

Guidance on Development and New Schools

Introduction:

This Guidance note outlines design principles that should be included in all proposals for new schools. Developers of housing near schools should also take note. It has been prepared as a joint effort by school travel plan officers throughout the Yorkshire and Humber Region. It is not intended to be a legally binding requirement and should be read in conjunction with local and national design guidance as appropriate.



Welcome to our school —
as long as you are driving on the road
and not trying to walk on the footpath!

Background

Central Government Policy is now clearly aimed at reducing the dependence on the use of private cars. Surveys show that car users will be in the minority in the majority of schools. A school could, therefore, be considered as a special case in which users will be positively encouraged to travel on foot, by bicycle or by bus.

This advice note should not be taken as anti-car. There will be occasions where car use is essential. However, walking and cycling are one of the most important means by which children can experience their surroundings, make friends and get the daily exercise that is essential for health and fitness. Not just provision for, but actual encouragement of walking and cycling are therefore essential for the health and welfare of the future generation.

It is unlikely that the economic and administrative reality of the need for new schools will permit a new development in which everything is perfect, but the following recommendations provide an illustration of what should be the aim. In considering the design and location of a new school the following steps should be considered:

> Step 1: [Is the School in the Right Place?]

A site that has no opportunity for access on foot, by bicycle or by public transport should be regarded as being contrary to government aims for integrated transport and normally, therefore, inappropriate for development. Only if the integrated travel possibilities for the school site are marginal, might the development be made more acceptable by the use of good site design and an effective School Travel Plan.

It is acknowledged that new schools will need to occupy large sites that may not be available in choice locations. Nevertheless, transport should be an important part of the decision process about school location as the long-term consequences for society of mistakes made at the planning stage are potentially more serious than they are for any other kind of development.

Ideally, schools should be located within or close to residential areas and preferably in areas of high-density land use to reduce distances travelled. Schools should also, wherever possible, be integrated into patterns of mixed land-use that have greater accessibility to goods and services and thus promote walking and cycling.

> Step 2: [Connecting the Community (Safe Routes to School)]

There are two simple requirements for a site:

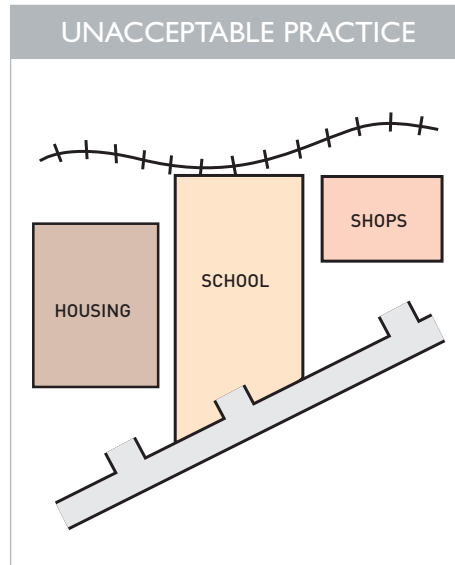
- That it should be well connected to existing and potential future sources of users
- That it should not act as a barrier to travel by sustainable modes by non-users

Surveys suggest that a reasonable walking distance to school is up to one mile to school with cycling distances possibly doubling this. All housing within this distance should be treated as a potential source of pupils for the school. The priority for provision should be aimed (in order) at those who arrive:

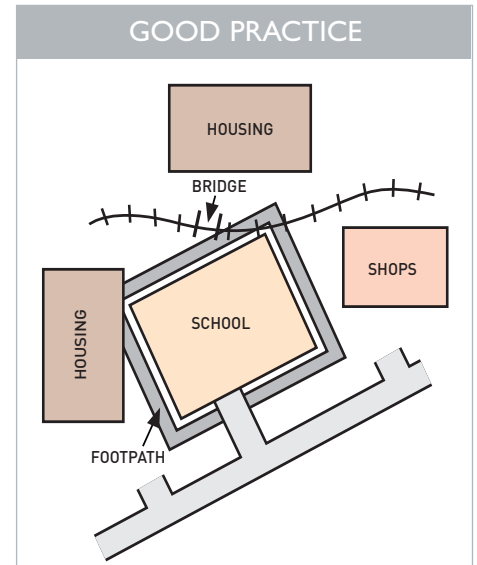
1. On foot
2. By taxi (special needs)
3. By bicycle
4. By school bus
5. By public bus
6. School taxi
7. Car share
8. Car

The majority of users
will be on foot not in
a car. Design should
not just cater for,
but should actually
encourage walking

The school must be connected to all houses in the immediate vicinity using direct, not circuitous, routes



School site acts as barrier to essential local journeys.



