DESIGN GUIDE FOR WALKING
IN OXFORDSHIRE

DRAFT

CONTENTS

PART 1 – Our aims

1.1   Making walking first choice

1.1.1   This guidance has been produced for developers, scheme designers, engineers and master planners to ensure an attractive and functional environment for walking that is available to all users.

1.1.2   As part of its Local Transport Plan, Oxfordshire County Council has adopted an Active and Healthy Travel Strategy. To support the strategy this Design Guidance for walking alongside a similar one for cycling has been produced.

1.1.3   The Active & Healthy Travel Strategy in LTP4 has been developed to reflect four key aims for walking:

1.	To set out Oxfordshire County Council's overall aim to enable and encourage walking over the lifetime of the Active & Healthy Travel Strategy.
2.	To provide a means to prioritise funding available to the county council for the best value for money investments for walking and to adopt good practice standards from elsewhere.
3.	To support Oxfordshire County Council in seeking additional funding opportunities for walking measures.
4.	To raise awareness of the physical and mental health benefits of walking.

1.1.4   As well as being a mode of travel in itself, walking is an element of virtually all trips and is used to access other modes of transport. Walking must be accessible and suitable for all users, including young people, older people and those with a disability. All designers should demonstrate how they have accommodated the needs of these users on all new footways.

1.1.5   A number of factors affect the propensity to walk. Attractive and well-designed streets, comfortable crossing points and places of interest enable people on foot to engage in a wide range of activities. Pedestrians must usually be considered as a priority over all other modes of transport. Oxfordshire County Council's LTP4 Volume 1 Policy & Overall Strategy (2016) states that: "We will ensure that new development adheres to the principles and philosophy set out in Manual for Streets and supplementary Manual for Streets 2, which applies a user hierarchy to the design process with pedestrians at the top" (para 149), as shown below:
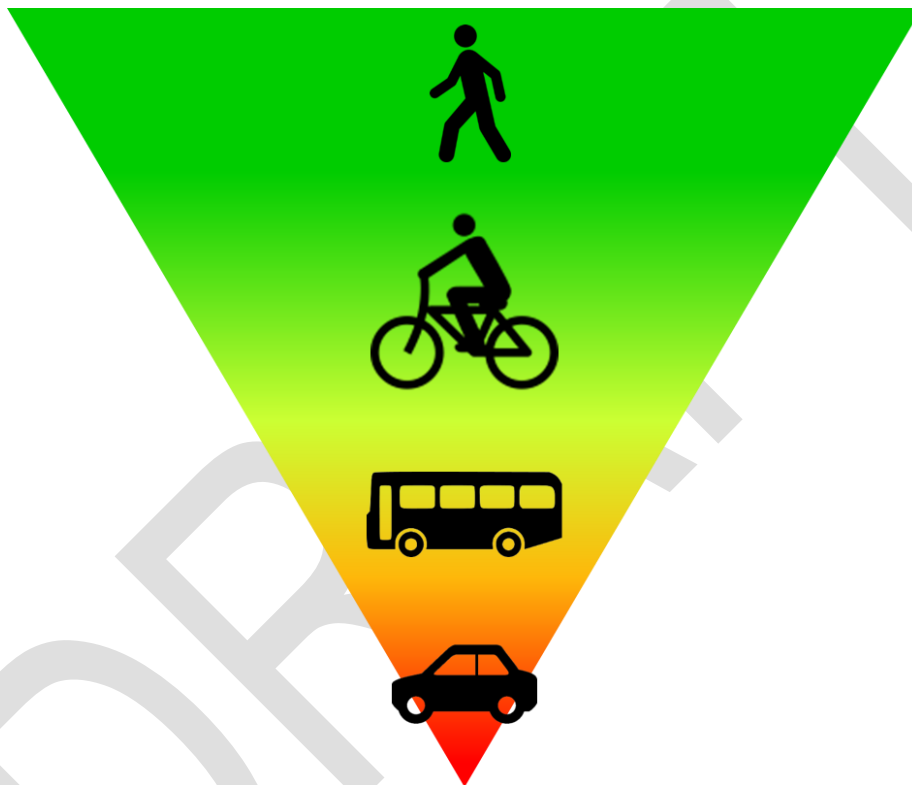

Diagram 1: Streets should be designed to give precedence to those using them as per this hierarchy

1.1.6   An Active & Healthy Travel Steering Group (AHTSG) has been set up to monitor progress of the Strategy and to ensure that tasks in the Implementation Plan are met. This guidance has been prepared to meet the aims and aspirations of the strategy.

1.1.7   The guidance supersedes previous guidance for walking contained within the County Council's Residential Road Design Guide (RRDG).

