Dover District Local Plan Examination in Public

Week 3 - Tuesday 5 December

Policy SAP49 – Worth Small Sites

Site - WOR006, Land to the east of Jubilee Road, Worth

Hearing Statement

Finn's On Behalf Of

Mr John Stevens, Ms Susan Morgan and Ms Lynne Stevens

1.0 Introduction

1.1 Finn's is submitting this Hearing Statement to support our case for modifications to the Plan, Policy SAP49 in respect of site WOR006, which proposes allocation of the land on the eastern side of Jubilee Road, Worth for 10 dwellings. Finn's are acting on behalf of the Landowners. Within this Statement we will address the Inspectors' questions set out on page 30 of the Matters, Issues and Questions published 30th August 2023.

2.0 Background Information

2.1 Land on the east of Jubilee Road, Worth was submitted to the Council's Call for Sites for residential development. The Council reviewed the land within their Housing and Economic Land Availability Assessment (HELAA) and divided it into two parts lengthways. They identified the road frontage strip of land as a 'green' site for proposed allocation and the adjacent strip of land as an 'amber' site and the HELAA identified that the eastern part if the site is more exposed and impact from any development here would need to be mitigated. Importantly the site was not found to be unsuitable for development.

2.2 It was put to the Council within the responses to the Regulation 18 Consultation that both parts of the land were equally well located to existing development and facilities in Worth as the land proposed for allocation and its development would not result in any additional landscape impact. Both the green and amber areas of the site are in a single ownership making the whole site available and deliverable within the first five years of the Plan. No changes to the Emerging Policy were made.

2.3 At Regulation 19 stage, it was again requested that the allocation be widened to cover the whole of the Clients land and increase the allocation number from 10 to 30 dwellings as it was considered that failure to include the whole site within the SAP49 allocation (WOR006) is not achieving the best use of this land, as required by the National Planning Policy Framework.

3.0 Changes to the Plan Sought

3.1 We are seeking changes to the site allocation under the Policy to include the whole land ownership area for the development of 30 dwellings.

Q1 What is the latest position regarding proposals for site WOR006?

3.2 An outline planning application for 30 units on the whole land (green and amber) was submitted to and has been refused by the Local Planning Authority. There were 4 grounds of refusal in the areas of

1, being outside settlement confines in an unsustainable location and out of scale with the range of services available in the settlement;
2, it would create an unacceptable intrusion into the countryside, with an inadequate landscape buffer, with concerns over an landscape harm and setting of the Grade II* listed Church;
3, it suggested insufficient information had been provided to enable the LPA to complete their Appropriate Assessment; and
4, the proposals failed to demonstrate they had passed the sequential test.

A copy of the Decision Notice with the full decision wording is attached for information together with those documents necessary to provide information in response to the Inspectors questions.

3.3 The application was made in outline following pre-application advice from the LPA and Kent Highways. It consisted of a Planning & Heritage Statement, Design & Access Statement, layout and housing mix drawings with indicative designs of dwellings within the D&A, ecological work consisting of Preliminary Ecological Assessment, Reptile Survey and Wintering Bird Survey, Habitat Regulations Assessment Stage 1 Screening, Drainage and Flood Risk Assessment, Landscape Visual Assessment (LVA), Archaeological Desk Based Assessment, Transport Assessment and full highway drawings showing access and turning and Topographical Survey.

3.4 The application shows how 30 units can be appropriately provided within the available wider site area with no impact on the landscape and taking into account flood risk, drainage, the provision of suitable and acceptable access and ecological considerations. To enable full consideration of the proposed increased allocation, we attach those documents specifically relevant to the Inspectors questions regarding flood risk to enable an informed discussion in relation to Question 2. The application drawings and documents show how a suitable development of this land could be carried out whilst being an effective development, making best use of the available land in compliance with National Planning Policy on flood risk, in a justified manner and resulting in a Policy that is positively prepared.

3.5 Without the inclusion of the additional land area within the Policy allocation and continuation with just the site frontage allocation, we consider the Local Planning Authority is failing in its duty to achieve the best use of land as regards this particular site and we consider the Plan is not positively prepared. At the time of writing, an appeal against the decision has not been lodged.

Q2 Site WOR006 is located within Flood Zone 2/3. How is development expected to mitigate against any potential harm or risk? Can the requirements of national planning policy in relation to flood risk be met?

3.6 The application was accompanied by a Flood Risk Assessment and Drainage Strategy, provided by Herrington Consulting Limited (attached to this Statement). The site was identified to be located within Flood Zones 2 and 3. A separate Sequential Test was not carried out at the application submission stage, given half the site is proposed to be allocated and a Sequential Test for this had already been carried out by the LPA and was found to be 'suitable'. The western part of the proposed enlarged allocation was shown in the HELAA as 'potentially suitable' and given the eastern part of the site lies within the same flood risk zone as the western part proposed to be added, it was found that the western half of the site should be considered acceptable in principle. However, since the decision a Sequential Test assessment has been carried out and is also attached for completeness.

