

6.1 INTRODUCTION

6.1.1 The ability to deliver regeneration and to improve the mix and quality of uses in the town centre and Milton Creek area is closely associated to the manner in which streets are laid out and movement provided for. Fundamental to achieving these outcomes will be interventions that deliver a more integrated grid of streets, providing for efficient and permeable movement by all modes of transport (walking, cycling, bus and car) balanced with the needs of the existing and future place, as is put forward in *Manual for Streets* (Department for Transport, 2007).

6.1.2 More importantly, the street network will be a critical factor in the ability to deliver proposed development densities given the need to disperse development access loads (car, bus, pedestrian and cyclist) across a network. Without a network on which to hang development, access and movement demands would need to be provided on existing congested streets whereby transport 'improvements' would result in larger infrastructure, greater conflicts between through and local movement, and further degradation of the quality of the public realm on existing sensitive streets.

6.1.3 As well as the provision of new streets and public transport services to support development, a critical element of a successful transport and movement strategy for the town centre and Milton Creek area will be the improvement of the quality of existing streets. Streets are the fabric in which people spend a significant amount of their daily lives, whether moving from one part of the town to another, in socialising or 'spending' on the street, or for recreational purposes. In area terms they also make up the bulk of the public realm: the spaces between buildings.

6.1.4 Streets that aspire to be great streets will, as well as fulfilling important transport functions, facilitate movement along a multiplicity of routes by balancing

regional through movement with local routes and desire lines. These local routes relate not just to the more functional proposes, such as those identified for buses, through traffic or cycle lanes, but also include the 'place-related' routes, for example: the routes that serve social functions in connecting a school to the nearby community; the green or urban paths to the local work place; and the crossings that take a person from their house to the local café or bus stop.

6.1.5 Great streets are also mixed-use spaces, the success of which is closely related to the way in which development provides for and supports movement by all modes with the quality of the public realm. Development needs to be appropriately mixed to encourage street usage for longer periods of the day so that people inhabit these spaces. Furthermore, buildings will need to face streets with internal layouts oriented to provide natural surveillance over different time periods.

6.1.6 A great street also reasserts the importance of an area's historic context and its existing character, and thus forms important structuring elements in an area's evolving identity and townscape. There is a proven economic and social impetus for delivering great streets, whereby design intervention can drive an area's property values (for example CABEs 'Paved with Gold' publication detailing the economic benefits of mixed use streets in terms of retail and residential rentals) and as a consequence fuel regeneration, improve local economic performance of business and retail premises, and remove barriers to social engagement.

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Example of the 'Great Street' concept: attractive high quality streets carrying out a range of functions



6.2 DESIGN PRINCIPLES

6.2.1 Falling out of the above approach is a series of design principles that have been used to underpin the design of the street network in the SPD masterplan. These principles have been derived from an understanding of the area's context and the need to grow the town centre:

- Making appropriate external connections to the surrounding urban areas.
 - Delivering a permeable grid of streets for all modes, whereby traffic, bus, cycle and pedestrian movement is hardwired onto correctly spaced and designed streets – in effect an urban movement grid.
 - New areas of urban townscape should be designed to incorporate the key design and infrastructure to support walking and cycling.
 - Ensuring network resilience through the delivery of a permeable grid
- network which is able to spread the load and disperse traffic loadings.
 - Promoting great streets where movement and place user demands are resolved on a street by street basis, with pedestrian facilities a non-negotiable requirement on all streets.
 - Providing several consolidated multi purpose town centre parking locations that serve multiple retail and community uses at different times of the day, and also serve to manage travel demand where appropriate.
 - Parking areas/buildings will need to be positioned and designed so as to ensure that they do not have undue impacts on pedestrian movement, the quality of public spaces and streets.
 - Providing for legible and accessible bus spines / interchanges through the area and ensure that the street network allows for flexible bus access in the future for new and improved routes.
 - Promotion of a new or improved rail station building adjoining a new station square and bus station facilities as part of a new public transport interchange with better connections to the town centre.
 - Ensuring rail and bus station access is of the highest quality for pedestrians and cyclists – thus maximising modal interchange.
 - Focusing on the delivery of green connections along the Creek and linking to the town centre (and beyond), which support direct and efficient movement for pedestrians and cyclists.
 - For cyclists, focus on reducing road danger, or the speed and behaviour of vehicles to provide for a cycle friendly network of streets, with segregation only considered where road danger cannot be overcome and along regional routes.

