



Hemel Hempstead Town Centre Masterplan - Access and Movement Study

Overarching Strategy

Report



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Overarching Strategy

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1 Introduction

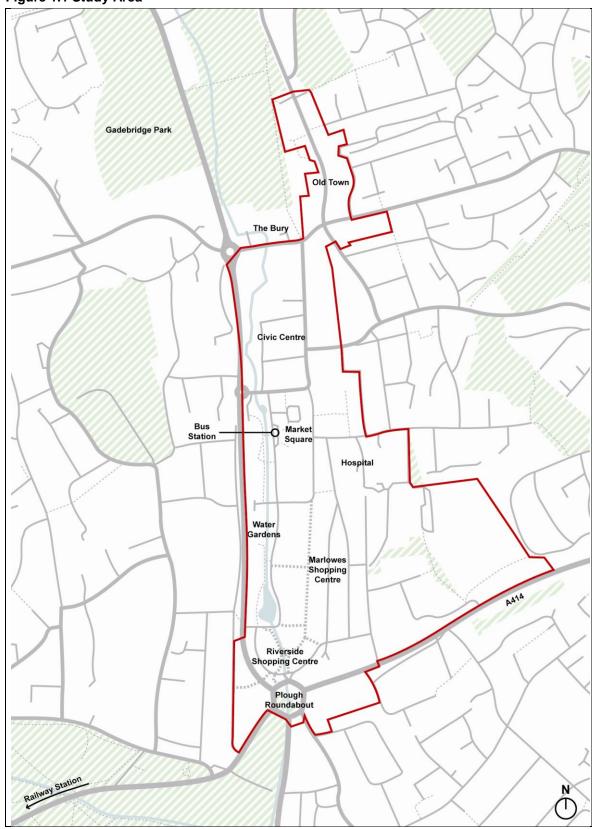
Context

- 1.1 In September 2011 Dacorum Borough Council (DBC) commissioned JMP Consultants Ltd (JMP) to develop an Access and Movement Strategy as part of the development of a wider Masterplan for Hemel Hempstead Town Centre.
- 1.2 The work builds upon a variety of previous studies conducted within the area, including the Hemel Hempstead Urban Transport Plan, but focuses upon producing specific strategies for vehicle movement around the town, parking, walking & cycling, and signage & navigation.
- 1.3 The study is being conducted in three stages: a policy review and baseline assessment; the strategy development; and the design strategy. Within the wider strategy development a number of key projects will be considered including: pedestrian movements through the Plough Roundabout; bus circulation and stop locations; key walking and cycling routes connecting the town centre to the Hospital, Railway Station and Maylands Business Park; the River Gade walking and cycling route; and connectivity between the Old Town and Gadebridge Park.

Study Area

- 1.4 The Masterplan area covers the main centre of Hemel Hempstead, incorporating the Marlowes Shopping Area, the Plough Roundabout, the Hospital, the Civic Centre, the Old Town, and the Jellicoe Water Gardens. In addition, the access and movement strategy also considers some of the key transport corridors leading to the town centre, including the links to the Railway Station and Maylands Business Park.
- 1.5 **Figure 1.1** overleaf provides an overview of the study core area.

Figure 1.1 Study Area



Source: JMP Audit

Overarching Strategy Report

Content

- 1.6 This report represents the culmination of the Stage 2 strategy development process. It highlights the overarching objectives for the strategy and presents the process of developing each strand of the movement and access strategy, culminating in a preferred set of strategy options and associated Action Plan.
- 1.7 This overarching strategy report is supported by four individual strategy documents for the underlying elements:
 - Vehicle movements;
 - Parking;
 - Walking & cycling; and
 - Signage & navigation
- 1.8 Each of these separate documents provides a detailed assessment of the issues affecting the separate elements, the process of identifying solutions, as well as the final preferred option strategies.
- 1.9 This report provides the overarching strategy for access and movement that integrates the individual elements and demonstrates the consistent themes and approach.

Structure

- 1.10 The rest of the report has been structured as follows:
 - Section 2 A summary of key issues and opportunities and the strategy objectives;
 - **Section 3** An overview of the tools available as part of the strategy and the process of option development;
 - Section 4 An overview of the preferred strategy; and
 - Section 5 The Action plan.

2 **Strategy Objectives**

Overview

2.1 This section provides an overview of the key issues and opportunities, identified within Stage 1, and it draws these together in order to create the overarching objectives for the access and movement strategy.

Key Issues and Opportunities

Overview

- 2.2 The Stage 1 Baseline Report outlines the issues and opportunities for access and movement arising from current policy, existing strategy documents and plans, and the baseline assessment of access and movement by individual modes.
- 2.3 Figure 2.1 below provides a graphical representation of both the modes and the range of themes affecting movement and access that were identified.

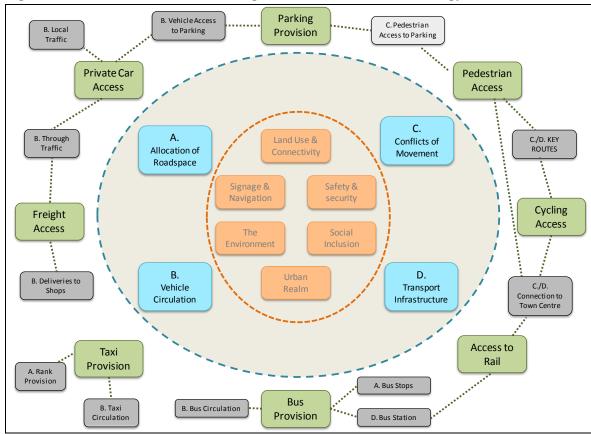


Figure 2.1 Modes and Themes affecting Access and Movement Strategy

Source: JMP

2.4 On the outside of the diagram are the *individual modes of transport* and the associated modal issues that need to be considered (grey boxes). Within the centre of the diagram are cross-cutting themes that need to be considered within the provision of all transport. The middle tier of the diagram presents overarching multi-modal transport themes that provide a focus for the access and movement strategy in terms of direct transport issues and opportunities that to be addressed.

Private Car Access

- 2.5 The key issues identified in relation to private car access were as follows:
 - High car ownership in the area with a large mode share of trips by private car;
 - Increase in comparison and convenience retail in the town centre will create further vehicle based traffic movements to key destinations in the town centre, specifically to car parks
 - Introduction of one-way system to the old town area has the potential to cause additional traffic movements on the southbound return route via the link road;
 - Reorganisation of access arrangement in the town centre provides the opportunity to further review and provides opportunity to introduce a core 20 mph area

Parking Provision

- 2.6 The key issues identified in relation to parking provision were as follows:
 - On-street car parking in close proximity to the Town Centre is extremely limited;
 - Car parking charges are relatively low, although the Marlowes and Riverside Car Parks appear more expensive for short-stay parking (less than 2 hours)
 - There is a considerable amount of Blue Badge on-street parking, in particular on Waterhouse Street and Bridge Street (western section);
 - Two dedicated Blue Badge holder car parks are provided in very close proximity to the main pedestrianised shopping area and appear heavily oversubscribed;
 - Vehicular access to certain car parks is restricted requiring additional vehicle circulation; and
 - Pedestrian access from car parks to the main shopping area is good

Freight Access

- 2.7 The key issues identified in relation to freight access were as follows:
 - The majority of Marlowes based business are servicing from servicing yards accessed either from Waterhouse Street (west) or King Harry Street (east); any public realm improvements and changes to access restrictions need to take servicing requirements into consideration.
 - The impact of servicing for retail-led new development in the town centre needs to be considered as part of the proposals.

Taxi Access

- 2.8 The key issues identified in relation to taxi access were as follows:
 - Taxi ranking provision, located mainly in The Marlowes (approximately 18 spaces) is frequently oversubscribed. In addition, the bus station is often used for night time ranking,
 - Anecdotal evidence indicates demand for taxi ranking of 35-40 spaces in the town centre.

