BACKGROUND PAPERS

COUNCIL – 21 DECEMBER 2017

Please note that the following document is a background paper to Agenda Item 9 - Maldon District Design Guide: Adoption as Supplementary Planning Document.

a) BACKGROUND PAPER - Maldon District Design Guide (Pages 3 - 162)

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Maldon District Design Guide

SUPPLEMENTARY PLANNING DOCUMENT (SPD)

December 2017

MALDON DISTRICT COUNCIL

FORWARD

One of the best things about living in the Maldon District is its unique character and diversity in locations across town and village and in rural, coastal and estuarine environments set against the backdrop of a beautiful natural landscape with a rich history and heritage.

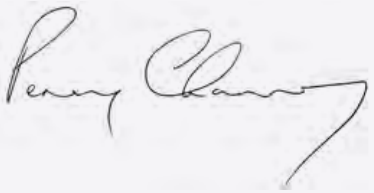
As the Local Planning Authority, an important role of ours is to protect or enhance our valued natural, built and historic environments. One of the ways we will do this is by making sure that all development supports the principles of inclusive design and high quality design to ensure communities and neighbourhoods are designed well for those that will live, work and visit there.

The design policies in the Local Development Plan together with the Maldon District Design Guide will be the key mechanisms to deliver design quality in the District. This new Guide is intended to assist landowners, developers, applicants, agents, designers and planners in the process of developing and assessing design quality.

This Design Guide promotes best practice in the initial stages of the design process to understand and analyse the context in which development is proposed and to work up a considered design.

As a Supplementary Planning Document, this Design Guide will be a material consideration in determining planning applications and is assisted by a suite of technical documents. The technical documents focus in more detail on the content of this Design Guide including landscape character, open space and play space; air quality, waste management, noise, car parking and internal space standards. Where area-specific Strategic Masterplan Frameworks and Strategic Design Codes are in place, this Guide should be read alongside their design principles and technical specifications.

I sincerely trust this Design Guide will inspire those who use it and will promote the design quality expected in the Maldon District.



Cllr Mrs PA Channer CC

Chairman, Planning and Licensing Committee,

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CONTENTS

PART A INTRODUCTION

A 01 THE OPPORTUNITY

Maldon District is at an important point in its history, one where the decisions it makes today will shape and inform the quality of the District as a place to live, work and visit.

The Local Development Plan (LDP) sets out the spatial vision for growth by ensuring the District's unique identity is protected by maintaining high design standards and the principles of sustainable design in new development.

A key component is the rise in the number of new households in the District over the next 15 years and beyond. The LDP aims to address the needs of an ageing population, inward migration and reduction of household sizes by increasing the delivery of housing to respond to the projected need and to sustain the economic and population growth over this period.

In order to provide the design guidance to supplement the Policies in the LDP, the Maldon District Design Guide provides a clear direction on what is required to deliver high quality design in the District.

1. Coastal Farmland

2. Wooded Farmland

Policy D1 of the LDP provides the policy basis within which the Design Guide is to be prepared and states that all development must:

1. *Respect and enhance the character and local context and make a positive contribution in terms of:*

a) Architectural style, use of materials, detailed design features and construction methods. Innovative design and construction solutions will be considered where appropriate;

b) Height, size, scale, form, massing and proportion;

c) Landscape setting, townscape setting and skylines;

d) Layout, orientation, and density;

e) Historic environment, particularly in relation to designated and non-designated heritage assets;

f) Natural environment, particularly in relation to designated and non-designated sites of biodiversity/geodiversity value; and

g) Energy and resource efficiency.

2. *Provide sufficient and usable private and public amenity spaces, green infrastructure and public open spaces;*
3. *Contribute positively towards the public realm and public spaces around the development;*
4. *Protect the amenity of surrounding areas taking into account privacy, overlooking, outlook, noise, smell, light, visual impact, pollution, daylight and sunlight;*
5. *Include safe and secure vehicle and cycle parking, having regard to the Council's adopted parking standards;*
6. *Maximise connectivity within the development and to the surrounding areas, including the provision of high-quality and safe pedestrian, cycle and, where appropriate, horse riding routes;*
7. *Maximise opportunities for sport and physical activity;*
8. *Contribute to and enhance local distinctiveness;*
9. *Incorporate design measures to reduce social exclusion, the risk of crime and the fear of crime; and*
10. *Encourage inclusive design and effective use of internal and external space.*

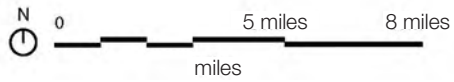
In addition, all developments must demonstrate that they have regard to the design principles set out in the emerging 'Maldon District Design Guide SPD' and any other relevant local development documents.

Map of Maldon District

3. Countryside

4. Riverside

5. Estuarine



A 02 PURPOSE OF THE GUIDE

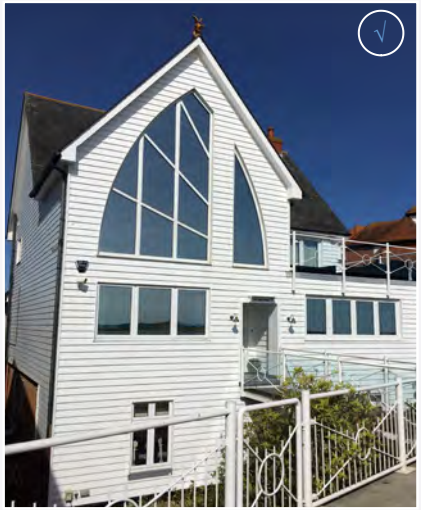
This Guide has been prepared to set out clear design principles to guide future development in the District. It aims to provide general guidance to encourage a design-led approach to all development, from large residential schemes to modest residential extensions and small infill developments.

The design principles have been prepared for all development to respond to. The principles are accompanied by illustrations and good practice examples, to gain a better understanding of how to deliver good design and clearly signpost where more detailed guidance can be accessed and when these should be taken into account.

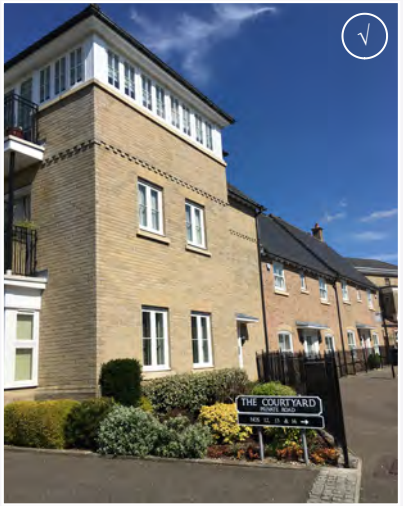
This Guide is intended to be a user-friendly tool and does not seek to replicate existing policy and regulations that will continue to apply to all development. The Guide should be read by:

- Developers and builders in considering potential development proposals.
- Householders considering residential extensions.
- Designers in drawing up schemes.
- Development management officers in assessing the suitability and determination of planning applications.
- Statutory and non-statutory consultees and members of the public in commenting on planning applications.

Maldon District Council encourages good design through its annual Conservation and Design Awards: www.maldon.gov.uk/info/20049/heritage-and-conservation/9189/events/2.



The Quay, Burnham on Crouch



Residential Example, Maldon

A 03 THE VALUE OF GOOD DESIGN

Good design has an impact on all aspects of the built and natural environment, be it a simple extension to an existing house or a large residential or commercial development.

Good design translates into more than the appearance of buildings. It is important in both small residential extensions and large-scale developments where form and materials are introduced and new streets and spaces are created. Functionality and practicality are embedded in the design and are as important as the visual quality of a building, town centre or rural intervention.

Perhaps the greatest benefits of good design are felt in our own homes and the spaces around them. Well-designed neighbourhoods help to build communities, give them a sense of belonging and make residents feel safe. Often this can be through simple approaches such as natural surveillance, an easy technique created when new streets and public open spaces are overlooked by windows and doors.

Carefully positioned car parking and cycle storage, as well as integrated refuse and recycling bins, also help to create a sense of order and reduce litter and vandalism.

The quality of open space and the way in which new streets and spaces are designed has a direct effect on how people feel about a place and the whole community benefits from a commitment to usable green space. Access to open space is also shown to have a direct impact on the health and wellbeing of those able to take advantage of it.

For commercial development, well designed buildings are good for business. Flexibility to respond to changing social and economic circumstances is important, as are design solutions which encourage creativity and innovation. Everywhere, investment in good quality design is shown to provide a higher return on the investment made.

Good design in all development is inclusive and accessible for everyone, has a positive impact on the environment, is integrated into its immediate and wider surroundings, provides flexibility for future change, is easily maintained and delivers a return on investment.

Commercial Example, Maldon

The Salt House, St Lawrence

A 04 KEY DESIGN OBJECTIVES

Design quality is a result of an ambition and creativity brought together in a robust design process. The ambition often relates to key factors like character, safety, diversity, movement, legibility, adaptability and sustainability. It is critical that even before the design process commences the right set of design objectives are established. Listed below are some of the key objectives that set the scene for design quality. Throughout the design process they remain the focus of the creative thinking with some being more important than others depending on the project.

Character	Enhance identity and sense of place. All design proposals should be informed by a thorough contextual analysis of the built, natural and historic environment and respond to the scale, height, density, urban grain, settlement pattern and layout, massing, type, materials, vernacular styles of construction and landscape details of the surrounding area.
Safety and inclusion	Ensure places are safe, secure and welcoming for all, including the elderly and disabled. High quality design with no differentiation between market and affordable housing. Understand and address the needs of all potential users to ensure inclusive design. Create safe communities and reduce the likelihood of crime and antisocial behavior.
Diversity	Provide variety, choice and sensory richness in the design. Incorporate a mix of uses and facilities as appropriate with good access to public transport and a wide range of house types and tenures.
Ease of movement	Ensure places are easy to get to and move through. Allow for access to local services, facilities and open spaces, and where needed, provide new facilities, services and open space. Ensure a sufficient level of well-integrated and imaginative solutions for car and bicycle parking and external storage including bins.
Legibility	Ensure places can be easily understood. Ensure that streets and spaces are overlooked creating a positive relationship between fronts and backs of buildings, with clearly defined public and private spaces
Adaptability and Quality	Anticipate the need for changes in buildings and outdoor spaces. Design places that function well today, last for the future and are easy to adapt to changing requirements of occupants and other circumstances at any time. Construct buildings that are flexible to accommodate changing needs.
Sustainability	Minimise the impact on our environment. Use land efficiently whilst respecting the existing landscape character and green infrastructure. Enhance biodiversity and as a minimum, deliver schemes that lead to no net loss of habitat. New development should be sustainable and resilient to climate change by taking into account landform, layout, building orientation, massing and landscape to minimise energy consumption and mitigate water run-off and flood risks.
Designing for future	Design buildings and spaces and use materials that can be maintained over time and will age well. Take account of possible future development in the local area. Consider potential for future expansion of the development.
Good streets and spaces	Provide a clear and permeable hierarchy of streets, routes and spaces to create safe and convenient ease of movement by all users. Create places with attractive outdoor spaces. Incorporate or link to a well-defined network of green spaces and water. Establish a high quality public realm with well managed and maintained public areas.

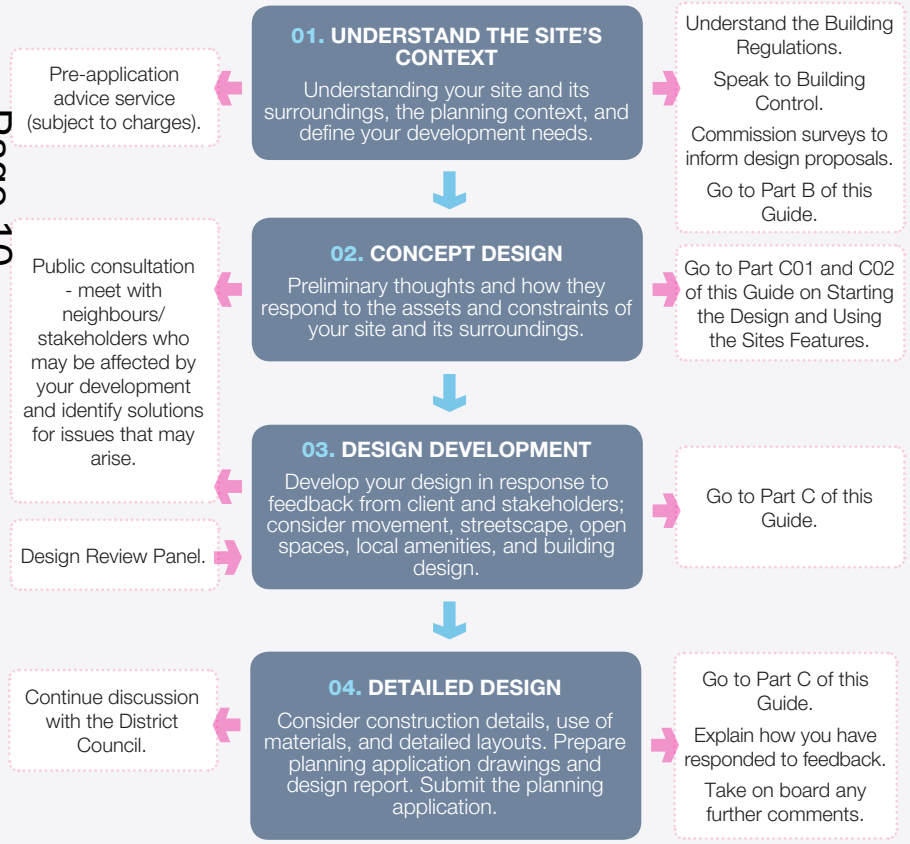
Additional useful guidance:

- By Design, Urban Design in the Planning System: Towards better practice (2000)
- Urban Design Compendium 1 (3rd edition, 2013)

A 05 WHAT IS THE PROCESS?

Having defined the objectives we need to understand the next steps. The RIBA has created a plan of work which helps everyone involved in the design, planning and construction process in a logical manner. This process considers all relevant issues, constraints and opportunities, engages with key stakeholders and the public (where appropriate) and then through an iterative process, applies creative thinking to these opportunities in development propositions.

The diagram below provides an overview of the issues to be addressed at different stages in the design process. These requirements will be dependent on the scale and complexity of the application.



Flow chart indicating design process

A 06 WHO TO TALK TO?

Depending on the scale and nature of the scheme, it may be appropriate to engage with relevant statutory authorities and organisations and officers within the District Council. This should be done as early in the design process as possible.

In addition, it may be appropriate to talk to neighbours and carry out public consultation with the existing community, as proposals can affect a wide range of people. The Government promotes a proactive approach to planning where community engagement and effective consultation are carried out prior to the submission of a planning application.

Community engagement and effective consultation can be used to gather views on key aspects of your site and its context, which are considered important to the local community. Their views on your initial options will help gain an understanding of any concerns that the community may have in relation to your application.

There are a number of ways to consult or engage with the town and parish council, the community and other interested parties.

Public consultation and exhibitions

Statutory authorities and organisations that might be relevant to consult with to provide initial advice:

- Natural England: Landscape, Green Infrastructure and Biodiversity.
- Historic England: Heritage Assets.
- Environment Agency: Flooding, Rivers and Pollution.
- Essex County Council: Leading Local Flood Authority and SuDs Authority.
- Utility Companies.
- Essex County Council Highways.
- Town and Parish Councils.
- Maldon District Council: Urban Design, Landscape, Ecology, Trees, Environmental Health and Conservation/Heritage officers.
- Conservation Advisory Group, Friends Groups and Amenity Societies.
- Neighbourhood Planning Forums.
- Sport England Authority.

Refer to the Council's Statement of Community Involvement for further information and see page 10 of this Guide.

PART B MAKE IT MALDON DISTRICT

B 01 MALDON DISTRICT CONTEXT

Steeple Village, a rural village context

The previous section outlined the purpose and value of the Guide and the design process applicants should follow in developing their proposals. This part of the Guide outlines the District Council's requirements on how applicants should assess the context and character of their site to ensure that new development will respect, respond to and enhance the unique characteristics of the settlement at Stage C01.

The aim of this part of the Guide is to help the applicant understand the context and character of the area and establish the constraints and opportunities that will guide their proposals.

The applicant should have an understanding and respond to the specific context of their site and appreciate that the application of design principles within this Guide will depend on the location within the District. This chapter provides an overview of the various parts of the District.

The first step is to demonstrate a clear link between the appraisal of the context, any applicable planning designations, the character of the site, physical constraints and opportunities and the development proposals. This link or rationale will need to be explained through the Design and Access Statement that will accompany the planning application.

The steps required in this process are set out in the flow chart below.

The District's environment is protected by a number of local, national and international designations, including: SSSI, Special Areas of Conservation, Conservation Areas, Listed Buildings, Registered Parks and Gardens, Local Wildlife Sites, Registered Battlefield Sites, Scheduled Ancient Monuments and buildings of local heritage value which seek to preserve the area's natural and built environment for future generations. The applicant should check the LDP Proposals Map and carry our their own desktop analysis, referring to the Council's website for further details.

B 01A. LOCATION AND PLANNING DESIGNATIONS

- Identify statutory or non-statutory designation
- Refer to B 02 Helpful Policy and Guidance to Consider

B 01B. PREPARE A CONTEXTUAL ANALYSIS

- Understand surrounding landscape, biodiversity, heritage and built form
- Refer to B 03 Landscape Settlement and Character and B 04 Locational Characteristics

B 01C. IDENTIFY ANY CONSTRAINTS AND OPPORTUNITIES

- Identify key constraints and define opportunities
- Refer to B 05 Site Appraisal

RESPOND

- Concept design (stage 02)
- Design development (stage 03)
- Detailed design (stage 04)
- Refer to PART C

Flow Chart indicating the process that applicants should follow to respond to the site and setting

B 02 HELPFUL POLICY AND GUIDANCE TO CONSIDER – INTERACTIVE DOCUMENTS

All development is likely to be subject to local planning policy and national planning guidance. This can be in the form of helpful documents or more prescriptive 'Acts' set within a legal framework.

National and local planning policies will influence whether a site is suitable for development and the form and nature of development. The applicant should carry out a planning review of relevant planning policy documents. In addition, there is a series of other documents, including Neighbourhood Plans, Village Design Statements (VDS), Conservation Area Reviews and Appraisals, Masterplans and Strategic Design Codes, which have been adopted or endorsed by the Council. These are material planning considerations in planning decisions and should be considered in the design of new development. These documents provide a key source of local policy interpretation to supplement the policies in the LDP. Details of the documents endorsed or adopted are available on the Council's website - https://www.maldon.gov.uk.

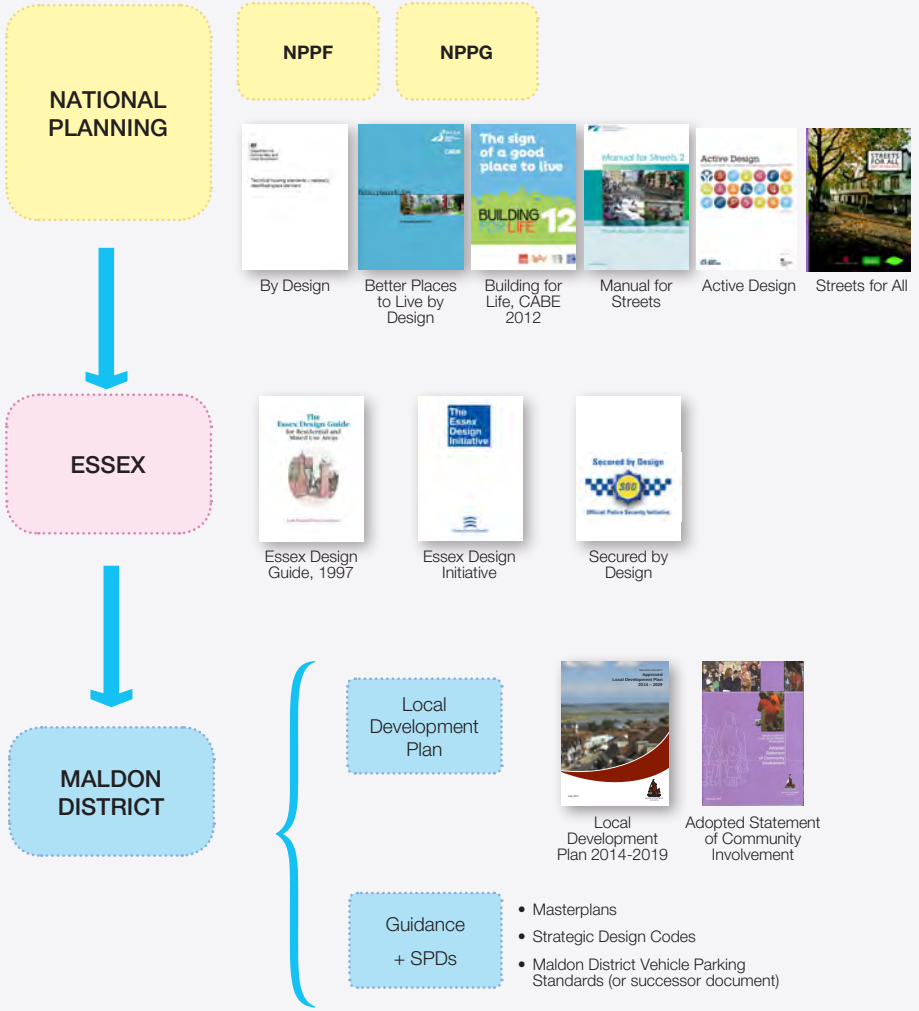
Permitted Development

In some instances, construction may be able to proceed without the need for a formal planning application/approval. This is known as 'Permitted Development' (PD) rights. They derive from general planning permission granted not by the local planning authority, but by Parliament. Details are available from the Department for Communities and Local Government website.

Even if you do not need to make a planning application, you should follow good design principles, with materials, forms and architectural detailing.

Consider Best Practice

In addition to planning policy, applicants should consider best practice in terms of sustainable design, creating better environments and the quality of the built form. Further advice is available from the Homes and Communities Agency (HCA), the Commission for Architecture and the Built Environment (CABE), English Heritage/Historic England and Landscape Institute publications.



B 02 HELPFUL POLICY AND GUIDANCE TO CONSIDER – INTERACTIVE DOCUMENTS

Pre-application advice and service

Regardless of the scale of development proposed, the Council is committed to provide an effective planning service which will add value to the design quality of your scheme. Early discussion between the applicant and the planning authority will help reduce delays and potential uncertainties by identifying any issues at the earliest stage. Pre-application advice is subject to charges. Details of fees and charges can be found at the following link: https://www.maldon.gov.uk/info/20046/development_management/9227/planning_advice_and_information

Click here for BUILT, HISTORIC AND NATURAL ENVIRONMENT

Additional Useful Guidance:

If you require any guidance in respect of what may or may not be a permitted development, you should contact the Council's planning department or refer to the publication 'Permitted Development for Householders: Technical Guidance' (Department for Communities and Local Government, updated in April 2014, http://www planningportal.gov.uk/uploads/100806_PDforhouseholders_TechnicalGuidance.pdf)

Strategic Masterplan Frameworks and Strategic Design Codes

Within areas subject to a Strategic Masterplan Framework and/or Strategic Design Code, these documents should form the basis of the design approach. In circumstances where the Maldon District Design Guide is not consistent with these documents, the principles established in the Strategic Masterplan Frameworks or Strategic Design Codes should be considered in the first instance.

Click here for SPDS, MASTERPLANS AND STRATEGIC DESIGN CODES

Click here for NEIGHBOURHOOD PLANS AND VILLAGE DESIGN STATEMENTS

Further Information

Homes and Communities Agency www.homesandcommunities.co.uk

The Commission for Architecture and the Built Environment (CABE) (http://www.designcouncil.org.uk/our-services/built-environment), Historic England publications; Understanding Place series and Constructive Conservation series (http://www.helm.org.uk/guidance-library/)

Landscape Institute - https://www.landscapeinstitute.org

Historic England: www.historic_england.org.uk

B 03 LANDSCAPE SETTLEMENT AND CHARACTER

The natural landscape of the District is largely shaped by the estuaries of the Blackwater and the Crouch, and the Chelmer and Blackwater rivers and valley sides, together with their extensive flat and undulating alluvial plains. These have created a subtle range of landscapes which have and continue to influence the pattern of development.

The nature of the landscape is set out in detail within the Council's Landscape Character Assessment and each Landscape Character Area (LCA) represents an important consideration when preparing new development proposals. All landscape features need to be acknowledged within any new development and present opportunities, to influence it in a manner unique to the location. Whilst some features may initially appear to limit new building, with careful consideration they will help shape development in a way that strengthens local character and creates high-quality solutions.

Six differing landscape types are identified within the Landscape Character Assessment i.e. River Valley Landscapes; Estuarine Marsh; Drained Estuarine Marsh; Coastal Farmland landscape; and Wooded Farmland Landscapes. Each has its own distinct characteristics which affect the patterns of built settlement. A summary of the six landscape types is set out below.

LCA A: River Valley Landscapes are found around the Lower Chelmer and Blackwater river valleys. Generally they have flat or gently undulating valley floors which in part have a wooded character. In the Lower Chelmer Valley, small settlements are dispersed along the valley sides or clustered around bridging points, e.g Langford. In the Blackwater River Valley, isolated farmsteads are found on the valley slopes with linear villages centred on the roads. All the settlements are screened by deciduous trees.

Drained Estuarine Marsh Landscape

+ Further information can be obtained from Maldon District's Landscape Character Area Assessment, 2006 (or successor document).

Several documents are being prepared to provide up-to-date guidance relating to Green Infrastructure and Landscape. This includes a new Maldon Green Infrastructure Strategy and several area-specific masterplans and design codes where green infrastructure and landscape are central strands. For further details see www.maldon.gov.uk

LCA C: The Estuarine Marsh is composed of mudflats and marsh which combine to create a flat, open landscape with a sense of remoteness and tranquillity. Generally there is an absence of trees and hedgerows and whilst there are no settlements within the area, North Fambridge overlooks it.

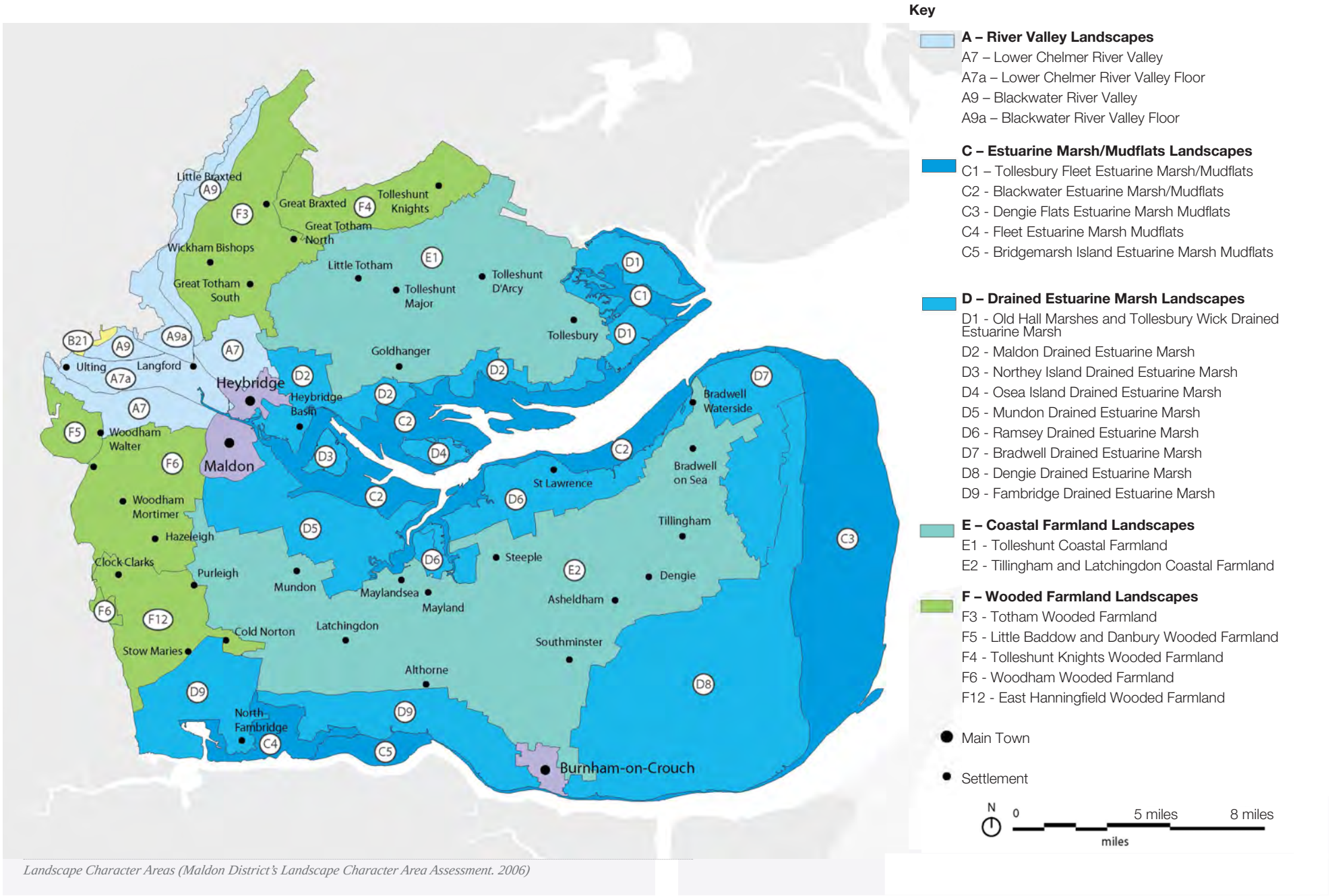
LCA D: The Drained Estuarine Marsh Landscape is one of flat former salt marsh, now devoted to grassland and cultivated fields. Whilst there is an absence of trees and woodland, the drainage ditches create a distinctive pattern within the landscape. Historically, settlement has been dispersed across the area in the form of farms and agricultural buildings. The urban fringe of Maldon and the tourist attractions of Heybridge Basin create a visually more intrusive presence. As with the Estuarine Landscape, the character of the place is one of isolation and tranquillity.

LCA E: The Coastal Farmland Landscape is substantially flat and artificially drained to create agricultural land with a distinctive ancient rectilinear field pattern. There is an absence of woodland and the settlement pattern is sparse. The network of rural lanes which serves the area is small in scale and sensitive to change.

LCA F: The Wooded Farmland Landscape is predominantly elevated undulating hills or ridges and slopes. It includes a mixture of arable and pasture farmland. It includes blocks of mature mixed and deciduous woodland (including areas of ancient and semi-natural woodland), copses, hedges and mature single trees, and mature field boundaries. It provides framed views to adjacent character areas. In places it has an enclosed character with network of quiet, often tree-lined narrow lanes.

Estuarine Marsh Landscape

+ Further advice on assessing the landscape character and the visual impact of larger development can be obtained from 'An Approach to Landscape Character Assessment' by Nature England and 'Guidelines for Landscape and Visual Impact Assessment' by the Landscape Institute.



Landscape Character Areas (Maldon District's Landscape Character Area Assessment. 2006)

B 04 LOCATIONAL CHARACTERISTICS

Preparing a Character Study

The level of information in the study should be related to the scale of the development proposal. For example a proposal for a large-scale urban extension should be supported by an extensive study to consider the extension in the context of the settlement, and its movement and green infrastructure network. It should carefully consider how the development would integrate with and enhance the settlement. However, an application for i Building Regulations - Approved Document M; Access to and use of buildings, Approved Document B (fire safety); Approved Document L Conservation of fuel and power infill development or a single dwelling may consider the character of the street and the neighbouring properties, to inform how the development can successfully complement the street scene.

Consider the Context

The starting point for the character study is a consideration of the wider context of the applicant's site. The application of the principles within the Guide may vary depending on the location of the site within the District. Historic England's Place Check toolkit may assist applicants when a character study is undertaken in a Conservation Area (see Appendix 4).

For most major applications in the rural area or urban fringe/countryside edge, a professional landscape appraisal or Landscape and Visual Impact Assessment (LVIA) will also be required. Within the District there are four main settlement contexts:

1. Main Towns - Burnham on Crouch, Maldon and Heybridge. Predominantly an urban context where the buildings, hierarchy and mix of uses and the public realm are the dominant features and is defined by a series of streets, squares and courts. Within the core of the town centres, the landscape takes a complementary role within this context, but adds significantly to setting.
2. Agricultural Settlements - Althorne, Asheldham, Bradwell-on-Sea, Dengie, Hazeleigh, Langford, Latchington, Mundon, Purleigh, Southminster, Steeple, Stow Maries, Tillingham, Tolleshunt D'Arcy, Tolleshunt Knights, Tolleshunt Major, Ulting, Little Braxted and Great Braxted. Buildings are loosely clustered to define space in key locations such as around nodes, main streets and defining important spaces, for example, a Village Green. The landscape features define the space. The Parish Church is the focal point of villages in these areas.
3. Riverside and Maritime Settlements - Bradwell Waterside, Goldhanger, Heybridge Basin, The Maylands, North Fambridge, St Lawrence and Tollesbury. In most of these villages the waterfront provides a strong feature of character and are closely linked to the open nature of the surrounding landscape. These settlements have developed either as ports, recreation areas or from plot lands, when large areas of farmland were split up into plots for cheap building land. The settlements have a less defined urban character but are closely linked to the open nature of the surrounding landscapes and where the plot lands form the basis of the settlement seen today, especially at St Lawrence, Mayland and North Fambridge.
4. Arcadian Settlements - Cold Norton, Great Totham (North and South), Little Totham, Wickam Bishops, Woodham Mortimer and Woodham Walter. Houses are generally in large plots and partially hidden from public view, nestling in mature tree cover, hedgerows and landscaping and structural planting.

