Pell Frischmann

Basildon HLDFs

Gardiners Lane Development Framework

31/10/2017

Pell Frischmann

REVISION RECORD Report Ref: A13304/VAA GARDINERS LANE HLDF							
Rev	Description	Date	Originator	Checked	Approved		
0	Draft Report	30/03/2017	H Rowlinson	S Hooley	A Twyford		
1	Final Report	30/06/2017	H Rowlinson	S Hooley	A Twyford		
2	Final Report REV A	13/10/2107	H Rowlinson	S Hooley	A Twyford		
3	Final Report REV B	31/10/2107	H Rowlinson	S Hooley	A Twyford		

This report is to be regarded as confidential to our Client and it is intended for their use only and may not be assigned. Consequently and in accordance with current practice, any liability to any third party in respect of the whole or any part of its contents is hereby expressly excluded. Before the report or any part of it is reproduced or referred to in any document, circular or statement and before its contents or the contents of any part of it are disclosed orally to any third party, our written approval as to the form and context of such a publication or disclosure must be obtained

Prepared for: Prepared by:

Basildon Borough Council The Basildon Centre St. Martin's Square Basildon, Essex, SS14 1DL Pell Frischmann 5 Manchester Square London



CONTENTS

1.		ODUCTION	
	1.1	BACKGROUND	
	1.2	OBJECTIVES	
	1.3	GARDINERS LANE HLDF PURPOSE	5
2.		NNING POLICY	
	2.1	GARDINERS LANE SOUTH PLANNING HISTORY	
	2.2	NATIONAL PLANNING POLICY FRAMEWORK (MARCH 2012)	
	2.3	DRAFT LOCAL PLAN (JANUARY 2016)	8
	2.4	HOUSING AND ECONOMIC LAND AVAILABILITY ASSESSMENT (HELAA)	
	2.5	BASILDON BOROUGH PLANNING OBLIGATIONS STRATEGY SPD	9
	2.6	POLICY H7 PROPOSALS	.10
3.	ANA	LYSIS OF THE SITE	
	3.1	LOCATION AND SURROUNDING AREA	.11
	3.2	SITE OWNERSHIP	
	3.3	ARCHAEOLOGY AND HERITAGE ASSETS	.13
	3.4	ECOLOGY	.13
	3.5	LANDSCAPE AND TOPOGRAPHY	.15
		Topography	
		Landscape	.15
	3.6	FLOOD RISK AND DRAINAGE	
	3.7	HIGHWAYS AND ACCESS	
		Policy	
		Existing Highway Access	
		Pedestrian Accessibility	
		Public Transport	
	3.8	INFRASTRUCTURE, SERVICES AND UTILITIES	
	0.0	Utilities Summary	
	3.9	SOCIAL INFRASTRUCTURE	
	0.0	Early Years and Childcare Provision	
		Primary School Provision	
		Secondary School Provision	
4.	DEV	ELOPMENT CONSTRAINTS AND OPPORTUNITIES	.23
		Key Constraints	
		Key Opportunities	
5.	HIGH	I LEVEL DEVELOPMENT FRAMEWORK EVOLUTION	.25
	5.1	VISION	
	5.2	DEVELOPMENT PRINCIPLES	
		Environment	_
		Planning	
		Design	
		Infrastructure	
	5.3	STAKEHOLDER ENGAGEMENT	
	5.4	DEVELOPMENT FRAMEWORK OPTIONS	
	J	Playing Pitch Relocation Study	
		Open Space Requirements	
		GL Development Framework Option 1	

		GL Development Framework Option 2	34
		GL Development Framework Option 3	35
	5.5	HIGH LEVEL DEVELOPMENT FRAMEWORK EVALUATION	36
6.	PRF	FERRED HIGH LEVEL DEVELOPMENT FRAMEWORK	38
0.	6.1	FRAMEWORK CONCEPT	
	6.2	EDUCATION PROVISION LOCATION	30
	6.3	PREFERRED HLDF TRAFFIC IMPACT	
		Mitigation	43
7.	DELI	VERY	
	7.1	DEVELOPMENT DELIVERY	44
	7.2	PHASING	44
	7.3		45
	7.4	NEXT STEPS AND RECOMMENDATIONS	46
8.	SUP	PORTING DOCUMENTS	47
		Appendix A – Stakeholder Presentation	
		Appendix B – GL HLDF Land Use Budget for Option 1, 2, 3	
		Appendix C – HLDF Options Traffic Trip Generation	
		Appendix D - Higher Density Low Rise Development Examples	
		Appendix B Trigiter Beriotty Low Nide Bevelopment Examples	
		4.0 11 (01) 11	_
		1: Gardiners Lane (GL) site area	
_		1: Site H7 in the Draft Local Plan Policies Map context	
		1: Site Ownership	
		2: H7 site ecology assessment (LUC, 2017)	
		3: H7 site topography	
		4: H7 local bus routes	
		5: H7 local cycle routes, source Essex County Council	
		6: H7 High level utilities summary	
		7: Basildon Group 3 Primary Schools	
		1: Gardiners Lane Opportunities and Constraints	
Figi	ure 5-	1: Sports Pitch Relocation Preferred Option for GL, RQA /BAQUS	32
Figi	ure 5-:	2: Sports Pitch Relocation Provision Summary	32
Figi	ure 5-	3: Option 1 GL HLDF showing distribution of proposed residential units	34
Figi	ure 5-	4: Option 2 GL HLDF showing distribution of proposed residential units	34
		5: Option 3 GL HLDF showing distribution of proposed residential units	
_		6: Options Evaluation	
		1: Gardiners Lane High Level Development Framework Concept Options	
		2: Gardiners Lane Gypsy and Traveller Site Assessment Study Options	
		3: Gardiners Lane Preferred HLDF Option A including G&T site	
		4: Gardiners Lane Preferred HLDF Option B including G&T site	
rıgı	ure 6-	5: Gardiners Lane Preferred HLDF Option A and Option B Land Use Budget .	41
Tak	do E 4	· Ontions summary	20
ı ac	ne 5-1	: Options summary	30
		: Preferred HLDF - Vehicular Trips Generation	
		: Preferred HLDF – Public Transport Trips Generation	42
125	MA 6. 9	Largingre Lang Cost Estimato	7/2

1. INTRODUCTION

1.1 BACKGROUND

- 1.1.1 Pell Frischmann has been commissioned by Basildon Borough Council (BBC).
- 1.1.2 Between January and March 2016, the Council carried out public consultation on a Draft Local Plan setting out proposed strategic policies, allocations and development management policies to cover the period to 2034. It proposed to accommodate 15,260 new homes and 49ha of employment land; 9,100 and 11ha respectively of which would be from land removed from the Green Belt. The Draft Local Plan set out 21 development allocations that would deliver much of this growth, including:
 - Gardiners Lane (GL) H7 Proposals for 660 homes, 12-16ha of employment land and 6-8ha of open space;
 - East Basildon (EB) H13 and E8 Proposals for a total of 2,300 new homes, 5.5ha of employment land (+49.5ha safeguarded for employment), 75ha of open space, local centres, primary school provision and a new grade separated junction on the A127 at Pound Lane/Cranfield Park Road to the East of Basildon and Burnt Mills; and
 - South West Billericay (SWB) H20-23 Proposals for a total of 950 homes and an integrated highway relief route.
- 1.1.3 Pell Frischmann has been commissioned by Basildon Borough Council (BBC) to prepare high level development frameworks (HLDFs) for the above three sites in order to create a high level framework for each strategic site area to set out the overall development concept and development principles, as well as address phasing and other key delivery issues.

1.2 OBJECTIVES

- 1.2.1 Each Framework has the following common objectives:
 - To prepare a deliverable and viable high level Development Framework for each strategic location having explored and tested the vision and development policy objectives for the area;
 - Review the key site promoter objectives and examine ways to accommodate these alongside policy objectives set out in the Draft Local Plan, and advise of where incompatibility risks overall location delivery;
 - c) To establish an initial design framework for the area's development exploring
 - a. land use parameters,
 - b. density,
 - c. legibility, and
 - d. safety.
 - d) This should allow the continuation of detailed master planning work, as part of Local Plan implementation, post 2018, or outline planning application stages and beyond;
 - e) Promote high quality, locally distinctive design in residential, commercial and infrastructure proposals with a view to achieving more sustainable forms of development;

- f) Establish outline proposals to incorporate practical strategies for delivering high quality urban design and other requirements such as renewable energy generation, protection and enhancement of biodiversity, landscapes and flood and water management;
- g) Set out locations and requirements for essential infrastructure, facilities and services and present concept options as to how these could be located within the development to ensure they are integrated into new communities, whilst offering, where feasible expanded services for existing communities;
- h) Set out locations for development including housing, employment, and service/retail, and also for open space and other green infrastructure provision; and
- Advise on areas that could be developed as distinct areas without compromising the delivery of the strategic area as a whole, or are dependent on other areas of the strategic location coming forward first.
- 1.2.2 Gardiners Lane site, as one of the above sites promoted through the Draft Local Plan and the Policies Map, is the subject of this report.

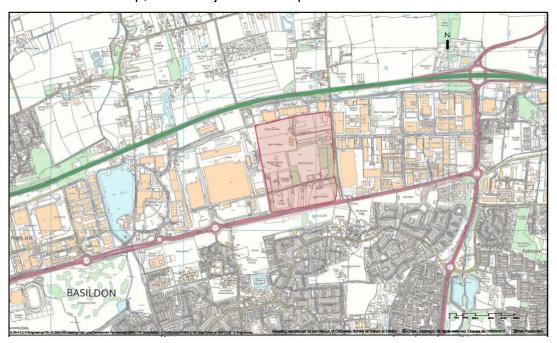


Figure 1-1: Gardiners Lane (GL) site area

1.3 GARDINERS LANE HLDF PURPOSE

- 1.3.1 Following the public consultation on the Draft Local Plan the Statement of Consultation noted that developers with an interest in the H7 were seeking to pursue a higher proportion of residential development on the site, at the expense of employment and open space development. This would have an impact on the Green Belt by releasing additional land from it to address the shortfalls in employment or open space land.
- 1.3.2 A smaller plot off Gardiners Close was recently granted planning permission and homes are currently being constructed on site. Allowing further piecemeal development may have implications for the delivery of the number of homes proposed, and whether it would undermine securing the delivery of key infrastructure.

- 1.3.3 This report outlines the high-level development framework with a purpose to test whether the policy requirements for development and infrastructure set out in H7 can be accommodated adequately on the site and to inform a phased comprehensive, rather than a piecemeal development approach for the site.
- 1.3.4 The study also considers if the site was to retain some of its sports pitch land uses, what the different quantum options for achieving a sustainable development of housing and employment on site would be.

2. PLANNING POLICY

2.1 GARDINERS LANE SOUTH PLANNING HISTORY

- 2.1.1 Gardiners Lane South was first earmarked as a Comprehensive Development Area in the Deposit Basildon District Local Plan in 1993. Attempts to promote development on the site through a Design Brief approved in 1994 and subsequent planning applications were not successful. This was largely due to the uncertainties about the range of uses acceptable, with the result that the several schemes put forward did not fulfil the Local Plan policy requirements.
- 2.1.2 A master plan was prepared by the majority landowner, then English Partnerships, and adopted by the Council in 2003 as an SPD with the aim of guiding the development of the site. English Partnerships subsequently submitted a planning application for the whole site and a Council resolution granting outline planning permission, subject to the completion of a S106 agreement was approved in 2005. However, it is understood that due to complex infrastructure proposals the application stalled.
- 2.1.3 Since then, a resolution to grant planning permission for a 15-pitch gypsy and traveller site and a separate development for 41 (net) residential units have been approved subject to separate S106 agreements for affordable housing and contributions towards education and health.
- 2.1.4 In regard to the predominant use on the site, the Playing Pitch Study (2012) and Indoor Sports and Recreation Study (2011) found that the site's existing sports facilities were an important local resource, and will need to be relocated to the satisfaction of Sport England prior to any residential or employment development.
- 2.1.5 For the site to be developed there is a need for some, if not all the pitches to be reprovided elsewhere in the Borough to the satisfaction of Sport England and the sports clubs. This challenge created its own land requirements and costs which could affect the viability of the site's delivery, particularly if the site is expected to also make meaningful contributions to other forms of infrastructure such as highways. The development framework options presented in this document take advice of the most recent Gardiners Lane South Playing Pitch Relocation Study (Draft, April 2017) undertaken by RQA following discussions with club occupiers and Sports England.

2.2 NATIONAL PLANNING POLICY FRAMEWORK (MARCH 2012)

- 2.2.1 The National Planning Policy Framework (NPPF) was adopted in 2012, it came into effect immediately superseding the 2011 draft and all other planning guidance (except on waste).
- 2.2.2 The NPPF sets out the Government's expectations and requirements from the planning system. It is meant as high-level guidance for local councils to use when defining their own personal local and neighbourhood plans. This approach allows for the planning system to be tailored to reflect the needs and priorities of individual communities.
- 2.2.3 The NPPF defines the delivery of sustainable development through three roles;
 - Planning for prosperity (an economic role);

- Planning for people (a social role); and
- Planning for places (an environmental role)
- 2.2.4 It notes that to achieve sustainable development, these roles should be sought jointly and simultaneously through the planning system.
- 2.2.5 At the heart of the NPPF is a presumption in favour sustainable development, which 'should be seen as a golden thread running through both plan making and decision taking.'(para 14).

2.3 DRAFT LOCAL PLAN (JANUARY 2016)

- 2.3.1 This planned replacement of the 1998 Adopted Local Plan, sets out an initial draft of a new Local Plan for Basildon Borough that will provide the planning framework for the future growth and development until 2034. It also sets out the strategic, allocation and development management policies that will be applied to ensure that individual development proposals contribute positively towards the plan.
- 2.3.2 The following Draft Local Plan Policies are particularly relevant to the development of the Gardiners Lane Site;
 - Policy SD1 Strategic Approach to Sustainable Development in Basildon
 - Policy SD2 Settlement Hierarchy and the Distribution of Growth
 - Policy SD3 Presumption in Favour of Sustainable Development
 - Policy E1 Economic Growth Strategy
 - Policy E2 Existing Employment Areas for general B Class Uses
 - Policy E4 New Employment Sites
 - Policy E5 Land West of Gardiners Lane South, Basildon
 - Policy TS1 Transport Strategy
 - Policy TS2 Improvements to Carriageway Infrastructure
 - Policy TS3 Improvements to Footpaths and Cycle Infrastructure
 - Policy TS4 Improvements to Public Transport Infrastructure and Services
 - Policy TS5 Safeguarded Areas for Transport Improvements
 - Policy TS6 Managing Congestion
 - Policy TS7 Safe and Sustainable Access
 - Policy TS8 Parking Standards
 - Policy TS9 Access for Servicing
 - Policy H1 Housing Strategy
 - Policy H2 Specialist Accommodation Strategy
 - Policy H3 Gypsy, Traveller and Travelling Showpeople Sites
 - Policy H5 Established Gypsy, Traveller and Travelling Showpeople Sites
 - Policy H7 Land West of Gardiners Lane South
 - Policy H30 The Location of Residential Development
 - Policy H 33 The Size and Type of New Homes
 - Policy H 34 Affordable Housing Provision

- Policy DES1 Achieving Good Design
- Policy DES2 Urban Character Areas
- Policy DES4 High Quality Buildings
- Policy DES5 High Quality Public Realm
- Policy HC1 Leisure and Recreation Strategy
- Policy HC5 Community Facilities
- Policy CC1 Responding to Climate Change
- Policy CC2 Flood Risk and Drainage Management
- Policy CC4 Managing Flood Risk in New Development
- Policy CC7 Renewable Energy Infrastructure
- Policy NE1 Green Infrastructure Strategy
- Policy NE5 Development Impacts on Ecology and Biodiversity
- Policy NE6 Development Impacts on Landscape and Landscape Features
- Policy NE 7 Pollution Control and Residential Amenity
- Policy IMP 1 Implementation Strategy
- Policy IMP 3 Phasing of Development
- Policy IMP 4 Piecemeal Development

2.4 HOUSING AND ECONOMIC LAND AVAILABILITY ASSESSMENT (HELAA)

- 2.4.1 The HELAA is a key component of the evidence base that will support the Basildon Borough Council's Local Plan production and its approach to the delivery of housing and employment development within the Borough.
- 2.4.2 The HELAA simply determines which sites are currently considered suitable, available and achievable for potential housing and economic development. This information will then be carried forward into the Local Plan process for consideration alongside other factors, such as the findings of other evidence base documents and the Councils development strategy.
- 2.4.3 The main roles of HELAA is to;
 - Identify sites and broad locations with potential for development;
 - Assess their development potential; and
 - Assess their suitability for development and the likelihood of development coming forward (the availability and achievability).
- 2.4.4 The HELAA considers that the H7 site remains suitable, available and achievable for residential development.