Bus Access

- 2.9 The key issues identified in relation to bus access were as follows:
 - Bus station removal and rearrangement as bus hub provide opportunities for rationalisation of routes and improvement of interchange between all modes. This includes the relocation of bus stops, terminals and bus stands, and consolidation into further 'bus hubs'.
 - Lack of bus priority measures;
 - Lack of east-west connections;
 - Congestion on local trunk route network affects bus reliability during peak hours

Access to Rail

- 2.10 The key issues identified in relation to access to rail were as follows:
 - Out-of town location of rail station means creating good transport connectivity to the town centre by all modes is imperative

Walking and Cycling Access

- 2.11 The key issues identified in relation to walking and cycling access were as follows:
 - Barriers to movement into town centre area created by dominant highway network
 - East-west connectivity is poor and is hampered by the hilly terrain to the east and the Leighton Buzzard Road to the west.
 - Improvement of Town centre legibility to ensure pedestrian and cycling access is more intuitive
 - Interchange from walking to public transport could be improved through improved connections to bus and rail.
 - Improved and additional crossing facilities and cycling infrastructure required

Allocation of road space

- 2.12 The key issues identified in relation to the allocation of road space were as follows:
 - Town Centre is relatively constrained for road space;
 - Bridge Street and Marlowes is restricted to buses, taxis and other permit holders, with taxi over-ranking an issue;
 - Some allowance for blue badge parking further north on the Marlowes, along with bus stop provision, but limited other parking or loading provision.
 - Waterhouse Street has some one-hour on-street pay and display parking and a taxi rank but the street is dominated by blue badge parking;
 - The link from the Plough roundabout to the Moor End Road is a bus and cycle only route with all roadside space allocated to bus provision;
 - Very limited on-street parking to the east of the town centre and around the hospital;
 - Bus stop provision and one-hour pay and display parking on Marlowes.
 - No marked bus stops on in the Old Town but a limited number of one-hour on-street parking spaces; and
 - The closest area of on-street car parking is to the west of the Town Centre across the Leighton Buzzard Road; however, all of this parking is permit controlled.

Vehicle Circulation

- 2.13 The key issues identified in relation to vehicle circulation were as follows:
 - Vehicle circulation around the Town Centre is characterised by limited access points to the local road network, along with some one-way streets and restricted vehicular access;
 - Buses have the most direct access to the Town Centre from the Plough Roundabout;
 - Private cars and freight have access to the south of Waterhouse Street but are unable to exit at the southern end due to a bus/taxi only gate;
 - Private cars and freight can access the east of the Town Centre via Seldon Hill;
 - Vehicular access from the north is much less restrictive;
 - Access to Bridge Street / Marlowes south of Hillfield Road is restricted to buses, taxis and other permitted vehicles; and
 - Access to the main car parks is either off the Plough roundabout via Seldon Hill or via Leighton Buzzard Road.

Conflicts of Movement

- 2.14 The key issues identified in relation to conflict of movement were as follows:
 - Access to the Town Centre from surrounding areas is dominated by vehicular provision;
 - Pedestrian and cyclist movements are restricted along Leighton Buzzard Road and St. Albans Road with poor access from the residential areas;
 - Within the Town Centre the main pedestrianised shopping area provide pedestrian priority, although cycling is not permitted;
 - Pedestrian crossing facilities are provided along the Marlowes and Queensway to facilitate north – south pedestrian movements; and
 - There is very limited on-street cycling infrastructure provision or priority at junctions.

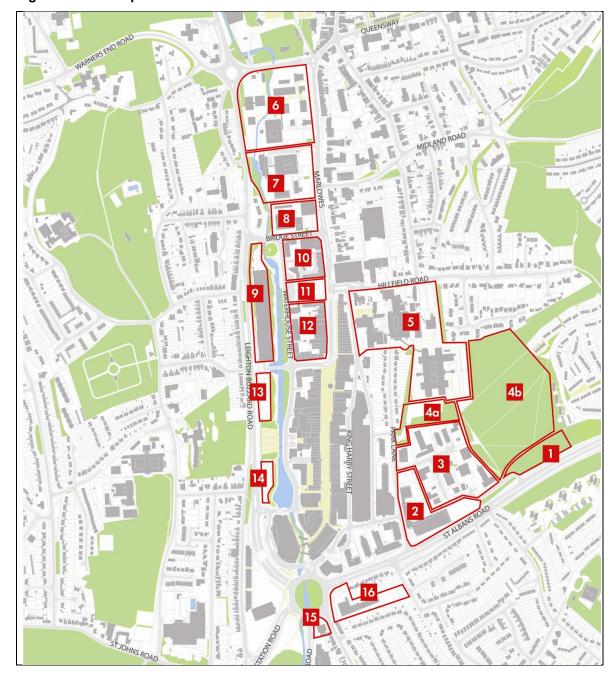
Transport Infrastructure

- 2.15 The key issues identified in relation to transport infrastructure were as follows:
 - The highway infrastructure is the dominant feature of transport provision around the town;
 - The provision of bus stop infrastructure is considered to be relatively good, although the bus station, is a very basic facility with limited passenger facilities;
 - Dedicated pedestrian and cycling facilities are relatively limited:
 - The Nicky Line provides access to the Town Centre from the northeast and a new link is proposed connecting to Maylands, but generally access from the east is limited and the steep gradient affects movement, including connectivity to the Hospital;
 - Connectivity to the Railway Station is currently poor, hampered by connectivity across the Plough Roundabout;
 - The north south route along the Gade River provides some pedestrian connectivity although the route does not connect in with any dedicated provision north of Coombe Street leading to Gadebridge Park and the Old Town

Land-Use and Connectivity

- 2.16 The retail and land-use proposal of the emerging Masterplan are a key aspect of the demand for travel and travel patterns across the Town Centre. The Stage 1 Baseline Report provides a summary of the key elements of the proposed development strategy, including the following sites:
 - College;
 - Civic Centre / Library / Pavilion site;
 - Jellicoe Water Gardens;
 - Market Square, Bus Station and Waterhouse Street; and
 - Hospital and Royal Mail site
- 2.17 Figure 2.2 provide an overview of the development sites.

Figure 2.2 Development Site Overview



- 2.18 **Two land use scenarios** have been under consideration. Both contain the same core development parameters, as follows:
 - Commercial and leisure function on Market Square / Bus Station site (creating an improved day and night-time activity offer in this location);
 - Retail, restaurant, commercial, leisure functions along Waterhouse Street (creating an improved day and night-time activity offer in this location);
 - Redevelopment of College, including residential;
 - Reallocation of hospital site, and re-provision of hospital and primary school use within the town centre; and
 - A growth of comparison retail in the town centre by 10% from current levels by 2021 (4,018 sqm), and 30% by 2031 (12,055 sqm).
- 2.19 **Option A** represents DBC's preferred option and is characterised by the following additional parameters:
 - Civic function redeveloped on Pavilion and Library Site
 - Large food retail and residential on Civic Centre site / Pavilion site ('Format 60')
 - · Community / leisure function on north end of Water Gardens; and
 - 8,800 residential units, of which 1,748 in the town centre, delivered in phases of 1,397 by 2021, and an additional 351 by 2031.
- 2.20 A diagrammatic copy of the latest Option A development proposals in included in Appendix A.
- 2.21 An alternative **Option B**, is characterised by a different set of additional parameters:
 - Civic function moves to Water Gardens;
 - Medium food retail and residential on Civic Centre site (4,200 sqm); and
 - 4,400 residential units, of which 962 in the Gade, Original Marlowes, Marlowes Shopping, Hospital and Plough Zones (by 2031).
- 2.22 The above land-use scenarios form the basis for the assessment of future demand for travel and, in particular, have been used within the future year assessment of parking demand and provision.
- 2.23 The results forecast an increase in two-way hourly Saturday vehicle trips in the town centre of 36% by 2021 and 53% by 2031, for the land use scenario A. The corresponding forecast for land use scenario B shows an increase in two-way vehicle trips of 39% by 2031.
- 2.24 Whilst existing public transport and walking and cycling demand is not available, the analysis also forecast an additional 266 two-way hourly Saturday public transport trips and 1,347 walking and cycling trips for Scenario A by 2031, with marginally lower forecasts for Scenario B.
- 2.25 The land-use analysis demonstrates the overall impact of proposed development on vehicular and non-vehicular movements, although the lack of specific land-use designations, at this time, mean that it is not feasible to create a detailed assessment of future trips patterns.