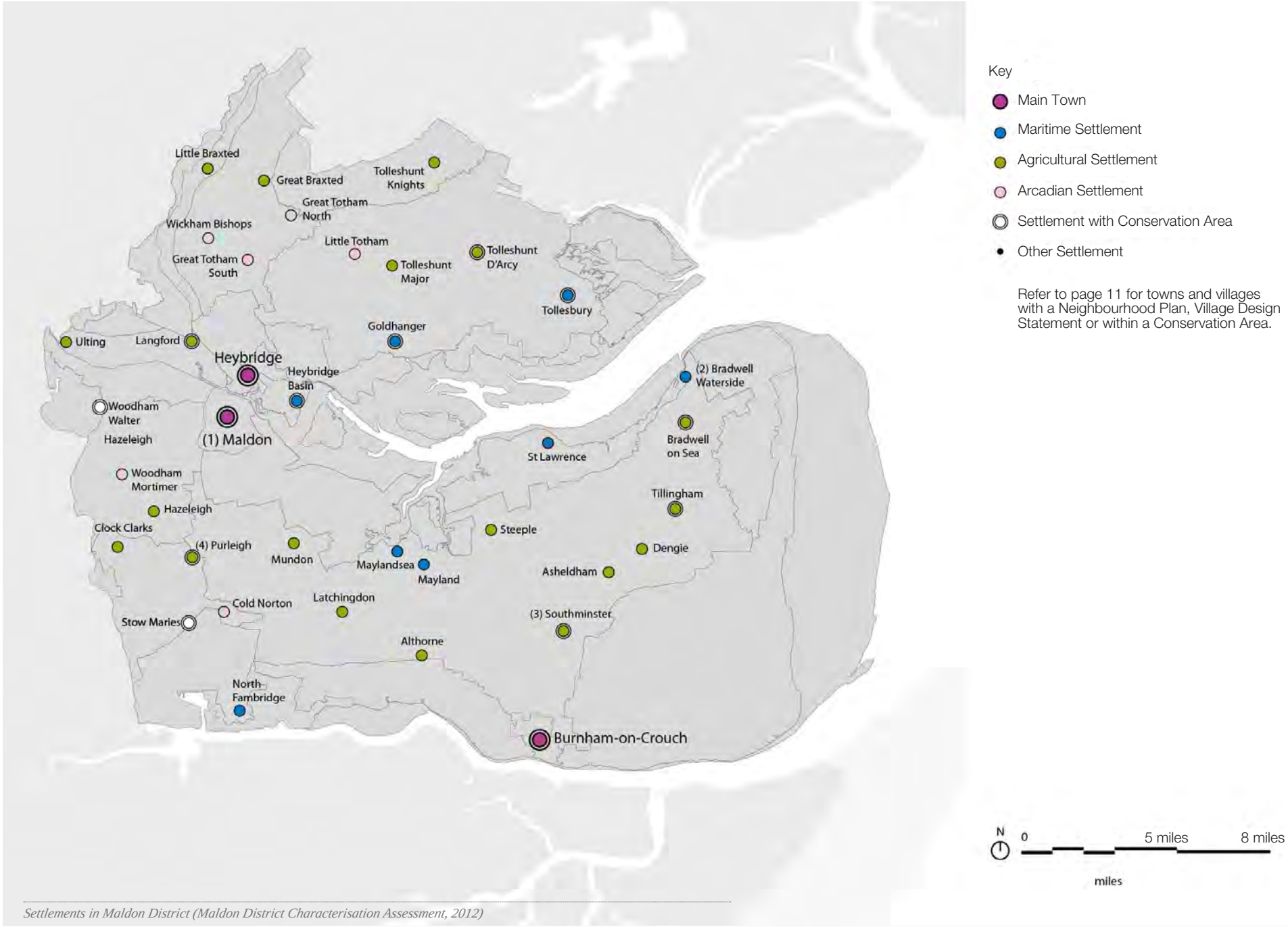
1. Main town and setting

2. Riverside/Maritime

3. Rural Edge

4. Arcadia

+ Further information can be obtained from Historic England's Guidance Documents: Good Practice Advice in Planning 3 – The Setting of Heritage Assets; Understanding Place – Historic Areas Assessments



Settlements in Maldon District (Maldon District Characterisation Assessment, 2012)

B 04_01 MAIN TOWNS

Unique qualities that may apply to your development

The main towns in the District are **Burnham on Crouch, Heybridge and Maldon**. These have different characteristics but are all prominent within their established historic centres, and relate to their landscape settings. The main towns are located at river/ estuarine locations that have a strong influence on character and riverside setting.

A number of key factors define the quality of the built and natural environment and should be considered carefully at the start of the design process. These relate to layout and townscape, building form and massing, public realm and landscape, materials and details. Having an understanding and appreciation of the characteristics of the town and its landscape context and linking this to the exact location in the settlement, provides a good base to start the design process, regardless of how small or large the development is. Whilst town centre interventions may be smaller scale and be focused on details and materials, establishing a positive relationship with the building form and massing that defines the character of the place will be equally important.

Layout and Townscape

The character in different parts of the town is largely defined by the size of individual land ownerships. In the historic centre, the urban fabric is often a finer grain than in the rest of the town because of smaller plot sizes and fragmented land ownership. These characteristics are important, especially when planning larger developments out of the main town or on the edge of town, as are topography and distant views.

The manner in which buildings front streets contributes to specific townscape qualities. Whilst most streets in the main towns have continuous frontages with breaks to accommodate other streets and lanes, in other parts of the towns the streets feel open as they accommodate more detached buildings. The townscape qualities can be defined by the ratio of building height to street width and relate to street hierarchy.

Varied rooflines in all three main towns contribute to creating a sense of scale and character. It is important in the design process to carefully consider and respond to the context and mix of existing pitches, volumes, materials and details.

Building Form and Massing

Building heights vary from 1 to 4 storeys, with variations on floor-to-floor height depending on the use, location and age of the building.

Form and massing are most often related to topography, orientation, use and location within the town. Buildings along main streets are generally of a larger scale with vertical proportions, whilst buildings on the edge of towns respond to the landscape with more fragmented and horizontal proportions and two storeys.

Roofs types relate to building footprint and use. Roofs in main towns are steeper than those on the edge of town. Roof volumes often vary within one building and make a major contribution to the character of an area.

The existing streetscape in all three main towns is characterised by variations in building height, massing and colour. Where a larger plot is developed, the design needs to be sufficiently varied to relate to the surrounding streetscape. This can be achieved through breaking up the overall block mass into smaller buildings. Facades can also provide appropriate vertical emphasis through the fenestration and/or use of colour and material.

Public Realm and Landscape

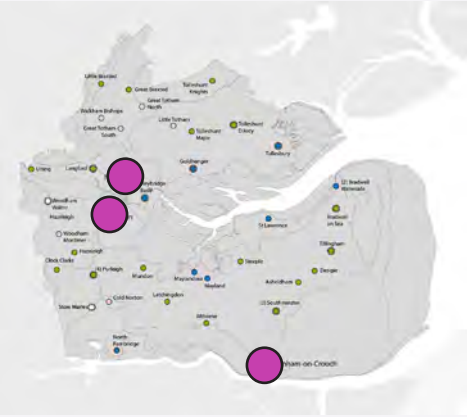
The character of the main towns is defined by the network of spaces and routes and their treatment. For example, buildings in the town centre are often built against the street edge and frequently have no privacy strip or defensible space, whilst the public/ private boundary is defined by soft landscape in developments on the edge of town. The provision of good quality public spaces and direct routes to facilities and services plays a key role in integrating new development into the existing urban fabric.

The provision of appropriate amenity space, car parking and bin storage affects not only the quality of the development but has a direct impact on the character of the area.

Trees, planting and SuDs are also important for the successful integration of developments into the existing urban and landscape fabric, in the main towns and on the edge of settlements.

Materials and Details

Materials and colours provide the visual link to the surrounding context and careful selection is very important. The texture and weathering qualities of materials used in new developments should ideally reflect those of the surroundings. Details highlighting verticality e.g. chimneys, doors and window designs, play a key role in defining character.



Key map - main towns shown in purple

top left: showing Chandlers Quay in Maldon, and bottom: showing proportions and vertical emphasis of Warners Hall illustration (c 1877 and 2003), Burnham-on-Crouch

B 04_02 AGRICULTURAL SETTLEMENTS

Unique qualities that may apply to your development

The following settlements have been defined as agricultural settlements in the Maldon District Characterisation Assessment: **Althorne, Asheldham, Bradwell Village, Dengie, Great Braxted, Hazeleigh, Langford, Latchington, Little Braxted, Mundon, Purleigh, Southminster, Steeple, Stow Maries, Tillingham, Tolleshunt D'Arcy, Tolleshunt Knights, Tolleshunt Major and Ulting.**

All agricultural settlements are located above the reclaimed marshes, on clay lands in the central core of the Dengie peninsula and also grouped to the north of the Blackwater Estuary. The villages are linear or clustered, with the majority dominated by a landmark parish church located at the heart of the settlement. At their edges landscape character influences context.

The village centre where the church is located is usually compact, with buildings developed close to each other and fronting directly onto the street. Gardens to the rear of these houses are narrow and long, with some opening into farmlands. The larger settlements include more than one centre as the edges were developed in the 20th century. At the village edge the overall pattern of development is open, with buildings set back from the street. Local landscape character strongly influences character at the settlement edges.

Layout and Townscape

The change between the centre and edge of the village is often pronounced and identified by the point where buildings begin to dominate and enclose views, as opposed to them just fronting a street that accommodates front gardens, trees and hedges. To retain this characteristic, infill and new development should enclose and front the street in a similar manner. Where larger sites are developed on the edge or outside the village boundaries, the main consideration is the sensitive rural edge where new development relates to landscape character.

Building Form and Massing

Form and massing is varied and related to topography, orientation and use. Public buildings are usually of a larger scale than domestic buildings. The variety of house sizes located in the village centre is reflected in the height, with buildings of 1,1.5, 2 and 3 storeys. Where 2 storey houses dominate the townscape they have a different floor-to-floor height adopted at the time of construction. The predominant height at the edge of a village is 2 floors and the floor-to-floor height is more consistent.

Typical details: weather-board, tiled gambrel roof, Bradwell-on-Sea

Typical details: steep plain tile roof, with weatherboard painted white. Tillingham

Red brick and weatherboard, Eveleigh House, Purleigh

Wide span roofs with shallower pitches dominate the edges and gabled roofs, with some half-hipped examples common in the village centre. Gambrel roofs provide attic space on the first or second floor and are a local characteristic.

The facades are dominated by solid walls, with vertical emphasis on openings such as doors and windows. In village cores, occasional shop windows provide a good contrast.

Public Realm and Landscape

The character of the village centre is defined by a central space and narrow routes. The space relates to the church and is enclosed by continuous building frontages. Buildings in the village centre are constructed against the street edge with no front gardens. The private space in front of houses on the edge is important as it defines the public/ private boundary. Planting around the front gardens is mature and makes a significant contribution to the character as it starts to blur the edge between village and countryside.

Trees, structural planting and SuDs form important green infrastructure that successfully integrates developments on the edge and outside the village boundary into the existing built and landscape fabric.

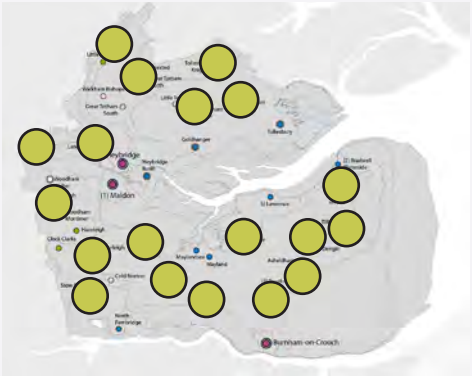
Native hedgerows and hedgerow trees are distinctive features at the settlement edges.

Materials and Details

Materials and colours provide the immediate visual link to the surrounding context and the careful selection of these is important. Most of the agricultural villages include painted timber, red or yellow brick and render.

Windows are flush with the wall. Dormer windows set apart from each other are seen on high pitched and gambrel roofs. Details that highlight verticality such as chimneys, doors and windows play a key role and are important for defining character.

Brick and window detail, Bradwell on Sea



Key map - agricultural settlements as shown in yellow

B04_03 RIVERSIDE AND MARITIME SETTLEMENTS

Unique qualities that may apply to your development

The settlements defined as maritime and riverside by the Characterisation Assessment are: **Bradwell Waterside, Goldhanger, Heybridge Basin, The Maylands, North Fambridge, St Lawrence and Tollesbury**. These villages are located in low lands adjacent to the Blackwater Estuary and the River Crouch. The estuaries themselves are of International Importance for Nature Conservation. These settlements have developed either as ports or as plotlands where large areas of farmand were split up into plots for cheap building land. These settements have a less defined urban character, but are closely linked to the open nature of the surrounding landscapes.

Aspects of some port and riverside settlements are found on the waterfronts of both Maldon and Burnham on Crouch.

Layout and Townscape

The maritime and riverside settlements are characterised by concentrations of development along the waterfront which act as the centre of activity. The relatively flat topography defines the regular layout of narrow streets and blocks. Plots are small and accommodate a mix of houses and boat sheds.

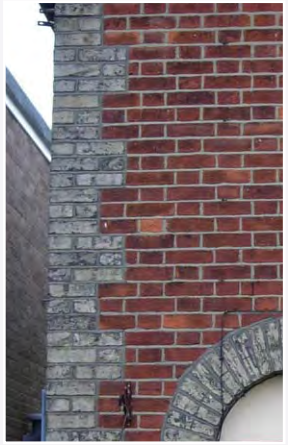
Houses are usually set back from the street and modest in scale, with pitched roofs that are shallow in comparison to other parts of the District. Some streets are lined with trees and hedges that dominate the townscape.

Building Form and Massing

Building height is predominantly 1 or 2 storeys. Form and massing relate to topography and the open feel of the waterfront. Views and vistas influence form and massing of buildings and the domination of horizontal proportions of the facades.

The Sail Lofts before and after renovation in the early 1980s, Tollesbury

Typical details: weatherboarded and traditional detailing of cottage, Tollesbury



Typical details: red brick with quoins of gault brick, Heybridge Basin

Rooflines and chimneys are less dominating elements of the townscape. Whilst solid walls dominate in older buildings, windows and openings are larger and more irregular in newer developments. These architectural features play an important role to reflect light and create shadows.

Public Realm and Landscape

The relationship of public space with the waterfront and how it is accessed and framed is of critical importance to the maritime settlements. The integration of SuDs and the use of open space to alleviate flood risk are important considerations for developments in these areas.

Materials and Details

Traditionally, buildings in this area were built of timber and timber remains the material that characterises the area. The facades are often finished in horizontal timber boarding which is in its natural weathered colour or painted white or black.

House Boats

The District has small groups of houseboats along the rivers and estuaries which provide a unique type of housing framing part of the District's varied character. House boats are a form of residential development similar to that of land-based housing, requiring similar infrastructure such as car parking provision, access roads, refuse disposal points and access to infrastructure, facilities and services. Development will be required to take into account nature conservation, the character and appearance of the surrounding area and safe navigation of waterways, rivers and estuaries.

Typical details: white and black weather-board, Heybridge Basin

Key map - riverside and maritime settlements as shown in blue

B 04_04 ARCADIAN SETTLEMENTS

Unique qualities that may apply to your development

The following settlements have been defined as Arcadian by the Maldon District Characterisation Assessment: **Cold Norton, Great Totham (North & South), Little Totham, and Wickham Bishops, Woodham Mortimer, Woodham Walter.**

Although these settlements have different characteristics they do have much in common, such as their rural environment integrated by the picturesque and pastoral approach to landscape design and structural planting in streets and individual plots. This approach is characteristic of the layout of parks of great country houses in the eighteenth century.

Recent years have seen an increase of infilling of spaces between houses, rebuilding of houses with a larger footprint than their relatively modest predecessors and the addition of large groups or small cul-de-sac estates to the edges of the villages. This has gradually eroded much of the original Arcadian character. Where there has been the retention of trees or structural planting, the need to create new vehicular accesses, footways and parking areas has caused the removal of soft verges and hedges, resulting in the disappearance of a sense of soft enclosure and, in some cases, seclusion.

A number of key factors define the character of development in the settlements and should be considered carefully at the start of the design process.

Layout and Townscape

The layout of the Arcadian villages is characterised by small farmsteads, with cottages and modern houses present along rural lanes, especially in the east of the area. There are various dispersed groups of villages and hamlets, each with its own specific but small historic core.

The size of dwellings varies, with larger houses and small bungalows placed centrally in large gardens. The earlier houses still follow traditional forms and roof spans, with additive compositions of wings and ranges sometimes at right angles to the main house. Plans can be varied, with no predominant arrangement of entrances or main windows.

The building of some larger houses and villas for residents emerged in the 19th Century. More recently, development has seen areas of higher density housing evolve as incremental small scale developments have crept along and between the existing lanes, with new cul-de-sacs and the loss of the overall dominance of trees and soft landscape.

Building Form and Massing

Traditional storey heights and roof forms were present until the mid-twentieth century following the precedents of pitched roofs with chimneys.

The existing streetscape is characterised by an original network of lanes, where properties are often set back behind substantial front gardens. The roadside hedges, trees, green verges and ditches were retained. Deep gardens to the side and rear were retained with planted boundaries. The density can be as low as six dwellings per hectare.

Public Realm and Landscape

The Arcadian character is derived mostly from the qualities of the surrounding landscape and being in harmony with the natural environment. Buildings of varied architectural style can fit into this character if they are integrated into the landscape and relate to the unique environment.

The existing tree cover and vegetation of a site, including grass verges, must be retained and enhanced by new planting of native and appropriate species. Hedges or other appropriate natural boundary treatments should be used to provide enclosure to front gardens. Open plan lawns are not appropriate in the Arcadian context.

Materials and Detail

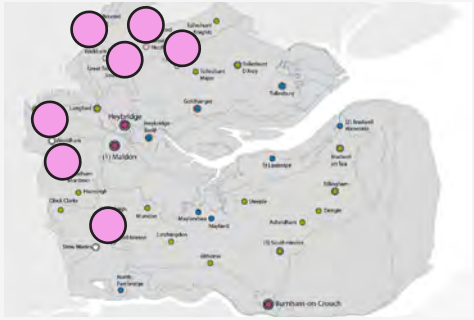
The earlier vernacular houses generally have smaller windows that reflect the lower height of the internal spaces. The emphasis on openings is usually vertical, with vertical subdivisions. The Arts and Crafts movement led to a greater focus on horizontal openings.

A range of local materials is found which includes timber frame with render or weatherboard, soft red and gault bricks with imported yellow stock. The use of render with mock applied timbers is used on some of the larger individually designed houses and reinforces the Arts and Crafts and other external influences.

Woodham Mortimer

The Swan restaurant at Little Totham

Barn Conversion, Wickham Bishop



Key map - Arcadian settlements in pink

B 05 SITE APPRAISAL

Having identified planning designations relevant to the site and prepared a character study, applicants should then carry out a detailed site appraisal to consider the physical aspects of their site. This could include topography, existing drainage, natural features and access points in order to identify the key constraints and opportunities that may impact on future development.

The aim of the site appraisal is to identify, in spatial terms, those constraints that will impact on the design and the opportunities present to the site. This will inform the understanding and design approach to the site including:

- The context of the site - the building lines of adjoining properties and the size, height and materials of any adjacent buildings should be noted. Where there are variations, these should be considered as key determinants of the form, massing and layout of the new development.
- The relationship of the site to the wider street scene and the settlement as a whole including (where appropriate) views of the site from open countryside.
- The character and significance of any existing buildings, walls and other structures already on the site. Their potential for reuse as part of the new living accommodation, for storage or garaging or as a means of tying the new buildings into their surroundings, should be fully investigated.
- The contribution made by trees or other planting, landscape and biodiversity features within or adjoining the site.
- Sustainable development principles – reducing energy use and using renewable sources; choosing 'low impact' and local building materials from sustainable sources; minimising levels of waste arising from development; and prioritising the use of brownfield land.
- The impact and requirements of the Building Regulations, in particular Approved Document B (Fire Safety), Approved Document L - Conservation of Fuel and Power, and Approved Document M - Access to and Use of Buildings, upon the design of new building(s).
- Consideration of promoting healthy lifestyles in linking to destinations outside of the development by walking and cycling and the types of activities in green corridors and multi-functional open spaces within the development.

It is also recognised that most settlements in all the village categories, and particularly within the main towns, contain mid-late twentieth century developments that have a weak character. If these developments were to be redeveloped as a whole, then their redevelopment should be guided by the key characteristics and policies of the appropriate section of this Design Guide.

B 06 SITE AND SETTING SUMMARY

Make sure that a site appraisal plan is prepared that considers the wider and local context within which the development is set considering: *What are the features of the site and its surroundings? Can we use them to shape the design? How does it connect with the surroundings and integrate with the settlement?*

In particular, have you:	Tick when reviewed
• Identified all planning designations.	
• Considered the character of the site within its settlement and outlined how your design can respond to this character.	
• Prepared a detailed site appraisal and established the constraints and opportunities that apply to the site, in particular to:	
Existing networks of natural features including trees, hedgerows, watercourses, ponds, green space, meadows, arable land, habitats and Public Rights of Way (footpaths, bridleways etc).	
Areas, buildings and/or structures of historic significance and importance including man-made landmarks and below ground archaeology.	
Areas, buildings and/or structures of historical importance including man-made landmarks.	
Views into and out of the development site.	
Topography and landform.	
Land uses adjacent to the site and the effects these may have on the design or treatment of the edges of the development.	
Meets all site and setting appraisal requirements of the MDC Local Validation Check List.	

At this stage, the applicant should have a full understanding of their site and its setting. This work should inform the design proposals in terms of street layout and connectivity, land use, landscape and townscape character, use of materials, height and massing in a holistic manner.

C 01 STARTING THE DESIGN

How to use Part C of the Guide

Once the unique qualities that may apply to your development have been established, this part of the Guide sets out the design principles to follow. Illustrated by the diagram below, Part C is subdivided into three sections:

- Landscape and Public Realm
- Building Design
- Delivery and Maintenance

The design principles are illustrated using indicative sketches which capture some of the most important characteristics of the settlements across the District. The sketches are not meant to be prescriptive but illustrate how development could provide a design response.

01 CONCEPT DESIGN

Preliminary thoughts and how they respond to the assets and constraints of your site and its surroundings.

02 DESIGN DEVELOPMENT

Develop your design in response to feedback from client and stakeholders; consider movement, streetscape, open spaces, local amenities, and building design.

03 DETAILED DESIGN

Consider construction details, use of materials, and detailed layouts. Prepare planning application drawings and design report. Submit the planning application.

How to use this part of the Guide

LANDSCAPE AND PUBLIC REALM

- **C02 Using the site's features**
- **C03 Creating a network of streets, cycleways, footpaths and access arrangements**
- **C04 Creating enclosure and definition**
- **C05 Streets where everyone can meet, gather and relax**
- **C06 Open spaces**
- **C07 Residential outdoor amenity**
- **C08 Street furniture, lighting and public art**
- **C09 Waste management and utilities**
- **C10 Car parking**
- **C11 Cycle parking**

BUILDING DESIGN

- **C12 Layout and plot size**
- **C13 Density and uses**
- **C14 Form and massing**
- **C15 Corner buildings**
- **C16 Inclusive and accessible design**
- **C17 Noise and overshadowing**
- **C18 Facades and elevations**
- **C19 The building edge**
- **C20 Materials and details**

DELIVERY AND MAINTENANCE

- **C21 Future proofing**
- **C22 Delivering high quality development**
- **C23 Sense of Place Toolkit**

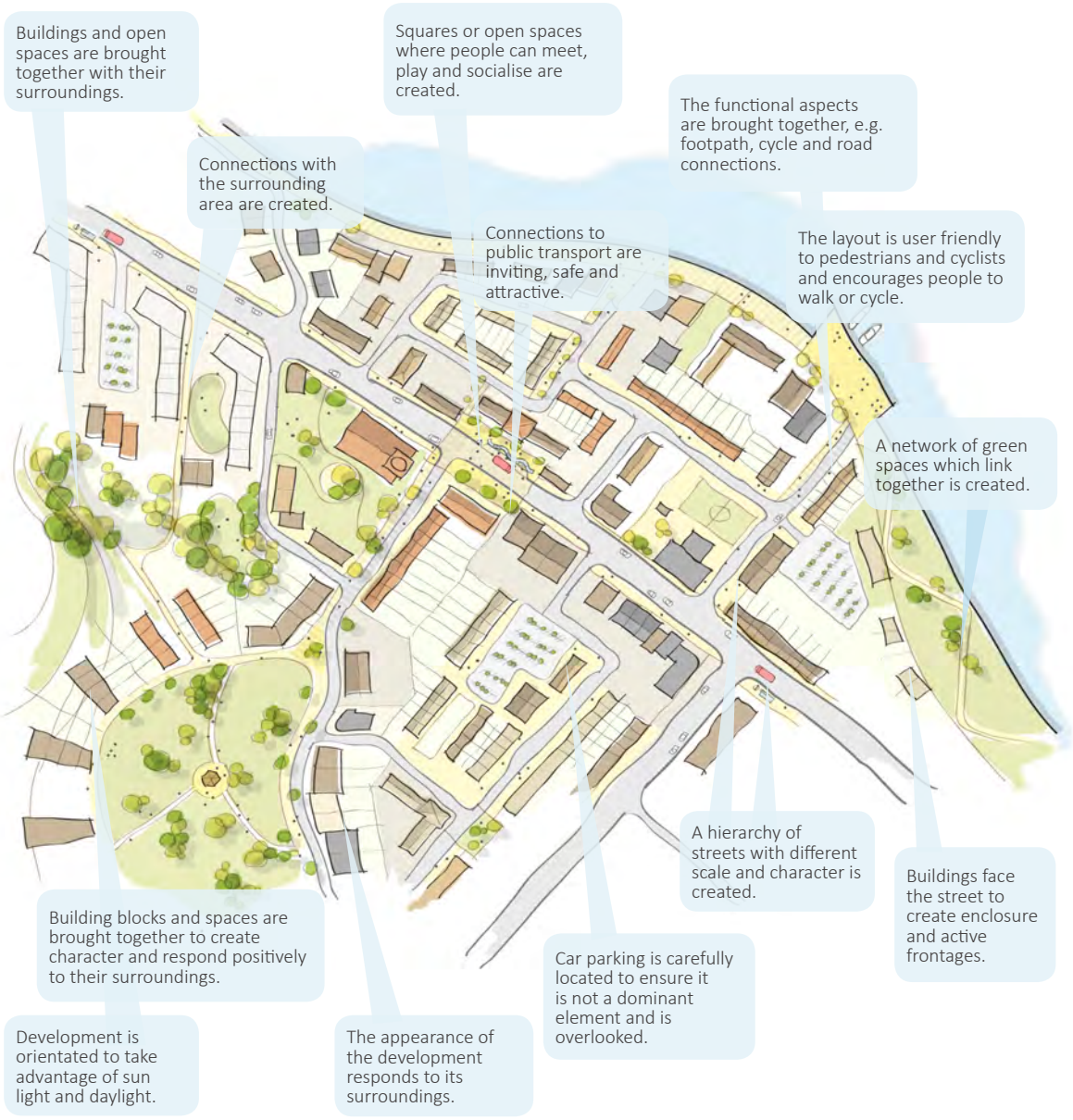
PART C: WORKING WITH THE GUIDE

C 01 STARTING THE DESIGN

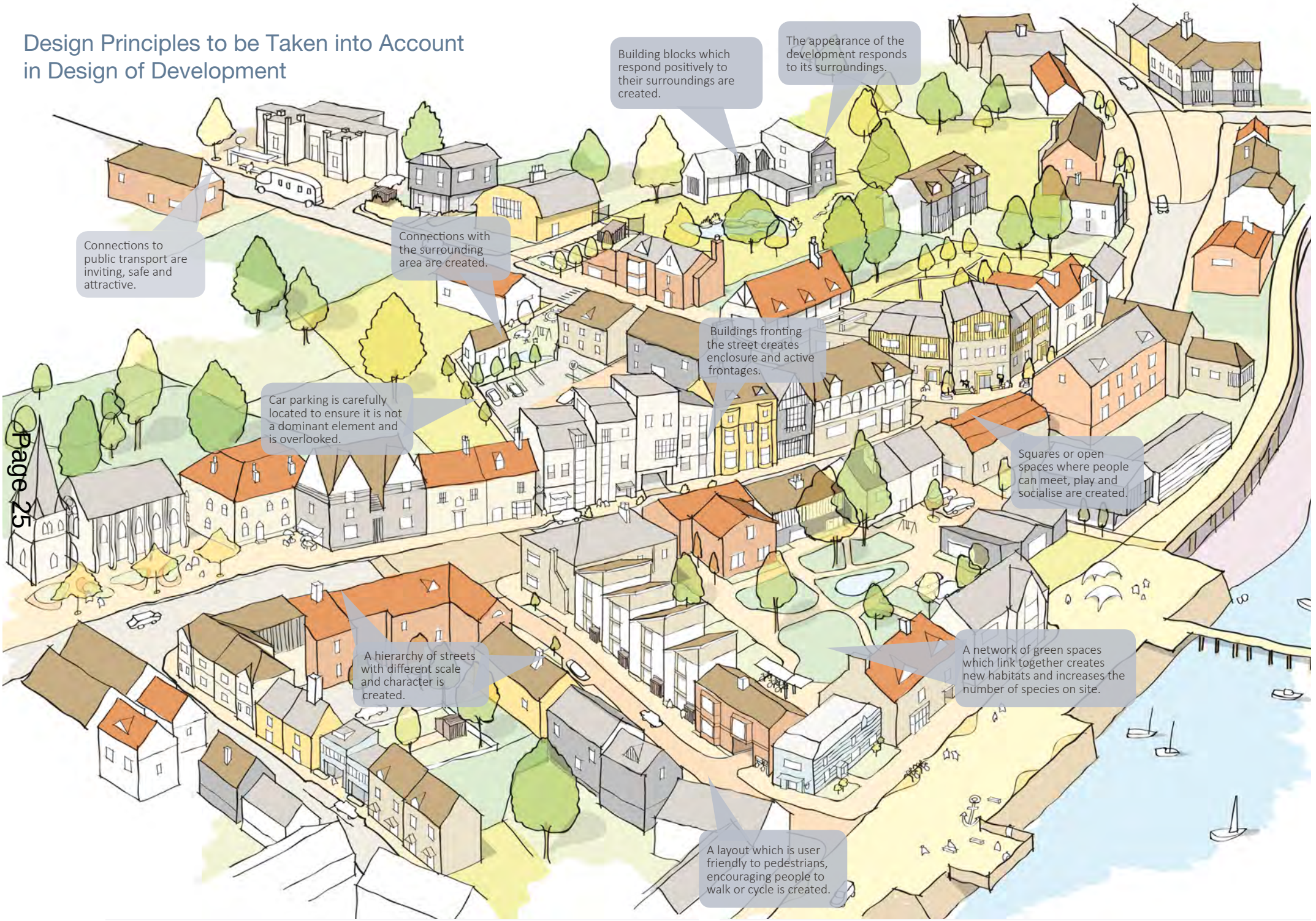
Concept Plan

The information gathered should be drawn upon to create a concept plan which responds to any significant constraints on or adjacent to the site and exploits its opportunities.

Make sure that:	Tick when reviewed
• A vision or 'picture' of the development is established which brings buildings and open spaces together with their surroundings.	
• Environmental issues such as air quality, water consumption and quality, drainage, sewerage, energy, noise, light, waste, digital signals, contamination, design principles and building materials are taken into account	
• The appearance of the development responds to its surroundings, reflects the scale and character of the local area and helps strengthen the character.	
• The functional aspects are brought together, e.g. footpath, cycle and road connections.	
• Connections with the surrounding area are created and the development is integrated with its surroundings.	
• Building blocks and spaces are brought together to create character, and respond positively to their surroundings.	
• Development is orientated to take advantage of sun light and daylight.	
• The layout is user friendly to pedestrians and cyclists and encourages people to walk or cycle.	
• Buildings face the street to create enclosure and active frontages.	
• A hierarchy of streets with different scale and character is created.	
• Squares or open spaces where people can meet, play and socialise are created.	
• A network of green spaces which link together to provide green infrastructure for wildlife and people is created.	
• Car parking is carefully located to ensure it is not a dominant element and is overlooked, and various solutions are considered.	
• Connections to public transport are inviting, safe and attractive.	



Design Principles to be Taken into Account in Design of Development



C 02 USING THE SITE'S FEATURES

Landscape or Natural Features

Natural assets and physical characteristics such as watercourses, orientation, wind direction, topography, landform, geology, drainage patterns, field patterns, boundaries and vegetation cover have had a significant influence in shaping the District's settlements. Working with these features and the species and wildlife that are supported can contribute to sustainable development and help to enhance the distinctive local character within the district.

Make sure that the scheme:	Tick when reviewed
• Is integrated with the local landscape character.	
• Uses the physical features and topography of the site to best advantage.	
• Is designed to maximise the benefits of the site's natural resources and wildlife.	
• Strengthens and retains existing features of biodiversity and ecological value such as hedgerows, ditches and watercourses and their species.	
• Has a network of green spaces which connect to the wider landscape and create new habitats to increase biodiversity value.	
• Has a joined-up network of open spaces and is located where existing and new residents are able to have easy access to promote physical activity.	
• Incorporates SuDs as an integral part of the development.	
• Reflects natural or cultivated elements e.g. incorporating tree species/ planting characteristics of the area.	
• Uses the challenges of air quality, noise and contaminated land sources to inform orientation and the location of development.	

Further guidance:

Maldon District's Vehicle Parking Standards SPD (or successor document)

TCPA/Wildlife Trust (2012) Planning for a Healthy Environment - Good Practice Guidance for Green Infrastructure

Sustainable Urban Drainage Systems Design Guide, ECC, 2016

Green Infrastructure and Landscape Technical Document

Building for Life 12

Townscape

Street layout, building, scale and massing, rooflines, windows and door proportions, chimneys, orientation, layout of gardens and land use, all define the townscape.

Make sure that the scheme relates to:	Tick when reviewed
• The scale, character and pattern of surrounding buildings.	
• Conservation Area and Listed Buildings requirements.	
• The existing building materials, textures and colour palettes.	
• Key views, focal points or landmarks.	
• Existing features and amenities.	
• The current routes including vehicle highway, cycle and footpath network, Public Rights of Way (PRoW) and Bridleways to promote physical activity.	

Building framing the view to waterfront

Building set back to provide distant views

Further guidance:

ECC Sustainable Urban Drainage Systems Design Guide 2016

C 03 CREATING A NETWORK OF STREETS, CYCLEWAYS, FOOTPATHS AND ACCESS ARRANGEMENTS

Streets should be designed to feel part of the local area. They should serve many functions, not just to the circulation of traffic, but also walking, cycling, play, social interaction and to encourage healthy living and direct connections to public transport and local facilities and services.

