

Safe, Sustainable Development

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



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 **Norfolk** County Council
at your service

Revised November 2015



Norfolk County Council at your service

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.

The County Council (CC) grants planning permission for a range of developments within Norfolk, including minerals extraction, waste management and disposal and the CC'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 (LPA's) comprising the District/Borough/City Council or the Broads Authority.

Where development would have an effect on the transport network, the LPA's 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 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.

If you need this document in large print, audio, Braille, alternative format or in a different language please contact Developer Services on 0344 800 8020, textphone 0344 800 8011 or developer.services@norfolk.gov.uk and we will do our best to help.



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.

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.



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Chairman of Environment,
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Committee



Tom McCabe
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List of Abbreviations

ACA	Abortive Cost Agreement	SUDS	Sustainable Urban Drainage Systems
APC	Advanced Payments Code	TA	Transport Assessment
CC	County Council	TP	Travel Plan
CLG	Communities and Local Government	TRO	Traffic Regulation Order
CMS	Central Management System (Street Lighting)	TS	Transport Statement
DfT	Department for Transport		
DMRB	Design Manual for Roads and Bridges		
GTA	Guidance for Transport Assessments		
ILE	Institute of Lighting Engineers		
LDF	Local Development Framework		
LHA	Local Highway Authority		
LLA	Local Lighting Authority		
LPA	Local Planning Authority		
LTP	Local Transport Plan		
MfS	Manual for Streets		
MfS2	Manual for Streets 2		
NCC	Norfolk County Council		
NPPF	National Planning Policy Framework		
NRDG	Norfolk Residential Design Guide		
NRH	Norfolk Route Hierarchy		
PCU	Passenger Car Unit		
SRH	Strategic Route Hierarchy		
SSD	Stopping Sight Distance		

1. Norfolk's Aims in Development Management



1. Norfolk's Aims in Development Management

Aim 1 (Transport Sustainability). Minimising travel to ensure people can access facilities they need by appropriate transport modes, encouraging walking and public transport use and reducing the use of private cars especially for shorter journeys.

1.1 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.

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.

1.2 Requirements

- Reduce the need to travel, ensuring there are facilities close to where people live and work.
- Locate new homes close to existing facilities, or in areas where public transport can be used to reach appropriate facilities.
- Increase and improve public transport, walking and cycling, encouraging a shift away from car use.
- Reduce the need for personal car ownership or solo journeys, enabling shared car journeys or car clubs.
- Reduce the dominance of traffic in the street scene so that people feel safer when walking or cycling.
- Links by public transport must be considered in the context of the 'whole' journey, integrating seamlessly with other sustainable modes. It's important to look at how people get to and from bus/rail stations - making it far easier for them to walk, or cycle for different parts of their trip.

1. Norfolk's Aims in Development Management

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 2 To encourage residents to explore active and healthier ways to travel.

2.1 Need

Walking and cycling are good for our wellbeing, 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.

Around 60% of men and 70% of women are currently not physically active enough to benefit their health. 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 wellbeing.

Walking and cycling are also vital means of travel. In themselves, they are viable modes of transport for many of our trips. Nearly a quarter of all our trips are one mile or less - a generally walkable distance, and 42% are within two miles - less than the average length of a cycling trip.

In addition, walking and cycling provide the vital links to our public transport systems and a 'no-emissions' alternative to motor vehicles.

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.



1. Norfolk's Aims in Development Management

2.2 Requirements

- Provide high quality walking and cycle networks within developments.
- Create public space that is equally available to all, an environment that creates access for the majority rather than mobility for the few.
- Create space that inspires and motivates everyone to feel they could choose to travel under their own steam, not just those who are already confident in their ability to do so.
- 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.

Reducing the need to travel is essential to enable more opportunities for social contact and enhance the sense of community.

Aim 3 (Rural Diversification). To support agricultural enterprises and the rural economy, by encouraging other appropriate forms of development.

3.1 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.



3.2 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.

1. Norfolk's Aims in Development Management

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

4.1 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.



4.2 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 the CC as to the likely acceptability of such proposals at an early stage in their project analysis.

1. Norfolk's Aims in Development Management

Aim 5 To keep commercial vehicles away from areas where their presence would result in danger/unacceptable disruption to the highway/or cause irreparable damage.

5.1 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 HGV's due to poor alignment or restricted width.

HGV's 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. HGV's are large and can intimidate pedestrians and other road users, particularly where footways are narrow or not present.

5.2 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 HGV's 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 (TRO)) 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.

The method for calculating contributions towards programmed highway improvement schemes is based on the development's proportional 'traffic impact' using the approach to convert all vehicles into 'Passenger Car Units' (PCUs). The 'traffic impact' of an HGV in PCU terms is double that of a non-HGV.

