without access to cars particularly where public transport is not available.

Manual for Streets (MfS) advises that walk-able neighbourhoods are characterised by having a range of facilities within 10 minutes walking distance (about 800m) which people may access comfortably on foot, although it is important to note that this depends on walking speed and may be less for those less mobile and disabled people.

2.2 Requirements

- Reduce the need to travel by locating new homes close to existing facilities sufficient to cater for everyday living, or in areas where public transport can be used.
- Links by public transport must be considered in the context of the 'whole' journey, integrating seamlessly with other sustainable modes.
- Reduce the dominance of traffic in the street scene so that people feel safer when walking or cycling.
- Increase and improve walking, cycling and public transport, encouraging a shift away from car use.
- Consider the needs of disabled people and reduced mobility in relation to all modes of transport.
- Reduce the need for personal car ownership or solo journeys by encouraging shared car journeys or car clubs.

Minimum walking distances need to take account of **all** dwellings on a residential site and **all** entrance/exit points for commercial use. A phased approach may be required and, in this case, appropriate trigger points will need to be agreed.

Developer contributions will be sought to secure the transport measures necessary, including infrastructure and service improvements.

Aim 3 To encourage residents to explore active and healthier ways to travel.

3.1 Need

Walking and cycling are good for our well-being, good for getting us around, good for our public spaces and good for our society. For all of these reasons we need to encourage more people to choose to walk and cycle more often.

Walking and cycling offer the opportunity to build moderate, pleasant exercise into people's routines. This kind of exercise can help us to counteract problems of overweight and obesity as well as coronary heart disease, stroke, diabetes and cancer in addition to improving mental well-being.



Increasing walking and cycling levels will also improve our public space and the social interactions we have. Both modes allow us to stop and chat or just say 'hello' in a way which it is difficult to do when closeted in the car. As such, they improve our sense of community. They also provide for more pleasant and sustainable public spaces and serve to support local facilities.



3.2 Requirements

- Provide high quality walking and cycle networks within developments in accordance with LTN1/20.
- Link new development into the existing cycle network and public rights of way to create a sustainable travel infrastructure which encourages healthier travel for work, easier access to public transport, healthier journeys to school and education as well as leisure opportunities.
- Pedestrian and cycle routes must allow people to reach their day-to-day destinations easily and logically and follow natural desire lines.
- Pedestrian and cycle routes need to be attractive and comfortable to use. Comfort is influenced by a range of factors including the basic design of the route - its width as related to the number of users and the gradient and quality of the surface - as well as other elements such as tactile paving, street furniture, drainage, cleanliness, etc.
- Cycling provisions must not negatively impact the accessibility of pedestrian routes for disabled people as much as possible.

Aim 4 (Rural Diversification). To support agricultural enterprises and the rural economy, by encouraging other appropriate forms of development.

4.1 Need

Changes in agriculture have resulted in a decline in farm related jobs and an increase in surplus land and buildings no longer required for agriculture. These changes have coincided with declining farm incomes and increased environmental pressures, in turn leading



to farmers exploring different ways of supplementing their farm incomes through non-agricultural diversification.

4.2 Requirements

- Diversification should facilitate sustainable development, appropriate for its location.
- The development must be served by approach roads with the capacity to cater for the type and level of traffic likely to be generated, without prejudice to highway safety, particularly focusing on the most vulnerable road users.
- Adequate provision must be made within the site for the parking and manoeuvring of associated vehicles.
- Rights of way are very important for access and recreation and should be protected and where possible enhanced.



Where permission is granted for the re-use of an agricultural building for a non-agricultural use, the LHA may seek to impose conditions withdrawing the permitted development rights of that particular agricultural unit to erect additional farm buildings in the vicinity of that building where it is considered that intensification of vehicle use would be likely to have a serious adverse effect upon the highway network.

Developer contributions will be sought to secure the transport measures necessary, including infrastructure and service improvements.

Aim 5 To support national targets relating to the percentage of electricity that should be provided by renewable energy.

5.1 Need

It is widely recognised that human activity is changing the earth's climate. The impacts of climate change, together with any associated rise in sea level, are global issues that affect everyone.

At present there are seven major technologies available for the production of renewable energy in the UK, comprising: - biomass/landfill gas/onshore wind/ offshore wind/wave power/solar power/tidal power. Each of these developments has the potential to impact upon highway use during all phases of development: - construction/operation/decommissioning.



5.2 Requirements

- It is essential for developers to demonstrate that the development can be physically reached by approach roads (either public or private) that are suitable to cater for the delivery of the components used during construction.
- The development must be served by approach roads with the capacity to cater for the type and level of traffic likely to be generated, without prejudice to highway and pedestrian safety (including public rights of way).

- Adequate traffic management measures need to be agreed and implemented - particularly for any cable routes.

Developer contributions will be sought to secure the transport measures necessary, including infrastructure and service improvements.

Construction traffic/abnormal load movements along non-hierarchy routes will be required to enter into a legal obligation to make good any extraordinary damage. See Guidance Note **G1.7**.

NCC is able to provide a scoping list and developers are advised to seek an informal opinion from NCC as to the likely acceptability of such proposals at an early stage in their project analysis.

Aim 6 To keep commercial vehicles away from areas where their presence would result in danger/unacceptable disruption to the highway/or cause irreparable damage.

6.1 Need

The distribution of freight affects all aspects of the economy and much of daily life. It is essential for the economic well-being of our society and for the efficient functioning of our businesses. However, the transportation of freight by road has a significant impact in both urban and rural areas.



In urban areas, road freight can impact upon congestion, whilst in rural areas many roads are unsuitable to safely cater for Heavy Goods Vehicles (HGVs) due to poor alignment or restricted width.

HGVs have a lower accident rate than most other types of road vehicle, however where they are involved in an accident, the severity of the accident tends to be greater. HGVs are large and can intimidate pedestrians and other road users, particularly where footways are narrow or not present.

6.2 Requirements

- Development likely to serve or attract significant numbers of commercial vehicles should have good access to the routes specifically designated to carry this kind of traffic.
- Where appropriate, provide suitable signs to guide HGVs along acceptable routes.
- Where appropriate, enter into legal agreements to secure contractual obligations for the routing of vehicles visiting or operating from the site, and/or mandatory restrictions (Traffic Regulation Orders (TROs)) to prevent the vehicles from using unacceptable routes.
- Where pedestrian footways are narrow, it may in some cases be possible to alleviate problems - for example by



localised widening/ the use of bollards/reducing traffic speed limits.

Where routes do not meet the required standard, developers will be required to contribute, in whole, or in part, towards their improvement or implement such improvements as may be required to mitigate the development's traffic impact.

Aim 7 Development needs to be serviced in a safe manner which does not result in any detriment to the free flow of traffic or public safety. In accordance with the NPPF, it also needs to allow for the efficient delivery of goods.

7.1 Need

In order to improve the management of servicing and delivery vehicles, a Service Management Plan (SMP) may be required. This often has close links with the travel planning process, given the overarching focus is to encourage efficient and sustainable movements, in this case in relation to goods rather than people. A SMP is therefore an important tool for managing transport impacts and can have benefits for businesses, freight operators and residents leading to -

- Lower operating costs with less deliveries
- Saving staff time spent receiving goods
- Improved supply chain efficiency
- Improved safety
- Reduce the risk of accidents on-site
- Improved air quality and reduced noise.

7.2 Requirements

- Raise awareness – the SMP needs to explain how staff/ occupiers within the site will be informed about the SMP, its function, aims and objectives
- Timing of Deliveries – The method of encouraging companies to arrange deliveries outside peak hours, to alleviate pressure on the highway network.
- Routing of Deliveries - how suppliers will be informed of the appropriate routes to and from the site.
- Loading / Unloading – explanation of what designated areas are to be made available in order to avoid conflicts.

Aim 8 To ensure development conforms to parking policies and standards which take into account strategic and local objectives.

8.1 Need

All car journeys start and terminate at a parking space. Accordingly, achieving and maintaining the balance between supply and demand in the total number of spaces are important factors when considering local transport needs. It is recognised car parking is a key factor in determining travel choices.

Limiting parking availability at trip origins does not necessarily discourage car ownership and can push vehicle parking onto the adjacent public highway, potentially obstructing the free flow of emergency and passenger service transport vehicles.

8.2 Requirements

- Parking provision needs to meet the operational needs of the development and overcome the need for inappropriate on-street parking, whilst at the same time avoiding providing large amounts of parking for non-essential users that would encourage car use.
- New development needs to be provided with parking that avoids hazardous manoeuvring on the highway to obtain access to and from the site. No part of a vehicle parked within the development may project onto or over the highway. The vehicle access crossing may not be used as a parking area and no part of it is exempted for the purpose of footway parking.
- All parking/servicing areas to be available for use at all times and in all weather conditions. Provision should also be provided for the accessibility needs of users.

NCC has adopted a parking standard document, covering vehicular modes of transport commonly in use, e.g., bicycles, powered two wheelers, cars, buses, coaches and servicing vehicles. A copy of Parking Guidelines for new developments in Norfolk can be found on our website together with separate detailed guidance notes relating to vehicular access crossings.



Aim 9 To ensure the Major Road Network and Principal Road Network (PRN) can safely cater for sustainable development, which, if not suitably addressed, would otherwise cause fundamental road safety and accessibility concerns.

9.1 Need

Outside of urban areas with high connectivity, the Major Road Network (MRN) and Principal Road Network have a strategic role to play in carrying traffic, usually at speed. Development in the vicinity of these roads or their junctions can compromise the ability for people to travel more sustainably whilst also prejudicing the ability of strategic routes to carry traffic freely and safely. For these reasons the MRN and PRN are additionally designated 'Corridors of Movement' (CoM) where development is normally resisted. The emergence of the MRN gives an additional weight to these issues as a formalised tier of nationally recognised inter urban/regional routes.



On CoM outside of urban areas, drivers do not generally expect to encounter slowing; stopping; turning; manoeuvring or parked vehicles; nor do they expect to encounter pedestrians. This lack of expectancy increases the hazards caused by an access that exists in isolation. Furthermore, the generally more rural location dictates that the opportunity to provide high quality access to public transport and safe walking/cycling routes is severely curtailed.

9.2 Requirements

- Development needs to be located in accessible locations recognising the needs and travel patterns of patrons, avoiding the need to create new accesses, or to increase or change the use of an existing access onto a CoM. Development contrary to this aim is likely to attract a recommendation of refusal from the LHA unless well founded reasons exist to permit development. This is strictly applied.

Direct accesses and junctions should be upgraded if the through movement of vehicles are inhibited by right-turning traffic and causes a hazard regardless of the two-way annual average daily traffic (AADT) flow.

Exceptions may be made where the development is of overriding public/national need or the access is required to serve essential development where it has been proved incapable of being sited elsewhere. In such instances the development must be served by a safe means of access.

Where improvements to transport infrastructure are necessary developers may be required to enter into agreements to secure their provision.

Aim 10 New development within Norfolk of regional/national importance shall promote the use of rail and water.

10.1 Need

NCC is pro-active where appropriate, particularly at the planning stage of new development, in making developers aware of the existence of alternatives to move people and goods and encouraging them to contact operators and infrastructure providers.

NCC is committed to the development of rail facilities and services from the County, to the region and nationally.