Provision made to ensure footpaths around the site are convenient, connected and convivial.

The principle of Safer Routes to School now accepts that the perception of danger from road traffic can be enough to discourage walking and cycling to school. It is therefore imperative that there should be a comprehensive network of routes that are reassuringly safe for all users. All routes provided to the school should follow direct desire lines and not require extensive detours (for example because of culs-de-sacs). This is especially important in new housing developments adjacent to schools.

As part of the development proposal a plan should be prepared showing the desire lines for pedestrians and cyclists. There should be a strong emphasis on a network of footpaths and cycleways that serves all houses that are within walking or cycling distance. Opportunities should be taken to connect the site not just to current housing areas but also to those proposed for the future. It may be appropriate for developers of all sites in the area to contribute towards a network of safe routes to school.

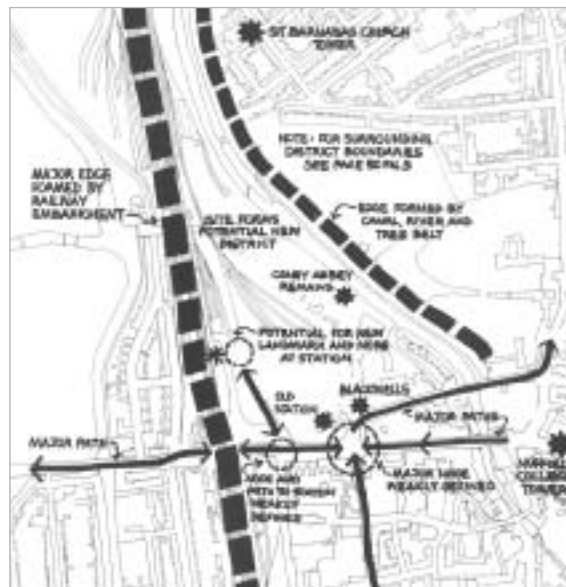


Figure 1: New Developments are too often built without any attempt to connect them to schools

An urban design analysis such as this example here, can help plan the setting and context of the building and is as important as the architecture itself.

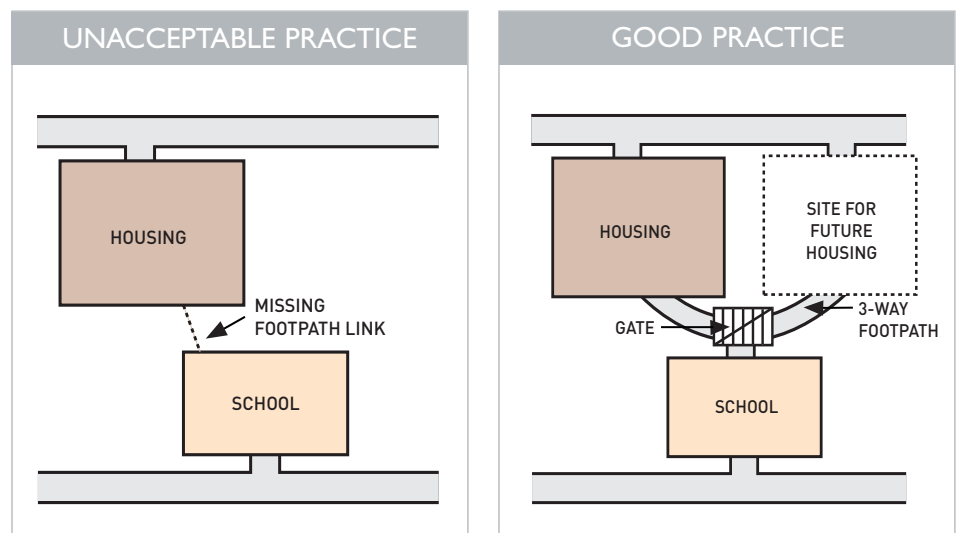
The implications of putting a school in the wrong place will adversely affect the community for a very long time

Permeability

A site is permeable when it is possible for people to flow through it in all directions. A traditional neighbourhood of ten terraced streets, for example has a grid iron network of streets such that someone can enter the area on any one of the ten streets and leave the area on any other.

