

5. Transport Strategy

5.1 Overview

This report refers you to Plan 3: Transport Improvement Strategy, within Appendix 1.

It is recognised that any new town centre development has the potential to increase traffic levels due to the area becoming a shopping and visitor destination over time therefore automatically generating more local traffic. However, the introduction of measures designed to promote sustainable transport patterns can assist in controlling traffic flow and ensuring that pedestrians, cyclists and public transport have priority over other vehicles.

While the preferred option would represent a good compromise in terms of cost and public realm improvements it is recognised that traffic flows in connection with both the town centre becoming a new destination and with the Growth Area, may result in additional traffic destined for Houghton Regis.

Initial traffic modelling has been undertaken to assess the impacts of a variety of different strategic road options; however further traffic modelling may be needed to assess the impact of the chosen options on traffic movement in and around the town centre as individual development proposals come forward.

Relevant transport infrastructure options currently under consideration are:

- A5-M1 Link Road ('Dunstable Northern Bypass')
- 'Woodside Connection'. The three options currently under review are;
 - Option 1 (Northern section of the old 'Dunstable Eastern Bypass')
 - Option 2 (Road Connecting Porz Avenue to Junction 11a of the M1)
 - Option 3 (Road Connecting Porz Avenue to the junction of A5-M1 Link Road and Bedford Road)
- Luton Dunstable Busway (Formerly Translink)
- The current design for Junction 11a of the M1 does not include local road connections ('Woodside Connection' or other). However, this may change before the plans are finalised, and;
- Luton Northern Bypass.

Some of the options propose amendments or upgrades to the junction, which are also anticipated to affect traffic flows. For example, under Option 1A, a new connection to the east of the junction would affect flows approaching from the east.

5.2 Houghton Regis Assessment

While some data is available (see Issues and Options Statement) it is recognised that further testing of the Preferred Option in relation to the wider proposals is required. In addition, limited data is available to assess the capacities and movements of specific junctions within the town though preliminary assessment indicates that further analysis and additional detailed traffic data will be required to:

- Understand the impact of the Growth Area: levels of housing, location of housing, location of any new District or Local Centres as these will all affect traffic movement and flows
- Understand the potential of the Luton Dunstable Busway extension to Houghton Regis and its surrounding neighbourhoods; the junction with the proposed By-pass (at the northern end of Bedford Road) will be critical to its success for the town but the system has significant potential to generate modal shift, particularly for regional trips

- Assess the High Street / Bedford Road junction and adopt measures designed to prioritise the proposed Luton Dunstable Busway and local bus movements - rather than cars - at this location
- Seek the signalisation of High Street-Tithe Farm Road roundabout junction which has potential to support greater capacity than the existing roundabout
- Retain the longer term potential to consider the removal of through traffic from the High Street onto a new street thereby creating a semi-pedestrianised shopping street and enabling further improvements to the public realm
- Integrate parking and adopt a parking management strategy, with the attempt to capture traffic at each end of the High Street alleviating the need to drive through the town centre.

A package of transport measures will be required to assist with the successful implementation of the Preferred Option. A detailed parking and town centre traffic management strategy will be developed as this SPD and development proposals are taken forward. In particular, the following strategic transport schemes will need to be considered further as time progresses and funding becomes available.

5.3 Parking

Parking could be rationalised into one or two key car parks located at the eastern and western gateways to the town centre. At the eastern end the Preferred Option suggests a new surface or multi-storey car park located at the rear of the Co-op site. This would capture traffic flow from the east and from Tithe Farm Road; although some flexibility as to the exact nature and size of this car park needs to be maintained to allow for the possibility of further car parking to be included within the Bedford Square development site. This solution would successfully capture vehicles arriving from the northern residential area before they reach the High Street junction which would relieve congestion at the junction and on the High Street.

At the western end of the High Street the ideal solution would be for the Netto car park to be a dual use facility shared with town centre shoppers capturing eastbound traffic flow before it enters the town centre; this option would need to be agreed with Netto.

The two car park solution would allow for successful management of traffic. For example, southbound traffic originating from Bedford Road would be efficiently directed to the nearest car park with availability; this could be achieved using ITS systems to direct vehicles to the most desirable car park according to the existing traffic conditions.

It is likely that any new car parks would be pay and display with pricing influenced by time and demand factors.

In order to discourage car usage into the town centre a Controlled Parking Zone (CPZ) could be implemented that covers an 800 metres radius (which equates to 10 minutes walking distance) from the heart of the town centre; only residents would be allowed to park on streets within the CPZ.