10.2 Requirements

- New development of regional/national importance shall wherever possible be located so as to provide good access to rail (or where appropriate water) facilities and try to provide accessibility for disabled people.



Aim 11 Reduce the environmental impact of highway improvements associated with new development.

11.1 Need

Norfolk's roads form a reflection of the landscape through which they pass. In order to protect this important aspect of our environment for the future, development needs to take a positive approach to the environment yet at the same time fulfil its responsibilities for safety and maintenance of the highway network.

11.2 Requirements

- All development related road improvement schemes shall be designed, subject to safety considerations, so as to protect wildlife interest and minimise any adverse impact on wildlife and landscape character.
- All development related road improvement schemes on roads not part of the primary route network shall be designed, subject to safety considerations, so as to maintain and enhance their local character and wildlife interest.
- All development related new highways or highway improvement schemes shall seek to minimise waste of resources through the reduction, reuse and recycling of materials.



It is common sense to re-use and recycle materials and it may be more environmentally sensitive to do so. This can result in both limiting the demand for new extraction sites for primary aggregates and should limit the disposal of waste construction materials. Re-use and recycling is technologically possible and can be energy efficient. Materials should be re-used or recycled as close to their site of origin as possible.

Highway improvement schemes should be developed with their whole life costs in mind and should be designed so that the materials can be re-used and recycled efficiently at the end of their design life.

2. Guidance Notes



Highways Development Management Guidance Note 1: Obligations and Assessments

G1.1 Attending Local Planning Authority planning committees.

NCC highway officers can be invited by the LPA to attend their planning committee meetings and committee site-visits. Officers will consider invitations to attend where: -

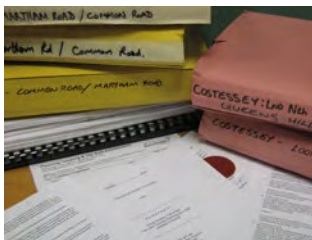


- The LHA has made a recommendation that planning permission be refused.
- A development proposal has significant transport issues.
- The development significantly departs from County transport policy.
- If there are substantial public representations about transport matters.

Where it is necessary to attend committee, highway officers will explain NCC's response on transport matters. Officers will also respond to Member's questions, against the background of current transport policies and standards.

G1.2 Planning conditions and obligations are fully enforceable.

Conditions attached to a planning consent can enhance the quality of development and enable many development proposals to proceed where it would otherwise have been necessary to refuse planning permission. Conditions should only be imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise, and reasonable in all other respects (NPPF Paragraphs 55- 58).



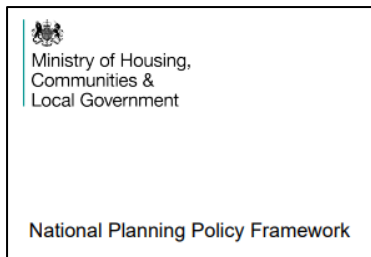
Where it is not possible to resolve matters by condition, a Planning Obligation (PO) may be necessary. For example, an obligation may be needed to mitigate a development's impact, by financial contribution (e.g., to secure enhanced public transport provision).

POs are secured through Section 106 of The Town & Country Planning Act 1990. All contributions sought must accord with the Community Infrastructure Levy (CIL) Regulations 2010 (as amended) and meet the following legal tests:

- (a) necessary to make the development acceptable in planning terms;
- (b) directly related to the development; and
- (c) fairly and reasonably related in scale and kind to the development.

Conditions and obligations attached to a planning permission are enforceable against any developer who implements that permission and any subsequent owner/occupiers of the land (i.e., they run with the land).

G1.3 Planning refusals and appeals.



The NPPF contains express acknowledgement that planning permission may be refused on highway safety grounds, with Paragraph 110 of the NPPF stating that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

Whilst Paragraph 110 provides useful clarification of national policy in relation to highway safety, supporting the position that highway safety is an important material consideration which should properly be taken into account and given due weight, it does not offer a formal definition of 'severe', but rather leaves it to Local Authorities to produce their own interpretation. In Norfolk, a 'severe' impact is deemed occur when: -

- Queue lengths (and blocking back to previous junctions), delay and locational context, the Degree of Saturation, Practical Reserve Capacity, or Ratio of Flow to Capacity are unacceptable;
- Junctions do not conform to standards as defined within DMRB or MfS and improvements cannot be made to bring them up to standard, or;
- A major residential development does not maximise the opportunity to travel by sustainable modes, in particular if it cannot provide a safe walking route to school or is outside of the nationally recognised acceptable walking distances to catchment schools.

Highway officers may recommend that LPA's refuse applications that are unacceptable against transport policy and/or on highway safety grounds. Developers or their Agents can lodge planning appeals against planning refusals. Appeals take the form of Written Representations, Informal Hearings and Public Inquiries. Further advice can be found at www.gov.uk/government/organisations/planning-inspectorate.

Recommendations of refusal may be supported at appeal by evidence from both the developer and the LPA. NCC provides evidence on behalf of the LPA relating to highway matters. For Written Representations highway officers will submit a short report. For Informal Hearings and Public Inquiries, a more detailed report may be required and highway officers (again acting for the LPA) also appear at the Appeal Hearing/Inquiry to answer questions on their evidence.

G1.4 Where new development is likely to have significant transport implications, a Transport Assessment (TA) may need to be submitted as part of any planning application.

Depending upon the scale and nature of development, there may be a requirement to submit a Transport Assessment. This is a process which considers total travel demand; patterns of public transport in the area; how development impacts upon

them; and if required how infrastructure or services could be improved to address impacts.

The following considerations need to be taken into account: -

- Ways in which the need to travel will be minimised. Especially by car, such as working from home.
- How best possible use of existing transport infrastructure will be made. Capacity of the existing infrastructure is finite and, in some areas, overcrowding already occurs.
- Address adverse impacts of traffic generated on the transport network to protect the travelling public, such as demonstrating nil detriment.
- Improvements to sustainable transport choices.
- Accessibility of the location.
- Ways of mitigating residual impacts.
- Other measures to assist in influencing travel behaviour.



NB: - In some instances, the transport issues may not require a full TA. In these instances, a simplified report known as a Transport Statement (TS) may suffice.

Early discussions with NCC, as LHA, on the extent and nature (The Scope) of the TA or TS is recommended to ensure that work is not undertaken unnecessarily and that resources are directed to the areas needing attention. In cases where the development may also impact upon the Trunk Road network (A11 and A47) discussions should also take place with National Highways (NH), who have a responsibility to maintain the Trunk Road network on behalf of the Secretary of State.

Following the Government's decision to archive the 'Guidance for Transport Assessments' (GTA), Local Authorities are now required to establish their own criteria for when a TA/TS/ Travel Plan (TP) is required with more emphasis being placed on detailed assessment prior to the implementation of the Local Plan.

Given that the NPPF requires an assessment of the transport impacts of a development, NCC in its role as LHA has broadly continued with the GTA thresholds/scales for when a TA/TS/TP is required as the GTA is well understood and accepted guidance within the development industry. The only change relates to the threshold of when a TA or TS is required for residential developments and this has been increased from 80 to 100 dwellings. The thresholds/scales of when a TA/TS/TP is required are provided in Appendix A.

A TP must be prepared alongside the TA.

G1.5 Travel Plans must be submitted alongside planning applications which are likely to have significant transport implications, including (but not necessarily limited to): -

- i) All major developments comprising residential housing, jobs, shopping, leisure and services which would generate significant amounts of travel.**
- ii) New and expanded school facilities.**



TPs are an essential tool for delivering sustainable access to new development, whatever the use. They have been defined as “...a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed.”

They are critical to ensure that the use of sustainable travel choice is maximised, the finite capacity of the transport network is used effectively and the need for costly highway infrastructure improvements is avoided as far as is practicable.

The TP is not purely a 'planning tool' and should remain 'alive' while the development remains in operation to guide how travel to the site will be managed. TPs can include a wide range of strategies, initiatives and physical measures. Overall TPs seek to: -

- Reduce the need to travel at all.
- Encourage goods or services to be supplied by more benign transport modes (such as water, rail or pipeline).
- Achieve a shift away from single occupancy car use towards more sustainable forms of transport.
- Reduce the environmental impact of travel.
- Promote and achieve access by sustainable modes of travel.
- Provide a strategic view of the public transport network and where links can be made to increase mode share.
- Embrace demand management through area network groups.
- Respond to the growing concern about the environment congestion, pollution and poverty of access.
- Promote a partnership between the Local Authority and the developer in creating and shaping 'place'.



Where TPs accompany a planning application, they should be produced in consultation with the LHA and include measurable outputs, which may relate to

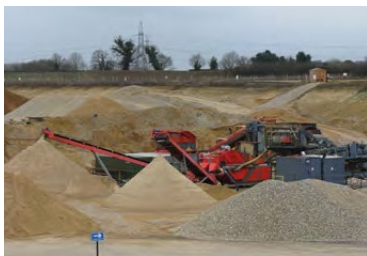
targets in the Local Transport Plan (LTP). They should set out the arrangements for monitoring the progress of the plan, as well as the arrangements for enforcement.

A commuted sum is payable to the LHA for monitoring the TP and a financial bond is required against failure to implement the TP. The value of the bond is determined by the projected costs of implementation for an agreed period, normally from completion of the development.

Unacceptable development proposals should never be submitted simply because of the existence of a TP. The weight to be given to a TP in a planning decision will be influenced by the extent to which it materially affects the acceptability of the development proposed and the degree to which it can be lawfully secured.

The evidence to support the outcomes sought and the measures needed in the TP should be provided by means of a TA.

G1.6 Mineral extraction and waste recycling/disposal proposals likely to generate significant additional HGV movements (or extend the period HGV movements continue) should be supported by an HGV impact assessment.



The Minerals and Waste Local Development Framework (LDF) forms the blueprint for future minerals extraction and waste management in Norfolk. It comprises a range of documents setting out overall requirements for minerals and new waste management facilities and also identifies sites where mineral extraction and waste management is acceptable in principle.

The transportation of minerals and waste in large vehicles can have a negative impact upon the highway network, the effect of which needs to be assessed.

HGV Impact Assessments focus on a technical appraisal of the route's vehicles will take and the adequacy of the existing highway infrastructure to cater for the often heavy, large and slow moving traffic generated. If appropriate, they must include details of the road infrastructure and how that infrastructure could be improved, within environmental constraints, to minimise any negative impacts.

NCC encourages suitable development proposals that minimise the distance minerals have to travel. We are able to provide a scoping list and developers are advised to seek an informal opinion from NCC as to the likely acceptability of such proposals at an early stage in their project analysis.

G1.7 Construction traffic/abnormal load movements (or other traffic movements over a specified temporary period) along non-hierarchy routes will be required to make good any extraordinary damage caused to the highway and/or statutory utility apparatus.

Section 59 of the Highways Act 1980 enables the LHA to recover its costs of making good, extraordinary damage to the highway, either in advance by agreement or retrospectively. This is generally in relation to the use of sub-standard roads by

lorries, and most commonly in connection with construction works, but it will also be applied in other relevant cases, for example haulage contractors, quarry operators and farmers.