1. Norfolk's Aims in Development Management

Aim 6 To ensure development conforms to parking policies and standards which take into account strategic and local objectives.

6.1 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.

6.2 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.

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 Standards for Norfolk 2007" can be found on our website at www.norfolk.gov.uk together with separate detailed guidance notes relating to vehicular access crossings.



1. Norfolk's Aims in Development Management

Aim 7 To ensure the Principal road network can safely cater for sustainable development, which, if not suitably addressed, would otherwise cause fundamental road safety and accessibility concerns.

7.1 Need

Outside of urban areas with high connectivity, Principal Routes 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 Principal Routes are additionally designated "Corridors of Movement" where development is normally resisted.



On "Corridors of Movement" 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.

7.2 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 "Corridor of Movement". 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.

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

8.1 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.

1. Norfolk's Aims in Development Management

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

8.2 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.



Aim 9 Reduce the environmental impact of highway improvements associated with new development.

9.1 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.

9.2 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.



1. Norfolk's Aims in Development Management

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



2. Guidance Notes

Highways Development Management Guidance Note 1: Obligations and Assessments

G1.1 Attending Local Planning Authority planning committees.

CC 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: -

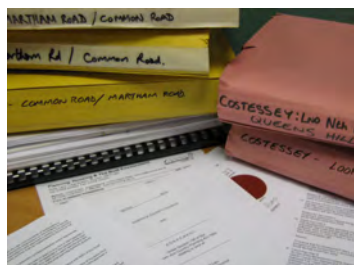
- The LHA has made a recommendation that planning permission be refused.
- A development proposal has significant transport issues.
- The development significantly departs from County transport policy.
- If there are substantial public representations about transport matters.



Where it is necessary to attend committee, highway officers will explain the CC 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 and reasonable, as well as enforceable, precise and relevant both to planning and to the development to be permitted (NPPF Paragraph 206).

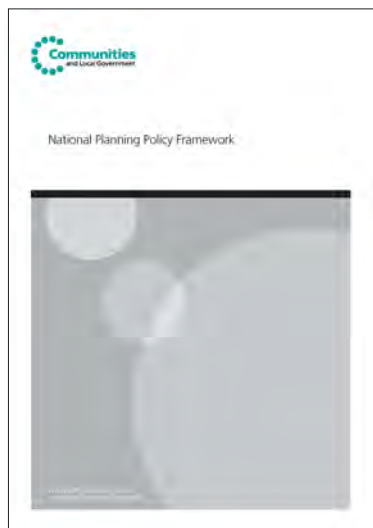


Where it is not possible to resolve matters by condition, a Planning Obligation may be necessary. For example an obligation may be needed to mitigate a development's impact, by financial contribution (e.g. to secure enhanced public transport provision).

Planning Obligations are secured through Section 106 of The Town & Country Planning Act 1990. All contributions sought must accord with the Community Infrastructure Levy Regulations 2010, in so far as being fair and proportionate, relating directly to the site and 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 development. Planning Obligations are enforceable against the person who entered into the obligation and any person deriving title from that person. This may include part or all of a Travel Plan (TP) (see below) which may be made binding either through conditions attached to a planning permission or through a related planning obligation.

G1.3 Planning refusals and appeals.



Paragraph 32 of the NPPF states that development should only be refused on transport grounds where the residual cumulative impacts of the development are severe; however, **it also states that decisions should take account of whether safe and suitable access to the site can be achieved.**

The NPPF 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: -

- The design of any proposed junction or access fails to conform to the appropriate standard as defined in Design Manual for Roads and Bridges (DMRB), Manual for Streets (MfS) and Manual for Streets 2 (MfS2), or otherwise reasonably agreed with by NCC;
- Increases in delays and/or queues at a junction are unacceptable;
- In terms of road safety, it can be demonstrated that the impact is unacceptable and/or where the risk to all road users would be frequent or serious, or;
- An estate scale residential development cannot provide a safe walking route to school or is outside of the nationally recognised acceptable walking distances to catchment schools (Department for Skills & Education - Home to School Travel and Transport).

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 <http://planningguidance.planningportal.gov.uk>.

Recommendations of refusal may be supported at appeal by evidence from both the developer and the LPA. The CC provide 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 needs 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 (TA). 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.

2. Guidance Notes

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 the CC, 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/A12 and A47) discussions should also take place with Highways England, who have a responsibility to maintain the Trunk Road network on behalf of the Secretary of State.

Following the Governments decision to archive the “Guidance for Transport Assessments” (GTA), Local Authorities are now required to establish their own criteria for when a TA/TS/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 are required are provided on the following 3 pages.

A TP must be prepared alongside the TA.