2.5 BASILDON BOROUGH PLANNING OBLIGATIONS STRATEGY SPD

2.5.1 In August 2015 Basildon Borough Council formally adopted the Planning Obligations Strategy as a Supplementary Planning Document (SPD). The SPD is now a material consideration in the determination of relevant planning applications within the Basildon Borough.

- 2.5.2 The purpose of the Planning Obligations Strategy is to provide updated guidance to industry professionals, landowners, developers and residents as to the type and level of planning obligations (financial and non-financial) the Council could seek as part of applications for planning permission.
- 2.5.3 The Community Infrastructure Levy (CIL) is a charge which local authorities can place on developers to help fund infrastructure needed to support new development in their areas. It will partially replace the existing Section 106 system. The Council does not have an adopted Local Plan and does not have an adopted CIL at present. Until the Council adopts a CIL it will continue, subject to the restrictions in regulation 123(2) and (3) to negotiate Section 106 contributions where necessary to offset the impact that new development will have on the local community.

2.6 POLICY H7 PROPOSALS

- 2.6.1 36ha of land west of Gardiners Lane South, H7 on the Policies Map, is identified to be developed into a high quality mixed used community to provide at least 660 homes on 14-18ha of land, including a 15-pitch gypsy and traveller site and a local centre, 6-8ha of open space and community facilities, in addition to 12-16ha of B-class employment development as required by policy E5.
- 2.6.2 The policy stipulates that the site's development must be informed by an updated master plan or development brief, replacing the supplementary planning document approved in 2003, now out of date.
- 2.6.3 It is the Council's aspiration that the site should be delivered as a comprehensive scheme, however in order to maintain flexibility and account for previous delivery challenges, it is recognised that an appropriate phased delivery programme to help manage land assembly and cause less disruption to existing residents or occupiers would be applicable.
- 2.6.4 H7 Policy encourages retention of some of the formal sports uses on the site as part of the new community, in parallel with the plans to facilitate the relocation of some of the existing sports clubs and their supporting facilities onto strategic sites released from the Green Belt within the new housing and employment developments as set out in policies H10 and H13.

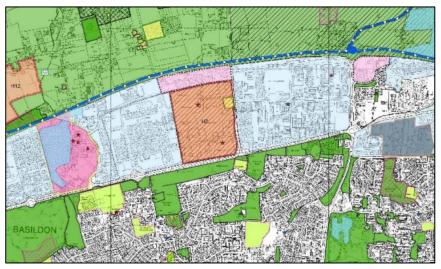


Figure 2-1: Site H7 in the Draft Local Plan Policies Map context

3. ANALYSIS OF THE SITE

This section of the Development Framework sets out a site analysis of Gardiners Lane and covers the following;

- Location and Surrounding Area
- Site Ownership
- Archaeology and Heritage Assets
- Ecology
- · Landscape and Topography
- Flood Risk and Drainage
- Highways and Access
- Infrastructure, Services and Utilities
- Social Infrastructure

3.1 LOCATION AND SURROUNDING AREA

- 3.1.1 The Urban Characterisation and Design Review concludes it is evident that Basildon Borough is an agglomeration of distinct character areas which have built up over time to create the vibrant, attractive town that it is to date, and it is difficult to establish a single cultural identity for the whole Basildon Borough as it is an area of contrasts with historic town centres, New Town development, areas of open countryside, small villages and Plotland settlements, as well as a unique and biodiversity rich wildlife habitat in the form of the Thames Estuary marshes.
- 3.1.2 One of the Borough's more unique character traits is reflected in the south of the Borough dominated by the development of a Mark I New Town, master planned in phases from 1951. The New Town brought a comprehensive transformation to the area, with significant changes to its landscape and original village and Plotland communities, although pockets of its more historic origins remain in a physical sense, the 20th century onwards is characterised by a fragmentation of built form much of which has largely failed to relate well to the townscape of previous centuries. Therefore, the prevalent urban layers that form the south of the Borough's 'sense of place' are almost exclusively post 1950's in date; although distinct design variations exist in the neighbourhoods.
- 3.1.3 Gardiners Lane South located some 2 miles north of the town centre, sits within the Basildon Enterprise Corridor and abuts residential areas of Basildon New Town Character Area. The site is bordered by the Mayflower Retail Park to the north, to the east by Gardiners Lane South, to the south by Cranes Farm Road and to the west by the CASE New Holland Tractor Plant.
- 3.1.4 The majority of the site is occupied by playing fields and sports facilities, operated on a leasehold or freehold basis by six sports clubs. There are a small number of privately owned residential properties in the southern part, along with a rifle club in the south west corner, and areas of woodland, scrubland and hedgerows in parts of the site. The existing vehicular access points are from the east of the site from Gardiners Lane

South, via two roads that run east west: Gardiners Way in the north, and Gardiners Close to the south.

3.1.5 The surrounding Basildon Enterprise Corridor is primarily defined by series of large scale industrial buildings varying from rectangular, freestanding commercial /industrial buildings, to big box style stores typical in retail parks. This inner urban industrial area also incorporates the Festival Leisure Park, the Borough's principal commercial leisure complex. Whilst this leisure park has a different form of architecture to the industrial landscape, it has a similar scale of building form and adjacent open space. Building heights typically vary from double-height single storey or two storey buildings to three storeys, with medium to large footprint.

3.2 SITE OWNERSHIP

- 3.2.1 The HCA own the freehold of the majority of the developable land totalling 21.2 hectares. The bulk of this land is currently leased to sports and social clubs. A site to the northwest is owned by Royal Mail Sports and Social Club. The remainder of the site comprises privately owned residential properties and small unoccupied plots. The extent of these ownerships is illustrated in Figure 3-1 below.
- 3.2.2 For the development to proceed, site assembly will be required.



Figure 3-1: Site Ownership

3.3 ARCHAEOLOGY AND HERITAGE ASSETS

3.3.1 A generally flat plain, the geology largely consists of London Clay, overlain in places by head deposits. Historically, this zone was largely rural, it is now all developed with commercial /light industrial premises apart from the Gardiners Lane South with a number of sports pitches /facilities. The zone originally had a rectilinear field system thought to be of Saxon origin and typical of the south Essex landscape. A single moated site was located at Cranes Farm, now largely lost.

3.4 ECOLOGY

3.4.1 A high level desktop study has been undertaken to identify any environmental designations in the local vicinity. We herewith refer to the Basildon Ecology Assessments Further Work (2017), undertaken by Land Use Consultants (LUC).



Figure 3-2: H7 site ecology assessment (LUC, 2017)

- 3.4.2 The Gardeners Lane site is within a potential SSI Impact Risk Zone area, therefore consultation with Natural England is required for;
 - Any discharge of water or liquid waste that is more than 2m3 per day. The
 water needs to be either discharged to ground or surface water. Discharges to
 main sewer are excluded.
- 3.4.3 In addition, Green Belt land runs close to the sites' northern boundary at the A127 southern Arterial Road.
- 3.4.4 There are no Natura 2000 (SPAs or SACs) or Ramsar Sites within Basildon Borough. However, three SPA designations have been noted in relatively proximity to the borough boundary, including Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA, Benfleet and Southend Marshes and Thames Estuary and Marshes SPA.

- 3.4.5 There are no Sites of national importance located 1km of the Site.
- 3.4.6 There are no Local Wildlife Site within 1km of the Site.
- 3.4.7 The following records for notable and protected species were identified within the Site boundary:
 - Common pipistrelle Pipistrellus pipistrellus;
 - Slow worm Anguis fragilis.
- 3.4.8 A number of protected species on the NBN Biodiversity Gateway have been identifies in the local vicinity, these include;
 - Great Crested Newts Approx. 2.3km to the north-east. some connectivity and number of ponds between sites.
 - Bats approx. 1.2km to the east.
 - Slow worm approx. 2km to the west.
- 3.4.9 It is considered unlikely that the potential recreational activities associated with the site may directly impact on nearby SPAs and SACs, however, Natural England has made it clear that whilst on site provision of open space is welcome, they remain concerned about the impact of population growth on SPAs and SACs along the coast, as the coast itself is an 'attractor' which cannot be replicated within open space provision on development sites.
- 3.4.10 Ecological survey findings illustrated in Figure 3-2 show a diverse range of habitats, although these were largely subject to management and disturbance with amenity grassland dominant, which offers little value for wildlife. The survey concludes the site has limited ecological value given its relative isolation within an industrialised and built-up area.
- 3.4.11 In the absence of detailed survey the study was not able to confirm the presence of protected and/or notable species within the Site. However there is potential for such species to be present within localised areas of the Site and further surveys would need to be undertaken in due course.
- 3.4.12 Overall the Site has limited ecological value with hedges, woodland and trees of greatest value given the habitat they may provide to a range of species. In conclusion, the assessment considered that residential development may be delivered at this site without significant adverse ecological impacts, and possibly delivering an enhancement, on the assumption that:
 - Any proposals are informed by detailed ecological survey, to inform impact assessment and the avoidance and mitigation of impacts;
 - Mitigation measures are developed to address any identified impacts on protected and notable species, as informed by the above surveys;
 - Proposals should seek to retain ecological connectivity through the site, in particular as provided by hedges;
 - Incorporation of green infrastructure within the development, and ensuring habitats are managed to benefit wildlife in the long-term.

3.5 LANDSCAPE AND TOPOGRAPHY

Topography

- 3.5.1 The site is approximately square and predominantly level. Ground elevation is approximately 42m aOD on the western boundary, and 35m aOD on the eastern boundary. W to E gradient is 1.4%.
- 3.5.2 Using the British Geological Society database, the Superficial deposits have been identified as either Head (clay, silt, sand and gravel) or none. The bedrock has been identified as London Clay Formation, mostly clay, some silt and sand.
- 3.5.3 The Superficial Aquifer Designation is 'Secondary Undifferentiated'. Note: this category has been assigned where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

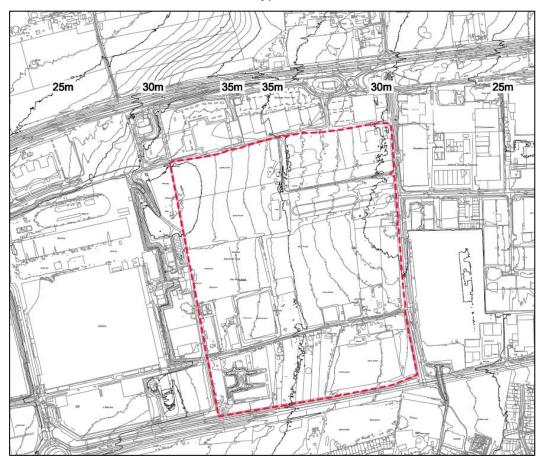


Figure 3-3: H7 site topography

Landscape

3.5.4 Whilst much of the site is occupied by playing fields and sports facilities, parts of it contain areas of woodland, scrubland and hedgerows. Central part of the site includes notable oak trees that it is understood benefit from Tree Preservation Orders. There is also a landscape buffer, or strip, running along the south eastern and southern portion of the site. The site falls gently from north-to-south and from west-to-east.

3.6 FLOOD RISK AND DRAINAGE

- 3.6.1 The site is shown to be entirely within Flood Zone 1, having a probability of flooding of less than 0.1% in any given year. The Sequential Test has therefore deemed to have been passed. Gardeners Lane South is on the list of 9 urban sites identified by Basildon Borough Council to undergo a review in relation to flood risk. Gardiners Lane South was not shown to be at risk from fluvial sources.
- 3.6.2 The site has not been identified to be at an increased risk of surface water flooding within the Environment Agency's FMfSW.
- 3.6.3 The site is located within a wider Critical Drainage Area (CDA), BAS14. The design of a drainage strategy for the wider area should be considered early in the master planning stage for any future development to ensure that a coordinated and integrated system can be implemented.
- 3.6.4 Site planning should consider flood flow routing to ensure that any potential flow paths are away from buildings, into landscaped or car parking areas. Drainage systems should be designed with adequate capacity to store the 1% AEP storm event including climate change.
- 3.6.5 Sustainable drainage systems should be used throughout any proposed development where possible. The use of infiltration SuDS must be explored as the primary means of dealing with the sites surface water runoff in accordance with the SuDS hierarchy. BGS mapping suggests that the majority of the site is 'probably compatible' for infiltration SuDS, although ultimately onsite testing will be necessary. The design will need to consider exceedance flow routes.

3.7 HIGHWAYS AND ACCESS

Policy

Local Plan Transport Evidence Base

- 3.7.1 The Highway Mitigation Modelling (2015) had assumed that the majority of the 49ha of employment land will come from within the urban areas, including from sites such as Land West of Gardiners Lane South. Taken as a whole, alongside similar assumptions for what housing potential there is within urban areas, the highway evidence notes that upgrades to highway routes and junctions on the strategic and local road network will be required to deliver everything this plan seeks to achieve. With this holistic approach, the ability for the Council and its partners to secure external funding to assist in the upgrades to the strategic and local infrastructure should be more robust, and with implementation polices IMP1 to 4, the Council can ensure that it does not place undue burden on the existing network without appropriate phasing and investment taking place.
- 3.7.2 This highway evidence suggests that phased upgrades to the local and strategic highway network particularly junction improvements will be required to help deliver Gardiners Lane South High Level Development Framework. In any case it is envisaged that employment proposals for the Gardiners Lane site will be subject to a Traffic Impact Assessment.
- 3.7.3 The Essex Transport Strategy, the A127 Corridor for Growth An Economic plan (2014), propose a number of highway schemes for the Borough in order to address

issues with the existing highway networks capacity and resilience, some others will be the subject of future bids.

A127 Corridor for Growth Strategy

- 3.7.4 The A127 Corridor for Growth Strategy recognises that the strategic route though South Essex becomes at or near capacity during peak periods, with significant queuing at key junctions.
- 3.7.5 Within the study both the Nevendon and Fairglen Interchanges approximately 1.6km and 7km respectively to the east of the Gardiners Lane site experienced particularly severe congestion during peak periods. It is noted that since this report improvement works to the A127/A132 Nevendon Junction have been completed including widening, left turn lane and signalisation enhancements.
- 3.7.5.1 Improvements to the A127/A130 Fairglen Interchange is among the elements of the Strategy which have been identified as priorities by 2022. A bid has been successfully submitted to the SELEP/DfT to provide funding to support these priorities, together with funding for other works. Widening of the A127 features within the long term proposals for the route, and requires land to be safeguarded for such purposes in the meantime.

Existing Highway Access

3.7.6 The site is strategically positioned in terms of its access and proximity to major transport infrastructure, including the A127 which is the major distributor road as well as other principal routes, sea ports and international airports. However, people without cars may find it difficult to access the area due to poor public transport links and pedestrian and cycling linkages. The A1235 forms part of the southern boundary for the site.

A127- Southend Arterial Road

3.7.7 The A127 is a major duel carriageway road and runs in a general east to west direction from Southend-on-Sea to Gallows Corner, in the London Borough of Havering. The A127 provides access to the M25 and A130 and a range of local destinations.

A1235- Cranes Farm Road

3.7.8 The A1235 Cranes Farm Road is a duel carriageway road and runs in a general east to west direction for approximately 2.5 miles through Basildon, there are two lanes for traffic in each direction.

Gardiners Lane South

3.7.9 Gardiners Lane South is a wide single carriageway road and runs in a general north to south direction. Gardiners Lane South has a lane of traffic in each direction, separated by hatched markings, and connects to the A127 via a series of roundabouts.