3.7 Mitigation measures proposed to be incorporated into the site, as set out within pages 20-25 of the Flood Risk Report) included careful location of development within the site boundaries (which included 8 dwellings proposed to be 2.5 stories high with accommodation within the roof space and parking/non-essential services at ground floor level), raising of floor levels and land raising to bring parts of the site up to road level, flood resistance and resilience measures (to include flood barriers built into dwellings across doorways and airbricks and raising floor levels, raised electric sockets and tiled floors and the 2.5 storey dwellings having all sleeping accommodation from first floor level and above, the use of flood resilience and flood resistance construction techniques in line with the Gov.Uk document, '*Improving the flood performance of new buildings, flood resilient construction*'. In addition, it was recommended as good practice that occupiers sign up to the Environment Agency's Flood Warning Service.

3.8 It is considered that the development can appropriately mitigate against potential harm or risk from tidal flooding and that the national planning requirements in relation to flood risk can be met. It is noted that the LPA did not require flood risk to be a ground of refusal for the recent planning application here.

Q3 What is the justification for the proposed changes to Policy SAP49? Why are they necessary for soundness?

3.9 It is considered that by allocating only half of the available land within a family ownership, that the LPA is failing to make the best use of land within the Worth area. The site will only be developed once and development of the frontage strip only appears to not have been based on justified evidence of reasonable alternatives whilst taking into account objectively assessed development and infrastructure requirements.

3.10 Worth is a reasonably sized settlement which benefits from a thriving local pub with restaurant, primary school, nursery, church community, allotments, village hall, sports facilities including cricket club, tourist accommodation, bus service and a good network of public footpaths and bridleways, including the Saxon Shore Way circular route that links to Sandwich. The former Bisley Nursery, now known as St Crispin Close, has provided the most recent development of dwellings within Worth and was identified in the Worth Neighbourhood Plan and the Local Plan. This added 36 new dwellings to the settlement since development commenced in 2018.

3.11 In addition Worth is well related to and well connected to Sandwich to the north, identified as a Rural Service Centre, where a good range of services and facilities are provided. Two farm shops are within the vicinity to the north at Felderland Farm and Delf Farm, which stock a good range of produce to serve residents food needs, for those that do not wish to venture into Sandwich or do not partake in home delivery services. Much of the land in Worth and Sandwich lies within the flood risk area with greater risk than assessed for this site.

3.12 The Local Planning Authority has assessed the site frontage of WOR006 as suitable for development and found it to be in a sustainable location. The western section of the site, adjacent to the proposed allocation, is set approximately 30 metres back from Jubilee Road. It lies within the same flood risk zone and could increase the development offering of this site from 10 to 30 dwellings. The 30 metre distance back from the road is not considered to make this part of the land unsustainable. New development in Worth would continue to support settlement services and facilities and the widening of the proposed allocation WOR006 would make the best use of this land ensuring the Plan '*has been prepared with the objective of contributing to the achievement of sustainable development*' (NPPF, Sept 2023, para16).

3.13 The widening of the allocation to include the additional western land will help to meet the areas objectively assessed needs through the Plan period, providing a mix of unit sizes

and affordable units to help maintain accommodation within Worth for future generations. There is no reasonable alternative land within Worth currently available for providing a modest development and it is considered that widening the proposed allocation here under SAP49 is justified in the interests of long term housing provision at Worth.

3.14 It would also be effective, with provision of development within the first 5 years of the Plan to support the delivery of the Plan and is considered to be consistent with national policy for the delivery of sustainable development. Therefore, on the issue of soundness, it is considered that making the best use of the available land here, by increasing the allocation, will improve the soundness of the Plan.

Land at Jubilee Road
Worth
Kent
CT14 0DW

Habitat Regulations Assessment (HRA) - Stage 1 Screening

Produced by
Ecology & Land Management for and on behalf of

Calumma Ecological Services

Henriette Westergaard
Ecology & Land Management

Table of Content

1.0 INTRODUCTION

Overview

1.1 Ecology & Land Management were commissioned by Calumma Ecological Services to compile information to inform a Stage 1 Habitats Regulations Screening Assessment in connection with the proposed development at Jubilee Road, Worth, Kent CT14 0DW (OSGR: TR 337 559). The proposed development will include the construction of new housing with associated infrastructure. A Site Location Plan is included in Figure 1. The objective of the screening process is to identify any aspects of the proposed development that are likely to have a significant effect on European protected sites for nature conservation either alone or in combination with other plans and proposals, and thereby affect the integrity of those sites.