Integration and rationalisation of parking throughout the town centre will be essential

5.4 Public Transport

An extension of the Luton Dunstable Busway to Houghton Regis would provide significant benefit to the town centre. While it is not possible to comment in detail on its route or potential impact it should at least utilise the High Street and Bedford Road, and its continuation along the High Street eastwards should be considered further.

Developers will be required to present legitimate alternatives to the car. For example, liaison with BCC and Arriva Buses for the rerouting and improvement of frequency of existing services (e.g. #38) in order to make bus use convenient for people living in surrounding residential areas. Bus use to and from the town centre could also be subject to benefits such as season and discount tickets, free-delivery service.. A business-sponsored shuttle vehicle could also be implemented.

In order to alleviate school hour congestion the organisation of a “walking school bus” from nearby residential areas to the local primary school could provide parents with the comfort and security that their children will reach their school safely.

Other initiatives which would need to be considered further are the use of free bicycles to and from the town centre from nearby residential areas implemented using Smart-card systems and cameras against vandalism and theft.



Measures to improve public transport and cycle use and parking are required

5.5 HGVs

An HGV Banned Zone could be implemented on the High Street (except for deliveries) in association with the Dunstable Northern By-pass scheme which would split regional and local movements.

5.6 Summary

The longer term benefits of the regeneration of Houghton Regis town centre will need to be realised within the context of major public investment in the local transport network.

Implementation of the Dunstable Northern By-pass would provide a significant benefit by displacing most of the regional traffic that is currently entering the town centre from Bedford Road and High Street. This, along with the Luton Dunstable Busway, will be critical for implementing any longer term option for realignment of the High Street.

A potential extension of the Luton Dunstable Busway would need to be considered further in connection with the improvement of existing local services, and would allow visitors to choose an alternative mode of transport to the car; this would bring major benefits to the long term management of traffic in Houghton Regis.

Further assessment of traffic flows in relation to the Growth Area and the town centre destination, along with junction capacity testing and parking management, will need to be considered.

Furthermore, the promotion of cycling and walking within the town centre and beyond will be encouraged by improving cycle parking, cycle routes, footpaths and crossings, particularly as new developments proceed and developer contributions can be secured.

The measures that have been discussed would compliment the By-pass and Luton Dunstable Busway and would help manage any traffic growth generated by an urban extension.

6. Urban Design Strategy

6.1 Introduction

This report refers you to Plan 4: Movement Strategy, Plan 5: High Street Sections and Plan 6: Preferred Option in 3D, within Appendix 1.

The purpose of this Urban Design Strategy is to establish general principles in respect of land use and design quality in Houghton Regis in order to guide development of the town centre.

The focus of this Urban Design Strategy is the layout and appearance of buildings and development sites and how they impact on the public realm. The Public Realm Strategy then deals with the public realm and spaces themselves, the consideration of their use and how their contribution to the overall sense of place in the town might be improved.

6.2 Goals

This urban design strategy for the town centre is guided by three urban design and regeneration goals:

- Celebrating the town's **heritage**
- Enhancing the **image** of the town
- Providing better **connectivity** to and through the centre

Celebrating the town's heritage

Much of the historic town centre (i.e. the High Street) was demolished in the post war era replaced by the inward looking Bedford Square. This building configuration significantly detracts from the setting of All Saints Church and creates a poor street frontage. The Green is also disconnected from the town centre yet its proximity and importance in terms of its historic role could substantially enhance the whole area.

The history and heritage of the built environment can play an important role in defining local distinctiveness and a sense of place. Interpretation of Houghton Regis' heritage through building layout and design will contribute to the creation of a town with distinctive and special qualities and allow for a new identity to grow.

Enhancing the Image of the town

Many of the main frontages in the town centre are unattractive with service areas and blank façades facing the public realm; this leads to a negative image of the town centre with key approaches and streets without activity or natural surveillance.

Houghton Regis's reputation needs to be enhanced through its commitment to a new town centre with vitality and vibrancy and a belief in innovative design, respect for its heritage and the creation of high quality public realm that would be used at all times of the day. The town centre needs to accommodate contemporary urban life and a thriving economy, based on existing form and elements which can respond to the Growth Area over time.

Providing better connectivity to and through the town

Current linkages into and through the town centre suffer from over engineering, domination by through traffic and a severe lack of thought for pedestrians and cyclists.