Make sure that:	Tick when reviewed
• The scheme has a network of streets, cycle ways and footpaths, which connect to each other and where possible provide alternative routes for all users and all modes of transport.	
• New streets have a logical order and a street hierarchy which incorporates multi-functional routes. These will be expressed by their width, built enclosure, frontage, parking arrangements, materials and street planting.	
• New streets and footways can connect to neighbouring land, which may be developed in the future.	
• A connectivity network via footpaths and cycleways is considered separately if a cul-de-sac or dead-end arrangement for vehicles is unavoidable. Whilst a single access point and cul-de-sac arrangement may be unavoidable for motor vehicles, pedestrians and cyclists should not be constrained in terms of access and movement to the wider community.	
• Streets, cycle ways and footpaths follow desire lines and use natural features identified at the start to create inviting, interesting, direct and safe routes for all users.	
• Streets, cycle ways and footpaths include proposals for hard and soft landscape that reflect the characteristics of the local area.	
• All routes provide direct pedestrian and cycle links to local amenities such as shops, schools and health centres.	
• Routes are attractive to encourage cycling, walking and use of public transport.	
• Where appropriate, to consider access to PRoW, Bridleways and potential for multi-user tracks and links.	

Further guidance:

Manual for Streets (DfT)

Building for Life 12

Maldon District Vehicle Parking Standards SPD, 2006 (or successor document)

ECC Developers Guide

Sport England and Public Health England Active Design Guidance 2015

Examples of public realm design providing easy access and movement for all users that encourages walking and cycling

C 04 CREATING ENCLOSURE AND DEFINITION

The definition and enclosure of streets and spaces relates to the height and width of buildings. The distance between buildings should be relative to the width of the street or space in front of them and the buildings on the other side.

This relationship will affect how comfortable or safe a person feels when using the street or space.

The boundaries between public and private spaces can take many forms, including planting, hedges, walls and fencing. Sometimes it is appropriate to have a less physical barrier, for example the change from public space to private space could be shown by a change in materials. The choice of boundary treatment should reflect high quality treatments used in the local area.

Make sure that streets and spaces:	Tick when reviewed
• Are defined and enclosed by buildings with a human scale.	
• Are fronted by buildings that have ground floor windows from habitable rooms overlooking the street or space - known as natural surveillance.	
• Are fronted by main entrances/front doors which provide direct access to the street or space - known as an 'active frontage'.	
• Are defined by boundaries that do not limit the amount of overlooking from the adjacent buildings but clearly indicate and/or divide public space from private space.	
• Provide residents of adjacent buildings with privacy by providing a sufficient amount of private space between public and/or communal spaces and the adjacent buildings - known as 'defensible space'.	

Planting adds to the character of the streetscape and provides an efficient boundary between private and public spaces. If none or little frontage, a variety of materials and building heights creates enclosure and definition.

Further guidance:

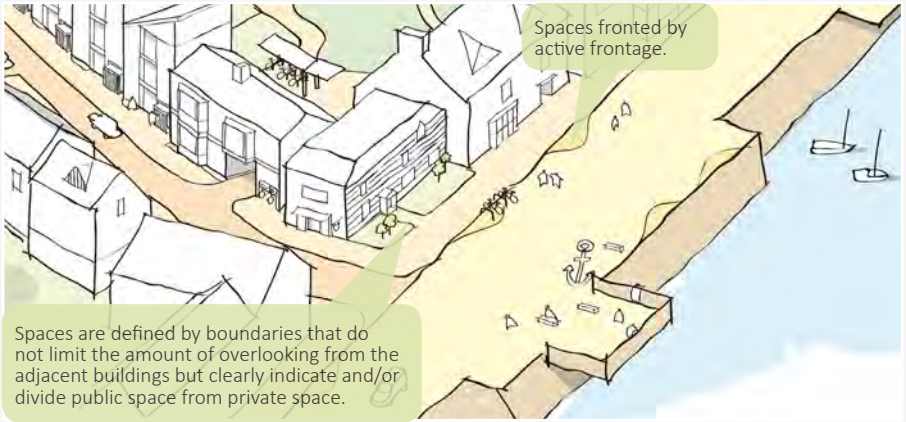
Local Development Plan - Policy S3 Placemaking

Urban Design Compendium

Building for Life 12 - Creating Well Defined Streets and Spaces

Secure by Design

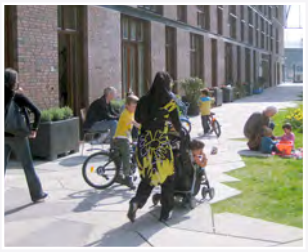
Design Principles for Creating Enclosure and Definition



C 05 STREETS WHERE EVERYONE CAN REST, GATHER AND MEET

Streets and spaces are where people rest, gather and meet and are inclusive environments for social activity and are often the most permanent features of the built environment. An attractive public realm enhances people's quality of life and the perception of an attractive place. Inclusive design avoids social exclusion, for example; gated estates are exclusive in design terms and socially excluding.

Make sure that streets and spaces:	Tick when reviewed
• Have been designed inclusively, providing social spaces for the community to rest, gather and meet and supporting facilities for physical activity including seating and cycle parking.	
• Encourage pedestrian movement by prioritising the needs of pedestrians, cyclists and public transport users over those of motorists. Provide continuous pavements of a sufficient size to meet the needs of all users.	
• Integrate natural methods of traffic calming within the street design.	
• Use shared surfaces on lower order streets and/or local centres, next to public spaces or other appropriate locations. The use of shared surfaces does not confuse the order of streets.	
• Are convenient, safe and easy for all to use, including wheelchair users. The amount of street furniture has been kept to a minimum.	
• Include trees and soft landscaping (on all street types) that reflect the order of the street. The species provided are appropriate to the environment and their location, both at the time of planting and maturity. Applicants should seek advice from appropriate specialists.	



Further guidance:

Appendix 1 - Technical Document; Landscape and Green Infrastructure

Local Development Plan - Policy S3 Placemaking

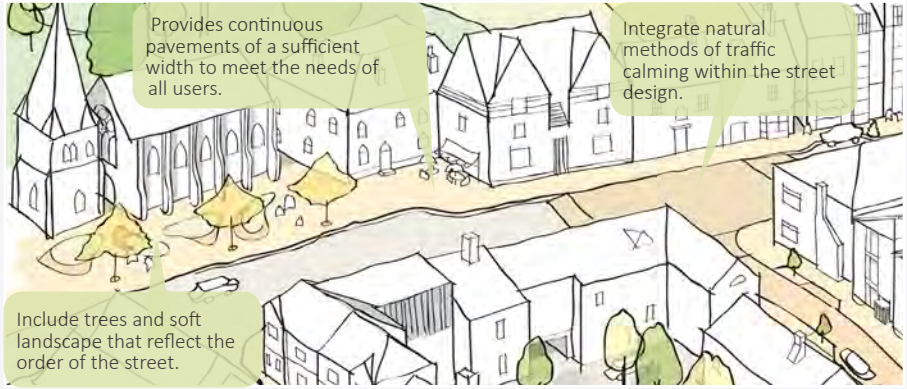
Manual for Streets (DfT)

Building for Life 12 - Streets for All

Sport England 'Active Design Guidance 2015'

Secure by Design

Design Principles for Streets and Spaces



C 06 OPEN SPACES

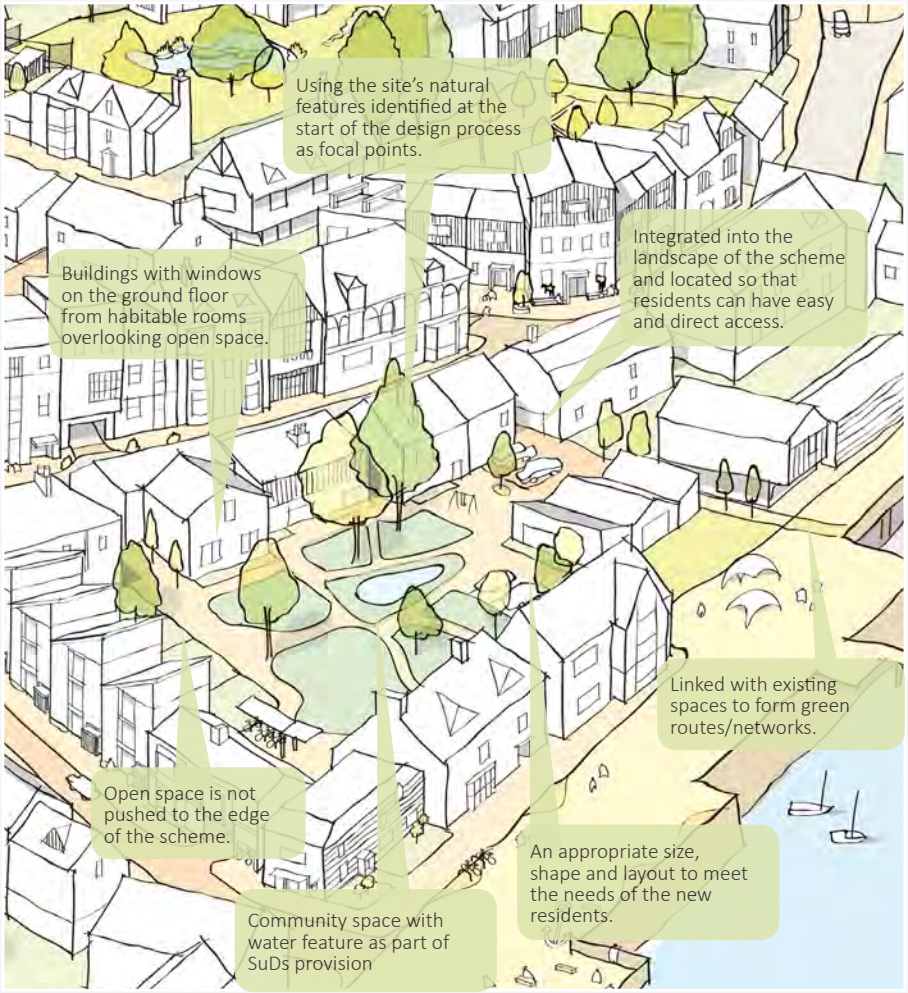
All development must contribute towards improving the provision, quality and/or accessibility of local and strategic open space, sports, community and leisure facilities, biodiversity and habitat. This could be achieved through appropriate contribution or direct provision. Where direct provision is made, open spaces should form part of a green infrastructure network and must make a positive contribution towards the townscape. Open space should be high quality and have a primary role or function to prevent it becoming unused or neglected. The local context should be reflected in the design of local open spaces, which could be achieved through the use of materials, trees, planting, lighting and street furniture.

Make sure that open space:	Tick when reviewed
• Uses the natural features identified at the start of the design process as focal points.	
• Integrates into the wider landscape of the scheme and is located so that residents can access it easily and directly.	
• Links with existing spaces to form green routes and networks accessible for all users.	
• Is not pushed to the edge of the scheme.	
• Is of an appropriate size, shape and layout to meet the needs of the scheme's users.	
• Within the development, is appropriately defined and enclosed by buildings with windows on the ground floor from habitable rooms overlooking it where appropriate.	

Example of community space with water feature as part of SuDs provision

Example of pocket green space with playground

Design Principles for Open Space



Further guidance:

Local Development Plan - Policy S3 Placemaking

Urban Design Compendium Landscape and Thriving Public Realm

Building for Life 12 - Public and Private Spaces

Landscape Institute (2014) Profitable Places

Design Council (2009) - Design and Planning for Play

Appendix 1 - Technical Documents - Landscape and Green Infrastructure

Sport England Active Design Guidance 2015

C 07 RESIDENTIAL OUTDOOR AMENITY

Whether residential development is private or affordable, it should be indivisible and should be planned around safe and usable spaces. Usable outdoor amenity could be in the form of private or communal gardens, balconies, children's play areas, allotments or public spaces.

Depending on the scale of the development and the quality and quantity of existing provision in the wider area, it may be necessary to incorporate an element of outdoor amenity for residents into your development. Generally, provision should be made that fulfils a number of functions: hanging out washing, sitting out, having a kick around, providing habitats for wildlife and allowing water to drain naturally.

Private Amenity Space i.e. Gardens and Balconies - Private garden land is the enclosed area within a dwelling curtilage from which the public is excluded. Private gardens should contribute towards the leafy, green character of the local area. They provide a function that may not be interchangeable with the offer of public open space. Additionally, they may provide residents with the opportunity to play, grow food and encourage wildlife. Balconies must be usable, functional and practical in the same way as private gardens.

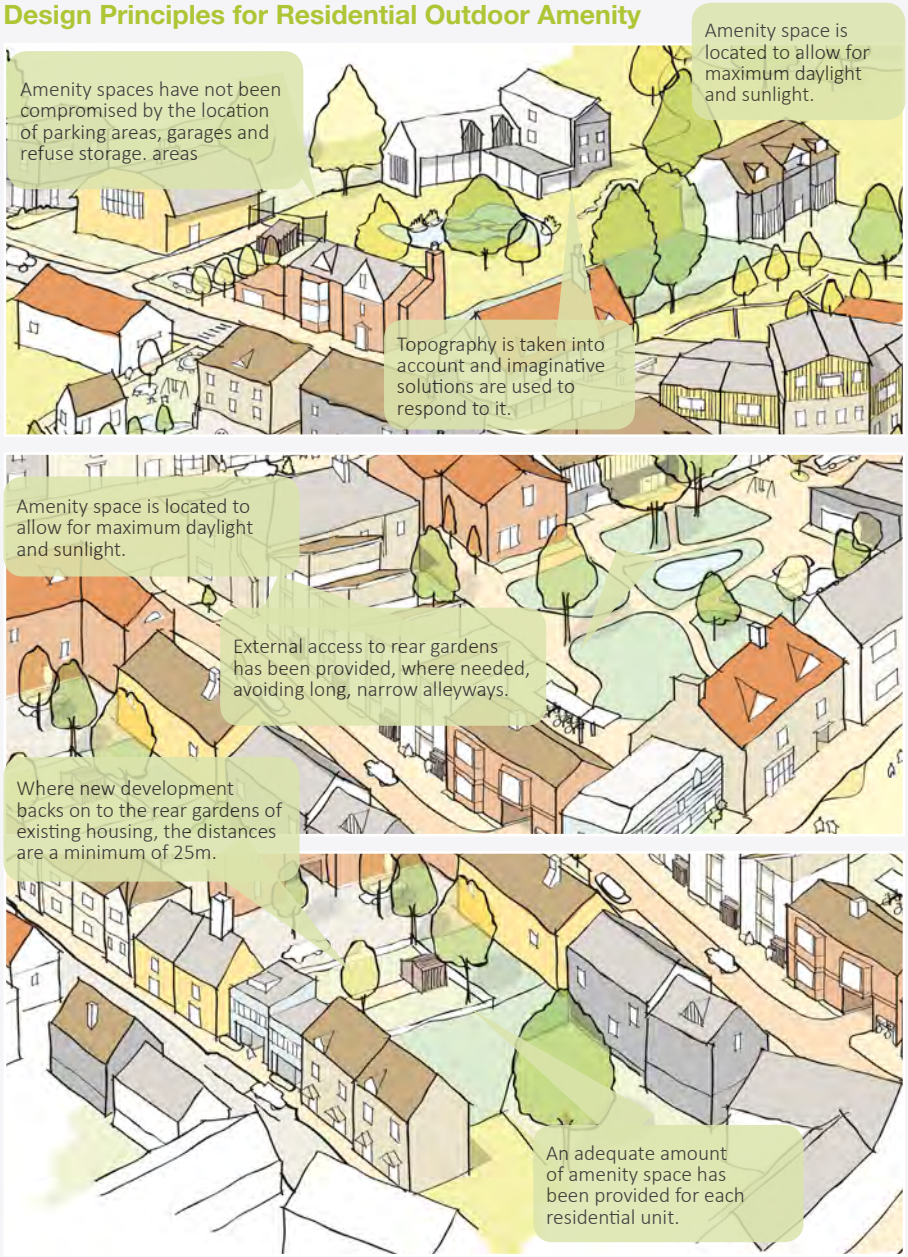
Communal Gardens, Allotments and Amenity Space - In flatted developments, it is essential to provide an element of communal outdoor amenity space to complement the lower levels of private outdoor space. These should be safe, usable, designed to a high standard and well managed so that the space remains high quality.

Make sure that:	Tick when reviewed
• An adequate amount of amenity space has been provided for each dwelling. The overall size of the garden is in proportion with the type of dwelling and the character of the area. The minimum standards set out in the Essex Design Guide are achieved: for houses 3+ bedroom = 100m2 per unit; 1-2 bedroom = 50m2 per unit; for flats = 25m2 per unit.	
• External access to rear gardens has been provided avoiding long, narrow alleyways.	
• Amenity spaces have not been compromised by the location of parking areas, garages and refuse storage areas.	
• Amenity space is located to allow for maximum daylight and sunlight.	
• Topography is taken into account and imaginative solutions are used to respond to it.	
• Where new development backs on to the rear gardens of existing housing, the distances between buildings are set out in the Essex Design Guide to a minimum of 25m.	
• Boundary treatments for secure and private amenity space are considered as a design feature of the scheme and plot layout.	

Further guidance:

Appendix 1 - Technical Documents - Noise and Air Quality

Design Principles for Residential Outdoor Amenity



C 08 STREET FURNITURE, LIGHTING AND PUBLIC ART

The design and location of street furniture, lighting and public art should be simple, high quality, well designed, robust and responsive to its surroundings. It should be considered in an integrated way into the design of the landscape. Street furniture should be restricted to essential items and, where possible, functions should be combined, for example, attaching signs to lamp posts and mounting street signs or lighting on buildings.

Any changes in level on site should be considered when designing for planting and street trees, to ensure they are integrated into the public realm to minimise the need for bollards.

Schemes with lighting that are well considered and reflective of the area's character are essential to the creation of safe, high-quality streets and spaces. Public lighting on streets and private lighting on shared space areas or public open space is clearly defined and located at the design stage. It can be delivered in varied forms, but should be designed for a specific location in the landscape or public realm.

Public art can play a significant part in the character of the public realm. It helps to create distinctive places as well as forming legible features or focal points.

Make sure that:	Tick when reviewed
• The number of elements such as light columns, sign poles and seating is kept to a minimum. This helps to avoid clutter.	
• There is a relationship between the individual items of street furniture.	
• Where possible their functions are combined.	
• The use of bollards is kept to a minimum.	
• Lighting is used to create safe, inviting routes and spaces but avoids over-lighting, particularly in sensitive historic areas or dark rural areas.	
• Where public art is used, it is carefully integrated into the public realm and provision is made for its maintenance.	
• Public lighting on streets and private lighting in shared space areas or Public Open Space is clearly defined and located at the design stage.	
• All elements are attractive, robust, durable and easy to maintain.	

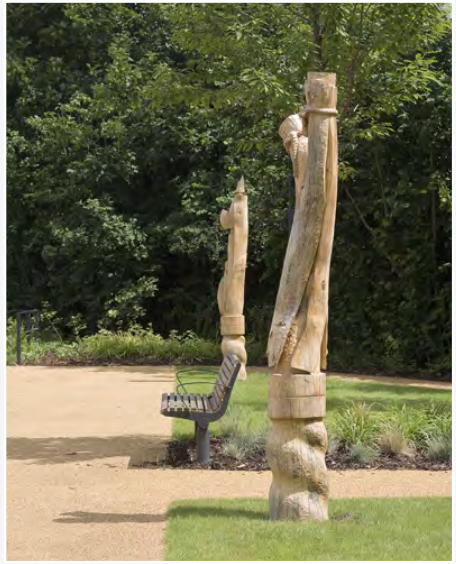
Further guidance:

Local Development Plan - Policy S3 Placemaking

Manual for Streets, Streets for All

Guidance for the Reduction of Obtrusive Light (ILE)

Appendix 1 - Green Infrastructure and Landscape



Benches, trees and art features help guide direction and avoid the use of too many bollards

Carefully integrated lighting will create safe, attractive and usable public spaces in conjunction with the location of other furniture and planting. Light fittings should minimise light spill and excess light distribution into adjacent properties and the landscape

C 09 WASTE MANAGEMENT AND UTILITIES

The provision of waste management facilities within developments is fundamental to provide and maintain an attractive and healthy environment. The management of waste needs to be considered early on in the design to avoid inconvenient waste storage for residents, inefficient collections of waste produced or unsightly bin storage areas.

For utilities, whilst they generally run under ground, they have an impact on where trees can be planted and above ground supply boxes can be unsightly. The provision and location of utility requirements should be considered at an early stage to minimise these potential conflicts and later installation, which can be inconvenient and unsightly.

Make sure that:	Tick when reviewed
• Sufficient space has been provided for store bins and containers. The storage areas are convenient for residents and are attractive where they can be seen from streets and spaces.	
• Access has been provided between bin storage areas and collection vehicle access. Long path/alley ways between rear gardens and the street have been avoided	
• Convenient access has been provided for service vehicles that avoids the need for them to frequently turn around and gives priority to through routes.	
• Utility boxes, cable runs, manholes and maintenance access points have been integrated positively into the scheme and do not conflict with landscape features, tree planting and/or the design of the public realm.	
• Consideration is given to the installation or provision of Superfast Broadband.	

Examples of the successful integration of covers, manholes, and other utilities within the design of public spaces will contribute to the overall impression of the quality of the public realm.

Further guidance:

Appendix 1 - Planning and Waste Management

Design Principles for Waste Management and Utilities

C 10 CAR PARKING

The provision of parking is a significant design challenge in the built environment. If poorly designed it can have a significant negative impact on the appearance of streets and spaces. Car parks should include tree planting at regular intervals.

Designing streets so that they can accommodate on-street visitor parking can really benefit residents by reducing the likelihood of anti-social parking. Visitors' parking spaces are needed most where residents have a limited number of allocated parking spaces, especially where these are located in front of properties or in rear parking courts. Visitors' parking spaces could be located next to open spaces and local facilities.

The suitability of parking solutions will vary depending on the location, size and nature of the proposal. For example, parking on driveways in larger developments or developments in urban locations should be avoided. However, in rural locations, parking on driveways could be an acceptable solution provided accesses are kept clear.

Make sure that:	Tick when reviewed
• All parking solutions and accommodation for street trees are thoroughly considered early in the design process.	
• A variety of parking solutions are used to form part of the overall street design.	
• Adequate visitor parking spaces are located throughout the development and are easy to recognise.	
• Garages and car ports are carefully integrated within building frontages and do not break up the enclosure or the definition of the street.	
• Rear parking courts are provided when all on-street options have been exhausted, ensuring they are small in scale, overlooked and avoid a large expanse of tarmac/paved area.	
• Where practical, housing is designed to enable the installation of a domestic electric vehicle charging point to the approved industry standard.	
• Parking in front of dwellings is minimised in existing garden areas so as not to use up the front garden and avoids extensive areas of hard standing and car-dominated frontage.	

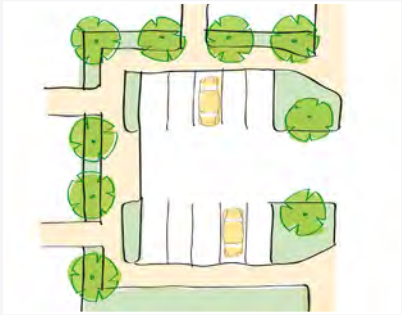
Further guidance:

Maldon District Vehicle Parking Standards SPD, 2006 (or successor document)

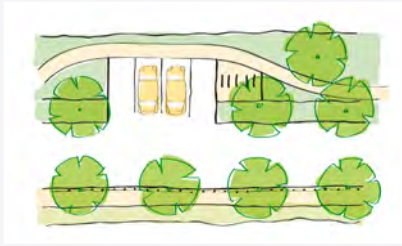
Local Development Plan - Policy S3 Placemaking

Trees in Hard Landscapes: A Guide for Delivery, Trees and Design Action Group, 2014

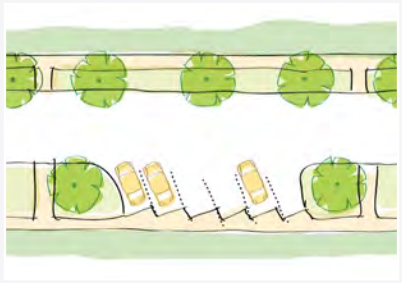
Secure by Design



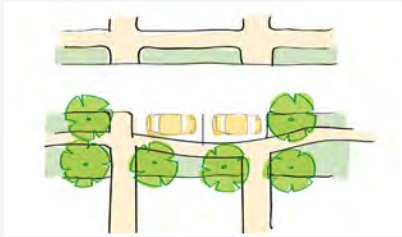
Dedicated parking within a central space



Perpendicular parking



45 degrees parking



Parallel parking

Electric charging point

Examples of carefully integrated car parking

Examples of carefully integrated car parking

C 11 CYCLE PARKING

For cycling to become an alternative to the car, bicycles must be readily accessible with secure parking at home and outdoors. Support facilities for cycle parking are equally important in open space and at community facilities and other service areas in the development. The type of storage will depend on the nature and scale of development. If cycle storage is conveniently located i.e. close to entrances, cyclists are more encouraged to use them. Similarly, accommodation for mobility scooters should be considered at the design stage depending on the nature of the development proposals.

Make sure that:	Tick when reviewed
• Cycle storage is integral to the design of the scheme and easily accessible and secure, to encourage its use.	
• Cycle storage is provided externally, sited sensitively, is well screened and made from durable materials appropriate to their setting.	
• Cycle storage is not projected forward of the established building line.	
• Dedicated visitor cycle spaces are provided close to main entrances and located in areas that are well overlooked by habitable rooms. The Council will require at least 1 cycle space per 8 units for visitors.	

Examples of carefully integrated cycle parking

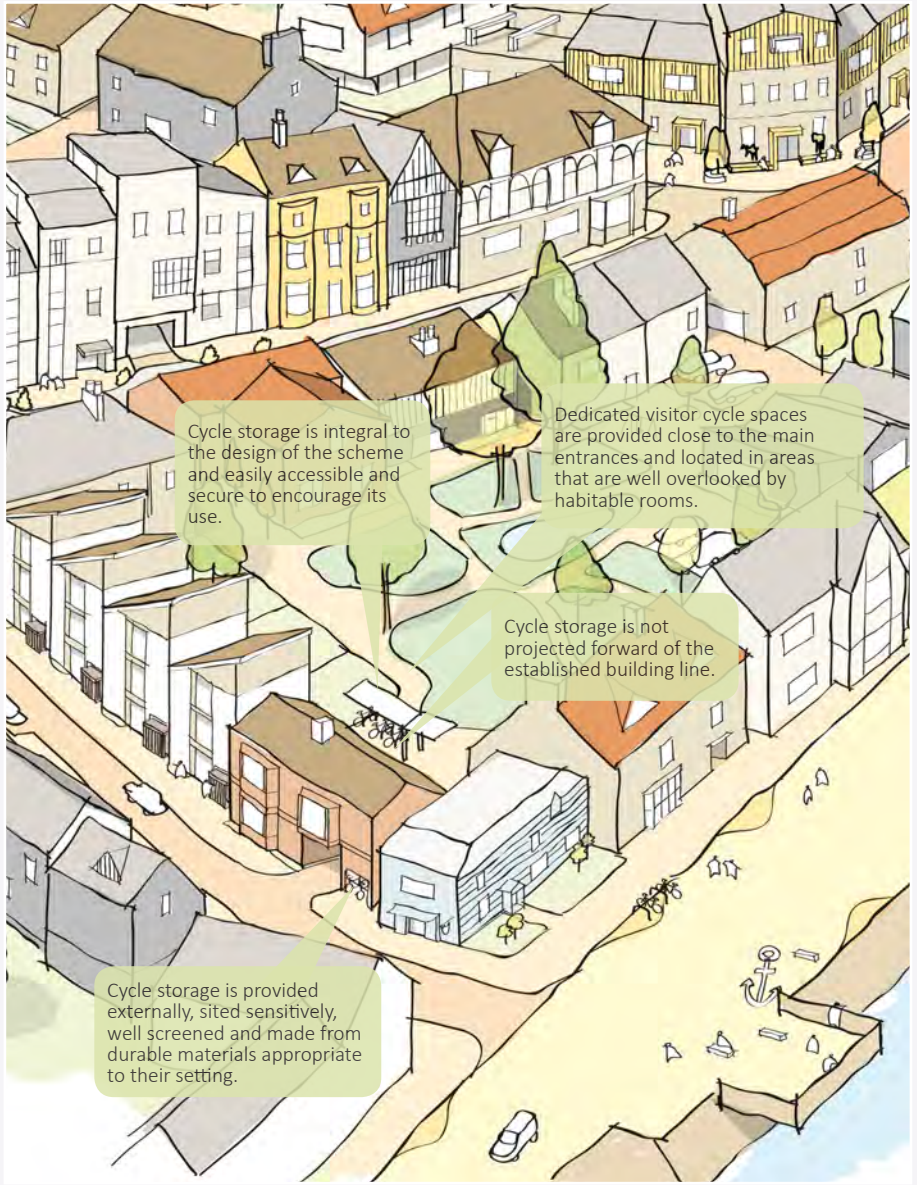
Further guidance:

Maldon District Vehicle Parking Standards SPD, 2006 (or successor document)

Local Development Plan - Policy S3 Placemaking

Secure by Design

Design Principles for Cycle Parking



C 12 LAYOUT AND PLOT SIZE

New development should respond to the existing pattern of development within a settlement, taking cues from existing block sizes, patterns of plot subdivision and the relationship between the built and non-built private space. This approach will help to integrate new development within existing settlements as a natural extension. These cues should be drawn from the Character Study carried out as part of 'Responding to the Site and Setting' and respond to planning policies in the Local Development Plan and in the Garden Suburbs.

Full account of context should be taken and use of standard designs should be avoided.

Make sure that:	Tick when reviewed
• Development ensures the efficient use of land.	
• Connections to surrounding areas are made for all modes of transport.	
• There is a clear distinction between public and private spaces and spaces between buildings.	
• Natural surveillance of the street is increased.	
• An attractive and active street frontage can be achieved.	
• Building frontage/plot width responds to the context, with narrower frontages located in town and neighbourhood centres and along the waterfront.	
• Block sizes are flexible and suitable for a range of uses.	
• Lighting is used to create safe, inviting routes and spaces but avoids over-lighting. Public lighting on streets and private lighting in shared space areas or Public Open Space is clearly defined and located at the design stage.	

Further guidance:

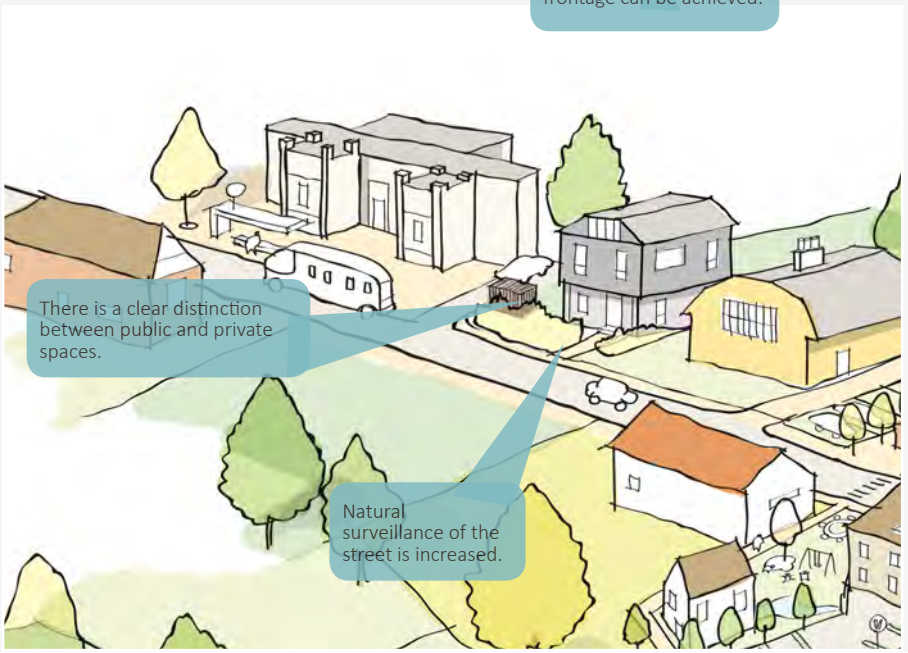
Local Development Plan - Policy S3 Placemaking

Manual for Streets (DfT)

Building for Life 12 - Streets for All

Appendix 1 - Technical Documents - National Space Standards

Design Principles for Layout and Plot Size



C 13 DENSITY AND USES

While it is important to ensure best use of land in an efficient and cost-effective manner, density should be appropriate to the location and respond to and/or enhance the character of the existing settlement and context.

Typically, densities decrease the further from the centre of a settlement. Lower densities may be more appropriate in Agricultural or Arcadian settlements and edge of settlement sites. However, a higher density may be more appropriate for the main towns, or areas where they have good access to public transport, services and facilities, in the interest of creating sustainable development.

Make sure that:	Tick when reviewed
• Density is appropriate to the location.	
• It responds to and/or enhances the character of the existing settlement.	
• A range of densities in large developments is provided.	
• Higher densities are focused around key movement nodes, along strategic routes, and within neighbourhood, local and village centres.	

Examples of densities appropriate to the location

Further guidance:

Local Development Plan - Policy H4, comprising:

Effective Use of Land, Landscape and Visual Impact Assessment (2010)

Maldon District Characterisation Assessment (2006)

Maldon District Historic Environment Characterisation Project (2008)

Maldon Landscape Character Assessment (2006) (or successor document)

Building for Life 12 - Character

Appendix 1 - Technical Documents - How to Measure Net Density

Design Principles for Density and Uses

C 14 FORM AND MASSING

The form and massing of development can have a significant contribution to the character of an area. The majority of traditional buildings in the District either in urban or rural locations adopt a very consistent, simple form, with regular floor plans and pitched roofs. New development should create a positive character, with its own identity that relates to the characteristics of the settlement and the opportunities or constraints for innovative design.