Thresholds Based on Size or Scale of Land Use						
Land Use	Use/Description of Development	Size	No assessment	TS	TA/TP	
1 Food retail (A1)	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 (A1)	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 cafes.	GFA	<800 sq. m	>800 <1500 sq. m	>1500 sq. m	
3 A2 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	<1000 sq. m	>1000 <2500 sq. m	>2500 sq. m	
4 A3 Restaurants and Cafes	Restaurants and cafes – use for the sale of food for consumption on the premises, excludes internet cafes (now A1).	GFA	<300 sq. m	>300 <2500 sq. m	>2500 sq. m	
5 A4 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 A5 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 B1 Business	(a) offices other than in use within Class A2 (financial and professional services) (b) research and development – laboratories, studios (c) light industry	GFA	<1500 sq. m	>1500 <2500 sq. m	>2500 sq. m	
8 B2 General Industrial	General industry (other than classified as in B1), The former 'special industrial' use classes, B3-B7 are now all encompassed in the B2 use class	GFA	<2500 sq. m	>2500 <4000 sq. m	>4000 sq. m	
9 B8 Storage or distribution	Storage or distribution centres – wholesale warehouses, distribution centres and repositories	GFA	<3000 sq. m	>3000 <5000 sq. m	>5000 sq. m	
10 C1 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 C2 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	

2. Guidance Notes

Thresholds Based on Size or Scale of Land Use						
Land Use	Use/Description of Development	Size	No assessment	TS	TA/TP	
12 C2 Residential institutions – residential education	Boarding Schools and training centres	Student	<50 students	>50 <150 students	>150 students	
13 C2 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 C3 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	
15 D1 Non-residential institutions	Medical and health services – clinics and health centres, crèches, 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 <1000 sq. m	>1000 sq. m	
16 D2 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 <1500sq. m	>1500 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, dry cleaners.	TBD	Discuss with appropriate highway authority	Discuss with appropriate highway authority	Discuss with appropriate highway authority	

2. Guidance Notes

Thresholds Based on Size or Scale of Land Use				
	Other Considerations	TS	TA	TA/TP
1	Any development that is not in conformity with the adopted development plan			✓
2	Any development generating 30 or more two-way vehicle movements in any hour		✓	
3	Any development generating 100 or more two-way movements per day		✓	
4	Any development proposing 100 or more parking spaces		✓	
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.			✓
6	Any development generating significant freight or HGV movements per day, or significant abnormal loads per year		✓	
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		✓	
8	Any development proposed in a location within or adjacent to an Air Quality Management Area (AQMA),		✓	

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 jobs, shopping, leisure and services.
- ii) Smaller developments comprising jobs, shopping, leisure and services which would generate significant amounts of travel.
- iii) New and expanded school facilities.
- iv) Where a TP would help address a particular local traffic problem.



2. Guidance Notes

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.

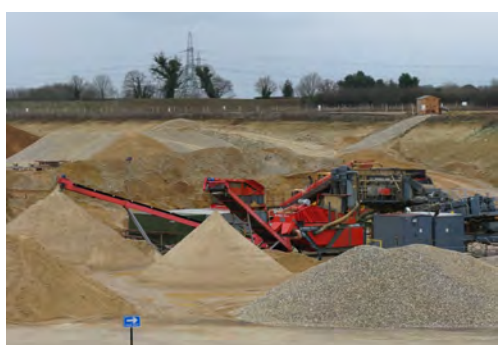
A commuted sum is payable to the LHA for monitoring the TP over a five year period and a financial bond is required against failure to implement the TP. The value of the bond is determined by the projected costs of implementation for an agreed period, normally from completion of the development.

2. Guidance Notes

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) must be supported by an HGV impact assessment.



The Minerals and Waste Local Development Framework (LDF) forms the blue print 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 routes 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 the CC 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 enter into a legal obligation 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.

2. Guidance Notes

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.
- Parking and turning facilities for all construction traffic within the development site.
- Details of wheel cleaning facilities.



The terms 'Material' or 'Significant'

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. Broad national guidance can be found in publications produced by learned institutions. However 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 represent the following criteria: -

- 10% increase in turning movements on any one arm of an access.
- 5% increase in traffic on roads designated Quiet Lanes as defined in the Norfolk Route Hierarchy (NRH).
- 5% increase in traffic through an 'accident cluster site' or 'high risk accident route' as defined by the LHA.
- Any increase in traffic on a link of a junction, where all links into a junction have less than 15% spare capacity operating during peak periods, or turning movements at an access with visibility splays less than 'one step' below standard in either the 'major' or 'minor' road distances as defined in Guidance G2.2 and G2.3.
- Any increase in turning movements at an access onto the Principal road network as defined in the 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).
- 5% increase in traffic on a link of a junction, where all links into a junction have more than 15% spare capacity operating during peak periods.
- 10% increase in 'all-traffic movements' or 5% increase in 'HGV traffic' on hierarchy roads as defined in the NRH which are programmed for improvement as part of the LTP.
- 20% increase in 'all-traffic movements' in all other cases.