As one of the key regional through routes between Dunstable and the M1, the High Street is subject to congestion pressures. Continued growth in car use in general, plus the impact of the Growth Area, may place additional pressure on the town's road network; although it is anticipated

that the Luton / Dunstable by-pass will accommodate much of the regional through traffic. In order to recreate a successful town centre environment and economy more efficient use of the existing road network is required along with the provision and promotion of alternative travel options, including public transport, cycling and walking.

6.3 General Urban Design Principles

Urban design brings together the many aspects of creating a success place such as environmental enhancement, social interaction, economic viability, transport movement, landscape and identity.

Urban design principles draw these aspects together creating an overall vision and understanding how the vision can be realised.

The following general urban design principles should be adopted for all new development of buildings and the public realm;

Safety and Vitality

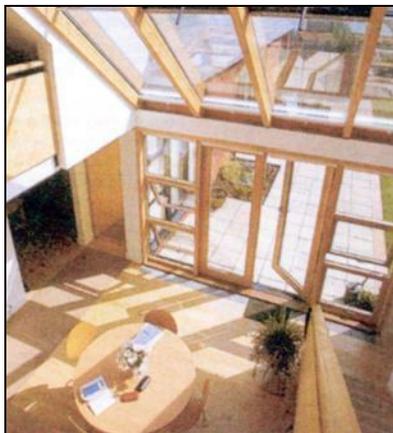
- Ground floor uses and active frontage will ensure natural surveillance of the public realm
- Buildings will be mixed use on the High Street providing activity at all times of the day and evening
- Activity areas or designated public realm will be created to add vitality to the town centre



Active frontages overlooking the public realm and spill out space providing activity

Building Orientation

- Buildings will optimise solar potential, where possible, allowing for balconies, gardens, roof gardens and conservatories to maximise natural daylight and passive solar gain



Building oriented towards the south to enable passive solar gain

Landmarks

- Key landmarks will be retained and respected in terms of setting and views
- New landmarks will be created where appropriate to aid legibility and understanding of the town centre
- Corner plots and less sensitive roofscapes will be used for limited landmark design



Respect for landmarks such as the Church, with the introduction of new landmarks, particularly on roofscapes

Building Lines and Set Backs

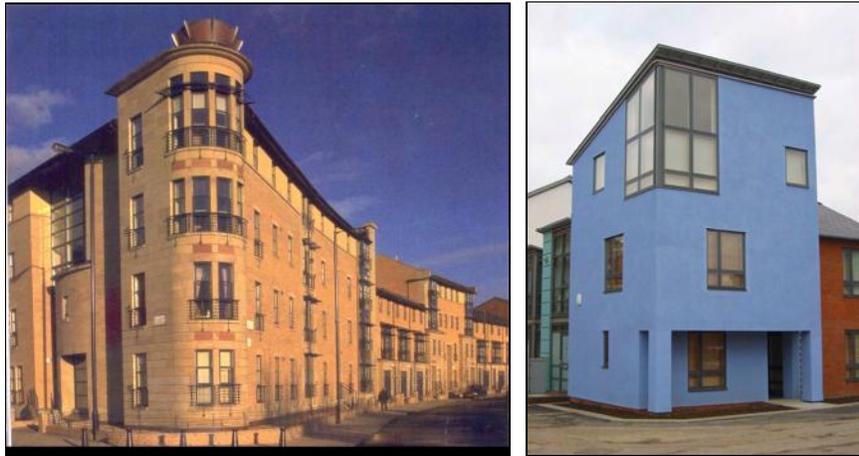
- New building lines will be created which will maximise the public realm and pedestrian movement
- Upper floors of buildings may be set back in some locations, but only where considered appropriate, e.g. to enhance key views and to allow for street breathing space



Streets to be wide enough a mix of activity

Building Heights

- Landmark corners and design features will be 4 storeys maximum
- The majority of buildings will be 2 and 3 storeys



Landmark corners

Gateways

- Key entrances to the town centre will be marked by the introduction of gateway features



Examples of gateway design

Vistas and Views

- Key views will be retained
- New vistas will be created
- Buildings will be designed so that views and vistas can be realised



Street designs that respect views and vistas

Pedestrian and Cyclist Connections

- Bus stops will be arranged at natural pedestrian hotspots
- Cycle parking facilities will be provided close to bus stops within highly visible areas
- Pedestrian crossings will be provided at logical locations which connect into public spaces and key thoroughfares



Safe and legible pedestrian crossings and integrated cycle parking areas

Parking and Servicing

- Parking will be within blocks or in designated car parks
- Servicing will be within blocks or via service access roads at the rear

6.4 Sustainable Design and Construction

The Masterplan will promote a sustainable and environmentally sensitive approach to development. All new development will be designed with a view to reducing greenhouse gas emissions and pollutants, conserving resources, and to facilitate an optimised approach to recycling, through innovative, energy efficient and low energy solutions to building operation and functionality.

