6.

Connectivity and Street Hierarchy

NPPF

- Chapter 8: Promoting healthy and safe communities
- Chapter 9: Promoting sustainable transport
- Chapter 12: Achieving well-designed and beautiful places

National Design Guide (Jan 2021)

- M1: A connected network of routes for all modes of transport
- M2: Active travel
- M3: Well-considered parking, servicing and utilities infrastructure for all users

National Model Design Code (2021)

- M.1.i Street Network
- M.1.ii Public Transport
- M 1 iii Street Hierarchy
- M 2 i Walking + Cycling
- M 2 ii Junction + Crossings
- M 2 iii Inclusive Streets

- M.3.i Car Parking
- IVI.3.II Cycle Parking
- P.1.i Primary
- P.1.ii Local+Secondar
- P1 iii Tertiary
- P.2.i Meeting Places
- P.2.ii Multi-functional
- P.2.iii Home Zones

Taunton Deane Borough Core Strategy (2011-2028)

- Strategic Objective 6 (Accessibility)
- Policy CP6 Transport and Accessibility
- Policy CP3 Town and Other Centres

Taunton Deane Borough Site Allocations and Development Management Plan (September 2016)

- Policy A2: Travel Planning
- Policy A3: Cycle Network

- Policy A5: Accessibility of Development
- Policy A1: Parking requirements
- Policy D9: A co-ordinated approach to development and highway planning

Somerset West and Taunton Districtwide Design Guide SPD (Dec 2021)

- Section 4.2 Site structuring
- Section 5 Design Topics
 - Section 5.6 Privacy, safety and sociability
 - Section 5.8 property boundaries and streetscapes

Taunton Garden Town Public Realm Design Guide SPD (Dec 2021)

- Chapter 2 Public Realm Standards (Green/General Standards)
- Chapter 3 Street Furniture (Paying + Street Furniture)
- Chapter 4 Application to Places

Placemaking Approach to Highway Design

"Well-designed places should be accessible and easy to move around. This can be achieved through a connected network of streets, good public transport, the promotion of walking and cycling and well-considered parking and servicing."

- National Model Design Code

Based on a series of design workshops with Somerset Council Officers, Create Streets and a 3rd party highway design specialist, highway design principles were established to provide guidance to subsequent detailed streets design at the Reserved Matters stage.

As a result of this consultation, this chapter sets out the updated street hierarchy, strategic pedestrian and cycle movements, car parking and public transport provision based on the Staplegrove West Neighbourhood Masterplan.

The overreaching design aim is to ensure there is a clear legibility and a greater visual distinction between the routes featured in the street hierarchy, the following types are proposed and grouped under the headings:

- Main Stree
- Green Street
- Stree
- Shared Surface Street
- Lane
- Park Edge Lane

It is intended that the streets will be designed in accordance wit the design principles set out below;

National Planning Policy Framework requires the promotion of sustainable transport at the earliest stages of plan making and formulating development proposals. Key to this aim, and relevan to this Design Code, are that: (c) opportunities to promote walking, cycling and public transport are identified and pursued' and 'e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.

Manual for Streets

Manual for Streets (MfS) published in 2007, represented a step change in approach to designing streets, as part of a commitmen to transform the quality of the built environment. Central to this aim was the promotion of a more holistic approach to street design, assigning a higher priority to the needs of pedestrians, cyclists and public transport.

MfS sets out the need to apply a user hierarchy to the design process, with pedestrians at the top. It also recognises, among other objectives, the importance of the community function of streets as spaces for social interaction; and promoting an inclusive environment that recognises the needs of people of all ages and abilities.

Highway Code Changes January 2022

2.14 In 2022, a few changes to the Highway Code were introduced, that will influence junction design through the Reserved Matters stages of the development. These include three new rules regarding the new 'hierarchy of road users' and places those road users most at risk in the event of a collision at the top of the hierarchy with Rule H2 and H3 notably applicable.

Rule H2 - Rule for drivers, motorcyclists, horse drawn vehicles, horse riders and cyclists at a junction you should give way to pedestrians crossing or waiting to cross a road into which or from which you are turning.

Rule H3 - Wait for the cyclist to pass the junction before turning. This also applies if there is a cycle lane or cycle track and if you are turning right or left into the junction.

Placemaking Principles for Somerset Adopted August 2024

These principles have been adopted by Somerset Council as a material planning consideration for the preparation of masterplans. The following Placemaking Principles are intended to be read alongside other broader policies and design guidance.