Purpose of Report

1.2 Under the requirements of the European council Directive 92/43/EEC 'The Habitats Directive and the Council Directive 79/409/EEC' it is necessary to consider whether the proposed development may have significant effects on areas of nature conservation importance designated under the directive. This requirement is regulated in the UK through the Conservation of Habitats and Species Regulations 2017 (as amended) (The Habitat Regulations).

1.3 This term used for this network of sites is 'Nature 2000 Sites'. The aim of the Natura 2000 network of sites is to maintain long-term survival of Europe's most valuable and threatened species and habitats.

1.4 The Habitat Regulations place a duty upon 'Competent Authorities' to consider the potential for effects upon sites of European importance prior to granting consent for proposed developments. Should this screening process identify significant effects an 'Appropriate Assessment (HRA) will be required. The screening covers the following:

- to determine whether the proposals are directly connected with or necessary for the management of applicable sites (SAC, SPA, RAMSAR);
- describing the proposals that may have the potential for significant effects on applicable sites;
- assessing the likely significance of any potential effects identified as resulting from these impacts, both alone and in-combination with other proposals.

Stages of Habitat Regulations Assessment

1.5 Guidance on the Habitats Direction (European Commission, 2000) sets out the step wise approach, which should be followed to enable Competent Authorities to discharge their duties under the Habitats Directive and provides further clarity on the interpretation of Articles 6 (3) and 6 (4). The process used is usually summarized in four distinct stages of assessment.

Stage 1: Screening: the process which identified whether effects upon a Nature 2000 site of a proposed development are possible either alone or in combination with other proposals; and considers whether these effects are likely to be significant.

Stage 2: Appropriate Assessment: the detailed consideration of the effect on the integrity of the Nature 2000 site of the proposed development, either alone or in combination with other proposals, with respect to the site's conservation objectives and it structure and function.

Stage 3: Assessment of alternative solutions: the process which examines alternative ways of achieving the objectives of the proposed development that avoids adverse effects on the integrity of the Natura 2000 site.

Stage 4: Assessment where no alternative solutions exist and where adverse effects remain: an assessment of whether the development is necessary for IROPI (imperative reasons of overriding public interest) and, if so, of the compensatory measures needed to maintain the overall coherence of the Natura 2000 network.

1.6 This report presents information to enable the screening assessment required as part of Stage 1 of the HRA process, to establish whether or not the proposed development will have a likely significant effect upon Natura 2000 and Ramsar sites.

1.7 The precautionary principle is applied at all stages of the HRA process. In relation to screening this means that proposals where effects are considered likely and those where uncertainty exists as to whether effects are likely to be significant must be subject to the second stage of the HRA process, Appropriate Assessment.

2.0 PROJECT DESCRIPTION

2.1 The proposed development is not directly connected with or necessary for the management of Thanet Coasts and Sandwich Bay SPA/RAMSAR or Sandwich Bay SAC. The proposed development has not been proposed to further the conservation of the SPA/RAMSAR/SAC nor is it essential to the management of the SAC/RAMSAR/SPA. Further consideration of the proposed development within the HRA process is required.

Project Overview and Context

2.2 The proposed development involves the construction of residential units with associated hard and soft landscaping on existing arable land currently fallow. The proposed development is adjacent to Jubilee Road, Worth and is approximately 1.35ha in extent. It is assumed that the working area such as flood mitigation, stockpiles and compounds as well as a sustainable drainage would remain within the site boundary as shown on the Illustrative Site Layout, Appendix I (SK011.010). There is currently no construction programme available.

Ecological Background

2.3 A Preliminary Ecological Appraisal of the proposed development site was undertaken in June 2022 (Calumma, 2022). Habitats present within the proposed development site include agricultural land that is partially bordered by a narrow strip of grassland with ruderal vegetation. The proposed site is partly within flood zones 2 and 3 (Dover District Council Local Plan).

2.4 The PEA includes a Habitats plan (PEA, Fig. 5.3). No priority habitats were identified within the boundary of the proposed development site. The survey concluded that the proposed site has low potential to support protected species other than birds.

2.5 Protected species recorded within 3km of the proposed site include birds, reptiles, amphibians, badgers, small mammals including beaver and European water vole, bats and orchids (KMBRC, 2023). A bird survey (Calumma, March 2023) identified a range of birds on land proposed for development and adjacent areas. A total of 23 bird species across the whole study area were observed. Of these five are on the UK Red list and eight are on the UK Amber list. Red listed species recorded within the proposed development site included European herring gull (*Larus argentatus*) and

house sparrow (*Passer domesticus*). Common snipe (*Gallinago gallinago*) (Amber Conservation Status) was observed roosting on the application site on two occasions. A pair of European skylark (*Alauda arvensis*) (Red Conservation Status) was subsequently observed and these may nest within the site. Golden plover (*Pluvialis apricaria*) was not observed within the proposed development site.