1.1.8   This guidance document draws on both local and national planning guidance.[1]

1.1.9   The National Planning Policy Framework (NPPF) states that the transport system needs to be balanced in favour of sustainable transport modes, giving people a choice about how they travel. This guidance should be followed to ensure that facilities for people on foot are well-designed and accessible in order to meet the aspirations of NPPF guidelines as well as the aims and objectives of the Oxfordshire Active & Healthy Travel Strategy.

1.2   Enabling walking through good design

1.2.1   Streets are not just for moving traffic from A to B and not all streets have the same purpose. Some are primarily traffic routes, but others are important for local people to meet, shop and interact. In designing streets, it is important to understand the different roles that the street can perform and where it fits in the street hierarchy.

1.2.2   Walking is not the same as cycling and streets should be designed to reflect the purpose and role that is required of them. For example, a local urban high street should be able to address a number of uses, such as enabling people to shop without cars, providing a well-connected catchment area of customers for business and provide inclusive space for people to participate in local activities and interact with others. People on foot need routes that are direct and convenient Pedestrians and cyclists do not like sharing space with each other and this should be avoided where possible. As stated in the Design for Cycling document, shared use footways alongside spine roads should not be provided. Where it is absolutely necessary to mix modes (i.e. shared use), well-designed infrastructure should include safe and adequate provision for pedestrians.

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[1] The National Planning Policy Framework (Communities & Local Government, 2012), Planning for Walking (CIHT, 2010), Designing for Walking (CIHT, 2015), Inclusive Mobility (Department for Transport, 2002), Station Design Guidance (Transport for London 2015), Local Transport Note 1/12 – Shared Use Routes for Pedestrians and Cyclists (Department for Transport, 2012), Local Transport Note 1/95 – The Assessment of Pedestrian Crossings, Local Transport Plan 2/95 – The Design of Pedestrian Crossings, London Pedestrian Design Guidance (Transport for London, 2015), Cycle & Pedestrian Routes within Car Parks (Sustrans Technical Information Note No. 16), Separating Pedestrians and Vehicles (Health & Safety Executive, 2013), Door to Door: A strategy for improving sustainable transport integration (Department for Transport, 2013), Working together to promote active travel (Public Health England, 2016), Start Active, Stay Active (Department of Health 2016), Manual for Streets (2007), Manual for Streets 2 (2010). Developers/designers should also read OXTRAG's Developer Information sheet

1.2.3   Oxfordshire County Council requires footways in new developments to be direct and convenient and wide enough for all users, including older and/or disabled pedestrians. Designs should enable people to:

- walk along comfortably with spaces for passing others
- rest and
- meet, whilst allowing for street furniture

1.2.4   Developers must prioritise the behavioural change opportunities of new developments. Phasing will be key. Footways and cycle ways must be ready for people to use from the outset in order to maximise the behavioural change opportunities of a new infrastructure.

1.2.5   Walking routes should be direct and convenient. People also need to cross streets from one side to the other, as well as navigate side crossings. Pedestrians should not be unreasonably delayed or intimidated by the volume and/or speed of traffic. When streets are designed with the needs of pedestrians as a priority, the benefits include improved physical and mental health, community cohesion, low crime rates and a vibrant local economy.

1.2.6   Designers must ensure that plans include safe and legible walking routes to and between popular destinations such as schools, public transport facilities, shops, services and sports/recreational facilities, green spaces and car parking.

1.2.7   Stakeholders (local users) should be consulted at a very early stage to ensure that streets are designed to meet the needs of local users. Sustainable Travel Audits should be undertaken, to review how well the proposed scheme or development links with the surrounding network and what walking or cycling improvements might be required to connect to key destinations. Vulnerable Road User Audits should also be undertaken as part of this assessment. The AHTSG is also a forum in which achieving best practice for sustainable travel can be discussed as it has walking and cycling user representatives. For developments affecting public rights of way the statutory Oxfordshire Countryside Access Forum can be involved.

PART 2 – Walking Design Guidance for new developments

This section covers a series of eleven design factors that must be taken into account when designing facilities for pedestrians in new developments and schemes.

Walking Design Principles

2.1   Connectivity

If walking is made difficult, people are less likely to do it – particularly if they don't have to. So designers need to make it easy and safe for people to follow the route that they want. When people walk, they need direct, attractive and safe routes to and from key destinations, including public transport, shops, homes, car parking facilities, shops and services. Designers must prioritise an appropriate design and layout that enables people to walk.

Picture 1: Good practice - Attractive and informative signage can encourage and enable connectivity

2.1.1   Connectivity is a measure of how easily and directly people can get to their destinations, including longer distances via a combination of walking and public transport. Developers must ensure that a network of well-connected, legible routes provides easy access to key destinations for pedestrians and can encourage active travel for short journeys rather than driving, which will provide health benefits for users. There is evidence that walking (or cycling), especially in green space, provides significant mental as well as physical health benefits.