- Reduce the need to travel via private car.
- Facilitate modal shift through multi-modal travel measures
- Integrate car and bicycle parking in a way that prioritises pedestrians and public realm.
- Create an attractive, high-quality environment, incorporating green infrastructure into streets and public spaces.
- Improve road safety for all users through street design, appropriate to the context.
- Facilitate car-free school transpor
- Enhance accessibility and attractiveness through materials, street furniture and fixtures.
- Plan lighting, waste storage/collection and other service infrastructure at an early design stage.
- Provide safe connectivity within rural communities
- Above all, engage key stakeholders early.

This Design Guide has been informed by the national and local policy and best practice documents to promote a design approach that will embed the access hierarchy and high-quality place-making into the development proposals for Staplegrove West.



06 | Making the Connections

Figure 6.01 illustrates an updated street hierarchy for the Staplegrove West Neighbourhood Area based on the revised masterplan (figure 3.01). In order to simplify, but ensure there is a clear legibility and a greater visual distinction between the routes featured in the street hierarchy, the following types grouped under five headings; Main Street, Green Streets, Streets, Lanes, and Park Edge.

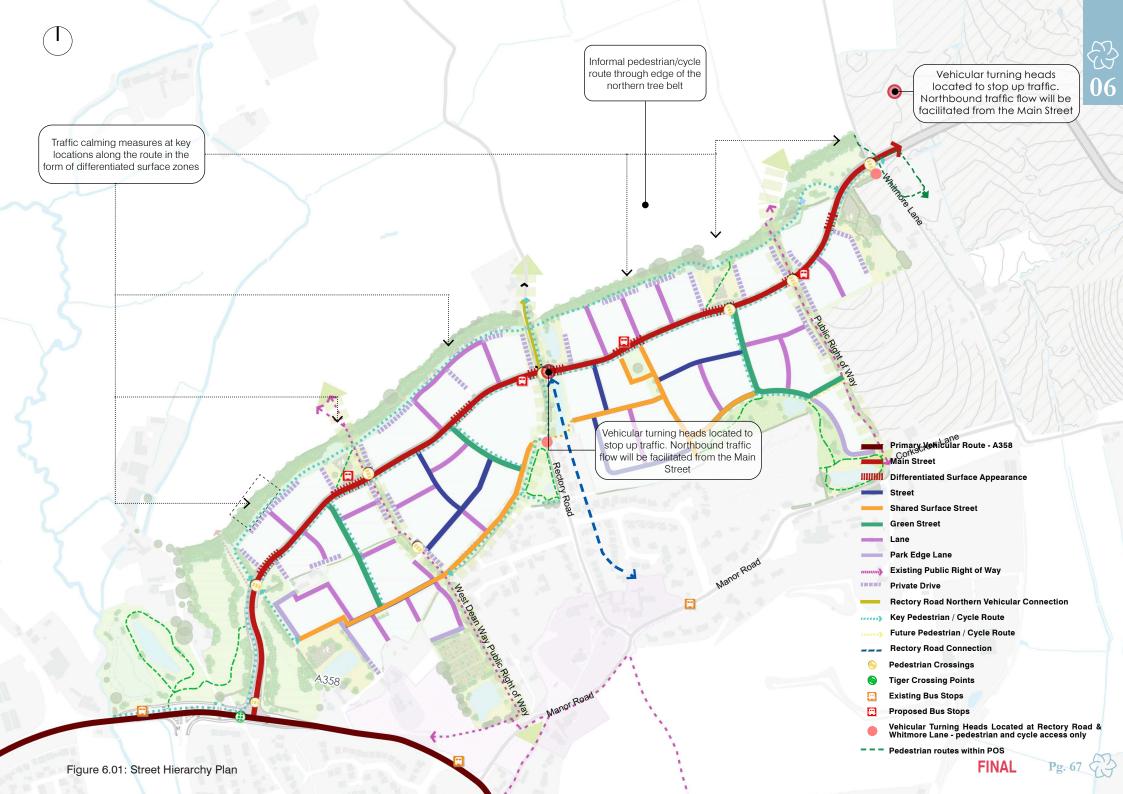
It is intended that the streets will be designed in accordance with the appropriate regulatory guidance.

Streetscape Design Approach

- Deliver a network of connected streets and public spaces that provide choice and follow a spatial and visual hierarchy.
- The character of a street should reflect its position in this hierarchy and respond to local characteristics (green spaces).
- Feature green streets and shared surface lanes to promote a more sustainable and integrated approach to development.
- Relate building typologies to reinforce discernible difference within street hierarchy.
- Promote through routes and limited use of private drives.
- Creating connections to wider pedestrian cycle infrastructure as the phases evolve.
- Preference for on street visitor parking and on plot parking over courtyard parking beyond the limits
 of the Main Street.