3.0 RELEVANT DESIGNATED SITES

3.1 The Zone of Influence (ZoI) is defined by the potential effects arising from the proposed development site and the way in which they affect features of Natura 2000 and Ramsar sites. To identify all sites where potential direct, indirect and in-combination impacts to Natura 2000 and Ramsar sites could reasonably be considered possible, an initial buffer of 2km around the proposed site was established. This buffer was extended to 9km in accordance with the Thanet Coast and Sandwich Bay SPA Strategic Access Mitigation and Monitoring Strategy (SAMM)(Dover District Council, 2022).

3.2 Relevant designated sites include all those that fall within the potential ZoI for the Project. Figure 1 shows three designated sites of European or international importance lie within the ZoI of the proposed development. Namely, Thanet Coast and Sandwich Bay SAC c. 1.8km east, Thanet Coast and Sandwich Bay SPA c. 1.3km east and Thanet Coast and Sandwich Bay RAMSAR site 250m east. The reasons for designation of the sites are summarised in Table 2. Table 2 also summarises known vulnerabilities of these sites, collated from the Natura 2000 standard data forms (JNCC, 2016) and the Natural England Site Improvement Plan (NE, 2014).

3.3 The broad conservation objectives for Thanet Coast and Sandwich Bay SPA (JNCC, 2014) are to maintain the 'favourable conservation status' of the site in line with the Habitats Directive. The Habitats Directive provides further interpretation of the meaning of 'favourable conservation status' within Article 1 parts a, e and i as follows:

'(a) conservation means a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status as defined in (e) and (i);

(e) conservation status of a natural habitat means the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2. The conservative status of a natural habitat will be taken as "favourable" when:

- *its natural range and areas it covers within that range are stable or increasing, and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and*
- the conservation status of its typical species is favourable as defined in (i);

(i) conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2; The conservation status will be taken as "favourable" when:

- *population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and*

- *the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and* there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

3.4 Specific conservation objectives for Ramsar sites are not available.

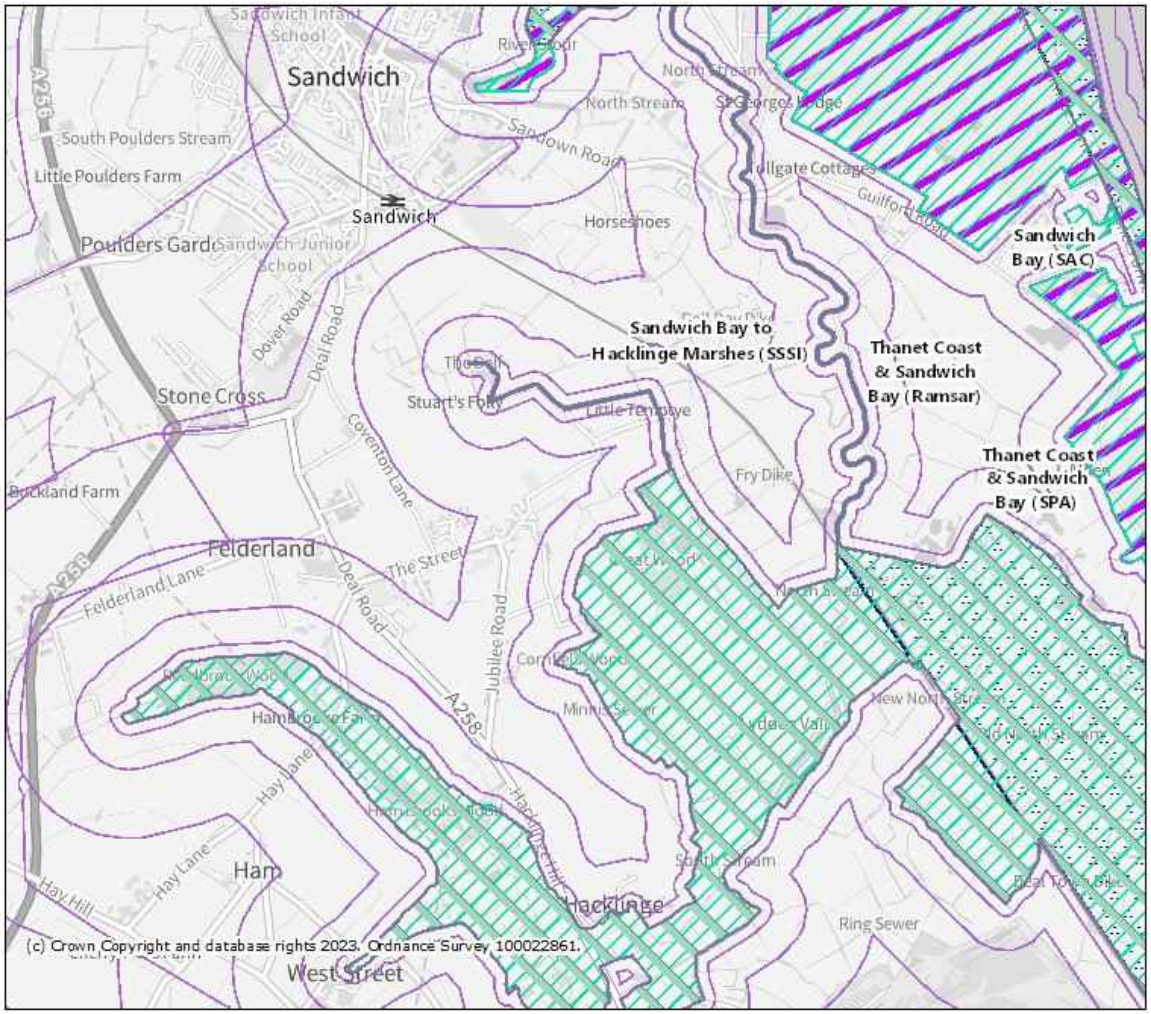
3.5 The conservation objectives for Thanet Coast and Sandwich Bay SAC (NEKMPA, North East Kent Marine Protected Area), Natural England, 2004) apply to the site and the individual species and/or assemblage of species for which the site has been classified. The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of the qualifying species
- the structure and function (including typical species) of qualifying natural habitats
- the structure and function of the habitats of the qualifying species
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of each of the qualifying species
- the distribution of qualifying species within the site