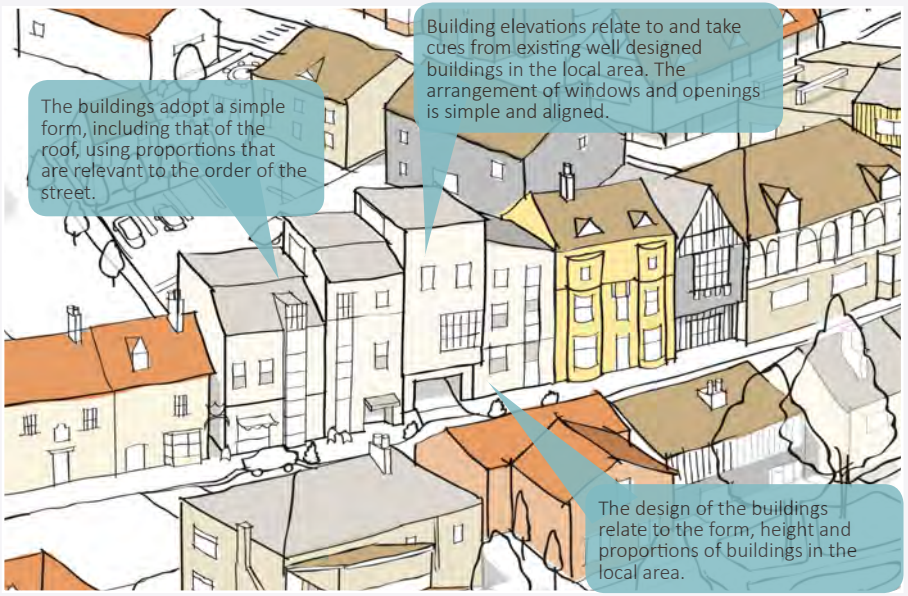
Make sure that:	Tick when reviewed
• Development has an identity that respects or responds to the characteristics of the settlement and opportunities/constraints identified.	
• The design of the buildings relate to the form, height and proportions of buildings in the local area.	
• The buildings adopt a simple form, including the form of the roof, using proportions that are relevant to the order or hierarchy of the street.	
• Building elevations relate to and take cues from existing well designed buildings in the local area. The arrangement of windows and openings is simple and aligned.	
• The scheme incorporates features such as chimneys and dormer windows where they are predominant in the local area. Where included, they must form an integral part of the building function.	
• The design emphasises the character of the local area.	
• The design provides variation in form, scale and massing.	

Traditional, Chandlers Quay, Maldon

Contemporary, Salt House, St Lawrence

Further guidance:
Building for Life 12 - Character

Design Principles for Form and Massing



C 15 CORNER BUILDINGS

Corner sites are visually prominent and may provide an opportunity to accommodate non-residential uses to aid the legibility of a place, or to contribute to its character through distinctive designs or increased building height.

Standard house types are unlikely to work on corner locations and local centres.

Make sure that:	Tick when reviewed
• Buildings have been designed to define the corner space of a block and ensure the continuity of the street/space and building frontage.	
• Corner buildings provide activity and overlooking onto both streets/ spaces by providing natural surveillance from ground floor windows on both facades facing the street and/or space.	
• Where garages and carports have been integrated within the frontage of the building, they do not create blank frontages to streets and spaces.	

Corner treatment

Further guidance:

Building for Life 12 - Creating Well Defined Streets and Spaces

Design Principles for Corner Buildings

C 16 INCLUSIVE AND ACCESSIBLE DESIGN

Inclusive design creates places that everyone can use.

Residential development must address the needs of everyone regardless of age, gender, mobility, ethnicity or circumstances and especially vulnerability, i.e. those with push chairs and young children, people with disabilities and the elderly.

Inclusive design also means promoting high levels of social inclusion. A residential development that is not only functional but also aesthetically pleasing will offer good value to residents and reassure those who may be reluctant to leave their homes.

Make sure that:	Tick when reviewed
• The needs of everyone are taken into account when designing access to and from dwellings, in open spaces and other landscape features for bin and cycle stores and parking spaces.	
• Current Building Regulations with respect to accessibility are complied with. These include: means of access to and into a dwelling; circulation within the entrance storey of a dwelling; accessible switches and sockets in the dwelling; WC provision on the entrance storey of a dwelling; and passenger lifts and common stairs in blocks of flats.	
• Individual dwellings are designed to be flexible, capable of adaptation to meet the changing needs of residents in the future - such as needing to adapt a home to reflect a loss of mobility, or adapting a home to allow home working or caring for others.	
• Where appropriate all new dwellings are designed and built accessibly and are easily adaptable for residents who are wheelchair users.	
• Affordable housing is provided where developments provide 10 or more homes, or comprise an area of 1,000 square metres or larger. The quality of affordable housing should be as good, if not better, than that of market housing, including how it looks aesthetically to encourage social inclusion and community cohesion.	

Further guidance:

Building for Life 12 - Character

Appendix 1 - Technical Documents - National Space Standards

Appendix 1 - Technical Documents - Designing for Older People Housing

Friary Fields, Maldon, a scheme of 32 homes for social housing sensitively designed to sit comfortably in its historic context

Inclusive spaces to address the needs of everyone in public or community areas

Spaces everyone can use

Means of access to and into a dwelling - level access or DDA compliant ramps

C 17 NOISE AND OVERSHADOWING

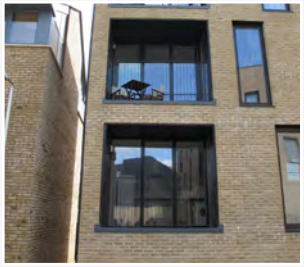
Noise can be a significant source of aggravation for residents. Issues associated with noise are prevalent in locations close to external sources of noise such as railway lines and busy main roads. Busy roads can also affect air quality and the usability of outdoor areas. Careful design can help to reduce the impact of noise and mitigate the effects of poor air quality.

Buildings close to the boundary of neighbouring properties can increase overshadowing or loss of daylight to neighbouring properties. Habitable room windows should normally be at least 12 metres away from the flank wall of the neighbouring property.

Care should be taken to avoid areas which are permanently in shade, being overshadowed by adjacent buildings or trees.

Make sure that:	Tick when reviewed
• Buildings are orientated so that habitable rooms and amenity space do not face noise sources.	
• Design features such as recessed balconies are introduced.	
• Barriers such as garages or walls are located between noise sources and dwellings.	
• Noisy external activities such as play areas are located close to the properties they serve, but far enough away to avoid noise disturbance.	
• The relationship of buildings does not cause overshadowing.	
• Where modern methods of construction are proposed to mitigate noise they are welcomed if tested.	

Garages are sensitively located



Recessed balconies

Roof overhangs providing protection to glazed facade

Further guidance:

Local Development Plan and SPDs

Building for Life 12 - Character

Appendix 1 - Technical Documents - Noise and Air Quality

Part E Building Regulations - Resistance to the Passage of Sound

C 18 FACADES AND ELEVATIONS

Existing buildings within the locality should be the starting point for the consideration of facade design and elevational treatment for new buildings. Generally, this should interpret key aspects of their facade and elevations through their layout, window-to-wall ratio and proportions, and placement of windows and doors.

The District has a wide range of architectural styles and the arrangement of facades varies from settlement to settlement. However, building facades are generally organised with windows and doors aligned horizontally and vertically.

Make sure that:	Tick when reviewed
• An architectural approach is established and an identity has been informed by the surrounding building facades and elevations.	
• The relationship between the existing and the new facades and elevations is demonstrated in the Design and Access Statement.	
• Keep it simple! Align windows and doors horizontally and vertically.	

Examples of different approaches to facade design

C 19 THE BUILDING EDGE

The edge of a development and its external appearance are critical aspects for urban extensions and new development at the edge of existing settlements. At times, the edge is poorly defined by wooden fences abutting the countryside, or buildings presenting hard built edges to open countryside.

Development should provide an edge which has a clear and well defined external identity. The nature of this edge will depend on the location. However, development abutting countryside should have soft edges, created with appropriate green infrastructure or structural landscape integrated with built form.

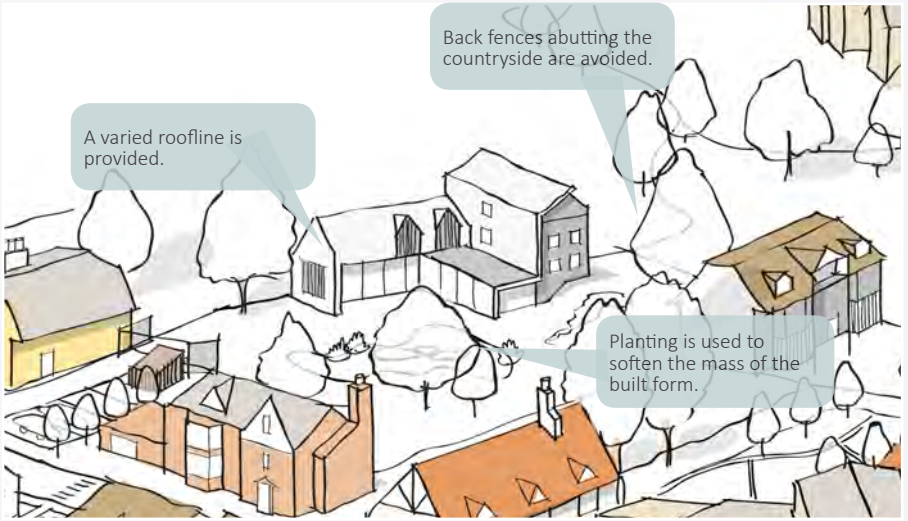
Make sure that:	Tick when reviewed
• A strong building frontage is created.	
• Structural planting and boundary treatments are combined.	
• Planting is used to soften the mass of the built form.	
• Entrances are clearly defined through the use of pinch points, corner or feature buildings.	
• Views to important landmarks and/or key buildings are maintained.	
• A varied skyline and roofscape is provided.	
• Back fences abutting the countryside are avoided and green infrastructure and structural landscape is used to create an integrated soft edge.	

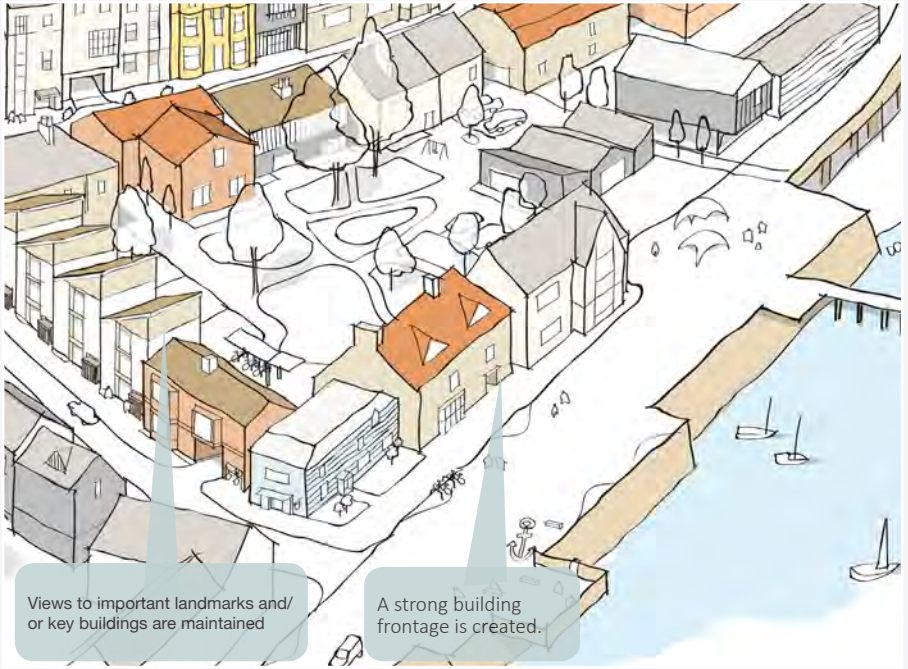
Defining edges

Further guidance:

Appendix 1 - Technical Documents - Landscape and Green Infrastructure

Design Principles for the Building Edge





C 20 MATERIALS AND DETAILS

Whilst architectural style varies across the District, a common characteristic of buildings is a simple palette of materials and detailing adding to their appearance in terms of decoration, but also performing a practical purpose. For example, historically weatherboard-protected timber-framed construction was painted black to absorb heat or white to reflect heat; lime render is a good insulator but a good basis for decoration, including pargetting, pebbledashing and the addition of colour. Materials like timber, reed and straw for thatch were often the most economical building materials but today are used as sustainable materials in terms of construction.

New development should take cues from the choice of materials and architectural features from the local context, or reinterpret them in a contemporary manner using high- quality materials and detailing. Architectural decorative features can also perform a practical function for bird and bat boxes or roosting points for local wildlife. Hard landscape materials should complement the materials used for buildings.

Depending on where the development is, the Council has a suite of adopted guidance to inform the design for character areas within Strategic Design Codes and Strategic Masterplan Frameworks for the garden suburb.

Make sure that:	Tick when reviewed
• A simple palette of robust and local building materials has been proposed that relates to the most commonly used materials in the local area.	
• Natural and sustainable materials and reconstituted materials are considered (if reconstituted materials are of comparable quality to natural materials).	
• Architectural detailing has been added to the buildings that relate to the detailing used on buildings in the local area, helping to add richness and visual interest.	
• The paving and surfacing materials proposed for footpaths, cycle ways and vehicle highways are robust and durable for the street type proposed.	
• The materials used for on-street parking spaces relate to the concept design and are consistent with it.	
• Shared surface areas are laid out in one consistent material used for both the highway and parking areas, with parking spaces carefully defined.	
• The type of boundary treatment and materials used reinforces character.	
• Elevational materials are considered alongside hard landscape materials for shared surface streets, car parking, parking courts and public realm.	

Weatherboard - a classic building material used throughout East Anglia in particular Essex. This style has been adopted for many new houses which helps them to blend in with older buildings in the area. Pebbledash and smooth render add texture and colour to elevations.

Classic red and decorative brick and terracotta tiles add interest and decoration to architectural features. Later buildings of the 60s and 70s use a mix of buff and red brick with little change in course of pattern or natural colour variation. Incidental features can also be integrated within new brickwork.

Variety of roof coverings used throughout the District, including traditional Clay Peg tiles and variations, red clay pan tile and prefabricated concrete tiles, as well as natural slate tiles and thatch. Dormer windows should not over dominate the roofscape.

Car parking surface materials and boundary treatments.

Further guidance:

Building for Life 12 - Character

Appendix 1 - Essex Design Guide - Road Type Table

BRE Green Guide - How to Minimise Carbon Footprint

Appendix 1 - Green Infrastructure and Landscape - Biodiversity

DELIVERY AND MAINTENANCE

C 21 FUTURE PROOFING

It is important to mitigate the effects of climate change in hotter and colder weather patterns, and to reduce energy consumption. Materials from sustainable sources and recycled materials should be considered. Mitigating development impacts through landscape design, tree planting and biodiversity measures to maintain and encourage wildlife should also be considered.

Make sure that:	Tick when reviewed
• The building design takes advantage of orientation.	
• Building depths are limited wherever possible to maximise natural lighting levels and natural ventilation.	
• Layouts avoid single-aspect dwellings which may cause homes to overheat if south-facing, or create additional heating demands if north-facing.	
• South-facing windows maximise natural daylight.	
• North-facing facades seek to minimise large areas of glazing to prevent unnecessary heat loss in winter.	
• Shading is considered to south-facing windows to prevent overheating in the summer months, such as a deciduous tree adjacent to the property.	
• The use of green roof systems or green walls are considered and are appropriate within the context of the site.	
• The use of low-embedded energy or materials that can be recycled is used, where appropriate.	
• Materials with high thermal mass are used where appropriate.	
• Existing and proposed green infrastructure, landscape features and SuDs are incorporated to mitigate climate change.	
• Consideration is given to incorporate alternative energy sources including air-to-air heat pumps, community heating systems and biomass boilers.	
• Use of tree planting or changes to land management to provide shading or cooling.	
• Bat or bird roosting or nesting facilities in buildings and grounds are considered.	

Further guidance:

Building for Life 12 - Character

Appendix 1 - Green Infrastructure & Landscape

Planning & Noise

Air Quality

Building Regulations - Approved Document M; Access to and use of buildings, Approved Document B (fire safety); Approved Document L Conservation of fuel and power

Designing homes to reflect and adapt to changing climate represents a priority at national and local levels. The significant heritage context of Maldon District should not be in a conflict with good sustainable design and good urban design. The introduction of sustainable design and construction techniques in Conservation Areas and on/or close proximity to Listed Buildings can potentially enhance these heritage assets.

Make sure that:	Tick when reviewed
• You have checked if the building or site is listed or in a conservation area.	
• Energy efficient solutions are integrated as part of the development.	
• Any solar panels that are positioned on building surfaces are facing within 90 degrees south and not overshadowed. Ensure that the roofs are strong enough to hold the panels.	
• The design allows for system maintenance.	
• All water fittings i.e. taps and showers are specified and installed are recognised low flow technology.	
• Low or dual flush WCs are used.	

Solar panels and rainwater harvesting

Further guidance:

Energy Efficiency in Historic Buildings; Green Infrastructure and Landscape Technical Document

Renewable and Low Carbon Technologies SPD MDC (2018)

Policy D2 and D4 of the Local Development Plan

Biodiversity by Design: A Guide to Sustainable Communities TCPA 2004

TCPA/Wildlife Trusts - Planning for a Healthy Environment – Good Practice Guidance for Green Infrastructure Biodiversity, 2012

C 22 DELIVERING HIGH QUALITY DEVELOPMENT

From design through to on-site construction and maintenance, all development must be delivered to the same standard for which it was designed and approved. 'Design Creep', dilution or 'dumbing down' of the approved design for economic reasons should be avoided when Reserved Matters, Variation of Conditions or Discharge of Conditions are applied for. Reasonable justification should be made for non-material amendment applications, stating why there is a departure from the design concept approved.

Make sure that:	Tick when reviewed
• New development considers long-term maintenance and management from the outset.	
• Buildings are constructed and completed as detailed on the drawings approved.	
• A simple palette of materials is used that are durable, robust and weather well over time.	
• Where value engineering is used, it is to resolve detailing and seeks improvements to the construction of a building. The use of Non-Material Amendments and/or Minor Material Amendments are at the discretion of the Council and will not be accepted where it is clear that a reduction in quality or material deviation from the approved plans is proposed.	
• Arrangements are in place for future management of amenity and open spaces.	
• Ensure the key features of the design concept, including existing hedges and trees, soft landscaped boundaries to front gardens and hard landscape features such a surface and elevational treatments, are retained and maintained through effective covenants and management agreements.	

Charter House – Winner of Maldon District Conservation & Design Award 2009 for Design

Extension to historic building – Winner of Maldon District Conservation and Design Award 2011

C 23 SENSE OF PLACE

The Maldon District **'Sense of Place'** is a vision which articulates the place and its attractiveness and defines who the place is for, how it is special, where it has come from and where it is going in the future.

The Sense of Place **Toolkit** seeks to celebrate the Maldon District as a special and unique place and includes themes, photography, graphic languages and colour palettes, all locally inspired. The Sense of Place assets enable businesses and stakeholders to show they support, and are part of, the local area. The assets can be used across a range of different media, public realm materials and advertising, providing a distinct visual identity and a sense of the Maldon District.

Maldon District Toolkit - Sense of Place Brand

Further guidance:

www.wearemaldondistrict.co.uk

Acronyms and Glossary

Accessible – When people are able to move around an area and reach places and facilities, including the elderly and disabled, those with young children and those encumbered with luggage or shopping.

Active Frontage – The interface between buildings and streets is characterised by multiple entrances and windows, which allows interaction between the public realm and the premises facing the street.

Adaptability – The ability of a building to respond to changing social, technological, economic and market conditions.

Affordable Housing – Social rented, affordable rent and intermediate housing, provided to eligible households whose needs are not met by the market.

Agricultural (Settlements) – Located above the reclaimed marshes, on clay lands in the central core of the Dengie peninsular and also in a group to the north of the Blackwater Estuary.

Arcadian (Settlements) – Unusual for their dispersed pattern and without a core street or green at their heart. Buildings are within a picturesque or pastoral ideal and in harmony with nature.

Article 4 Direction – A legal mechanism which withdraws deemed planning permission granted by the General Permitted Development Order.

Backland Development – Refers to the development of land to the rear of existing buildings including garden land.

Biodiversity – A diverse range of species and the complex ecosystems they make up.

Blocks – A form of development where the perimeter is defined by streets.

Building Blocks – The whole or any part of any structure or site bounded by a network of streets.

Building Line – The line defined by the frontages of buildings along a street or road.

Built Environment – Buildings, roads, parks and all other improvements constructed by people that form the physical character of a community.

Built Form – Buildings and structures.

Character – The appearance of any urban or rural location in terms of its landscape or the layout of streets and open space, often giving places their own distinct identity.

Communal Gardens – Private open space shared by a number of households.

Community – A general term referring to the people living in a locality or the locality itself.

Conservation Area – A Conservation Area is an area of special architectural or historic interest, with a character or appearance which is considered to be desirable to preserve or enhance.

Context – The setting of a site or area, including land uses, built and natural environments and social and physical characteristics.

Cul-de-sac – A street that does not connect to others; a dead-end.

Core – Village or Town Centre usually centred around one or more road junctions, with development spread along road frontages.

Defensible Space – A space in front of a building which indicates a change from public to private ownership.

Density – The mass or floor space of a building or buildings in relation to an area of land. It can be expressed in terms of plot ratio (for commercial development); homes or habitable rooms per hectare (for residential development); site coverage plus the number of floors or a maximum building height.

Design and Access Statements – Accompany and support planning applications to outline design principles and concepts applied to a proposal in relation to layout, scale, landscaping and appearance.

Design Principle – An expression of one of the basic design ideas at the heart of an urban design framework, design guide, development brief or development.

Desire Line – A line of movement linking facilities or places which would form a convenient and direct route for pedestrians and cyclists.

Diversity – A place with variety and choice to respond to local needs.

Dormer Window – A vertical window with a roof of its own, positioned, at least in part, within the slope of the roof.

Eaves – The point where the lowest point of a roof slope, or a flat roof, meets the outside wall.

Ecological – Relating to, or concerned with, the relation of living organisms to one another and to their physical surroundings.

Edge of Village – A location within certain metres of the village core boundary. Local circumstances should be taken into account in determining whether a site falls within the definition of edge of a village.

Elevation – An external face of a building, or the height of a site above sea level.

Emphasis – Where building elements highlight the vertical or horizontal nature of buildings which makes them look taller or wider.

nsists of all, or any, of the following media: air, water and land.

Vertical Emphasis | Horizontal Emphasis | Vertical Emphasis | Horizontal Emphasis

Enclosure – The arrangement of buildings, walls, trees to provide different levels of space.

Façade – The external face of a building or group of buildings that face the public realm.

Fenestration – The placement of windows on the exterior of a building.

Form – The physical appearance of a development i.e. its three-dimensional shape.

Formal Play Spaces – Area marked and laid out for formal active recreational activities. This includes sports pitches or athletic tracks, LEAPs (Local Equipped Area of Play) and NEAPs (Neighbourhood Equipped Area of Play).

Functional – Designed to be practical and useful rather than attractive.

Gable – The vertical part of the end wall of a building contained within the roof slope, usually triangular but can be any 'roof' shape.

Gated Developments – Developments that are totally secured from non-residents. Entering by secured and controlled access gates.

Garden Suburbs – Large scale development planned in a holistic and comprehensive way, including extensions to existing settlements based on the 'garden city' principles. They aim to improve quality of life by providing high quality design; infrastructure appropriate for the needs of the society including public transport, public services, education, health and community facilities plus provision of green spaces, open spaces and a network of routes and connections for all users.

Grain – The general shape and direction of building footprints.

Green Infrastructure Network – A network of high-quality green spaces and other environmental features such as parks, public open spaces, playing fields, sports pitches, woodlands and allotments. The provision of Green Infrastructure can provide social, economic and environmental benefits close to where people live and work.

Habitable Room – Any room used or intended to be used for sleeping, living or cooking and eating purposes. Enclosed spaces such as bath or toilet facilities, service rooms, corridors, laundries, hallways, utility rooms or similar spaces are excluded from this definition.

Hard Standing – An area of hard paved surface which is usually used for the parking or manoeuvring of vehicles.

Heritage Assets – A range of geographical components of the historic environment which have been positively identified as having a degree of significance meriting consideration in planning decisions. These include listed buildings, conservation areas, old buildings that are not listed but have local historical importance, scheduled monuments, registered parks and gardens, archaeological sites and historic wreck sites.

Hierarchy – A logical sequence of spaces, streets or building forms, increasing or decreasing in size or density throughout a development.

Historic Environment – All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged and landscaped and planted or managed flora.

Inclusive – Ensuring that buildings and their surrounding spaces can be accessed and used by everyone.

Infill Development – Refers to sites on the street frontage between existing buildings.

Informal Play Spaces – Area not specifically marked and laid out for formal active recreational activities but can include casual or informal playing space within housing estates, safe shared space such as play streets and outdoor equipped play areas for children of all ages.

Landmark – A building or structure that stands out from the surrounding buildings and is a focal point.

Landscape – The appearance of land including its shape, form, colours and elements, and how the components combine that is distinctive to particular localities, and the way they are perceived.

Landscape Character Assessment – Identifies different landscape areas which have a distinct character based on a recognisable pattern of elements, including combinations of geology, land-form, soils, vegetation, land use and human settlement.

Language – The system of communication showing how an object (building) presents itself in relation to its surroundings graphically through visual cues or architectural features.

Layout – The arrangement of buildings, streets and spaces in a development.

LCA – Landscape Character Area.

Legibility – The degree to which a place can be easily comprehended by its users so that navigation through that space is easily achieved.

Listed Buildings – A building of special architectural or historic interest as set out in the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended. Listed Buildings are listed in three grades, GII, GII* and GI depending on their age, rarity and special features. Listing includes the interior as well as the exterior of the building, and any buildings or permanent structures in its curtilage. Demolition, in whole or in part, of a listed building or any works of alteration or extension that would affect the character of the building will require Listed Building Consent.

Listed Building Consent – An approval required before any alteration or whole or partial demolition of a listed building is undertaken.

Local Authority – A generic term for any level of local Government in the UK.

Local Character – See 'Character'.

Local Development Plan (LDP) – The plan for the future development of the local area, drawn up by the local planning authority in consultation with the community and stakeholders. Once adopted, the Local Development Plan will legally form part of the Development Plan for the District.

Maritime/Riverside (Settlements) – Abut the Blackwater Estuary and the River Crouch. Low-lying, usually protected by sea walls and with the waterfront at the heart of the settlement.

Massing – The volume of a building or group of buildings.

Movement – The passage of people, cycles and vehicles through buildings, places and spaces.

National Planning Policy Framework (NPPF) – Sets out the Government's planning policies for England and provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities (see accompanying NPPG).

Neighbourhood Plan – A plan prepared by a Parish Council or Neighbourhood Forum for a particular neighbourhood area.

NPPG – National Planning Practice Guidance.

Open Space – All open space of public value, including not just land but also areas of water (rivers, canals, lakes and reservoirs) which offer important opportunities for sport and recreation and can act as a visual amenity.

Order of streets – See 'Street Hierarchy'.

Passive (open space) – See 'Informal play space'.

Permeability – The degree to which a residential development can be penetrated by foot, cycle and vehicle and the connectivity of the development to adjacent developments.

Permitted Development – Development that is deemed to be permitted without the requirement to submit a formal planning application. Development is usually small scale.

Planning obligation – A legally enforceable obligation entered into under Section 106 of the Town and Country Planning Act 1990 to mitigate the impacts of a development proposal.

Plot – The area contained within the boundary of one dwelling or a group of linked dwellings, such as a block of flats or a sheltered housing complex.

Proportion – See 'Scale'.

Public Art – Permanent or temporary physical works of art visible to the general public, whether part of a building or free-standing. For example, sculpture, lighting effects, street furniture, paving, railings and signs.

Public Realm – The spaces between buildings accessible to the public, including the highway, green areas, squares etc.

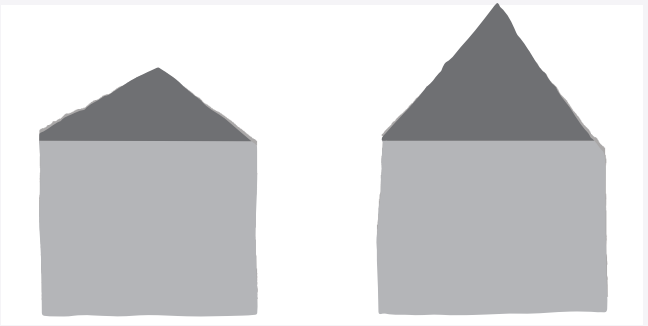
Robust – Functions well in a wide range of, often unanticipated, future scenarios by being able to accommodate modification and adaptation.

Private Amenity Space – Small spaces of enclosed land for the use of residential dwelling residents.

PRoW – Public Rights of Way.

RIBA – Royal Institute of British Architects

Roof Pitch – The angle of the roof by degree.



Slack Pitch Roof Steep Pitch Roof

Rhythm – Repetition or alternation of elements or architectural features like columns, chimneys, windows and doors with defined intervals between them. It can create a sense of movement and establish a pattern and texture.

Scale – The impression of a building when seen in relation to its surroundings, or the size of parts of a building or its details, particularly as experienced in relation to the size of a person.

Set-back – The distance of a building alignment from the front property boundary or street frontage.

Sense of Place – A place with a strong identity and character that is deeply felt by locals and visitors.

Shared Surface – Where all users of a street share one uniform surface.

Spatial Context – The relationships or interactions that exist between uses, services and facilities within a specified area.

Social Exclusion – Term for what can happen when people or areas suffer from a combination of linked problems or have not been designed to be inclusive.

Social Interaction – The connections between people and places.

Spaces – Includes not just land, but also areas of water. They can be hard or soft in character.

'Special' Areas – Special Area of Conservation (SACS) are a selection of very important SSSIs that entered in the Register of European Sites as part of the Natura 2000 network. SACs are established to protect wild birds under the Birds Directive.

SSSI – Site of Special Scientific Interest.

Street Furniture – Structure in a street or space, for example bus shelters, light columns, signs, seating and litter bins.

Street Hierarchy – The structure of streets or footways within a development that connect the local area and the wider community

Streetscape – The character and appearance of the street environment.

Structural Planting – Evergreen and deciduous shrubs, trees or other planing that retains its form and shape throughout the year.

SPD - Supplementary Planning Documents – Add further detail to the policies in the Local Development Plan. They can be used to provide further guidance for development on specific sites, or on particular issues such as design. Supplementary planning documents are capable of being a material consideration in planning decisions.

Sustainable Development – Meets the economic, environmental and community needs of the present, without compromising the ability of future generations to meet their own needs.

Sustainable Transport – Efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra-low emission vehicles, car sharing and public transport.

SuDs – Sustainable Urban Drainage Systems. Schemes for handling surface water by means other than pipes and storm drains, such as porous paving, swales, channels, reed beds and balancing or attenuation ponds, to reduce the potential of flooding and improve water quality on new and existing urban development.

Tenure Blind – The delivery of housing whereby both market housing and affordable housing are designed to be as visually similar as possible, as a way of reducing inequalities or the feeling of inequality that may exist between residents.

Topography – A description (or visual representation on a map) of the shape of the land, for example, contours or change in the height of land above sea level.

Townscape – The general appearance of a built-up area.

Urban Design – The process of creating places in consideration of sustainable development, including the infrastructure requirements and the design and detailing of buildings and spaces.

Urban Grain – The pattern of development in a settlement.

Vegetation – Plants in general or the plants that are found in a particular area.

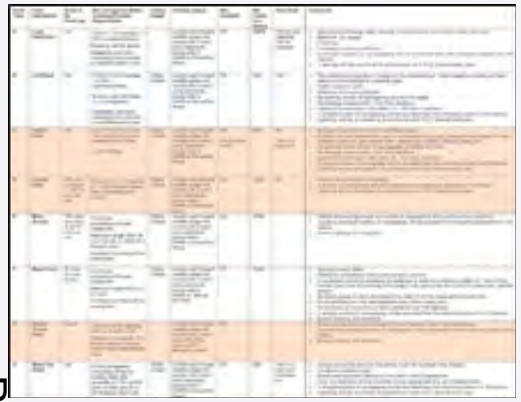
Village core – Usually clusters around one or more road junctions, with development spread along the road frontages.

Vision – The ideas for the future of an area, place or site referencing the aims, objectives and aspirations of stakeholders and owners.

Wheelchair Housing – Affordable and private housing that is designed to be wheelchair accessible.

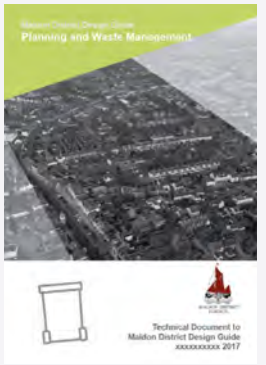
A1 APPENDIX 1 - Technical Documents

Essex Design Guide



Essex Design Guide - Road Type Table, ECC, April 2017

Planning and Waste Management



A2 APPENDIX 2 - How to Measure Housing Density

Calculation of Housing Density

Residential density is the ratio of the number of residential units to land area. It can be measured either in terms of a site's *gross area* or its *net area*. The gross area is defined as the total site area. The term net site area is defined as the land that is available for residential development or the area of developable land.

Gross site area includes major distributor roads; non-residential land uses within the site such as primary schools, shops and community centres; areas of significant structural landscape; and strategic open spaces and sports pitches serving a wider area.

The measurement of net site area includes access roads within the site; private gardens; car parking areas; and incidental open space and amenity areas. This usually takes into account half the width of adjacent roads.

The gross-to-net ratio will decrease with larger sites as more space is reserved for other non-residential uses, infrastructure, open space and structural landscape.

Maldon District Council expects housing density for large sites to be calculated by net site area.

Calculation Example

Figure A

no. of residential units: 54

total site area: 2Ha

GROSS residential density: 27 units/Ha

Figure B

no. of residential units: 54

residential area: 1.2Ha

NET residential density: 45 units/Ha

Figure A: area taken into account to measure gross residential density.