- The transport needs of disabled users will need to be taken into account in all aspects of development proposals.

6.3 A FRAMEWORK FOR STREETS

6.3.1 Based on the above principles, an overarching framework for streets has been developed. The urban movement grid network represents an integrated delivery framework for all of the other modal network layers sitting under it, including the bus, cycling and pedestrian networks. These moves are considered to be fundamental to the delivery of a successful masterplan and should be considered as fixed elements.

6.3.2 For each area, key network moves are described and locations for gateway parking discussed. The street classification outlined in Section 2.3 is referred to here and is repeated below for convenience:

- District Street: A variable standard road carrying mixed strategic traffic with some frontage access
- Neighbourhood street: Busy street carrying predominantly local traffic, with frontage activity including loading and unloading
- Neighbourhood street special purpose: A street with specific traffic control devices implemented to filter various modes, prioritising bus, cycle or pedestrian access. This can enable bus priority and high pedestrian flows at intersections with higher order streets, and possible use of bus priority measures to remove vehicle continuity
- Local street: Either residential or commercially focused local street with some traffic movement for neighbourhood and local access.
- Local lane: Quiet residential or commercial lane with low traffic/pedestrian flows
- Pedestrian and/or cycling only routes

6.3.3 Design guidance for these street types is presented in Appendix E, providing information on the type, form and character of the street and hard and soft landscaping which would be expected in a development proposal.

TOWN CENTRE

6.3.4 A key piece of infrastructure to support the town centre regeneration is the Sittingbourne Northern Relief Road. Sections of this are already in place from the A249 to Kemsley Mill; and a section linking Eurolink Industrial Estate with the Meres Court Farm and East Hall Farm development area. The Creek crossing section linking these up will be complete by autumn 2011. This will result in much of the industrial traffic being removed from the town centre. The final section of the NRR (back to the A2 in the vicinity of Bapchild) will take longer to finalise and contributions to it will be expected from town centre development. Depending on the scale and nature of development proposed in the town centre, particularly at Milton Creek, there will need to be careful further modelling of traffic impact to establish how much development can be accommodated in the town centre prior to the provision of the Bapchild section of the NRR becoming essential. The phasing of development and supporting infrastructure is considered further in Section 8.

6.3.5 Following completion of the Creek crossing however, several key possibilities arise for change to the town centre to allow for expansion and regeneration:

- St Michael's Road can be removed from Sittingbourne's street network to provide for new and larger retail and other associated floorspace in the town centre. This is to include the removal of the station roundabout and the provision of a new station square. The removal of St. Michael's Road would trigger a number of other major

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transport and street interventions for the town centre as discussed below.

- The High Street is to remain as the historic main street and could be redesigned to allow for two-way bus movement in the event of the closure of St Michaels Road. The scheme will need to make an appropriate balance between all users groups. The High Street will become one of the towns most important and vibrant public spaces and should be designed to a high standard of streetscape.
- In the event of the closure of St Michaels Road, a new east-west link is to be provided between Dover Street and Crown Quay Lane. This link is to be designed to 9m width in total, providing a principle route for pedestrians and cycles. It will deliver a permeable town structure conducive of walking and cycling journeys, as well as providing routes for emergency access, servicing and maintenance as required.
- The east – west link will be designed to the highest possible standard using the design principles set out in Chapter 5. A special purpose street treatment is proposed outside the station in recognition of the need to ensure that potential public transport and pedestrian movement is prioritised.
- To ensure that the St Michael's Road closure is viable, developers will need to provide sufficient evidence that proves that there is no significant adverse impact upon the function and environmental quality of Avenue of Remembrance and other sensitive residential streets, particularly in terms of 'rat running'.
- Developers will need to demonstrate that heavy and tall vehicles are able to make alternative routes around the town centre area avoiding low bridges under the railway line.
- Should more detailed investigation of this option reveal that the closure of St Michaels Road is not deliverable, its

domination of the town centre network needs to be reduced and through traffic diverted to alternative and higher quality routes for this purpose. The remaining route will need to be changed in use character and amenity to create a more pedestrian and cycle friendly space.