Signage and Navigation

- 2.26 As indicated within section 4, there is generally considered to be considerable signage provided within the study area for all road users and there is a wide mixture of types of signs that have been used over time. One notable exception to the provision of signage was relating to the station.
- 2.27 The signage and navigation strategy will have to carefully consider the current provision and whether any additional signage might lead to overprovision and street clutter. In such an event a rationalisation process may be more effective, taking into account the Governments new guidance on signage.

Safety and Security

- 2.28 The assessment of accident data highlighted six serious accidents but in disparate locations. These accidents involved pedestrians, cyclists and motorcyclists, as well as private cars.
- 2.29 Five areas were identified with clusters of slight accidents:
 - Station Road on the approach to the Plough Roundabout;
 - The Plough Roundabout;
 - Leighton Buzzard Road junction with Moor End Road;
 - Leighton Buzzard Road parallel with Bridge Street; and
 - The junction of Queensway and Marlowes.
- 2.30 In terms of public transport security, most bus stops around the Town Centre were considered to be of a reasonable standard. The bus station, however, is more intimidating, with no enclosed waiting facilities and away from the main thoroughfares.
- 2.31 Cycling conditions along many of the main roads in the area is considered poor due to either the narrowness of carriageways or the high volumes of traffic.
- 2.32 Pedestrian routes around the town centre are generally safe, well lit and in good condition.

The Environment

2.33 The current level of private car trips is relatively high, with correspondingly low public transport, walking and cycling. This obviously has implications for carbon emissions and local air quality within the area.

Social Inclusion

2.34 Whilst Hemel Hempstead is a relatively affluent area, there are still pockets of deprivation. It is therefore important that the access and movement strategy takes into account the needs of these individuals with appropriate access to jobs, services and facilities within the Town Centre. In particular, this should focus on access by public transport and non-vehicular modes to ensure equality with those households with no, or limited, access to a private car.

Urban Realm

- 2.35 The area in between the new Riverside Shopping Centre and the Marlowes Shopping Centre is in good condition with good quality paving, lighting and signage. Hemel Hempstead Old Town is a separate and distinct part of the wider town centre in terms of its urban realm, offering niche retail focus and a range of social and evening uses.
- 2.36 The area north of Bridge Street to the Old Town has a poorer environmental quality and it is this area that should be focused on in terms of improved environmental quality in order to improve north – south connectivity between the Old Town and the Riverside.

10

Objectives

Overview

- 2.37 Based upon the findings outlined above, along with the wider context for developing the Town Centre, the following core strategy objectives are considered:
 - To support and enhance the vitality of the retail and employment core through good access and public transport service provision;
 - To support the aging population and ensure access to designated parking for blue badge holders;
 - To support the regeneration of the town centre and the wider aspirations for growth across the whole of Hemel Hempstead;
 - To ensure new development contributes to infrastructure provision to facilitate the increase in travel demand by all modes to and from the Town Centre;
 - To manage vehicle movements in and around the Town Centre, including suitable bus stop and taxi provision to enable commercial requirements;
 - To manage infrastructure provision in a manner consistent with the principles of sustainable travel choices, balancing the needs of all streets users in accordance with a clear transport user hierarchy.

Transport Hierarchy

- 2.38 Establishing a transport hierarchy within the town centre Masterplan area provides a clear basis upon which to develop transport options in spatial locations where conflicts between users may occur. Whilst each individual situation needs to be considered on its merits, the hierarchy provides an initial starting point for determining the respective levels of priority that may be applied.
- 2.39 With the exception of emergency vehicles, the hierarchy places the needs and priorities of pedestrians and cyclists at the top of the decision-making process, highlighting the focus of the town centre area as a place where people can safely and easily navigate on foot and by bicycle.
- 2.40 Buses, delivery vehicles and blue badge parking are next on the hierarchy demonstrating the need to provide good public transport access to the heart of the retail core, as well as being able to service these locations, and ensure those with mobility issues can park in close proximity to core town centre facilities.
- 2.41 Local access traffic, whilst still an important element of transport access, is lower down the hierarchy, reflecting its role in bringing individuals to the fringe of the core retail centre, with easy onward access to facilities.

Figure 2.3 Transport Hierarchy



2.42 Through traffic has the lowest priority reflecting the desire to minimise such movement through the town centre.

3 **Option Development**

Overview

This section provides an overview of the tools available in developing the access and movement 3.1 strategy as well as a high level summary of the approach undertaken to develop, test and sift options, including stakeholder engagement.

Strategy Tools

3.2 A wide range of tools is available to influence travel patterns and support the masterplanning process for Hemel Hempstead. The following have been considered as part of the development of the Access and Movement Strategy.

Highways

- 3.3 Highways-specific tools as employed by the vehicular strategy include:
 - 1. Re-allocation of road space change or increase the allocation of kerbside parking, loading, taxi ranking and bus stop location around the Town Centre; investigate the principle of shared space
 - 2. Restriction of access to certain parts of the highway network for certain users, thereby prioritising sustainable modes (walking, cycling, public transport), and essential access users, such as emergency vehicles, servicing/loading and blue badge parking
 - 3. Rationalisation and relocation of public transport facilities to central location to encourage its use and interchange between modes
 - 4. Amendments to bus services, including re-routing of existing services to improve access, increase of service frequencies and introduction of new routes
 - 5. Investigation of Park & Ride as a measure to reduce car trips and reduce pressure on car parking provision in the Town Centre
 - 6. Introduction of freight partnerships, freight consolidation schemes and expansion of delivery time restrictions

Car Parking

- The parking strategy comprises the following strategy tools: 3.4
 - Maintain or extend current provision of off-street car parking capacity
 - 2. Re-designation of short and long stay car parking to encourage higher turnover in key locations, radiating out from the retail core to support long stay parking
 - Alterations to car park signage (both vehicular and pedestrian) to encourage different circulation of traffic around the Town Centre
 - 4. Alterations to charging structures change either the profile of parking charges or the overall amounts to encourage different parking habits
 - Controls for private car parking provision and management
 - 6. Appropriate enforcement of traffic regulation orders and off-street car parking provision

Walking and Cycling

- 3.5 Strategy tools relating to walking and cycling specifically include:
 - Re-allocation of road space with an emphasis on sustainable modes, including walking and cycling
 - 2. Aligning usage with policy agenda which looks to increase walking and cycling mode splits
 - 3. Make Town Centre more walkable outside the pedestrianised area; reduce barriers to walking and cycling through new routes, safe crossings of major highway or bridges, where appropriate
 - 4. Increase opportunities to rest (pedestrian) and increase the provision of safe, secure and sheltered parking (cycling) in the Town Centre
 - 5. Enable new, traffic-free or traffic calmed routes through the Town Centre
 - 6. Support low-car development in the Town Centre through infrastructure

Navigation and Signage

- 3.6 The navigation and signage strategy employs strategy tools addressing permeability and wayfinding tools, which include the following:
 - 1. As part of the spatial masterplanning process create a network of new permeable routes for non-motorised users in particular, avoiding large block structures
 - 2. Complement the tools as outlined in the walking and cycling strategy through re-allocation of road space with an emphasis on sustainable modes, including walking and cycling
 - Define and signpost gateways, specifically on key routes of pedestrians and cyclists entering the Town Centre
 - 4. Unify signage to provide a coherent network of fingerposts to key destinations within and outside the Town Centre
 - 5. Provide additional vehicle signage to encourage different circulation of traffic around the Town Centre and minimise parking search traffic and related congestion

Option Development

- 3.7 The Access and Movement Strategy comprises four individual modal strategies which have been developed in parallel:
 - Vehicular Strategy;
 - Parking Strategy;
 - Walking And Cycling Strategy; and
 - Navigation & Signage Strategy,
- 3.8 The development of options to address modal issues was carried out as part of the four individual strategies and supporting technical work, which was subsequently presented and discussed with various stakeholders at Hertfordshire County and Dacorum Borough officer level, as well as Arriva and National Express as the main bus operators servicing Hemel Hempstead Town Centre.