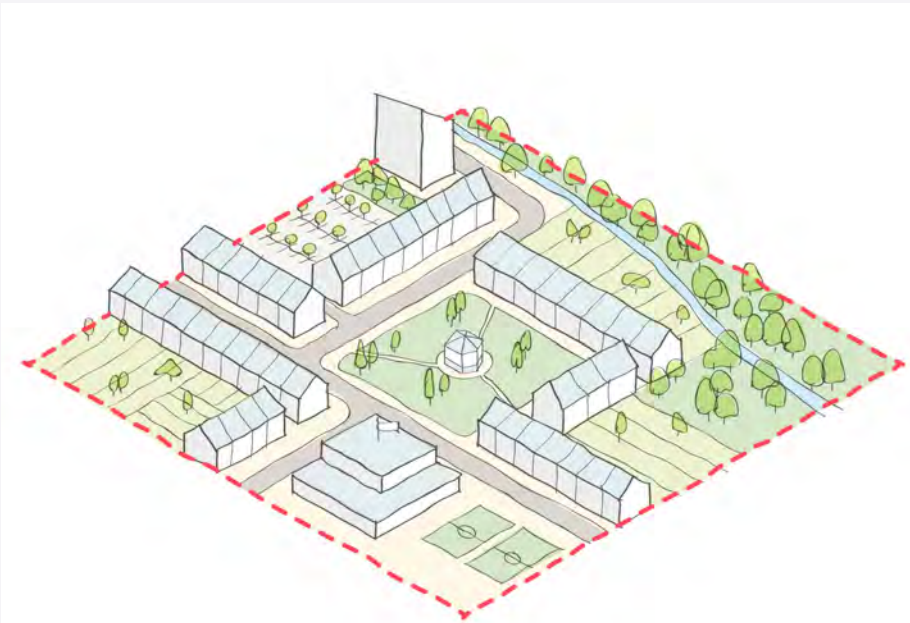
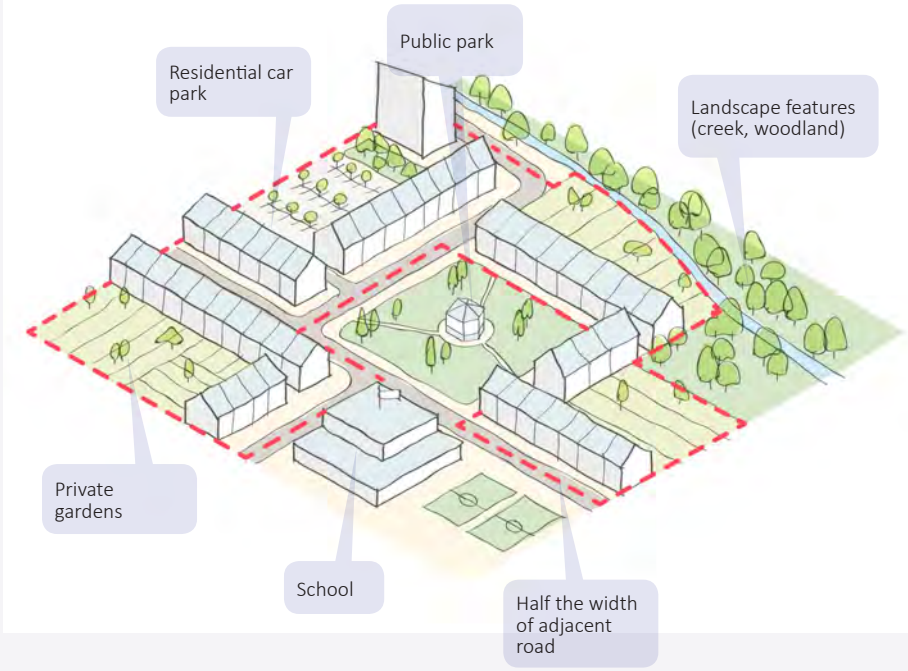


Figure B: area taken into account to measure net residential density.



A3 APPENDIX 3 - How to Write a Design and Access Statement

Design and Access Statements help to provide the information needed to support and explain development proposals when applying for planning permission. They assist the planning process and explain the design thinking detailed in this Guide that leads to a planning application. Design and Access Statements make the planning process work more smoothly and contribute to delivering high-quality design in all developments, but more importantly encourage everyone to think about how inclusive, practical and attractive a building or place will be once it is built.

The Design Council/CABE publication remains current and a good source of advice in preparing a Design and Access Statement. The document can be downloaded at:

http://www.designcouncil.org.uk/resources/guide/design-and-access-statements-how-write-read-and-use-them

A4 APPENDIX 4 - How to Write a Heritage Statement

Heritage Statements help to provide the information needed to support and explain development proposals when applying for Listed Building Consent and/or planning permission. They assist the planning process by assessing the likely impact of development proposals on the significance of a listed building and its setting. Heritage Statements make the planning process work more smoothly and contribute to the developer understanding the significance of the listed building before an application is made, and the decision maker understanding the site or structure before an application is determined.

A Design and Access Statement should also set out the thinking on the design approach behind the proposed development that affects a listed building (see Appendix 3).

The Essex Conservation Officers' Forum publication *Guidance on Preparing Heritage Statements for Listed Building Consent Applications* is a good source of advice for preparing a Heritage Statement. The document can be downloaded at;

file:///C:/Users/ml42880/Downloads/With_hyperlink_FINAL2_Heritage_statements_guidance_WEB_shift.pdf

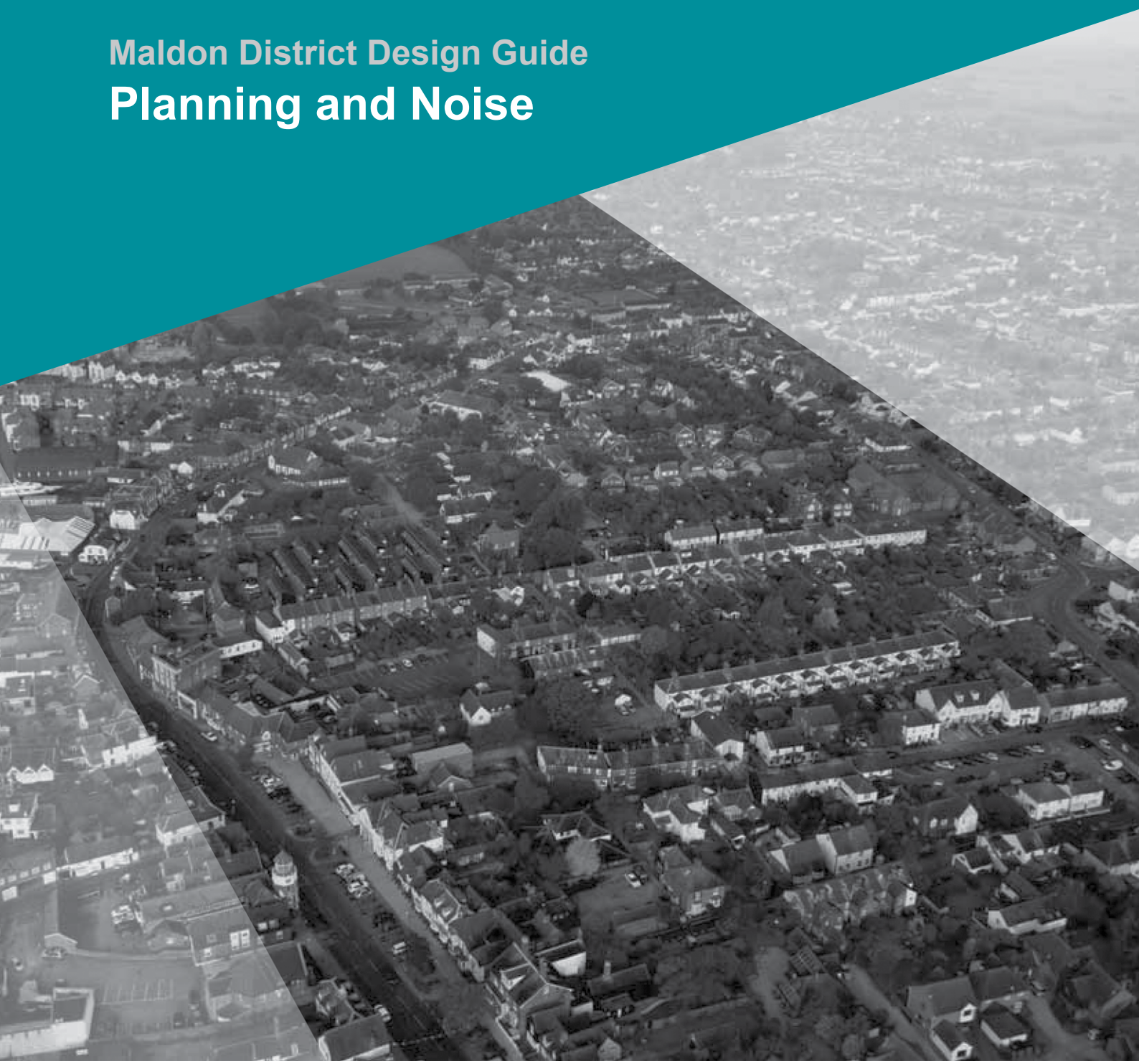
MALDON DISTRICT DESIGN GUIDE

December 2017

If you need help with this information in a different format, please call 01621 854477

Maldon District Design Guide

Planning and Noise



MALDON DISTRICT COUNCIL

Technical Document to Maldon District Design Guide December 2017

CONTENTS

1. Introduction

1.1. The purpose of this guidance

Noise can have a significant impact on the quality of life, health and wellbeing of communities. It comes from a many sources, including roads, railways, aircraft, industry, retail premises, sports, leisure and recreational activities.

These environmental noises can generally be described in two ways. Firstly there is anonymous/ambient noise which cannot be attributed to a single noise source such as road traffic, industrial estates (multiple occupants). Secondly there are specific noise sources such as mechanical ventilation or industrial processes which can be identified and considered separately.

It is recognised that exposure to noise can cause annoyance and sleep disturbance both of which impact on quality of life. Experts agree that there is growing evidence showing that annoyance and sleep disturbance can cause adverse health effects. The distinction that has been made between 'quality of life' effects and 'health' effects recognises that there is emerging evidence that long term exposure to some types of noise (research has focused on transport) can additionally cause an increased risk of direct health effects. Research on the health effects of long term exposure to noise continues in the UK and the Europe. BS8233: 2014 (Sound insulation and noise reduction for buildings) sets noise levels in section 7 based on levels known to affect health and is considered a minimum standard.

This guidance is to assist planning agents, developers and their consultants, to help ensure consistency in the approach to noise considerations when dealing with development projects in the Maldon District at the planning stage.

Noise can be a material consideration within the planning process with the potential to affect and influence the planning decisions. This guidance intends to ensure that noise considerations are dealt with at the earliest opportunity. To achieve this the necessary and appropriate information concerning both existing noise impacts on the proposed development as well as noise likely to be caused by the proposed development should be provided with planning applications at the validation stage.

This document clarifies when a noise assessment is likely to be required and provides guidance on the information required to undertake such an assessment. It is important that noise considerations can be taken into account early in the development management process to minimise the risk of delays caused by noise concerns during the consultation process.

1.2. Aims of this guidance

An important focus of this guidance is to ensure that residents living within the Maldon District are able to live in a property where noise does not unreasonably affect their quality of life or adversely affect their health and wellbeing.

Additionally, that businesses are able to operate effectively without being unduly restricted as a result of the noise they create or affecting neighbouring land uses.

In line with government policies on noise and sustainable development the main aim will be to ensure that development achieves a good quality of life rather than just ensuring that health will not be affected which is considered a minimum standard.

This guidance aims to ensure that new development proposals design out noise problems rather than provide mitigation and this will be the starting point.

With this in mind this guidance aims to:

- Sustain and where practical improve ambient noise levels in residential areas
- Ensure that new residential properties are not exposed to levels of noise that will impact on the future occupier's quality of life or health
- Ensure that new noise sources do not unreasonably affect existing noise sensitive land uses
- Ensure that new residential developments or other noise sensitive receptors are not introduced in areas where existing business or leisure facilities that emit noise are restricted or likely to have complaints made against them as a result of the new development

This document supports the Government's noise policy vision which is to:

'Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.'

NOISE POLICY STATEMENT FOR ENGLAND (NPSE) AS PRODUCED BY DEFRA IN MARCH 2010.

1.3 The soundscape in the Maldon District

The Maldon District is a predominately rural district with villages and towns located amongst arable farmland. The soundscape is therefore predominately quiet rural in and around the villages. Night time background noise levels are commonly below 30dBLA90 and often as low as 20dBLA90.

Even in the largest towns of Maldon, Heybridge and Burnham-on-Crouch night time background levels do not rise much above 30dBLA90 in most areas.

The exception to this is around some of the busier roads in the towns and the busy A and B roads around the District as well as some of the larger industrial estates.

The vast majority of the District has ambient noise significantly below the levels recommended as a minimum standard in gardens by BS8233:2014 and the World Health Organisation (WHO).

IMAGE: GOLDHANGER | DAVID NEWMAN

2. Noise and the planning process

2.1. National Planning Policy Framework (NPPF)

Paragraph 109 of the NPPF states that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.

Noise is specifically considered in Chapter 11 of the NPPF Paragraph 123 states:

Planning policies and decisions should aim to:

- avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development
- mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions
- recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established; and
- identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason

When considering the potential impacts on health and quality of life the NPPF refers to the Noise Policy Statement for England (NPSE) as produced by DEFRA in March 2010.

2.2. Noise Policy Statement for England (NPSE)

The NPSE sets out government policy on noise management and sustainable development. The policy's overarching aims are to:

- avoid significant adverse impacts on health and quality of life
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life

The NPSE introduces the concept of observable effect levels in relation to noise and uses the following concepts:

NOAEL – No observed adverse effect level

This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

LOAEL – lowest observed adverse effect level

This is the level above which adverse effects on health and quality of life can be detected.

SOAEL – Significant observed adverse effect level

This is the level above which significant adverse effects on health and quality of life occur.

There is no specific defined measured level of noise which corresponds to these levels. The purpose of not setting levels is to ensure that the aims and principles are applied within the context of the area where development is taking place. This recognises that noise that does not cause a problem in a noisy urban environment may be unacceptable in a quieter location.

Developers and their consultants must therefore consider the context and nature of the area in which their proposal is located.

The first aim of the NPSE states that significant adverse effects on health and quality of life should be avoided while also taking into account the guiding principles of sustainable development

The second aim of the NPSE refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development.

The third aim seeks, where possible, to positively improve health and quality of life through the pro-active management of noise while also taking into account the guiding principles of sustainable development.

The NPSE makes significant reference to the government policy document ‘UK sustainable development strategy - 5 principles of sustainable development’

Adherence to the aims of the NPSE will ensure that the aims of the NPPF can be satisfied and that noise will not cause a loss of amenity or unreasonably affect the quality of life, health and well being of residents that would potentially give grounds for refusal of a proposal based on the potential for noise to have an unreasonable effect on an existing property.

2.3. National Planning Practice Guidance (NPPG)

Developers should consider the NPPG when preparing their application to the Local Planning Authority. It provides further guidance on how planning can take account of noise when considering the suitability, design and layout of a development. It aims to provide a guide to local authorities on how to view and assess observed effect levels in line with the Explanatory Note of the Noise Policy Statement for England.

The NPPG states that noise needs to be considered when new developments may create additional noise and when new developments would be sensitive to the prevailing acoustic environment.

This is achieved by considering:

- Whether or not a significant adverse effect is occurring or likely to occur
- Whether or not an adverse effect is occurring or likely to occur
- Whether or not a good standard of amenity can be achieved

The table below summarises the noise exposure hierarchy, based on the likely average response. However, it should be viewed in the context of the area in which it is being applied.

Perception	Examples of outcomes	Increasing effect level	Action
Not noticeable	No effect	No observed effect	No specific measures required
Noticeable and not intrusive	Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No observed adverse effect Lowest observed adverse effect level	No specific measures required
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed adverse effect Significant observed adverse effect level	Mitigate and reduce to a minimum
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant observed adverse effect	Avoid
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, eg regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, eg auditory and non-auditory.	Unacceptable adverse effect	Prevent

Environmental acoustics is a complex topic and a competent person will be necessary to identify measure and interpret the potential effects of noise.

The NPPG also recognises that noise is not simply a consideration of absolute noise levels and summarises the range of considerations when assessing noise in paragraph 006. These other considerations include:

- The nature/character of noise (including tonal elements, High/Low frequency content)
- Relationship of a noise source with existing background noise
- Time of day
- Duration of noise emissions
- Number of occurrences and pattern of noise events
- Cumulative impacts of noise sources

Paragraph 8 of the NPPG broadly outlines a hierarchy of mitigation options for noise making developments which encourage engineering solutions for noise sources, site layout considerations, planning conditions to restrict the time and duration of noise making activities or the maximum noise emission permitted.

For noise sensitive developments mitigation measures are suggested. In the first instance it is advised to avoid noisy locations. Where this is not possible or where the site is desirable in terms of the Local Development Plan mitigation should be led by designing the development to reduce the impact of noise this may include; considering the layout of the site to minimise the noise impact such as locating a commercial building between the noise sensitive buildings and the noise source and/or using acoustic barriers and lastly improved sound insulation.

The NPPG states that care should take when considering mitigation to ensure that the measures do not make for an unsatisfactory development.

2.4 ProPG: Planning and Noise – New Residential Development, May 2017

The scope of this ProPG is restricted to the consideration of new residential development that will be exposed predominantly to airborne noise from transport sources (noting that good professional practice should have regard to any reasonably foreseeable changes in existing and / or new sources of noise.

The document has not been adopted formally by government but it is a very helpful technical guide which forms a basis for good design for potential new housing near to transport networks.

It is envisaged that following the guidance contained in this document will increse the likelihood of success of planning applications for new residential development, yet it also provides a clear basis for recommending refusal of new housing development on noise grounds where necessary.

3. Applying noise assessments to developments

3.1. What the Maldon District expects

As a predominately quiet rural district the intention is to sustain the high quality of life afforded to both existing residents and future residents occupying new housing.

Maldon District Council's primary approach to noise and noise sensitive development is to seek physical separation through planning controls. This approach applies both where noise sensitive development (such as housing) is seeking to locate in a "noisy" area, and where "noisy" activities are proposed, or exist and proposed to expand, in noise sensitive locations.

It is recognised however that urban development and localised land use changes may make it necessary to locate a development near to some of the areas in the District with a high acoustic environment.

If suitable separation cannot be achieved, consideration will be given to whether it is practicable to control or reduce noise levels, or to mitigate the impact of noise, through the use of conditions or planning obligations.

Where noise impact cannot be made acceptable through separation or other noise control measures, planning permission would normally be recommended for refusal.

When considering noise levels during a noise assessment it should be noted that there are no noise levels set in the NPSE.

Developers and their consultants must therefore consider the context and nature of the area in which their proposal is located. What is acceptable in London or Manchester for example is unlikely to be appropriate and therefore unacceptable in the Maldon District.

Developers should also ensure they are aware of existing business and land uses likely to generate noise such as leisure facilities and licensed premises for example, when locating noise sensitive dwellings and ensure their proposal is not likely to restrict the ability of those premises to continue to operate or expand in the future.

It is therefore important that developers use noise assessment's to inform their design proposals.

Noise assessments should be carried out by a competent person.

3.2. Basic principles of design

When considering a suitable location for a noise sensitive development avoiding noisy locations is the most effective way of preventing noise becoming a problem.

However if this is not possible, noise should be considered at the design stage of any development and there is a simple hierarchy of mitigation options in the following order:

- Engineering: In the first instance the most effective form of noise control is achieved by reducing the noise generated at source and/or containing the noise generated. This is typically only viable where an application involves the introduction of a new noise source. However, it may be possible for an applicant to work with the persons in control of a noise source prior to the application being submitted
- Design and layout: Where possible, site design and layout should be used to optimise the distance between the noise source and noise-sensitive receptors and/or incorporating good design to minimise noise transmission through the use of acoustic screening by natural or purpose built barriers, or other buildings. When considering the use of other buildings this should consider the use of business premises for example located between a road and residential dwellings
- Using planning conditions/obligations: This would include conditions to restrict hours of operation of noise emitting plant/activities/deliveries or specifying permissible noise levels differentiating as appropriate between different times of day, such as evenings and late at night. Conditions may also prohibit certain activities from occurring outside
- Mitigation at the receptor: As a final resort where no other viable options are available the impact on sensitive areas likely to be affected by noise can be mitigated, including through noise insulation when the impact is on a building. Where this refers to habitable rooms within dwellings closed windows will not normally be accepted as a noise control measure

In some cases locations identified as sites within the Maldon District Local Development Plan may be permitted to use windows and building envelope insulation as a final resort for a small number of habitable rooms where it has been demonstrated that there is no other viable option available in the hierarchy of mitigation options.

3.3. Residential development proposals

Proposed residential developments that are likely to be affected by noise from existing or future developments with planning permission will require a full assessment of the impact, in the form of a noise report carried out by a competent person, provided with the application details.

Noise sources to consider would typically include transport infrastructure such as roads and railways and commercial land uses. It should be noted that commercial noise

sources are not limited to heavy industry. Light Industry, offices, retail and food premises commonly have air conditioning units and extract ventilation systems that 'depending on distance' may create excessive noise at the proposal site. A noise assessment should be undertaken to find out the level of impact likely to be created by the noise.

The development should then be designed to minimise the impact of these noise sources.

If the noise source is from a specific source of noise and has characteristics that may cause annoyance appropriate guidance that relates to the sound source should be selected. For example if the noise source is mechanical plant on an industrial or retail building BS4142:2014 should be used to assess noise impact. It will not be considered acceptable to use BS8233:2014 for assessing the suitability of such noise sources.

Where the noise source is a general ambient noise from roads or the general environment BS8233:2014 should be used to guide what is considered acceptable and determine whether mitigation is required.

Where noise mitigation is required, the criteria found in BS 8233: 2014 (Sound insulation and noise reduction for buildings) should be used as stated in World Health Organisation (WHO) Guidelines on Community Noise (1999).

The noise levels for amenity spaces and habitable rooms should ideally be met without the need for mitigation measures incorporated into the building itself. Developers should be attempting to use design and layout to provide separation from the noise source. Where this is not practical acoustic barriers should be provided. These can be purpose built or by locating buildings that are not noise sensitive to serve as barrier.

Where further mitigation is required after layout and barriers have been considered, building orientation, internal layout, building insulation and enhanced glazing can then be considered.

On some sites, where it is not possible to achieve acceptable mitigation fixed windows and mechanical ventilation may be required. If any mechanical ventilation is recommended please note that internal noise levels must be considered separately with the system operating on and off.

However, unless the development accords with the Local Development Plan and planning policies, the development within the high noise environment is not likely to be considered appropriate.

Where mechanical ventilation is proposed full justification should be provided that demonstrates that alternative methods of mitigation are not practical. In all other regards, the proposal should accord with the aims and policies of the Local Development Plan and NPSE.

3.4. Industrial, commercial and agricultural development

The most appropriate way to assess noise issues resulting from proposed commercial premises, near an affected building façade, is via the use of BS 4142: 2014 (Method for rating industrial noise affecting mixed residential and industrial areas).

This standard provides a tool to assess the likelihood of complaints about noise from industrial development. It can be carried out using a mix of predictive and actual measurements. Post construction verification checks are recommended.

Some circumstances and noise sources may be unsuitable for applying BS4142: 2014. For example, the standard relies on average noise levels over long time periods so short term high impact noise sources may need to be considered with regard's to the impact of maximum noise levels.

If there is any doubt developers or their consultant's should contact Maldon District Council Environment Services to discuss their concerns and agree an appropriate measurement and assessment methodology.

3.5. Wind turbines

The assessment of proposed wind turbines with a generating capacity f 50kW or above must be carried out with regards to The Institute of Acoustics (IoA) publication: A Good Practice Guide To The Application Of Etsu-R-97 For The Assessment And Rating Of Wind Turbine Noise.

Small scale wind turbines with a generating capacity below 50kW should be carried out in consideration the British Wind Energy Association (now known as Renewables UK) publication 'Small Wind Turbine Performance and Safety Standard'(2008).

Large scale wind turbine applications should also consider Amplitude Modulation and a condition will be applied should permission be granted.

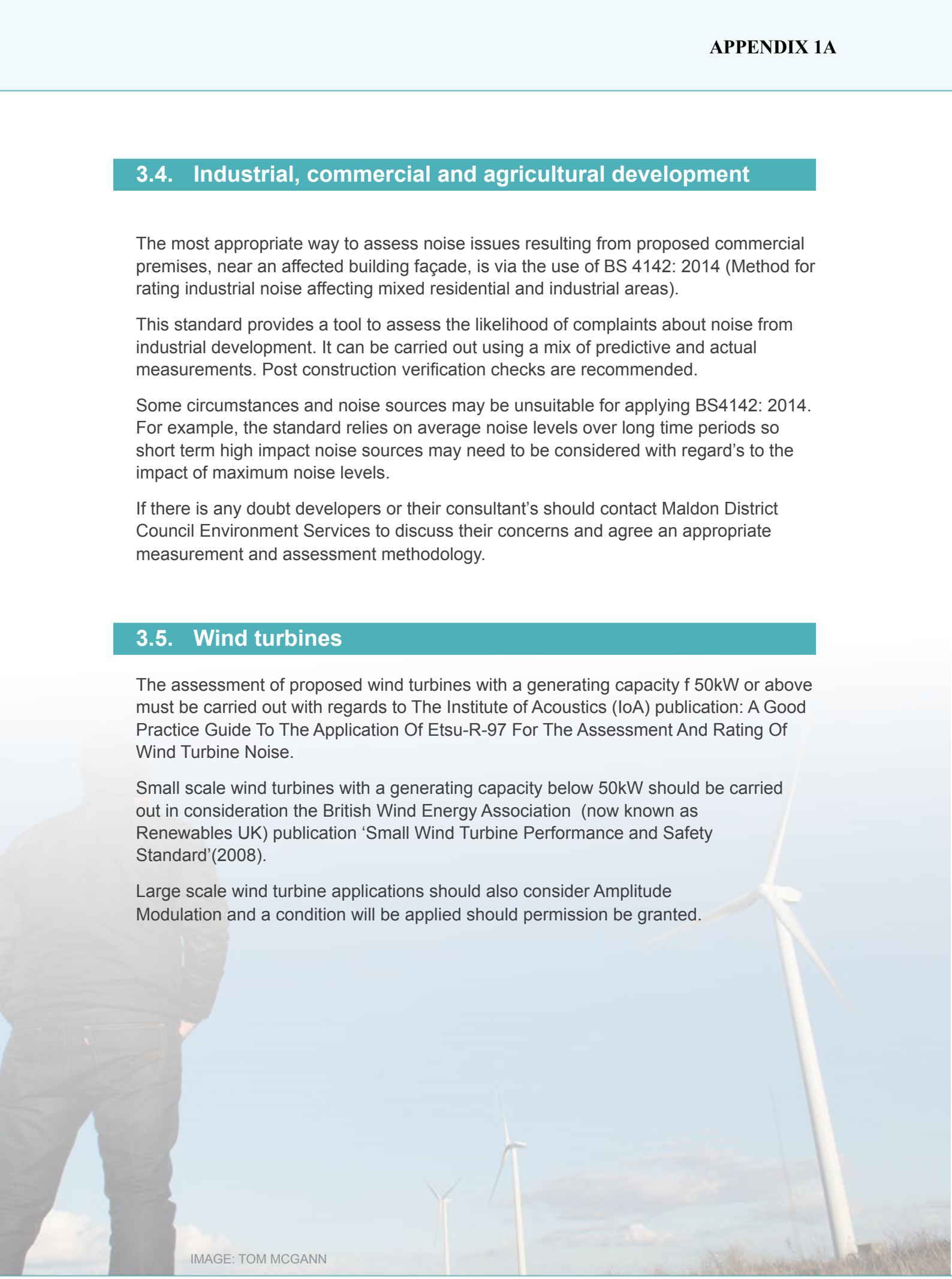


IMAGE: TOM MCGANN

3.6. Minerals workings

The planning authority for minerals workings is Essex County Council who have published minerals and waste management plans. However, Maldon District Council is a consultee and its comments with regard to noise will consider the NPPF technical guidance which provides specific guidance on noise from minerals workings.

3.7. Schools, hospitals and other noise sensitive buildings

Detailed guidance on the design of schools and hospitals can be found In the Department for Education publication BB 93: Acoustic Design of Schools (2003) and the Department of Health specialist services – Health Technical Memorandum 08-01:Acoustics (2008).

3.8. Licensed premises

Where amplified noise break out from licensed premises is likely, the applicant should ensure that the insulation of the premises and the volume and sound frequency setting inside the commercial premises is adequate. These buildings will require an adequate mechanical ventilation or air conditioning system to be provided supplying sufficient fresh air for patrons, following the guidance in the Chartered Institute of Building Engineers (CIBSE) or any later replacement guidance.

Planning applications will therefore need to be accompanied by a suitable assessment demonstrating that the building is adequate in sound insulation terms for its proposed use, which will include ensuring there is sufficient sound attenuation of any ductwork, particularly at the inlet/outlet, to prevent excessive noise breakout and the provision of soundproofed doors, double door lobbies and windows, which must remain closed.

The installation of a suitable limiter device with electric contact breaks on fire doors and/or windows may in some cases be appropriate. Planning conditions may also be imposed to ensure compliance with the long term retention of such soundproofing measures and regulate opening times in line with the local area.

If a proposal is being made to build homes near to existing licensed premises it will not be acceptable to use BS8233:2014 as a standard to guide the suitability of the development.

3.9. Artificial grass pitch (AGP – all weather pitches)

There are currently no codes of practice or standards that are suitable for determining whether noise from proposed AGP or residential properties being located near to AGP is acceptable in terms of effect on amenity.

These facilities are commonly used during evenings and weekends and valuable facilities for community use. However they are a common cause of complaint from residential dwellings.

The main cause of complaint is typically due to the nature of the noise which is typically made up of shouts, whistles and impact noises from balls being struck. As these noises are short term, high noise events, the use of time LAeqTime noise levels to assess noise impact is not a suitable indicator for the effects of noise. Consideration of the likely effects of noise at the receptor and suitable noise control measures will involve professional judgement and where noise readings are used short and long term LA90, LAmax, LAeq, LA10 and LA1 are appropriate indices for this purpose.

The primary control of noise will be from maximising separation distances combined with landscaping and mounding of earth.

In noise sensitive locations, the materials of construction and the design should be made in consideration of reducing noise. Fences should be fixed to support posts and rubber damping pads or heavy netting to absorb ball impacts should be considered.

Sports England Guidance on the design and construction of AGPs (AGP Acoustics, 2015) is available on Sports England's website:

https://www.sportengland.org/facilities-planning/tools-guidance/design-and-cost-guidance/artificial-sports-surfaces/

TYPE OF DEVELOPMENT

	NEW RESIDENTIAL (C3 AND C4 USE CLASSES)
	• **Near to busy roads (A Class and Major B roads) and railways**
	A noise report will be required where noise levels at the development site exceed 50dBLAeq daytime and/or 42 dBLAeqnight.
	• **Near to industrial estates and premises**
	A noise report will be required to characterise the effect of the industrial noise on proposed residential dwellings
	• **Near to agricultural yards and buildings**
	Noise report will be required to characterise the effect of the agricultural premises on proposed residential dwellings
	• **10 + residential dwelling (major development)**
	Only required where an existing or proposed source of noise may affect the proposed residential uses. Please consult the environmental health department if unsure.
	CHANGE OF USE TO RESIDENTIAL
	If the premises applying for change of use is located near to existing or proposed noise sources such as roads or commercial activities a noise assessment will be required.
	RESIDENTIAL INSTITUTIONS C2/C2a uses (care homes, hospitals, nursing homes, residential colleges etc)
	Noise assessment will be required to assess both the impacts of existing noise and the effects of plant associated with the C2/C2a building e.g air conditioning units, ASHPs, extract ventilation.
	INDUSTRIAL USES (B2 general industrial and B8 storage and distribution as well as minerals development and waste management sites)
	Includes new development, mixed use developments, extensions, layout alterations or installation of new equipment at existing site. Consideration of noise from transport movements should be given.
	LIGHT INDUSTRY AND OFFICES (B1 uses)
	Includes new development, mixed use developments, extensions, layout alterations or installation of new equipment at existing site.
	COMMERCIAL USES A1 and A2 uses (Shops, financial and professional services)
	> A noise assessment will be required where air handling units, extractor fans, or other noise emitting plant will be used > Consideration of the impact of the opening hours and customer access and egress should be provided > The noise impact of the car park should also be considered
	ENTERTAINMENT / FOOD & DRINK ETC A3 restaurants and cafes / A4 drinking establishments / A5 hot food takeaways / D2 cinemas, concert halls, swimming baths, night clubs etc
	> Should consider air handling units, extractor fans, or other noise emitting plant will be used > Consideration of the impact of the opening hours and customer access and egress should be provided > The noise impact of the car park should also be considered
	OUTDOOR SPORTS AND RECREATION
	Includes multi use sports pitches (mugas), motor sports and shooting ranges
	WIND TURBINES
	TRANSPORT SCHEMES roads, railways, ports including alterations to existing schemes
	Early consultation with the LPA/EH would be expected
	OTHER SUIS GENERIS USES e.g petrol stations, launderette, taxi businesses.
	> A noise assessment will be required where air handling units, extractor fans, or other noise emitting plant will be used > Consideration of the impact of the opening hours and customer access and egress should be provided > The noise impact of the car park should also be considered

NOISE REPORT REQUIRED YES MAYBE

APPENDIX: - Quick reference guide

Maldon District Design Guide

Planning and Noise

Technical Document to Maldon District Design Guide December 2017

If you need help with this information in a different format, please call 01621 854477

Maldon District Design Guide

Assessing Air Quality and Emissions Impacts from Development

MALDON DISTRICT COUNCIL

Technical Document to
Maldon District Design Guide
December 2017

Air Quality Reading List

- Environment Act 1995 and associated Local Air Quality Management Regulations
- DEFRAS: The Air Quality Strategy for England, Scotland, Wales and Northern Ireland Or equivalent document
- National Planning Policy Framework (NPPF)
- National Planning Practice Guidance (NPPG)
- Environmental Protection UK's (EPUK) and Institute of Air Quality Management (IAGM): Land-Use Planning & Development Control: Planning for Air Quality (2015)
- DEFRA's LAQM Technical Guidance TG (16)
- Institute of Air Quality Management: Guidance on the Assessment of Dust from Demolition and Construction
- The Control Of Dust And Emissions During Construction And Demolition Supplementary Planning Guidance: Mayor of London. Greater London Authority
- DEFRA Low Emissions Strategies using the planning system to reduce transport emissions Good Practice Guidance (2010)
- DEFRA Emissions Factor Toolkit: http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html)

CONTENTS

1. INTRODUCTION

1.1. The purpose of this guidance

This guidance is aimed at planning agents, developers and their consultants. It is intended to help ensure consistency in the approach to air quality and vehicle emissions considerations when dealing with air quality for development projects in the Maldon District at the planning stage.

Air quality can be a material consideration within the planning process with the potential to affect and influence the planning decisions. This guidance intends to ensure that air quality considerations are dealt with at the earliest opportunity and that the necessary and appropriate information concerning a development's potential impacts on air quality, both onsite and further afield, is provided with planning applications at the validation stage.

This document clarifies when an assessment is likely to be required and provides guidance on the information required to undertake such an assessment. It is important that air quality considerations can be taken into account early in the development management process.