2. Guidance Notes

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.

G2.2 Visibility at accesses and junctions onto highways with the characteristic of a 'street' shall accord with the standards set out in the CLG and 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, 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 SSD's 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.

Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48	50	60
	Miles per hour	10	12	15	16	19	20	25	28	30	31	37
SSD (metres)		9	12	15	16	20	22	31	36	40	43	56
SSD adjusted for bonnet length		11	14	17	18	23	25	33	39	43	45	59

2. Guidance Notes

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 wheel chair 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 DfT 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.

The SSD's for roads is given as follows: -

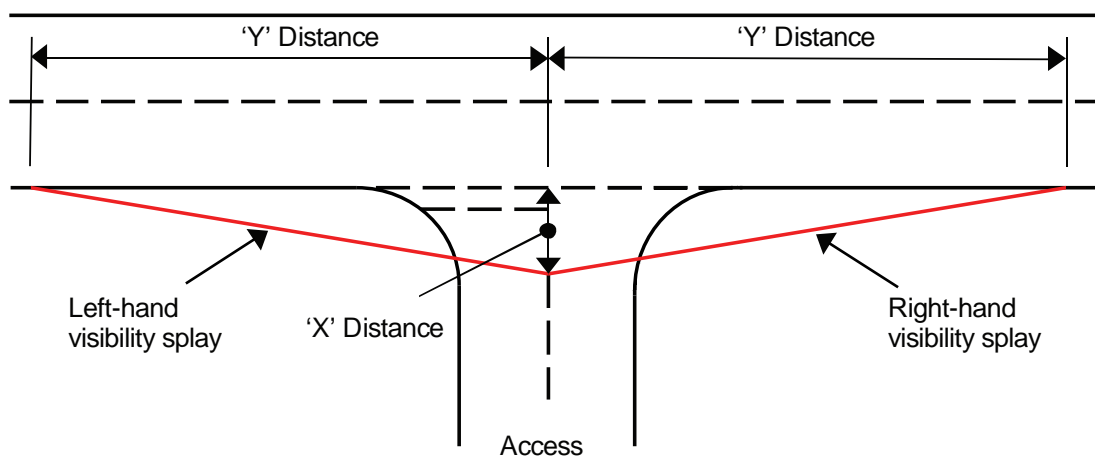
Speed	Kilometres per hour	40	50	60	70	85	100	120
	Miles per hour	25	31	37	43	53	62	75
SSD (metres)		45	70	90	120	160	215	295

2. Guidance Notes

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 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 0.6m 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.



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.



2. Guidance Notes

G2.4 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.



G2.5 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. The minimum width dimension can be reduced to 4.1m where the shared driveway is via an estate road in a fully urban location.

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).

2. Guidance Notes

G2.6 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 up grade.
- 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 up grade.
- 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 up grade.
- 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%.

2. Guidance Notes

G2.7 Multiple points of vehicular access to classified roads ('A', 'B' or 'C' roads) from individual sites are not generally allowed.

More than one access point will only be considered if the scale of development is large enough to require an additional access point for the safe and efficient movement of traffic.

The Department for Transport (DfT) Design Note TD 41/95 deals with the accident potential at junctions and private access and states inter alia "Access accidents were found to be about 12% of total accidents". It is neither realistic nor practicable to form an estimate of the risk of accident at an individual access, but it is possible to say that an access will create a potential accident risk. The number of accesses on any stretch of road should therefore be kept to a minimum.

The occasions when more than one access point will be considered are: -

- Where the site is so constrained so as not to be able to provide adequate on-site turning facilities.
- Where the development site is very large in scale requiring on-site traffic management proposals to, for instance, separate customers, staff and servicing traffic.

G2.8 Development exceeding 8 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.



Private drives are not considered an appropriate form of development to serve more than 8 dwellings. This is a relaxation of the guidance provided in the 'Norfolk Residential Design Guide' (NRDG) which currently advocates that private drives serve no more than 5 dwellings. This relaxation is in recognition of more flexible approach 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 the CC, as LHA, at the time the planning application is submitted.

As an alternative to restricting the number of dwellings, the LHA is likely to accept a legal agreement (Section 106 Agreement) providing for the future maintenance of the private roadway.

2. Guidance Notes

G2.9 Private streets will only be adopted by the Local Highway Authority if they comply with guidance standards.

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.

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 road surface, footways, surface water sewers, gullies and lighting or any of these features. For more details on the adoption procedures see the NRDG.