The minimum standards which will need to be met are as follows;

- All new buildings will meet the Government's Code for Sustainable Homes, level 3
- All new homes will be designed to meet all 16 Lifetime Homes Standards
- All new buildings will be designed to meet the Building for Life criteria minimum of a silver standard (14 of the 20 criteria to be achieved)
- The public realm will incorporate sustainable drainage solutions: for example, swales and basins, ponds, wetlands, permeable surfaces
- All new commercial buildings will incorporate a Green Travel Plan

Sustainable techniques and methods which will be considered in the design and construction of all new buildings and the public realm are:

Green roofs: reducing rainwater runoff created by rooftops reducing flood risk, improving local water quality, keeping buildings cooler in summer and warmer in winter, providing a layer of insulation that also helps reduce energy bills, enhancing biodiversity and extending the life of the roof by reducing temperature fluctuations that can damage roofing material.



Clearwater Yard, Camden
A new office building in Camden providing 1068m² of open plan office space arranged into three blocks. A green roof sedum system covers the three monopitch roofs.

Architect: Allford Hall Monaghan Morris



Canary Wharf Estate
Sedum matting on a range of roofs in the Estate, principally for visual amenity and biodiversity.

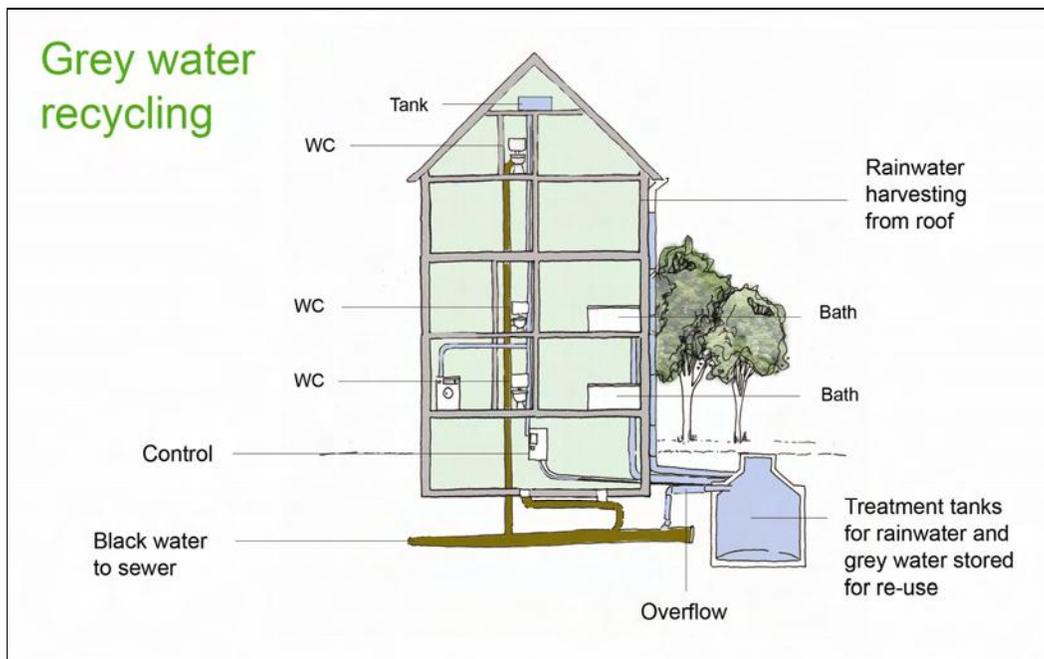
Architect: J&L Gibbons, others

Green walls: Similar to green roofs, green walls have benefits in terms of their potential to create a plant-based bio-filter that removes and breaks down airborne contaminants. Green walls can take a variety of forms providing an organic external surface to structures, thereby softening their environmental impact; this would contribute to bio-diversity and provide a natural air filter. Green