Where vehicle routes are terminated, typically to concentrate movement along the Main Street and avoid rat runs to the south, connectivity will be maintained for cyclists and/or pedestrian; the following will be provided:

- A cycle and/or pedestrian only route.
- A vehicle turning facility to the minimum size required, carefully designed to complement the built environment rather than dominate it.





"increase the efficiency and growth of good movement networks throughout the town and promote strong cycle and walking links to our surrounding countryside."

- Vision for our Garden Town, Somerset West and Taunton draft 2019

Introduction

Within this section the street hierarchy, strategic pedestrian and cycle movements, car parking, servicing and public transport provision are outlined. The component parts of the approved access and movement are outlined below:

Existing Road Network

Rectory Road

Rectory Road will be closed to vehicles north of the Hillhead Cottage to its junction with the Main Street to prevent rat running through Staplegrove village. This will also enable safe pedestrian and cycle access between the existing village and the proposed development. Vehicle access will continue from Main Street northwards along Rectory Road to serve the farms and surrounding countryside.

Whitmore Lane

Whitmore Lane will also be stopped up south of the Main street, however vehicles will be able to turn north from the Main Street into the existing vehicular network.

Proposed Vehicle Access Points

Silk Mills Junction

Primary vehicular access will be taken from a new signalised junction off the A358. Further works will be undertaken to convert the existing roundabout into a signalised junction.

4 Kingston Road

There is a proposed roundabout connecting the Main Street to Kingston Road, allowing for a link south with primary infrastructure.

Staplegrove East

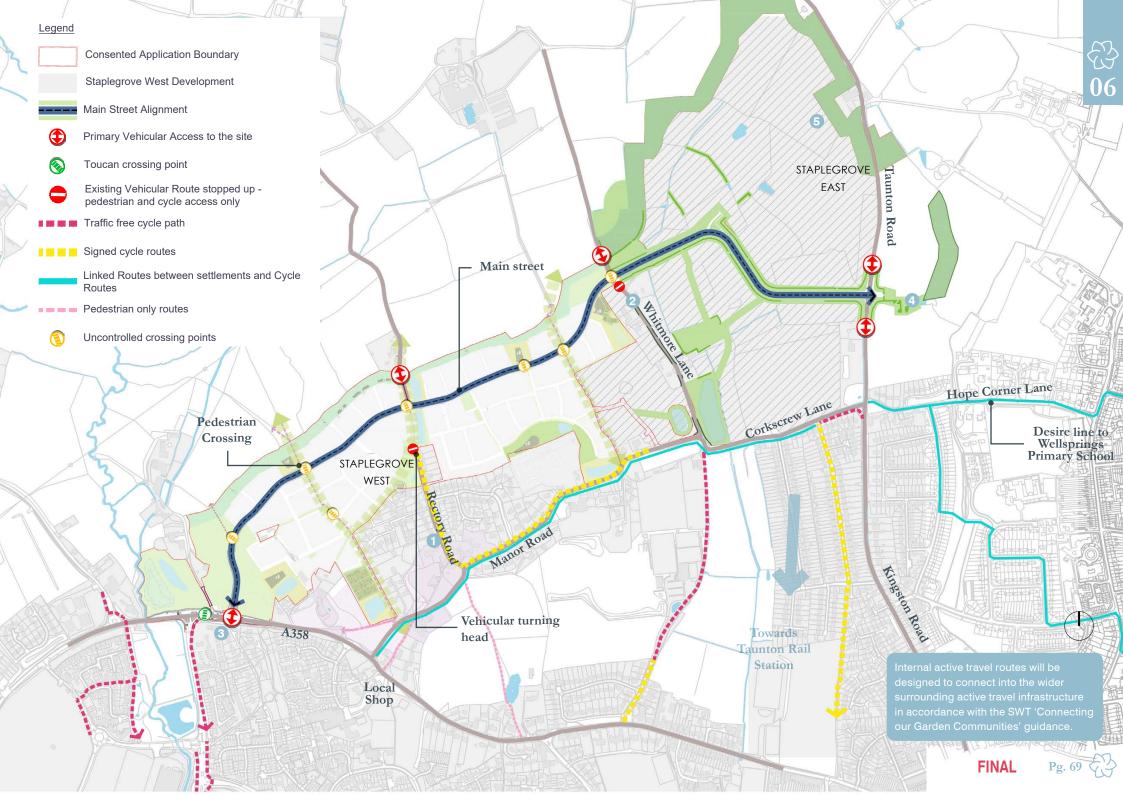
Main Street alignment and associated works have been carried out for Staplegrove East.