In addition to the above, the LHA will protect the safety and efficiency of the highway network by ensuring that prior to commencement of development, agreement is reached concerning the provision of the following: -

- A temporary construction access and/or haul route (as necessary).
- A Construction Traffic Management Plan (CTMP) including details of potential routing.
- Parking and turning facilities for all construction traffic within the development site.
- Details of wheel cleaning facilities.



G1.8 The terms 'material' or 'significant' as used in highways development management assessments relative to traffic flows generated by development.

The terms 'material' or 'significant' as used in highways development management assessments relative to traffic flows generated by development are often the subject of much debate and discussion, in particular when the effects of incremental increases in traffic are taken into account. To provide a local context in Norfolk the following guidance is provided to assist in interpreting the more detailed policies that follow. 'Material' or 'significant' are considered to generally represent the following criteria unless otherwise agreed: -

- An increase in traffic through an 'accident cluster site' or 'high risk accident route' as defined by the LHA.
- An unacceptable increase in either delay or capacity at a junction following assessment of the junction
- An unacceptable impact on non-motorised users including increases in delay at junctions for such users.
- Any increase in turning movements at an access onto the Principal and Major Route road network as defined in the Norfolk Route Hierarchy (NRH).
- Any increase in turning movements at an access by HGVs or other slow-moving vehicles (such as any vehicle trailer or caravan combinations or large agricultural machinery)

Unacceptable increases in 'all-traffic movements' as agreed with the LHA.

G1.9 Assessment of accident history

NCC and 'Crash Map' holds no data in relation to damage-only collisions. The only empirical accident data available for Norfolk is that involving personal injury that have been recorded by Norfolk Constabulary either through officers attending the scene of accidents or from members of the public reporting the accident in police stations after the incident, or more recently online.

Comparisons of road accident reports with death registrations show that very few, if any, road accident fatalities are not reported by the police. However, it has long been known that a considerable proportion of non-fatal casualties are not reported to the police, as hospital, survey and compensation claims data all indicate a higher number of casualties than those recorded in police crash data. Accordingly, the absence of accident data does not in itself mean that accidents have not occurred.

When considering new development proposals, it is important to establish the personal injury collision trend data for the most recent five-year period.

Highways Development Management Guidance Note 2: Highway Access Standards

G2.1 Development must have safe vehicular and (where appropriate), pedestrian, cycle, equestrian links to a public highway.

New accesses and junctions, (or existing accesses and junctions subject to a material change in traffic or use) must (in terms of geometric layout, visibility and construction) be safe. Importance is placed not only on those using the access, but also on the safety of road users passing the site.

Details of layout will vary according to the category of the highway e.g. a road or street; the volume of traffic; and also the speed of traffic using the road from which the access is taken.



Safety (both actual and perceived) is an essential requirement for pedestrians and cyclists both in the form of preventing physical harm through collisions with vehicles and also minimising threats to personal safety.

When cyclists are expected to share the carriageway, consideration must be given to any realistic possibility of reducing the speeds of motor vehicles where appropriate. Pedestrian links to public highway should follow accessibility guidance for disabled people.

G2.2 Visibility at accesses and junctions onto highways with the characteristic of a 'street' shall accord with the standards set out in the Communities and Local Government (CLG) and Department for Transport (DfT) document **Manual for Streets**.

Streets are defined as highways that have important public realm functions beyond the movement of traffic. Most critically they have a sense of place and should not be designed just to accommodate the movement of motor vehicles.

Whilst MfS focuses on lightly trafficked residential streets, many of its key principles may be applicable to other types of street - for example high streets and lightly trafficked rural lanes.

In rural areas public highways can provide other functions than just movement, including various leisure activities such as walking; cycling; and horse riding.

Where an access meets the carriageway, it forms a junction with the public highway and visibility splays are required to ensure exiting traffic can see and be seen by approaching motorists. A stopping sight distance (SSD) is required to enable drivers to see ahead so that they can stop within a given speed. The SSD is calculated from the speed of the vehicle; the time required for the driver to identify a hazard and then begin to brake (the perception-reaction time); and the vehicles rate of deceleration.

The following table provides guidance on SSDs for accesses and junctions onto streets where 85th percentile speeds are up to 60km/h. At speeds above this, or where the characteristic of the highway is not that of a street, it is necessary to refer to **G2.3** below relating to visibility for roads.

Table 1: Provides guidance on SSDs for accesses and junctions onto streets where 85th percentile speeds are up to 60km/h.

85 th percentile speed (Kph)	85 th percentile speed (Mph)	SSD (Metres)	SSD adjusted for bonnet length (Metres)
16	10	9	11
20	12	12	14
24	15	15	17
25	16	16	18
30	19	20	23
32	20	22	25
40	25	31	33
45	28	36	39
48	30	40	43
50	31	43	45
60	37	56	59

It is important for each proposal to be dealt with on its own merits and to consider the driver's line of vision, in both vertical and horizontal planes. Standards should not be used inflexibly. However, the presumption should always be for visibility to be provided in accordance with the standard unless there are specific circumstances which dictate otherwise.



In all cases highway safety considerations should not be prejudiced.

The visibility splay at a junction ensures there is adequate inter-visibility between vehicles on the major and minor arms. The distance back along the minor arm from which visibility is measured is known as the 'X' distance.



In most built-up situations a 2.4m 'X' distance should be used. In some very lightly trafficked and low speed situations this may be relaxed to 2m. NB - Such a reduction will result in the front of some vehicles protruding slightly into the running carriageway from the minor arm. The ability of drivers and cyclists to see this overhang from a reasonable distance needs to be taken into consideration.

The eye line of drivers can vary from 1.05m above the carriageway in a standard car to approximately 2m in commercial vehicles. For drivers to see and be seen by pedestrians and wheelchair users, unobstructed visibility is required to a point 0.6m above ground level. To enable drivers to see other

drivers and road users across summits; around bends; and at junctions; unobstructed visibility is required between the height range 0.6m to 2m.

G2.3 Visibility at accesses and junctions onto highways with the characteristic of a 'Road' shall accord with the standards set out in the National Highways document Design Manual for Roads and Bridges.

Roads are essentially highways whose main function is accommodating the movement of motor traffic and for the purposes of this document relate to vehicular highways not covered within **G2.2** above.

In accordance with the Design Manual for Roads and Bridges (DMRB) (GG 101), the LHA is responsible for determining the requirements applicable for roads excluding trunk roads and motorways. Unless otherwise agreed, NCC as LHA adopts the same SSDs for roads as set out in the DMRB.

The SSDs for roads is given as follows: -

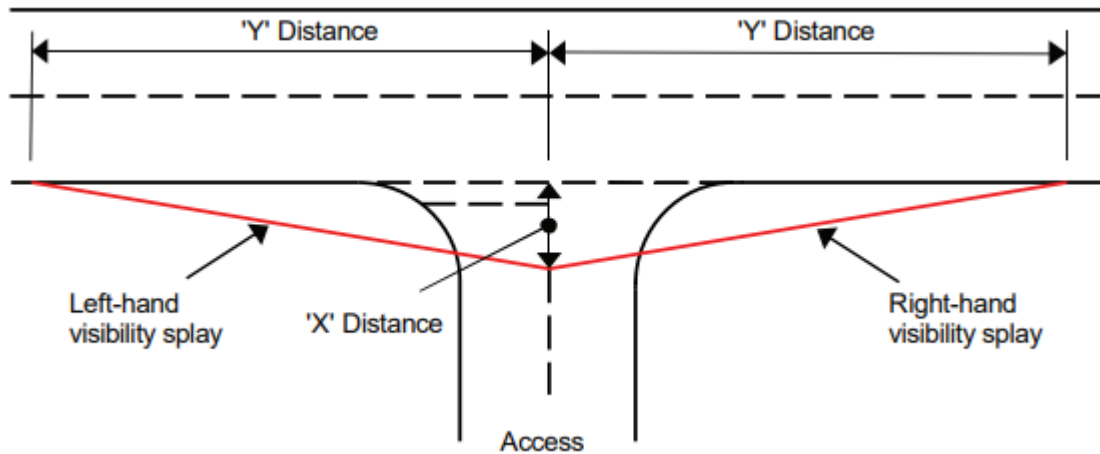
Table 2: SSDs for roads.

85th percentile speed (Kph)	85th percentile speed (Mph)	SSD (Metres)
40	25	45
50	31	70
60	37	90
70	43	120
85	53	160
100	62	215
120	75	295

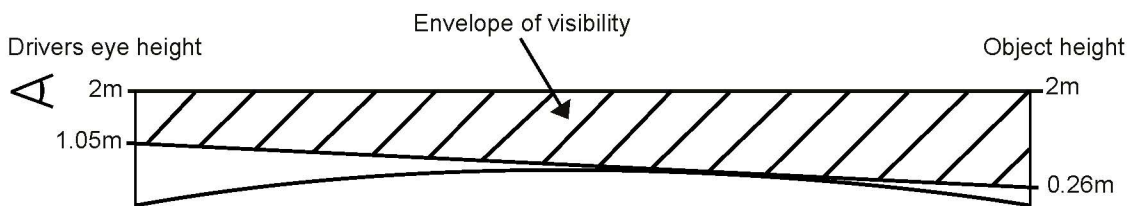
The SSD should be read from the band that includes the relevant vehicle speed; a speed survey may be required.

Account must be taken of considerations that arise in relation to the design of accesses/ junctions and the function of the road onto which the access/junction is to be formed. This is particularly important on roads classified as Principal and Main Distributor roads in the NRH. Careful consideration should be given to the function of carrying through traffic and the likely impact of junction type on that function.

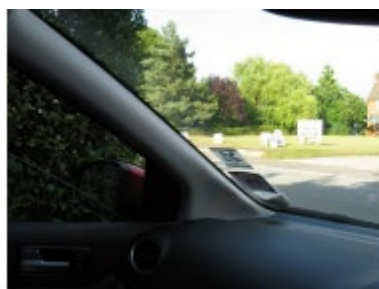
The selection of access or junction form must take account of enhancing safety, be sympathetic to the character of the area and minimise resource use/environmental impacts.



The provision of visibility splays with a 4.5m setback (or 'X' dimension) provides visibility (for an emerging driver) of any pedestrian wishing to cross the access (or junction). Such visibility allows pedestrians some warning of the exiting vehicle. When an 'X' distance of 2m or 2.4m is used, a check should be made to ascertain that adequate visibility for pedestrians is available. A 2m set-back will only be allowed in very lightly trafficked and low speed situations and will result in the front of some vehicles protruding slightly into the running carriageway from the minor arm.



The eye line of drivers can vary from 1.05m above the carriageway in a standard car to approximately 2m in commercial vehicles. For drivers to see and be seen by pedestrians and wheel chair users, unobstructed visibility is required to a point 0.26m (DMRB- CD 109) above ground level. To enable drivers to see other drivers and road users across summits; around bends; and at junctions; unobstructed visibility is required between the height range 0.26m to 2m.



G2.4 85th percentile speed calculation.

In accordance with DMRB (CA 185), all speed measurements should be taken in dry weather conditions. Where speed measurements have been taken either partially or entirely in wet weather conditions, the following values should be **added** to each individual speed recorded in wet weather: -

- 8kph for dual carriageways; and
- 4kph for single carriageways.

Wet weather conditions include periods after rainfall when the road surface is still wet.