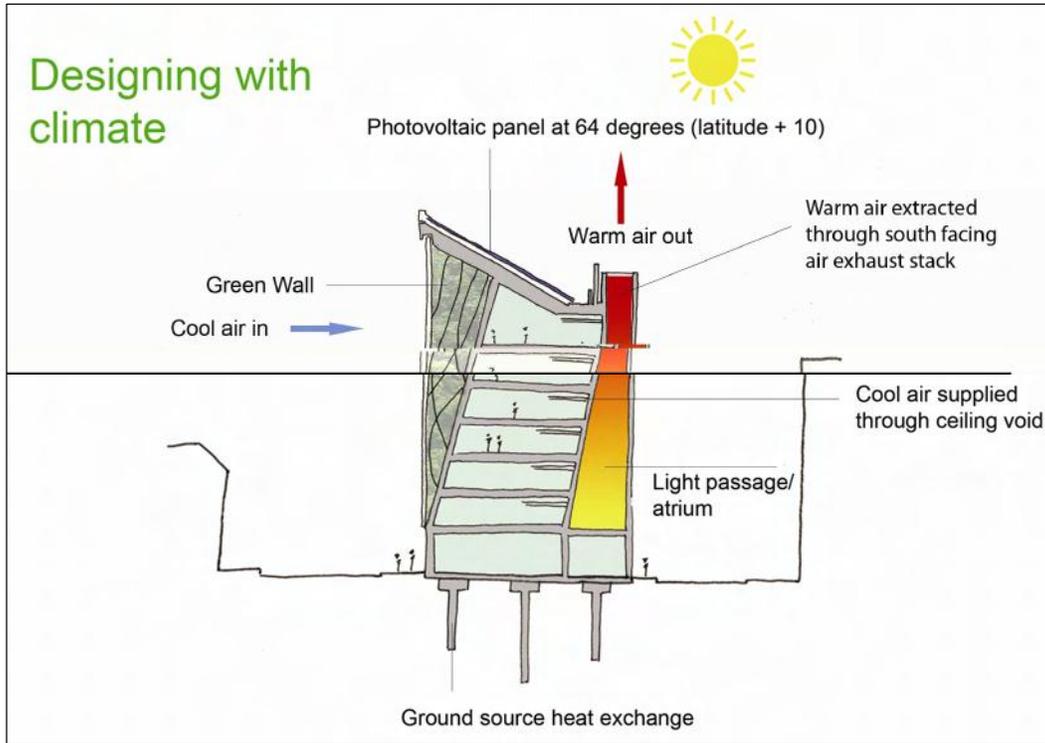
walls can also filter VOCs and CO₂ from the air as it passes through the wall into the building's internal spaces contributing to internal and external air quality.



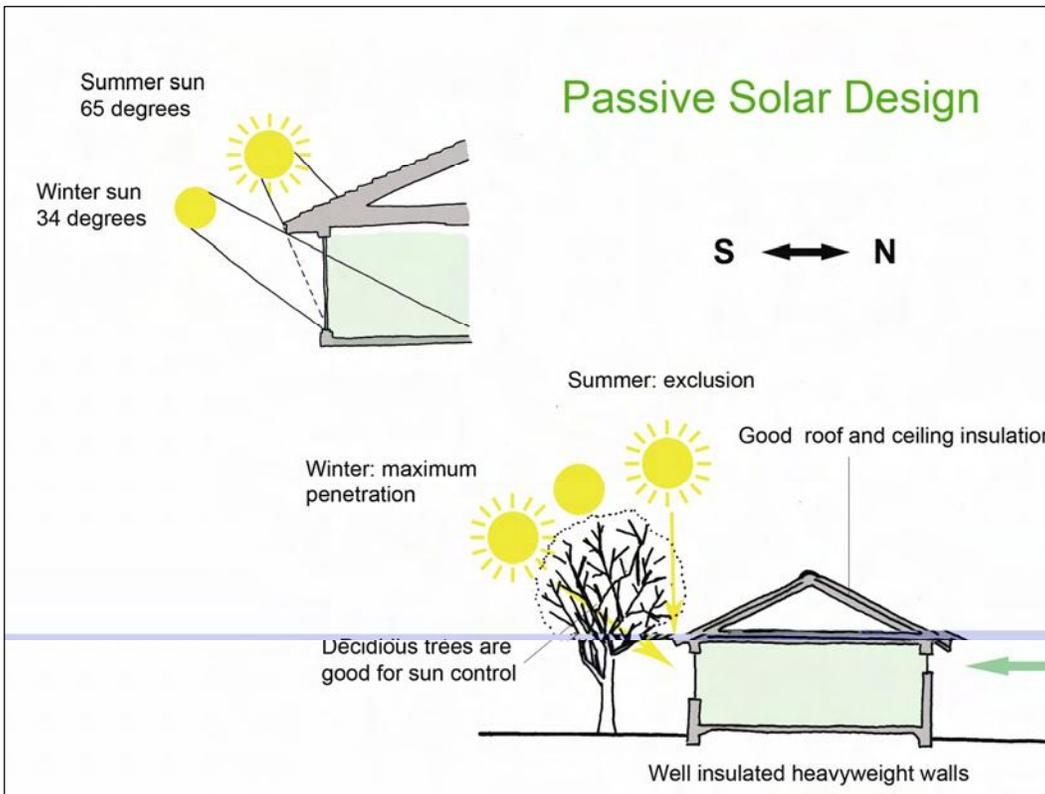
Water saving devices: low flush toilets, waterless urinals, spray and low flow taps, water-saving white goods, low flow showerheads, grey water recycling, low water use gardens, drought resistant plants, utilising existing vegetation