G2.10 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.

G2.11 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 SSD 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.



2. Guidance Notes

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 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 the CC (even if planning permission has been granted) and existing paths should be accommodated on their current right of way wherever possible. However, if the CC 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.



G2.12 Norfolk County Council does not support the creation of any new railway level crossings unless there are exceptional reasons and robust safety justifications produced.



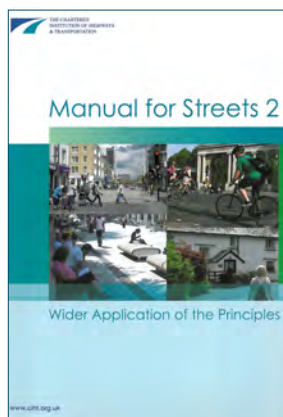
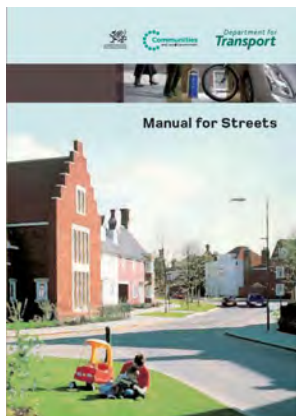
Railway level crossings have a statutory status, often set down in the Act of Parliament authorising the railway to be constructed. They represent the most significant risk in railway operation and most of the risks are generated by the behaviour of road users. The CC expects those promoting a scheme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

2. Guidance Notes

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; the Norfolk Residential Design Guide; and Estate Road Construction and Specification 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.



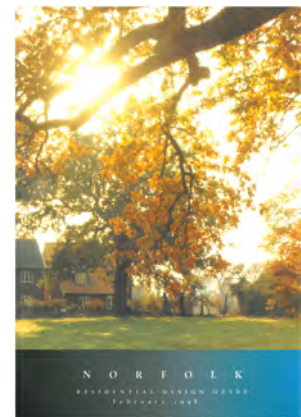
MfS and MfS2 take the above into consideration and recognise the role of residential streets in creating places that work for all members of the community. They focus on the place function of residential streets, giving clear guidance on how to achieve well-designed streets and spaces that serve the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

MfS and MfS2 also recognise the importance of creating places that have a clear local focus. The NRDG seeks to achieve this and has been prepared and adopted by the Local Authorities in

Norfolk acting in partnership to embrace both their planning and highway functions at District and County level.

The guide promotes an integrated approach to the design of new residential developments. It stresses 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 it will be possible to create pleasant and safe places to live, which will fit comfortably within their existing setting.

The NRDG 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 APC (Sections 219 - 220 of the Highways Act 1980) and is not therefore required to provide on-site highway infrastructure for adoption by the CC, as LHA.

2. Guidance Notes



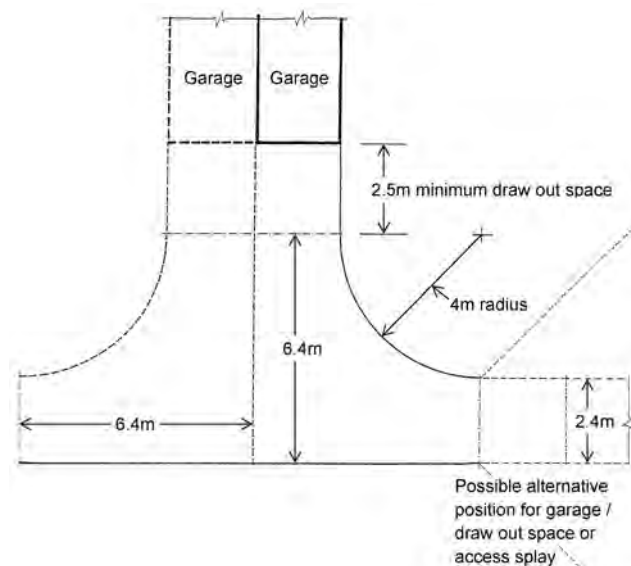
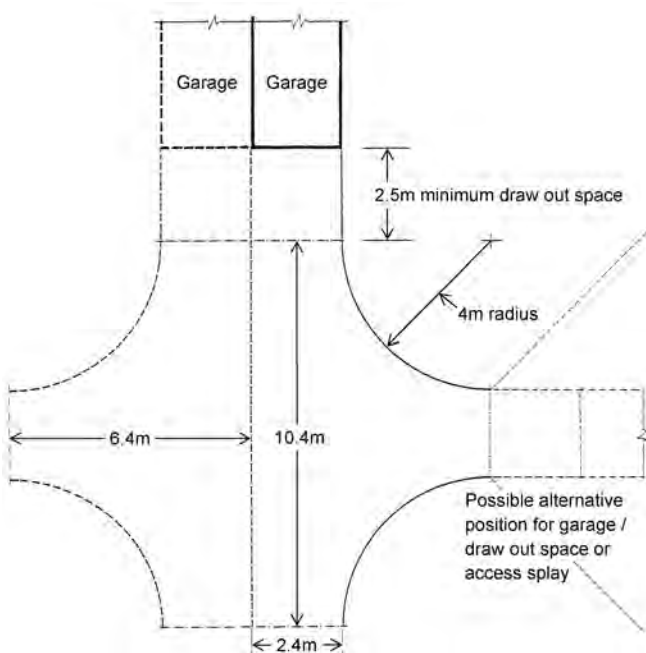
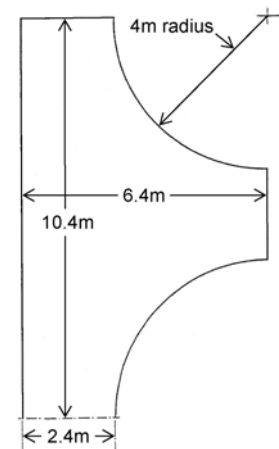
While the roadways, footways and cycle routes within this form of development do not require adoption, it is still important that the standard of their design and construction maximises the principles of sustainable development and safely caters for the needs of all forms of transport which may visit the site. Early dialogue between developers, planners and highways engineers is recommended to ensure that an integrated approach to the design takes place.