2.1.2   Designers and engineers must ensure that routes for walkers include well designed footways, (see specifications in Section 2) and, where appropriate, social spaces that allow the option of social interaction (see Section 7). Safe crossing points should be located where they will be needed and that traffic speed is limited. Consideration must also be given to the health impacts associated with pollution from vehicles. Paths separated from busy roads should be provided rather than being adjacent to congested roads/streets.

2.1.3   Within new developments, Oxfordshire County Council expects enabling connectivity through the provision of:

Well defined, signed direct pedestrian routes along logical desire line and linking to local destinations – schools, shops, green space and public transport within the development. Wayfinding should be clear and consistent and follow the same design over a wider area. This is covered in more detail in Section 2.4. An excellent example of best practice in Oxfordshire is the Bicester Wayfinding Project	✅
Lower speed limits for motorised vehicles within developments where vehicles share space with pedestrians (and Cyclists) but have lower priority	✅
Pavements installed properly with the correct gradients, cross-falls and smoothness that can be used by everyone.	✅
Drop kerbs and tactile paving should be incorporated as outlined in Inclusive Mobility (Department for Transport 2002)	✅

2.2   Footways

When footways are installed properly – to the correct gradients, cross-falls and smoothness, they can be used by the majority of people. When they are installed below standard, they cannot be used by people who are partially sighted or disabled. Developers and other designers must ensure that footways are wide enough for pedestrians to walk comfortably and safely.

Picture 2: Good practice - Ample space for pedestrians in Frideswide Square

2.2.1   The London Pedestrian Design Guidance (2015) outlines standards for footways which is an example of good practice and must be followed by Oxfordshire's developers and other designers.

Widths

- **2 metres** – minimum preferred for two wheelchairs to pass each other
- **1.5 metres** – minimum acceptable for a wheelchair user and able bodied   pedestrian to pass each other

Surfacing

- **2-5 mm** – recommended width between footway slabs to reduce trip hazards
- **6-10 mm** – recommended width between footway slabs for compacted mortar
- **13 mm** – recommended maximum of openings (covers or gratings)
- **35-45 pendulum score** – ideal dry friction rating for footway materials

Kerbs

- **125 mm –** standard kerb upstand – 140 mm at bus stops for boarding and bus ramps.
- **50 mm** – minimum upstand preferred by visually impaired pedestrians
- **25 mm** – minimum upstand for level surface areas to delineate space
- **Drop kerbs no higher than 6mm** – from the carriageway at designated crossings to channel water drain off

Gradients

- **1:20 (5 per cent)** – ideal for footway cross falls and drop kerbs
- **1:12 (8 per cent)** – maximum slope angle for pedestrians – anything greater causes difficulties for wheelchair users. For ramps, 10m is maximum length.
- **1:10 (10 per cent)** – maximum steepness for short distances of 600mm – any steeper becomes physically difficult and risk wheelchairs toppling

Source: London Pedestrian Design Guidance (2015)

2.2.2   Developers must ensure that street clutter does not happen. This is covered in more detail in section 2.4.

2.2.3   Oxfordshire County Council is responsible for permitting construction, or alteration, of dropped kerbs (otherwise known as vehicle access crossings or crossovers) for domestic and industrial use.

2.3   Pedestrian Crossings

There are three main types of crossing – refuges, zebra crossings and signal controlled crossings (Puffin, Toucan and Pegasus). The Department for Transport introduced parallel cycle and pedestrian crossings in 2016

Source: DfT circular 01/16 – The Traffic Signs, Regulations and General Directions 2016

General guidance

2.3.1   All crossings should be designed with reference to LTN 1/95 – The Assessment of Pedestrian Crossings and LTN 2/95 The Design of Pedestrian Crossings (Department for Transport), which is updated periodically.

2.3.2   Where pedestrian facilities are being provided, audible and/or tactile devices should be provided for the benefit of users with visual impairments and this should be in addition to the normal Red and Green Man indication. Tactile paving and dropped kerbs must be constructed in accordance with the Interim Changes to the Guidance on the use of Tactile Surfaces: Moving Britain Ahead (Department for Transport 2015)

Types of crossings

2.3.3   **Uncontrolled crossing** – this is often a pedestrian refuge on the centre of the road and these can be introduced without formal or informal consultation, although it is recommended to consult regular users so as to determine the most useful location for a refuge. Shared Space projects (see Section 5) often involve removing features such as kerbs, road surface markings, traffic signing and traffic lights to promote better interaction between drivers and pedestrians. These should be introduced only after extensive consultation with Oxfordshire County Council as well as user groups, (see paragraph 2.5.5).

2.3.4   Where refuges are provided, Oxfordshire County Council expects a minimum of 2.0m to ensure safety and comfort for pedestrians.