Pedestrian Accessibility

3.7.10 Roads surrounding the development generally provide well for pedestrians in terms of footways and crossings. However, pedestrian opportunities are limited due to multiple physical barriers from all directions, the A127 to the north, Cranes Farm Road to the south and industrial premises to the east and west.

- 3.7.11 Wide pedestrian footways are present along the eastern boundary Gardiners Lane South, drop kerbs are present at access junctions and lighting is present along the length, resulting in a good pedestrian environment connecting to the Whitmore local centre south of the A1235 by the pedestrian subway. No pedestrian crossings are present, with exception of one at the Gardiners Lane South/ Cranes Farm Road junction. The lack of crossings may discourage potential site users from frequently using the footway. Pedestrians can only travel north or south along Gardiners Lane South, eastbound movement is prevented by the industrial premises.
- 3.7.12 A wide good quality footway is present on the northern side of Cranes Farm Road, there are however no pedestrian crossings connecting the south of the site with the pedestrian footways. An under path is located east of Gardiners Lane South/ Cranes Farm Road junction, this is a shared pedestrian/ cycle path the path continues through Whitmore Park on Whitemore Way, lighting is present for the length of path.
- 3.7.13 The north of the site is bound by Mayfower Retail Park, a series of footways then connect to the A127. The A127 has footways on both sides but the 70mph speed limit will discourage pedestrian use.

Public Transport

3.7.14 A map showing the local bus routes is provided in Figure 3-4. At present only the Bus route 94 Basildon – Wickford - Woodham Ferrers bus route serves the site.

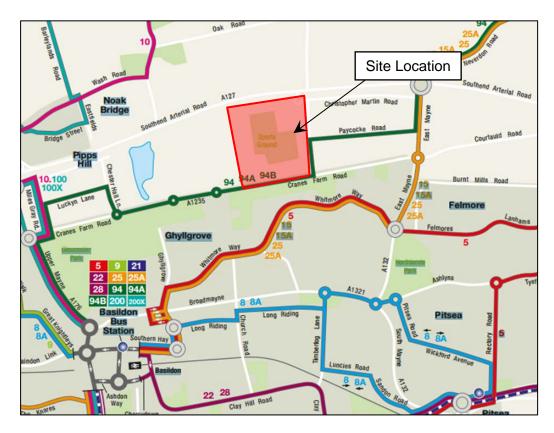


Figure 3-4: H7 local bus routes

3.7.15 The closest bus stop to the Site is located on Gardiners Lane South, less than 30 meters south of Gardiners Close/ Gardiners Lane South junction. However, the closest

safe pedestrian crossing is located at the Gardiners Lane South/ A1235. The 94 runs approximately hourly with a first bus at 6:26 and a last bus at 17:21, at weekends the frequency is approximately every two hours. However, as the highway authority requires all new residential development to be within 400m of a bus stop, there will be a need for a new bus stop to serve the new development.

- 3.7.16 The committed Endeavour Drive Link would enable a new bus service to serve the development area.
- 3.7.17 The nearest railway station is Basildon Railway Station which is located approximately 3.4km south west of the site. Basildon Railway station is managed by c2c; it serves access to London Fenchurch Street and Shoeburyness. Bus route 94 stops within short distance of the railway stations, 38 sheltered cycle parking spaces are also available allowing for multi-modal journeys.

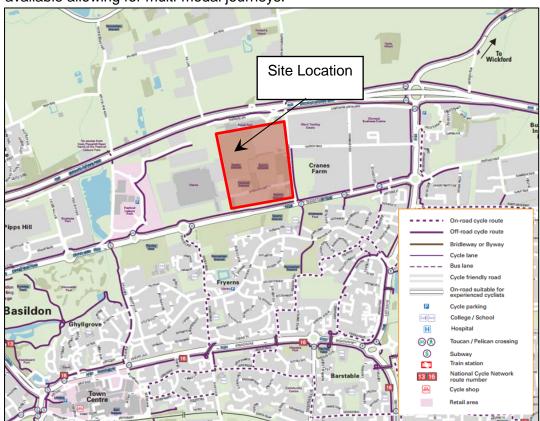


Figure 3-5: H7 local cycle routes, source Essex County Council

- 3.7.18 A map showing the local cycle routes is shown in Figure 3-5. There a numerous off-road cycle lanes surrounding the site, with the subway as previously mentioned providing a crossing under the A1235. The A127 acts as a barrier for vehicles wishing to travel northbound. According to the Chartered Institute of Highways and Transportation (CIHT) is it suggested that cycling is a suitable alternative to replace car trips for journeys of under 5km.
- 3.7.19 Notable locations within 5km of the site include Basildon Town Centre, Basildon Railway Station Pitsea Railway Station and Wickford.

3.8 INFRASTRUCTURE, SERVICES AND UTILITIES

3.8.1 The separate utilities report is based on information obtained from the Utility Service providers. It should be noted that these reports are a 'snapshot' in time, and might not include the most recent changes and developments that might have caused diversions, relocation or reinforcements to distribution systems.

Utilities Summary

- 3.8.2 Gas There are quite large low pressure gas mains outside the north, east and south boundaries of the site. The main in Gardiners Close crosses the site area.
- 3.8.3 Power UKPN has EHV (33kV) power cables running along the north and east boundaries and partially down the west boundary. There is a Primary Substation within the site about halfway along the eastern boundary and local substations in Gardiners Close and the Sports Centre.
- 3.8.4 Telecoms BT Openreach telecoms have services along the north east and south boundaries. There are also pole mounted services crossing the site along Gardiners Way and Gardiners Close. Virgin services are available to the east side of Gardiners Lane South.
- 3.8.5 Water The south and east boundaries appear to be well served by existing water mains. There is also a main along (outside) the northern boundary, and mains crossing the site in Gardiners Way and Gardiners Close.
- 3.8.6 Drainage there are reasonable sized foul sewers to the east and southeast of the site, with a smaller sewer running across the site in Gardiners Close.
- 3.8.7 Surface water sewers are confined to the east side of the site but generally of a reasonable size and depth.

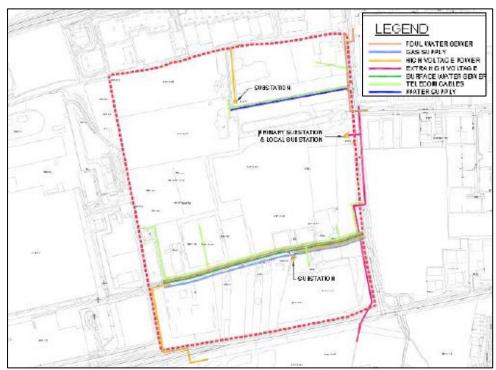


Figure 3-6: H7 High level utilities summary

3.9 SOCIAL INFRASTRUCTURE

The Local Education Authority's priority is to ensure that any new provision is as close to new areas of growth as possible to ensure sustainability.

Early Years and Childcare Provision

- 3.9.1 ECC has provided information on existing capacity and requirements for each allocated site, based on their respective Wards. The information is based on the Autumn 2016 sufficiency data and gives an overview of the additional childcare which would be needed based on the shortfall that there would be through the delivery of this development. This however does not include for any shortfalls by the additional funded hours for 3-4 year olds from September 2017.
- 3.9.2 All sites would require either specific additional EYCC provision on their own or combined if other developments in the Wards are taken forward (be it the other suggested sites or Preferred Sites in the draft New Local Plan).
- 3.9.3 In regard to Gardiners Lane South, in Fryerns Ward it is estimated that 59 places are to be created.
- 3.9.4 ECC continues to work with BBC to ensure EYCC needs are appropriate and adequately assessed as preparation of the new Local Plan continues.

Primary School Provision

3.9.5 ECC divides Basildon into four planning groups, namely Basildon East, Central & West, and a separate group for "Crays Hill". Gardiners Lane site does not fall into any of the groups, however it is just to the north of the Basildon Central planning group, close to no. 26 Whitmore Primary School.

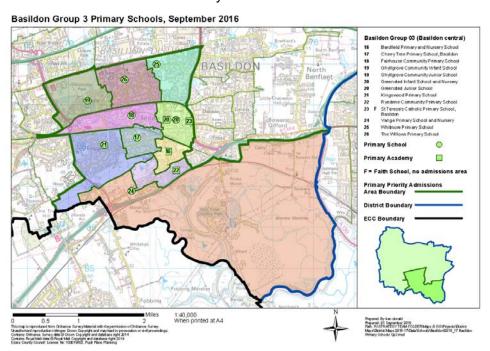


Figure 3-7: Basildon Group 3 Primary Schools

3.9.6 In their response to the Basildon Local Plan Public Consultation, ECC have outlined their approach to assessing education needs of the future Local Plan. The approach

- provides an overview of the potential theoretical capacity to expand, before new school provision is required if any development is proposed.
- 3.9.7 Appendix 1 Status of Theoretical Capacity for expansion within existing school sites (November 2016) concludes there is no expansion potential in Area 3 Central or Area 4 West (these two planning groups are going to be combined as ECC plan for school places across the two), and that additional primary school provision will be required if any housing is proposed within this area.
- 3.9.8 Further clarifications from ECC confirmed a 3FE primary school would be required on Gardiners Lane site, to cater for the future residents of the development, and any other shortfalls in the area.

Secondary School Provision

3.9.9 Planning for secondary school places is managed across all three towns, as there is a significant amount of pupil movement. Given the overall quantum of growth of at least 15,000 in the Plan and the level of cross flow of pupils, mainly out of Basildon to Billericay and Wickford, there will be a need to provide 2 new secondary schools in Basildon settlement area, with one likely to be located to the west of the town, and the other to the east of Basildon.

4. DEVELOPMENT CONSTRAINTS AND OPPORTUNITIES

4.1.1 The Gardiners Lane South site has the potential to contribute to strategic housing growth of in excess of 680 new homes as part of a sustainable proposal to support the Emerging Local Plan objectives. It will deliver mixed use regeneration proposals for residential and employment land uses including public open space supporting facilities.

There are some characteristics that have influenced the content of the HLDF and will need to be considered when considering future development.

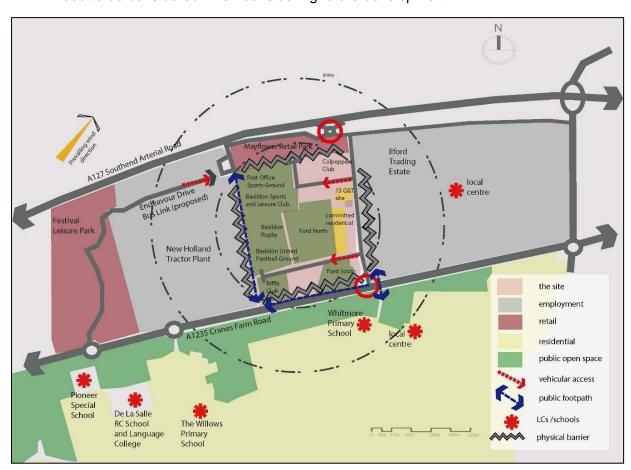


Figure 4-1: Gardiners Lane Opportunities and Constraints

Key Constraints

- Vehicular site access from narrow Gardiners Close and Gardiners Way
- Future traffic generation from new residential and employment
- The site "land locked" on three sides retail park on the north, New Holland Tractor Plant on the west, A1235 Cranes Farm Road on the south
- Surrounding employment uses compatibility with residential
- Existing sports pitches, floodlights at night /light pollution to residential
- Future development subject to relocation of (at least some) sports pitches
- Relocation of Basildon Rifle Club, as noisy and not compatible with proposed residential uses
- Rifle Club site likely to need decontamination and topographic remodelling

- Piecemeal approach, e.g. parts of the site getting redeveloped on its own
- Existing drainage ditches in need of upgrading
- Existing trees with TPOs
- Accommodating Gypsy & Travellers' site and existing residential
- Existing power substation
- Nearest local centre south of A1235; and in employment area to the east

Key Opportunities

- Regeneration of the area through comprehensive development
- Opportunities for provision of a range of housing options, including % of affordable homes (subject to viability appraisal) and "independent living" homes
- Retention of some of the sports pitches within the future open space allocation provide access to recreation and contribute to the future residents' well being
- Parts of site with mature landscaping including good buffer from adjacent roads or incompatible land uses
- Good connectivity to retail, employment, education and transport
- Opportunities to enhance existing public footpaths and other pedestrian and cycle links to Whitmore Park primary school and services; as well as to the west and north of the site
- New Endeavour Bus Link to enhance public transport connectivity
- Opportunities for incorporation of SuDs
- 4.1.2 Some of these constraints and opportunities are highlighted in Figure 4-1.

5. HIGH LEVEL DEVELOPMENT FRAMEWORK EVOLUTION

5.1 VISION

- 5.1.1 The Development Framework for the site has evolved following consultation with key stakeholder including BBC officers, ECC Education and Highways, and the stakeholders with key land interest.
- 5.1.2 The Development Framework shows the creation of a new neighbourhood for Basildon, integrated with the existing town and the environment that provides areas of employment and the new homes and open spaces, as detailed in H7.
- 5.1.3 The Development Framework has drawn on the constraints and opportunities identified and seeks to create a new residential neighbourhood with its own identity but linked into the urban fabric of Basildon as well as integrate the proposed employment uses within the A127 Enterprise Zone Corridor.

Gardiners Lane requires a deliverable and viable high level Development Framework to enable comprehensive development including new residential, new employment and new public open space, creating a layout with a 'sense of place' with high quality urban design and other requirements such as renewable energy generation, protection and enhancement of biodiversity, landscapes and flood and water management.

- 5.1.4 A development that delivers a sustainable and balanced community through the provision of a wide range of housing types and tenures including affordable homes that meet housing need and demand in the Borough; alongside a range of business and employment opportunities.
- 5.1.5 A development in which the remaining Gardiners Lane sports pitches acts as a focal point for both new and its current users and communities of Basildon, encompassing a wide range of facilities and activities from formal sports uses linking to informal open spaces within the development.
- 5.1.6 A development with the minimum impact on the environment which recognises the existing pressures on the natural environment, the need to conserve resources and includes strong links between the communities, biodiversity, heritage, and the natural features of the site and its surroundings.

5.2 DEVELOPMENT PRINCIPLES

5.2.1 A series of development principles to guide the proposals have been established for this site, based on the Emerging Local Plan policy requirements and master planning good practice guidance (including BfL12 by CABE, Active Design by Sports England, UD Compendium by HCA). They will also be used as a basis upon which to assess the development framework options, in addition to the viability testing.

Environment	Planning	Design	Infrastructure
Topography, climate and wind direction	14-18ha residential development (600 homes), a GT site, a local/sub local centre and community facilities	36ha of land west of Gardiners lane South will be developed into a high quality mixed use community	Deliver an appropriate and feasible network solution to serve both the new development and the existing community
Flooding and drainage	12-16ha for B-class employment development	Multifunctional open space network providing Activity for all	Flexibility and changeability
Framework sustainability including travelling to facilities	6-8ha for open space, including any sports pitches to remain, as well as amenity open space, biodiversity, landscaping and drainage	Compatibility between uses, community cohesion, colocation of community facilities	Ensure social infrastructure is there to support local community and its growth, e.g. early years provision, primary school, play areas, etc.
Landscape capacity able to accommodate the level of growth	The site should be delivered as a comprehensive scheme; however, it is appropriate to adopt a phased delivery programme	Set parameters to improve the quality of the built environment and make the area a secure and welcoming place	Traffic safety; high quality of streets and spaces
Other physical constraints - e.g. powerlines, land ownership	Plan for appropriate social infrastructure including local centres, primary school etc.	Connected walking and cycling routes and walkable communities	Distribution of services and utilities

Environment

- 5.2.2 Topography, climate and wind direction the development's visibility should be mitigated by careful siting of buildings and prominent roof forms and setting them away from Cranes Farm Road.
- 5.2.3 Flooding and drainage The site is shown to be entirely within Flood Zone 1, having a probability of flooding of less than 0.1% in any given year. The Sequential Test has therefore deemed to have been passed. A FRA will need to be prepared in accordance with the NPPF and local policies. This will describe flood risk from all sources as well as providing recommendations to manage flood risk. The FRA will also provide outline surface water drainage management strategies.
- 5.2.4 Framework sustainability including travelling to facilities New facilities should be placed at easy reach of residential development, e.g. 10 to 15-minute walk. Development will be required to comply with the highest standards of sustainable design and construction and the developers will be expected to complete a

- Sustainability Statement and meet the requirements of Strategic Policy CC1 by incorporating on site renewable energy equipment to reduce predicted C02 emissions.
- 5.2.5 Landscape capacity able to accommodate the level of growth A clear landscape (and green infrastructure) strategy is an important element of the Development Framework for this site and should be set out at early stages. A landscape assessments will be undertaken and will guide the site's detailed layout and design.
- 5.2.6 Other physical constraints e.g. powerlines, land ownership over the past decades the sports pitches have been an obstacle to comprehensive redevelopment and regeneration of the site. In addition, land ownership will need to be considered fully in regard to the phasing of the infrastructure and the subsequent development.