1.2. Aims of this guidance

An important focus of this guidance is on minimising the air quality impacts from developments for which air quality assessments have been requested by the planning authority. With this in mind this guidance aims to:

- Sustain and where practical improve local air quality
- Provide a consistent approach to considering the effects of new developments on local air quality within the Maldon District
- Enable early engagement by Identifying which developments would require an air quality assessment to be provided and the points that need to be considered with the planning application, thereby minimising delays during the decision making process
- Ensure better regulation by formalising the approach to undertaking air quality assessments and applying appropriate mitigation consistently in planning decisions

1.3. Guidance process

Section 1: Sets the context for this document

Section 2: Explains the relationship between local air quality and the planning framework

Section 3: Outlines the current air quality situation in the Maldon District

Section 4: Explains when an assessment may be required

Section 5: Guides what is required of an air quality assessment and how the significance of an assessment is identified

Section 6: Discusses options for mitigation

1.4. Background to local air quality management

Local Air Quality Management (LAQM) in the UK was introduced with the Environment Act 1995. It was seen by Government as the best way to deal with localised 'hot spots' of poor air quality that were expected to remain after national and international measures, such as controls of emissions from new vehicles, brought about a general improvement.

LAQM has established air quality 'standards' and 'objectives' (AQOs) for the air pollutants that are of concern. The 'standards' have been set to protect human health and the environment based on scientific and medical evidence.

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (DEFRA 2007) estimates that life expectancy of the average person in the UK is reduced by up to eight months as a result of air quality with health costs exceeding £20 billion. It can be seen that improving air quality has considerable benefits to human health and well being, the environment and the economy.

Part IV of the Environment Act 1995 places a duty on local authorities to review and assess local air quality. Where a local authority considers that one or more of the objectives are likely to be exceeded and there is relevant exposure, it must declare an Air Quality Management Area (AQMA) and produce an action plan setting out measures to work towards an improvement of the air quality in the area. Local authorities are required to submit all relevant air quality reports to the Department for Environment, Food and Rural Affairs (DEFRA) for acceptance.

The UK objectives take account of the EU limit values and are either effectively identical, or more stringent. It is thus common practice to focus air quality assessments on the UK objectives. Formal Environmental Impact Assessments (EIAs) will, however, also need to take explicit account of the EU Limit Values, Furthermore, a formal EIA will introduce the need to assess the impact on PM2.5 concentrations, along with those pollutants that affect ecosystems and vegetation where appropriate.

2. LOCAL AIR QUALITY IN THE PLANNING FRAMEWORK

2.1. National Planning Policy Framework (NPPF)

The planning system is critical for managing local air quality, especially in rural areas where road traffic congestion and local built environment features are the common cause of areas where there are elevated air pollutants such as NO2 and PM10s.

The NPPF aims to guide development through a principle led set of criteria. The core principles include contributing to conserving and enhancing the natural environment and reducing pollution and taking account of and supporting local strategies to improve health, social and cultural wellbeing for all.

Paragraph 109 of the NPPF states that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.

Local air quality management is specifically referenced in paragraph 124 stating that

'Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.'

It is recognised therefore that land use planning and development management is considered to be an essential process to improve or sustain air quality. This may include locating developments in such a way as to reduce emissions overall, and secondly reducing the direct impacts of those developments. These impacts are not limited to industrial processes that emit pollutants but also include residential developments whose future residents will add further traffic to the existing road network with the potential to create or add to areas of congestion and rising air pollution.

Even where a development is not located within an AQMA there is still a need to regard air quality as a material factor in determining planning applications in any location. This is particularly important where the proposed development could have adverse impacts on air quality within an AQMA, or where air quality in an area further afield from the development site is close to exceeding guideline objectives itself.

Developers are directed to ensure that they, or their consultants, have reference to any relevant documents published by the local authority that identify areas that may be affected as part of the air quality review and assessment process.

2.2. National Planning Practice Guidance (NPPG)

The NPPG provides further guidance on how planning can take account of the impact of new development on air quality.

It recognises that plan making should not only take account of AQMAs but also account for other areas where there may be limitations on new development due to air quality.

Air quality is also a consideration in strategic environmental assessment and sustainability appraisal can be used to shape an appropriate strategy.

Local planning policy should consider the review of air quality carried under the LAQM regime and local plans may consider:

- The potential cumulative impact of a number of smaller developments on air quality as well as the effect of more substantial developments
- The impact of point sources of air pollution (pollution that originates from one place); and
- Ways in which new development would be appropriate in locations where air quality is or likely to be a concern and not give rise to unacceptable risks from pollution. This could be through, for example, identifying measures for offsetting the impact on air quality arising from new development including supporting measures in an air quality action plan or low emissions strategy where applicable

Developers and planners deciding whether air quality is a consideration for a particular development should consider whether the development would:

- **Significantly affect traffic in the immediate vicinity of the proposed development site or further afield.** This could be by generating or increasing traffic congestion; significantly changing traffic volumes, vehicle speed or both; or significantly altering the traffic composition on local roads. Other matters to consider include whether the proposal involves the development of a bus station, coach or lorry park; adds to turnover in a large car park; or results in construction sites that would generate large heavy goods vehicle flows over a period of a year or more
- **Introduce new point sources of air pollution.** This could include furnaces which require prior notification to local authorities; or extraction systems (including chimneys) which require approval under pollution control legislation or biomass boilers or biomass-fuelled CHP plant; centralised boilers or CHP plant burning other fuels within or close to an air quality management area or introduce relevant combustion within a smoke control area
- **Expose people to existing sources of air pollutants.** This could be

by building new homes, workplaces or other development in places with poor air quality

- Give rise to potentially unacceptable impact (such as dust) during construction for nearby sensitive locations
- **Affect biodiversity**. In particular, is it likely to result in deposition or concentration of pollutants that significantly affect a European-designated wildlife site, and is not directly connected with or necessary to the management of the site, or does it otherwise affect biodiversity, particularly designated wildlife sites

Further guidance on how these considerations may be quantified as detailed in chapter 4 of this document.

The NPPG offers further information on the information that may be required in an air quality assessment and mitigation where impacts are identified which applicants should refer to where necessary.

3. AIR QUALITY IN THE MALDON DISTRICT

3.1. Local air quality

The Maldon District is a largely rural district that currently does not have any declared AQMAs and as a rural district predominantly has good air quality.

However, like many rural districts review and assessment carried out under the LAQM regime has identified areas within towns and villages within the District where local circumstances are likely to give rise to an increase in some of the pollutants subject to AQOs within the legislation. Subsequent monitoring has quantified that risk and gives us the knowledge where there is a significant risk of the AQOs being exceeded and an AQMA being declared if there is a risk to human health at plausible receptor locations.

The review and assessment has identified areas where traffic congestion near to residential dwellings occurs as the main areas within the Maldon District where poor air quality is a risk with specific regards to NO2 and PM10.

For detailed information on the review and assessment and to check the air quality levels from monitoring sites developers and consultants should in the first instance visit the Essex Air Quality website for up to date information on how pollutant levels measure against the AQOs in and around the District. This website also contains an archive of air quality review and assessment reports, published to date.

Maldon District Council has also documented an Air Quality Action Plan that developers and consultants should be aware of. This is included in APPENDIX 2.

In keeping with the planning principles and national air quality strategies, Maldon District Council intends to sustain or improve air quality through the implementation of the Local Plan and when making decisions on development management. To do this it will be necessary to require air quality assessments or mitigation for certain developments.

Where an air quality assessment is identified as being required, it is recommended that developers or their consultants contact Maldon District Council's Environment Services to check that they have obtained the latest reports and monitoring data and have correctly identified the areas requiring assessment due to the potential effects of the development.

3.2. Areas at risk

As stated previously the main cause elevated air pollutants in the district are caused by road traffic. The ongoing LAQM assessment has determined that PM10 monitoring is not currently necessary although continues to need consideration. However NO2 levels have been monitored using diffusion tubes which have identified areas where NO2 is significantly elevated above background levels.

Background levels of annual mean NO2 concentrations in 2013 were reported by DEFRA as ranging between 9 and 12 ug/m3 in the Maldon District. The following monitoring sites in TABLE 1 have found annual mean levels of NO2 above 30 ug/m3 which are significantly above normal background levels and are within 75% of the AQO.

TABLE 1 **– Monitoring sites exceeding 30 ug/m3**

Site No.	Location
MD 1	Opposite Cherry Oak A414
MD 2	A414 Spital Road / A414 Bypass
MD 3	Heybridge Approach
MD 4	Heybridge Street / The Causeway
MD 5	Colchester Rd / Heybridge Street Junction
MD 6	High Street (Market Hill Junction)
MD 7	Wantz Rd / High St
MD11	Latchingdon Street
MD12	A414 Spital Road / A414 Bypass
MD13	Limebrook Way / A414 Bypass
MD15	The Causeway, Heybridge

The above sites are of particular concern where there is risk of extra vehicle movements or pollutant emitting process such as CHP scheme being developed. Consideration would also need to be given if new receptors are introduced.

The areas given are examples of current sites being identified and monitored. It should be noted that other areas may require assessment should traffic flows change and that LAQM is an ongoing process which may identify new areas requiring monitoring. It is important that the up-to-date air quality reports and monitoring results are used at the time an application is being made and not this document.

Developers will also need to consider areas in other neighbouring districts that may be affected by traffic generated from the development. In particular Danbury located within Chelmsford City Council's area and Hatfield Peverel within Braintree District Council's area may need consideration.

It is important to note that vehicle movements may be generated by residential, retail or industrial sites that are proposed further afield than the area of concern. It will be necessary to consult traffic models to identify where this may be.

A further point developers should consider is the geographical context and local transport infrastructure within the Maldon District which limit the routes that vehicles are likely to travel. For example, developments in Southminster, Burnham and Bradwell are located at the eastern end of a peninsula between two large rivers. There are only two main routes off of this peninsula.

4. WHEN IS AN AIR QUALITY ASSESSMENT REQUIRED?

4.1. The need for an assessment

With the national requirement to build more residential homes, significant development is going to take place. Very large individual development sites or the cumulative impact of major development sites (as defined in the Town and Country Planning Act) pose a risk of parts of Maldon District failing to meet the AQOs after site occupation, affecting the health and quality of life of current and future residents.

We encourage any applicant that holds pre-application meetings to consider the need for air quality assessment at this early stage.

It will therefore be necessary for certain developments to provide either a screening assessment or detailed assessment. These developments should consider the assessment criteria checklist in section 4.2 of this guidance. The criteria listed are the fist stage of the assessment process and provide screening to determine whether a more detailed assessment is required.

4.2. Assessment Criteria Checklist

The assessment criteria used in the checklist below are derived from Environmental Protection UK's (EPUK) and Institute of Air Quality Management (IAGM): Land-Use Planning & Development Control: Planning for Air Quality (2015). Where any of the criteria set below are met by the proposed development an air quality assessment should be undertaken.

CHECKLIST 1: **Screening Checklist**

	Screening Checklist	YES	NO	Recommendations
1	Is the proposed development within an air quality management area (AQMA)			If any answer is YES Go To Checklist 2. If all are NO, no further assessment required
2	Is the proposed development categorised as a major development *			
* Major developments are defined by the Town and Country Planning (Development Management Procedure) Order (England) 2010				

CHECKLIST 2: **Air quality and emissions mitigation assessment checklist**

	Assessment Checklist	YES	NO	
1	Is the proposed development within or likely to impact upon an air quality management area (AQMA) or an area near to exceeding AQ Limits (40µg)?			If any answer is YES contact MDC Environment Services to confirm that an air quality (AQ) assessment is required and then undertake an emission's assessment. Emissions mitigation assessments are discussed in section 6. If all answers are NO, Or Environment Services determine there is no need for an AQ assessment go to section 6 of this guidance.
2	Does the development require an EIA?			
3	Is the proposed development type likely to become either on its own or as part of several cumulative developments a large scale major development?			
4	Is vehicle parking in the development >100 (outside AQMA) or >50 (within AQMA)?			
5	Does the proposal result in an increase in vehicle trip generation within the local area which will lead to an increase or decrease in traffic volumes (annual average daily traffic (AADT) or peak traffic flow) of 5% on roads with 10,000 AADT or more, or 5,000 or more if narrow and congested?			
6	Does the proposal result in change in average vehicle speed by more than 10kph (6.2mph) than is present on the existing local road network on roads with 10,000 AADT or more (5,000 if narrow and congested)?			
7	Does the proposal result in a likely increase in heavy duty vehicle movements >15 per day?			
8	Does the proposal result in increased congestion – this will vary according to location, but can generally be considered to be where there is a build-up of traffic preventing efficient movement?			
9	Will the development introduce new sensitive receptors into or in close proximity to an AQMA or area near to exceeding the AQ limits (40µg)?			
10	Is the site a Local Development Plan site?			
11	Will the development lead to new infrastructure such as rail, road, roundabout, signalling, bridges etc?			
12	Will the development create a street canyon or enclose roads and reduce dispersion of pollutants?			
13	Does the proposal include biomass energy or heating plant >50kW into an urban residential environment?			
14	Is the proposal in or close to sensitive designated sites such as Special Protection Areas, Special Areas of Conservation (SAC), Ramsar sites, designated ecological sites or Sites of Special Scientific interest (SSSI), County Wildlife Sites, Local Nature Reserves, Roadside Nature Reserves?			

A printable version of this table is included at APPENDIX 3.

5. AIR QUALITY ASSESSMENT CONTENT

5.1. Screening assessment

If the results of the screening assessment or Environment Services determine that no detailed assessment is necessary this should be provided with the application details.

Evidence should be provided as appropriate to show that the criteria in Checklist 2 (See Section 4.2) are not met.

In addition you should include an Emission's Mitigation Statement. Mitigation considerations which should be included in the statement are discussed in more detail in Section 6.

5.2. Detailed assessment

A detailed assessment should be carried out with regard to the guidance provided by Environmental Protection UK and the Institute of Air Quality Management: Land-Use Planning & Development Control (2015): Planning For Air Quality. Chapters 6 and 7 specifically deal with the assessment content, methodology and interpreting the significance of the results and LAQM updated 2017 (Classification of Impact Significance).

Further reference should be made to DEFRA's LAQM Technical Guidance TG (16) (also referenced in the EPUK guidance) and any other relevant guidance or standards.

NOTE: Applicants intending to undertake an air quality assessment should always seek the latest available information on local air quality from the local authority.

The assessment should show 'with' and without' comparisons and the primary goal will be to determine in the first instance whether the assessment shows an increase in the pollutants being assessed and secondly whether the increase will cause the AQOs to be exceeded and therefore cause an adverse impact on public health.

5.3. Determining the significance on air quality from development

- The AQ assessment provides modelled predicted concentrations for scenarios (for agreed year/period): without development (baseline, with development and with development including mitigation measures, including mitigation measures
- A comparison of the scenarios will be presented in the report. Compare scenarios 'without development (baseline)' with scenario 'with development including mitigation' (or without mitigation if none is considered necessary)

- The difference in the compared scenarios is used to determine the classification of the change in air quality concentration
- The scale of air quality impact due to changes of concentration or if the additional concentration causes local exposure to approach or breach the air quality objectives, determined the planning recommendations
- Planning recommendations are then required

The conclusions made on the significance of air quality impacts identified in a detailed assessment will be based on the professional judgement of officers reviewing the report, the factors that officers will consider are outlined in the EPUK/LAQM Guidance 2017 and determined whether significance is minor, moderate or major.

The following table sets guidance on the classification of impacts to determine their significance.

Classification of impact	Pollutant concentration change due to development	OR if development contributes to
Very high	Increase >10%	Breach of air quality objective (AQO)
High	Increase > 5-10%	Exposure within 5% of AQO
Med	Increase 1-5%	Exposure within 10% AQO
Low / Imperceptible	Increase <1%	Exposure within 25% of AQO

5.4. Planning recommendation

If the air quality assessment determines an impact or likely impact on air quality in the District due to the development or a cumulative impact of developments, the following outlines the likely recommendations that will be made to the planning authority by Environment Services.

- An overriding consideration will be to ensure that pollutant levels do not increase above the AQOs and therefore cause a new AQMA to be created
- Refusal of a planning application may still be recommended if High to Very High air quality impacts from a development remain, even after all reasonable means to mitigate the impact on air quality have been exhausted

Magnitude of air quality impact	**Very high**
Recommendation	Require mitigation to remove very high quality impacts. If Impact is still high there will be a strong presumption for recommending refusal All sites will be expected to explore all reasonable measures of mitigation which may include infrastructure improvements relating to road traffic. Agreed measures must be implemented in an agreed time scale
Action	Recommend refusal if mitigations not agreed
Magnitude of air quality impact	**High**
Recommendation	Recommend refusal unless appropriate mitigation measures are implemented to the satisfaction of the local authority Mitigation to include reducing exposure through various measures, emissions reduction and/or development design
Action	Recommend refusal unless recommended mitigation is maximised
Magnitude of air quality impact	**Medium**
Recommendation	Seek mitigation to reduce air quality impacts Mitigation to include reducing exposure through various measures, emissions reduction and/or development design Contribution Based on Emission mitigation calculation
Action	Ensure 0n-site mitigation are maximised
Magnitude of air quality impact	**Low/imperceptible**
Recommendation	Recommend the minimum mitigation for development scheme type, or Contribution based on emission mitigation calculation
Action	Recommend minimum mitigation

6. AIR QUALITY AND EMISSIONS IMPACT MITIGATION

Where an impact is found to occur it does not automatically mean that a planning application will be refused. However, it is likely that mitigation will be necessary if the development is approved through the planning process. The type of mitigation will depend upon the significance of the impact and the details of each application.

All major developments require a brief mitigation statement and the developer will be required to follow The Control of Dust and Emissions from Construction and Demolition, Best Practice Guidance to minimise dust and other emissions to the atmosphere during the construction phase.

The mitigation statement should include:

- Development traffic input data for emissions calculation
- Emissions calculation and totals
- Mitigation proposed (should be at least to the equivalent value of emission's calculation)

6.1 Emissions calculator

The calculation uses the most current DEFRA Emissions Factor Toolkit to estimate the additional pollutant emissions from a proposed development. (Ref: DEFRA Emissions Factor Toolkit: http://laqm.defra.gov.uk/review-and-assessment/tools/emissions.html)

This will provide the relevant pollutant emissions outputs for the mitigation calculation, which is then multiplied to provide an exposure cost value.

This value is used for costing the required emissions mitigation for the development.

The emissions assessment and corresponding mitigation calculation follows this process:

1. An emissions assessment calculates additional trips generated by the development.
2. The emissions are calculated for pollutants of concern (NOx & PM10).
3. **Using DEFRA IGCB Air Quality Damage Costs for the specific pollutant emissions, the calculation then provides a resultant damage cost calculation. Details are provided on the government website at https://www.gov.uk/air-quality-economic-analysis#damage-costs-approach**
4. The emissions total is then multiplied x 5, to provide a five year exposure cost value*.

5. In addition the health values are to be uplifted by 2% per year**.
6. The resulting 5 year exposure cost value, is the value that is to be used to implement mitigation measures within the development. These mitigation measures should be agreed with the local planning authority to ensure that mitigation is in line with local policy and is appropriate for the type, size and location of the development.
7. If some or all mitigation measures cannot be accommodated within the development then mitigation may be provided through compensation via conditions or section 106 contributions. This will be determined by the local planning authority.

Calculating emissions from alternative fuels and technologies

The emissions calculator (above) provides a basic emission calculation. However, if a development proposal is to include alternative fuels or technology i.e. LPG, EV etc, then there are 'advanced options' within the EFT to accommodate this. Always check in advance with the air quality officer to agree these options.

*COMEAP (2010) and DEFRA Impact pathway guidance for valuing changes in air quality – section 44. (See reference section)

**DEFRA Impact pathway guidance for valuing changes in air quality - section 52. (See reference section)

EXAMPLE EMISSIONS CALCULATION

The following simple example demonstrates the calculation based on a development with 10 domestic properties.

EFT input:
10 Household (urban not London) (2012) (NOx and PM10)
X 27 (trip/traffic ratio for 10 houses)
X cars only (0% HGV)
X 50 kph (avg. speed)
X 10km (NTS UK avg.)

EFT Output = 32.55 kg/annum (NOx) & 3.795 kg/annum (PM)
= 0.0325 tonnes/annum (NOx) & and 0.003795 tonnes/annum (PM10)
X *£955/tonne (NOx) + *£48,517/tonne (PM10)
= £31.08 + £184.15
X 5 (years)
= £155.42 + £920.76
Total = £1,076

6.2 Requirements for mitigation measures

Scheme mitigation should be provided within the design of the development where possible. TABLE 1 lists the mitigation options to be considered.

TABLE 1. **Mitigation options**

- EV recharging infrastructure within the development (wall mounted or free standing in-garage or off-street points).
- Car club provision or support to local car club/eV car club.
- Designation of parking spaces for low emission vehicles.
- Differential parking charges depending on vehicle emissions
- All commercial vehicles should comply with either current or previous European Emission Standard.
- Fleet operations should provide a strategy for considering reduced emissions, low emission fuels and technologies.
- Use of ultra low emission service vehicles.
- Support local walking and cycling initiatives
- On-street EV recharging
- Contribution to low emission vehicle refuelling infrastructure
- Low emission bus service provision or waste collection services
- Bike/e-bike hire schemes
- Contribution to renewable fuel and energy generation projects
- Incentives for the take-up of low emission technologies and fuels

The above list is not exhaustive and further options may be suggested where authorities feel it is appropriate, depending on the scale of development and air quality issues within an area.

The mitigation options selected for a development should be relevant and appropriate to:

- Any local policies including Air Quality Action Plans, which may determine the mitigation priorities for a scheme that the local authority may wish to see be incorporated within a particular scheme
- Any local air quality concerns; to assist in the remediation of potential cumulative air pollution impacts of the development on the local community
- The type, size and activity of the development

DEFRA's 2010 Low Emissions Strategies Guidance provides further guidance on potential mitigation measures.

The following list taken from the EPUK guidance provides some examples of measures that may be appropriate.

CONSTRUCTION PHASE MEASURES

1. General commentary (where applicable)

- Agree a Code for Construction Practice with LPA prior to work commencing

2. Control of dust

- Building enclosures; use of screens; sheeted vehicles;
- Early implementation of paved haul routes
- Hard-standing cleaning
- Water spraying; wheel washing
- Consideration of location of stockpiles, stone-cutting activity; designated storage areas;
- Diversion routes
- Prohibit fires
- Just-in-time deliveries

3. Monitoring strategies

- Site boundary monitoring pre-development and post-development (at closest receptor)
- Liaison meetings with local residents
- Considerate contractor schemes (and their equivalent)

4. Construction plant emissions

- Age and type of plant
- Plant maintenance
- Alternative fuel use

OPERATIONAL PHASE MEASURES

1. Transport related measures

- Travel plans
- Car clubs
- Incentives for increased public transport use discounted fares, provision of information
- Parking standards set maximum number of spaces
- Preferential parking for low emission or car club vehicles or graduated parking
- Charges based on emissions
- Provision of alternative fuels electric charging points or biogas facilities
- Public transport fleet improvements e.g. provision of low emission buses
- Service vehicles agreement to achieve specified emissions standards
- Contribution to specific traffic management or road schemes

2. Non-transport related measures

- Monitoring programme (development specific). Needs careful consideration as to the usefulness of the specific monitoring programme, relevant assessment levels and the action that could be taken if the assessment levels are breached
- Ventilation. Mechanical ventilation becoming increasingly common. Care required on location of inlet. Need to ensure long-term maintenance
- Contribution to action plan and monitoring programmes. Can be a financial contribution to help the Authority develop and implement its action plan. May be a contribution to the Authority's air quality monitoring programme
- Buffer zone. Can be useful, but not simple to define extent. Not always practicable. May need to set against other benefits of development

3. Building design

- Flatted blocks and balconies may be best avoided in locations of poor air quality, especially at ground and first floors
- Habitable rooms. Consider placing away from façade fronting pollution source, e.g.in flats put corridors, stairwells, bathrooms etc. in these locations
- Avoid canyon streets or creating canyons. Creating gaps in building facades can help ensure free flow of air in the street

APPENDIX 1: AIR QUALITY OBJECTIVE LEVELS

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m3	Running annual mean	31.12.2003
	5.00 µg/m3	Annual mean	31.12.2010
1,3-Butadiene	2.25 µg/m3	Running annual mean	31.12.2003
Carbon monoxide	10 mg/m3	Running 8-hour mean	31.12.2003
Lead	0.50 µg/m3	Annual mean	31.12.2004
	0.25 µg/m3	Annual mean	31.12.2008
Nitrogen dioxide	200 µg/m3 not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m3	Annual mean	31.12.2005
Particulate Matter (PM10) (gravimetric)	50 µg/m3, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 µg/m3	Annual mean	31.12.2004
Sulphur dioxide	350 µg/m3, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m3, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m3, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

APPENDIX 2: MALDON DISTRICT COUNCIL AIR QUALITY ACTION PLAN

Air Quality Action Plan 2016

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas.

Traffic emissions are the most significant source of air pollution in Maldon District and the A414 is the principal route within the District.

The Council recognises the importance of working with partnering authorities such as Essex County Council to make improvements to local transport infrastructure and also to fulfil its own regulatory responsibility towards industrial processes.

Air pollution is considered to be generally low in Maldon District and monitoring of local air quality has measured no exceedances of air quality objective at relevant exposure. The trend of results across all monitored sites indicates that air quality is improving.

Air quality in Maldon District meets the national air quality objectives. As such, Maldon District Council does not have an Air Quality Strategy or Action Plan. However, future development is expected within the District and the emerging Local Development Plan will seek to use policy to support growth within the environmental limits.

To fulfil the requirements of Local Air Quality Management (LQMA) as set out in Part IV of the Environment Act 1995, an Annual Status Report (ASR) is prepared and published on the Council's website. The Council does not have any air quality management areas, so no formal action plan is required

This document aims to provide an overview of the actions Maldon District Council intends to take to ensure the District continues to benefit from good air quality. Set out below are eight broad actions indicating what is planned to try to achieve this:

ACTION 1

Securing measures to reduce vehicle journeys and therefore reduce vehicle exhaust emissions via the major planning applications. This includes new and enhanced public transport links, cycle networks and the installation of EV charging points (to provide an infrastructure to encourage future ULEV use and therefore reduce exhaust emission).

In particular the planned garden suburb developments are funding a new bus service to Chelmsford and creating a cycle path network linking up to the existing settlement to provide viable alternative to road vehicles. Relief roads have also been secured to reduce congestion in parts of Maldon District.

ACTION 2
Continue to monitor nitrogen dioxide at numerous locations around the District. This is done on a monthly basis using diffusion tubes. The results are not as accurate as the real-time methods; however, three diffusion tubes are co-located at Morrison's roundabout on the A414 which allows us to bias correct the tubes. Annual results of the tube concentrations are published monthly on www.essexair.org.uk. A review of the existing tube locations was undertaken in December 2016.

ACTION 3
Use the procurement system to ensure that air quality is a consideration within contracts for Maldon District Council.

ACTION 4
Work with Public Health colleagues to inform the public about health impacts of air pollution and how they can change behaviour to reduce emissions and reduce exposure.

ACTION 5
Continue to actively work with operators of industrial processes that ensure that permit conditions are appropriate for the operation and they meet compliance.

ACTION 6
Local air quality management guidance recommends that every six years a District review is completed to identify any new industrial processes that are operating without a permit are regularised to ensure emissions to air are controlled. This work is ongoing.

ACTION 7
Encouragement of staff to car-share including the provision of a car sharing space in the staff car park.

ACTION 8
Explore grant options and the Council's appetite for the installation of electric charging points in two strategic locations within the District. By providing these points it will provide and encourage accessibility to both residents of Maldon District and visitors.

APPENDIX 3: ASSESSMENT CRITERIA CHECKLIST

CHECKLIST 1: **Screening Checklist**

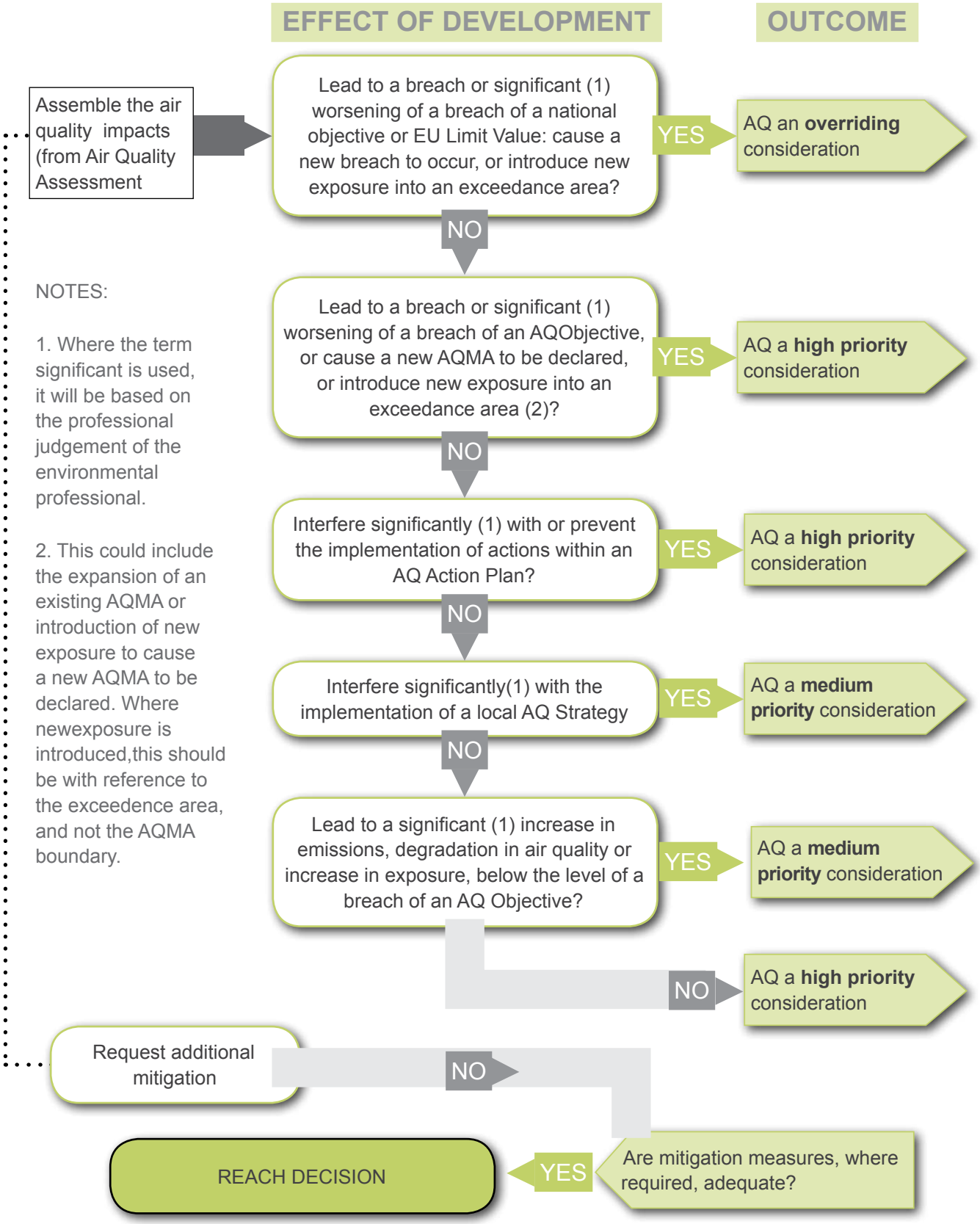
	Screening Checklist	YES	NO	Recommendations
1	Is the proposed development within an air quality management area (AQMA)			If any answer is YES Go To Checklist 2. If all are NO, no further assessment required
2	Is the proposed development categorised as a major development *			
* Major developments are defined by the Town and Country Planning (Development Management Procedure) Order (England) 2010				

CHECKLIST 2: **Air quality and emissions mitigation assessment checklist**

	Assessment Checklist	YES	NO	Recommendations
1	Is the proposed development within or likely to impact upon an air quality management area (AQMA) or an area near to exceeding AQ Limits?			If any answer is YES contact MDC Environment Services to confirm that an air quality (AQ) assessment is required and then undertake an emissions assessment. Emissions mitigation assessments are discussed in section 6. If all answers are NO, or Environment Services determine there is no need for an AQ assessment go to section 6 of this guidance.
2	Does the development require an EIA?			
3	Is the proposed development type likely to become either on its own or as part of several cumulative developments a large scale major development?			
4	Is vehicle parking in the development >100 (outside AQMA) or >50 (within AQMA)?			
5	Does the proposal result in an increase in vehicle trip generation within the local area which will lead to an increase or decrease in traffic volumes (annual average daily traffic (AADT) or peak traffic flow) of 5% on roads with 10,000 AADT or more, or 5,000 or more if narrow and congested?			
6	Does the proposal result in change in average vehicle speed by more than 10kph (6.2mph) than is present on the existing local road network on roads with 10,000 AADT or more (5,000 if narrow and congested)?			
7	Does the proposal result in a likely increase in heavy duty vehicle movements >15 per day?			

8	Does the proposal result in increased congestion – this will vary according to location, but can generally be considered to be where there is a build-up of traffic preventing efficient movement?			
9	Will the development introduce new sensitive receptors into or in close proximity to an AQMA or area near to exceeding the AQ limits?			
10	Is the site a Local Development Plan site?			
11	Will the development lead to new infrastructure such as rail, road, roundabout, signalling, bridges etc			
12	Will the development create a street canyon or enclose roads and reduce dispersion of pollutants?			
13	Does the proposal include biomass energy or heating plant >50kW into an urban residential environment?			
14	Is the proposal in or close to sensitive designated sites such as Special Protection Areas, Special Areas of Conservation (SAC), Ramsar sites, designated ecological sites or Sites of Special Scientific interest (SSSI), County Wildlife Sites, Local Nature Reserves, Roadside Nature Reserves?			

APPENDIX 4 - STEPS FOR LOCAL AUTHORITY TO ASSESS THE SIGNIFICANCE OF AIR QUALITY IMPACTS OF A DEVELOPMENT PROPOSAL



Assessing Air Quality and Emissions Impacts from Development

Technical Document to Maldon District Design Guide
December 2017

If you need help with this information in a different format, please call 01621 854477

Maldon District Design Guide

Designing for Older Persons' Housing

MALDON DISTRICT COUNCIL

Technical Document to
Maldon District Design Guide
December 2017

CONTENTS

1. Introduction

1.1. The purpose of this guidance

This document provides further guidance on the design of older persons' housing in the District. It draws on relevant planning policy and published guidance on the design of older persons' housing and forms part of the suite of technical documents that support the Maldon District Design Guide (MDDG).

Design is a material consideration within the planning process. This document provides guidance on how to ensure the design of new development meets the specific needs and aspirations for older people within the District.

The objective is to provide a better quality of life, health and well-being for older people and to ensure development delivers the appropriate type of housing that meets projected needs. New developments, ranging from retirement housing to extra care housing, should be appropriately located and designed to be flexible, capable of adaptation, inclusive and accessible.