G2.5 The use of traffic mirrors as a means of alleviating shortcomings in access visibility is not acceptable.

The use of a mirror to overcome visibility problems is not acceptable. The LHA will not permit them to be erected in the public highway. If installed, mirrors can dazzle drivers, make it difficult to judge speed and distance and as a result lead to a higher risk of accidents. They are also often the targets for vandalism.



G2.6 The width of an access/junction needs to be sufficient to cater for the level and type of traffic reasonably expected to use it.

The vehicle waiting to exit needs to leave sufficient space for the swept path of an entering vehicle; the extent of this swept path would be dependent upon the radii provided at the access.

Individual accesses serving single dwellings shall have a minimum width of 2.4m in a full urban estate road situation. Where the driveway also serves as the principal means of pedestrian access, its width should be increased to a minimum of 3.2m.

Shared driveways shall have a minimum width of 4.5m over a length that extends into the site for a distance of 10m from the highway boundary. All shared private drives should be 4.5m wide.

In cases of minor non-residential development where the type of vehicles visiting the site are mainly light commercial vehicles (up to 7.5 tonne box or panel van), the minimum access width is 4m (provided this does not impact upon the ability of two vehicles to pass safely).

Where heavy commercial vehicles (in excess of 7.5 tonne) can be expected, the minimum access width should be 5.5m (when 15m radii are provided).

G2.7 The maximum access gradient should be 8% (1 in 12.5) over a distance sufficient to accommodate at least the length of a standing vehicle immediately adjoining the highway.

Should the site of a proposed development exhibit a marked difference in level between the point of access to the highway and the destination for vehicles within the site, then a gradient will be required along the route of the internal access.

Various factors should be taken into account when considering the effects of gradient. Namely: -

- The possible loss of some visibility when approaching the highway access on an upgrade.
- The possible increase in stopping distance on a down grade.
- A slower start and therefore the need for a longer traffic gap for a heavy vehicle starting on an upgrade.
- The possible need to prevent an excess amount of surface water, or loose material, entering the highway from a down grade, or the site on an upgrade.
- The effect of any grade on the climbing ability of vehicles particularly in inclement weather.



The maximum gradient should normally be 8% (1 in 12.5) since a vehicle starting from rest in inclement weather may well find steeper gradients unusable. An acceptable solution (depending upon circumstances) where steep gradients have to be considered may be to limit such gradient over a distance sufficient to accommodate at least the length of a standing vehicle to 4% immediately adjoining the highway and to 8% thereafter. For domestic accesses the 4% length could be as short as 5m, but where use by larger vehicles is likely, the length should be at least 15m.

Appropriate rounding or 'roll-over' should be provided where accesses join the highway to prevent vehicles grounding when entering or leaving. Where the retention of existing topography is an important consideration for the LPA, gradients steeper than 8% may well be accepted subject to the use of a suitable surface finish to improve grip/skid resistance.

Care must always be taken to ensure that adequate visibility is maintained where any gradient runs down from the highway in excess of 2%.

G2.8 Separate vehicle entrance and exit to the public highway.

The general rule is that increasing the number of points on a highway where vehicles turn, increases the potential for traffic conflict. Therefore, applications for two access crossings to a single property, or a second access point where one already exists, will not normally be approved for domestic dwellings onto highways with the characteristic of a 'road' unless there is strong evidence that it will add significantly to highway safety.

For such applications to be considered, the applicant will need to show: -

- How a second access will add to the safety of the access arrangements.
- Why such added safety cannot be achieved from a single access, or by improving or repositioning an existing access.

Roads are essentially highways whose main function is accommodating the movement of motor traffic and for the purposes of this document relate to vehicular highways not covered within **G2.2** above.

G2.9 Development exceeding 9 dwellings shall only be accessed via a highway maintainable at the public expense or protected by legal agreement.

In order to ensure suitable access to new development can be maintained, direct or suitable access is required onto a publicly maintainable highway. The dwelling threshold mirrors that given in the NPPF for major development housing of “10 or more homes”.

Private drives are not considered an appropriate form of development to serve more than 9 dwellings. This is a relaxation of previous guidance which advocated that private drives serve no more than 5 dwellings. This relaxation recognises a more flexible approach is required to meet the needs to provide more housing on existing brown-field sites in towns and villages.



This policy may be relaxed for minor developments off existing lengths of 'private road' serving existing development, as service provision will already have been made and some agreement reached regarding the maintenance of the right of access for the foreseeable future. However, proof of these points may be required by NCC, as LHA, at the time the planning application is submitted.

Where it is not possible to construct the access road to a standard suitable for adoption, the LHA will require an alternative means of future maintenance of the private roadway to be demonstrated and secured in perpetuity.

Where it is not possible to construct the access road to a standard suitable for adoption, the LHA will require an alternative means of future maintenance of the private roadway to be demonstrated and secured in perpetuity.

G2.10 Private streets will only be adopted by the Local Highway Authority as publicly maintainable highway if they comply with Norfolk County Council’s guidance standards and offer safe passage for pedestrians and vehicles.

New roads that have been constructed in accordance with NCC’s guidelines are normally adopted by way of an agreement between the developer and the Council under Section 38 of the Highways Act 1980. The agreement will only be finalised once all highway related planning requirements are in place.

Any road or footway proposed for adoption must be directly linked with the existing highway network; be of sufficient utility to the public; offer wider community benefits and comply with all relevant sections of MfS and Manual for Streets 2 (MfS2) as well as the DMRB.

NCC will expect new residential developments with roads and footways serving in excess of 9 dwellings to be offered for adoption. In exceptional circumstances, where it is considered they serve sufficient public utility and/or a wider community benefit, NCC will consider the adoption of new roads and footways that serve in excess of 5 dwellings.

The following will not be considered for adoption: -

- Existing private streets serving less than 10 dwellings.
- Access roads serving car parks or forecourts.
- Access roads serving individual properties.
- Roads with a permeable surface treatment.
- Access roads serving all types of employment land including offices, industrial, retail and leisure.
- Access roads to schools, libraries, surgeries or fire/police/ambulance stations.

It should be noted that, where the developer is unable to obtain absolute title or where there are charges or difficulties with the title, the roads may remain private streets.

Existing roads will not normally be adopted unless they are brought up to current standards by the owners of the road. This may for example necessitate works to the road surface, footways, surface water sewers, gullies and lighting or any of these features.



G2.11 If within new development there are areas likely to lead to higher concentrations of vulnerable road users, (such as in and around new residential; schools; shopping areas; community facilities; and health facilities) the maximum design speed for new roads will be 20mph.

NCC supports the philosophy of lower traffic speeds for new developments. In densely populated areas such as new housing estates, shopping streets with high pedestrian and cyclist activity there is a need to reduce speeds to well below 30mph.

G2.12 Footways need to be of sufficient width to cater for the development proposed.

The 'effective width' of a footway is that width which is unobstructed by any vertical feature, uneven surface or the use envelope such as by a hedge. There is no recommended maximum width for footways. MfS indicates that in lightly used streets, the minimum unobstructed width for pedestrians should generally be 2m with additional width considered between a footway and a heavily used carriageway.



Provision of adequate footway space is essential to aid safety, comfort and accessibility for more vulnerable road users. Narrow footways can impede movement and provoke unwarranted conflict. At extreme narrowing's, people with mobility issues and parents/carers with children may not be able to pass safely without stepping onto the carriageway, which is of concern particularly on highways where there is significant vehicular traffic flow or where vehicles are travelling at speed.

Whilst occasional width restrictions may be acceptable, these should not be prevalent and should not extend for excessive distances. The effective width needs to take account of functional passage by more vulnerable road users such as wheelchair users/mobility scooters/people with pushchairs or buggies.

Where the resulting effective footway width would be less than 1.8m, regular lengths of footway measuring a minimum 1.8m effective width needs to be provided along the route to allow two wheelchairs to wait and pass. These sections should be no less than 5m long with the distance between them not exceeding 25m.

Where the resulting effective width would be less than 1.5m the maximum length of footway measuring less than 1.5m wide should be no longer than 2.5m. The distance between two such instances should be no less than 10m.

Where hedges or shrubs directly bound the side of a footway, the use envelope needs to be increased by 300mm to account for seasonal growth and potential root damage. In existing streets, subject to agreeing a departure from standard with the relevant case officer, the footway may be reduced to accommodate new trees and planting if it can be demonstrated it is not otherwise possible to accommodate planting elsewhere.

Footways adjoining bus stops and shelters should be a minimum width of 2.4m; this excludes the use envelope of shelters. A minimum footway width of 2.4m should also be accommodated outside busy forecourts to shops and public buildings such as schools.

G2.13 Vehicular access to new development should not unacceptably interfere with the use of bridleways, public footpaths, on-road cycle routes, cycleways, and restricted byways or bus priority measures.

Conflict between pedestrians, cyclists, horse riders and motor vehicles would produce unacceptable highway dangers and would work against other policies that seek to give priority.



Whilst there is no requirement to provide visibility splays or measure SSDs where a private access joins an unsegregated footway/cycleway, nevertheless emerging drivers still need to take account of pedestrians/cyclists on the shared surface. In addition, it is only reasonable to expect that any new access is provided such that it does not unacceptably interfere with either a cycleway or footway.

When undertaking an assessment to determine if an unacceptable interference has occurred, it will be necessary to consider: -

- The frequency of vehicle movements;
- The amount of cycle/pedestrian activity; and
- The width of the shared cycleway/footway.

Where a site stands close to a cycleway network, developers will normally be expected to provide links to it as part of their proposals. Developers will also be expected to contribute to towards completion of a cycleway where it is reasonable to do so.

When incorporating bridleways, they need to be designed to prevent misuse by motor vehicles.



Please note that developers cannot obstruct or divert an existing right of way without obtaining consent from NCC (even if planning permission has been granted) and existing paths should be accommodated on their current right of way wherever possible. However, if NCC agrees in principle to a diversion, a Legal Order is still required. The LPA usually process applications to divert rights of way using powers under the Town and County Planning Act.

G2.14 Norfolk County Council does not support the creation of any new railway level crossings unless there are exceptional reasons and robust safety justifications produced.

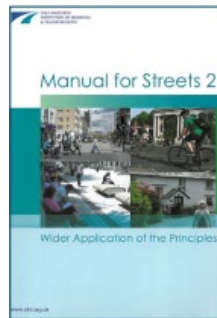
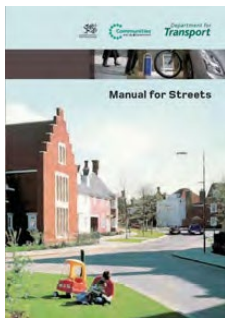


Railway level crossings have a statutory status, often set down in the Act of Parliament authorising the railway to be constructed. They represent the most significant risk in railway operation and most of the risks are generated by the behaviour of road users. NCC expects those promoting a scheme to provide an alternative means of crossing the railway line concerned.

Highways Development Management Guidance Note 3: Design of Developments

G3.1 Residential development needs to accord with the current edition of Manual for Streets, Manual for Streets 2, LTN1/20 and other County Council guidance documents.

It is a well-recognised fact that driver's behaviour is not fixed, but rather it can be influenced by the environment - e.g., driver's speed tends to increase if the width of the carriageway increases.