2.3.5   **Controlled crossing** – There are five types of controlled crossing, details of which are outlined below:
   a)   **Zebra:** These are marked by black and white strips across the road and have flashing beacons, as well as zig zag markings at entrance and exit points. Zebra crossings are on a par with signalised crossings in terms of safety performance, and they can give an excellent service for pedestrians. As Zebra Crossings can be located considerably closer to junctions, they are often closer to pedestrian desire lines.
   b)   **Puffin:** Puffin crossings are an advanced form of crossing and replace Pelican crossings. Puffins do not have green man or flashing amber signal.

Instead, most Puffin crossings have sensors on top of the traffic lights, although some may be buried in the ground in the waiting area. The sensors can spot if pedestrians are waiting to cross. Other sensors can spot if pedestrians are already crossing the road. Drivers waiting at the Puffin crossing will only be allowed to continue when pedestrians have finished crossing the road. Like the Pelican crossing, the Puffin still requires a pedestrian to press a button for crossing the road. The differences between the Pelican and Puffin crossings are that Puffins detect pedestrians in the waiting area, but also whilst they are crossing the road. Puffins are a good choice in locations where there are high bus flows.

c) **Toucan:** Toucan crossings are designed for pedestrians and cyclists and are commonly installed adjacent to a cycle path or route with cycle facilities. Toucans provide a green cycle next to the green man, when pedestrians and cyclists can cross. Toucans operate like Puffins, with on-crossing sensors.

d) **Pegasus:** Pegasus crossings provide safe, controlled crossings for horse riders. This type of crossing must be installed where there is evidence that horse riders need to cross and it is of paramount importance on busy main roads. Pegasus crossings have a red/green horse symbol and a higher mounted push button to enable horse riders to access the facility.

e) **Staggered Puffin and Toucan crossings:** Wide and/or busy roads can require staggered crossings. A staggered crossing consists of two separate crossings, located on each side of a central island and generally not in line with one another, to minimise confusion for pedestrians. It is recommended where possible to reduce traffic speed and/or the carriageway width to allow safe use of a single stage crossing rather than requiring pedestrians to wait longer to cross at a two-stage crossing.

Transport for London recommends wait times of no longer than 90 seconds, recognising that even after 30 seconds of waiting, pedestrians are likely to attempt to cross informally. Developers and designers in Oxfordshire must adopt this approach.

2.3.6 Side raised road entry treatments should also be considered, as they can be helpful for pedestrians crossing side roads at their junctions with main roads. They can also help reduce the risk of turning vehicle movement incidents and help to

reinforce 20mph speed limits where the traffic turns from a 30mph limit on the main road to a 20mph limit on the side road.

2.3.7   In 2016, the Department for Transport introduced parallel cycle and pedestrian crossings. Designers are advised to refer to new guidance contained in DfT Circular 01/16 – The Traffic Signs Regulations and General Directions 2016. Oxfordshire's first crossing of this type is at the planning stage, at the time of writing, but an example installed in London is shown below:

Picture 3: Good practice - Tiger Crossing
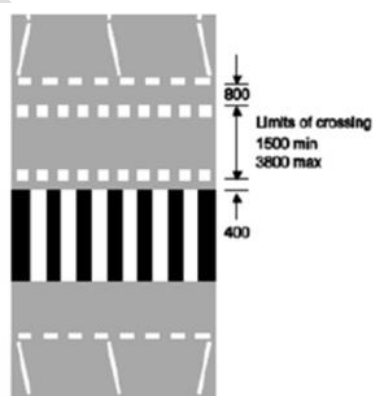
Draft revised TSRGD,
table 69, item 51

Diagram 2: Tiger Crossing standards

2.3.8   Pedestrian safety is the crucial consideration when considering types of crossings. Designers may want to consider whether splitting a crossing using a refuge can provide a

better level of service, if there is evidence that this would be safer. In such cases, Oxfordshire County Council should be consulted before a decision is made.

Designers must consider factors such as pedestrian demand and how it is profiled. Consideration needs to be given to who is likely to make use of the crossing – for example whether the crossing will be used by significant number of children	✅
Designers must consider older and/or disabled pedestrians and their needs. For example, audible and/or tactile devices should be considered for the benefit of users with visual impairments	✅
Designers must consider other site factors which include traffic flows and speeds, width of road, proximity of junctions and lighting	✅

2.4   Facilities, Wayfinding and Signage

Pedestrians need facilities to make walking easier and more enjoyable, including signage, litter bins and seating.

Picture 4: Good practice - Signage in Bicester

2.4.1   People need facilities when they are walking. Facilities for pedestrians include seating, signage, litter bins and lighting. Oxfordshire County Council expects developers to provide detailed plans of how new developments will ensure that the facilities are provided. Attractive and easy to read signage to popular local destinations (shops, public transport hubs and local attractions) can encourage people to choose walking – particularly if distance and estimated timings are shown as part of the signage.