Many new developments are not permeable and some have only one way in or out, even for those walking or cycling. This can act as a considerable obstacle to travel by sustainable modes. Low densities, interrupted footpaths and culs-de-sac that have no cut-throughs (snicketts) have all served in the past to dissuade people from walking or cycling.

A large school that is not permeable can act as a significant barrier to movement and may cut off entire parts of the neighbourhood from essential local services and opportunities.



Fears over security or cost savings prevent short and direct route thus encourage car journeys.

School connected to existing houses and with footpath ready for new estate.

Secured by Design

Design advice issued by the home office aimed to help developers design out crime. However, advice that dark alleyways and lonely footpaths can promote crime has been taken by some developers as an excuse to make no pedestrian provision at all. This is unacceptable.

Encouraging the easy access through (or permeability of) a site by sustainable transport does not necessarily undermine a buildings defensible space if it is designed well. There is a large difference between a long dark alleyway, which should be avoided and a well-designed space that is impossible for motorised vehicles to pass through but welcoming for pedestrians and cyclists.

Due protection of children will, of course, need to be considered. Designing out crime should not be seen as a reason to close all pedestrian routes but to make them more attractive and open with good visibility and surveillance preferably natural, but if necessary using CCTV. Good lighting and open landscaping is also necessary.

A large school site should not become a barrier to prevent local people from walking where they want to go



No matter how large the car park it is still likely to become full to overflowing, especially at the end of the school day

> Step 3: [Site Design]

Car Parking

Studies have repeatedly shown that the availability of a free car parking space is one of the main reasons given for people driving to a destination. Providing car parking spaces on-site might appear to be a good way of getting cars out of sight, but may actually mean extra cars in the traffic queues in neighbouring streets every morning and every night.

Current planning policy is such that it will be unlikely to be possible to provide enough parking space for all those who may wish to travel by car. Current planning guidance specifies maximum number of spaces that can be provided for higher education sites and these will be used as a guide for regional recommendations for schools to be issued by the regional TravelWise group in due course.

Although it is recognised that teachers have special requirements that make alternative travel difficult, they are also an important role model for pupils and suitable provision should be made for them to travel by other than car modes where this is what they want. In some York schools, for example, pool bicycles have been provided for the use of teaching staff.

One factor that should be designed for is that, ideally, no form of car parking restriction should be used that relies upon anything other than physical impossibility. Yellow lines, and even zig zags, are routinely ignored outside almost every existing school. This will cause problems with, and make impossible, turning circles and simple drop off areas that will get blocked by waiting cars. Parents at some schools will arrive up to half an hour before closing time and wait in their cars outside schools. Waiting restrictions on surrounding streets should therefore be considered, but their success should not be assumed unless considerable enforcement commitment is possible.

There are instances of people currently not driving because they expect the car park to be full. A large car park with empty spaces would encourage these people to drive and the car park will soon be full

Means of Access and Site Roads:



This entrance for walkers should be inviting, the entrance for most cars should accommodate but not attract.



The Entrance to the school should favour pedestrians. Forcing the majority of pupils to walk across the wide mouth of a vehicular entrance to a car park sends a very poor message about priorities.

Schools are different from other developments and some of the traditional site layout rules may not apply. The car park entrance should definitely not be the dominant design feature. The entrance for walking and cycling should be safe, segregated from other users, and should also be legible (i.e. prominent and clear), aesthetically pleasing and welcoming. An attractive, safe and sheltered area should be provided for those waiting to walk home children in the afternoons and for social interaction in the mornings

The access point for those arriving by car should where possible be in a location that makes this seem less attractive than those modes higher up the sustainable transport hierarchy. Car drop-off points with segregated footpath access to the school (except for pupils with special needs) should encourage a short walk to access the main entrance. A drop-off point 50m from the entrance will positively promote walking (especially in cases where children are driven 150 metres to school.)