For additional design information on the Main Street east of Whitmore Lane connecting to Taunton Road please refer to the Staplegrove East application, reference: 34/16/0014.

Pedestrian and Cycle Movement

The masterplan structure has been reviewed to ensure that, in line with the original principles of the masterplan, clear and continuous connections can be made between new and existing development areas in order to create a permeable and legible environment. The pedestrian and cycle principles developed as part of the review are as follows:

- Green streets within the development create more attractive and safer places to walk or cycle.
- Improving east-west connectivity via the main street, a secondary pedestrian and cycle route south of the main street, and the creation of a continuous informal pedestrian and cycle route along the northern green buffer.
- Strengthening the existing Public Rights of Way and footpaths implemented as part of earlier phases by ensuring streets line up with key links and destination.
- Ensuring connectivity between proposed crossing locations on the Main street.
- Promoting health and well being by encouraging increased cycle and pedestrian movement to local facilities.





Main Street

The primary purpose of the Main Street is to promote the transfer of through-traffic away from Staplegrove village as set out in the adopted spatial policy TAU2. The route will have a 30mph speed limit and include a designated cycle path (aligning with the principles of LTN1/20) and footways, strategic landscaping, controlled pedestrian crossing points and traffic calming features.

Design Considerations

The Main Street design across Staplegrove east and west needs to provide the following functions

- A safe access to both west and east sides of the Staplegrove development by all modes
- Access for cyclists on and off carriageway along the entire length of the Main Street:
- Safe crossing opportunities for pedestrians and cyclists connecting both sides of the development;
- Serve as a 'through route' for vehicular traffic as an alternative to Manor Road:
- Conform to the alignment set out in the Outline planning permission
- Link the northern and southern sides of development without creating severance
- Not exceed the area identified by the red line included in the outline planning permission
- Become a sustainable link through the development facilitating a bus route

In order for the Main Street to carry out the functions listed above and beyond the parameters se out in the Outline planning permission, it will need to conform to the following;

- The space on both sides of the Main Street needs to be reflected through the route in both east and west.
- Staplegrove West has a more rural feel with more green space and less dense developmenthan Staplegrove East. The Main Street will need to reflect this in alignment, crossings surfacing and built form either side of the road;

- The location of the school on the eastern section of the Main Street and the shorter length of the
 eastern section of the Main Street, will result in more development being served by fewer junctions
 along its length. This will generate a more urban feel to the Staplegrove East development, a facto
 which will need to be reflected in the Staplegrove East Design Guide;
- Breaking up the continuity of the Main Street is important to allow continuity of parks, green spaces
 and development character. Differentiated surfacing can help to create this;
- A crossing point should be provided on the Main Street at the school access with traffic calming to ensure a safe environment for school children and encourage sustainable transport:
- Both sections of the Main Street will need to share some characteristics in order for both sections to tie together, such as road width, shared footway/cycleway provision and footways on both sides of the road:
- The Main Street must form an inclusive environment that recognises the needs of people of all ages and abilities and must recognise the importance of way-finding and legibility;
- The detailed design of the Main Street in both the west and east should work within the context of broad urban design aims, taking cognisance of such aspects as the existing character and qualities of urban design, architecture and landscape of the area, historical patterns of development and social and cultural factors which impact on the environment.

highway authority.

STREET DIMENSIONS PARKING STRATEGIES **BUILT CHARACTER** GREEN INFRASTRUCTURE **MATERIALS** · Total adopted width - varies · Direct on-plot parking from · High level of enclosure with both buildings and · Route is designed as a linked sequence of · Carriageway - Tarmac Main Street on the northern walling, gables siding onto route with active landscape spaces through the integration · Carriageway width - 6.5m · Occasional change in material side frontage. Regular plotting arrangement and of a planted verge on both sides of appearance in appropriate • Footway - 2m rhythm of units forming a series of groupings. · Court parking and lane locations. · Planted verge - 1.5m to northern edge, solutions along the cycle · Predominant building types; refer to character Street trees species regularly planted along • Foot / cycleway - Tarmac 2.5m to southern edge route on southern side. areas in Chapter 7: Creating Character. the length of the route. • Footway - Tarmac • Combined footway/cycleway - 4m · On-street parallel bays in · Visually clutter free: with lighting and signage Dwellings will typically feature variable front Vehicular crossover - Tarmac • Set-back - variable front garden width nodal areas. minimised wherever possible. garden widths. * Material specification will be Increased building density and scale height in · For detail on boundary treatments refer to subject to agreement with the 'nodal areas' Chapter 7: Creating Character.