- With or without St Michaels Road in situ, there is potential to reduce the impact of the roundabout outside the station or remove it completely if St Michaels Road is closed.
- A direct north south street link between Dover Street and Mill Way can also be introduced. It is proposed that this link function as a two-way route, improving the structure and legibility of the street network.
- A new supporting network of lanes is to be provided to the south of the High Street providing improved accessibility and permeability for Avenue of Remembrance and the High Street.
- Avenue of Remembrance is retained as an important community spine servicing community and leisure functions along its length.

CONNECTIONS NORTH OF THE RAILWAY LINE

6.3.6 Central to providing for development in Milton Creek will be the delivery of improved north south pedestrian connections across the railway line. The following list describes these improvements:

- A new north south pedestrian spine is proposed linking Central Avenue and the High Street in the south, over the railway line and Eurolink Way through the new development proposed in the Milton Creek area through to the creek itself. Pedestrian connections will then progress onwards to Milton Regis.
- In movement terms the route will need to provide for access for all users, meaning a maximum ramp gradient of

1:20 and lift and stairs where vertical movement is needed.

- This connection will be best facilitated by way of a new bridge over the railway and Eurolink Way, with direct pedestrian connection provided to the station and square.

6.3.7 The existing street network in Milton Creek is characterised by culs-de-sac that greatly limit directness and permeability of movement by all modes. This street pattern was designed for industrial estate use and these will need to be redesigned as a permeable street grid to better suit contemporary residential estate design. Critical to unlocking this area to significant new retail and residential development will be the delivery of an integrated network of streets. The following lists the key improvements proposed:

- In the short term the closure of St. Michael's Road would result in Eurolink Way becoming the principal A2 traffic route providing connections between the A2 and the A249 as well as access to the town centre generally. For this to occur, the existing roundabouts will be removed and replaced with pedestrian and cyclist friendly signalised junctions at St. Paul's and Mill Way, at Eurolink Way and Mill Way, and at the Crown Quay Lane and Eurolink Way junctions. In the longer term as later phases of development come on line, the Sittingbourne Northern Relief Road Milton Creek crossing will take over as the principal traffic route linking the A2 through to the A249. Eurolink Way will though continue to perform an important traffic function.
- Because of height restrictions under the railway line there will a need for an alternative route around the wider urban area to accommodate tall vehicles and abnormal loads.
- As well as the removal of roundabouts, significant public realm improvements

will be undertaken along Eurolink Way and Mill Way to facilitate quality walking and cycling connections from the rail station to Milton Regis.

- A new local network of streets linking St Paul's Street through to Crown Quay Lane is also proposed providing for access by all modes of travel into the Milton Creek development area, with potential connections through to the Eurolink industrial estate via Castle Road in the future
- A network of local lanes is proposed supporting permeable movement in the Milton Creek area and dispersing access loads, and could include include a pedestrian / cycle bridge over the creek to link to the recreational paths and areas on the north west side of the Creek, subject to biodiversity considerations.

6.4 PARKING

6.4.1 Parking is generally over supplied across Sittingbourne, although a small number of particular parking destinations such as the Forum Centre are the focus of greatest demand. With significant increases in retail density and offer to the north and south of the railway line, there will be a need to increase the supply and quality of town centre parking. This should occur in a manner that consolidates existing surface level car parks into structured parking areas - either undercroft parking under new retail development or in multi-storey car parking facilities. This form of parking will make more efficient use of land and maximise the accessible location afforded by the town centre. Parking structures will need to be multi-purpose facilities, able to accommodate different parking demands – retail, entertainment / leisure and community uses - at different times of the day to maximise utilisation and occupancy, and to reduce the overall amount of parking provided to reduce travel demand. Each parking facility will need a clear strategy to

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this affect, which could be managed through a Variable Message System (VMS).