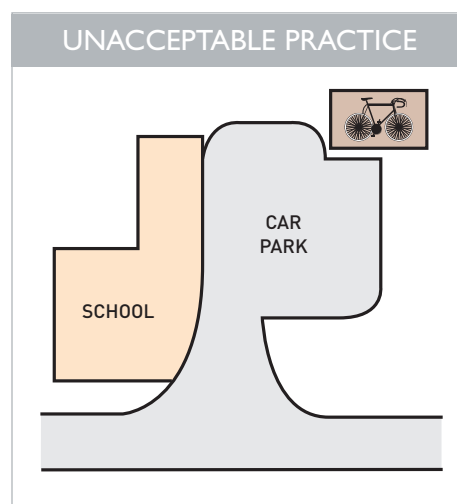
Schools should not normally front onto a classified road. There is, therefore, a reduced need for a wide entrance for staff and service vehicles. Indeed a raised footway or speed table across the vehicle entrance may be appropriate where pedestrian flows dictate.

Many authorities are now converting the roads outside existing schools to 20mph zones. Where appropriate this should be designed into new schools from the outset.

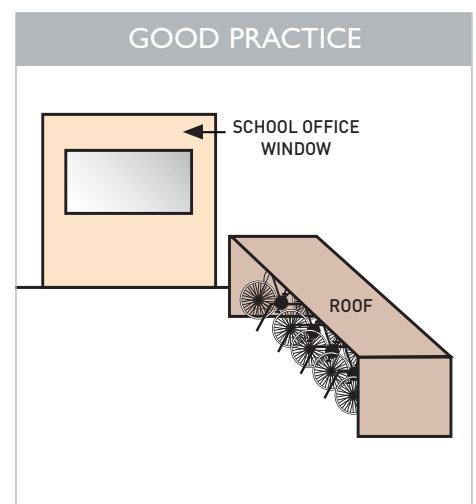
In cases where large vehicle flows are unavoidable (including outside the school) wide footpaths should prevail. Guard-rails should be used to prevent spillage onto the road but should not be used as a routine method of containing pedestrians since long lengths of fencing can be a deterrent to walking.

Site roads within the school should segregate pedestrian and vehicle flows as far as possible. Where this is not possible roads should be designed according to 'Home Zone' principles in which the priority is assumed to rest with walkers and cyclists with motorised vehicles being admitted but only if they give way to pedestrians and cyclists. All internal roads should have a 20mph or less design speed. Gradients within the site should accommodate all users. Layouts that require motorised vehicles to reverse into pedestrian areas should be minimised or avoided.

More important in influencing cycling than the number of hills, is whether cycling is seen as a normal and welcome part of the school



Bike sheds near the bin cupboard.



Well designed bike shed and storage in area with natural surveillance.

Cycling

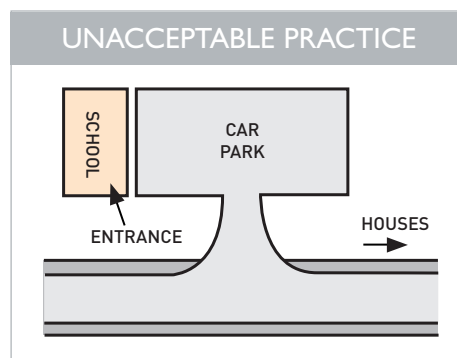
Provision for cycling onto the site should be promoted within the context of the authorities Local Transport Plan. On the site itself, this will require a route into the school that does not present a danger to those on foot, or to the cyclists themselves.

Cycle parking should be covered, secure and located in an area that has natural surveillance, which may be supplemented by CCTV. Almost equally important the cycle parking should send the message that cycling is a 'normal' and welcomed activity.

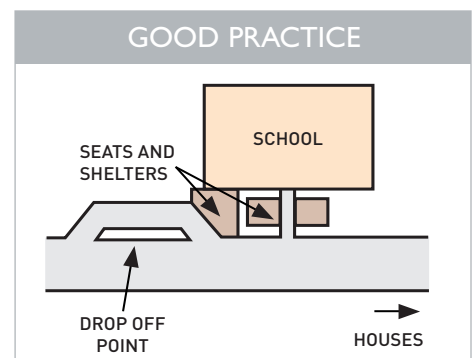
A hierarchy of cycle parking provision may be appropriate. For example, for small rural primary schools a simple 'Sheffield' design of inverted 'U' shape will suffice (although an inverted 'V' should discourage climbing). For larger secondary schools, covered 'bike sheds' are still the best solution. Systems that rely on a caretaker with a key or use proprietary locking systems with moving parts should not be used without checking their long-term durability.