Planning

- 5.2.7 Policy H7 compliant Development Framework aims to deliver 14-18ha residential development (600 homes), a Gypsy and Traveller site, a local /sub local centre and community facilities.
- 5.2.8 Policy H7 compliant Development Framework aims to deliver 12-16ha for B-class employment development.
- 5.2.9 Allocate land to provide for specialist accommodation, including care homes, sheltered housing and travellers' pitches. Affordable housing should be indistinguishable from market housing in terms of design, and to be dispersed across the site. They should be designed to the Homes and Community Agency design and sustainability standards or their equivalent.
- 5.2.10 Gypsy and Traveller site allocation in the Emerging Local Plan should be part of the development a 15 pitch site was granted a planning permission on a site adjacent to the electrical substation. It should have easy access from the new Distributor Road, and be designed to have mature screening for the privacy and amenity of residents.
- *5.2.11 6-8ha for open space,* including any sports pitches to remain, as well as amenity open space, biodiversity, landscaping and drainage.
- 5.2.12 *Plan for appropriate social infrastructure* including local centres, primary school etc. to serve new and the existing development.

Design

- 5.2.13 36ha of land west of Gardiners Lane South will be developed into a high quality mixed use community care should be taken to design transition zones between employment and residential uses, and for the development to be permeable and well connected to the surrounding communities.
- 5.2.14 *Multifunctional open space network* providing Activity for all principles should be applied to the open space within the development, including any retained sports pitches and existing public footpaths.
- 5.2.15 Compatibility between uses, community cohesion, colocation of community facilities there must be good pedestrian and cycle links from the development into Whitmore local centre in order to support the aims of social cohesion. Landscape buffer should be provided between the new housing and existing and proposed employment uses.

- 5.2.16 Set parameters to improve the quality of the built environment and make the area a secure and welcoming place as the new residential development will be separated by a busy road from the nearest larger residential development linkages and routes within the development will be essential to the success of the scheme and are an important aspect of the Development Framework, as well as improvements to the pedestrian underpass and /or pedestrian crossing to adjacent areas.
- 5.2.17 Connected walking and cycling routes and walkable communities should be encouraged by linking existing open spaces with the new open spaces. The rights of way through and around the site should be retained and integrated into the housing development.

Infrastructure

- 5.2.18 Deliver an appropriate and feasible network solution to serve both the new development and the existing community by improvements to the existing highways infrastructure e.g. A127 /Gardiners Link junction, and incorporating new distributor road to serve the employment area and new residential area within the site.
- 5.2.19 At present, only one bus route serves the site. Bus no.94 operates on the route Basildon Wickford Woodham Ferrers.
- 5.2.20 *Flexibility and changeability* to cope with the increasing housing growth and demand for highways capacity over the Plan period to be planned for.
- 5.2.21 Ensure social infrastructure is there to support local community and its growth part of the requirement for the developers in providing homes at this site will be to contribute financially towards proposed education and community services in the area.
- 5.2.22 Traffic safety; high quality of streets and spaces There should also be good pedestrian and cycle ways into existing residential areas south of the A1235, as well as to the Mayflower retail park to the north and to Festival Leisure Park to the west.
- 5.2.23 Distribution of services and utilities Distribution of services and utilities The overall approach to the Development Framework utility infrastructure is to provide the capacity for future development in conjunction with BBC sustainability goals identified within BB Draft Local Plan.
- 5.2.24 Appropriate SuDS should be implemented within any new development where technically feasible. This will ensure that the drainage concept and design is considered at an early stage, allowing space to manage surface water, improve water quality and provide amenity space and enhance biodiversity value. Pre-application discussions with the Local Planning Authority, as well as Essex County Council as Lead Local Flood Authority, are recommended to establish an appropriate surface water drainage strategy and SuDS design for the site.

5.3 STAKEHOLDER ENGAGEMENT

- 5.3.1 Two stakeholder events, one with the external and one with the internal BBC and ECC stakeholders, were held in February 2017. At the workshops PF outlined the Policy objectives, constraints and opportunities for the site, as well as a preliminary set of development options were presented. Feedback from the workshops helped shape the final set of development options.
- 5.3.2 The presentation delivered at the events is included in the Appendices.

- 5.3.3 The external stakeholder workshop was attended by a family of local residents and representatives of the development company with an interest in parts of the site. The absence of the majority land owner HCA at the workshop was seen as a further stumbling block in agreeing the future steps in bringing the site forward.
- 5.3.4 The mixed use development framework options were well received, however the majority of the discussion took place on the principle of the development and its deliverability at Gardeners Lane South rather than any specific proposals. There was a sense of weariness given the site's long history including previously adopted statutory planning guidance but no proposals materialising.
- 5.3.5 The developers discussed whether a primary school should form part of the development, as well as questioned whether there was capacity to expand other nearby primary schools to accommodate additional school children the development on this site would generate. Concerns were also expressed over how the inclusion of a primary school would affect the viability of the scheme.
 - (Post workshop and post evaluation note: ECC have confirmed the local schools have no room to expand, and a 2FE would be required within the Gardiners Lane development. The new school should preferably be a 3FE, to include spare capacity to serve surrounding areas in addition to Gardiners Lane development.)
- 5.3.6 The internal stakeholder workshop was attended by BBC planning policy and regeneration officers and ECC Development Surveyor representing Independent Living housing.
- 5.3.7 ECC is working in partnership with district councils and leading specialist housing providers to deliver new Independent Living housing in Essex. This type of housing allows people over 55 with care needs to live in their own homes with the peace of mind in knowing there is 24 hour care and support on site. It was considered whether Gardiners Lane site would be suitable for this type of housing.

5.4 DEVELOPMENT FRAMEWORK OPTIONS

- 5.4.1 This chapter describes the Development Framework options considered for approximately 600 to 800 homes and 3.5 to 8.25ha employment B uses on the land at Gardiners Lane South, illustrated on the accompanying drawings.
- 5.4.2 The Framework has sought to identify the most appropriate locations for new homes and the employment areas. As a result the quantum of residential and employment varies at the three options presented herewith. The Framework addresses the different needs of the expanded communities whilst considering the different opportunities provided by them to meet the overall requirements of the Gardiners Lane South development and the Local Plan.

Table 5-1: Options summary

Option 1 (@49dph) 813 units	Option 2 (@50dph) 798 units	Option 3 (@53dph) 654 units
3.5ha B class employment 9% of the site	6.2ha B class employment 17% of the site	8.25ha B class employment 22% of the site
16.6ha residential inc. GT site 50% of the site	13.8ha residential 34% of the site	12.5ha residential 33% of the site
Local centre Primary school	Local centre	Local centre
12.25ha POS inc. sports pitches 33% of the site	12.7ha POS inc. sports pitches 34% of the site	12.9ha POS inc. sports pitches 35% of the site

Playing Pitch Relocation Study

- 5.4.3 Gardiners Lane South Playing Pitch Relocation Study was undertaken by RQA and BAQUS, and Draft Report (April, 2017) was provided to HLDF team.
- 5.4.4 The study was seeking to determine viable options for the relocation of sports clubs adjacent to potential housing development sites elsewhere in the Borough as identified by BBC (Land at Lower Dunton adjacent to Dunton Caravan Park, Land at Bowers Gifford), while retaining a suitable and integrated level of sport and recreation provision as part of the Gardiners Lane South future development.
- 5.4.5 The review was undertaken within the context and requirements of:
 - the Basildon Local Plan and Infrastructure Delivery Plan;
 - the requirements of the NPPF with regard to pitch re-provision (in consultation with Sports England and relevant National Governing Bodies (NGBs) of sport);
 - the Community Infrastructure Levy (CIL) Regulations 2010;
 - consultations with stakeholders as agreed with BBC, and reference where appropriate their sports development strategies for Essex;
 - Basildon Playing Pitch Strategy (2011) which is subject to review during 2017/18.
- 5.4.6 Consultations have been undertaken in previous years and again in early 2016 with the resident sports clubs at Gardiners Lane South to determine their views regarding their current activities and aspirations for the future; and similarly with regional representatives of relevant National Governing Bodies of Sport (NGBs).

- 5.4.7 RQA and BAQUS have made assessments and site analysis within the parameters of the study and information available; assessed existing provision and site arrangements and analysed the specified proposed urban settlement sites and their potential as sports pitch /club relocation sites.
- 5.4.8 The sports clubs included within this study currently utilise or manage, each independently, buildings and sports pitches at Gardiners Lane South. Consultations with club representatives in early 2016 identified how current arrangements developed historically.
- Although the re-provision requirement identified by the clubs is less than the current level of provision in some cases (Basildon Post Office Sports and Social Club, Basildon United Football Club, Ford Sport and Social Club), there is still a requirement to protect and re-provide this potential loss of grass pitches within Basildon. This is embraced within the Basildon's Draft Local Plan and IDP.
- 5.4.10 It was recommended this may be mitigated in part by the provision of floodlit 3G ATPs which will provide far more playing opportunity for matches and training, for juniors and adults, than grass pitches which may suffer from over use and /or weather cancellation.
- 5.4.11 There is the potential to provide opportunities for the merging of and/or the relocation of sports pitches and built support infra-structures at these sites, and subject the levels of housing development proposed.
- 5.4.12 It was suggested that pitch re-provision and new provision is developed and protected within a 'community sports hub' concept, with sustainable management arrangements in place, at each of the earlier mentioned sites.
- 5.4.13 This review and consultations with resident clubs enabled the consultants to arrive to a preferred option for relocation and re-provision of the facilities, taken as a constant in the three development framework options.
- 5.4.14 The recommended option for the Gardiners Lane South site is shown in Figure 5-1 with Basildon Rugby Football Club (BRFC) remaining in its current location, with a potential use of new floodlit 3G ATP at GLS for rugby training; Basildon Sports and Leisure Club (BSLC), (formerly Selex Sport and Leisure Club) remaining at GLS with enhanced provision and merging with Basildon Post Office Sports and Social Club for use of social club facilities, as well as merging and sharing facilities with Basildon United Football Club (BUFC) as they vacate the existing BUFC ground.
- 5.4.15 The recommended option for Ford Sports and Social Club (FSSC) is to relocate to the land adjoining the Dunton Caravan Site at Lower Dunton.

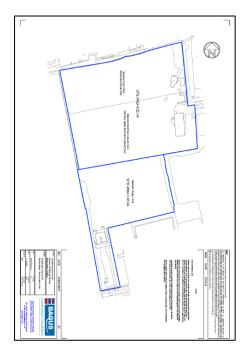


Figure 5-1: Sports Pitch Relocation Preferred Option for GL, RQA/BAQUS

Summary of minimum re-provision for sports dubs, without 3G ATP

	Sports facility	Current at GLS	Minimum re-provision in Basildon (without 3G)	Minimum GLS club re- provision requirement	Comments
	Rugby	2 senior	2 senior	2 (+junior/tag)	
	Grass Football				
	- seni <i>o</i> r	10	10	7	Reduced requirement by Ford
	- youth	2	2	-	Sports and Social Club
	Cricket squares	3	3	1	
	Bowlsgreen	1	1	1	Possible location identified (PB)
Г					
	Sports pavilions	5	4	4	NGB model approach
	Changing room block	5	3	3	NGB specifications/ratios

Summary of club facilities and suggested minimum relocation requirements, with 3G ATP

Sports Club	Football	Rugby	Cricket	Pavilion, social and changing	Suggested minimum future requirements	3G provision or access
Rugby Club		2 senior		1	2 senior + 1 junior Clubhouse, change, social, function	Yes – shared access p/o community sports hub.
BSLC (formerly Selex)	2 senior			1	4 senior +1 junior social/function Shared – all facilities	Yes – stadia grade for football and rugby p/o of community football/sports hub model.
BUFC	1 senior			1	Shared use of all facilities with BSLC	Yes – as BSLC above
BPOSSC (Post Office)	2			1	Shared dubhouse, change and social with BSLC	No
Ford -north -south site	5 2		3	1	Bowls (relocate) 5 senior football, 1 x cricket Clubhouse, change, social, function	Yes – p/o community sports hub model

Figure 5-2: Sports Pitch Relocation Provision Summary

Open Space Requirements

5.4.16 Public open space will need to be provided alongside new development to meet the requirements of Basildon Council PPG17 Table 3 Revised Quantitative Supply of Open Space. The thee options meet the total requirements for the open space, however the distribution reflects the earlier use, with the predominant category still being Outdoor Sports Facilities. Further detail of the quantum per option is in the Appendix B.

GL Development Framework Option 1

- 5.4.17 **Option 1** examined maximising residential components of the scheme with 50% of the site allocated to this land use, including a 2fe primary school.
- 5.4.18 Gypsy and Traveller site for 15 pitches forms part of this allocation in Option 1, sheltered by landscape buffers from the surrounding roads, electrical substation to the south and employment uses to the north.
- 5.4.19 The residential densities on site vary from the Pine Lodge scheme (under construction) at approx. 31 dwellings per hectare (dpha) and the adjacent plot at the same density, the majority of the central core at 65 dpha delivering a mixture of flats and terraced homes; and residential plots at the outskirts of the development at approx. 40 dpha delivering semi-detached and terraced homes. The average overall development density is just under 49 dpha.
- 5.4.20 ECC continues to work with BBC to ensure education needs are appropriate and adequately assesses as preparation of the new local Plan continues. Option 1 delivers 813 residential units, generating 244 Primary School child places, 73 Early Years places, and 163 Secondary School places. Whilst the secondary school places are accessed on cumulative higher level of development and EY provision can be accommodated within mixed use properties, it is of the ECC view that a 2fe school would probably support a development of around 800 homes. Therefore a primary school is included in Option 1, on the site of the former Rifle Club in the south west corner, with pedestrian and cycle access off the main pedestrian spine running diagonally across the site, and vehicular service access off Gardiners Close.

Further comment from ECC post HLDF options development: To cater for the future development and associated school places demand in the area, a 3fe primary school is preferred within the GLS site in all three considered options.

- 5.4.21 Existing retained playing fields maintain their vehicular access off Gardiners Close and Gardiners Way, and connect to the new network of pedestrian and cycle routes through the site connecting to the existing public footpaths to the east and to the west of the site.
- 5.4.22 The new community will be serviced by two existing local centres, both within an easy 10-15 minute walk in the employment area to the east and by Whitmore Park local centre to the south of Cranes Farm Road; in addition to the new local centre together with a primary school and supporting facilities proposed within the ground floors of mixed use properties in the core of Gardiners Lane South development.

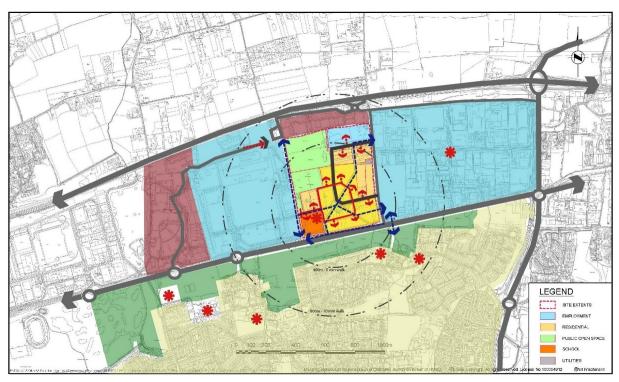


Figure 5-3: Option 1 GL HLDF showing distribution of proposed residential units

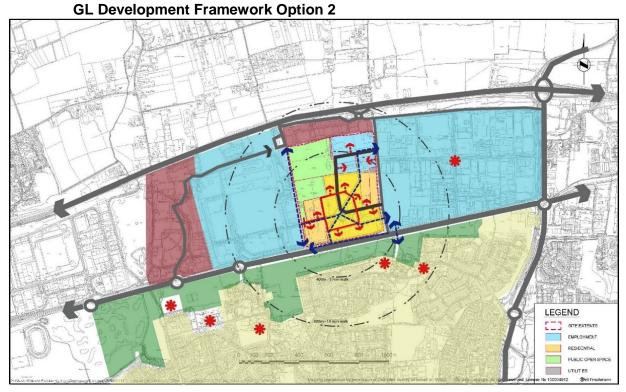


Figure 5-4: Option 2 GL HLDF showing distribution of proposed residential units

Option 2 lowered residential components of the scheme to 43% of the site, with no primary school.