6.4.2 Urban design will be a critical factor in the successful delivery of parking facilities that add value to the town centre, rather than detract from it. Parking facilities will, where possible, need to be designed to ensure that they are wrapped with appropriate activated building edges to screen parking areas, reducing the impact on the street scene and providing additional passive surveillance benefits to Sittingbourne's streets.

6.4.3 New car parking provision in the town centre will need to be provided commensurate with the quantum of new retail development proposed and in line with standards established in SPG 4: Kent Vehicle Parking Standards.⁽⁶⁾

6.4.4 To meet this requirement, a range of parking facilities will be provided across the town. This should include a short to medium stay town centre car park. This can be provided either by way of a series of off street parking buildings, or by way of an undercroft level through the redevelopment of the Forum Centre and surrounding new retail areas. This parking area will be expected to service multiple users at different times of the day. A second town centre car park could be provided to the south of the High Street by decking the existing Sainsbury car park, again to service multiple users in the area. A third smaller town centre car park should be provided in the new civic and cultural quarter accessed to service uses in this area. Further analysis should be undertaken to determine the size and quantum of spaces provided according to the mix and density of use in this area, as and when development comes forward.

6.4.5 Further parking should also be provided to the north of the railway line, integrated with new retail (and potential leisure and community) development along Eurolink Way. Any shortfall in spaces in these locations should be met through the provision of pay and display parking on commercial streets and lanes.

6.4.6 Long stay parking provision in Sittingbourne will be consolidated into a new Network Rail owned commuter parking facility located to the north of the railway line. This facility could be connected to the station via the new bridge over the rail line, or a possible new secondary station entrance. This is possible given that access to the car park will be managed via pay and display parking or season ticket holders. If this solution is not considered feasible then a link will be provided to the new north south bridge to the east. Demand is proposed to grow to 300 spaces by 2014, yet with the proposed development occurring in the area coupled with High Speed Trains, it is proposed that a more ambitious multi story facility of 450 spaces be provided, ensuring that it can accommodate an upsurge in commuter activity, as well as cope with longer term growth in this trip type.

6.4.7 Residential parking will be provided in accordance with the Kent Vehicle Parking Standards (2009) unless there are mitigating circumstances to suggest otherwise.⁽⁷⁾ For residential flats located within 100m of each other, it may be desirable to encourage car-sharing arrangements between flats to reduce parking provision to 0.5 spaces per dwelling, or even car free developments upon consideration of commercial viabilities. This parking could be accommodated within site or on street. The latter will require careful design of street

6 This may be updated in due course and developers will need to respond to locally adopted standards (July 2006: requirement for 1 space per 25sqm)

7 These standards may be updated in due course and developers will need to respond to the current local standard

layouts to ensure that parking has been appropriately integrated into the street scene.

Figure 6.1 Future Street Network



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6.5 PUBLIC TRANSPORT

THE RAIL STATION

6.5.1 The rail station is a key focal point for the evolving development of the town centre and Milton Creek area. The new station square will provide a new gateway arrival experience to the town. This will take the form of a high quality design public transport interchange to include a link between buses and trains; kiss and ride facilities; and taxi access. The rail station will be improved either by a new facility to the east, or through refurbishment of the existing Victorian station building.

BUS PASSENGER TRANSPORT

6.5.2 If Sittingbourne is going to make bus travel a viable and attractive alternative to the private car, it has to radically improve the quality of the end-to-end service provided. Restructuring and rationalisation of bus services needs to occur at a wider scale across the town. The focus for improving bus access for Sittingbourne will therefore be on making bus routing more legible and more efficient, improving integration with the station, and on greatly enhancing the public realm, the latter of which will be delivered through the framework of streets described above.