- 3.9 Whilst an overall holistic evaluation across the study area was undertaken, specific focus was given to the specific location identified within the Councils key movement issues, which relate to five 'Key Projects', including:
 - Plough roundabout as gateway from south (Key Project No 1)
 - Introduction of a new bus hub (Key Project No 2)
 - Connections to Railway Station, Maylands Business Park and Hospital (Key Project No 3)
 - Opening up of River Gade path (Key Project No 4,)
 - Connecting the northern gateway: Gadebridge Park, The Bury, Old Town (Key Project No 5)
- 3.10 Supporting the Masterplan with an appropriate access and movement framework, with particular focus on the above priority areas, the following major transport infrastructure options have been investigated in further detail over the course of the strategy development:
 - Two land use options in line with the Masterplan proposals, setting out the spatial development in the Town Centre against a medium (2021) and long term (2031) horizon;
 - Related parking provision to support growth in the Town Centre;
 - Revised designation of vehicular priorities for the Town Centre highway network;
 - Options for relocation of bus stop provision, the preferred option of a central bus hub in the Marlowes, with re-provision of a ticket office and driver facilities;
 - A preferred option for the re-provision and expansion of taxi ranking in a dedicated section adjacent to the public square;
 - Provision of a new pedestrian and cycling bridge across the Plough roundabout.
 - Competition of the Town Centre signage network.
- 3.11 Details of the options investigated can be found in the four modal strategies.
- 3.12 Having produced a list of mode-specific solutions, these have then been considered in combination as packages of measures as part of this document. The overarching Access and Movement Strategy provides the cross-cutting themes and draws together the four modal strategies in to a comprehensive set of preferred options, represented in a series of strategy diagram and an action plan of complimentary measures, which are presented in the following sections 4 and 5 respectively.

4 Preferred Strategy

Overview

Introduction

4.1 Based upon the option development process, including widespread stakeholder consultation, as series of preferred transport scheme options have emerged that form the basis of the preferred movement and access strategy. The overarching principles of this strategy are outlined within this section

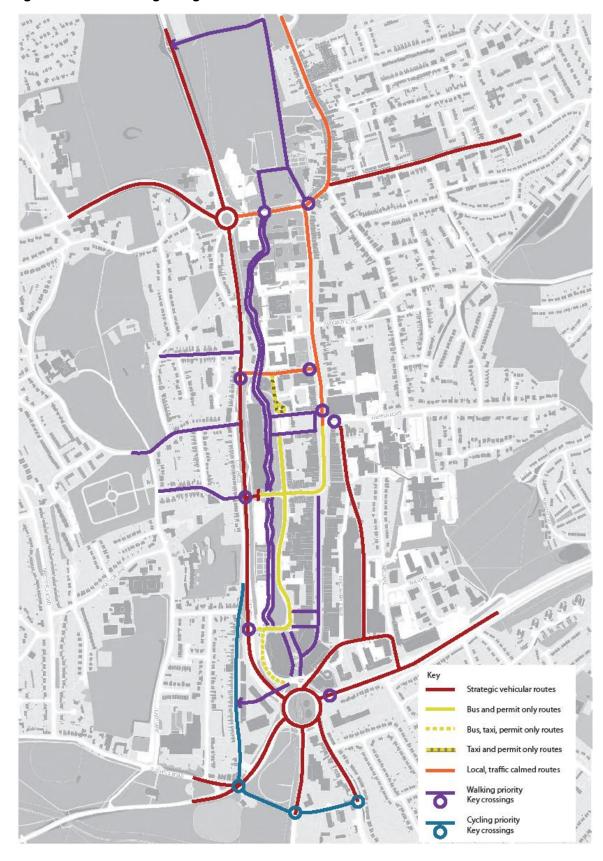
Core elements

- 4.2 Access and movement both to and around the Town Centre is an integral aspect of the developing Masterplan for Hemel Hempstead Town Centre. It is important to balance the need for efficient access, by all modes, from surrounding residential areas (and beyond) to the retail and employment core, with the creation of a permeable and easily navigable town centre that minimises conflicts between motorised and non-motorised modes.
- 4.3 The strategy seeks to balance the needs of all transport users, whilst recognising the importance of prioritising access to specific groups to the central retail and employment core. A key aim of the overall Masterplan strategy is to expand the relatively linear town centre westwards to incorporate new land use within Waterhouse Street and increased connectivity between the Marlowes and the River Gade and the Water Gardens. To do this requires not only appropriate development along Waterhouse Street but also a change in emphasis on vehicular access to this area as well. This is reflected within the overarching route designations presented below.

Overarching Route Designations

- 4.4 Figure 4.1 provides an overview of the proposed designation of routes and spatial areas across the town centre for priority movement by different modes.
- 4.5 The designation is based upon the principles established within the transport hierarchy and the desire to create an expanded centralised area that is permeable and easily navigable by pedestrians and cyclists but still provides good bus penetration into the heart of the retail core.
- 4.6 The key focus is on the re-designation of Waterhouse Street, with an expanded market square stretching out all the way across to connect directly with the River Gade.
- 4.7 In addition, the designations seek to reinforce and develop north-south pedestrian and cycling connectivity and create new east-west connectivity between Boxmoor and the town centre.

Figure 4.1 Overarching Designation of Routes



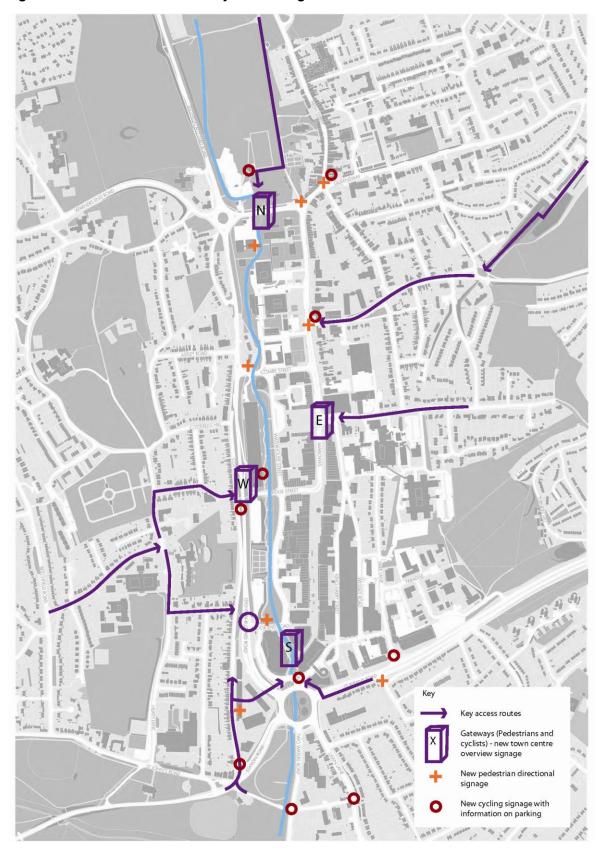
Gateways and Navigation

- 4.8 Figure 4.2 focuses in on the specific gateways for non-motorised modes that will be created in order to reiterate the change in priorities as you enter the town centre area. Five key locations are highlighted on the main routes into the town, as follows;
 - North Gadebridge Park/ The Bury
 - East Hillfield Road / Market Square
 - South Plough Roundabout
 - West Moor End Road
 - West Bridge Street
- 4.9 The gateways emphasise key pedestrian and cycling routes into the town but wouldn't specifically represent a physical structure, rather there would be key signage and appropriate urban realm provision.
- 4.10 In addition, Figure 4.2 also highlights additional key signage locations that will be required to reinforce the designated routes and to highlight walking and cycling provision.
- 4.11 Further details are provided in the Navigation and Signage Strategy document.