Figure 1 – Statutory Designated Sites

MAGiC

Statutory designated sites



Legend

- Areas of Outstanding Natural Beauty (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

Projection = OSGB36
xmin = 629300
ymin = 153700
xmax = 638800
ymax = 158900

0 0.5 1 km

Map produced by MAGIC on 28 February, 2023.
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Site Name	Site Size (ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, 2014)
Thanet Coast and Sandwich Bay RAMSAR	2169	A coastal site, consisting of a long rocky shore, adjoining estuary, dune, maritime grassland, saltmarsh, and grazing marsh. The site supports internationally important numbers of wintering turnstone (*Arenaria interpres*), nationally important numbers of a breeding seabird, and four waders: ringed plover, golden plover, grey plover, and sanderling. Large numbers of migratory birds use the site for staging. Large numbers of nationally scarce invertebrate species occur at the site.	Outdoor sports and leisure activities, recreational activities Invasive non-native species Human induced changes in hydraulic conditions Changes in biotic conditions. Disturbance of turnstones (*Arenaria interpres),* especially by dog walking and kite surfing/boarding, which can result in loss of condition to birds if unmanaged. Runoff from agricultural fields. Activities connected with ongoing management and new development on the coast cause significant disturbance to wintering birds if unmanaged.	
Thanet Coast and Sandwich Bay SPA	1880.85	European Golden plover (*Pluvialis apricaria*), Non-breeding. Little tern (*Sternula albifrons*), Breeding. Ruddy Turnstone (*Areanaria interpres*), Non-breeding.	Outdoor sports and leisure activities, recreational activities. Invasive non-native species. Human induced changes in hydraulic conditions Changes in biotic conditions.	Changes in species distribution of Turnstone and Little tern. Invasive species affecting turnstone and reefs. Public access/disturbance affecting Golden Plover, Turnstone, Little Tern, Reefs, Shifting dunes, Shifting dunes with marram, Dune grassland. Hydrological changes affecting dune grassland. Air Pollution: Impact of atmospheric nitrogen deposition on Shifting dunes, Shifting dunes with marram, Dune grassland, Dunes with creeping willow, Humid dune slacks.

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Thanet Coast and Sandwich Bay SPA cont.				Water pollution affecting turnstone Golden Plover, Turnstone, Little Tern, Reefs, Shifting dunes, Shifting dunes with marram, Dune grassland, Dunes with creeping willow, Humid dune slacks, Sea caves. Fisheries. Commercial and marine affecting reefs.
Sandwich Bay SAC	1137.87	Sandwich Bay qualifies as a SAC for its fixed dunes with herbaceous vegetation (grey dunes), embryonic shifting dunes, shifting dunes with (*Ammophila arenaria*) marram grass (white dunes) and dunes with creeping willow (*Salix arenaria*) as listed under Annex I of the EU Habitats Directive. Embryonic shifting dunes. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"). Humid dune slacks. Dunes with *Salix repens ssp argentea* (*Salicion arenariae*). Fixed dunes with herbaceous vegetation ("grey dunes")	Outdoor sports and leisure activities, recreational activities Invasive non-native species Human induced changes in hydraulic conditions Changes in biotic conditions	Changes in species distribution of Turnstone and Little tern. Invasive species. Public access/disturbance. Hydrological changes. Air Pollution. Impact of atmospheric nitrogen deposition. Water pollution. Fisheries. Commercial and marine.