2.4.2   Seating is important, particularly for older and/or disabled pedestrians and should be installed regularly along all walking routes to provide resting points, particularly in locations where there is a gradient or steps. Where feasible, seating should be located where there are things of interest to look at (examples include trees and attractive buildings).

2.4.3   Seating should be provided at bus stops for users to rest while waiting for the bus. In addition, shelters should be provided where usage is high.

2.4.4   Litter bins are essential in terms of reducing littering, and these should be located strategically along all pedestrian routes. Street furniture for motorists, such as bollards, signage and parking ticket machines should be minimised and be positioned so that they do not clutter the pedestrian environment.

2.4.5   Lighting is an option that should be considered by developers. However, there is little evidence from accident data that lack of lighting compromises road safety. It is not necessary or desirable to have lighting in rural areas and lighting is contrary to many Parish Council policies. Sensitive or low level lighting may be needed where there are implications for habitats. At the time of writing, Oxfordshire County Council is developing a new Lighting Policy and developers will be required to take this into consideration.

Signage is a way of enabling people to walk to local destinations, including public transport hubs. Adding estimated timings to signage can encourage users to walk.	✅
Seating should also be considered, particularly for older and/or disabled people. Consideration should be given to the locations of seating – near to shops, public transport hubs and other popular destinations are examples.	✅
Littering disfigures the public realm and discourages walking, so designers need to ensure that bins are provided	✅

2.5   Shared Space

Shared space is a design approach that aims to change the way that streets
operate by reducing the dominance of motor vehicles through implementing lower speed limits and encouraging drivers and pedestrians to become more aware of each other and thereby encouraging people to drive and cross more safely.

Due to its different approach to managing movement, it can be controversial and should not be considered before taking advice from Oxfordshire County Council.

2.5.1   The Department for Transport defines shared space as: "a street or place designed to improve pedestrian movement and comfort by reducing the dominance of motor vehicles and enabling all users to share the space rather than follow the clearly defined rules implied by more conventional designs".

2.5.2   Designers considering a Shared Space approach should read the Department for Transport Local Transport Note 1/11 – Shared Space and must consult with Oxfordshire County Council.

2.5.3   There are a number of complex considerations and design requirements of shared space which need to be discussed and considered:

- An understanding that pedestrian movement varies in terms of the type of space being used
- Pedestrian behaviour depends largely on the behaviour of drivers and cyclists
- In shared space situations, the behaviour of pedestrians becomes harder to predict, and drivers tend towards caution. Department for Transport research has found that drivers are more likely to behave courteously where pedestrians become the dominant user group.

2.5.4   In Shared Space situations, crossings tend to be informal, although in areas with high levels of movement, controlled crossings can be necessary.

2.5.5   Some organisations and groups, many representing disabled people, have expressed concern about safety for pedestrians in Shared Space projects. The Department for Transport advises that there should be a high level of stakeholder

engagement when a Shared Space approach is being considered. Consultation with relevant groups in a specific area can lead to identification of solutions that create a safe environment for everyone.

Shared Space projects can be controversial, and no decision should be taken without consulting Oxfordshire County Council. The views of local people should also be taken into consideration.	✅

2.6   Shared Use: Pedestrians and Cyclists

Shared use routes aim to accommodate the movement of pedestrians and cyclists and may be segregated or unsegregated. In LTN 1/12, the Department for Transport moved away from the presumption in favour of segregation, stating that "segregation need no longer be considered the starting point in the design process" and encourages "designers to think through their decisions, rather than start from a default position of implementing any particular feature".

Picture 5: Good practice - Unsegregated path with space for pedestrians and cyclists

2.6.1 "Though pedestrian levels of service are highest when dedicated pedestrian facilities are provided, some situations require shared-use. Shared-use designs can be an opportunity to build better streets and optimise space, as revealed by examples across London's street types. Shared-use designs should ensure pedestrians have first priority. The default design principle for pedestrians and cyclists is safe, comfortable separate facilities that are fit for purpose" (London Pedestrian Design Guidance 2015)

2.6.2 Shared use routes are designed to accommodate the movement of pedestrians and cyclists and may be segregated or unsegregated. Generally, they are created from new or by converting existing footways and footpaths. A segregated route means that pedestrians and cyclists are physically separated by a white line, kerb or other feature. An unsegregated route is where pedestrians and cyclists share/negotiate the full width of the route.