Cycling

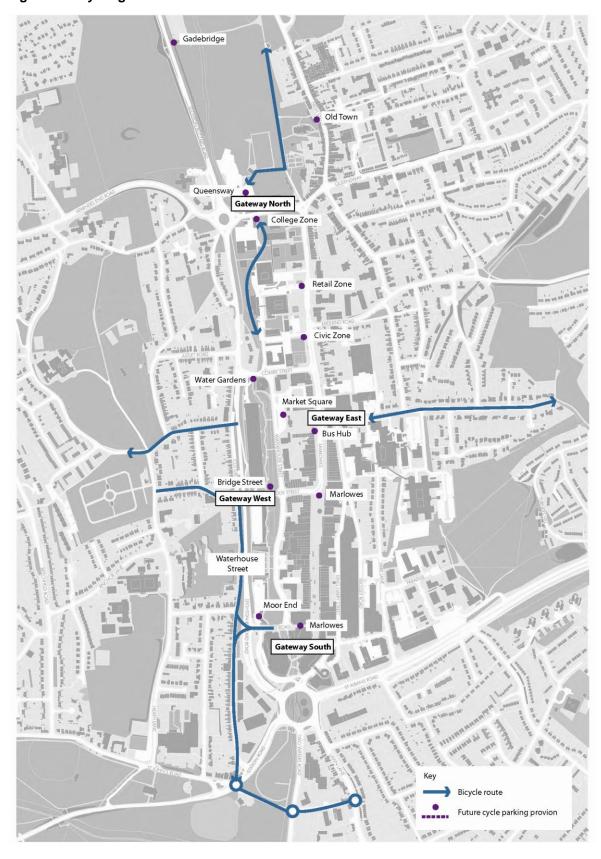
- 4.12 Overlapping the designated gateways and signage, the strategy identifies as series of priority cycle routes that link the wider Hemel Hempstead town into the town centre area. Figure 4.3 identifies these key routes, as well as designating town centre cycle parking facilities.
- 4.13 There are key routes from the north, linking in with existing provision in Gadebridge Park; from the east, linking in with a new route to the Maylands; from the south providing navigation around the Plough Roundabout and linking to the rail station; and to the west providing increased connectivity between Boxmoor and the town centre.
- 4.14 Secure cycling parking is located at all entry points around the retail core thus encouraging cycle penetration into the town centre.
- 4.15 Further details are provided in the Walking and Cycling Strategy document.

Figure 4.2 Non-motorised Gateways and Navigation



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Figure 4.3 Cycling Provision



Buses

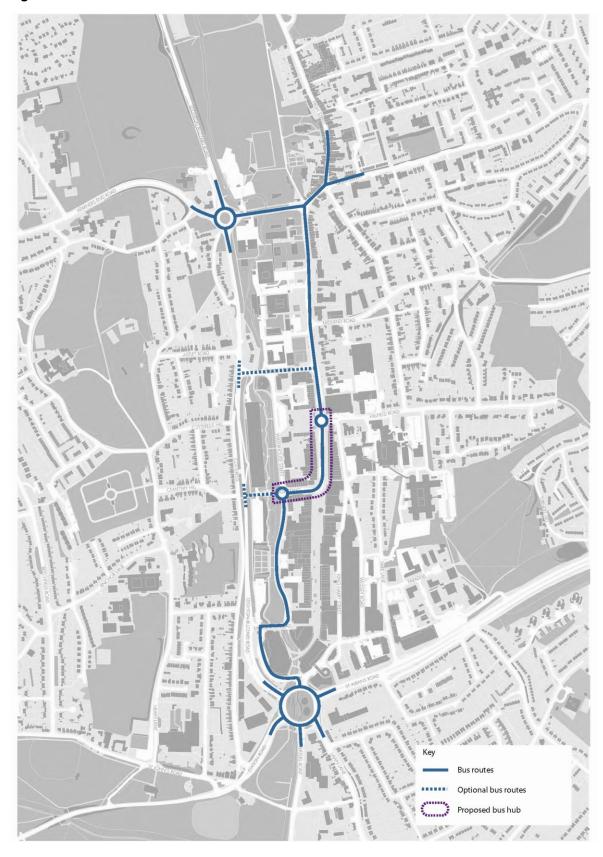
- 4.16 Bus provision within the Access and Movement Strategy represents a central element not only to for the future promotion and enhancement of bus services but also in terms of effective utilisation of land allocations. Figure 4.4 presents the key bus routes through the town centre, along with interchange facilities.
- 4.17 The key aspect of the strategy is the removal of the current bus station in order to allow the Market Square to be opened up to Waterhouse Street and connected in to the River Gade. All the existing bus station facilities would be relocated, and upgraded, into the Marlowes.
- 4.18 A facility has been designed that accommodates all the requirements for all existing commercial and contracted services, including inter-urban and national express services. It has the obvious advantage of consolidating all services into one area, in close proximity to the retail core this improving interchange and connectivity. New customer, driver and operational facilities would be included.
- 4.19 The strategy aims to place bus provision in the heart of the town centre, thus encouraging access by bus and helping to reduce some of the pressures created by private car access.
- 4.20 A full detailed analysis of the new 'Bus Hub' and its operation is provided both within the Vehicle Strategy document and a separate Bus Stop & Routing discussion note.

Taxis

- 4.21 Taxi rank provision is another key aspect of the strategy, acknowledging the role that taxis play as part of wider public transport provision, particular in terms of the night time economy.
- 4.22 The existing ranking provision in the Marlowes is considered to be inappropriate due to the tendency for there to be double-ranking throughout the day. The strategy has therefore sought to provide alternative, more appropriate provision. Figure 4.5 presents the proposed ranking locations and access routes.
- The strategy proposes to relocate the Marlowes rank to the northern end of Waterhouse Street. 4.23 Since this street will become a cul-de-sac there is the opportunity to provide designated double ranking and space for up to 40 vehicles.
- 4.24 In addition, the current ranking provision at the southern end of Waterhouse Street would be relocated to behind Debenhams providing good interchange with the Bus 'Super Stop' in this locality, as well as to the Riverside Shopping Centre. Night-time ranking would also be provided as part of the new one-way system in the Old Town on the High Street.
- 4.25 The designation of all ranks would be reinforced through clear and appropriate signage.
- 4.26 Further details are provided within the Vehicle Strategy document.

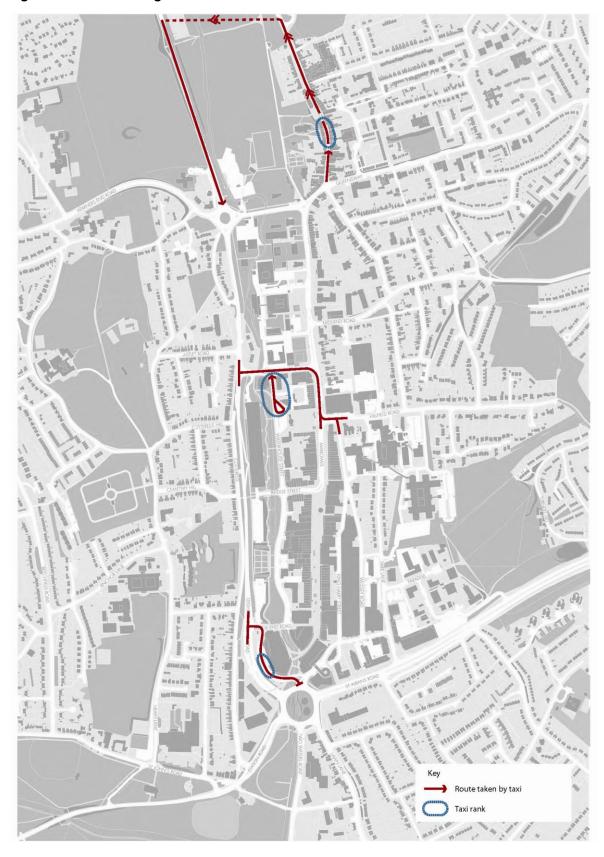
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Figure 4.4 Bus Provision