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 so as 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.



2. Guidance Notes

G3.4 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 G3.4 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).

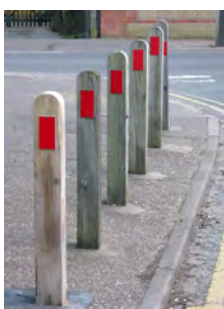
G3.5 Parking provision must be in line with adopted standards.

The appropriate standards are contained in the LPA's LDFs or in the absence of specific guidance from the LPA the adopted 'Parking Standards for Norfolk 2007' produced by NCC.

Additionally major development will be expected to provide at least two parking spaces with plug-in power points to facilitate the usage of electric cars for every 200 car parking spaces.



G3.6 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.

G3.7 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.

2. Guidance Notes

G3.8 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.

G3.9 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 is necessary to establish the following: -

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



2. Guidance Notes

Where Technical Approval is required, developers must follow the procedures outlined at BD 2/12 'Technical Approval of Highway Structures' in the DMRB. Mandatory sections within BD 2/12 are contained within boxes. Mandatory requirements must be complied with or a prior agreement to a Departure from Standard obtained. The text outside boxes contains advice.



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.

G3.10 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).

G3.11 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 Regulations and General Directions' (although some signs may have been specially authorised by the Secretary of State).



2. Guidance Notes

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.

G3.12 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. In order 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.

When considering any application relating to signs, the position in relation to the adjacent highway carriageway and any possible distraction to drivers travelling along that section of highway should be taken into account, in particular proximity to junctions and roundabouts.

G3.13 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 Engineers, Technical Report No. 5 (as amended).

In addition to satisfying requirements G3.11 and G3.12 above, illuminated signs must also comply with the standards recommended in the Institute of Lighting Engineers (ILE) Technical Report 5 (3rd Edition). This details four zones to which maximum luminance of signs (candelas/m²) is given proportionate to the area (m²) of each sign.

The maximum illuminated area (m²) is calculated against the ILE chart (listed below). It is irrelevant whether the proposed sign is externally or internally illuminated.

Definition of Zones

- E1.** Intrinsically dark areas, (e.g. National Parks, areas of Outstanding Natural Beauty or other dark landscapes).
- E2.** Low district brightness areas (e.g. rural or small village locations).
- E3.** Medium district brightness areas (e.g. small towns, urban locations).
- E4.** High district brightness areas (e.g. city and town centres with high levels of night time activity).

When considering the zone in which the advertising sign is to be sited, the contrast with the surroundings or background needs to be taken into account e.g. the surroundings could be unlit when viewed from the road.

2. Guidance Notes

Where the illuminated sign lies on the boundary of two zones, standards for the most rigorous zone should be used.

Illuminated Area (m ²)	Zone E1 (candelas)	Zone E2 (candelas)	Zone E3 (candelas)	Zone E4 (candelas)
Up to 10	100	600	800	1000
Over 10	N/A	300	600	600

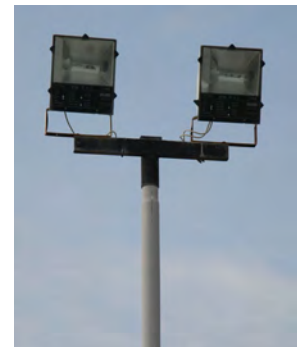
G3.14 Floodlighting shall be positioned and/or configured so as not to be an unacceptable distraction to road users.