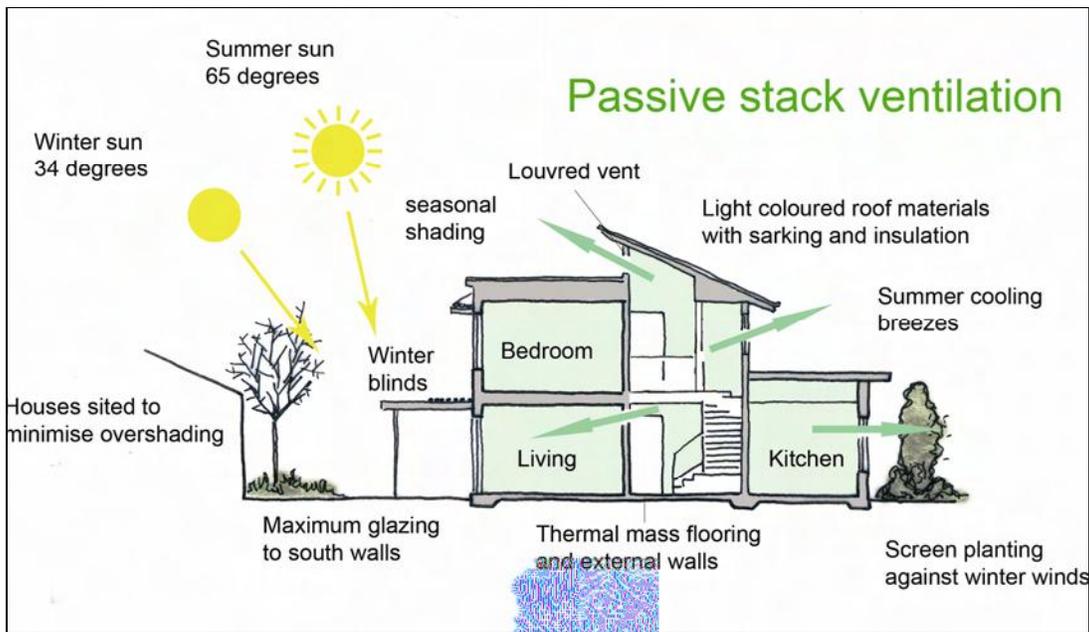


Renewable energy techniques: solar panels / photovoltaics, wind turbines, CHP / community heating system



Renewable energy design: orientate buildings to maximise use of daylight / solar gain and passive use of sunlight and daylight