Site Name	Site Size (ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, 2014)
Thanet Coast SAC	2803.84	The Thanet Coast has the longest continuous stretch of coastal chalk in Britain (23 km), representing about 20% of UK coastal chalk and 12% of the coastal exposure in Europe. The chalk cliff face, cave and tunnel habitats and communities here are very uncommon in Europe and therefore important internationally. The intertidal reef, together with the mudflats and sandflats which characterise the remainder of the coastline in North East Kent, provide valuable feeding grounds and roosting areas at low water for wintering waders, Golden Plover (*Pluvialis arpicaria*) and Turnstone (*Arenaria interpres*) and a breeding population of Little Tern (*Sterna albifrons).* Submerged or partially submerged sea caves. Reefs.	Outdoor sports and leisure activities, recreational activities Invasive non-native species Human induced changes in hydraulic conditions Changes in biotic conditions	Changes in species distribution of Turnstone and Little tern. Invasive species. Public access/disturbance. Hydrological changes. Air Pollution. Impact of atmospheric nitrogen deposition. Water pollution. Fisheries. Commercial and marine.

Table 1 - Relevant Natura 2000 or Ramsar Sites and known threats and pressures on these sites

4.0 SCREENING OF POTENTIAL EFFECTS

Effects in isolation

4.1 Following on from information contained in sections 2 and 3 above, the proposed development has been screened to identify whether potential effects between the proposed development and the Natura 2000 designated sites are present and whether these would result in significant effects upon the designated sites.

4.2 Table 2 below provides an assessment of potential Impacts of the proposed development upon Thanet Coast and Sandwich Bay RAMSAR, Thanet Coast and Sandwich Bay SPA and Sandwich Bay SAC. Sandwich Bay to Hacklinge Marshes SSSI has not been considered as this is not a Natura 2000 site.

Potential Cumulative Impacts

4.3 The proposed residential Development will require land take of approximately 1.35 ha. Site details of other proposed developments within Dover District Council in proximity to the proposed site have not yet been identified.

Potential Impact	Impact Assessment	
	Construction Phase	**Operational Phase**
DIRECT IMPACTS		
Direct reduction of habitat area	No Impact. The proposed development does not involve land-take from within the Natura 2000 site. Therefore, the works will not result in the reduction of habitat area.	No Impact. The Project does not involve land-take from within the Natura 2000 site during operation.
Habitat fragmentation	No Impact. There will be no fragmentation of habitats within the Natura 2000 site itself.	No impact. The proposed development will not involve any additional habitat fragmentation within the Natura 2000 site itself during operation.
Species fragmentation (barrier to dispersal)	No Significant Impact. Habitats within the proposed development, including arable land with strip of ruderal vegetation; have been described as in close proximity to habitats within a Natura 2000 site. As a result, habitats within the project may be used as a stopover site during bird migration. Habitats within the Natura 2000 site that are suitable for its wetland bird assemblage include estuary, dune, maritime grassland, saltmarsh, and grazing marsh. These habitats do not occur with the proposed development site and there is not public access to the proposed site. Habitats within the proposed development are currently not managed for their amenity function and are not subject to high levels of disturbance from recreational visitors including dog walkers.	The operation of residential units may adversely impact bird species in different ways where species are not able to habituate to increase in human disturbance through noise, lighting and increase in predatory pets. This may result in both a reduction in bird numbers and diversity from anthropogenic effects. However, the impact on wintering birds is unlikely to be significant. The wintering bird survey (March 2023) found only two observations of the wading birds (Snipe) and no target species. Therefore the status of the proposed site as a stopover for migratory birds is likely to be insignificant. In addition, due to the presence of suitable habitats in the wider landscape within close proximity (250m) to the proposed site and beyond it is considered that other more suitable stop-off sites are present nearer to the RAMSAR/SPA. As the proposed site is not currently used for amenity and is not disturbed by dog walkers and other free roaming pets it is anticipated that the proposed site will result in greater disturbance to nearby designated RAMSAR habitats compared to the

Potential Impact	Impact Assessment	
	Construction Phase	**Operational Phase**
DIRECT IMPACTS		
	The current levels of disturbance are therefore likely to be insignificant. However, a wintering bird survey did not reveal any significant number of migratory birds (Golden Plover x 2) on the proposed site. Therefore the status of the proposed site as a stopover for migratory birds is likely to be insignificant. In addition, due to the presence of suitable habitats in the wider landscape within close proximity (250m) to the proposed site and beyond it is considered that other more suitable stop-off sites are present nearer to the RAMSAR/SPA.	existing condition. However as there is abundant suitable habitats within the wider landscape that are more suitable stopover points for migratory birds it is unlikely the proposed development will form a significant barrier to the commuting or migration of bird species within the criteria specific to the Natura 2000 site.
Risk of killing/injury from construction activities and site clearance	No Significant Impact. Habitats within the proposed development area were deemed to not provide suitable nesting and stop-over habitat for species meeting the qualifying criteria for the designation. Therefore the proposed development would pose no risk that such species will be affected by construction activities.	No Significant Impact.
Potential Impacts	INITIAL ASSESSMENT	
	Construction Phase	Operation Phase
INDIRECT IMPACTS (POTENTIAL)		
Disturbance to habitats and species (noise and lighting)	Potential significant impact to wintering turnstone (*Arenaria interpres*), nationally important numbers of a breeding seabird, and four waders: ringed plover, golden plover, grey plover, and sanderling. Lighting during the construction phase will be directed to the immediate area surrounding the proposed development. The Natura 2000 site is situated 250m	The impact of noise from the residential buildings is unlikely to have an impact on breeding birds as the existing nearby road and residential properties produce noise and vibration levels throughout the day and night. The finished light levels of the proposed development are not yet known. Lighting projecting off the new buildings