Figure 6.03: Main Street - Distributor Road with planted verge on both sides of carriageway



Figure 6.04: Main Street Precedents - Planted verge on both sides of the street .



Figure 6.05: Tabled pedestrian crossover at give way junctions (Frederiksberg, Denmark).



Figure 6.06: Footway and street tree planting verge





Green Street

Green Streets are landscaped routes connecting to a series of public realm spaces linking key destinations with a view to creating a more verdant and gardenesque character to the development. They will be predominantly green and verdant in nature with increased front gardens and a generous planted verge to provide adequate space for trees to grow.

STREET DIMENSIONS	PARKING STRATEGIES	BUILT CHARACTER	GREEN INFRASTRUCTURE	MATERIALS
 Total adopted width - 12m Carriageway width - 5.5m Footway - 2m Combined foot / cycleway - 3m Landscaped verge - 1.5m Set-back - 2m minimum front garden width 	On-plot driveways and garages set back behind building lines.	 Good level of enclosure with active frontages and regular rhythm provided by the green infrastructure and typology. Predominant building types; refer to Chapter 7: Creating Character for details. 	 Green verge featuring trees will line one side of the route. Regularly planted street trees in verge. Dwellings will typically feature modest front gardens, of at least 2m in depth. For detail on planted boundary treatments refer to Chapter 7: Creating Character 	 Carriageway - Tarmac Footway - Tarmac Vehicular crossover - Tarmac * Material specification will be subject to agreement with the highway authority



Figure 6.07: Green Street Section



Figure 6.08: Green Street Precedents - Longcross Garden



Figure 6.09: Green Street Precedents - Welborne Garden Village



Figure 6.10: Green Street Precedents - Long Marston Garden





Street

The street's primary function is to connect the Main Street to the rest of the residential development. Traffic calming measures are introduced to slow vehicles down and encourage people to drive with care and caution. Footways will be provided either side of the carriageway for pedestrian only use.

STREET DIMENSIONS	PARKING STRATEGIES	BUILT CHARACTER	GREEN INFRASTRUCTURE	MATERIALS
 Total adopted width - 9.5m Carriageway width - 5.5m Footway - 2m Set-back - variable front garden width 	On-plot driveways and garages set back behind building lines	 High level of enclosure and contiguous building line, with active frontages and regular rhythm. Predominant building types; refer to character areas in Chapter 7: Creating Character Visually clutter free: with lighting and signage minimised wherever possible. 	 Dwellings will typically feature modest front gardens typically of 2m in depth, this could increase to 6m to account for private front of plot parking. For detail on boundary treatments refer to Chapter 7: Creating Character 	Carriageway - Tarmac Footway - Tarmac * Material specification will be subject to agreement with the highway authority



Figure 6.12: Street Section



Figure 6.13: Street Precedents - Portishead street with on plot parking with hedged boundaries.



Figure 6.14: Street Precedents - Banding and flush conservation kerbs create a traffic calmed environment.



Figure 6.15: Street Precedents - Buildouts in road with decorative planting,





Lane

Lanes will provide local level connections through the neighbourhood area and provide safe, quieter routes. They will typically be short routes and adopt a shared surface approach with no kerbs defining carriageways and separate pedestrian areas. The shared surface lane is purposefully used in lower order of the movement hierarchy as there will be less traffic. The shared surface approach use of a contrasting line or different materials to demarcate the carriageway. These could be setts in contrasting textures or colours, which are visible to pedestrians and can be felt by partially-sighted people.