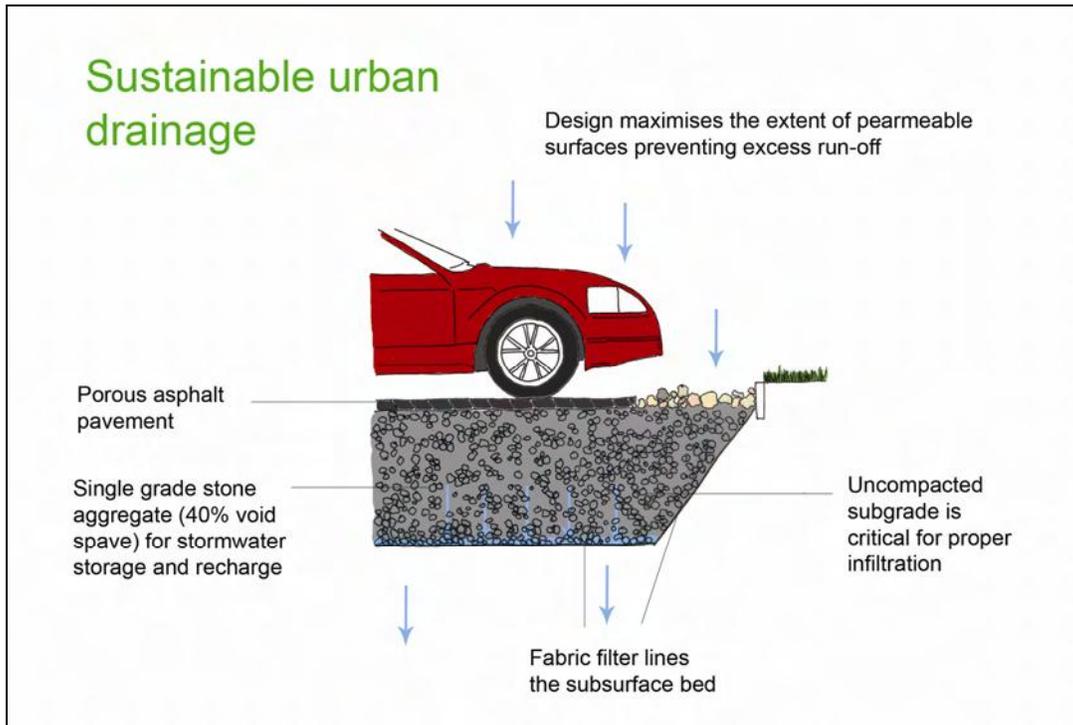


Alpine Close Maidenhead: This sustainable development consists of 27 Houses and Flats built on a brownfield site within 5 minutes walk for a mainline rail station and 10 minutes from a large town centre; it probably demonstrates the best of current sustainable design. Lifestyle enhancing "Solar Space" is provided off the living room. And, being a two storey glazed space it provides a thermal buffer during the winter and assists in the thermal air movement of the Passive Stack ventilation system during the summer.

Renewable construction: use of thermal mass materials, recycled materials (including those from demolition of existing buildings), sustainable sourced materials, prefabricated components,

Noise reducing techniques: noise insulation and screening, noise reducing road surfaces

Sustainable Drainage Systems: Solutions such as grasscrete can be an excellent alternative to plain concrete surfaces for parking areas and driveways



6.5 Character Areas

Core Character Area

The Core Character Area is defined as the land between Tithe Farm Road, Bedford Road and the High Street.

In this area, building heights of up to four storeys maximum are acceptable, although the majority of buildings should be three storeys and four storey elements should be reserved for landmark corners and roofscape features. At no time will any new building compromise the setting of All Saints Church and the tower should remain the dominant landmark feature in the area. Key views of the Church tower from the Green and 'glimpsed views' along the length of the High Street will be protected.

All Saints Church will remain the central feature of the town; strengthened and celebrated by the creation of a key public space on its southern side. This square will form the heart of the town and of the Core Character Area and will link the High Street to The Green.

The current use of large building footprints is characteristic of this Character Area and it is expected that similar design bulk and massing will remain a key feature of this area.

Two of the four town centre gateways are located within this Character Area: on Tithe Farm Road and on Bedford Road where residential neighbourhoods end and the town centre begins.

Finally The Core Character Area's role as the town centre's heart necessitates making it a high quality environment, particularly for pedestrians and cyclists, and one which will enable ease of movement between this area and the other Character Areas.

High Street Character Area

As the High Street has lost much of its importance and vibrancy over time, the key is to re-establish it as a main activity area. Crucial to this is the creation of an attractive and safe pedestrian environment which encourages visitors to walk along its length and accommodates safe pedestrian crossing. The need to re-create the High Street as an important component of the historic environment of the Town is reflected in the draft Houghton Regis Conservation Area Statement and Management Plan.

New development in the High Street Character Area will need to be of a scale appropriate to the existing situation, and in particular, to respect properties on the northern side of the High Street, including a Listed Building located along the northern side of the High Street, within the study area.

Building heights should be limited to 3 storeys maximum rising to 4 storeys in locations where setting is less sensitive; a maximum of 2 storeys should be considered in the close vicinity of the Listed Building.

The western end of the High Street provides an ideal point at which a gateway could be introduced.

The Green Character Area

The Green Character Area is defined not by The Green itself and the buildings that front and surround it.

The key consideration for The Green Character Area is the strengthening of its western edge, between Redhouse Court and Clarkes Way which would create benefits of definition, natural surveillance, improved safety and environmental enhancement. The draft Conservation Area Management Plan makes a recommendation for the consideration of improvement of the paved setting of the War Memorial, and also the surface treatment and verge markers of the driveway to Houghton Hall.

The transitional area between East End and The Green provides for a good location for a town centre gateway.

East End Character Area

The East End Character Area will generally be retained as existing, with any new development of fairly low height (up to 2 storeys), density and massing. There are no specific proposals for this area.