MfS and Manual for Streets 2 (MfS2) take the above into consideration and recognise the role of residential streets in creating places that work for all members of the community. They focus on the place function of residential streets, giving clear guidance on how to achieve well-designed streets and spaces that serve the community.

MfS and MfS2 also recognise the importance of creating places that have a clear local focus. NCC seeks to achieve this in conjunction with Local Authorities in Norfolk acting in partnership to embrace both their planning and highway functions at District and County level.

NCC promotes an integrated approach to the design of new residential developments. NCC stress the need to pay regard to the local context of any site and use a sensitive approach to the provision of pedestrian, cyclist, and vehicular access. Through this approach NCC looks to create pleasant and safe places to live, which will fit comfortably within their existing setting.

NCC further places a local emphasis on the requirements for Norfolk and offers guidance helping ensure that once planning consent has been granted the process through the detailed design phase (leading ultimately to final highway adoption) will be as smooth as possible in accordance with all statutory obligations.

G3.2 Pedestrian, cyclist, public transport and all other vehicular routes within industrial estates or business park development shall accord with the requirements of the Local Highway Authority.

Industrial and commercial development is exempt from the provisions of the Advanced Payments Code (APC) (Sections 219 - 220 of the Highways Act 1980) and is not therefore required to provide on-site highway infrastructure for adoption by NCC, as LHA.



While the roadways, footways, and cycle routes within this form of development do not require adoption, it is still important that the standard of their design and construction maximises the principles of sustainable development and safely caters for the needs of all forms

of transport which may visit the site. Early dialogue between developers, planners and highways engineers is recommended to ensure that an integrated approach to the design takes place.

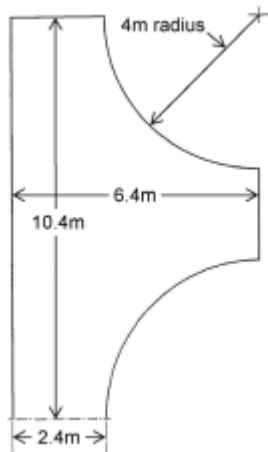
The County Council will expect all new commercial development to be provided with a dedicated vehicular access. Providing a combined access shared with residential development will not be considered acceptable, to avoid potential conflict with vulnerable road users and the amenity of future residents

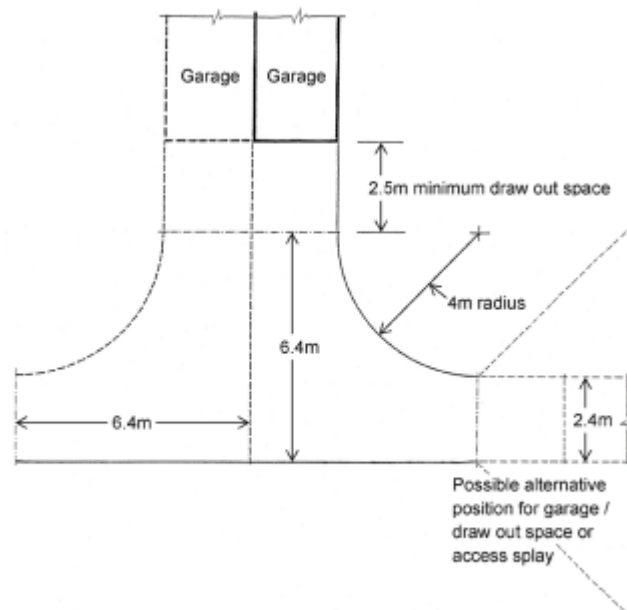
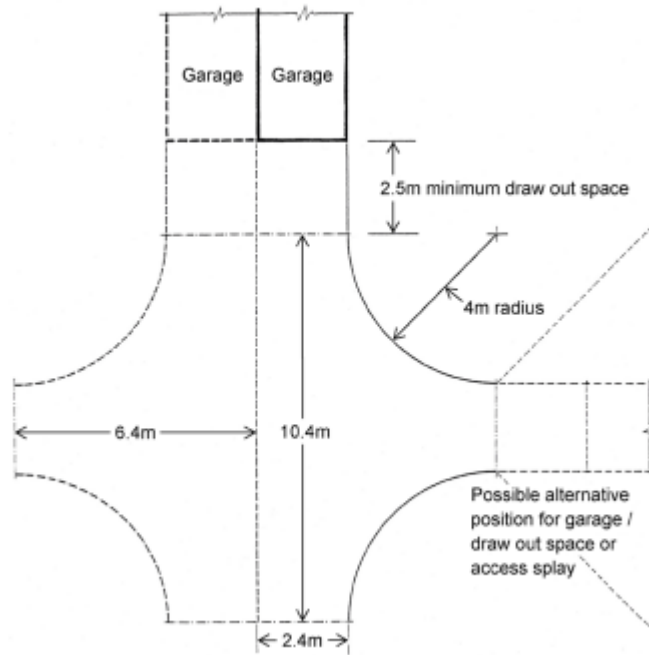
G3.3 Development with vehicular access onto a public highway with the characteristic of a 'Road' (see G2.3) shall provide a turning space within the curtilage of the site of sufficient size to enable vehicles to leave and re-enter the public highway in a forward gear after no more than two gear changes.

It is important that vehicles enter the highway in a safe manner. Reversing onto busy roads is not considered safe. Sites must be laid out to provide adequate space to easily turn round a vehicle.

It should be noted that a turning area must be separate to the dedicated parking provision. It should be designed such that emerging vehicles meet the highway at right angles to the flow of traffic to optimise the driver's visibility and ease of manoeuvring.

Note: The position of garage/draw out space and access splay indicated on the below diagrams will be determined by the site layout.



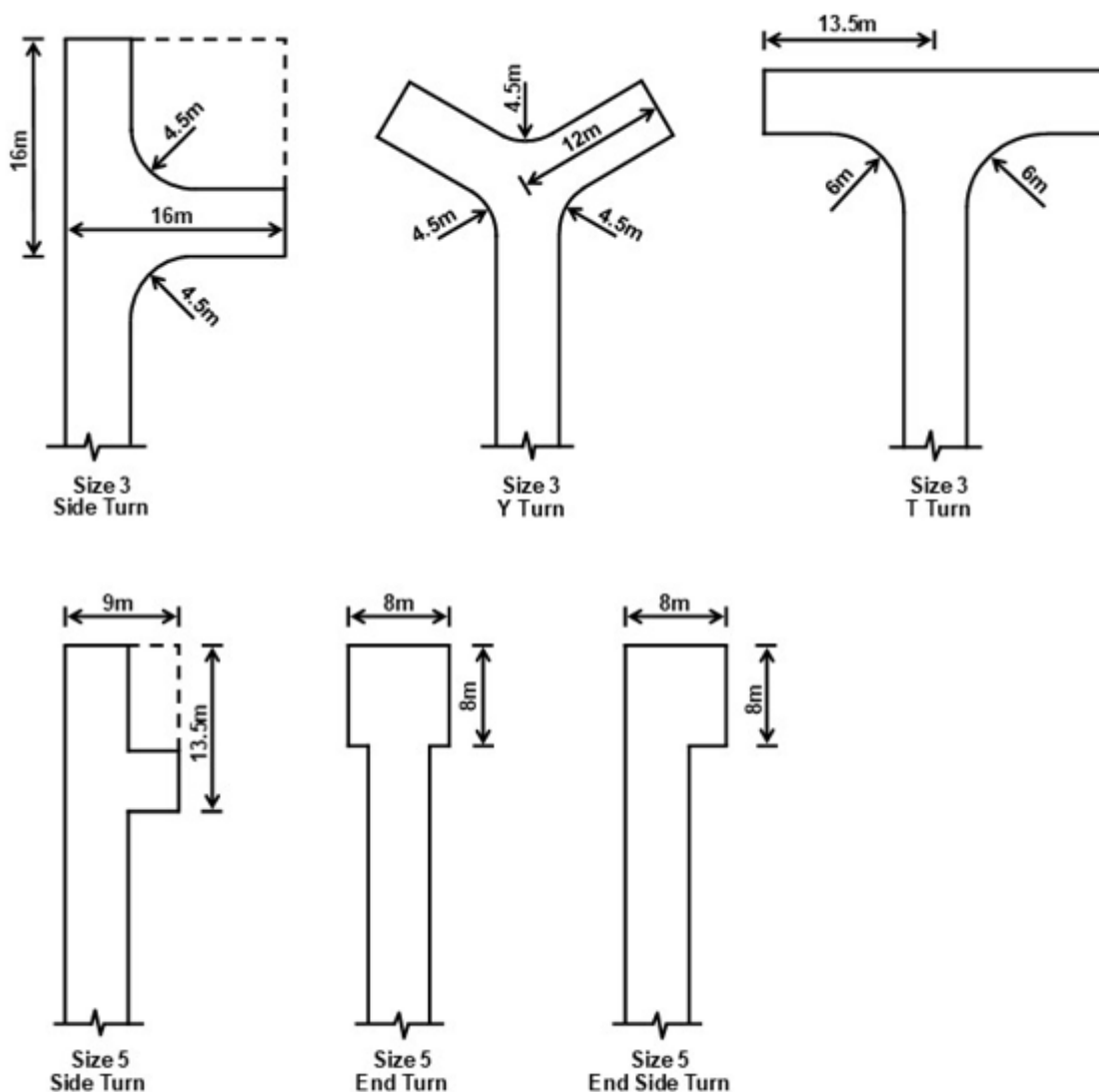


G3.4 Development with private drives onto a public highway which don't meet Norfolk County Council's road adoption criteria (see G2.9 and G2.10) shall provide a turning space within the curtilage of the development of sufficient size to enable vehicles to leave and re-enter the public highway in a forward gear after no more than two gear changes.

It is important that vehicles enter the highway in a safe manner. Reversing onto busy roads is not considered safe. Sites must be laid out so as to provide adequate

space to easily turn round a vehicle within the confines of the private drive. It should be noted that a turning area must be separate to any parking provision.

The size of the turning head is ultimately determined by the expected type and frequency of vehicles manoeuvring. In general, where a private drive is less than 20m in length a Size 5 turning head will be required. In all other circumstances to ensure adequate provision for the general servicing needs of the development a Size 3 turning head should be provided.



G3.5 Industrial/commercial development shall provide a turning space of sufficient size within the curtilage of the site to enable commercial vehicles to leave and re-enter the public highway in a forward gear after no more than two gear changes.

Experience with existing industrial and commercial sites has shown that problems frequently occur when large vehicles park on the carriageway whilst unloading (a notable problem with car transporters) causing difficulties for other vehicles trying to move along the road because of their width and length.

Exceptions to G3.5 to allow vehicles to manoeuvre in the carriageway will only be considered in industrial estates and business parks consisting of short cul-de-sacs where traffic speeds and traffic, pedestrian and cycle flows are at a minimum, and where the development proposed is small scale (e.g., Starter Units).

G3.6 Parking provision must be in line with adopted standards.

The appropriate standards are contained in the LPA's LDFs or in the absence of specific guidance from the LPA the adopted Parking Guidelines for new developments in Norfolk produced by NCC.



G3.7 Development shall be designed such that no obstruction is placed on/across a public highway including Public Rights of Way.