Reference should also be made to the Older Persons' Housing Strategy (December 2013) and the Maldon Housing Strategy (currently in preparation) which provide further information on the District's housing needs with particular reference to the Strategic Housing Market Assessment (SHMA).

This guidance should be read in conjunction with the Maldon District Design Guide (MDDG) which relates to all types of housing and should be used to inform design development and the preparation of planning applications.

1.2 The importance of good design

Maldon District is a predominately rural district with an ageing population. Design is paramount in the delivery of appropriate housing to meet the needs of older persons. Surveys undertaken to inform the Older Persons' Housing Strategy identified that 70% of those surveyed would seek single level living, close to bus routes or shops, parking and gardens and identified design and location as important factors in the choice of future homes.

This guidance builds on the principles set out in the MDDG to ensure that people have the opportunity to live in a property that continues to meet their needs as they grow older and where they are not unduly restricted due to location or mobility.

By setting standards for future developments, and working in partnership with stakeholders, the District should see an increase in the choice available to older people looking to move whether this is to alternative general needs housing or to homes intended specifically for older people.

2. Policy context

2.1. National Planning Policy Framework (NPPF)

2.1.1 What is an older person?

The NPPF recognises the older person and provides the following definition (Page 54 (Glossary)):

"People over retirement age, including the active, newly-retired through to the very frail elderly, whose housing needs can encompass accessible, adaptable general needs housing for those looking to downsize from family housing and the full range of retirement and specialised housing for those with support or care needs". However, there is no age bracket that is specific to an 'older person'.

2.1.2 **Paragraph 159** states the local planning authority should:

"prepare a Strategic Housing Market Assessment (SHMA) to assess their full housing needs, [which].....should identify the scale and mix of housing and the range of tenures ..... which ... addresses the need for all types of housing, the needs of different groups in the community (such as .....older people.....)"

2.1.3 **Paragraph 50** states local planning authority should:

"plan for a mix of housing based on current and future demographic trends, market trends and the needs of different groups in the community (such as ..... older people.....)"

Running parallel with the requirement to deliver the appropriate mix of housing, and stated throughput the NPPF, is the core principle of securing high quality and inclusive design.

2.1.4 **Paragraph 56** states:

"The Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people to live".

The concept of using design codes to help in the delivery of high quality outcomes is set out at paragraph 59

2.1.5 **Paragraph 7** - Sustainable development

The planning system strives to deliver sustainable development which includes the need to perform a social role:

"supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being"

2.1.6 **Section 8** recognises:

"the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities", particularly important to ensure older persons remain integrated within the local community..

2.2 Local Development Plan (LDP)

2.2.1 Policy D1 – Design Quality and Built Environment

Policy D1 sets out the criteria for high quality design to ensure that:

"new development is visually attractive, responsive to local character, helps to promote healthy communities, and creates buildings which are durable, adaptable, and function well within the surrounding area to create a safe and accessible environment".

Paragraph 3.4 sets out the Council's expectation that:

"all development [should] support the principles of inclusive design [and] ensure that new development can be used by all people. Design should also seek to reduce social exclusion within the District, and seek to improve people's access to housing, ….required services and facilities."

This criteria is reflected in the design principles set out in the MDDG and also forms the foundation for this guidance.

2.2.2 Policy H2 - Housing mix

Policy H2 states that:

"all developments will be expected to provide a suitable mix and range of housing .....particularly the need for an ageing population".

Paragraph 5.16 states:

"...The Council will require new development to incorporate a range of different housing types which contribute towards meeting the identified housing needs for different demographic groups in the District. ...The Council will also encourage development proposals which seek to meet the housing need of older people ...."

2.2.3 Policy H3 - Accommodation for 'specialist' needs

Policy H3 states that: *"Proposals for specialist needs housing such as homes for older people, people with disabilities, or homes for other specific groups who may require properties that are specifically designed and/or allocated will be supported .... "*

Paragraph 5.21 states:

"Specialist housing may be required, but not limited to, meeting the needs of older people ..... This could be achieved by providing a range of different types of housing including sheltered housing with care support, staffed hostels, residential care homes, wheelchair accessible housing or housing that is easily adaptable for wheelchair use, and generally homes for older persons ..."

2.2.4 Policy T2 – Accessibility

Policy T2 seeks to create an accessible environment for everyone and will include

"improving accessibility to buildings, streets and public spaces, particularly those with mobility impairments"

The LDP acknowledges that the ability of people to access key services and facilities can make an important contribution to the health and well-being of communities of all age groups.

3. Types of older persons' housing

3.1 Housing categories

3.1.1 As discussed in section 2 above, the NPPF identifies older persons as people over retirement age. Without discussing this description in detail, it is acknowledged that 'retirement age' is flexible and can be extended to include the 55+ age group through to end of life.

3.1.2 As such, provision of housing for the elderly should be designed to meet all ages and abilities within this age group and should provide choices that allow them to be accommodated within their family home or move to a new home to meet their future needs as they grow older.

3.1.3 There are a number of different types of accommodation which fall within the category of older persons' housing. This guidance is applicable to the broad spectrum of housing provision for the older person and encompasses residential care, including retirement and nursing/care homes, as well as independent living. A document published by the Housing our Ageing Population: Panel for Innovation (HAPPI) in October 2014 categorised the types of housing provision into three groups:

- Mainstream housing
- Specialised housing
- Care homes

3.1.4 The table below sets out these three broad categories of accommodation referred to above and provides a brief outline of their functionality. New developments incorporating homes for older persons should be designed to be functional, adaptable, aesthetically pleasing and well located and should comply with the principles set out in the MDDG.

mainstream housing	specialised housing	care homes
Individual homes to buy or rent - not designated for any specific user group though Lifetime Homes includes age-friendly features and wheelchair housing is specially designed. Personal care, support, other services and amenities available within the community.	Groups of homes (usually flats) to buy or rent - designated for older people (typically 55+). Personal care and support usually arranged or provided within the development together with shared facilities and activities.	Residential care rather than independent living.
Planning: current use class 3 'dwelling houses'	Planning: currently classified as C2 or C3 - would a new class or classes be useful?	Planning: current use class 2 'residential institution'

FIGURE 4.1 "Mainstream, Specialised and Care-Home Housing: The Happi Spectrum (Add Footnote)
SOURCE: Ippr – For Future Living – Innovative Approaches to Joining Up Houses and Health
(Author: Bill Davies; Published 23/10/2014)

3.2 Use Class Categories

3.2.1 It is also helpful to understand how the different types of housing for older persons is differentiated in planning terms. The Town and Country Planning (Use Classes) Order 1987 (as amended) puts uses of land and buildings into various categories known as 'Use Classes'. There is some discussion on whether the older persons' housing would fall into Use Class C2 or Use Class C3. This is dependent on the type of housing and, for reference purposes, details of the categorisations are outlined below.

3.2.2 **Class C2: Residential institutions**

These include, amongst others, residential care homes, hospitals and nursing homes.

3.2.3 **Class C3: Dwellinghouses**

This class is made up of 3 parts, the relevant class being Class C3(a) which covers use by a single person or a family, domestic employees, a carer and the person receiving the care. In practical terms, the conventional concept of a self-contained home where people can live independently and exclusively within their own property, even though in the case of some elderly persons' housing, there may be communal facilities outside of their own personal property.

SOURCE: https://www.planningportal.co.uk/info/200130/common_projects/9/change_of_use

3.2.4 The provision of accommodation for the older person 'crosses' both Use Class C2 and Use Class C3. Whilst Class C3 comprise independent housing units, Class C2 is managed in a very different way and people do not have the same independence as they would in their own home. It is possible that on some sites there may be an overlap between the different categories, with some people occupying homes as owners, tenants or leaseholders (C3) alongside others who are accommodated on a more temporary basis in order to receive care or treatment (C2). This may be the case for extra-care housing with enhanced facilities to meet additional needs of residents if they become more frail, or to provide interim care and support for those recovering and undergoing a period of re-ablement. It is advised that when considering development, applicants should be explicit about the type of housing they intend to provide, including the proposed tenure and where appropriate, the method of allocating homes, and should refer to the HAPPI reports for more detailed information as well as the design guidance set out in the MDDG and this document and any further guidance that may be appropriate.

Further details can be found in: Planning Use Classes and Extra Care Housing Viewpoint 20 produced by The Housing Learning and Improvement Network (LIN) http://www.housinglin.org.uk/AboutHousingLIN/

4. Applying design guidance to new developments

4.1 What the Maldon District expects

4.1.1 The MDDG requires all residential development to be sustainable, inclusive and accessible, aesthetically pleasing and to promote high levels of social inclusion and meet the needs of residents.

4.1.2 Additionally, in order to provide adequate and sustainable housing for the older person, the development must offer an attractive alternative to the existing family home, and be capable of adaptation over time to meet changing needs. Additional space may be required to reflect the fact that in many cases people will be down-sizing from larger homes and in the future may need space for aids and adaptations. Through good design one-bedroom homes can be built to be better suited to possible future requirements such as the need to have an over-night carer, storage for mobility scooters and space to retain independence.

SOURCE: HCA Homes & Community Agency

4.1.3 The Council expects the design of proposals for elderly persons' housing to ensure a high quality of development which meets the principles set out in the MDDG. In particular, those principles relating to adaptability, and inclusive and accessible design, should take account of relevant guidance including:

- Guidance produced by HAPPI
  (Housing our Ageing Population: Panel for Innovation)
- The building regulations
- National space standards
- Town Planning and Dementia RTPI Practice Advice January 2017
- Inclusive design for getting outdoors

5. Principles of design and outside space

5.1 The Maldon District Design Guide (MDDG)

As set out previously, the MDDG sets out clear principles to guide future development within the District and has been prepared in line with the LDP and NPPF requirements, local studies and strategies. This guidance supports the MDDG and whilst the whole document is applicable to all development, there are a number of elements that are pertinent to the design and delivery of housing for the older person, in particular:

5.1.1 **Section A 04 – Key Design Objectives**: **Adaptability and Quality**

Adaptability and Quality underpins the potential to deliver 'lifelong' housing by:

- anticipating the need for changes in buildings and outdoor spaces
- providing places that function well today, last for the future and are easy to adapt to changing requirements of occupants and other circumstances at any time, and
- providing buildings that can accommodate changing needs

5.1.2 **Section C 16 – Inclusive and accessible design**

A number of elements play a significant role in delivering inclusive design and accessibility. This section identifies important features that will guide delivery of housing for the older person, and seeks to ensure that:

- individual dwellings are designed to be flexible, capable of adaptation to meet the changing needs of residents in the future...
- the design of new dwellings takes into account Lifetime Home Standards

5.2 Housing our ageing population: Panel for Innovation (HAPPI)

5.2.1 A study undertaken by HAPPI (2009) identified ten key components for the design of housing for older people. Maldon District Council will expect these to be incorporated in all proposals including the development of elderly persons' housing:

- Homes should have generous internal space standards
- Design of homes and shared spaces should ensure plenty of natural light in the home and in circulation spaces
- Buildings should avoid internal corridors and single-aspect flats and apartments should have balconies, patios or terraces and outdoor space
- To ensure adaptability, homes should be designed to be 'care-ready' to enable emerging technologies, such as telecare and community equipment to be installed

- Building layouts should promote circulation areas and shared spaces that offer connections to the wider context and avoid an 'institutional feel'. Imaginative use of shared balcony access to front doors and thresholds should be included to promote natural surveillance
- Multi purpose space should be made available with appropriate supporting facilities, which could serve the wider neighbourhood as a community 'hub', particularly where they are lacking in the existing community
- Homes should engage positively with the street and the natural environment should be nurtured through new trees and hedges. (further detailed guidance can be found in the Council's Landscape and Green Infrastructure Technical Guidance (February 2017)
- Homes should be energy efficient, well insulated and well ventilated to avoid overheating
- Provision for cycles and mobility aids should be made as well as additional storage both inside and outside the home
- Shared external areas such as 'home zones' that give priority to pedestrians should be considered

SOURCE: https://www.gov.uk/government/publications/housing-our-ageing-population-panel-for-innovation

5.2.2 A number of these recommendations reflect some of the key factors identified in local surveys undertaken as essential and important by older persons seeking a future home (see 1.2 above).

A further report: Housing our Ageing Population: Plan for Implementation (HAPPI2) Report (2012) provides further advice on improving the design and quality of specialist housing for the older person with the ten core design elements remaining in place

SOURCE: http://www.housinglin.org.uk/topics/type/resource

5.2.3 A recent report from HAPPI - Housing our Ageing Population: Positive Ideas HAPPI 3 Making Retirement Living a Positive Choice (June 2016) primarily focuses on issues beyond the design and construction of housing for older people. Whilst it explores best practice and service options, it reiterates the ten features identified in the 2009 HAPPI report set out above. This report also provides links to further studies, guidance and case studies.

SOURCE: http://www.housinglin.org.uk/topics/browse/design_building/happi/

5.3 The building regulations

5.3.1 The building regulations that apply to England and Wales are set out in the Building Act 1984. They are a statutory instrument and approval is required for most building work in the UK. The following documents are applicable for designing for older persons:

- Approved Document M: access to and use of buildings, volume 1 – dwellings (2015 edition incorporating 2017 amendments)
- Approved Document M: access to and use of buildings, volume 2 – buildings other than dwellings (2015 edition)

5.3.2 In March 2051 the Secretary of State advised that further steps would be taken to streamline the planning system to deliver high quality, accessible and sustainable new homes by creating a new approach for the setting of technical standards for new housing. The new regime complements the existing set of the Building Regulations, which are mandatory and replaced the code for sustainable homes. The written statement presented to the House sets out the Government's new national planning policy on the setting of technical standards for new dwellings.

SOURCE: Planning Update March 2015: Department for Communities and Local Government and the Rt Hon Sir Eric Pickles

5.4 Technical Housing Standards – nationally described space standard (March 2015) published by Department for Communities and Local Government

5.4.1 This document deals with internal space within new dwellings and can be applied across all tenures. Whilst this is referenced for guidance only and has not been formally adopted by the Council, developers will be expected to take these standards into account in the design of new developments.

SOURCE: https://www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard

5.5 RTPI Practice Advice (January 2017): Dementia and Town Planning - Creating better environments for people living with dementia

5.5.1 Whilst this document primarily discusses provision for people living with dementia, it provides useful design guidance on the provision of adaptable housing for the elderly in sustainable locations and the creation of an engaging living environment. The Guidance sets out the following key design principles to be considered in the design of new developments:

- A familiar environment where functions of places and buildings are obvious, and any changes are small scale and incremental
- A legible environment that provides a hierarchy of street types, which are short and fairly narrow with clear signs at decision points
- A variety of landmarks, with architectural features in a variety of styles

and materials, e.g. trees and street furniture, to provide distinctions between areas

- Land uses are mixed with shops and services within a 5-10 minute walk from housing, and entrances to places are obvious and easy to use, and conform to disabled access regulations
- Open space is well defined with toilets, seating, shelter and good lighting with minimal street clutter. Background and traffic noise should be minimised through planting and fencing (this is covered in more detail in the Council's Assessing Air Quality & Emissions Impacts from Development, and Planning & Noise Technical Guidance)
- Wide, flat and non-slip footpaths with development orientated to avoid creating dark shadows or bright glare

Further information on this guidance, including links to summaries of expert advice on urban and housing design can be found in

"Dementia and Town Planning – RTPI Practice Advice January 2017 (endorsed by Alzheimers Society)"

SOURCE: http://rtpi.org.uk/knowledge/practice/dementia-and-town-planning/

5.6 Inclusive Design for Getting Outdoors (I'DGO)

5.6.1 It is recognised that access to safe outside space, with good views from inside the building as well as daily exposure to daylight, improves health. It is particularly important to ensure the design of housing for the elderly encompasses not only the aesthetics of the buildings themselves but also the provision of easy access to the outdoor environment. A well-designed outdoor environment will encourage older people to spend more time outdoors and the "experience" should be designed to meet their particular needs. This guidance supplements the MDDG which sets out the key elements to be included in the design of open spaces including accessibility and integration with the wider community.

Further detail can be found in "Inclusive Design for Getting Outdoors" – A research project funded by the Engineering and Physical Sciences Research Council (2003-2013).

SOURCE: http://idgo.ac.uk/older_people_outdoors

Designing for Older Persons' Housing

Technical Document to
Maldon District Design Guide
December 2017

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Maldon District Design Guide

Landscape and Green Infrastructure (including Open Space, Sport and Play Facilities, Biodiversity and Trees)

MALDON DISTRICT COUNCIL

Technical Document to Maldon District Design Guide December 2017

CONTENTS

1. Introduction

1.1. The purpose of this guidance

This guidance provides direction on the importance for new development of environmental planning with respect to landscape and green infrastructure, including open space, sport and play facilities, biodiversity and trees. It is intended to supplement the information contained in the Maldon District Design Guide, providing further context and technical detail on the topics identified above, and highlighting the planning policy, local evidence documents and other available relevant guidance that can help create sustainable settlements in Maldon.

The aim of this guidance is to ensure that all residents living within Maldon District have access to a wide range of high quality landscapes and green infrastructure features that meet local green space and play standards to facilitate quality of life, health and wellbeing. Additionally, that biodiversity and trees are fully considered at an early stage in the development process and are seen both as an opportunity as well as a constraint in development proposals. This guidance aims to ensure that new development proposals design out negative landscape and green infrastructure effects rather than relying on mitigation to replace lost features.

1.2. Role of landscape and green infrastructure

Landscapes are the result of the action and interaction of natural and human factors and have an important role in the cultural, ecological and social purposes of place, whilst contributing to both economic activity and job creation. Green infrastructure is the network of multi-functional green space and linkages, whether accessible or not, which supports both ecological processes and is integral to the health and quality of life of local communities. Access to high quality open spaces and play facilities are known to contribute to the health and well-being of communities as a whole as well as those of individuals, particularly children. Biodiversity is the variety of life and the heritage of millions of years of evolution. Functioning natural systems are required to sustain biodiversity and successional processes. Trees contribute greatly to both urban and rural character and beauty whilst performing important ecosystem services such as filtering air pollutants, reducing storm event effects and decreasing urban temperatures.

1.3. The landscapes and green infrastructure of Maldon District

The Maldon District landscape consists largely of low-lying, open and tranquil estuary land, with shallow creeks, mud flats, salt marsh, grazing marsh and arable land which abuts the often sharply rising, more wooded ground inland. Green infrastructure (GI) within the District includes a range of natural green space (including the estuaries, designated nature conservation areas and ancient woodlands), man-made or intensively managed green spaces (such as parks, allotments and sports pitches), as well as linear spaces (such as footpaths, cycleways and sea walls). It is identified that the current supply of GI within the District is relatively good overall, although some areas of the District are better provided for than others and as population is projected to rise, new facilities will be needed to maintain the current level of provision.

IMAGE: PAUL HARRISS

2. Policy context

2.1. The National Planning Policy Framework (NPPF) recognises the importance of the natural environment including landscape and green infrastructure in providing essential support and opportunities for communities and to mitigate climate change effects.

2.1.1. **Paragraph 99** states that *'Local Plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape… When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure.'*

2.1.2. **Paragraph 109** states '*The planning system should contribute to and enhance the natural and local environment by:*

- *protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystem services;*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible…'*

2.2 **Paragraphs 114, 117 and 118** expand on the need to plan positively for biodiversity and green infrastructure networks and to minimise impacts, and the importance of local landscape character. Paragraph 118 describes a set of principles for the local authority to apply in decision-making.

2.2.1 **Paragraph 114**: 'Local planning authorities should:

- *… planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure; and*
- *maintain the character of the undeveloped coast, protecting and enhancing its distinctive landscapes … and improve public access to and enjoyment of the coast…'*

2.2.2 **Paragraph 117**: *'To minimise impacts on biodiversity and geodiversity, planning policies should:*

- *plan for biodiversity at a landscape-scale across local authority boundaries;*
- *identify and map components of the local ecological networks, including … designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation;*
- *promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan;*
- *aim to prevent harm to geological conservation interests…'*

2.2.3. **Paragraph 118**: '*When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:*

- *if significant harm resulting from a development cannot be avoided… adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused*
- *proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest … should not normally be permitted…*
- *development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- *opportunities to incorporate biodiversity in and around developments should be encouraged;*
- *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats …unless the need for, and benefits of, the development in that location clearly outweigh the loss…'*

2.3. **Paragraph 170** supports the need for landscape character assessments:

2.3.1. **Paragraph 170**: '*Where appropriate, landscape character assessments should also be prepared, integrated with assessment of historic landscape character, and for areas where there are major expansion options assessments of landscape sensitivity.'*

2.4. **Paragraph 125** deals specifically with the role of good design in mitigating light pollution in natural environments:

2.4.1. **Paragraph 125**: *'By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'*

2.5. **Paragraphs 73 and 74** identify the importance of the protection and provision of high quality sport, recreation and green space opportunities:

2.5.1. **Paragraph 73**: *'Access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities.'*

2.5.2. **Paragraph 74**: *'Existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless:*

- *an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or*
- *the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or*
- *the development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss'.*

2.6. Other national policy and guidance

2.6.1. **An Approach to Landscape Character Assessment (2014)** (NATURAL ENGLAND) This guidance sets down the process for landscape character assessment to create robust and transparent studies that aid landscape understanding and inform judgements as a result of development management or other change. Landscape Character Assessment can be used to inform policy, place-making, green infrastructure strategies, design briefs, project design and master planning.

2.6.2. **Guidelines for Landscape and Visual Impact Assessment, 3rd ed.(2013) (**LANDSCAPE INSTITUTE AND INSTITUTE OF ENVIRONMENTAL MANAGEMENT AND ASSESSMENT**)** Landscape and Visual Impact Assessment (LVIA) is a separate process that can operate within the framework of Environmental Impact Assessment or be used as an informal standalone tool. In the latter instance it is often referred to as a landscape and visual appraisal and is useful to aid thinking about forms of development. It aims to ensure that all effects on landscape change, views and amenity are considered.

2.6.3. **Green Infrastructure Guidance (2009)** (NATURAL ENGLAND) The provision of green infrastructure is recognised as contributing to places where people want to live and work. Natural England's guidance provides a definition and maps out wider policy priorities and drivers for green infrastructure. It outlines the protection for landscape under the European Landscape Convention (2000), which was ratified by the UK in 2012.

2.6.4. **Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services (2011) (**DEFRA) In June 2011, EU Member States endorsed the European Commission's EU Biodiversity Strategy. Biodiversity 2020 sets out how the UK will address the EU strategy through our own policy. The mission for this strategy is: 'to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people'.

2.6.5. **Sporting Future: A New Strategy for an Active Nation (2015)** (HM GOVERNMENT) In this strategy, the government recognises that people are active in both urban and rural environments, and that people use a range of facilities including parks, canals, green spaces and skate parks. Access to local urban opportunities is seen as particularly important for those individuals who are currently inactive. This includes capitalising on the development of high quality local access networks, and support for infrastructure that is not restricted to pitches, sports halls and buildings. In future, all types of places where people are active, in both rural and urban environments, will be considered to be part of the active sports network.

2.6.6. **Designing and Planning for Play (2008) (**CABESPACE) This guidance document, now promoted by the Design Council, looks at the opportunities for enhancing outdoor play space, not just in designated playgrounds but in school

grounds and the wider public realm. It analyses the failings of standardised equipped playgrounds with often costly off- the-shelf equipment, safer surfacing and fencing. It presents a series of case studies to showcase how creativity from well-qualified professionals can be used to make cost effective but fun facilities.

2.6.7. **Cycling and Walking Investment Strategy (2016) (**DEPARTMENT FOR TRANSPORT) This strategy seeks, amongst other things, to double cycling by 2040 and reduce the decline in walking. This includes the ambition to deliver a wider network of walkways, cycle ways and open spaces that let people actively incorporate nature into their lives. The strategy also flags up the ability for local authorities to use the Community Infrastructure Levy for parks and green spaces.

2.6.8. **Improving Access to Green Space (2014)** (PUBLIC HEALTH ENGLAND) This health briefing looks at a series of case studies in the UK where new or improved greenspace has been created in order to reduce health inequalities. It recognises the role that greenspace can make to improve health outcomes particularly for the most deprived neighbourhoods.

2.6.9. **Trees in Hard Landscapes: A Guide to Delivery (2014)** (TREES AND DESIGN ACTION GROUP) This comprehensive document has been produced by a sector wide group that seeks to raise awareness about the role of trees in the built environment. It identifies practical strategies to ensure trees contribute effectively to the design objectives of a project, technical solutions to their incorporation and thoughts on species selection.

2.7. Local policy and guidance

2.7.1. **Maldon District Landscape Character Assessment (2006)** (CHRIS BLANDFORD ASSOCIATES) This study provides a baseline of the landscape character of the district identifying key landscape character types – areas of broadly similar patterns of geology, landform, soils, vegetation, land use, settlement and field systems - broken down into local landscape character areas that reflect variations based on visual analysis of physical and perceptual features such as scale, pattern, tranquillity, cultural associations, etc. Character area profiles describe, for instance, key characteristics, key planning and management issues, sensitivities to change, landscape objectives and guidelines.

2.7.2. **Green Infrastructure Study (2011)** (MALDON DISTRICT COUNCIL) The Study (or successor document) identifies the components which make up the District's Green Infrastructure (GI) network, including parks and amenity space, sports provision, natural and semi natural green spaces, and allotments. It investigates the general need for GI in the District, assesses the quantity, quality and accessibility of provision, and draws together recommendations for the future.

The current supply of GI within the District is relatively good overall, although some areas are better provided for than others. As population in the District is projected to increase over the next 20 years new facilities will be required to maintain the current level of provision.

2.7.3. **Maldon District Nature Conservation Study (2007)** (EECOS) This report describes the result of a general wildlife survey of the district at a Phase 1 level and evaluates the network of important wildlife sites with a view to reviewing the designation of Local Wildlife Sites. It identifies that Maldon District supports diverse habitats and describes the changes that are affecting priority habitats and species. It describes the role and requirements for wildlife corridors and discusses some potential impacts of climate change.

2.7.4. **Maldon District Local Wildlife Sites Review (2007)** (EECOS) This report lists the current Local Wildlife Sites in Maldon District, the changes from the previous study and the criteria used to determine these changes.

2.7.5. **Essex Biodiversity Action Plan 2010-2020 (2012)** (ESSEX BIODIVERSITY PROJECT) The Essex Biodiversity Action Plan provides guidance for the 19 Priority Habitats of the Biodiversity 2020 Strategy as well as the list of Priority Species and Habitats provided for in Section 41 of the 2006 Natural Environment and Rural Communities Act. Work on Rivers is being approached through the Water Framework Directive and Catchment Restoration Fund projects. For details see http://www.essexbiodiversity.org.uk/biodiversity-action-plan

2.7.6. **Maldon District's Children's Play Strategy (2007)**: This strategy (or successor document) audited both equipped play space using national standards and carried out a review of the play service and open space. A consultation exercise was carried out with a sample of children and parents in the district. Key play projects were identified for development. The National Playing Fields Association (now Fields in Trust (FIT)) standards are proposed.

2.7.7. Several documents ae being prepared to provide up-to-date guidance relating to green infrastructure and landscape. This includes a new Maldon District Green Infrastructure Strategy and several area-specific masterplans and strategic design codes where green infrastructure and landscape are central strands. For further details visit www.maldon.gov.uk.

3. Landscape structure and design

3.1. Section B03 of the Maldon District Design Guide, Landscape Settlement and Character, flags up the importance of landscape character in shaping new or expanding settlements as well as detailed landscape masterplans. The Design Guide identifies that more information can be found in the Maldon Landscape Character Assessment. This document identifies 6 No. Character Types and 24 No. Character Areas. For each Character Area the assessment identifies the key characteristics, overall character, visual characteristics, historic land use and ecological features, as well as the key planning and land management issues, sensitivities to change, strategic objectives and suggested landscape planning and land management guidelines. These objectives and guidelines should be used to inform the development of scheme proposals.

3.2. All applications that would impact on the character and visual amenity of the undeveloped coast, countryside or rural fringe, or are otherwise outside the settlement boundaries, should undertake a baseline landscape and visual appraisal including a review of the local and relevant national landscape character assessment, as required in the Maldon District Council Planning Validation Requirements List, in order to understand local landscape context.

3.3. Where the impact is judged to need a more rigourous assessment, for instance where the proposal is for major residential development of 10 or more units or where the floor space to be created is greater than 1000m2, the application may require instead a formal Landscape and Visual Impact Assessment. These are more detailed technical studies and should be carried out by a suitably qualified landscape professional, in line with current guidelines.

3.4. For all applications for major residential developments and all major commercial developments a landscape strategy should be produced. The landscape strategy should cover all public and private spaces including open space, sports pitches and play facilities, green infrastructure, biodiversity habitats, water bodies and landscape buffers, and refer to hard surfaces, boundary treatment and all soft landscaping proposed. The strategy should build on the principles set out in the scheme Design and Access Statement (where relevant). Emerging Neighbourhood Plans and existing Village Design Statements may also give additional detailed local information on local landscape character.

3.5. Landscape design should be based on detailed site survey covering landform, topography, aspect, soils, ecology, arboriculture, land use, landscape patterns (such as field boundaries), linkages, water bodies and site drainage, other site features and views. This baseline data should be analysed to provide a site appraisal drawing, and used to inform the overall landscape strategy. Site layout should seek to retain, protect and enhance on site features wherever possible.

3.6. The applicant should refer to Section C02-C011 of the main Maldon District Design Guide which outlines factors to consider when designing with the landscape and public realm in mind.

4. Green infrastructure

4.1. The National Planning Practice Guidance (NPPG), paragraph 027, recognises green infrastructure as a network of multifunctional greenspace, in both urban and rural areas, capable of delivering a wide range of environmental and quality of life benefits for local communities. It includes parks, open spaces, playing fields, woodlands, but also street trees, allotments and private gardens. It can also include streams, canals and other water bodies and features such as green roofs and walls.

4.2. Green infrastructure helps deliver sustainable communities alongside other infrastructure such as transport and utilities, and where well-designed, can deliver multiple benefits such as ecosystem services for society, the economy and the environment. (NPPG paragraphs 028)

4.3. Well-designed green infrastructure should create a sense of place by responding to, and enhancing, local landscape character. It should be used, where appropriate, to help mitigate and adapt to climate change risks through carbon storage, the use of sustainable drainage systems, managing flood risk and water resources, improving water quality, reducing the urban heat-island effect and supporting adaptive management in coastal areas. It can also provide networks to help vulnerable species and contribute to halting the decline in biodiversity (NPPG Paragraph 030).

4.4. The Districtwide Green Infrastructure Study (2011) identifies the elements that make up the existing green infrastructure network in the district and sets standards and recommendtions for the key typologies, including the following:

4.4.1. Public parks and amenity spaces:

Typology	Standards to be maintained
District Park	1 ha per 1000 population The whole population within 10 minutes' walk/1km distance
Local Park	1.14 ha per 1000 population The whole population within 10 minutes' walk/1km distance
Neighbourhood amenity spaces	0.14 ha per 1000 population The whole population within 5 minutes' walk/500m distance
Total parks and amenity space	**2.28 ha per 1000 population**

4.4.2. Natural and semi-natural greenspace:

Typology	Proposed standard
Natural and semi-natural greenspace includes SSSIs, Ramsar sites, SACs, NNRs, Fishing Lakes, Common Land, Local Wildlife Sites, Ancient Woodland and Green Corridors.	To investigate the potential to create new accessible greenspaces in or around Latchingdon and Tillingham. To improve connectivity between semi natural greenspaces. To apply a higher level of policy protection to Local Wildlife Sites through the emerging Local Development Framework.

4.4.3. Sports pitches and allotments:

Typology	Proposed standard	
11-a-side football pitches	One pitch per 1,475 in Burnham, Heybridge, Maldon, Southminster. One pitch per 1,650 people in rural areas.	Qualitative improvements to ensure that all aspects of all pitches and ancillary facilities are rated as 'average' or better at all sites.
Mini-soccer football pitches	One mini-soccer pitch per 6,280 people.	The whole population within 15 minutes' drive or walk of the nearest pitch
Allotments	0.2ha per 1000 population. The majority of the District is deficient in allotments. Priority for creating new allotments should be in parishes with larger populations where there are identified deficiencies. The whole population should be within 2km drive of the nearest site.	

4.4.4. No quantitative standard is set for natural and semi-natural greenspace, linear space, cycleways or footpaths. Quantitative, qualitative and accessibility standards are also set for other outdoor sport provision. A vision, principles and action plan for an enhanced network of provision will be identified in the proposed Green Infrastructure Strategy. All applications will need to have regard to the standards contained within the Green Infrastructure Study and any subsequent guidance.

5. Open space, sport and play

5.1. Open space forms an essential part of the green infrastructure network delivering health and community benefits, ecosystem services and economic value (NPPG paragraph 002). There is significant and growing evidence of the health benefits of high quality greenspace, including improvements in mental health and well-being. It can also bring benefits of social cohesion and reduces social isolation but there is unequal access across England.

5.2. The Districtwide Green Infrastructure Study (2011) which identifies the key open space and sports facilities in the district sets local standards for these key typologies (See Section 4.4 of this document) including district parks, local parks, neighbourhood greenspace, playing pitches and allotments. Quantitative, qualitative and accessibility standards are also set for other outdoor sport provision.

5.3. High quality open space is well-connected, integrated with built infrastructure, makes use of site features, existing biodiversity and views, is located where homes can overlook key elements of greenspace such as footpaths and play spaces, uses high quality and robust materials that can withstand wear and tear and reduce maintenance needs, is multi-functional and contributes to climate change adaptation or mitigation.

5.4. Play spaces need to be integrated into the wider public realm. They form an essential part of strategic thinking for open space. But play does not happen only in playgrounds. A mix of play spaces can occur e.g. in pocket parks, streets and town squares. Natural play space including landform, vegetation, and natural elements such as logs are preferred by children and help them develop creative play. Good quality design needs to balance imagination and risk. An appropriate designer should lead on this. Play spaces should be accessible to all (Designing and Planning for Play (2008) Cabespace; available from http://www.designcouncil.org.uk/resources/guide/designing-and-planning-play)

5.5. Maldon District current play standards are those promoted by the National Playing Fields Association (NPFA) (now Fields in Trust (FIT)) for Local Equipped Areas for play (LEAPS) and Neighbourhood Equipped Areas for Play (NEAPS).