2.6.3 Given that segregation need no longer be considered the starting point in the design process, it is important to ensure that widths are sufficient in terms of segregated and unsegregated options. Sustrans Segregation of Shared Use Routes (Technical Information Note 19) provides the following guidance on widths that designers in Oxfordshire should follow:

> **Widths**
>
> For an unsegregated shared use path, guidance generally points towards a preferred minimum width of 3m, although 4m should be provided on busier routes, A minimum width of 2m may be acceptable on less important links in rural areas, provided there are no side road constraints. A greater width provides an improved level of service.
>
> Where segregation is provided, the width requirements for users provided in design guidance suggests the following widths:
>
> A preferred minimum for a segregated shared use path with no side constraints would be 7m (3.5. for cyclists and 3.5m for pedestrians). This enables cyclists riding two abreast to pass another cyclist and four pedestrians to pass comfortably while complying with segregation.
>
> An acceptable minimum for a segregated shared use path with no side constraints would be 4.5m (2.5m for cyclists and 2m for pedestrians). This enables two cyclists to pass and two pedestrians or wheelchairs to pass comfortably, while complying with segregation.
>
> An absolute minimum for a segregated use path with no side constraints would be 3.5m, but only over short lengths of route (2m for cyclists and 1.5m for pedestrians). However, with these widths, substantial levels of non-compliance would be expected, in which case unsegregated use is likely to be a more appropriate option.

2.6.4 LTN 1/12 also states that a poorly designed facility can make conditions worse for both user groups (paragraph 1.3). Disabled and/or older people on foot can be intimidated by cyclists on shared use routes, so consideration of their needs is important. Segregated routes can encourage faster cycling speeds so maintenance of lane discipline and sufficient width is critical if considering this approach.

2.6.5 An important issue that designers must consider is the safety and convenience of pedestrians, cyclists and equestrians when a shared use facility crosses a side road. Convenience is important: if it is safe but adds too much delay to the journey, people might choose a less sustainable alternative. The table above provides recommendations on width in such circumstances. Developers and designers need to outline how safety will be prioritised in such cases and consider how prioritisation for non-motorised users at side roads is implemented, through schemes such as blended junctions and continuous footways.

2.6.6 Oxfordshire County Council expects to see other options being considered, instead of shared use routes. These include carriageway design that encourages slower vehicle speeds, thereby encouraging cycling provision within the carriageway, rather than shared use paths. However, there is a case for cyclists and pedestrians sharing space in pedestrianised streets where cycling speeds are lower and there is sufficient space for cyclists and pedestrians to pass each other without conflict.

Segregation needs no longer to be the default position for designers. Guidance has changed and designers need to consider the different needs of pedestrians and cyclists and explore how walking and cycling as separate forms of movement can best be facilitated. In particular, the needs of more vulnerable pedestrians need to be considered. Designers should also be mindful that Manual for Streets 1 states that a user hierarchy should be introduced and pedestrians must be considered first in the design process (paragraph 1.1.1)

2.7   Social Space

Social Space is defined as an area where people gather and/or interact. Examples include transport hubs (bus or rail), local shopping areas, community facilities, pubs, gardens, shopping malls and space near schools where children and/or parents can interact,

Walking is not just about walking from A to B. People are much more likely to stop and interact with each other when they are on foot in public space. Social Space facilities can be an important element of social cohesion. Creating space, away from the footway, where people can congregate and interact has huge benefits – less isolation, better mental health as well as reducing crime.

Picture 6: Illustration of where there is no social space outside a school which can result in the footway being blocked

2.7.1   Social Space has a crucial role to play in the interaction of people in public space. When outdoor areas are of poor quality, only strictly necessary activities take place and there are fewer opportunities for community interaction. It can have a positive impact on mental health and community cohesion.

2.7.2   Oxfordshire County Council expects developers and other designers to analyse where people would be most likely to congregate and interact, so that space is provided for interactions to take place. The provision of wider pavements, seating, bins, play areas and public art can also encourage and enable social interaction.

2.7.3   The use of public spaces varies according to the time of day and day of the week, and is affected by what is on offer in a particular place at a particular time. An example might be older people shopping in the central market and/or shops early on, children and young people out at the end of the school day, and young adults

dominating the town centre at night. Stakeholder engagement is strongly recommended and designers should follow the NPPF guidance below:

> "Planning policies and decisions should aim to achieve places which promote opportunities for meetings between members of the community who might not otherwise come into contact with each other, including through mixed-use developments, strong neighbourhood centres and active street frontages which bring together those who work, live and play in the vicinity" (National Planning Policy Framework" *(Communities & Local Government, 2012)*

Walking is more than a mode of transport and can enable greater community cohesion. Social Space provides room for people to interact and designers should take care to ensure that these facilities are provided where appropriate	✅

2.8   Personal Security

Concerns relating to personal security can discourage people from walking, particularly after dark. Good street design can make a positive contribution and enable increasing numbers of people on foot. As well as all the other benefits of walking, the presence of people in public space can reduce crime in communities.

2.8.1   Fear of crime can be a significant deterrent in terms of people choosing to walk in public space. Manual for Streets 1 (3.2) states that attractive and well-connected permeable street networks can encourage more people to walk and cycle to local destinations and that more people on the streets will lead to improved personal security and road safety.