Conflict and interference with the free and safe flow of pedestrians, cyclists, horse riders or traffic on the public highway will arise if an obstruction, such as a gate, fence, railing or bollard, is placed inappropriately on the highway. Care must be taken when consideration is given to the means of protecting either landscaping or property. Bollards for instance can only be used as a means of safeguarding persons using the highway (on foot or in vehicles), Section 66(2) of the Highways Act 1980, and cannot be placed on the highway for any other purpose. Where possible consideration should be given to the guidance on bollards for people with sight loss in BS8300.

G3.8 No gate, door and/or window shall be positioned so as to open outwards over the public highway.

Section 153 of the Highways Act 1980 requires that doors, gates, and windows do not open outwards over the public highway. The risk presented to highway users by a ground floor door or casement window opening outward directly onto the highway is obvious and should always be avoided. Further information can be found on the protection for people with sight loss in Building Regs, Part M2.

G3.9 Any new or replacement gates, security barriers or any other obstacle to free access into development sites must be set back sufficient distance to allow the longest vehicle or vehicle combination, that would regularly be expected to visit the site, to stand clear of the carriageway whilst the gate, security barrier or other obstacle is operated.

Conflict and interference with the free and safe flow of traffic on the public highway will arise if a vehicle is prevented from entering an access by an obstruction, such as a gate or security barrier. It is also essential to ensure that pedestrians (in particular those with mobility impairments) are not forced to step into the carriageway to avoid vehicles parked in front of obstructions of this nature.

This should be avoided by ensuring that all such obstacles are located sufficiently far back from the carriageway edge to ensure that the vehicles wishing to enter the site can pull clear of the carriageway if required to stop at the gate or barrier.



There will also be occasions when gates or security barriers will be required to be located further into development than the length of a single vehicle to vehicle combination. Development generating large volumes of traffic may need to locate gates or security barriers at positions within the development site so as to cater for the queuing of traffic clear of the public highway.

G3.10 In all cases where a structure (i.e., a retaining wall, bridge, culvert, or other building) either supports the highway or land adjacent to the highway, the developer must satisfy the Local Highway Authority of the structural integrity of the structure.

All structures with possible highway implications must be safe; durable; have minimal impact on the environment; and be designed for minimum maintenance. The latter requirement is particularly important if the structure is proposed for adoption.

Details of all structures above, beneath, or adjacent to the highway must be submitted as part of the planning application. This includes proposals to construct, assess, refurbish, or demolish a structure. It shall also apply to other structures outside these limits which through failure could have consequences for the road user within the highway boundary.

It is necessary to establish the following: -

- Whether Technical Approval is required for the structure.
- Whether the structure is to be adopted by NCC and if not - who will be responsible.



Where Technical Approval is required, developers must follow the procedures outlined in DMRB.



The LHA will usually expect a general inspection to be carried out every 2 years and may require (depending on what the proposal actually is) a Principal Inspection (a more detailed inspection carried out with access equipment if necessary, to ensure that all parts of the structure can be inspected within touching distance) every 6 years. Inspections need to be carried out by a Chartered

Structural Engineer with their all reports sent to the LHA.

Before the Technical Approval procedure can commence, payment is required in advance to cover all costs likely to be incurred in assessing the proposal. Upon

receipt of preliminary structural details for the proposed scheme, the LHA will provide an estimate of charges likely to be incurred with a breakdown of costs.

Should the structure be adopted by the LHA for future maintenance at public expense, a minimum commuted sum will be required to cover the reasonable costs of future inspections, maintenance and renewal works.

G3.11 Development shall be designed to avoid, wherever possible, the need for private longitudinal apparatus (pipes, wires, or cables) to be placed on, in or under the highway.

The placing of private apparatus on the highway may be achieved under Section 50 of the New Roads and Street Works Act 1991. However, the ethos of the public highway is that highway land is for the benefit and use of the public. Accordingly, apparatus of this nature will only be allowed if the following criteria are fulfilled: -

- (i) There is no impediment to highway use.
- (ii) There is a genuine public **need** in allowing the apparatus to be present.
- (iii) It is not possible to locate the apparatus on neighbouring land (financial constraints not to be taken as a valid reason).

G3.12 Only signs and road markings that conform to Department for Transport standards and guidance shall be positioned on the public highway.

To ensure that the UK has a uniform traffic signing system, signs must conform to the designs prescribed in the Traffic Signs Manual (although some signs may have been specially authorised by the Secretary of State).

Additionally, any sign to be sited within the highway should demonstrate a **genuine public need** and that **no impediment to highway use is caused by its position**. Any proposed sign to be sited within the highway and not able to demonstrate these requirements is therefore likely to be in contravention of the Highway Act (1980) Section 152.



G3.13 Signs or advertisements shall not conflict with highway signs, visibility sight lines or be positioned and/or configured so as to be an unacceptable distraction to road users.

Signs play a vital role in directing, informing and controlling road users behaviour however, to avoid confusion and hence road safety implications, there is a need to avoid over-provision of signage (sign clutter) or signs that pose safety concerns. All advertisements are intended to attract attention, however, advertisements at points where drivers need to take more care are more likely to affect public safety. These include, for example, at junctions, roundabouts, and pedestrian crossings. When assessing public safety, the key considerations are whether the



location is appropriate (i.e., undemanding on the driver) and for digital signs, whether any sequential change between digital advertisements is controlled to prevent distraction from the driving task. There are less likely to be road safety problems if the advertisement is on a site within a commercial locality and if the advertisement is not on the skyline, but other factors also need to be taken into consideration for example advertisements which because of their size or siting would obstruct or confuse a road-user's view or reduce the clarity or effectiveness of a traffic sign or signal.

G3.14 Illuminated advertisement signs visible from the public highway shall be designed so that the level of luminance emitted is in accordance with the Institution of Lighting Professionals, PLG05 The Brightness of Illuminated Advertisements.

In addition to satisfying requirements **G3.12** and **G3.13** above, illuminated signs must also comply with the standards recommended in the Institute of Lighting Professionals (ILP), PLG05 The Brightness of Illuminated Advertisements. This details five zones to which maximum luminance of signs (candelas/m²) is given proportionate to the area (m²) of each sign.

Definitions of Environmental Zones can be found below which covers the zone, surrounding, lighting environment and examples.

- E0- Protected- Dark. Examples: UNESCO Starlight Reserves, International Dark-Sky Association (IDA) Dark Sky Parks.
- E1- Natural- Intrinsically Dark. Examples: National Parks, Areas of Outstanding Natural Beauty etc.
- E2- Rural- Low district brightness. Examples: Village or relatively dark outer suburban locations.
- E3- Suburban- Medium district brightness. Examples: Small town centres or suburban locations.
- E4- Urban- High district brightness. Examples: Town/city centres with high levels of night-time activity.

In addition to the environmental zones there are also Areas of Special Control of Advertisements which are often in Areas of Outstanding Natural Beauty or National Parks.

When considering the zone in which the advertising sign is to be sited, the contrast with the surroundings or background needs to be considered e.g., the surroundings could be unlit when viewed from the road. The maximum value of luminance anywhere on the surface of an advertisement at any time during the hours of darkness is given in the table below. It is irrelevant whether the proposed sign is externally or internally illuminated. Where the illuminated sign lies on the boundary of two zones, standards for the most rigorous zone should be used.

Table 3: shows maximum permitted recommended luminance (cd/m2)

illuminated area (m2)	Zone E0	Zone E1	Zone E2	Zone E3	Zone E4
Up to 10	0	100	400	600	600
Over 10	0	N/A	200	300	300

G3.15 Floodlighting shall be positioned and/or configured so as not to be an unacceptable distraction to road users.

Artificial light has many uses including illumination of hazardous areas; for security lighting; to increase the hours of usage for outdoor sports and recreation facilities; to enhance the appearance of buildings at night.

However, the increased use of lighting can cause problems with the result, that there has been an increase in the number of people adversely affected by lighting and consequently nuisance from lighting. Light in the wrong place at the wrong time can be intrusive.

The following points should be taken into account: -

- Do the lights have to be on all night? For example, over advertising hoardings; the exterior of buildings or empty car parks.
- Only the right amount of light for the task should be installed.
- Make sure that lights are correctly adjusted so that they only illuminate the surface intended.
- To reduce the effects of glare main beam angles of all lights should be below 70 degrees.
- Do not install equipment which spreads light above the horizontal.



G3.16 Street lighting within and associated with development shall be provided in accordance with Norfolk County Council specifications.

Street lighting is a concurrent power of the County, District, Town, and Parish Councils. In most instances street lighting will not be adopted by NCC as LHA unless there are well founded highway safety reasons for its installation.



Whether street lighting is required as part of any new development for amenity reasons will be determined in consultation with the Local Lighting Authority (LLA) which is the District, Town, or Parish Council.

As a general principle Local Authorities in Norfolk seek to minimise light pollution emitted from lighting schemes. The current standard is based on the latest proven technology incorporating LED lighting with the functionality of being able to be controlled by a Central

Management System (CMS).

If the LLA chooses to adopt the lighting scheme its design shall be a matter between the developer and the LLA and only passed to NCC to approve as LHA for inclusion in the Section 38 Road Adoption Agreement. Lighting must however conform to the Footway Standard laid down in Section 270 of the Highways Act 1980.

Wherever possible it is recommended that the principle of street lighting provision on new development should be established as part of the planning application considerations. NCC's street lighting team can provide detailed guidance on the requirements.

G3.17 All overhangs (including structures/beams/cables etc.) shall conform to the height restrictions set by the Local Highway Authority.

Overhanging structures can be licensed by the LHA under Section 178 of the Highways Act 1980. Adherence to the height restrictions stated below ensures that the public's rights of free and safe passage will not be impeded.

- not less than 5.2m over the carriageway.
- not less than 6.75m over the carriageway on those roads designated by National Highways as a 'high load grid route'.
- not less than 3.1m over the footway provided that the apparatus does not come within 1.5m of the edge of the carriageway.
- above a footway and unable to achieve the horizontal distance necessary as given above must conform with the minimum vertical clearances given for carriageways (5.2m or 6.75m).



Exceptions to the criteria set out above will be considered on a case-by-case basis if greater flexibility is sought. For instance, where pedestrian and cycle routes are proposed to pass through buildings, or reduced clearances are sought to get closer to a typical storey height in order to achieve and/or maintain the 'scale' of a particular street.

G3.18 All shop blinds shall be a minimum height of 1.98m above the ground.

The Town Police Clauses Act 1847 requires shop blinds to be a minimum height "in every part" of eight feet (2.4m) above the ground. This requirement was to prevent top hats from being damaged. The Act has not been repealed or replaced. NCC regards this height restriction as being too restrictive. Provided there is at least 6 feet 6 inches (1.98m) height clearance under the shop blind (a height at which the blind can provide effective screening without posing a realistic hazard to the public in general) and there are no other visibility or safety issues attributed to its presence, NCC, as LHA generally takes no action to enforce this section of the Town Police Clauses Act 1847.

For shop blinds in Pedestrian (and Cycle) Zone streets (that are kerbless) the height clearance should be increased to a minimum of 2.4m headroom to enable cyclists to

pass underneath safely and comfortably. In such streets where blinds are approved there should be adequate usable width remaining for passing pedestrian, cyclist or occasional vehicular traffic; where two way cycling occurs this should be a minimum of 4.5m in usable street width and where it is predominantly pedestrian only this can be a minimum of 3m – subject to assessment of the actual levels and nature of traffic experienced that may influence whether a canopy is acceptable or not regardless of minimum remaining widths being achievable.