This Character Area should be tied into the wider signage strategy as it forms a transitional area between residential areas and the town centre; it is likely that a gateway proposal would be located at the boundary of this Character Area and The Green.

Houghton Hall Park Character Area

Houghton Hall Park Character Area consists of a large informal recreational green space on the periphery of the town centre, and is already well defined.

While there are no proposals for this Character Area, any signage strategy will consider key linkages, pedestrian and cyclist routes to and from the town centre and with the employment area off Porz Avenue.

6.6 Development Sites

This report refers you to Plan 2: Development Sites and Key Urban Design Principles, within Appendix 1.

The Masterplan consists of two primary areas of change;

- The High Street area to the west
- The centrally located Bedford Square and Co-op sites

High Street west

The key urban design principles for development of this site are:

- The site will accommodate a slight offset of the High Street to the south in order to provide the existing buildings on the north side with a more adequate pedestrian environment
- Any High Street frontage will contain active ground floor uses
- Other entrances, balconies and windows will overlook the High Street at upper floors
- Frontages will also address Cemetery Road and King Street with entrances, balconies and windows overlooking these streets
- A break in the development block at the northern end of Cumberland Street will be created and a new square established (Cumberland Square)
- There will be no kerb cut along the High Street in the vicinity of Cumberland Square, creating a pedestrian and cyclist through route only
- Active ground floor uses and main entrances and windows will overlook Cumberland Square
- Building design on the High Street will be innovative yet respect properties on the northern side
- A new street connecting Cemetery Road and King Street will be established (slight realignment of current private road)
- Front doors and active rooms (kitchen, living room etc) will front the southern side of the new street, Cemetery Road and King Street and, where possible, will front Queen Street
- Service access for High Street units will be from the new street
- All new parking areas will be within the blocks overlooked by rear entrances and windows
- Building heights on the High Street will be 3 storeys with the potential to rise to 4 storeys at landmark corners and on elevations where the respect for setting and overshadowing is less sensitive. This will allow for innovative architecture to take place and for plant to be incorporated into the roofscape design of the building
- The part of the building directly opposite the High Street Listed Building will reduce to 2 storeys in height
- Building heights facing Queen Street will be 2.5 storeys maximum
- Building heights on the new street, Cemetery Road and King Street will be 3.5 storeys maximum
- A break in the Queen Street development block will be established to connect Cumberland Street and the High Street via Cumberland Square

Whilst the Masterplan envisages the High Street as a vibrant mixed-use quarter, defined by new residential, office and retail uses, it must be recognised that planning permission already exists (subject to the completion of a Section 106 Agreement) for the complete redevelopment of the south side of the High Street frontage (Parcels A1 and B1) i.e. 93 residential apartments with some 600 sq m of commercial floorspace.

This section of the Masterplan therefore needs to be considered in the light of the above.

Bedford Square and Co-op sites

The key urban design principles for development of this site are:

- The two development sites will be considered as a single development (albeit alongside potential phasing) as realignment of the Tithe Farm junction would be affected by development and access points on both sides of the road
- Any High Street frontage will contain active ground floor uses
- Other entrances, balconies and windows will overlook the High Street at upper floors
- Buildings will be set back from the High Street to create wide footpaths and a public realm that enables free movement of pedestrians between the town centre and The Green and to enable views of the Church from The Green to be enhanced
- A key vista will be created between The Green and the Church on the northern side of the High Street between the Bedford Square block and a pavilion building
- The pavilion building will be single storey of innovative architecture and will address the public realm on all sides (e.g. glass coffee shop)
- Building heights on the High Street will be 3 storeys, with the potential to rise to 4 storeys at landmark corners and on elevations where the respect for setting and overshadowing is less sensitive. This will allow for innovative architecture to take place and for plant to be incorporated into the roofscape design of the building
- Building heights overlooking the Church, Library Boulevard and Tithe Farm Road will be 3 storeys maximum
- Building heights on Whitehouse Close will be 3 storeys maximum
- A new service and car park access road will connect the eastern end of the High Street with Whitehouse Close
- Commercial servicing will be via an internal courtyard on Bedford Square and at the rear of the Co-op site
- A new public square will be created in front of All Saints Church (potential use for markets, leisure events, community activities, small scale disabled parking and reverting back to Church car parking on Sundays and other Church related parking at other times, E.g. weddings and funerals)
- A pedestrian footpath connection will be created between the High Street and Clarkes Way, breaking the Co-op site block and the car park
- A key vista will be created between Tithe Farm Road and the Church (Library Boulevard)