Potential Impacts	INITIAL ASSESSMENT	
	Construction Phase	Operation Phase
INDIRECT IMPACTS (POTENTIAL)		
	from the proposed development; therefore, due to the close proximity, there may be significant disturbance to key species arising from construction activities. There is also likely to be disturbance during construction from increased noise levels during site clearance excavation and piling activities creating noise and vibration. Ambient noise level increases are likely to be variable. The decibel has not been determined. However, construction is likely to change the noise environment within or near bird territories compared to existing conditions. An increase in decibel could cause an impact on bird audibility of territorial song and an increase in general stress levels and hence possibly cause an negative effect on the ability of birds to hold territories and breed successfully. Noise may therefore cause disturbance to the Natura 2000 site situated 250m from the proposed development; and therefore there may be significant disturbance to key species arising from construction activities.	resting and thereby also affecting their ability to migrate and avoid predators. Lighting also increases the mortally of wild birds, via fatal collisions with illuminated buildings. Light levels as low at 0.3 lux have been shown to affect the daily biological rhythms of birds (Frontiers in Zoology, 2013). A lighting model is recommended in order to fully assess potential light spill onto the nearby Natura 2000 site. There may be an increase in domestic pets within the area. This could be detrimental to breeding birds.
Resource requirements (e.g. fishing/harvesting resources)	No Impact. No resources will be removed from the Natura 2000 site. It is anticipated that all materials will be managed within the proposed development site.	No significant impact predicted.

Potential Impacts	INITIAL ASSESSMENT	
	Construction Phase	Operation Phase
INDIRECT IMPACTS (POTENTIAL)		
Disturbance to habitats and species (air quality and water effects)	It is not clear if the proposed site is hydrologically linked to the Natura 2000 site, which is located 250m to the east. Hydrological modelling may be required to assess effects of construction and creation of drainage on the nearby land. There are no watercourses that would be directly impacted by the proposed development and therefore there would be no direct impact from waterborne pollutants during construction. Construction works will be localised to the proposed development area and increased emissions arising from construction machinery may result in limited, temporary changes in air quality at the nearby Natura 2000 site. An Air quality assessments would be required to clearly determine any impact.	The operation of the proposed development may results in increased foot fall within the adjacent Natura 2000 site. This may cause increased visitor and recreational pressure, identified as a potential threat to the target habitats and species.

Table 2 – Potential Impacts of the Project upon Thanet Coast and Sandwich Bay RAMSAR/SPA, Thanet Coast and Sandwich Bay SAC and Sandwich Bay to Hacklinge Marshes SSSI

5.0 CONCLUSIONS

5.1 The proposed development has been identified as being within 250m of a Natura 2000 site, the Thanet Coast and Sandwich Bay RAMSAR and within 2km of Thanet Coasts and Sandwich Bay SPA/SAC. For this reason a Stage 1 Habitats Regulations Screening Assessment has been undertaken.

5.2 The nearby Thanet Coast and Sandwich Bay RAMSAR is designated for a wide variety of coastal habitats including areas of chalk cliff, rocky shore, shingle, sand and mudflats, saltmarsh and sand dunes. As well as its value for breeding and wintering birds, the site supports outstanding communities of terrestrial and marine plant species, a significant number of rare invertebrate species, and is of considerable geological importance. The areas provide an important landfall for migrating birds and also support large wintering populations of waders, some of which regularly reach levels of national importance.

5.3 The proposed development is located ca. 250m from the nearest of the Natura 2000 sites within the 9km buffer zone and as a result the proposed development will not results in direct impact including loss of habitat or direct disturbance to the species within the criteria specific to the Natura 2000 sites.

5.4 The wintering bird survey (*Calumma, 2023*) found two observations of a wading bird (Snipe), although none of the target species. Therefore the status of the proposed site as a stopover for migratory birds is likely to be insignificant. In addition, due to the presence of suitable habitats in the wider landscape within close proximity (250m) to the proposed site and beyond it is considered that other more suitable stop-off sites are present nearer to the RAMSAR/SPA.