STREET DIMENSIONS	PARKING STRATEGIES	BUILT CHARACTER	GREEN INFRASTRUCTURE	MATERIALS
 Total adopted width - 7m Carriageway width - 5m Footway (notional) - 2m Set-back - 1.8m minimum front garden width 	 On-plot driveways and garages set back behind building lines. Occasional front parking arrangements to allow for key grouping terraces. 	 Good level of enclosure with active frontages and regular rhythm. Predominant building types; refer to character areas in Chapter 7: Creating Character Integral garage units permitted. 	 Predominantly hard surfaced lanes with planting within gardens. Occasional trees may be planted to improve the setting of the routes. A drainage channel could also be applied to create visual interest and form a discernible character difference between other routes. Dwellings will typically feature modest front gardens. For detail on boundary treatments refer to Chapter 7: Creating Character 	 Carriageway & notional footway - Shared surface block paving. Delineation or banding details in concrete pavers. * Material specification will be subject to agreement with the highway authority

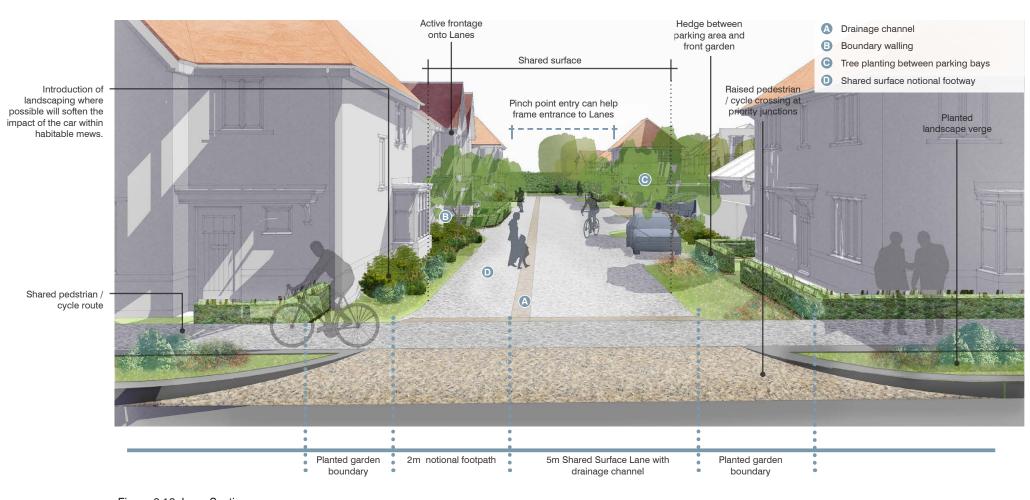


Figure 6.16: Lane Section



Figure 6.17: Lane Precedents - Poundbury



Figure 6.18: Lane Precedents - Shared surface and tree planting between parking bays and active frontage



Figure 6.19: Lane Precedents - Copenhagen crossing





Park Edge Lane

Park Edge Lanes will feature adjacent to areas of open space and so are single sided. They will provide a local route along the edges of the southern character areas. As they will be lightly trafficked, these routes will be quieter offering dwellings lining these attractive local views over the open spaces. An undulating build line is provided with the introduction of pocket parks located at strategic points along the northern edge.

The Park Edge Lanes will adopt a shared surface approach. A contrast to lanes will be made with a change in setts or block pavers in contrasting textures or colours.

There are a few private drive edges on the periphery and limited to serve a few plots. In such cases the following 3 principles will be applied:

- A pedestrian route will be provided;
- The turning facility will be the minimum size required and carefully designed to complement the built environment;
- Private drives will have a width of 4.1m 4.8m.

STREET DIMENSIONS	PARKING STRATEGIES	BUILT CHARACTER	GREEN INFRASTRUCTURE	MATERIALS
 Total adopted width - 6.8m Carriageway width - 4.8m. Set-back - 2m minimum front garden width 	 On-plot driveways and garages set back behind building lines. Hedge planting may be used to help define the route and prevent indiscriminate parking on the open spaces. 	 Low level of enclosure due to single sided development, additional enclosure will be provided in places through green infrastructure. Rural edge character formed by lower density. Predominant building types; refer to character areas in Chapter 7: Creating Character. 	 Predominantly informal and open with trees planted within the green open space. Trees will be large and informally planted in the open spaces. Modest sized front gardens between 2-6m in depth will typically be featured along this route. For detail on boundary treatments refer to Chapter 7: Creating Character. 	 Carriageway & notional footway - Shared surface block paving. Delineation or banding details in concrete pavers. Hedge planting or estate railings should be used to deter vehicles from parking on green spaces. * Material specification will be subject to agreement with the highway authority.



Figure 6.21: Park Edge Section



Figure 6.22: Park Edge Precedent - Formal park edge with footpath alongside buildings (Upton, Northampton)



Figure 6.23: Park Edge Precedent - informal park edge solution (Poundbury, Dorset)



Figure 6.24: Park Edge Precedent - Wildflower planting





Shared Surface Street

The shared surface route is designed to provide an additional east to west informal cycle route linking key park destinations, including, the Village Green in the southeast, rectory Green, a mid-point space along Rectory Road and the southwestern Play Park containing a NEAP.