G3.19 Developments (including accesses/driveways) must provide adequate drainage for surface water.

NCC will resist any development which involves surface water flowing onto the public highway from private accesses or non-highway areas. Standing water must be drained away or it can pose a hazard and carry debris etc. onto the highway to the detriment of highway safety.

G3.20 Disposal of surface water run-off from new highways within residential or commercial development should be through a Sustainable Urban Drainage System (SUDS), which incorporates adequate water quality treatment measures where possible.

Historically run-off water was drained from highways directly to a watercourse, such as a river, through a network of pipes. This means that the water enters the watercourse very quickly. In an urbanised area with a lot of run-off this can lead to flood conditions or pollution when a lot of water enters the watercourse at once.

Urban drainage is changing to balance the impact of drainage on cumulative impacts of flooding.

NCC, seeks to reduce the rate of surface water run-off through the use of Sustainable Urban Drainage Systems, which may incorporate filter strips and swales, filter drains, permeable surfaces, infiltration devices and basins or ponds.

These systems are more sustainable than conventional drainage methods because they: -

- Manage run-off flowrates, reducing the impact of urbanisation on flooding.
- Protect or enhance water quality.
- Are sympathetic to the environmental setting and the needs of the local community.
- Provide a habitat for wildlife in urban watercourses.
- Encourage natural groundwater recharge (where appropriate).



They do this by dealing with run-off close to where the rain falls, managing potential pollution at its source and protecting water resources from point pollution (such as accidental spills).

SUDS that drain highways, should be approved by the adopting authority, including Anglian Water, in consultation with NCC, as LHA. The scheme should be offered solely to the LHA if the drainage system only drains surface water from an adoptable highway. Early engagement is encouraged to discuss options and understand constraints such as buried services, sensitive receiving watercourses/groundwater or potential for vehicle overrun of verges. NCC is open to footways being set back from the carriageway to enable over the edge SUDS to be implemented between a footway and carriageway.

A commuted sum for future maintenance may be required.

G3.21 Private soakaways shall be located so as not to interfere with the stability of highway land.

The design and installation of private soakaways used to drain surface water from properties or private hard standings must take account of the needs of the LHA.

The soakaways must be positioned so as not to interfere with the stability or use of the public highway.

G3.22 Drainage apparatus - distance from buildings/structures/landscaping.

In order to maintain the drainage infrastructure, NCC requires: -

- A minimum of 3m width easement strip free from any obstructions from the extremity of the drainage feature (including SUDS) should be proposed, this will depend on the size or type of feature and the maintenance equipment required to maintain it. Larger easements may be required depending on the size of plant that will be required to maintain it.
- A minimum of 3m easement from the root protection zone (existing or predicted) of any landscaping.
- Maintenance laybys may also be required in some cases.

Exceptions will be considered on a case-by-case basis where the form of development proposed makes achieving this impractical, e.g., a high-density urban development. In these cases, special measures may need to be agreed to protect the apparatus and allow future maintenance.

Unhindered access shall be provided to the adopting authority to enable access to all adoptable drainage, at all times.

Highways Development Management Guidance Note 4: Design and Delivery of Developer Funded Transport Schemes

G4.1 When highway works are required to mitigate the impact of development, the design of such works must be to a standard in keeping with the function of the route onto which the works are planned.

Different roads fulfil different functions, and accordingly the design and delivery of highway infrastructure should not be approached on the basis that 'one size fits all'. Account should be taken of function of the route on which a planned improvement is to take place (as defined in the NRH and the relationship of that route within NCC's adopted 'Mode Hierarchy' (walking, cycling, public transport, taxis, essential motor vehicles and non-essential motor vehicles). Consideration should be given to the route hierarchy as the Principal and Primary routes of the highways network need careful management.

The intention is to ensure that highway works are carried out that are 'fit for purpose' and take into account the function and nature of the route within the context of the duties imposed by the Traffic Management Act, which places a duty on Local Authorities to keep traffic (including pedestrians) moving. There is particular concern about congestion on the Strategic Route Hierarchy road network which will need to be managed during the delivery of schemes NCC is committed to targeting congestion on these roads through a wide range of interventions, such as managing the network more efficiently, signing, encouraging people to choose to walk, cycle or use public transport, or through managing demand (for example, by influencing the number of car parking spaces available) and proactive communication activity. Highway works need to take these factors into account.

All physical works must be compliant with the Equality Act 2010 and the guidance given in the recently updated DfT document Inclusive Mobility.

G4.2 The 'design life' of all new or improved transport infrastructure is dependent upon the function of the route and the context within which that route is considered in transport strategy terms.

The 'design life' for highway infrastructure works is the period of time during which the works are expected to cater for traffic impacts within given capacity thresholds. The time period differs depending upon the classification of the road within the route hierarchy.

G4.3 Development related highway improvements shall be subject to and comply with the recommendations of a road safety audit.

There are four stages within the road safety audit process. These are undertaken during the design phase (Stages 1 & 2), when the improvement is open to traffic (Stage 3) and one year after opening (Stage 4).



A Stage 1 Safety Audit report, including designer's response where appropriate, needs to accompany any planning application which seeks to materially alter the existing highway. In addition, any safety audit accompanying a planning application must have been carried out in accordance with current standards by an independent safety auditor.

A great deal of progress has been made in reducing casualties on Norfolk's roads. There is a need to make sure that the gains made in recent years are built upon by taking every opportunity to ensure that the design of new developments, and any associated off-site infrastructure, promotes highway safety and reduces casualties.

Improving the safety of vulnerable road users, e.g., pedestrians and cyclists (particularly children), can also help to encourage greater use of more sustainable modes of transport, and thus contribute to the achievement of NCC's wider sustainable transport objectives.

To deliver these objectives in the most sustainable way the LHA seeks to be positive and pro-active and that includes working with the private sector at the early stages of the process.

Development Team

NCC has set up a 'Development Team' made up of officers from all service areas within the LHA who assess and give advice on enquiries which could lead to major or complex planning applications. The team includes officer with roles in:

- safety audit
- technical
- safety and traffic management
- transport strategy and policy
- programmes and funding
- environmental
- passenger transport

Development Team meetings are held regularly and are co-ordinated by the relevant Highways Development Management professional, who will ensure the team gives a consistent and comprehensive feedback, quickly and effectively. This should assist developers in submitting a planning application in the most appropriate form and as a result delays in responding to the application should be reduced.

Highways Development Management Guidance Note 5: Agreements, Scale of Charges, Commuted Payments and Fees

G5.1 A legal agreement will be required in order to carry out works on the public highway.

The LHA enters into legal agreements with developers under Section 278 of 1980 Highways Act. This is required to safeguard road users against indiscriminate work on the highway and to ensure the works are completed in accordance with good engineering practice and to adoptable standards. Separate details are provided in respect of new, or alterations to, simple vehicle accesses and Small Highway Works Agreements (SHWA) which cover highway works estimated not to exceed £30,000 in value.



Some charges may be subject to VAT and the NCC Development Management Case Officer will be able to advise in that respect.

Types of Agreement

NCC does not generally permit developers to prepare detailed design, or construct works on the public highway that include traffic signals the Strategic Route Hierarchy, or on other areas of the highway that involves complex engineering solutions and/ or difficult traffic and pedestrian management. Such schemes would require a Highway Authority Design and Build Agreement (HADBA).

Where improvements are to be carried-out on roads forming part of the Strategic Route Hierarchy (SRH), if the works are not considered to be complex, NCC may permit the developer to prepare the detailed design and/or carry out the works. Each proposal will be considered on an individual basis.

For these purposes the SRH is defined as all Principal and Major Route Network roads, certain Main Distributor roads together with those roads defined under the New Roads and Street Works Act as 'Traffic Sensitive', 'Street with Special Engineering Difficulty' or 'Protected Street'.

The available Section 278 Agreement types are: -

- Highway Authority Design and Build Agreement (HADBA)
- Highway Authority Design and Developer Build Agreement (HADDBA)
- Developer Design and Highway Authority Build Agreement (DDHABA)
- Developer Design and Build Agreement (DDBA)

HADBA offers a 'one-stop' shop with NCC doing all of the work for the developer. Duplication of effort is avoided, and the developer will save any costs associated with NCC checking the scheme if a Consulting Engineer had been employed to produce the design, or any additional fees payable for NCC to oversee the Contractor on site. The Engineering solution will be compliant

to NCC requirements and the quality of the construction works guaranteed, with no 12 month maintenance period.

All schemes regardless of delivery mechanism will require a Stage 3 Safety Audit following completion. The audit is necessary to ensure that the built scheme does not introduce safety hazards to users of the public highway. The outcome of the Audit may require additional works even if the scheme has been built in accordance with the drawings as designed and/or approved by NCC.

The Agreement types comprise permutations of the following: -

Highway Authority Design

NCC prepares the detailed design of the works, providing the required documentation to enable procurement of construction works through existing frameworks.

NCC will routinely involve its Environment team, together with that of the relevant District or Borough Council who are able to guide and assist on relevant environment issues.

Developer Design

The developer, or their consultant prepares the detailed design for the works. The design will need to be vetted by NCC and may require alterations to achieve technical approval.

Safe methods of construction and traffic management must be considered by the designer, and the Construction (Design & Management) Regulations 2007 complied with where applicable. Early contractor involvement in the design process is strongly recommended.

NCC has recently revised its processes around technical checking to improve outcomes. This provides indicative timescales, access to standard details, and guidance on (often contentious) offline roundabout design. It also, crucially, relies on developer submissions to be of good quality to reduce the iterative process of repeat clarifications and amendments to achieve approval.

To enable NCC, as the LHA, to have confidence that buildability issues have been considered during the design process, the designer will be required to submit a statement to confirm that safe methods of construction and traffic management have been considered.

Highway Authority Build

NCC will procure and supervise the construction of an approved design on the developer's behalf. It is often possible for this to be either through NCC's Strategic Partner, or through the Eastern Highways Alliance (EHA).

Developer Build

The developer arranges construction of the scheme by an NCC approved contractor, in accordance with the approved drawings and under supervision of NCC staff.

However, ultimate control of the highway works will rest with NCC via the procedures set out in the legal Agreement.

PLEASE NOTE: If contractual difficulties are to be avoided, it is recommended that the names of potential main contractors are submitted to NCC, for approval using a Pre-Qualification Questionnaire (PQQ) before tenders are sought. Contractors need to supply evidence of a minimum £20m Public Liability Insurance and Supervisor & Operatives' Street Works Accreditation.

Abortive Cost Agreements (ACA)

All Section 278 Agreements (other than the shortened proforma SHWA) will require an Abortive Cost Agreement to be completed and a deposit paid before any work by NCC (including meetings, design checking or initiating design work) can be undertaken. The ACA is simply an agreement that a developer will cover NCC's reasonable costs in considering or taking forward a proposal. A financial deposit is required on signing the ACA and reasonable costs incurred by NCC will be deducted from the deposit. Account details are made available and if at any time it is decided not to progress the works for any reason, all unspent monies will be returned with a full and final account.