Further comment from ECC post HLDF options development: To cater for the future development and associated school places demand in the area, a 3fe primary school is preferred within the GLS site in all three considered options.

- 5.4.24 This option assumed Gypsy and Traveller site would be relocated elsewhere.
- 5.4.25 Option 2 delivers 798 residential units, generating nearly the same number of school children to Option 1. This option however assumes that spare capacity to expand a nearby school (Whitmore Primary or The Willows Primary School) by 1fe would be available, and the developers would contribute towards the delivery of this social infrastructure cost.
- 5.4.26 The residential densities on site are akin to Option 1, and vary from the Pine Lodge scheme currently under construction at approx. 31 dpha, to the central core at 65 dpha. The average overall development density is just over 50 dpha.
- 5.4.27 Existing retained playing fields maintain their vehicular access off Gardiners Close and Gardiners Way, and connect to the new network of pedestrian and cycle routes through the site connecting to the existing public footpaths to the east and to the west of the site.
- 5.4.28 Like Option 1, the future community will be serviced by two existing local centres, in addition to the new local centre and supporting facilities within the core of Gardiners Lane South development.

GL Development Framework Option 3

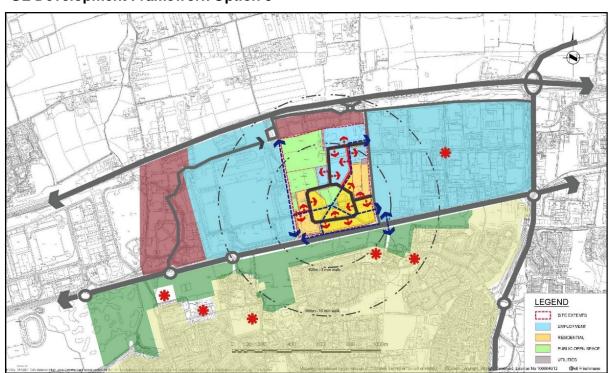


Figure 5-5: Option 3 GL HLDF showing distribution of proposed residential units

5.4.29 **Option 3** examines maximising employment components of the scheme with 22% of the site allocated to this land use, and the remaining 33% to residential use, and 35% to public open space including retained sports pitches.

- 5.4.30 This option, like Option 2, assumes Gypsy and Traveller site would be relocated elsewhere.
- 5.4.31 Option 3 delivers 8.25 ha of employment land, with a separate access "loop" road serving B uses off Gardiners Way.
- 5.4.32 Residential development is located in the south-eastern part of the site, with a separate vehicular access "loop" based around the part alignment of Gardiners Close, and a central public open space acting as a buffer from residential uses.
- 5.4.33 The residential densities on site are akin to Option 1 and 2, and vary from the Pine Lodge scheme currently under construction at approx. 31 dpha, to the central core at 65 dpha. This option generates 654 residential units, with the average overall development density just over 53 dpha.
- 5.4.34 This option, like Option 2, assumes that spare capacity to expand a nearby school (Whitmore Primary or The Willows Primary School) would be available; and the developers would contribute towards the delivery of this social infrastructure cost.

 Further comment from ECC post HLDF options development: To cater for the future development and associated school places demand in the area, a 3fe primary school is preferred within the GLS site in all three considered options
- 5.4.35 Existing retained playing fields maintain their vehicular access off Gardiners Close and Gardiners Way, and connect to the new network of pedestrian and cycle routes through the site connecting to the existing public footpaths to the east and to the west of the site.
- 5.4.36 Like Option 1, the new community will be serviced by two existing local centres, in addition to the new local centre and supporting facilities within the core of Gardiners Lane South development.
- 5.4.37 In all three options Low Density (30-40 dwellings per hectare) was assumed for the residential currently delivered on site and the land locked adjacent plot, as well as for the peripheral plots; consisting of 2/3/4 bed semi-detached housing and short terraces of housing with gardens and in-curtilage parking (upper end of suburban density).
- 5.4.38 In all three options Medium Density (65 dwellings per hectare) was assumed for the development core, consisting of 2/3/4 bed terraces, courtyard and mews houses (equivalent to typical Victorian terrace).

5.5 HIGH LEVEL DEVELOPMENT FRAMEWORK EVALUATION

- 5.5.1 The three final options were evaluated in how well they meet the objectives set. A summary is shown on the following page.
- 5.5.2 Whilst Option 1 performs slightly better in the evaluation (as the primary school within the site renders it more sustainable development), a separate viability appraisal will inform the final decision on the recommendation for the Local Plan allocation.

Environment	Topography, climate and wind direction Flooding and drainage Framework sustainability including travelling to facilities	✓ ✓	✓	✓	The site is predominantly level, currently used by various Sports and leisure clul and therefore comprises areas of maintained grass football and rugby pitches,
Environment	Framework sustainability including travelling to	✓			separated in part by mature trees. A number of low rise buildings including sports clubhouses and social clubs, and private residences.
-			√	✓	The site has not been identified to be at an increased risk of surface water flooding within the Environment Agency's FMfSW. The site is located within a wider Critical Drainage Area (CDA), BAS14.
-		✓	✓	✓	Access to facilities to be improved by the proposed Endeavour Drive bus link (and cycle lane); in addition to the existing bus route 94.
	Landscape capacity able to accommodate the level of growth	H	ħ	4	A number of trees are present, some of which are protected through Tree Preservation Orders (TPOs). Ecology survey currently undertaken by Land Us Consultants to confirm. Detailed master plan to consider.
1	Other physical constraints - e.g. powerlines, land ownership	þ	H	þ	Major utilities along the existing roads Gardiners Close and Gardiners Way. HCA owns the freehold of the majority land totalling 21.2 hectares. The remainder of the site comprises privately owned residential properties and freehold by the Royal Mail Sports and Social Club.
	14-18ha residential development (600 homes), a GT site, a local/sub local centre and community facilities;	✓	✓	þ	Option 1 delivers 812 homes on 16.61ha, Option 2 798 homes on 15.95ha, ar Option 3 654 homes on 12.34ha of land. Option 1 includes a GT site.
	12-16ha for B-class employment development	þ	æ	æ	Option 1 delivers 3.5ha of employment land, Option 2 6.17ha, and Option 3 comes closest to the policy brief with 8.25ha of employment land.
ī	6-8ha for open space, including any sports pitches to remain, as well as amenity open space, biodiversity, landscaping and drainage	✓	✓	✓	All three options retain approx. 10ha of playing fields, as agreed with Sports England by a separate study. In addition, further public open space varies from 2.25ha (Option 1) to 2.70 and 2.90 (Option 2 and 3).
-	The site should be delivered as a comprehensive scheme, however it is appropriate to adopt a phased delivery programme	þ	þ	Þ	They key to unlock the site appears to be the sports pitches relocation. The current work by BBC on this seems to be moving forward. Detailed master pl including a phasing strategy should avoid any further piecemeal development.
	Plan for appropriate social infrastructure including local centres, primary school etc.	✓	þ	Þ	Residential development within Option 1 is likely to trigger a requirement for a new 1FE school and this is included in the proposals. Options 2 and 3 assur 1FE expansion of Whitmore Primary Schools is feasible.
	36ha of land west of Gardiners lane South will be developed into a high quality mixed use community	✓	✓	✓	All three options provide a mixed use framework with different levels of employment (from 9% to 22% of the site) and residential (from 50% to 33% o site). Safe pedestrian and cycle routes are provided to local centres and nea retail.
	Multifunctional open space network providing Activity for all	✓	✓	✓	Approximately 35% of the site is allocated to public open space and the sport pitches. The open space accommodates multifunctional open space network facilitating a range of uses, including nearly 10ha of the existing playing fields.
	Compatibility between uses, community cohesion, colocation of community facilities	✓	þ	✓	Access road acts as a buffer between employment and residential uses in Op 1. Access road and public open space serve this purpose in Option 3. Care should be taken of the B uses typology, and only those compatible with residential uses should be placed adjacent to residential plots.
	Set parameters to improve the quality of the built environment and make the area a secure and welcoming place	þ	þ	Þ	Gardiners Lane South is envisaged as a walkable neighbourhood, with a new local centre set around the central public open space and where community facilities are provided within active frontages (ground floors of mixed use residential buildings, and a new primary school in Option 1.
	Connected walking and cycling routes and walkable communities	✓	✓	✓	All three options ensure the walking and cycling routes connect to the existing footpaths and open space networks, as well as to sustainable transport router providing access to schools, shops and community facilities, with development density compatible with the surroundings.
	Deliver an appropriate and feasible network solution to serve both the new development and the existing community	þ	þ	þ	Access from A127 and A1235 will be vital to facilitate the comprehensive development of Gardiners Lane South. No improvements currently proposed the A127 /G. Lane junction. Junction arrangements of G. Link /G. Ln /C. Marti Rd will need to be reviewed as part of the detailed mp work.
ture	Flexibility and changeability	þ	✓	✓	Option 1 includes a primary school to serve the proposed community. All thre options include the retention of Selex Club sports pitches (with Post Office lar and of the rugby pitch; limiting the flexibility of the proposals. Neighbouring us limit any adoptability in the future plots change of use.
	Ensure social infrastructure is there to support local community and its growth	✓	þ	þ	A new local centre and a primary school provided in Option 1. Options 2 and assume there is spare capacity or land to expand within the existing primary schools. Basic facilities are provided within ground floors /active frontages in new community local centre.
	Traffic safety; high quality of streets and spaces	þ	þ	✓	Options provide safe access to both employment and residential elements of development. Emergency access possible to A1235 from the residential are Option 3 provides separate 'loop' roads for residential and for employment us
	Distribution of services and utilities	✓	✓	✓	Area appears well served by major utilities, currently running along the existin roads. Opportunities for renewable heat and power generation, photovoltaics and sustainable construction methods.
√	meets the guiding principle /policy objective	12	10	11	

Figure 5-6: Options Evaluation

6. PREFERRED HIGH LEVEL DEVELOPMENT FRAMEWORK

6.1 FRAMEWORK CONCEPT

- 6.1.1 It is proposed that the Local Plan allocates the land in this area in accordance with the Preferred Development Framework, which identifies the locations for new housing and their relationship with other uses. The Framework does not include detailed guidance on the design of the new homes or provide layouts of the housing areas. This is because the finer level of detail with regard to principles of design, layout and appearance would be determined at the planning application stage.
- 6.1.2 The recommended Development Framework concept for Gardiners Lane is based on the Option 1 presented earlier, with adjustments made following further feedback from BBC and ECC officers, including:
 - A 3FE primary school to be accommodated on site, in order to serve the Gardiners Lane, as well as other future nearby development;
 - Primary school required to be set back from major highways, e.g. from A1235 Cranes Farm Road;
 - The Framework to remain flexible, so the proportion of residential to employment land can be adjusted at a later date, as further Evidence Base becomes available:
 - Development Framework to accommodate Gypsy & Traveller site.
- 6.1.3 Therefore HLDF for Gardiners Lane considered one flexible concept, where within the proposed development plots three different levels of residential and employment land can be accommodated, with the local centre centrally situated at the heart of the development.



residential employment

Figure 6-1: Gardiners Lane High Level Development Framework Concept Options

- 6.1.4 As in the HLDF options, Low Density (30-40 dw/ha) was assumed for the existing residential and the adjacent land locked plot; and Medium Density or Higher Density Low Rise (65 dw/ha) for the development core residential, consisting of 2/3/4 bed terraces, courtyard and mews houses.
- 6.1.5 Higher Density Low Rise developments can help create more viable neighbourhoods capable of supporting local services, and this range is considered appropriate for the Gardiners Lane South sustainable urban location with its present surrounding build form context. In many urban situations, higher density low rise buildings (of about 3-4 storeys) in general provide the optimum form that maximises density whilst minimising perceived intensity or overcrowding by providing private open space and shared open space. A selection of examples of recent successful residential developments at densities ranging from 32 dw/ha to 103 dw/ha are shown in Appendix D.
- 6.1.6 PBA Gypsy and Traveller and Travelling Showpeople Site Assessment Study (August 2017) concluded that the sites EX703868 and EX20330 (Figure 6-2) were suitable for accommodating 15 and 2 gypsy and traveller pitches.
- 6.1.7 Based on the above concept and the outputs of the PBA Gypsy and Traveller and Travelling Showpeople Site Assessment Study, two framework options were taken forward for the PBA viability assessment Option A, with 15 G&T pitches on EX20330, and Option B, with 2 G&T pitches.

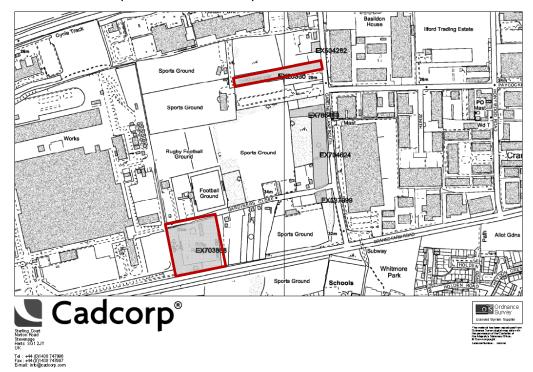


Figure 6-2: Gardiners Lane Gypsy and Traveller Site Assessment Study Options

6.1.8 The viability assessment results indicate marginal and viable for Gardiner's Lane South Option A and Option B. In addition, on the Option B, G&T allocated site has a 'live' planning application for residential development, suggesting some uncertainty regarding the delivery of this option.

6.1.9 Consequently, the Gardiners Lane Preferred HLDF includes both of these options, showing G&T provision on the rifle club site, and one that shows G&T provision on the smaller site for two pitches only in the northern part of the site.