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: -

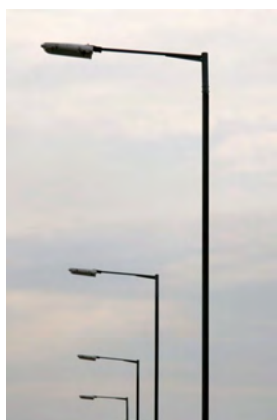
- Do the lights have to be on all night? For example, over advertising hoardings; the exterior of buildings or empty car parks.
- Only the right amount of light for the task should be installed.
- Make sure that lights are correctly adjusted so that they only illuminate the surface intended.
- To reduce 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.



G3.15 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 and Parish Councils. Whether street lighting is required as part of any new development will be determined in consultation with the Local Lighting Authority (LLA) (District, Town or Parish Council). The LLA can ask the CC to accept the future management and maintenance, or do so themselves. If the CC is to adopt the street lighting scheme it will need to be in accordance with the latest revision of the NCC 'Development Specification for Street Lighting Works'. Where there is no highway safety justification for street lighting a commuted maintenance sum is likely to be necessary.

2. Guidance Notes



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 it's design shall be a matter between the developer and the LLA and only passed to the CC 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. The CC's street lighting team can provide detailed guidance on the requirements.

G3.16 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 designed by the DfT 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.

2. Guidance Notes

G3.17 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.

G3.18 Accesses and all non-highway areas in development shall not discharge surface water onto public highway.

Developments must make adequate provision for the disposal of surface water. NCC will resist any development that involves surface water flowing onto the highway. Standing water can pose a hazard and can also carry extraneous material onto the highway to the detriment of highway safety.

G3.19 Disposal of surface water run-off from new highways within residential or commercial development shall be by way of Sustainable Urban Drainage Systems, incorporating adequate anti-pollution measures where achievable.

Disposal to outfalls shall be restricted to a rate not exceeding the rate of run-off from the undeveloped estate.

The conventional approach to highway drainage has traditionally been to drain rainwater run-off (sometimes called storm water or surface water run-off) directly to a watercourse, with all the water conveyed in a network of pipes. When rainwater is conveyed in pipes to watercourses or rivers, the time between the rainfall event and water entering the watercourse or river is reduced.

In an urbanised catchment, peak flow in the watercourse or river is higher and happens sooner than in an undeveloped catchment. These events can rapidly lead to flood conditions, especially in small watercourses with a highly urbanised catchment.

Urban drainage is moving away from the conventional thinking of designing for flooding to balancing the impact of urban drainage on flood control, quality management and amenity.

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



2. Guidance Notes

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

- Manage run-off flow-rates, 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 now and in the future.
- Protecting water resources from point pollution (such as accidental spills).

SUDS should be approved by the adopting authority and where necessary also accord with the specifications of the CC as LHA.

A commuted sum for future maintenance may be required.

G3.20 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 dispose of 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.

G3.21 On land outside of the public highway, no building or structure shall be placed within 2.5m of the centreline of any highway drainage apparatus.

In order to maintain its drainage infrastructure NCC requires a 5m wide easement strip free from any obstructions along the line of all pipes or drains and around all drainage apparatus.

Exceptions will be considered on a case by case basis where the form of development proposed, for instance urban high density developments, makes achieving such criteria impractical. In such cases special measures may need to be agreed to protect the drainage apparatus and provide for future maintenance.

2. Guidance Notes

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.

Recognition needs to be given to the fact that different roads fulfil different functions, and accordingly the design 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 the CC's adopted 'Mode Hierarchy' (walking, cycling, public transport, taxis, essential motor vehicles and non-essential motor vehicles)).

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 main road network. 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). Highway works need to take these factors into account.

All physical works must be compliant with the Disability Discrimination Act 1995 and the guidance given in the 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.

For new or altered highway infrastructure within Norfolk the 'design year' is regarded as being: -

- **Principal Routes** – Year of full opening of development plus 10 years.
- **Main Distributor Routes** - Year of full opening of development plus 5 years.
- **All other routes** – Year of full opening.



2. Guidance Notes

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

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).