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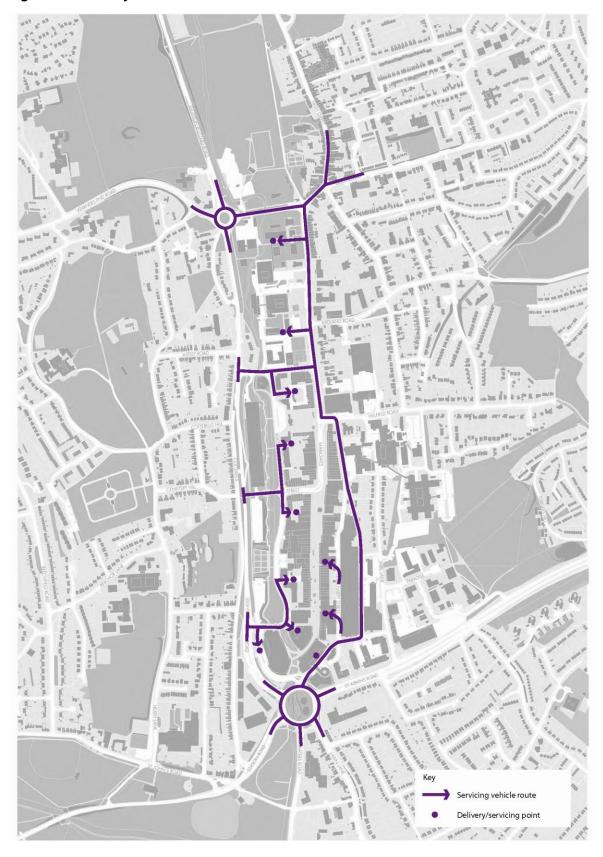
Figure 4.5 Taxi Ranking



Deliveries & Servicing

- 4.27 An important consideration within the strategy is to ensure that there remain good access for deliver and servicing vehicles to the retail core. The current layout of the town centre means that most deliveries and servicing occurs on the street parallel to the main shopping locations on the Marlowes e.g. Waterhouse Street and King Harry Street. Given the proposed re-designation of access to Waterhouse Street it is important that the delivery and servicing requirements are taken into account.
- 4.28 Figure 4.6 highlights the key access routes required for delivery and servicing vehicles. It is accepted that access will still be required along Waterhouse Street; however, it is proposed that such access would be controlled through a permit system. This could incorporate time restrictions for large HGV vehicles accessing the main shared space elements of the street during busy times of the day.
- 4.29 Further details are provided within the Vehicle Strategy document.

Figure 4.6 Delivery routes



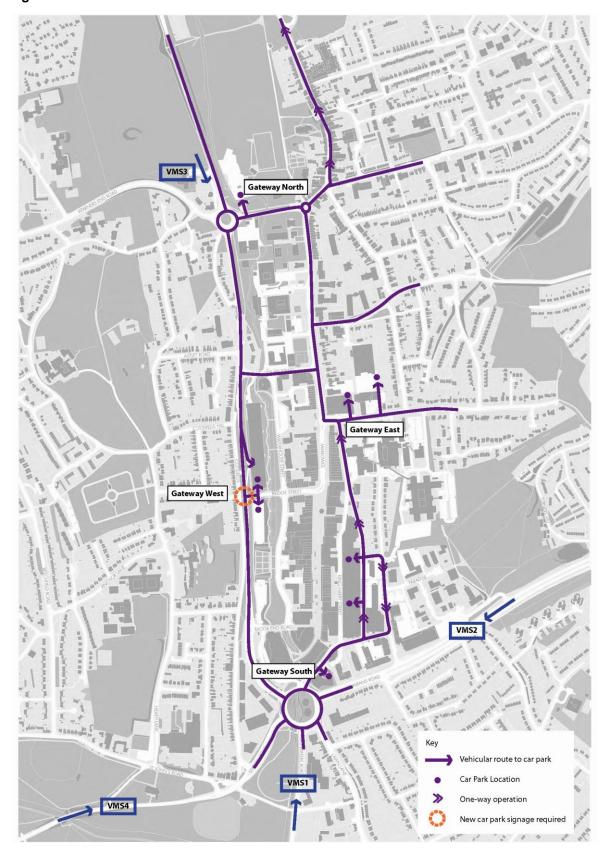
Car Parking

- 4.30 Figure 4.7 sets out the key access routes to the town centres car parks, as well as highlighting locations for Variable Message Signs that would provide information about the availability of spaces.
- 4.31 A key element of change would be access to the Water Gardens car parks, which would no longer be accessible via Combe Street nor Waterhouse Street. Instead Bridge Street would be opened up to provide access onto Leighton Buzzard Road.
- 4.32 There would also be a re-designation of the whole of Moor End car park as blue badge holder parking only, with the closure of Bank Court and the removal of all formal, and informal, parking along Waterhouse Street.
- 4.33 In terms of overall car parking provision, there will be some loss of capacity, up to 650 spaces depending upon the land use scenario that is taken forward. Combined with the re-designation of Moor End car park, there is forecast to be insufficient overall capacity to meet demand by 2021, with a potential requirement of around 100 additional spaces. Options for additional capacity include:
 - 2nd Tier Water Gardens (South) Car Park
 - Re-development of NCP car park, Hillfield Road
 - Development of Post Office Site (although this is currently allocated for housing growth)
- 4.34 By 2031 there is an estimated shortfall in car parking capacity of around 300 to 350 spaces to support the level of growth and development specified.
- 4.35 A full detailed analysis is presented within the Parking Strategy document.

Blue Badge Parking

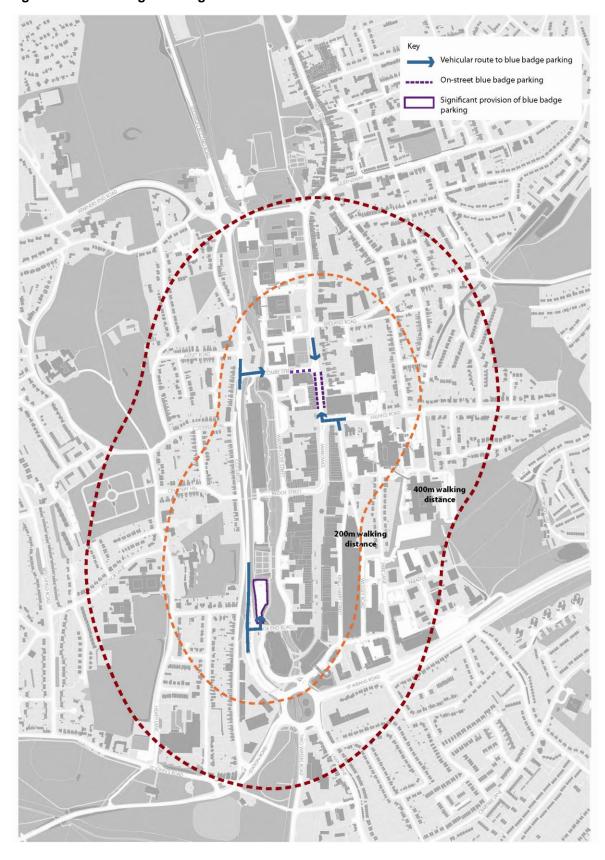
- 4.36 The baseline analysis demonstrated the extent to which informal blue badge parking occurs across the town centre, but with a particular focus on Waterhouse Street. A clear objective of the strategy is to provide formalised parking to meet this demand. Figure 4.8 sets out the proposed blue badge parking provision.
- 4.37 All blue badge parking would be removed from the southern end of Waterhouse Street along with Bank Court. Moor End car park would be designated for blue badge holders only.
- 4.38 In addition, further on-street parking would be provided on the Marlowes to the north of the Market Square and along Combe Street, giving Blue Badge holder an option to park both to the Northeast or Southwest side of the core retail area.