5.6. The main characteristics of a LEAP play area are:-

- Located within a walking time of 5 minutes from home
- 5 play types, including safer surface
- Fencing complete with 2 pedestrian gates
- Minimum activity zone of 400sqm
- Seating, litter bins and a notice should be provided

5.7. The main characteristics of a NEAP play area are:-

- Located within a walking time of 15 minutes from home
- 8 play types, including safer surface
- Provision of a MUGA/Skate Park
- Fencing complete with 2 pedestrian gates
- Minimum activity zone of 1000sqm
- Seating, litter bins and a notice should be provided

6. Biodiversity

6.1. The protection and enhancement of the environment is defined as one of the three components of sustainable development within the National Planning Policy Framework specifically in paragraph 7; '"Protecting and enhancing our natural, built and historic environment".

6.2. The government's National Planning Practice Guidance (NPPG) identifies that development can affect biodiversity but that benefits can also be delivered through the planning system. Biodiversity is a material consideration in the planning system whether or not the feature benefits from any statutory protection.

6.3. Consideration needs to be given to existing biodiversity strategies and studies covering the local and neighbourhood plan areas and biodiversity action plans. These include the Maldon District Nature Conservation Study (2007),the Maldon District Local Wildlife Sites Review (2007) and The Essex Biodiversity Action Plan (2012). (See Section 2.7 of this document).

6.4. It is important to consider the potential effects of development on priority habitats or species (See reference to Biodiversity 2020 in Section 2.6.4 of this document). Applicants are referred to the Essex Recorders Partnership and the Essex Wildlife Trust biological records centre.

6.5. Developers should seek to design out or minimise biodiversity impacts at an international, national or local level (NPPG Paragraph 08). Applicants should refer to the Essex Biodiversity Validation Checklist and BS42020:2013 – Code of practice for planning and development.

6.6. Ecological surveys are often required, either stand-alone surveys or as part of a formal Environmental Impact Assessment (EIA), depending on the site and the proposed development (NPPG Paragraph 014). Surveys should be carried out by suitably qualified ecological professionals.

6.7. The biodiversity value of a site should not be considered in isolation by developers but should be seen in the context of the overall ecological network of the area (NPPG Paragraph 09). The main components of the ecological network of the district are identified in the Maldon District Nature Conservation Study (2007), the Maldon District Local Wildlife Sites Review (2007) and the Green Infrastructure Study (2011) or any subsequent adopted documents. (See Section 2.7 of this document).

6.8. Outside of these specific identified sites or links, prospective applicants must consider The Essex Biodiversity Action Plan (2012) (See Section 2.7 of this document) which identifies action plans in Essex for the 19 priority habitats identified in the governments Biodiversity 2020 Strategy, some or all of which may be of issue in Maldon District. Some of the most important priority habitats in Maldon District include Hedgerows, Lowland Dry Acid Grassland, Lowland Heathland, Traditional Orchards, Floodplain and Coastal Grazing Marsh and Coastal Saltmarsh. Prospective developers should take particular note if any of the priority habitats are likely to be on one of their potential development sites and seek expert advice on ways to conserve, enhance or mitigate for any potential impacts.

6.9. At the species level, prospective applicants should be aware of the following protected species found in Essex including Maldon: Badgers, Barn Owls, Bats, Nesting Birds, Dormice, Great Crested Newts, Invertebrates, Otters, Reptiles, Water Voles, White Clawed Crayfish, and Wildflowers.

6.10. Generally:

6.10.1. Developments should aim to retain existing features in the landscape such as hedges, trees and ponds.

6.10.2. Proposed developments should demonstrate awareness of the ecosystem services that existing and proposed habitats can provide.

6.10.3. Layouts should be permeable to wildlife using innovations to accommodate wildlife generally and protected species in particular.

6.10.4. Mitigation of adverse impacts can be straightforward and low cost.

6.10.5. It is desirable to aim for a net biodiversity gain through enhancement measures. Applicants are referred to Biodiversity Net Gain: Good practice principles for development (2016) published by CIEEM, CIRIA and IEMA.

▲▼BIRD AND BAT BOXES CAN ALSO BE ON OR IN BUILDINGS

6.11. Layout and wildlife features

6.11.1. A range of enhancements can be incorporated into buildings and greenspace. These include bat brick and boxes, swift bricks and other bird boxes, hedgehog friendly fencing, invertebrate features, compost heaps and log piles. Many breathable roofing membranes can abrade over time and can entangle bats so should not be used in bat roosting areas.

► HEDGHOG HIGHWAY: TIMBER OR CONCRETE, AS APPROPRIATE TO THE DESIGN AND SITUATION

6.12. Landscape design

6.12.1. Landscape design, including planting schemes, will be expected to help mitigate the loss of any features and contribute to biodiversity enhancements. Trees and large shrubs in particular help ameliorate extremes of temperature. All trees, being biodiversity features, are material considerations in the planning system whether statutorily protected or not. Development should seek to conserve existing trees and increase canopy cover.

6.13. Boundary treatment

6.13.1. Existing native hedges and hedgerow trees should be conserved and enhanced to provide networks between new development and the wider countryside. Existing and new native boundary hedging should remain in public ownership, preferably as part of greenspace or green corridors, to ensure appropriate management.

6.13.2. Permeable fencing between gardens and open space should incorporate permeable fencing for species such as hedgehogs. See https://www.jacksons-fencing.co.uk/hedgehog-fencing.aspx. Native hedging or nectar rich ornamental species could be used as boundaries between gardens as an alternative to fencing.

1.13.3. Generally new garden design should seek to conserve natural and semi-natural habitats and encourage wildlife beneficial gardening.

6.14. Lighting

6.14.1. Lighting should be placed and designed to minimise adverse impact of light pollution on wildlife, tree canopy cover and the landscape. Minimum levels of exterior lighting should be used, along with full cut-off lighting and LED directional light to control spillage and conserve dark skies. This is particularly important for bats. See http://www.bats.org.uk/

7. Trees in development

7.1. Trees, woodlands and copses are important in developments both for their aesthetic benefit and the ecological and other ecosystem services they provide. They can provide features that enhance the character and heritage of an area whilst giving an economic uplift, for example, to residential streets and retail properties. Their environmental benefits include air cooling in summer, filtering of pollutants, improving air quality, and absorbing carbon dioxide.

7.2. Some trees in both town and countryside are protected by a Tree Preservation Order. This is an order made by the local planning authority to protect specific trees, groups of trees or woodlands in the interests of amenity, and prohibits the cutting down, topping, lopping, uprooting, wilful damage or destruction of trees without written consent. Cutting roots is also seen as a prohibited activity. Trees in Conservation Areas are also subject to special protection. All trees should be inspected and maintained regularly by a competent professional to make sure they remain safe and healthy. (NPPG paragraph 001).

7.3. Ancient Woodlands are sites that are thought to have been wooded since 1600 AD which have unique features such as undisturbed soils and sometimes rare or vulnerable communities of plants and animals, mediaeval boundary banks, charcoal hearths and old coppice stools. Many species characteristic of ancient woodland are slow to disperse and do not colonise new areas easily, making them irreplaceable.

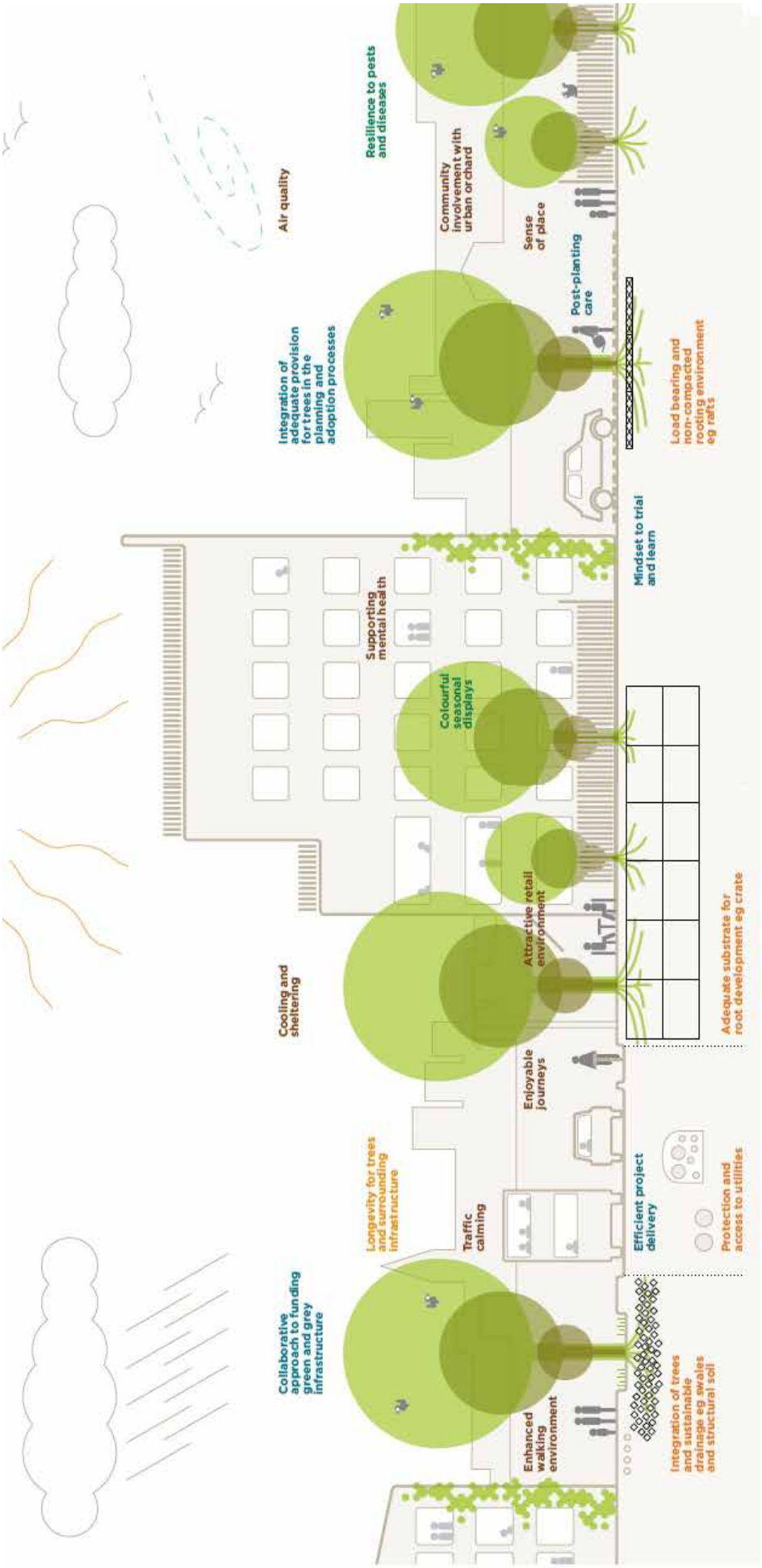
7.4. **DIAGRAM 1: The benefits of tree planting within the built environment (**TAKEN FROM PAGE 4 AND 5 OF TREES IN HARD LANDSCAPES: A GUIDE FOR DELIVERY)
See page 17.

7.5. Existing trees should be integrated into a scheme at the assessment stage through a survey of all trees present on and immediately adjacent to the site. It will also enable the identification of root protection areas. A survey should consider species, location, current size, conditions and potential size, as well as integrating with data on any statutory protections, considerations of amenity, landscape character and biodiversity value. An appropriate professional arboriculturalist should be used for this work.

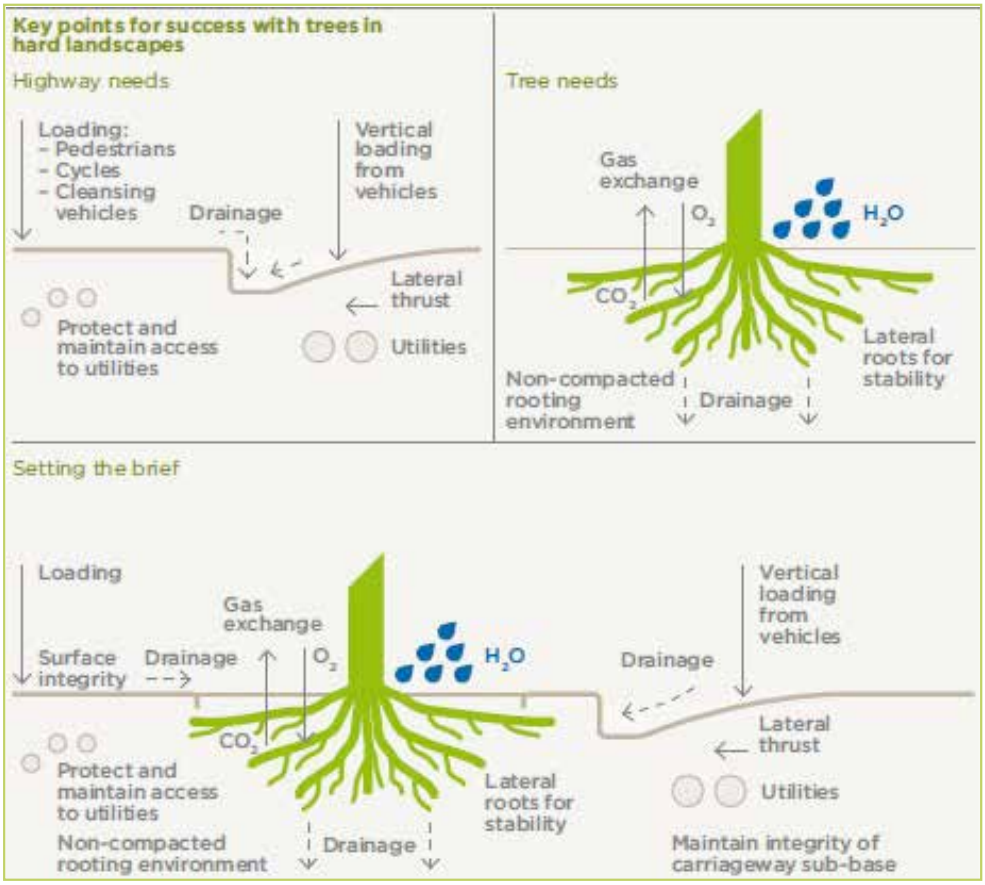
7.6. For new trees, designing below-ground is critical to tree survival especially in hard landscaped areas. Consideration is required at an early stage of the location of load-bearing road surfaces and service runs in relation to rooting space and water infiltration needs of trees. Soil aeration and rooting volume are critical for root growth and tree success. There must be enough lateral space for roots to grow for stability, good access to water and drainage.

7.7. Special care should be taken where existing soils are heavily disturbed or compacted and where, high levels of pedestrian or cycle use, or car-parking is required over the trees rooting area or utilities are less than 3m away (For more details see BS 8545:2014). Where load-bearing is needed the sub-surface may need to be engineered to protect the rooting area below. There are three broad areas of load-bearing solutions: structural growing media, crate systems and raft systems (See ‘Trees in Hard Landscapes: A guide to Delivery’ (2014) (TREES AND DESIGN ACTION GROUP’).

Diagram 1: The benefits of tree planting within the built environment
(TAKEN FROM PAGE 4 AND 5 OF TREES IN HARD LANDSCAPES: A GUIDE FOR DELIVERY)



7.8. **DIAGRAM 2 Key points for success with trees in hard landscapes** (TAKEN FROM PAGE 89 OF TREES IN HARD LANDSCAPES: A GUIDE FOR DELIVERY (2014))



7.9. The integration and/or protection of trees in hard landscapes reduces and mitigates surface water runoff, especially by the use of forest scale trees with larger canopies. Good quality, non-compacted, well-aerated rooting environments that support effective tree growth provide the first step in increasing the capacity of trees to perform this role. Opportunities should be sought to integrate tree planting and SuDS, for instance through the use of pervious surfacing, below ground crate or structural growing systems, bio-retention tree planters, and swales with trees (See 'Trees in Hard Landscapes: A guide to Delivery' (2014) (TREES AND DESIGN ACTION GROUP').

7.10. Tree support will be needed for specimen trees in the first few years of growth either through above ground stakes for most standard trees or below ground root ball anchoring for larger, semi-mature specimens. The bark of the tree must also be protected if the tree is to survive. Bark can be damaged at planting (temporary protection such as hessian wrapping can mitigate this) or by long term use of maintenance machinery (street cleaning equipment, mowers or strimmers) and other vehicles. Options for protection include metal tree guards, raised kerbs, low railings or bollards.

7.11. Tree species selection should be a balance between the constraints related to tree survival (available light, rooting area, soil pH etc.), amenity and biosecurity needs. Consideration of the strategic outcomes desired for the landscape design at the outset should inform the layout of built structures and infrastructure not just respond to it. Landscape character and biodiversity considerations should be strong drivers in schemes on the edge of towns and villages, particularly in relation to boundaries with the open countryside. However there are many non-native, ornamental species that can be successfully used within the internal streets, open spaces and civic squares in development schemes. The use of only a limited number of tree species in a scheme can have implications in terms of future risks of pathogens and pests, for instance. However,the design impact of the use of same species and/or variety, for instance in avenues, is an important and traditional planting practice that needs to be retained.

Landscape and Green Infrastructure (including Open Space, Sport and Play Facilities, Biodiversity and Trees)

Technical Document to
Maldon District Design Guide
December 2017

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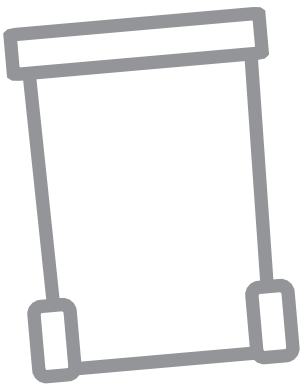
Maldon District Design Guide

Planning and Waste Management



MALDON DISTRICT COUNCIL

Technical Document to Maldon District Design Guide December 2017

CONTENTS

1. INTRODUCTION

1.1. The purpose of this document

Regardless of the size of development, the management of waste needs to be considered, from the planning and design stage through to occupation. Failure to consider waste management issues at an early stage can lead to increased costs during the building stage, inconvenient waste storage for businesses and residents, the potential for collections to be inefficient, and also possible risk to the health and safety of occupiers and others.

This document has been designed to advise developers on the provisions that need to be made for the storage and collection of waste in the Maldon District, including the separation of recyclable waste.

1.2. Planning applications

Planning applications should include full details of the proposed refuse and recycling storage including siting, floor plans, elevations and access routes for residents and collection vehicles. This important information can form part of the initial application or sometimes be agreed through a planning condition. Applicants can also write to the Council for pre-application advice detailed in BO2, page 11, Maldon District Design Guide.

This guidance may not contain all the information you require. It is recommended that developers use the following sources of guidance as appropriate:

- National Planning Policy for Waste (DCLG) 2014
- The Building Regulations
  - Approved Document H – Drainage and Waste Disposal (2002 Edition, incorporating 2010 amendments) (Relevant section - H6 Solid Waste Storage)
  - Approved Document M – Access to and use of Buildings (2004 Edition, incorporating 2010 and 2013 amendments
- British Standard 5906:2005 Waste management in buildings – Code of practice
- Adept Making space for waste. Designing Waste Management in New Developments
- Manual for Streets
- Maldon District Council Local Plan
- Maldon District Design Guide
- Essex Waste Partnership
- Maldon District Council website

1.3. Ensuring compliance

If planning permission is forthcoming, conditions, or in some cases a legal agreement, will normally be used to secure the construction and retention of storage for refuse and recycling.

2. DESIGNING WASTE MANAGEMENT IN NEW RESIDENTIAL PROPERTIES

2.1. Introduction

The receptacles in which waste and recycling are presented for collection and the point of collection are specified by Maldon District Council as the waste collection authority in accordance with sections 46 and 47 of the Environmental Protection Act 1990.

Waste is collected from properties in the Maldon District from the property boundary, where the front path or drive meets the public road or pavement, unless otherwise agreed with the Council, as the waste collection authority.

It will be expected that all new residential developments of one or more dwellings provide dedicated on-site storage space for waste and recyclable material. A suitable area must also be provided for the necessary containers to be placed at the property boundary on collection day; this should still be on the grounds of the property and not on the public highway itself.

Container	180L Wheelie Bin	240L Wheelie Bin	360L Wheelie Bin
	DIMENSIONS (METERS) H 1.100 W 0.505 D 0.555 FOOTPRINT (SQ.M) 0.280	DIMENSIONS (METERS) H 1.100 W 0.580 D 0.740 FOOTPRINT (SQ.M) 0.429	DIMENSIONS (METERS) H 1.100 W 0.620 D 0.850 FOOTPRINT (SQ.M) 0.527
	23L Caddy DIMENSIONS (METERS) H 0.43 W 0.32 D 0.39		
	55L Box DIMENSIONS (METERS) H 1.100 W 0.505 D 0.555		
	1100L Euro Bin DIMENSIONS (METERS) H 1.370 W 1.250 D 0.980		

Provision of such facilities in close proximity to a listed building, or within a conservation area will need to be designed in a sensitive and appropriate manner.

All residential development must have due regard for potential nuisance from noise and odour that may arise from waste management, and facilitate the safe, efficient and environmentally sensitive collection of waste.

Internal storage areas may be designed into each property to aid occupiers to separate and temporarily store waste and recycling before transferring it to external bins and/or presenting it for collection.

INTERNAL WASTE / RECYCLING BINS

2.2. Developments comprising new dwelling houses

The Council operates an alternate weekly collection service where general household rubbish is collected one week and glass & mixed recycling is collected the following week; food waste is collected every week. Residents are provided with, and separate waste into, the following containers as standard:

- Black bin (180L*) – general household rubbish

- None reusable pink recycling sacks (90L) – mixed recycling (including cardboard, paper, cans and plastic packaging)

- Blue box – glass (55L) - glass bottles & jars

- Silver kitchen caddy (7L) – food (internal use only)

- Green doorstep caddy (23L) – food waste (external use)

- Green-lidded bin (240L) – garden waste (optional chargeable service)

*Residents may be given smaller bins upon request or larger bins upon the receipt of evidence of five or more permanent residents and/or medical needs.

Developers should provide the appropriate amount of space to house the above containers externally. If permanently left at property frontages an appropriate structure should be designed that minimises their visual impact and integrates into the design of the property / development. Sufficient space must also be available at the property boundary to place containers out for collection.

Residents are required to present their bins on their property, at the property boundary and return them to the storage point as soon as possible after collection. All dwelling houses must have sufficient access routes for residents to transfer their bins from the storage space to the collection point; this may require, where appropriate, dropped kerbs and a solid, smooth finish to the pathway.

BRICK ENCLOSURE INTEGRATED WITH BRICK BOUNDARY TO STORE BINS

Composting fruit and vegetable peelings and garden waste at home is the most environmentally friendly way of managing this type of waste. Reduced price compost bins are available to residents via Essex County Council. Developers are advised to allocate adequate secluded space in gardens for home composting, and to consider providing each property with a compost bin.

PHOTO SOURCE: ECC

Please note that with all new developments with six or more individual properties the development company will be required to pay for the purchase and delivery of refuse and recycling facilities for each property. The containers must be sourced from the Council and will remain the property of the Council.

2.3. Private and gated developments

Where the proposed development incorporates a private road and / or gated access arrangement to one or more properties **the collection point will be where the private road meets the public highway or on the outside of the gates**. Where large developments are planned please contact the planning authority for pre-application advice.

Private or gated developments should be provided with either:

- Adequate storage space in each property as above with a bin 'drop off' point located at the property boundary, see temporary drop-off points below; or
- A communal bin store located at the property boundary in line with the requirements given for apartment development bin stores in section 2.4

Private developments should not have any height restrictions or obstructions affecting emergency vehicle access.

Temporary drop-off points

Where houses are provided with individual storage space, the design considerations should include sufficient space for occupiers to temporarily 'drop-off' their bins at the collection point on collection day. The drop off point should be large enough to accommodate **at least one 180L wheelie bin or 6 x 90L sacks and one 55L box, and one 23L caddy per property**. Residents can also subscribe to the optional garden waste collection service and may have an additional 240L which they can present weekly.

Drop-off points should be located at the property boundary, ideally on the outside of gates. However, a drop-off point may be located inside of the gates providing the following conditions are met:

- No part of the drop-off point can be more than 10 metres away from rear of the collection vehicle, measured from the nearest safe place that the collection vehicle can stop.
- Pedestrian access can be gained for collection operatives from the vehicle to the drop-off point without the need for operatives to use a key or code between 7am and 5pm on collection day
- The pathway from the drop-off point to the rear of the vehicle is flat, free from steps or kerbs and has a solid, smooth surface

2.4. Apartments and flatted developments

Storage capacity

Communal storage facilities are more appropriate for flats and apartments. Residents living in apartments will be provided with containers that allow the same capacity per property as households on the standard collection service, see section 2 above. The storage capacity can be calculated as follows:

- General household rubbish = number of apartments x 180L
- Mixed recycling = number of apartments x 180L
- Glass = number of apartments x 55L
- Food waste = 1 x 180L wheelie bin per 20 apartments

Table 1 below provides examples of the number of bins required for developments of 5, 10 and 15 properties.

		Recommended containers			
No. of properties	Max General Rubbish Capacity	General Rubbish Bins	Mixed Recycling Bins	Glass Bins	Food Waste Bins
5	900L	3 x 360L	3 x 360L	1 x 240L	1 x 180L
10	1800L	5 x 360L or 2 x 1100L	5 x 360L	2 x 240L	1 x 180L
15	2700L	3 x 1100L	3 x 1100L	3 x 240L	1 x 180L

In smaller developments the preferred method is to provide clearly labelled 240L / 360L wheelie bins for communal use. However, in larger developments it is more efficient to collect from 1100L bins. All containers must be provided by the developer and maintained by the management company. Container dimensions are provided in Appendix A.

For large developments, or where more than one bin store is proposed, best practice is to ensure all stores house refuse and recycling containers rather than separating the two, as this is more convenient for residents.

Storage facilities

The design of communal storage areas is vitally important as they will help to prevent vermin and nuisance from the spread of rubbish, odour and noise. They should be an integral part of the development and must have due regard for the safety of residents and collection crews; they should be located to avoid conflict with parking and to ensure residents, collection vehicles and crews can obtain access at all times.

The bin store will usually be the collection point; therefore the access requirements below must be met, see section 3. For larger developments where a vehicle is required to access private property then a signed indemnity must be obtained before collections can start.

All bin stores should be large enough to house the recommended number of bins with a minimum clearance of 150mm around all sides of each bin. Bins should be placed side by side so that residents can easily access all containers. The enclosure should be designed and constructed with materials that are sensitive to the surroundings and be subtle and screened as much as possible, using boundary walls, fencing or sustainable planting.

All bin storage areas should have:

- Adequate lighting – natural and / or artificial
- Be away from windows and ventilators
- Good natural ventilation if completely enclosed, eg high and low level air bricks
- The floor capable of supporting up to half a tonne per square metre, laid to a fall with suitable drainage
- A solid smooth, easily cleanable floor, eg paving or concrete float finished
- A suitable enclosure, eg wooden fencing, brick or concrete walls built to a minimum height of 2m; and

- A notice board or space for signage so that collection days and other information can be displayed

Further guidance regarding design and capacity for solid waste for domestic developments is provided in the Building Regulations – Approved Document H (Edition 2002, incorporating 2010 amendments) and British Standard 5906:2005. If in doubt, contact the Environment Unit for pre-application advice.

3. ENSURING ADEQUATE ACCESS

3.1. Introduction

Particular care needs to be taken when designing access to bin storage areas and collection points in order to minimise health and safety risks and the potential for damage to buildings, roads and structures.

3.2. Access for waste collection operatives

It is the Council's preference that bin stores or pedestrian access through gated developments to drop-off points have secure access to inhibit unauthorised access without the need for collection operatives to require a code or key. It may be desirable to install a trade's button effective from 7am to 5pm on the day of collection, which may be earlier or later than usual around public holidays.

Bins should not have to pass through designated parking spaces or bicycle storage areas. The path between the bin store or other collection point and the nearest vehicular access must have a solid foundation which can support at least half a tonne per square metre. It must be rendered to a smooth finish, be level (unless a gradient of no more than 1:12 falls away from the bin store), have no steps and have a minimum width of 2 metres. A dropped kerb may be required.

The distance that collection operatives need to transport containers between the waste storage area and the rear of a collection vehicle at the nearest place it can safely stop should not exceed 10 metres.

Other health and safety issues to address include:

- The developer must ensure that they do not obstruct sight lines for pedestrians, drivers and cyclists
- The facility should not obstruct any utility service outputs
- Access to wheel locks by refuse collection operatives needs to be maintained to secure bins in situ; and
- Receptacles should be sited away from windows, air conditioning and ventilators to minimise odour and noise nuisance, and away from perimeter walls to deter illegal access

3.3. Access for collection vehicles

Developments incorporating a new access road which collection vehicles will need to transverse (ie larger developments where refuse will not be collected at a single collection point but from each individual property) must be built to the following specifications.

- It is critical that any access roads, bridges or ramps need to be built at least to the local highway authority adoptable standard (see Appendix 1, Maldon District Design Guide ECC Road Type Table), and ideally be at least 4.8m in width, be no more than 1:12 slope and must be capable of supporting vehicles having a gross weight (ie vehicle plus load) of 26 tonnes and minimum single axle loading of 11 tonnes. Any manhole cover or gully grating in these roads shall be of heavy 'Grade A' type
- Planning applications may require swept path analysis showing the tracking movements of refuse collection vehicles to ensure that there are no adverse highway safety implications and vehicles can actually access developments to collect waste. Access should be available for the largest of the collection vehicles in use, the dimensions of which are provided on pages 12 and 13
- All decisions regarding road layout, surface etc. will be made by Essex County Council (ECC) Highways Department. Developers should liaise with ECC and the District Council as early as possible with regard to access requirements and the need for swept path analysis
- The collection vehicle **must** be able to enter and leave the site in a forward facing direction and a turning circle or hammerhead must be provided so the vehicle can turn around if necessary. Reversing of waste collection vehicles is a dangerous operation and requires the use of reversing assistants to support the driver. Injuries to collection crews or member of the public by moving collection vehicles are invariably severe or fatal; one in three accidents occur when vehicles are reversing. If turning space is necessary, the road layout should permit at least a turning circle of 18.5m, kerb to kerb or 21.1m wall to wall (or gates, fences etc)
- Any gates or arches on the vehicle route to the refuse / recycling storage / collection area should give a minimum clearance of 3.72m width and 4.5m height. Clearance of at least 5m above the height of a standard collection vehicle will be required in the area where bins are to be emptied to allow for the bin lifting mechanism
- There may be a need for developers to include in their proposal measures to restrict ad-hoc parking outside of marked spaces to ensure that access for refuse collection vehicles is not reduced

4. WASTE MANAGEMENT DESIGN IN COMMERCIAL PROPERTIES

Maldon District Council does not currently collect waste from commercial properties; commercial properties should seek advice from their waste management contractor.

For developments incorporating both commercial and residential premises the waste and recycling containers must not be stored in the same location or must be clearly signed so as to avoid contamination. Plans for mixed use developments should clearly annotate which storage areas are for the residential element and which are for the commercial element.

5. WASTE COLLECTION

Once planning permission has been granted and building is underway, the waste team at Maldon District Council should be notified at least six weeks before the development is due to be occupied in order to discuss the provision of refuse and recycling containers and arrange collections to start.

A site visit and risk assessment may be required from the Council's waste contractor before any collections can start.

Dimensions of largest collection vehicles

Chassis:	Elite 6 6x2RS_Narrow	**Prepared for:**	James Griffin
Body:	OL19N	**Company:**	Sita
Bin Lift:	Terberg OMNI DEL	**Contract:**	Maldon

Vehicle Details

GVW	26,000kg
Wheelbase (Inner)	5250mm
Engine	Volvo D8K 280bhp
Gearbox	Allison MD3000 6 Speed Automatic
Fuel Tank	280 Litre
Body Effective Volume	18.7m3
Hopper Volume	2.4m3
Front Axle Plated Weight	8000kg (7100kkg*)
Rear Bogie Plated Weight	19000kg

Dimensions

Overall Length	9190mm
Overall Width	2250mm
Overall Height	3500mm
Front Overhang	1665mm
Rear Overhang	2285mm
First Cab Step Height	495mm
Cab Floor Height	825mm (Driver) 885mm (Passenger)
Cab Roof Height	3130mm

Suspension

Front Axle	Air Assist
Axle 2	Full Air
Axle 3	Full Air

Tyres

Front Axle	315/80R22.5*
Axle 2	11R22.5**
Axle 3	315/80R22.5
Manufacturer	Michelin

Elite 6 6x2RS_Narrow Chassis

Standard Equipment

- Low Entry Cab with Single Step Entry	- 2x LED Integral Corner Cab Beacons
- Flat, Unobstructed Walkthrough Cab Floor	- 2x LED Grille Mounted Strobes
- 6 Cylinder 7.7 litre In-Line Diesel Engine	- LED Daytime Running Lights
- Stainless Steel Vertical Exhaust	- Illuminated Cab Step Entry
- DOC, DPF, SCR & Regeneration Injector	- Integrated Panel for Body Controls/Rear Monitor
- Electronic Fuel Injection	- Brake Pad Wear Lining Sensors
- Enhanced Converter Load Reduction (ECLR)	- Engine Immobiliser
- Park Brake Auto Neutral (PBAN)	- On-Board Diagnostics System
- Electronic Stability Programme (ESP)	- Air Assisted Adjustable Steering Column
- Park Brake on Auxiliary & Drive Axles	- Drivers Air Suspended Seat
- Brake Assist Function	- Red 3 Point Inertia Seatbelts
- Emergency Brake Signal	- 2x Front & 2x Rear Overhead Lockers
- Fuel Tank Anti-Siphon, Anti-Spill & Lockable Cap	- 8x Coat Hooks
- Locking Ad-Blue Cap	- 2x Half Width Sun Blinds
- 10mm Non-Fletched Chassis Frame	- Cup Holder/Document Storage Net
- Rail Section 260mm x 100mm x 10mm	- 24v Electrical System
- Frame Width 890mm	- 110A Alternator
- Chassis Raise/Lower Control	- 2x 180amp Batteries
- Return to Ride Height – 15kph(Low) & 30kph(High)	- Traction Enhancement
- LoadSense Axle Overload Protection System	- Packer Cut Out at GVW

Paint:

Chassis	Black
Cab	Factory Finish Ekla White FLUK4890

Options included:

- Driver and 3
- Spray suppression mud flaps
- Lane Departure Warning
- Advanced Electronic Braking System (AEBS)
- Air conditioning
- Battery isolator switch
- FMS gateway
- Radio CD player
- Spare wheel and tyre
- Wheel nut indicator
- 50mph speed restriction
- 5mph reverse speed restriction

Waste Management

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