A target of provision for 5% of primary school pupils to have a space available and 10% of all secondary school pupils would be appropriate for the region in the short to medium term. The parking area should be designed to accommodate double this number should demand rise. (UK schools do exist where cycle provision exceeds 50%).

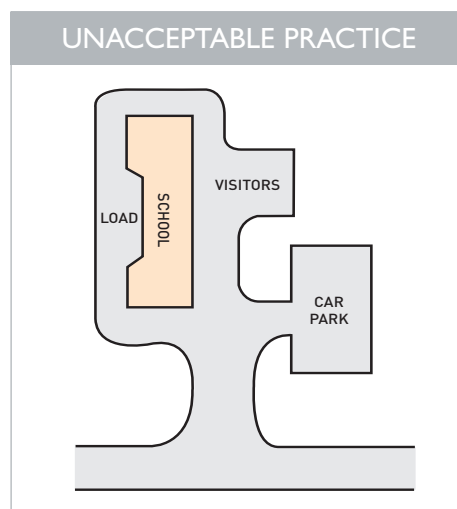
For more details on cycle parking at school see the Sustrans guidance at: http://www.saferoutestoschools.org.uk/html/pub_info.htm



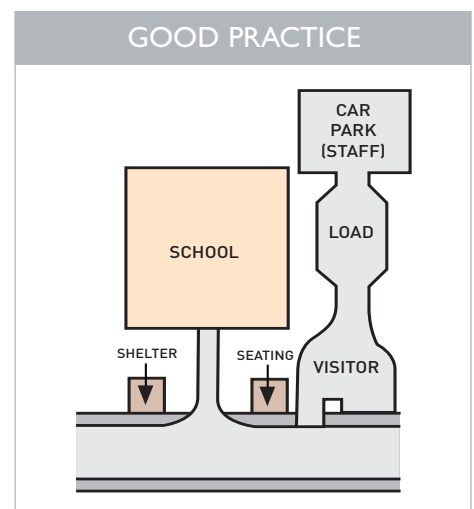
Large car park directly outside school with others squeezed onto narrow footpaths.



Car drop off point 100m from entrance designed to not block up with cars.



Site designed as mini-industrial estate with wide roads designed for ease of vehicle movements.



Site designed with wide walkways and attractive waiting areas. Shelter for those waiting to walk home.

Some Yorkshire schools have a higher bus flow in a fifteen minute peak than Victoria Bus Station in London

Lockers

A significant disincentive to walking and cycling is the need to carry heavy bags full of schoolbooks and equipment. The provision of lockers inside the school can therefore make a difference to the number of people cycling and walking. Even if school policies do not promote lockers for all students there should at least be provision for locker space in an area that makes it convenient for those arriving by bicycle. Space for the storage and drying of suitable clothing will also help to encourage cycling and walking.

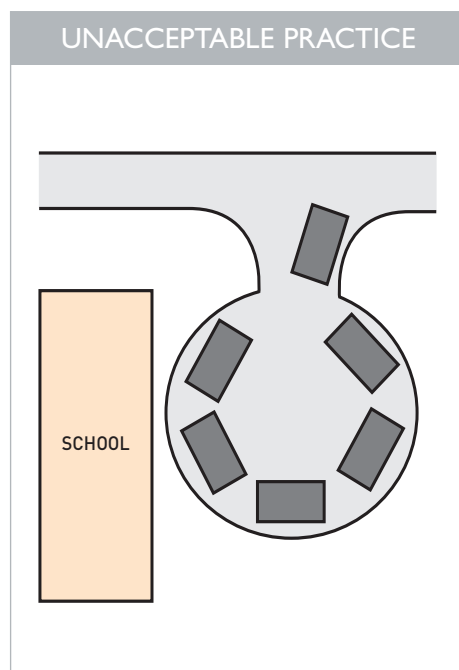
School Buses

School buses require particular attention, as they need to access close to, and preferably onto, the school premises. Buses should load and unload in such a way that the crossing of roads is avoided and the distance that pupils need to be escorted to get to the school entrance is minimised.