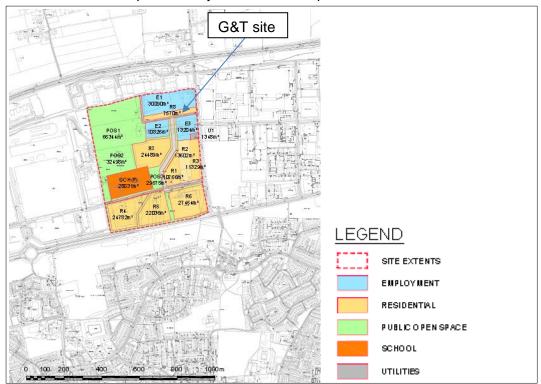


Figure 6-3: Gardiners Lane Preferred HLDF Option A including G&T site

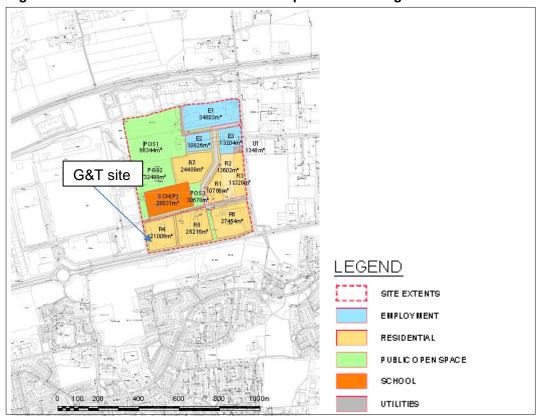


Figure 6-4: Gardiners Lane Preferred HLDF Option B including G&T site

6.1.10 The options generate 792 and 669 dwellings, and 5.41ha and 5.88ha of employment land respectfully.

Cordinaralana	sam	ros units
Gardiners Lane	sqm	res. units
E1 (D2 (D0)	Final O	puon A
E1 (B2/B8)	30,090	
E2	10,826	
E3	13,204	
F	F 44	
Employment subtotal (Ha)	5.41	70
R1 (@65 d/ha)	10,766	70
R2 - construction on site @31dw/ha	13,602	43
R3 (@31 d/ha) - access from R3	11,329	35
R4 (@65 d/ha)	24,782	161
R5 (@65 d/ha)	22,036	143
R6 (@65 d/ha)	27,454	178
R7 (@65 d/ha)	24,489	159
R8 / Gypsy & Traveller site	7,570	2
Residential subtotal (Ha)	14.20	
Residential units		792
EY Child Yield**		71
Primary School Child Yield**		238
Sec. School Child Yield**		158
3FE Primary School (630 places)	2.80	
Utilities (Ha)	0.13	
Roads (Ha)	1.95	
POS1 - B SS Club, PO, Football	66,344	
POS2 - B Rugby Club	32,498	
POS3	29,675	
Public Open Space subt (Ha)	12.85	
Total site area (Ha)	37.35	
average density dw/ha		55.78
**EY 0.09 ch/100 dw; Primary Sch 0.3 ch/100 d	dw; Sec. Sch 0.	2 ch/100 dw
(1FE = 210 pl.; 1 1/2 FE = 315 pl.; 2FE = 4		
Open space standards		
Urban parks and gardens	3.60	
Natural and semi natural space	5.19	
Amenity green space	2.63	
Outdoor sports facilities	3.13	
POS total required for GL	14.56	ha
POS deficiency(-) /surplus	-1.70	
Open space standards	ha per 1,000	
Urban parks and gardens	1.82	population
Natural and semi natural space	2.62	
Amenity green space	1.33	
Outdoor sports facilities	1.58	
Allotments and community gardens	n/a	
Cemeteries and churchyards	n/a	
Figure 6 F. Condinate Lan	- Duefeu	

Gardiners Lane	sqm	res. units
Gardiners Larie		ption B
E1 (B2/B8)	34,803	
E2	10,826	
E3	13,204	
	10,201	
Employment subtotal (Ha)	5.88	
R1 (@65 d/ha)	10,766	70
R2 - construction on site @31dw/ha	13,602	43
R3 (@31 d/ha) - access from R3	11,329	35
R4 / Gypsy & Trav eller site	21,006	13
R5 (@65 d/ha)	26,216	170
R6 (@65 d/ha)	27,454	178
R7 (@65 d/ha)	24,489	159
Residential subtotal (Ha)	13.49	
Residential units		669
EY Child Yield**		60
Primary School Child Yield**		201
Sec. School Child Yield**		134
3FE Primary School (630 places)	2.80	
Utilities (Ha)	0.13	
Roads (Ha)	2.09	
POS1 - B SS Club, PO, Football	66,344	
POS2 - B Rugby Club	32,498	
POS3	30,678	
Public Open Space subt (Ha)	12.95	
Total site area (Ha)	37.35	
average density dw/ha		49.58
**EY 0.09 ch/100 dw; Primary Sch 0.3 ch/100	dw: Sec. Sch 0	
(1FE = 210 pl.; 1 1/2 FE = 315 pl.; 2FE =		
		,
Open space standards		
Urban parks and gardens	3.04	
Natural and semi natural space	4.38	
Amenity green space	2.22	
Outdoor sports facilities	2.64	
POS total required for GL	12.29	ha
POS deficiency(-) /surplus	0.67	ha
Open space standards	ha per 1,000	
Urban parks and gardens	1.82	
Natural and semi natural space	2.62	
Amenity green space	1.33	
Outdoor sports facilities	1.58	
Allotments and community gardens	n/a	
Cemeteries and churchyards	n/a	

Figure 6-5: Gardiners Lane Preferred HLDF Option A and Option B Land Use Budget

6.2 EDUCATION PROVISION LOCATION

- 6.2.1 In order to satisfy the needs of the future development in the area, the framework proposes a new 3FE primary school in the south west part of the site, north of Gardiners Close, adjacent to the retained sports pitches.
- 6.2.2 Whilst the framework education provision proposals meet the fundamental principles of being central to the population it is intended to serve, and well connected to the future walking and cycling routes; it should be noted the location shown on HLDF is indicative only. Further detail will need to be developed with the LA and ECC at the master plan /planning application stage, and the proposed education provision location will need to be in full compliance with ECC Developers Guide to Contributions (revised Edition 2016) before the location is confirmed.

6.3 PREFERRED HLDF TRAFFIC IMPACT

- 6.3.1 A multi-modal trip generation exercise has been carried out based on the TRICS trip dates and the 2011 Census Data for Central Basildon.
- 6.3.2 The preferred framework Option A /Option B is developed from modified Option 1, and vehicular trips and public transport trips the development generates are akin to those shown for Option 1 in the Appendix C.

Table 6-1: Preferred HLDF - Vehicular Trips Generation

	Plot	FAR/ hous					Vehic	ular trip ge	eneration			
	Area	ing	Units		AM			PM			Daily	
	(sq.m.)	dens ity		Arr	Depart	Total	Arr	Depart	Total	Arr	Depart	Total
Employment												
B1 - Business Park	24,030	1.00	24,030	416	78	458	1,537	1,500	3,037	1,537	1,500	3,037
B2 - Industrial Park	15,045	1.00	15,045.0	142	78	230	44	120	157	1,096	1,055	2,151
B8 - Warehousing	15,045	0.50	7,523.0	13	7	20	6	5	11	30	32	62
Sub-Total	54,120		46,598	571	163	708	1,587	1,625	3,205	2,663	2,587	5,250
Residential												
Mixed Housing	142,028	~56	792	168	369	560	350	261	583	2,171	2,256	4,421
Education												
School	28,031		630	184	156	350	48	36	89	544	544	1,089
TOTAL	224,179			923	688	1,618	1,985	1,922	3,877	5,378	5,387	10,760

Table 6-2: Preferred HLDF – Public Transport Trips Generation

		Train			Bus			Bicycle	
	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
	Total	Total							
Employment									
B1 - Business Park	12	53	53	-	59	59	1	52	52
B2 - Industrial									
Park	4	3	24	-	4	26	-	3	23
B8 - Warehousing	-	-	1	-	-	1	-	-	1
Sub-Total	16	56	78	-	63	86	1	55	76
Residential									
Mixed Housing	40	67	492	3	7	52	9	22	157
Education									
School									
TOTAL	56	123	570	3	70	138	10	77	233

Mitigation

- 6.3.3 It is clear that improvement to the transport infrastructure is needed to accommodate the development, among others:
 - Capacity improvements associated with junction on the A127
 - Local traffic on Gardiners Lane South
 - Improved junction of Gardiners Lane South with A1235
 - Emergency access to A1235 from the south west corner of development
 - HGV traffic confined to the north-east part of the site
 - Residential and school traffic preferably uses southern site access
 - Public transport improvements
 - Endeavour Drive bus link (consented)

Highway Improvements Cost Estimate

- 6.3.4 The cost assessment has been based on a high level highways design prepared without the benefit of (i) topographical surveys and (ii) traffic models, using our best engineering judgement
- 6.3.5 Costs have been based upon recent tendered construction rates, SPONS, and benchmarks.

The cost estimate includes for items such as

- · Traffic Management;
- · Preliminaries, overheads;
- Optimism bias (in accordance with Government guidelines);
- Design Fees.

Table 5-3 Gardiners Lane Cost Estimate

Highway Improvement /mitigation	Cost(£m)
A127 Junction Improvement	£ 3m
Gardiners Lane /A1235 junction improvement	£ 1.5m
Associated junction improvements	£ 1m

7. DELIVERY

7.1 DEVELOPMENT DELIVERY

- 7.1.1 This High Level Development Framework will be used as an allocation within the Local Plan and a framework to help guide future development on the site. It elaborates on the requirements set out in the Emerging Local Plan for Basildon Borough.
- 7.1.2 Through continuing discussions with ECC Education the new school will be sited to integrate fully with local facilities and to link effectively into the development's network of public open spaces, public transport network and to maximise connectivity with the local centres. The indicative location of the school has also been influenced by the location of existing schools in the area and sustainable walking distances from the proposed development.
- 7.1.3 Further detail regarding the school site will need to be developed with the LA and ECC at the master plan /planning application stage, and the proposed education provision location will need to be in full compliance with ECC Developers Guide to Contributions (revised Edition 2016) before the location is confirmed.

7.2 PHASING

- 7.2.1 The primary access for both the development and construction traffic will be from Gardiners Lane South. The sequence of development phasing will be dependent on the outcome of the current Sports Pitch Relocation Study and the timeline of the pitches' relocation delivery. It is assumed that the vehicular circulation will be put in place first so the development can commence at the land to the south first, followed by the land to the north.
- 7.2.2 It is possible that development of the employment area and residential areas could run concurrently with associated transport improvements in particular highway mitigation measures being constructed prior to agreed trigger levels, possibly tied to trip rates or number of residential units.
- 7.2.3 Details of proposed phasing will be determined as part of the planning application. The Council will require that when a planning application or planning applications are brought forward for the allocation they demonstrate compliance with this Development Framework and a comprehensive approach to the development of the allocation, including the nature and timing of delivery of community infrastructure and other planning obligations.

7.3 PLANNING OBLIGATIONS

- 7.3.1 There are no known or identified abnormal development costs which will undermine the ability of this site to pay appropriate contributions towards infrastructure either through Community Infrastructure Levy (CIL) or Section 106, or a combination of both. The costs of providing a new grade separated junction on A127 have been included in the costs provided for viability assessment of the site by PBA, and to inform the development of CIL. The main items identified to be funded as a result of the impact of the proposed development from either a Section 106 agreement or CIL include:
 - Affordable housing provision will be in accordance with the Council's policy on affordable housing. The individual composition of the tenure will be determined at the time of the application;
 - A127 /Gardiners Lane South Precise configuration to be determined following advice from the Highway Authority at the planning application stage;
 - Other local junction improvements as advised by the Highway Authority;
 - Contributions towards sustainable transport as advised by the Public Transport unit at the County Council;
 - Education contributions for a new local primary school provision and other educational needs:
 - Healthcare contributions for local services as advised by NHS Essex;
 - Social and community infrastructure contributions including the provision
 of a Locally Equipped Play Area (LEAP) on the site and contributions
 toward other facilities where a need is identified, e.g. consolidation of
 playing pitches on western side of Gardiners Lane South.

7.4 NEXT STEPS AND RECOMMENDATIONS

- 7.4.1 The focus of this study is a development framework that brings the key findings of the evidence together, meets the policy requirements specified in the Draft Local Plan and explore how this strategic site could evolve into a new community through coordinated delivery and phased release for development.
- 7.4.2 The above requirements underpin all the presented development options, with the Option 1 as the preferred framework in the evaluation detailed in 5.4.
- 7.4.3 In the short to medium term, the Council will need to continue to pursue this site as a housing allocation through the Local Plan process. More specifically this will involve:
 - Viability Appraisal of the preferred framework;
 - Firm confirmation of the sports pitches relocation;
 - Confirming recommended option by the Council;
 - Making relevant Local Plan submission to the Government;
 - Participating in the Examination of the Local Plan.
- 7.4.4 Stakeholder engagement with the land owners and promoters of individual land parcels have provided a starting point for further work that will be required to consider how the site is brought forward and ultimately developed. In the short to medium term it is recommended that:
 - Responses and interest shown through the stakeholder engagement exercise are followed up on as part of a process of exploring future delivery and development options, such as collaboration with a development partner or partners.
- 7.4.5 The preferred option is a high-level development framework, geared to demonstrating the vision, concept and deliverability for the Draft Local Plan allocations. Future stages of work will require further design and layout work, including:
 - Undertaking a public consultation exercise on the proposals for the site, and using the ideas, feedback and local knowledge of the existing community to further develop and refine the proposals.
 - Developing either a more detailed master plan or a design code for the preferred option which covers the whole site, with phasing considerations and more specific master plans prepared for each development parcel - to support future individual planning applications.
- 7.4.6 In summary, it is considered that the Gardiners Lane South provides a key opportunity for the Council and the land owners, to create a community that provides a great place to live or work, and that helps to meet the needs of the wider community, fulfilling the aspirations of the Local Plan in respect of housing delivery and employment land.

8. SUPPORTING DOCUMENTS

- 8.1.1 8.1 The following background documents have helped with the preparation of the High Level Development Framework:
 - Basildon Infrastructure Delivery Plan, Dec 2015
 - Greater Essex Growth and Infrastructure Framework 2016-2036
 - Basildon Borough Council Draft Local Plan, Jan 2016
 - Basildon Outline Landscape Appraisals of Potential Strategic Development Sites, The Landscape Partnership, Jan 2016
 - Basildon Borough Council Ecology Surveys, Jan 2016
 - Basildon Draft Outline Landscape Appraisals of Additional Sites, Dec 2016
 - Basildon Borough Council Ecology Surveys, Additional Sites, Dec 2016
 - Basildon Council Landscape Study and Landscape Character Assessment, Dec 2014
 - Basildon Council Green Belt Review, Dec 2015
 - Basildon Council Plotlands Study, Dec 2015
 - Basildon Council Urban Design Review, Dec 2015
 - Basildon Council Historic Environment Characterisation Report
 - Basildon Council HELAA Review, Nov 2015
 - Basildon Council GT Sites Provision Study, PBA, Aug 2015
 - Basildon Council Settlement Hierarchy Review, Aug 2015
 - Flood Risk Sequential Test for Draft Local Plan, Dec 2015
 - Basildon Borough Council SFRA Level 1 and Level 2, 2011
 - South Essex Surface Water Management Plan, Apr 2012
 - Basildon Transport Topic Paper, 2016
 - Basildon Borough Local Plan Highway Impact Assessment, Jan 2014
 - Basildon Borough Local Plan Highway Mitigation Modelling 2015
 - Basildon Borough Council Planning Obligations Strategy, Jul 2015
 - Essex Design Guide, edition Oct 2005
 - Building for Life 12, Design Council, 2015
 - Active Design, Sports England, Oct 2015
 - Various land promoters' representations.

Appendix A – Stakeholder Presentation





Pell Frischmann

The Team

Pell Frischmann

master planners, environmental, transport and engineering disciplines;

working closely with

Basildon Borough Council and

Essex County Council

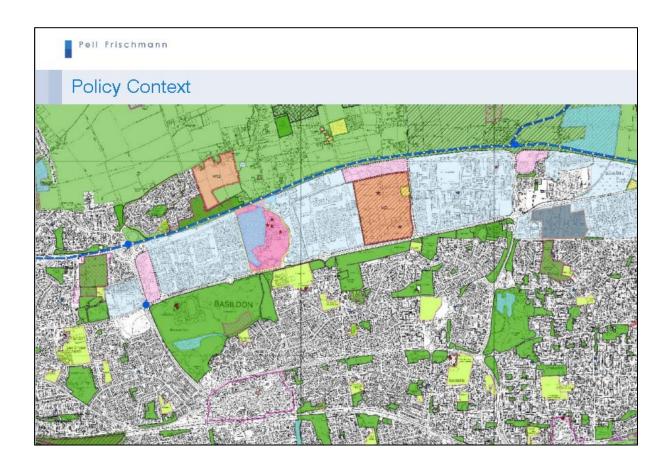
on this project

Other consultants

Not directly on this project, however others working on related elements, e.g. sports pitch relocation, site viability, site ecology, etc.