The route is designed as a shared surface arrangement with changes in surface and road alignment to reduce car speeds to 10mph and therefore encourage a cycle and pedestrian friendly environment.

There are planted beds within the shared surface with rain gardens, which alternate on either side of the route inducing a vehicular chicane movement. The proposed

surfacing utilises contrasting setts against asphalt, in the surface to delineate a sequence of landscape spaces. Visitor parking will also be integrated within the shared surface to provide further interventions to deflect linear car movement.

STREET DIMENSIONS	PARKING STRATEGIES	BUILT CHARACTER	GREEN INFRASTRUCTURE	MATERIALS
 Total adopted width - 7m Carriageway width - 5m Landscaped beds/ rain gardens - 2m Set-back - 2m minimum front garden width 	 On-plot driveways and garages set back behind building lines. Occasional front parking arrangements to allow for key grouping terraces. 	 Good level of enclosure with active frontages and regular rhythm provided by the green infrastructure and typology. Predominant building types; refer to character areas in Chapter 7: Creating Character. 	 Landscape Beds break up linear routes and introduce natural chicane movements, aiding traffic calming. Shrub and Perennial Planting in rain gardens, front gardens and between parking bays adds greenery and visual interest, enhancing the streetscape. Horizontal Banding defines territories and provides visual cues for pedestrian priority. For detail on boundary treatments refer to Chapter 7: Creating Character. 	 Carriageway & notional footway - Shared surface block paving. Delineation or banding details in concrete pavers. * Material specification will be subject to agreement with the highway authority.

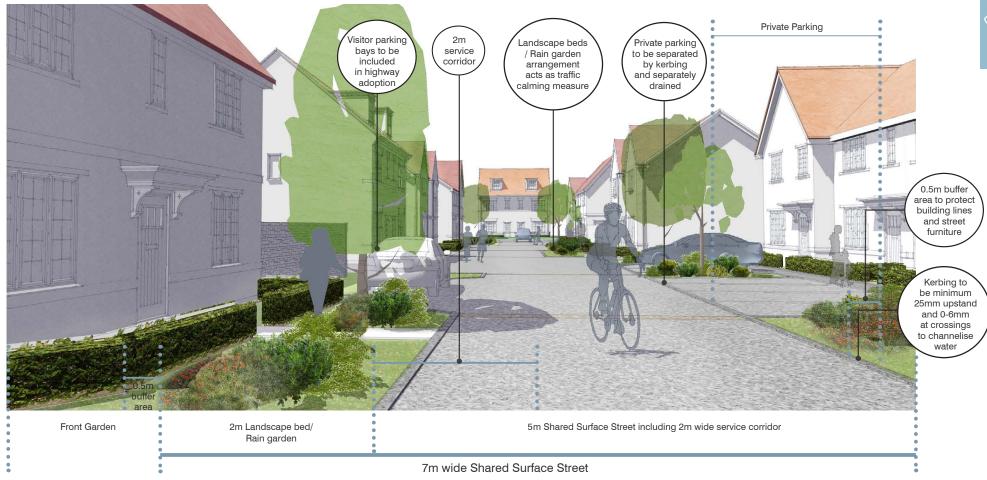


Figure 6.25: Shared Surface Street Section



Figure 6.26: Shared Surface Street Precedents - Landscape bed dividing parking bays



Figure 6.27: Shared Surface Street Precedents - Ham Hill, Gloucestershire



Figure 6.28: Shared Surface Street Precedents - Oakfield, Swindon



Nodal Areas

The Main Street creates a movement corridor through the development connecting key green spaces together. These spaces are formed by 'Nodes and Gateways' located at intersections of the key components of the landscape and movement strategies.

Although the Main Street is designed at an overall 30mph speed, these 'nodal areas' are designed to reduce traffic speed further down to 20mph to enable safer pedestrian and cyclist crossing points across the Main Street.

Figure 6.32 illustrate the highway design components to achieve traffic calmed nodal areas. These locations will also serve as discernible landscaped areas with distinctive buildings to create a strong sense of identity to each sequence of nodal space.

The character description of these key nodal landscaped spaces is further defined in section 7.