2.8.2   There are many factors that affect both the perception of safety and the objective safety of an area. In a vibrant, interesting street with lots of people around, pedestrians are more likely to feel safer after dark. However, there are many streets and places where people on foot will feel less safe, which may mean walking in the area is avoided entirely. Women, children and older people of both sexes are likely to feel most vulnerable, but young men are statistically the most likely group to experience violence on the streets – particularly at night, so it is important to consider the needs of everyone when designing for safety.

2.8.3   Developers must outline how planning for developments can contribute to designing out crime and fear of crime within new public space. Lighting can be effective in increasing peoples' perception of safety at night, particularly when improvements focus on lighting the pavements to adequate levels as well as the carriageways. However, it is also important to recognise the hierarchy of routes that means some may not be lit, where there are reasonable alternatives. See paragraph 2.4.5 for more detailed guidance on lighting.

2.8.4   Buildings should have 'active frontages' and not present blank walls or opaque shop shutters/frosted/mirrored glass on the street front. Living Streets recommends never accepting safety hazards such as subways, alleys and enclosed walkways. Instead, designs should maintain pedestrian connectivity – level surfaces and well-lit permeable routes. Oxfordshire County Council expects to be consulted on these options at a very early stage. This may arguably appear to be in conflict with the need for connectivity (see 2.1), but developers will need to provide a solution that includes safety and security for people as well as connectivity.

2.8.5   Other examples of places without escape routes that should be avoided are underpasses without clear sightlines and footbridges. Canal towpaths can provide excellent recreational routes and should not be avoided entirely, but they cannot be considered as part of a necessary route for pedestrians – alternative provision should be made that is well lit and at surface level.

2.8.6   Other public space facilities that can concern pedestrians in terms of personal safety are bus stops and unstaffed rail stations. These should be planned and designed to allow good visibility and be well maintained in order to increase perceptions of security and actively discourage anti-social behaviour.

Developers will be expected to design new developments that are permeable, with good sightlines, lighting and adequate escape routes.	✅

2.9   Pedestrian movement through car parks

"Wherever it is reasonable to do so, you should provide separate routes or pavements for pedestrians to keep them away from vehicles. The most effective way to do this is to separate pedestrian from vehicle activity, by making routes entirely separate. Where possible, pedestrian traffic routes should represent the paths people would naturally follow (often known as 'desire lines'), to encourage people to stay on them".

Source: Health & Safety Executive - Separating Pedestrians and Vehicles

Picture 7: Good practice - footway with zebra crossing facilities

2.9.1   Car parks can often provide challenges for people on foot (including vehicle users). While sharing space can be an option, there will be many situations where safe pedestrian routes are required, particularly in large and busy car parks. Pedestrian routes should be designed as a priority at the planning stage and should be comfortable, direct, legible and with good crossing facilities.

2.9.2   Locations of car parks are varied – examples may include an office, supermarket, airport or Park & Ride site. Walking in car parks can be problematic if pedestrians have to cross traffic entering or exiting the car park. Safety in/through car parks can be improved if direct routes for pedestrians along desire lines are provided.

2.9.3   Oxfordshire County Council expects designers and developers to make provision for pedestrians within a car park. Account must taken of how the existing

situation operates or how the proposed design can prioritise pedestrian safety (if this is a new-build).

2.9.4   Car parks are generally not part of the public highway network and are not subject to national design guidance. However, designers must consider the implications of the increased potential of unpredictable movement by pedestrians and cars within car parks. Designers need to consider a number of options to enable safety in car parks as a minimum (see boxed text below).

2.9.5   Designers should also review the Sustrans Cycle & Pedestrian Routes within Car Parks (Technical Information Note No. 16), which provides further guidance on this issue.

The most effective way to do this is to separate pedestrians from vehicle activity by creating safe routes through car parks. Designers should consult the Sustrans Cycle & Pedestrian Routes through Car Parks	✅
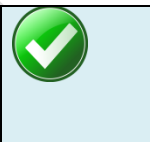
2.10   Door-to-Door travel: Linking to Public Transport

"Our ambition is to create an environment where more Oxfordshire residents will consider Door to Door sustainable integrated journeys within and beyond the county, rather than using a private vehicle for longer trips".

Source: Oxfordshire County Council LTP4 Active & Healthy Travel Strategy

2.10.1 This guidance focuses only on the walking element in combination with public transport and so the Cycling Design Guidance should also be referred to alongside this.

2.10.2 In 2013, the Government published Door to Door: A strategy for improving sustainable transport integration. This stated that the Government wanted to see more journeys made by sustainable transport: public transport supported by cycling and walking. For this to happen, it must be convenient and straightforward to make a Door to Door journey by public transport, by bike or by foot, or by combining these different means.