Figure 4.7 Car Park Access



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Figure 4.8 Blue Badge Parking



5 **Action Plan**

Overview

- 5.1 The previous section provides an overview of the individual elements of the overarching access and movement strategy. This section draws together the individual elements of the strategy in the form of an Action Plan. For ease of presentation, the actions are broken down into the following themes:
 - Highway and public spaces
 - Bus Infrastructure and operations
 - Taxi rank provision
 - Parking provision
 - Walking and cycling infrastructure
 - Signage and navigation provision
- 5.2 The combined elements are all presented spatially on a series of four figures at the end of the section.

Highways and Public Spaces

5.3 The following actions and measures are proposed in relation to highways and public spaces.

Table 5.1 Highways and Public Spaces Actions

Location	Actions	Map Reference
Market Square	Removal of bus station, pedestrianised areas extended through to River Gade	С
Waterhouse Street (North)	No through traffic, access to premises and taxis only, shared surface from south side of market square southbound, open access from north to north side of market square (but no through route), part of 20mph "box"	С
Marlowes (south of Hillfield Road)	Bus/Taxi/permit holders (as existing) only, enhanced mini- roundabout at junction with Hillfield Road to allow comfortable bus turning, part of 20mph "box"	С
Marlowes (Pedestrianised Area):	Designation of alleyway to the South of Primark as westbound on-way link to facilitate deliveries to market and food stall in pedestrianised area of Marlowes, creating an additional out route to avoid two-way working of the Marlowes during loading hours.	
Bridge Street	Access opened up from Leighton Buzzard Road, restricted access to Waterhouse Street for permitted service vehicle only, restricted access from Waterhouse Street to Marlowes for bus/permit holders (as existing) only, enhanced mini-roundabout at junction with Waterhouse Street to allow comfortable bus turning part of 20mph "box"	С
Waterhouse Street (South)	Access for bus and permitted service vehicles only, shared surface, part of 20mph "box"	D

Leighton Buzzard Road	Additional pedestrian crossing facilities, new access to Bridge Street	B/C/D
Combe Street and Marlowes (from Combe Street to Hillfield Road)	Part of 20mph "box"	С
Marlowes (from Combe Street to Queensway)	No significant changes, other than access requirements to support development in Gade Zone	В
Queensway (from Leighton Buzzard Road to High Street)	Introduction of bus-friendly traffic calming measures to reduce speeds and allow pedestrian to cross, part of Old Town 20mph zone	А
High Street Introduction of one-way working from south to north, part o Old Town 20mph zone		А

Bus Infrastructure and Operations

5.4 The following actions and measures are proposed in relation to bus infrastructure provision and operations.

Table 5.2 Public Transport Actions

Location	Actions	Map Reference
Marlowes	 Movement of bus station to a new "bus hub" on the Marlowes, incorporating provision of: nine bus stops for local bus services (three in either direction); one coach stop for national express services (northbound); five alighting stops for local bus services and layover (one on southbound section of Marlowes, two on eastbound section of Bridge Street) Covered walkways lining each side of Marlowes stops and arching over bus stops providing all weather protection Ticket office / information centre location on southeast corner of Market Square (or in a shop front on the northeast side of Marlowes) Staff facilities including toilets, mess room and supervisors officer located above (or within) ticket office New "bus hub" will require re-routing of bus services that currently terminate, or layover, in the existing bus station. These services will now terminate and/or layover at the alighting stops on Bridge Street / Marlowes and then turnaround via the enhanced mini-roundabouts 	С
Marlowes / Hillfield Road Junction	Bus priority provided on northbound exit from "bus hub" onto mini-roundabout with Hillfield Road, through provision of induction loop to activate green phase of pedestrian crossing on Hillfield Road	С
Marlowes (North)	lorth) Additional bus stops to be provided along north section of Marlowes (from Combe Street northbound) to support redevelopment of Gade Zone	

Taxi Ranking

5.6 The following actions and measures are proposed in relation to taxi rank provision.

Table 5.3 Taxi Ranking Actions

Location	Actions	Map Reference
Old Town:	Additional provision of taxi ranks integrated into Old Town one-way system scheme	А
Marlowes	Removal of ranking provision	С
Waterhouse Street (South)	Relocation of ranking provision on Waterhouse Street to northern end of 'Super Stop' behind Debenhams	D
Waterhouse Street (North)	Street Provision of new rank in 'cul-de-sac' at north end of Waterhouse Street integrating directly into the Market Square	

Parking Provision (cars, blue badge, motorcycles, cycles)

5.9 The following actions and measures are proposed in relation to parking provision.

Table 5.4 Parking Provision Actions

Location	Actions	Map Reference
Civic Centre / College	Net loss of 225 off-street car parking spaces (119 Civic Centre, 106 College)	В
Dacorum Way	Net loss of 160 on-street car parking	В
Bridge Street	New access onto Leighton Buzzard Road to provide access to Water garden car parks	С
Waterhouse Street and Bridge Street.	Removal of formal parking bays and informal blue badge parking	C/D
Bank Court	Closure of car park	D
Marlowes	Expansion of blue badge parking on east and west side of Marlowes (on approach to Combe Street)	С
Combe Street	Provision of blue badge parking on southern side of Combe Street	С
Moor End Car Park	Re-designation as blue badge parking	D
Across town centre	Provision of additional motorcycle parking provision	A/D
Across town centre	Provision of additional cycle parking provision	

Walking and Cycling Infrastructure

5.11 The following actions and measures are proposed in relation to walking and cycling provision.

Table 5.5 Walking and Cycling Actions

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Location	Actions	Map Reference
Queensway (from Leighton Buzzard Road to High Street)	Introduction of bus-friendly traffic calming measures to reduce speeds and allow pedestrian to cross, part of Old Town 20mph zone	А
River Gade	Provide access to River Gade, integrate new development, including College, retail, and Civic functions, with river frontage	В
Leighton Buzzard Road	Additional pedestrian crossing facilities, new access to Bridge Street	B/C/D
Bridge Street	Access opened up from Leighton Buzzard Road, restricted access to Waterhouse Street for permitted vehicle only, restricted access from Waterhouse Street to Marlowes for bus/tax/permit holders (as existing) only, enhanced miniroundabout at junction with Waterhouse Street to allow comfortable bus turning part of 20mph "box"	С
Waterhouse Street (South)	Access for bus and permitted service vehicles only, shared surface, part of 20mph "box"	
Across town centre	Provision of additional cycle parking provision	Figure 4.3

Signage and Navigation Provision

5.12 The following actions and measures are proposed in relation to signage and navigation provision.

Table 5.6 Signage and Navigation Actions

	-	
Location	Actions	Map Reference
Queensway (N), Hillfield Road (E), Bridge Street (W), Plough Roundabout (S),	New town centre overview signage to introduce new masterplan area at key gateways	Figure 4.2
Across town centre	New pedestrian directional signage (fingerpost), replacement of old signage with new 'Marlowes' type (white on red background)	Figure 4.2
Across town centre	New cycling signage on new routes and to support new infrastructure (crossings, bridges, gateways)	Figure 4.2
Strategic highway network	New Variable Message Signs for real time car parking directions	Figure 4.7
Leighton Buzzard Road	New vehicular directional signage to sign new Bridge Street junction	Figure 4.7
High Street	New vehicular signage to support one-way arrangements	Figure 4.7