Small Highway Works Agreements (SHWA)

Small scale works on non-strategic routes, the estimated value of which does not exceed £30,000, can usually be carried-out under cover of a simple agreement known as a SHWA (a form of a Section 278 Agreement) which can also include the dedication of land for highway purposes. At the discretion of NCC works whose value marginally exceeds £30,000 may also be carried out under a SHWA but only when the deposit reflects the value of the works.

The developer is responsible for submitting detailed drawings and where appropriate a Stage 2 Safety Audit report for the scheme. NCC will then consider and approve the detailed design. NCC will also liaise with the developer concerning the approval of the chosen contractor and programme of works.

It should be noted that only contractors approved by NCC may undertake works within the highway. In cases where the works involve land outside the confines of the highway boundary, the developer will be asked to supply proof of title to the necessary area. This land will be dedicated as public highway on commencement of the works.

NCC requires an administration fee to cover costs associated with this process (administration, technical vetting, supervision fees), together with an upfront refundable cash deposit. The value of the deposit is normally £5,000 for smaller scale schemes and either £10,000 or £15,000 for the higher value schemes depending on the work involved. However, where a scheme is particularly complex or contentious, a larger deposit may be required. An additional fee may be required for technical vetting of structures i.e., if the works include features such as culverts, or retaining walls.

It should be noted that more complex schemes delivered under a SHWA will be subject to a Stage 3 Safety Audit which will be arranged by NCC and this could require remedial works linked to recommendations even if they have been constructed in accordance with the approved drawings.

NCC may be able to assist with design and/or delivery of the works and would be pleased to provide an appropriate quote upon request.

G5.2 A commuted sum will be payable in respect of the future maintenance costs associated with additional highway infrastructure.

NCC has formalised the practice of requiring developers to pay a commuted sum for the additional maintenance costs resulting from development related highway improvements. Such payments are required where a change occurs on the network to facilitate development that would not otherwise be required.

Different types of highway infrastructure can increase maintenance liability in different ways. In addition to the immediate maintenance needs (such as grass cutting, gully emptying, sign cleaning, winter maintenance, energy costs for illuminated signs, street lighting and traffic signs) many schemes or access strategies often involve the use of features and materials which significantly increase the cost of maintenance. For example, there is often a need to refurbish road markings at more frequent intervals, coloured surfacing is costly to restore because of the small quantities involved. Energy costs are also increased especially where traffic-calming features require additional lighting. Different drainage solutions will have different commuted sums that could influence choices.

To address the particular needs of individually assessing the likely increased maintenance costs arising from development highway schemes, NCC has adopted the principles contained in the Association of Directors of Environment, Economy, Planning & Transport (ADEPT), (formerly the County Surveyors Society) document Commuted Sums for Maintaining Infrastructure Assets a copy of which can be found on our website at www.norfolk.gov.uk. Our supporting protocol sets out the assessment criteria, the length of time over which contributions towards maintenance costs will be sought, and the method by which the commuted sum payable by the developer will be calculated.

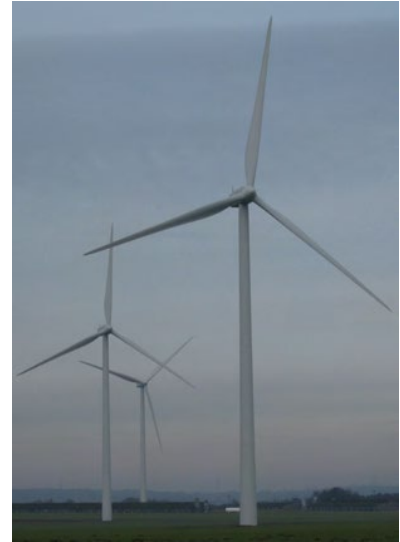
For further advice on this matter please contact Highways Development Management on 0344 800 8020, or developer.services@norfolk.gov.uk.

G5.3 All costs associated with highway services provided to developers shall be recovered in line with our published fees and charges.

To safeguard the Council Taxpayers of Norfolk from incurring unnecessary financial burden - legal; administrative; and staff costs incurred by NCC may be recharged to developers or their agents. These fees and charges are benchmarked both regionally and nationally to ensure a fair and consistent approach.

NCC also charge for pre-app advice for major developments. Appendix B covers the proposed scales of development, associated fees and type of advice for major developments including Minerals and Waste.

Appendices



Appendix A: Transport Assessment / Transport Statement / Travel Plan thresholds

Thresholds Based on Size or Scale of Land Use

No	Land use	Use/Description of Development	Size	No assessment	TS	TA/TP
1	Food retail	Retail sale of food goods to the public- food superstores, supermarkets, convenience food stores	GFA	<250 sq.m	>250 <800 sq.m	>800 sq.m
2	Non-Food retail	Retail sale of non-food goods to the public; but includes sandwich bars- sandwiches or other cold food purchased and consumed off the premises, internet café.	GFA	<800 sq.m	>800 <1,500 sq.m	>1,500 sq.m
3	Financial and Professional Services	Financial services- banks, building societies and bureaux de change, professional services (other than health or medical services)- estate agents and employment agencies, other services- betting shops, principally where services are provided to visiting members of the public	GFA	<1,000 sq.m	>1,000 <2,500 sq.m	>2,500 sq.m
4	Restaurants and Cafes	Restaurants and cafes- use for the sale of food for consumption on the premises, excludes internet cafes.	GFA	<300 sq.m	>300 <2,500 sq.m	>2,500 sq.m
5	Drinking Establishments	Use as a public house, wine-bar or other drinking establishment.	GFA	<300 sq.m	>300 <600 sq.m	>600 sq.m
6	Hot food takeaway	Use for the sale of hot food for consumption on or off the premises.	GFA	<250 sq.m	>250 <500 sq.m	>500 sq.m
7	Business	(a) Offices other than (financial and professional services) (b) Research and Development- laboratories, studios (c) Light industry	GFA	<1,500 sq.m	>1,500 <2,500 sq.m	>2,500 sq.m

No	Land use	Use/Description of Development	Size	No assessment	TS	TA/TP
8	General Industrial	Most General Industry	GFA	<2,500 sq.m	>2,500 <4,000 sq.m	>4,000 sq.m
9	Storage or distribution	Storage or distribution centres- wholesale warehouses, distribution centres and repositories	GFA	<3,000 sq.m	>3,000 <5,000 sq.m	>5,000 sq.m
10	Hotels	Hotels, boarding houses and guest houses, development falls within this class if 'no significant element of care is provided.'	Bedroom	<75 bedrooms	>75 <100 bedrooms	>100 bedrooms
11	Residential institutions- hospitals, nursing homes	Used for the provision of residential accommodation and care to people in need of care.	Beds	<30 beds	>30 <50 beds	>50 beds
12	Residential institutions- residential education	Boarding Schools and training centres	Student	<50 students	>50 <150 students	>150 students
13	Residential institutions- institutional hostels	Homeless shelters, accommodation for people with learning difficulties and people on probation	Resident	<250 residents	>250 <400 residents	>400 residents
14	Dwelling houses	Dwellings for individuals, families or not more than six people living together as a single household. Not more than six people living together includes- students or young people sharing a dwelling and small group homes for disabled or handicapped people living together in the community	Dwelling unit	<50 units	>50 <100 units	>100 units

No	Land use	Use/Description of Development	Size	No assessment	TS	TA/TP
15	Non- residential institutions	Medical and health services- clinics and health centres, creches, day nurseries, day centres and consulting rooms (not attached to the consultant's or doctor's house), museums, public libraries, art galleries, exhibition halls, non- residential education and training centres, places of worship, religious instruction and church halls.	GFA	<500 sq.m	>500 <1,000 sq.m	>1,000 sq.m
16	Assembly and leisure	Cinemas, dance and concert halls, sports halls, swimming baths, skating rinks, gymnasiums, bingo halls and casinos. Other indoor and outdoor sports and leisure uses not involving motorised vehicles or firearms.	GFA	<500 sq.m	>500 <1,500 sq.m	>1,500 sq.m
17	Others	For example: stadium, retail warehouse clubs, amusement arcades, laundrettes, petrol filling stations, taxi businesses, car/vehicle hire businesses and the selling and displaying of motor vehicles, nightclubs, theatres, hostels, builders' yards, garden centres, POs, travel and ticket agencies, hairdressers, funeral directors, hire shops and dry cleaners.	TBD	Discuss with appropriate Highway Authority	Discuss with appropriate Highway Authority	Discuss with appropriate Highway Authority

Thresholds Based on Size or Scale of Land Use

No	Other considerations	TS	TA	TA/TP
1	Any development that is not in conformity with the adopted development plan	No	No	Yes
2	Any development generating 30 or more two-way vehicle movements in any hour	No	Yes	No
3	Any development generating 100 or more two-way movements per day	No	Yes	No
4	Any development proposing 100 or more parking spaces	No	Yes	No
5	Any development that is likely to increase accidents or conflicts among motorised users and non-motorised users, particularly vulnerable road users such as children, disabled and elderly people.	No	No	Yes
6	Any development generating significant freight or HGV movements per day, or significant abnormal loads per year.	No	Yes	No
7	Any development proposed in a location where the local transport infrastructure is inadequate- for example, substandard roads, poor pedestrian/cyclist facilities and inadequate public transport provision.	No	Yes	No
8	Any development proposed in a location within or adjacent to an Air Quality Management Area (AQMA).	No	Yes	No

Appendix B: Pre-Application Charges for Major Developments and Minerals and Waste

Type of advice and category of development	10-49 dwellings and/or 1000-2499 sqm commercial	50-249 dwellings and/or 2,500 to 5,000 sqm commercial	250 – 500 dwellings and/or 5,000+ sqm of commercial	501 – 999 dwellings	1,000+ dwellings	Care Provision (up to 100 units)
Pre- application written advice	£250	£350	£450	£550	To be agreed on a case-by-case basis	£300
Pre- application written advice and a meeting (no more than one hour long up to 250 dwellings and care provision and no more than 2 hours long over 250 dwellings)	£350	£575	£750	£950	To be agreed on a case-by-case basis	£375
Assessment of scoping study for a TS or TA (cost in addition to the advice above)	£350	£475	£650	£650	To be agreed on a case-by-case basis	£375
Review of a TS (cost in addition to the advice above)	£850	£1,500	Not applicable	Not applicable	Not applicable	£1,250
Review of a TA (cost in addition to the advice above)	Not applicable	£1,500	£2,500	£3,000	To be agreed on a case-by-case basis	Not applicable
Additional work	£90 per hour	£90 per hour	£90 per hour	£90 per hour	£90 per hour	£90 per hour

Type of Advice & Category of Residential Development	10-49 dwellings	50-249 dwellings	250 – 500 dwellings	501 – 999 dwellings	1,000+ dwellings
Review of layout with detailed comments	£500	£1,000	£2,000	To be agreed on a case-by-case basis	To be agreed on a case-by-case basis

Type of Advice	Minerals related development with an application site up to 14.9ha Waste development of up to 49,999 tonnes per year	Minerals related development with an application site of more than 15ha Waste development of more than 50,000 tonnes per year
Informal advice – without a site meeting/ site inspection.	£170	£340
Site meeting and/or on-site route assessment (additional to above)	£90 flat rate	£90 flat rate