6.5.3 The bus /rail interchange will be the focus for bus movement to, from and within Sittingbourne. The interchange will be designed with the highest quality bus stop and shelter facilities (including timetable information, real time information and way finding signage where necessary).

6.5.4 If St Michael's Road is closed, it is proposed that the rationalisation of the bus circulation system will be supported by relocating them on to a two-way High Street. The delivery of a two way bus arrangement on the High Street is considered a very challenging scheme to deliver, requiring a careful balance between all modes of transport and the needs of

local retail and community uses, particularly given width constraints. Public realm improvements will need to support and enhance the quality of the High Street as a social space and as a viable and vital retail destination. This will be part of the assessment of viability of the closure of St Michaels Road to through traffic. If the latter is not closed, then the bus system will be reconfigured within the existing highway network.

6.5.5 The following bullet points provide a framework for design that must be adhered to and addressed in any design proposal for two way buses on the High Street:

- The operation of the High Street must be demonstrated so as to ensure that buses can move through the street efficiently and reliably (given bus dimensions and turning movements into and out of the High Street and navigation of the various 'pinch points' in the High Street). This could involve further traffic and parking management and allow increases in bus services in the future.
- A servicing strategy may need to be implemented which manages and regulates on-street serving to retail on the High Street.
- Footpaths must be kept at a minimum of 3m where possible along the length of the High Street
- Impacts on the conservation area should be mitigated through careful streetscape design and de-cluttering.

6.5.6 The new community at Milton Creek will also need to be well served by buses as well as the pedestrian and cycleway links and this should be a fundamental consideration in the design and layout of the area.

6.5.7 Developers and their transport consultants will be encouraged to consider how development proposals could contribute towards improving the overall level of bus service, through a broad package of measures focusing on frequency improvements, branding and

information / quality campaigns. These initiatives may need to be linked with Travel Plans undertaken for development sites within the context of an overall Travel Plan to be developed for the whole town centre and worked up in consultation with the transport providers.

Figure 6.2 Bus Network Plan



6.6 WALKING AND CYCLING

PEDESTRIAN NETWORK

6.6.1 All streets and spaces will be designed to accommodate pedestrian movement needs as a non-negotiable requirement. The pedestrian network plan identifies two network classifications. Primary pedestrian routes are designed to prioritise improvements to the public realm

in areas of more intense pedestrian activity. Secondary pedestrian routes are important links where pedestrian priority is required, although the focus for improvements will largely be on street facilities and paths.

6.6.2 The following lists the main features of the pedestrian network:

- In the town centre, Avenue of Remembrance, the High Street and an east west link (either a new route

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or the reconfigured St Michael's Road) are to be designed as high quality pedestrian streets and public spaces

- A new network of north south pedestrian paths will provide high quality public realm linkages between the above three streets and facilitate direct links to the bus spine and the rail station
- The new north south pedestrian spine will provide a strategic link between Avenue of Remembrance, the Milton Creek development and the Saxon Shore Way and associated development on both sides of the railway line. The link over the railway will need to be of high quality design and a feature of the town centre.
- Branching out from this spine will be connections linking to the Sittingbourne and Kemsley Light Railway and onwards to Milton Regis
- Dedicated pedestrian walkways will be provided on both sides of Milton Creek, connecting to the new public recreation areas and especially Church Marshes Country Park in the north.