Actions by Area

- 5.13 The following diagrams combine the above modal action plans into four spatial areas of the Town Centre: including:
 - OLD TOWN (Old Town, Gadebridge, The Bury)
 - GADE ZONE (College, Civic Centre, Marlowes North)
 - ORIGINAL MARLOWES AND JELLICOE WATER GARDENS (Waterhouse Street, Marlowes South, market square, Hemel Hempstead hospital)
 - MARLOWES SHOPPING ZONE AND PLOUGH ZONE (Marlowes Pedestrianised Area, Plough Roundabout)

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Figure 5.1 Overview of Areas

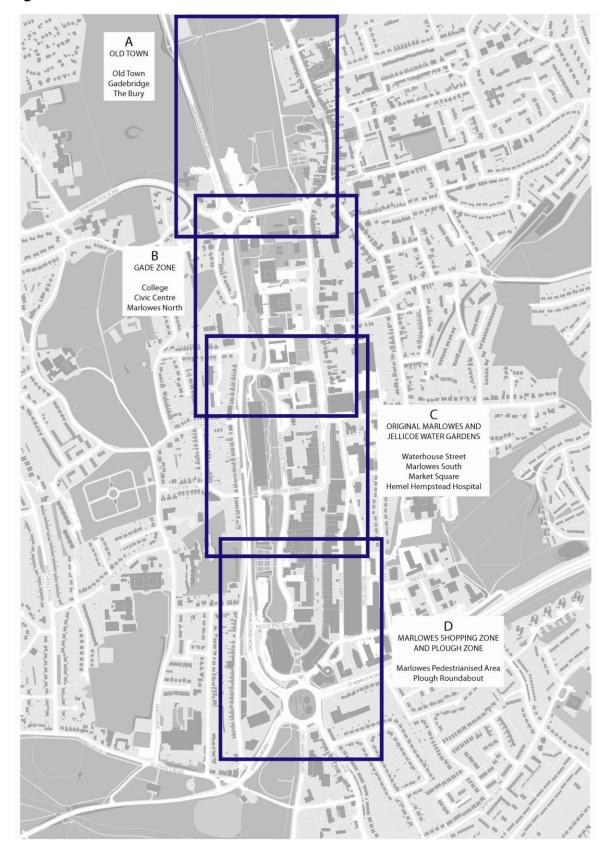


Figure 5.2 Area A Actions - Old Town / Gadebridge Park

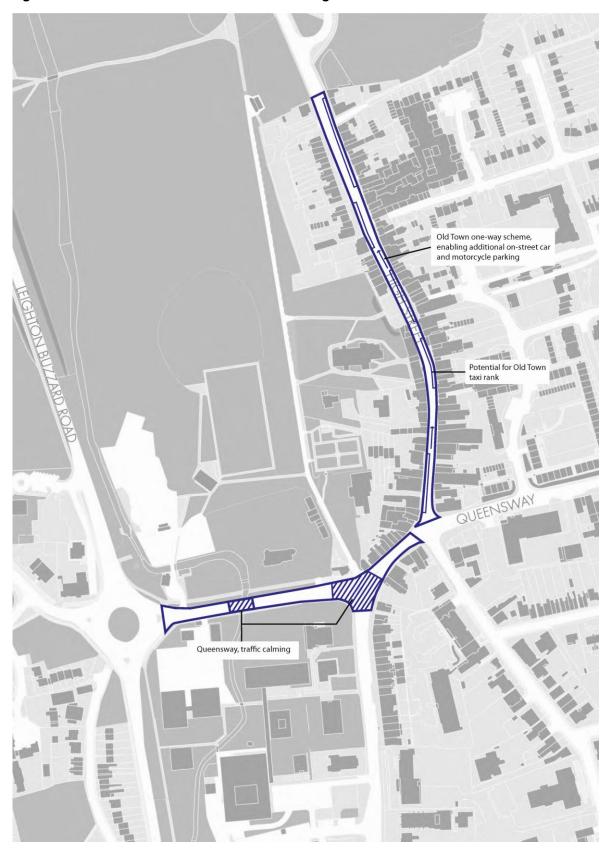


Figure 5.3 Area B Actions - Gade Zone

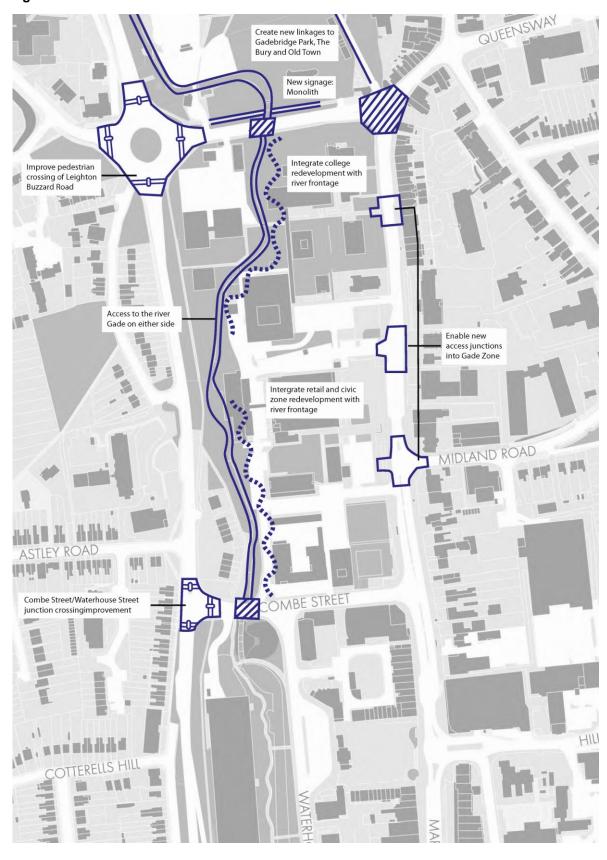
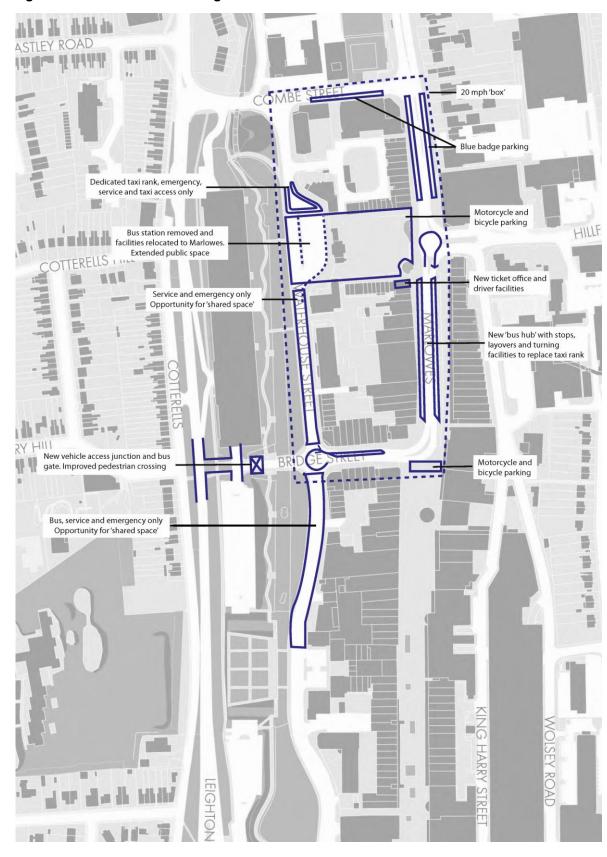


Figure 5.4 Area C Actions - Original Marlowes / Jellicoe Water Gardens



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Removal of all formal and informal parking on Waterhouse Street and WOLSEY ROA Blue badge holder parking only LEIGHTON BU Motorcycle and ROAD Retain bus gate EN D bicycle parking ZARD ROAD Taxi rank ST ALBANS ROAD distribution of the same New pedestrian bridge TWO WATERS ROAD Cotterells cycle link and crossing

Figure 5.5 Area D Actions - Marlowes Shopping Area / Plough Zone

Appendix A

Masterplan Preferred Development Proposals