2.10.3 Developers should facilitate Door to Door travel through good design and consult at an early stage of planning. Oxfordshire County Council wants to ensure that users can make informed decisions about how to travel sustainably and punctually, using emerging technologies. One example that developers should build in to new homes is the use of e-paper technology to support smart and sustainable Door to Door travel decisions by providing accurate travel information in new developments including notice of planned disruptions. Developers should also consider promoting the use of smart journey planning applications as part of their Travel Plan activities.

2.10.4 Developers should consult with bus companies and ensure that the DfT standard of a bus stop within a maximum 400m of new development can be accommodated. Longer maximum walking distances are tolerable if this results in a better, faster and/or more frequent bus service although this can have an adverse impact on older and disabled people. A typical stop on a premium bus route should include:

- Good bus stop design including real time passenger information display, printed timetable and service information, a local map and wayfinding guidance
- High visibility bus stop, flag and pole, where appropriate, and consistent branding.
- Interactive audio help points
- A Wi Fi hotspot if public transport bus stop departure times can be accessed by mobile phones.
- An enhanced maintenance regime to maintain the quality feel of infrastructure investment
- A higher kerb to reduce the step height between the bus and the footway, minimum 125mm
- Higher quality footway and carriageway paving materials
- A stop cage marking of sufficient length to enable bus access close to the kerb. Minimum of 15m per bus if unobstructed (to cater for maximum likely vehicle lengths.

2.10.5 The minimum requirement is for developers and other designers to provide safe and direct walking access to bus stops and, where appropriate, train stations. Signage to public transport facilities should be installed for people on foot as well as cyclists. It should include distance and approximate timings both to transport interchanges from areas of trip generation (such as developments) and also within them, allowing people to interchange easily between different modes. Provision of facilities at bus stops, including seating, shelters and good sightlines (see Section 2.4 – Facilities, Wayfinding & Signage for more details) will encourage more people to use Door to Door travel as an attractive option for longer journeys.


Picture 8: Good practice - Attractive seating and shelters can encourage Door-to-Door travel

2.10.6 Designers must ensure that attractive and direct walking routes to rail stations are available to pedestrians. Given that pedestrian and cycle flows will fluctuate during the day with peak flows occurring at commuting times, design must take into account adequate space for pedestrians and also safe segregation from cyclists as well as vehicles. Acceptable walking distance is a highly subjective matter, but designers should bear in mind that the quality of a route is just as important as its actual length. To provide a both perceived and objective security at night, walking routes to public transport hubs should be lit and overlooked where possible. For

more details of lighting issues for pedestrians, see paragraph 2.4.5 in the Facilities, Wayfinding & Signage section of this guidance.

Door to Door travel can be enabled by providing signage and facilities to ensure that people can feel confident in terms of cycling or walking to public transport hubs and designers will be expected to incorporate safe and attractive routes.	✅
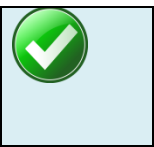
2.11 Green Space and aesthetics

> *"Streets should be designed to accommodate a range of users, create interest and encourage social interaction. The place function of the street may equal or outweigh the movement function….This can be satisfied by providing a mix of streets of various dimensions, squares and courtyards, with associated "pocket parks", play spaces, resting places and shelters".*
>
> ***Source: Manual for Streets 1***

2.11.1 Green space and aesthetics are important issues that can encourage walking over all other modes of transport for shorter journeys in an attractive environment. Manual for Streets 1 (paragraph 6.3.1) outlines what this means:

> *"The propensity to walk is influenced not only by distance, but also by the quality of the walking experience. A 20-minute walk alongside a busy highway can seem endless, yet in a rich and stimulating street, such as in a town centre, it can pass without noticing. Residential areas can offer a pleasant walking experience if good quality landscaping, sculptures, gardens or interesting architecture are present. Sightlines and visibility towards destinations or intermediate points are important for pedestrian way-finding and personal security, and they can help people with cognitive impairment".*

2.11.2 Public art, fountains, and sculptures can all enhance public space. Green infrastructure, including trees and vegetation in towns and cities can also encourage and enable walking as well as stopping, sitting or just watching the world go by. Public space for pedestrians needs to enable other activities as well as movement, so care should be taken to design attractive environments that also maintain uninterrupted movement corridors for pedestrians. However, it is important to make the distinction between recreational routes and direct routes through green space. It is also important to recognise the need to treat green space routes differently to a street in a built up area.

2.11.3 Developments next to countryside sites or public rights of way should make onsite provision for walking/riding connections to these routes and facilities and contribute to improving these offsite assets in order to mitigate the impact of the

development. The adopted Rights of Way Management Plan 2015-2025 sets out how these mattes can be dealt with. The County Council's Countryside Access Team welcomes early discussion with developers on this issue.

Green space and aesthetics provide benefits for local people and can encourage walking. Designers will be expected to provide good landscape design to enhance public space.	✅