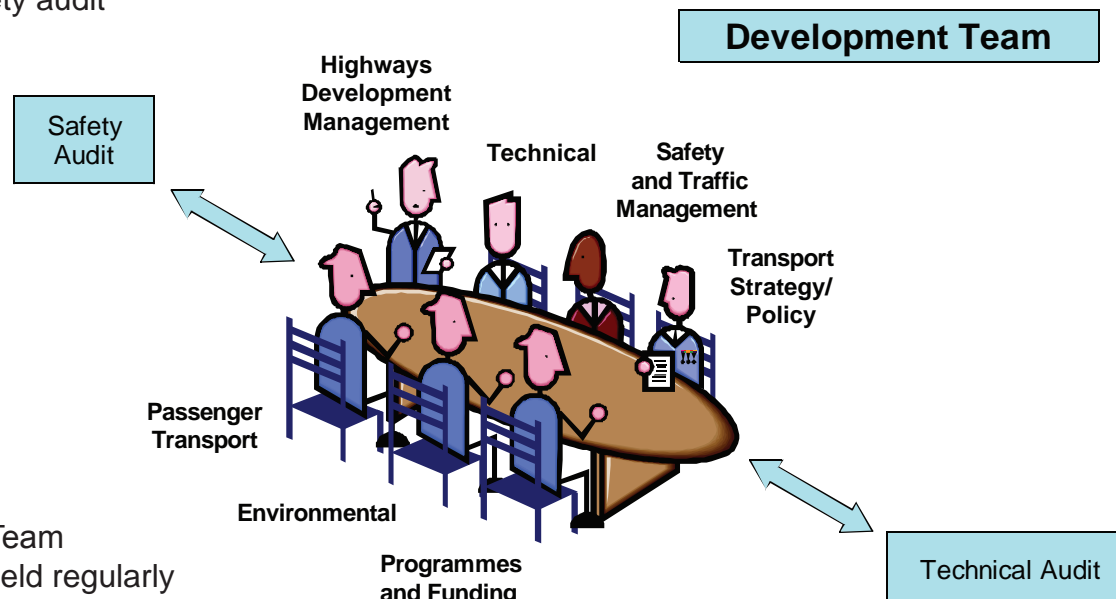
A Stage 1 Safety Audit report, including designer's response where appropriate, needs to accompany any planning application which seeks to materially alter the existing highway. In addition, any safety audit accompanying a planning application must have been carried out in accordance with current standards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

NCC has set up a 'Development Team' to help achieve this. The team is 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 a safety audit representative.



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.

2. Guidance Notes

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 to safeguard road users against indiscriminate work on the highway and to ensure the works are completed in accordance with good engineering practice.

There are four types of agreement commonly in use: -

Highway Authority Design and Build Agreements

These are required where improvements are carried out on roadways forming part of the Strategic Route Hierarchy (SRH) - defined as all Principal and certain Main Distributor roads; together with those roads defined as 'Traffic Sensitive'; 'Street with Special Engineering Difficulty'; or 'Protected Streets'. This Agreement is also used where works include intelligent transport systems e.g. signal controlled junctions and crossings.



In these instances, the developer is NOT permitted to prepare the detailed design or construct the improvements on the public highway. The CC prepares the detailed design of the works, procures the works and supervises construction.

The developer is required to meet all of the CC costs associated with this process.

Developer Design and Build Agreements

These Agreements control the design and construction of highway improvements not located on the SRH costing in excess of £20,000.

Developers are permitted to prepare the detailed design for approval by the CC and to construct the improvements on the public highway - provided they agree a programme of works and use a contractor approved by the CC. Ultimate control of the highway works rests with the CC.

The designer will be required to submit a statement to confirm safe methods of construction and traffic management have been considered.

A Bond of Surety equal to the estimated value of the highway works, (including any necessary statutory undertaker's diversionary costs), must be lodged with the CC to guarantee the Agreement. In addition to any costs payable to the developers Consulting Engineers and Contractor, the developer is also required to meet all of the CC costs associated with this process.

2. Guidance Notes

Abortive Cost Agreements

Both of the Agreements detailed above will only be completed using detailed design drawings and construction specifications approved by the CC. The process by which these details and specifications are produced, vetted and approved by the CC is covered by an Abortive Cost Agreement (ACA). The ACA is simply an agreement that a developer will cover the CC's reasonable costs in considering or taking forward a proposal. A cash deposit is required on signing the ACA and any costs incurred by the CC will be deducted from the deposit. 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

Small-scale works on non-strategic routes costing less than £20,000, may be carried-out under cover of a simple Agreement known as a Small Highway Works Agreement.

The developer is responsible for submitting detailed drawings of the scheme. The CC will then consider and approve the detailed design. The CC 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 the CC 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 details of proof of title to the necessary area. This land will be dedicated as public highway when the works are certified completed.

The developer is required to meet all of the CC costs associated with this process, together with a refundable cash deposit.

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

The CC 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.

2. Guidance Notes

To address the particular needs of individually assessing the likely increased maintenance costs arising from development highway schemes, the CC has adopted the principles contained in the Association of Directors of Environment, Economy, Planning & Transport, (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 Developer Services 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 Tax payers of Norfolk from incurring unnecessary financial burden - legal; administrative; and staff costs incurred by the CC 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.