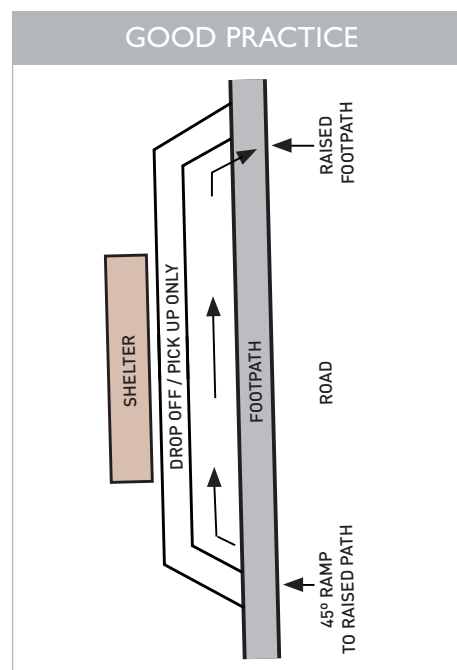
The nature of the school bus contract is such that any size of vehicle right up to the longest permissible coach can be used. The bus waiting area should be designed to accommodate this. The bus waiting area should be provided in such a way that this will not be used by waiting cars. Some form of weatherproof shelter may be appropriate.

A bus turning circle is often an invitation for illegal parking. A design that allows for a one-way system through the school may be preferable, where possible.

For larger schools the conditions may be so complex that reference to specialist guidance on bus station design may be needed. In a large North Yorkshire secondary school, for example, peak flows can approach 1,000 bus users in fifteen minutes.



Blocked bus turning circle.



Buses use one way system with no reversing.

> Step 4: [The Final Details]

Legibility

On arrival at a school it should be obvious which is the main entrance for children and the main entrance point for visitors (including Ofsted inspectors). The school site should not be dominated by a car park entrance but should have an inherent logic that makes walking and cycling routes the clear and obvious way to get around. This is known as legibility. Signposting will supplement this (but not replace it).

Attractive and fine grain

It is for architects to design interesting buildings. The implication for transport planning is that travellers at slow speeds are more influenced by the details of their surroundings. A barren plain wall or fence along a 100m periphery of a school will act as a major disincentive to walking in the neighbourhood and should be avoided.

Supporting Promotional Activities

As important as the physical infrastructure can be a positive attitude towards sustainable transport modes. Although this cannot be created, it can be maintained or improved by soft measures such as promotion and classroom work. Such activities can be linked to curriculum priorities such as numeracy and literacy and hence should improve school performance.

School Travel Plans are the UK Governments preferred mechanism for engaging schools in reducing their own traffic generation. A School Travel Plan is a management tool combining a package of complementary measures aimed principally at reducing car use for the journey to school and the promotion of sustainable alternative modes. The approach recognises that solutions to traffic problems are not simply to be found in the provision of improvements to the road network but also by encouraging changes to parental habits, which presently maintain the dominance of the car. School Travel Plans can help to guide the allocation of expenditure on highways projects to ensure actual and perceived Safer Routes to School. The priority for this will be to rectify problems at existing schools. Planning Policy Guidance Note (PPG 13) specifies in paragraph 87 that travel plans should be an integral part of planning applications for schools. The Occupiers of the Site will be asked to produce a School Travel Plan. Guidance on this is available elsewhere (see for example <http://www.saferoutestoschools.org.uk/>)

Further Guidance

For more advice on school travel contact the school travel office of your local authority. Details of school travel plans are available on the Department for Transport Website. <http://www.local-transport.dft.gov.uk/schooltravel/index.htm>

Contact details of the School Travel Team in most of the Yorkshire & Humberside local authorities. Contact advice is given on www.travelwise.org.uk.

Acknowledgements

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The views expressed in this version of the guide do not necessarily represent the views of any or all of the local authorities in the Yorkshire and Humberside region.