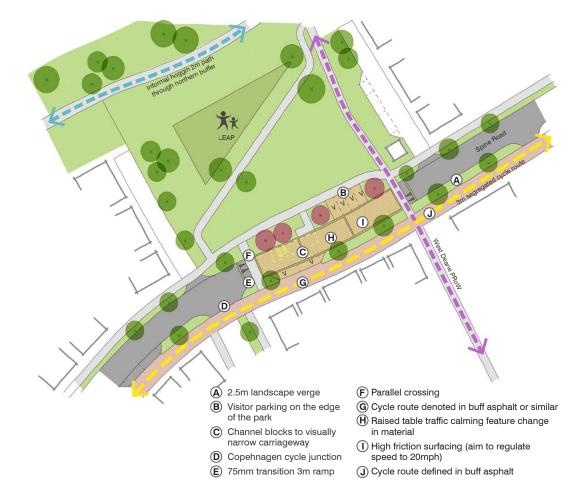


Figure 6.32: Illustrative layout highlighting highway design components to achieve traffic calmed nodal areas



Figure 6.30: Nodal Area Precedents - Raised surface junction (College Road, Clifton)



Figure 6.29: Nodal Area Precedents - Key active travel route along tree verge



Informal Pedestrian Crossing

Informal pedestrian crossings within the wider street hierarchy are designed to enhance connectivity and accessibility beyond key nodal areas.

They provide convenient, safe, and visually integrated crossing points that respond to the street's character while promoting pedestrian priority.



Figure 6.34: Banding and flush conservation kerbs create a traffic calmed environment



Figure 6.35: Buildouts in road with decorative planting



5.5m carriageway with occasional buildouts in carriageway

Figure 6.33: Illustrative view of informal pedestrian crossing

2m Footpath

Pg. 83

2m Footpath

for crossing with

from the carriageway by

risk of collision

Tactile pavers introduced for inclusivity of all road users to be one row deep at informal crossing points in accordance with SCC and DFT guidance

Parking Arrangements

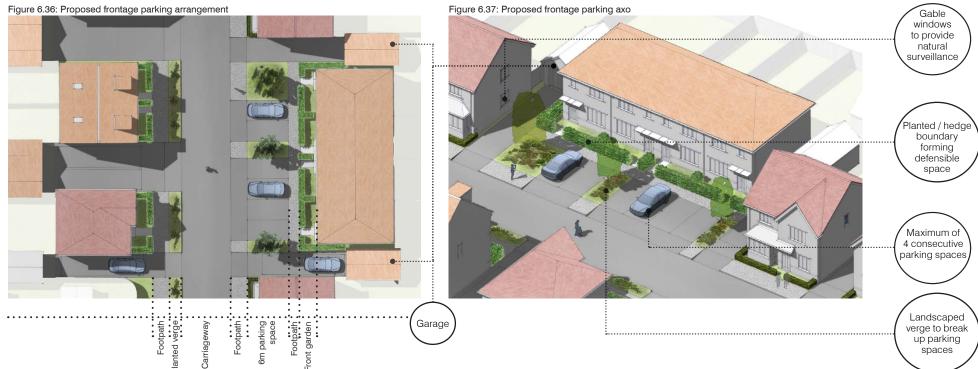
'Car Parking What Works Where', albeit an older design guidance is a useful reference and encourages a range of differing parking arrangements, with an emphasis on a balanced approach rather than focusing on any one type, as one size does not fit all eventualities. Whilst one type of parking is not technically better than another, the practicalities and popularity of some forms of parking make them more appropriate to feature in residential development schemes.

Having discussed parking options as part of the Design Review process, a range of parking solutions was agreed. These are listed below in terms of preference for use, although it is emphasised that there will be a mix of these types to avoid any type dominating the development:

- · On plot parking within curtilage;
- On street, frontage & parking squares;
- Rear courtyard parking;
- · Garaging;
- Cycle parking.



Figure 6.38: Frontage Parking Precedents - Landscape bed dividing parking bays





Rear Courtyard Parking

Rear parking courtyards are generally limited in use but can be appropriate in specific locations, such as key cluster areas and along the south side of the Main Street. In these areas, it is essential that the built frontage acts as the primary enclosure of the space, promoting an attractive, coherent streetscape where vehicles do not dominate the visual experience.

To achieve this, courtyards are carefully designed with clear, well-overlooked access points that enhance visibility and safety for users. Introducing landscaping elements within courtyards, such as planting beds, ornamental shrubs, and trees, will significantly enhance the visual quality of these spaces.

To further enhance safety and a sense of enclosure, corner turner typologies are used at the entrances of rear parking courtyards. Buildings surrounding the courtyard will have windows overlooking the courtyards, promoting natural surveillance.



Figure 6.41: Planting beds to soften hard surfaces