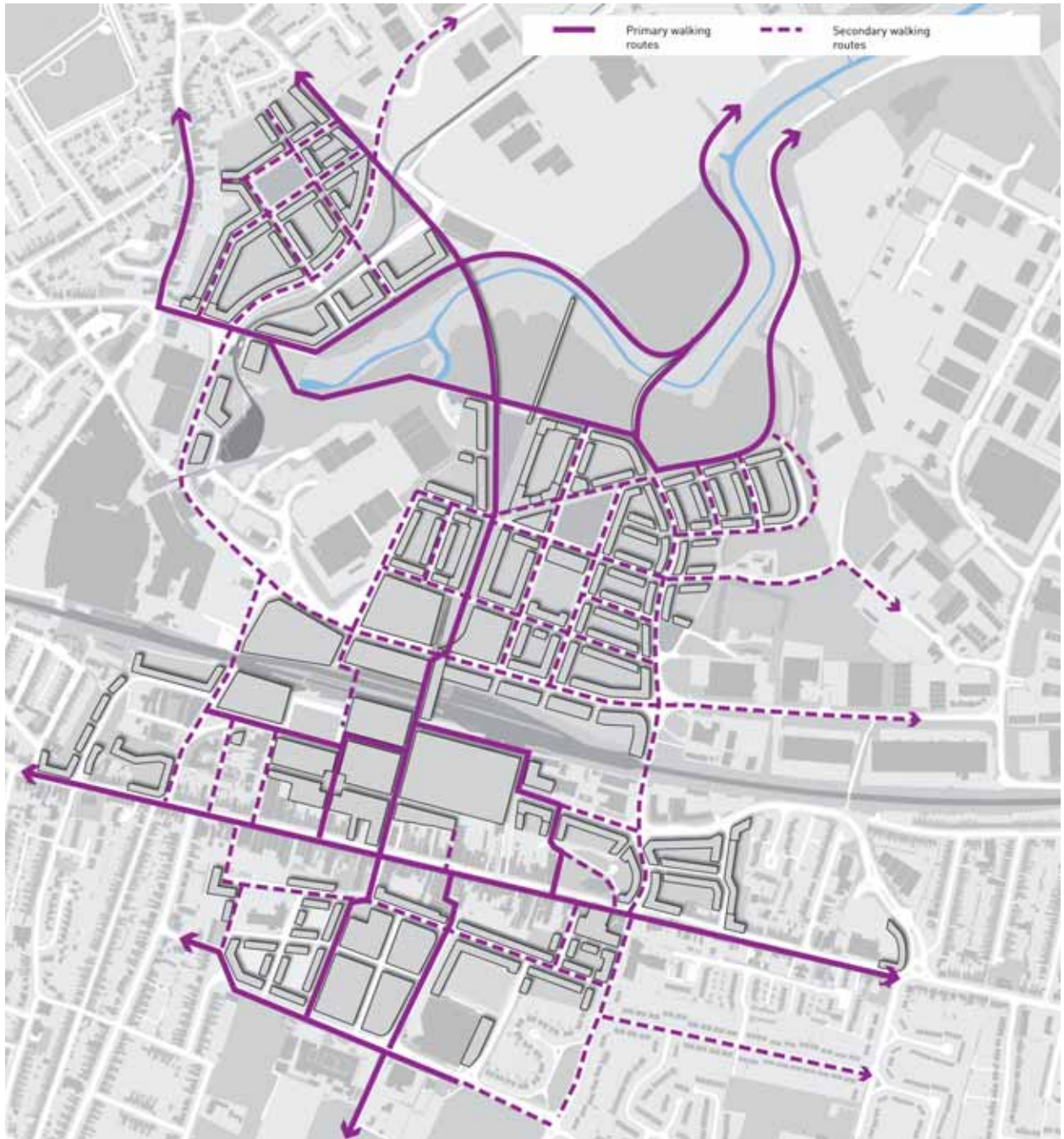
CYCLE NETWORK

6.6.3 As a principle, a permeable network of cycle friendly streets should be provided throughout Sittingbourne by managing the speed and behaviour of vehicles in the first instance. In practice, primary cycle routes have been identified as being commuter friendly routes where either sufficient carriageway space or facilities (junction feed in lanes, advance stop lines, or cycle lanes) should be provided according to a street's context. Secondary routes for non-commuter cyclists have been identified along other streets that are recreational or pedestrian focused. Cycling along these streets will be slow moving so as not to conflict with pedestrian movement, and as such in general no facilities are anticipated. Cyclists will be able to use all other streets in order to move around the town and

access different activities. The following lists the main elements of the cycle network:

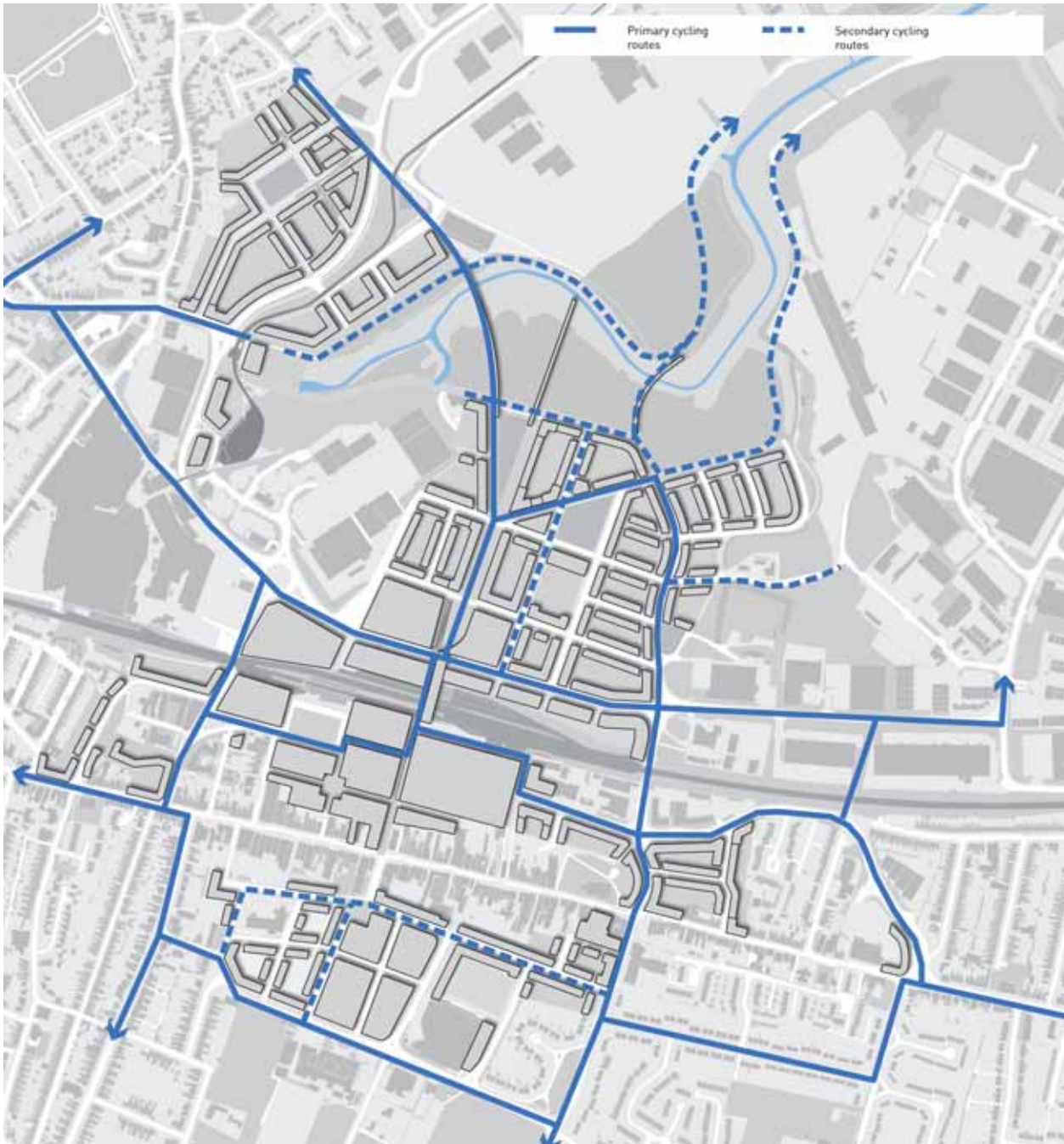
- Connections are prioritised between Milton Regis, Milton Creek and the town centre
- Eurolink Way and the east west link are identified as primary cycling routes, as are the Avenue of Remembrance and the new central spine running through the Milton Creek development area
- Secondary routes are identified within Milton Creek and other possible new residential areas as shown on the cycle plan
- The High Street and East Street are identified as secondary cycle routes providing access to retail and business destinations in the town centre
- Cycle parking facilities should be provided near key activities and destinations. Important locations are the rail and bus interchange and on or adjacent to the High Street.
- Cycle storage provision should be considered as part of all new developments.