Stakeholders

Land owners, land promoters, interest holders



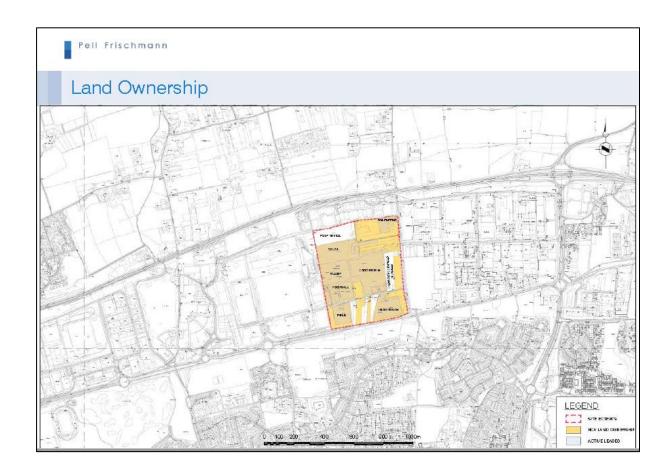
Deliverable and Viable Development Framework

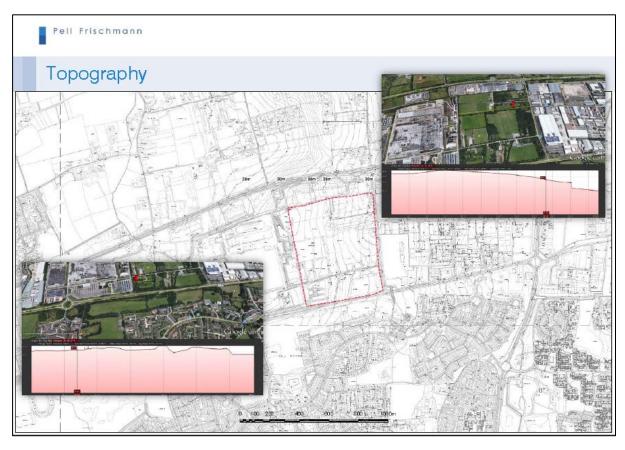
- Feed into the local plan process to bring forward the site as an
 allocation for mixed use with much needed employment uses, as well
 as residential to improve viability of the site and to assist in funding
 the necessary infrastructure and site preparation;
- Re-establish the Gardiners Lane site as a focal point for local community;
- Prepare a framework to create a modern and unique location, attractive to new businesses and new residents;
- Set parameters to improve the quality of the built environment and make the area a secure and welcoming place;
- well planned, consolidated provision of remaining sports pitches;
- Work with the highways authorities to seek to realise improvements to the local road network and to deliver an appropriate network solution to serve both the new development and the surrounding community;
- Involve site stakeholders in the process of regeneration.

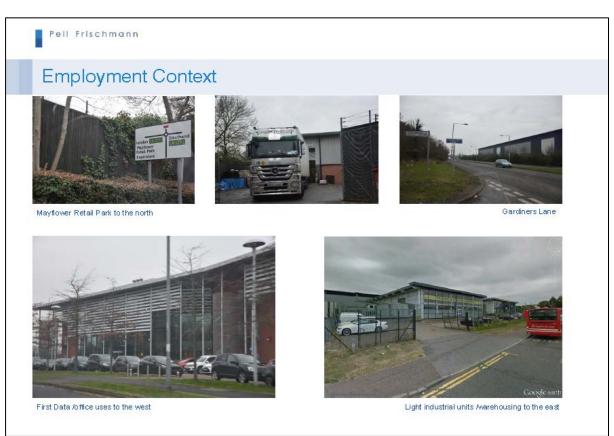
Principles of Active Design (Sport England, 2015)

- Activity for all
- Walkable communities
- Connected walking & cycling routes
- Co-location of community facilities
- Network of multifunctional open space
- High quality streets and
 snaces
- Appropriate infrastructure



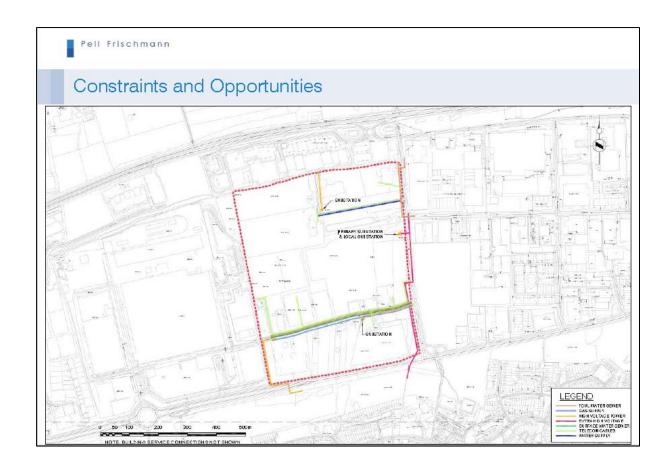


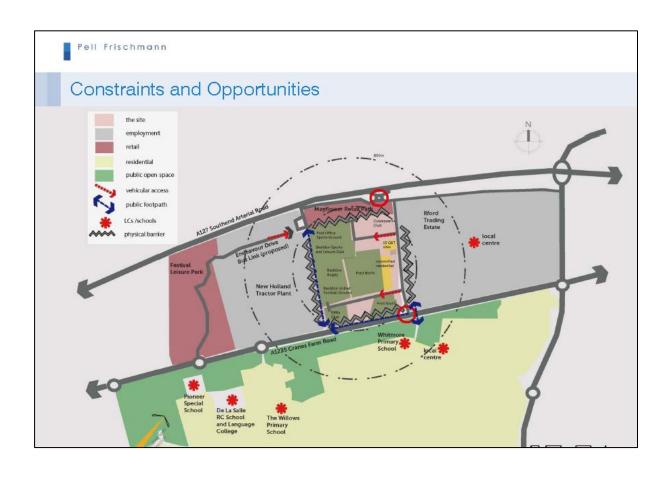


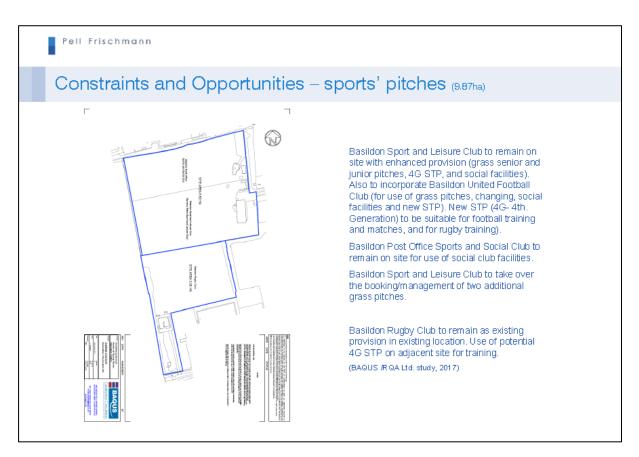


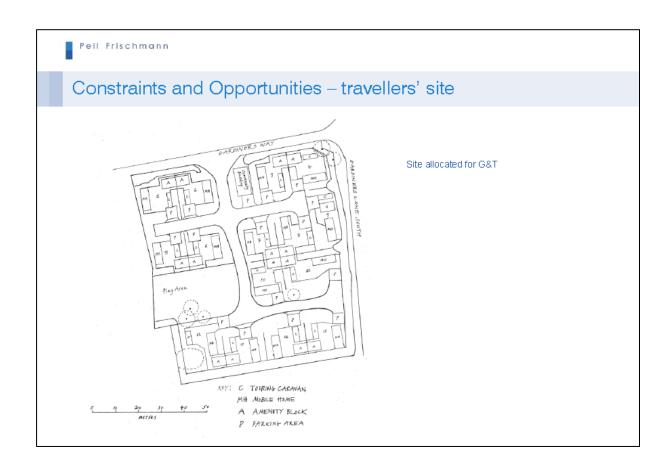


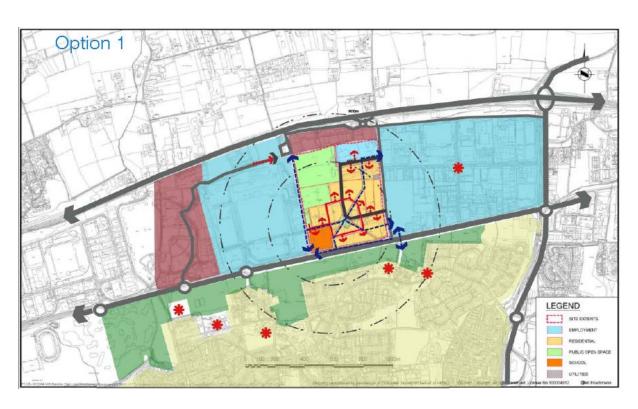


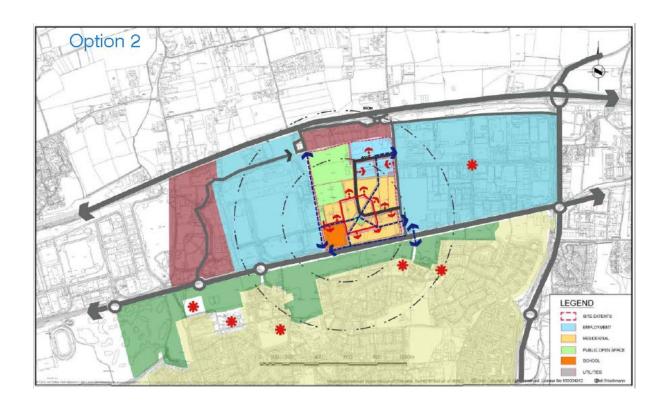


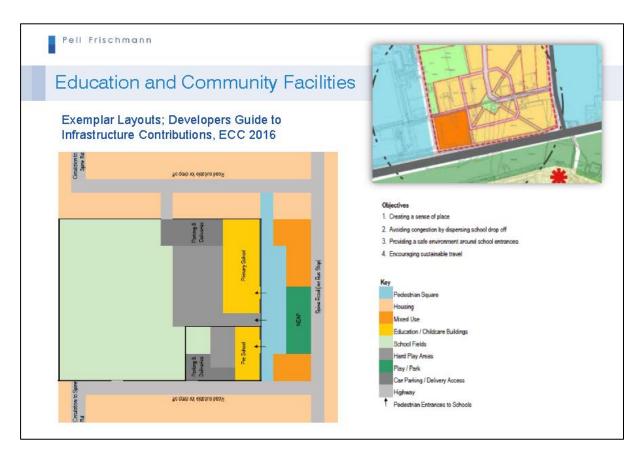












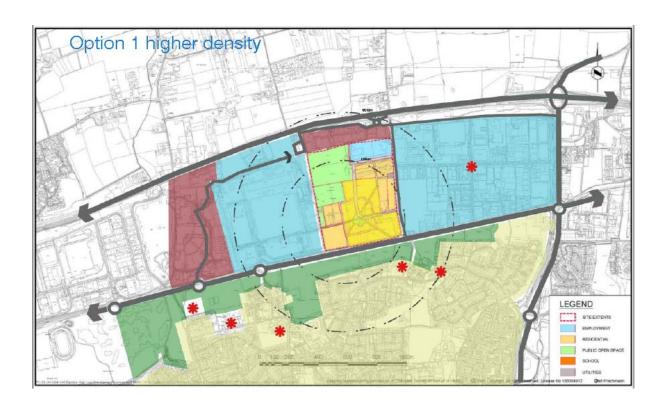


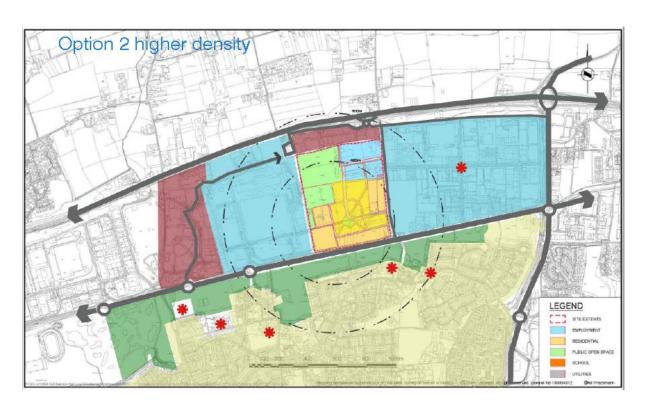
Development Options

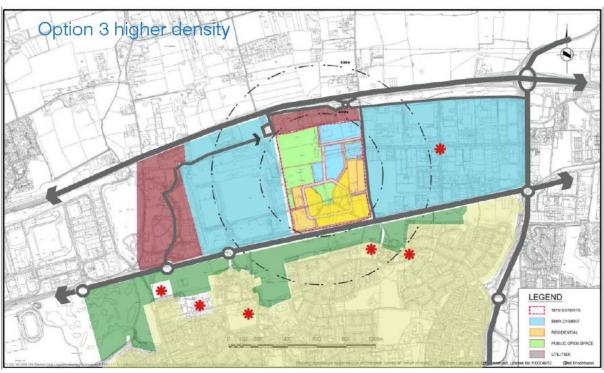
H7 – proposals for 14 -16ha residential inc. GT site, a local /sub local centre, 12 -16ha of employment land and 6-8ha of open space;

Option 1 (@33dph) 560 units	Option 2 (@40dph) 555 units	Option 3 (@38dph) 472 units
3.5ha B class employment	6.2ha B class employment	8.25ha B class employment
16.6ha residential inc. GT site	13.8ha residential	12.5ha residential
Local centre inc. primary school	Local centre inc. primary school	Local centre
12.25ha open space inc. sports	12.7ha open space inc. sports	12.9ha open space including
pitches	pitches	some sports pitches

however when it comes to Density, there is no "one size fits all" – mix of densities creates different characters







Development Options

H7 – proposals for 14 -16ha residential inc. GT site, a local /sub local centre, 12 -16ha of employment land and 6-8ha of open space;

Option 1 (@34dph) 560 units	Option 2 (@38dph) 532 units	Option 3 (@38dph) 472 units
3.5ha B class employment	6.2ha B class employment	8.25ha B class employment
16.6ha residential inc. GT site	13.8ha residential	12.5ha residential
Local centre inc. primary school	Local centre inc. primary school	Local centre
12.25ha open space inc. sports	12.7ha open space inc. sports	12.9ha open space including
pitches	pitches	some sports pitches

Option 1a(@48dph) 897 units	Option 2a(@50dph) 798 units	Option 3a(@53dph) 654 units
3.5ha B class employment	6.2ha B class employment	8.25ha B class employment
18.7ha residential inc. GT site	15.95ha residential	12.34ha residential
Local centre	Local centre	Local centre
12.25ha open space inc. sports	12.7ha open space inc. sports	12.9ha open space including
pitches	pitches	sports pitches

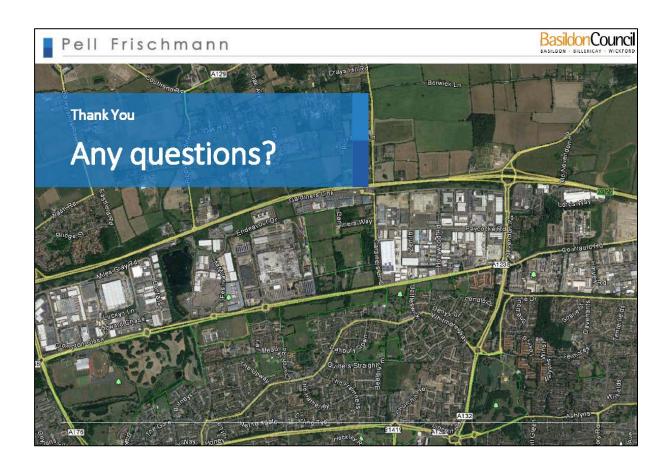
Indicative improvements to strategic and local road network

- Capacity improvements to junction on the A127 (at Nevendon – now implemented)
- · Local traffic on Gardiners Lane
- · Improved junction with A1235
- Emergency access to A1235
- · HGV traffic confined to the north of the site
- Residential and school traffic preferably uses southern site access
- · Public transport improvements
- · Endeavour Drive bus link

Objectives

- Feed into the local plan process to bring forward the site as an allocation for mixed use with much needed employment uses, as well as residential to improve viability of the site and to assist in funding the necessary infrastructure and site preparation;
- Re-establish the Gardiners Lane site as a focal point for local community;
- Prepare a framework to create a modern and unique location, attractive to new businesses and new residents;
- Set parameters to improve the quality of the built environment and make the area a secure and welcoming place;
- well planned, consolidated provision of remaining sports pitches;
- Work with the highways authorities to seek to realise improvements to the local road network and to deliver an appropriate network solution to serve both the new development and the surrounding community;
- Involve site stakeholders in the process of regeneration.