Figure 6.3 Pedestrian Network



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Figure 6.4 Cycle Network



6.7 TRAVEL DEMAND MANAGEMENT

6.7.1 A series of techniques can be employed towards influencing peoples travel behaviour, towards using modes that are more efficient and sustainable, such as by rail, bus, walking and cycling, over that of the private car. Techniques for influencing travel behaviour range in nature from hard measures such as pricing, traffic and parking restraint, through to soft measures such as education, marketing, provision of alternative modes and through more organised travel planning packages. Typically a balance between hard and soft measures will be required that can realistically be implemented and carried through.

6.7.2 Previous sections have discussed the physical aspects of Sittingbourne's future transport network, for example walking and cycling routes, public transport access and in cases traffic restraint measures. To complement this, residential and non-residential developments will be required to manage the delivery of a travel plan. The overall objective of a travel plan is to provide a practical mechanism for achieving agreed modal splits, performance measures and monitoring regimes with respect to more sustainable modes, as well as ensuring that the negative effects of congestion and over spill parking are avoided or mitigated.

6.7.3 The specific objectives of travel plans are to:

- reduce the need to travel;
- prioritise viable alternatives to private car;
- reduce the proportion of journeys made by car;
- reduce the impact of development traffic on the local environment;

- improve road safety, especially for pedestrians and cyclists; and
- raise the awareness and profile of sustainable travel modes and promote health and well being benefits.

RESIDENTIAL TRAVEL PLANS

6.7.4 Residential travel plans seek to influence journeys from home – the journey origin - to a variety of destinations, whether it be for work / employment, shopping, recreational or social purposes. Therefore a residential travel plan needs to incorporate a wide range of measures to encourage more sustainable travel choices, for example:

- sheltered/weatherproof cycle parking/storage facilities
- real time public transport information within homes and access to virtual markets for shopping and other services to avoid unnecessary car trips
- car share databases and car clubs to reduce the number of and make more efficient use of vehicles. These can be neighbourhood based short term car hire for a fixed annual membership fee
- information and educational packs that provide up to date public transport timetabling and service information to residents, including information on walking routes and journey times

WORKPLACE TRAVEL PLANS

6.7.5 Workplace travel plans are destination based specifically tailored to journey types to that particular destination, rather than to multiple destinations in the case of residential travel plans. The types of trips that need to be considered include: employee travel to and from work; business travel during the day; client and customer visits to the site and deliveries. The range of measures to influence travel demand for individual sites is as follows:

- provide adequate, secure and weatherproof cycle storage facilities

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- provide adequate shower, locker and changing facilities
- encourage cycle use through mileage allowances for short distance business travel
- provide employees with interest free loans and other assistance for the purchase of bicycles and accessories
- provide employees with interest free loans and other assistance to purchase season tickets for public transport, including consideration of subsidies
- car share and parking share databases and facilities
- provide site specific information regarding public transport services in conventional and electronic form.

SCHOOL TRAVEL PLANS

6.7.6 A school travel plan aims to reduce congestion caused by school journeys, reduce road danger for school children, and support children who do or will travel to school by sustainable modes. These plans work best when the school and students are actively engaged in the identification of problems, development of solutions and the ongoing management of the scheme. Particular benefits include the experiential learning for students.

- active promotion of no-car modes to students and parents
- walking and cycling promotion days and training/educational events
- walking school buses and cycle trains
- specific cycling and walking facility improvements
- improvements to bus services, facilities
- setting out travel policies in prospectus
- 'safer routes to school' measures.