Appendix B – Land Use Budgets

Commons Comm	Gardiners Lane	sqm	res. units	sqm	res. units	sqm	res. units
13,736 26,779 26,779 26,779 27,79 28,277 28		Opti	on 1	Opti	ion 2	Opti	on 3
13,168	E1 (B2/B8)	34,803		34,803		34,803	
Famployment subtotal (Ha)	E2			13,734		26,779	
Employment subtotal (Ha)	E3			13,168		8,977	
Employment subtotal (Ha) 3.48	E4					11,940	
G&T ster* 11,940 15 0 0 0 0 0 0 0 0 0	Employment subtotal (Ha)	3.48		6.17			
R1 (@65 d/ha)			15		0		0
R2 (@65 d/ha)		· · · · · · · · · · · · · · · · · · ·		8.977	58		
R3 - construction on site adjuty/hap 13,602 43 13,602 44 13,602 43 13,602 44 13,602 45 13,209 35 13,329 35 13,329 35 13,329 35 13,329 35 13,329 35 36,006 of Jrba 7,635 50 5,009 33 36,006 of Jrba 7,635 50 5,009 33 36,006 of Jrba 7,635 50 5,009 33 36,006 of Jrba 7,678 50 36,000 37 36,000 37 37 36,000 37 37 36,000 37 37 37 37 37 37 37	1						
R4 (e93 d/ha) 35 11,329 35 11,329 35 11,329 35 35 36 36 36 36 36 36	,					13.602	43
RS (e86 dJha)							
R6 (@65 d/ha)	· ·						
R7 (@65 d/ha)							
R8 (ew6s dr/ha)	_ ' /						
RP (@40 d/ha)	1						
R10 (@40 dr/ha)	1						
R11 (@65 d/ha)	1	10,070	02				
R12 (@65 d/ha)		2 670	17			10,301	- 00
R13 (@65 d/ha)							
R14 (@65 d/ha)							
R15 (@65 d/ha)						16 305	106
R16 (@65 d/ha)	, ,						
Residential subtotal (Ha)	` '		111	25,240	101	15,265	77
Residential units				1E 0E		12.24	
EY Child Vield** 73 72 59 Primary School Child Vield** 244 239 196 Sec. School Child Vield** 163 160 131 Primary School 2.10 3 0.13 0.13 Willities (Ha) 0.13 0.13 0.13 0.13 Roads 2.78 2.40 3.71 7 POS1 - B SS Club, PO, Football 66.345 66.345 66.345 POS2 - B Rugby Club 32.507 32.507 32.507 Public Open Space subt (Ha) 12.25 12.70 12.91 Total site area (Ha) 37.35 37.35 37.35 *G&T site density @12.5 dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw/; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw 48.93 50.04 53.01 **EY 0.09 ch /100 dw/; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw Chromatory Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw Chromatory Sch 0.3 ch /100 dw Sec. Sch 0.2 ch /100 dw Urban parks and gardens 3.70 3.63 2.98 Natural and semi		10.01	012	15.95	700	12.34	45 4
Primary School Child Yield** 244 239 196							
Sec. School Child Yield** 163 160 131 Primary School 2.10 Utilities (Ha) 0.13 0.13 0.13 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Primary School	3						
Utilities (Ha) 0.13 0.13 0.13 Roads 2.78 2.40 3.71 POS1 - B SS Club, PO, Football 66.345 66.345 66.345 POS2 - B Rugby Club 32.507 32.507 32.507 POS2 - B Rugby Club 23.605 28,139 30,243 Public Open Space subt (Ha) 12.25 12.70 12.91 Total site area (Ha) 37.35 37.35 37.35 *G&T site density @12.5 dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw. Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw (1FE = 210 places; 11/2 FE = 315 places; 2FE = 420 places) 20 places) Open space required Option 1 Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standa		2.10	103		160		131
Roads 2.78 2.40 3.71 POS1 - B SS Club, PO, Football 66,345 66,345 66,345 POS2 - B Rugby Club 32,507 32,507 23,605 28,139 30,243 Public Open Space subt (Ha) 12.25 12.70 12.91 Total site area (Ha) 37.35 37.35 37.35 *G&T site density @12.5 dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw (1FE = 210 places; 1 1/2 FE = 315 places; 2FE = 420 places) Open space required Option 1 Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a Allotments and comm gardens n/a				0.12		0.12	
POS1 - B SS Club, PO, Football 66,345 66,345 66,345 POS2 - B Rugby Club 32,507 32,507 32,507 23,605 28,139 30,243 Public Open Space subt (Ha) 12,25 12,70 12,91 Total site area (Ha) 37,35 37,35 37,35 **G&T site density @12.5 dw/ha 48,93 50,04 53,01 **EY0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw 53,01 53,01 **EY0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw 66,345 66,345 66,345 Open space required Option 3 50,04 53,01 <							
POS2 - B Rugby Club 32,507 32,507 32,507 32,507 32,507 32,507 32,507 32,507 32,505 28,139 30,243 Public Open Space subt (Ha) 12.25 12.70 12.91 Total site area (Ha) 37.35 37.3							
23,605 28,139 30,243							
Public Open Space subt (Ha) 12.25 12.70 12.91 Total site area (Ha) 37.35 37.35 37.35 "G&T site density @12.5 dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw 53.01 (1FE = 210 places; 1 1/2 FE = 315 places; 2FE = 420 places) Description 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a	POS2 - B Rugby Club						
Total site area (Ha) 37.35 37.35 37.35 *G&T site density @12.5 dw/ha average density dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw (17.2 FE = 315 places; 2FE = 420 places) 20.00 dw Open space required Option 1 Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a							
*G&T site density @12.5 dw/ha average density dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw (1FE = 210 places; 1 1/2 FE = 315 places; 2FE = 420 places) *Open space required Option 1 Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Amenity green space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a							
average density dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw (1FE = 210 places; 1 1/2 FE = 315 places; 2FE = 420 places) Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 2.62 Amenity green space 1.33 0 Outdoor sports facilities 1.58 1.58 Allotments and comm gardens n/a 1.58	lotal site area (Ha)	37.35		37.35		37.35	
average density dw/ha 48.93 50.04 53.01 **EY 0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw (1FE = 210 places; 1 1/2 FE = 315 places; 2FE = 420 places) Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 2.62 Amenity green space 1.33 0 Outdoor sports facilities 1.58 1.58 Allotments and comm gardens n/a 1.58	*G&T site density @12.5 dw/ha						
**EY 0.09 ch /100 dw; Primary Sch 0.3 ch /100 dw; Sec. Sch 0.2 ch /100 dw (1FE = 210 places; 1 1/2 FE = 315 places; 2FE = 420 places) Open space required Option 1 Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a			48.93		50.04		53.01
Open space required Option 1 Option 2 Option 3 Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 2.62 Amenity green space 1.33 0 Outdoor sports facilities 1.58 Allotments and comm gardens n/a	**EY 0.09 ch /100 dw; Primary Sc	ch 0.3 ch /100 dw	Sec. Sch 0.2 ch /	100 dw			
Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a							
Urban parks and gardens 3.70 3.63 2.98 Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a							
Natural and semi natural open 5.32 5.23 4.29 Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a			on 1				on 3
Amenity green space 2.70 2.65 2.18 Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a							
Outdoor sports facilities 3.21 3.15 2.58 Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Image: space spac							
Total required for GL 14.93 ha 14.67 ha 12.02 ha Open space standards per 1,000 population Urban parks and gardens 1.82 Image: Comparison of the comparison o	, , ,						
Open space standards per 1,000 population Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a							
Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a	Total required for GL	14.93	ha	14.67	ha	12.02	ha
Urban parks and gardens 1.82 Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a	Open space standards		per 1,000 popula	tion			
Natural and semi natural open space 2.62 Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a							
Amenity green space 1.33 Outdoor sports facilities 1.58 Allotments and comm gardens n/a		snace					
Outdoor sports facilities 1.58 Allotments and comm gardens n/a		space					
Allotments and comm gardens n/a							
	Cemeteries and churchyards		n/a				

Appendix C HLDF Options Traffic Trip Generation

Vehicular Trip Generation - Options 1, 2 and 3

Depending on option, the proposal is estimated to generate between 6,400 and 11,200 vehicle movements per day.

Table C-1 Option 1 - Vehicular Trip Generation

-	Plot Area	FAR/housing	(housing	Vehicular trip generation								
		density	Units		AM			PM			Daily	
	(sq.m.)	uensity		Arrival	Departure	Total	Arrival	Departure	Total	Arrival	Departure	Total
Empl <i>o</i> yment												
B1 - Business Park	-	1.00	-	-	-	-	-	-	-	-	-	-
B2 - Industrial Park	17,402	1.00	17,402	164	90	266	51	139	181	1,267	1,221	2,488
B8- Warehousing	17,402	0.50	8,701	15	8	23	7	6	13	35	37	72
Sub-Total	34,804		26,103	179	98	289	58	145	194	1,302	1,258	2,560
Residential												
Mixed Housing	166,100	40	560	119	261	396	247	185	412	1,535	1,595	3,126
Education												
School	21,000		400	117	99	222	31	23	56	346	346	691
TOTAL	221,904			415	458	907	336	353	662	3,183	3,199	6,377

Table C-2 Option 2 - Vehicular Trip Generation

	Plot Area	FAR/housing		Vehicular trip generation								
	(sq.m.)	density	Units	AM				PM				
	(34.111.)	density		Arrival	Departure	Total	Arrival	Departure	Total	Arrival	Departure	Total
Employment												
B1 - Business Park	26,902	1.00	26,902	466	87	513	1,721	1,679	3,400	1,721	1,679	3,400
B2- Industrial Park	17,402	1.00	17,402.0	164	90	266	51	139	181	1,267	1,221	2,488
B8- Warehousing	17,402	0.50	8,701.0	15	8	23	7	6	13	35	37	72
Sub-Total	61,706		53,005	645	185	802	1,779	1,824	3,5 94	3,023	2,937	5,960
Residential												
Mixed Housing	138,500	40	555	118	259	392	245	183	408	1,522	1,581	3,098
Education												
School	21,000		400	117	99	222	31	23	56	346	346	691
TOTAL	221,206			880	543	1,416	2,055	2,030	4,058	4,891	4,864	9,749

Table C-3 Option 3 - Vehicular Trip Generation

-	Plot Area	FAR/housing density	Units	Vehicular trip generation								
	(sq.m.)				AM			PM			Daily	
	(sq.iii.)	density		Arrival	Departure	Total	Arrival	Departure	Total	Arrival	Departure	Tetal
Empl <i>o</i> yment												
B1 - Business Park	47,696	1.00	47,696	827	155	910	3,051	2,978	6,029	3,051	2,978	6,029
B2 - Industrial Park	17,402	1.00	17,402.0	164	90	266	51	139	181	1,267	1,221	2,488
B8- Warehousing	17,402	0.50	8,701.0	15	8	23	7	6	13	35	37	72
Sub-Total	82,500		73,799	1,006	253	1,199	3,109	3,123	6,223	4,353	4,236	8,589
Residential												
Mixed Housing	123,400	40	472	100	220	334	208	156	347	1,294	1,345	2,634
Education												
School	-		-	-	-		-		-	-	-	-
TOTAL	205,900			1,106	473	1,533	3,317	3,279	6,570	5,647	5,581	11,223

Public Transport Trip Generation - Options 1, 2 and 3

8.1.2 A similar exercise has been carried out for trips made by public transport, the results are summarised below. The development is estimated to generate about 376 – 426 train trips, 68 – 180 bus trips and between 140 – 225 trips by bicycle.

Table C-4 Option 1 – Public Transport Trip Generation

	Train			Bus			Bicycle	
AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Total	Total							
-	-	-	-	-	-	-	-	-
4	4	27	-	4	30	-	4	27
-	-	1	-	-	1	-	-	1
4	4	28	-	4	31	-	4	28
29	48	348	2	5	37	7	15	111
33	52	376	2	9	68	7	19	139

Table C-5 Option 2 - Public Transport Trip Generation

	Train			Bus			Bicycle	
AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Total	Total							
14	59	59	-	66	66	2	58	58
4	4	27	-	4	30	-	4	27
-	-	1	-	-	1	-	-	1
18	63	87	-	70	97	2	62	86
28	47	345	2	5	37	7	15	110
46	110	432	2	75	134	9	77	196

Table C-6 Option 3 - Public Transport Trip Generation

	Train			Bus			Bicycle	
AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Total	Total							
24	105	105	1	118	118	3	103	10
4	4	27	-	4	30	-	4	2
-	-	1	-	-	1	-	-	
28	109	133	1	122	149	3	107	13
24	40	293	2	4	31	6	13	9
52	149	426	3	126	180	9	120	22

Appendix D Higher Density Low Rise Development Examples

p://yearbook.hdawards.org/schemes/	Location	Description	Flats	Houses	Site Size (ha)	Net Density (dw/ha)	Tenure Mix
	Walthamstow, London E17 Goresbrook Village Castle Green, Dagenham RM9 4VG	the new neighbourhood is the generous new plaza situated at the confluence of the Marlowe Road and Northwood Tower. The Plaza area will include seating, bicyde ce for events and markets, a play space, and a Multu-bus Genmac Area, all of which any pottors for a wide range of people in the community. The space was designed into mith the local business group who organize events in the existing plaza. Family private gardens are provided over a large proportion of the development, and a minural gardens are proposed across the scheme. Village is a friendly place known for its green space, attractive tree-lined streets, are homes with generous gardens; a new suburban quarter that has its own essonality, but also connects seamlessly with the surrounding community. The sidential development includes a shop and village square on Gorebrook Road, and a sidential development includes a shop and village square on Gorebrook Road, and a		50	4.2	103	65% private sale; 35% social rent; 1000sqm commercial space 34% private, 66% social rent
	Hobson's Square Parcel 8A & 8B, Great Kneighton Cambridge CB2 9HP	new linear park incorporating 'doorstep play' linking the new homes to the expansive Castle Green to the east of the development, ensuring that the wider community including a local school, will benefit from the scheme. Hobson's Square forms the heart of the masterplan and acts as the local community hub. Five retail units, including a convenience store and café, complement the new community square. The scheme comprises apartments and houses arranged around a series of both public and private open amenity spaces and landscaped courtyards. A materials palette of brick, metal and girsas provides a contemporary, yet lamiliar feet that responds to both surrounding developments and the wider context. Contrasting brick tones and detailing define the external 'public faces' of the development, with those of the internal faces of the 'private' courtyards.	209	42	2.57	76	60% private / 40% afrordable of which 75% rented & 25% intermediate
	Beaufort Gate Tipner Portsmouth PO2	Houses have private back gardens and some units have roof terraces; apartments have balconies. There is a communal soft landscaped square provided for general amenity at the heart of the scheme. The final developed scheme was submitted to PCC LPA in November 2015 for discharge of the remaining reserved matters and was subsequently approved at committee (with officer's recommendation for approval) on 8 February 2016. The HCA had strong involvement in this scheme. The agency undertook significant remediation work on site.	31	49	1.578	27	70/30 split - 70% private housing & 30% social housing
	Mitchans Park 1 Lilywhite Drive Cambridge CB4 1GB	Formation Architects was appointed to design a residential scheme for this site on the former Signabuldge City Football Club close to Cambridge City Centre. The masterplan revolves around a central square as a focal point for the new neighbourhood. All houses have gardens and upper floor treates, all flats have generous balconisors or roof terraces. Floor to ceiling heights are 2.7m throughout. The landscaping is inspired by the use of the site as the former Cambridge City Football Ground. The development contains a diverse range of beautifully landscaped open space serving as both recreational and visual amenity for residents and the public.	<u>8</u>	15	33	32	86% private, 14% affordable
	Older Women's Cohousing 5b Union Street Barnet ENS 4HY	OWCH is a group of women over fifty who have created our own community in a new, purposebuilt block of flats in Union 3t. High Barnet, N. London as an alternative to living alone. Private Amenity - Balconies and terraces to flats. Notito pterraces to penthouses, Public Amenity - External landscaped riverside entrance, adjacent access to Gostry Meadow parkland and river walk. The senior cohousing community could enrich the last years of many, and reduce pressures on health and care services, if local authorities, planners, policy makers and housing developers helped to remove the many obstacles society puts in its way.	25		0.16	87.6	100% private housing