5.5 However, it is likely that indirect impacts would occur, such as disturbance resulting from increased noise and light levels during both the construction and operational phases as well as increased recreational pressure of the proposed development. A 2016 study surveyed areas around the SPA Inland areas around Sandwich Bay noted that the disturbance was most frequent in areas close to residential development or vehicle parking. Further studies on water birds (Dover District Council, 2016) have observed high disturbance from dog walkers possible due to lack of separation of dogs and walkers from the feeding areas.

5.6 The landscape of the proposed development has not currently been finalized but is unlikely to provide complimentary habitats. As the proposed site is not currently used for amenity and is not disturbed by dog walkers and other free roaming pets it is anticipated that the proposed site will result in greater disturbance to nearby designated RAMSAR habitats compared to the existing conditions. This may cause significant indirect effects.

5.7 The cumulative effects arising from the nearby developments have not yet been identified. Information from the local authority is required in order to identify whether there would be significant cumulative impacts on the Natura 2000 sites.

5.8 In summary, the potential indirect impacts due to close proximity to the Natura 2000 site as well as potential cumulative effects of the proposed development and other developments could not be ruled out at the screening stage, and, as a result, a Stage 2 Appropriate Assessment will be required.

APPENDIX I – PROPOSED SITE

APPENDIX II – Citations

RAMSAR CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE ESPECIALLY AS WATERFOWL HABITATS

Thanet Coast and Sandwich Bay (Kent)

The Thanet Coast and Sandwich Bay Ramsar site includes a wide variety of coastal habitats including areas of chalk cliff, rocky shore, shingle, sand and mudflats, saltmarsh and sand dunes. As well as its value for breeding and wintering birds, the site supports outstanding communities of terrestrial and marine plants species, a significant number of rare invertebrate species, and is of considerable geological importance.

The site qualifies under Criterion 2a by supporting a very large number of rare species of wetland invertebrates. A total of at 15 Red Data Book species associated with wetlands have been recorded. These comprise three species listed as endangered: the weevil *Lixus vilis*, the moth *Stigmella reprentiella*, and the beetle *Bagous nodulosus*. Two species listed as vulnerable: the silver barred moth *Deltote bankiana*, the dancefly *Poecilobothrus ducalis*. Ten species listed as rare: the groundbugs *Emblethis verbasci* and *Pionosomus varius*, the damsel bug *Nabis brevis*, the dung beetle *Euheptaulacus sus*, the click beetle *Melanotus punctolineatus*, the moth the dotted footman *Pelosia muscerda*, the only British population of the woodlouse *Eluma purpurescens*, two digger wasps *Ectemnius ruficornis* and *Alysson lunicornis*, the plantbug *Orthotylus rubidus*. A significant number of non-wetland Red Data Book invertebrates occur, as well as a large number of other notable and scarce wetland invertebrate species.

The site qualifies under Criterion 3c by regularly supporting an internationally important wintering population of turnstone *Arenaria interpres.* In the five-year period 1986/87 – 1990/91, an average peak count of 1,300 turnstones was recorded, representing 2% of the East Atlantic Flyway population and 3% of the British wintering population.

Notable also are a nationally important breeding population of little tern *Sterna albifrons* turnstone *Arenaria interpres* (30 pais – 1% of the British population); and nationally important wintering populations of the following species (average peak counts over the five year period 1986/87 – 1990/91): ringed plover *Charadius hiaticula* (370 - over 1% of the British wintering population), grey plover *Pluvialis squatarola* (530 - over 2% of British), and sanderling *Calidis alba* (700 - over 5% of British). In addition large numbers of migratory passerine birds pass through the site during the spring and autumn migration periods. These migratory birds have been monitored since 952 by the Sandwich Bay Bird Observatory.

RAMSAR citation (Montreux 1990 Criteria)
HTR/DAS June 1992.

EC DIRECTIVE 79/409 ON THE CONSERVATION OF Wild Birds:
Special Protection Area (SPA)

Thanet Coast and Sandwich Bay (Kent)

The Thanet Coast and Sandwich Bay Special Protection Area includes a wide variety of coastal habitats including areas of chalk cliff, rocky shore, shingle, sand and mudflats, saltmarsh and sand dunes. As well as its value for breeding and wintering birds, the site supports outstanding communities of terrestrial and marine plants species, a significant number of rare invertebrate species, and is of considerable geological importance.

The Thanet Coast qualifies under Article 4.1 by supporting in summer, a nationally important breeding population of little tern *Sterna albifrons* (30 pairs – over 1% of the British population).

The site also qualifies under Article 4.2 by supporting a nationally important wintering population of golden plover *Pluvialis* apricaria. During the five-year period 1985/86 – 1989/90, an average peak count of 1,980 golden plover was recorded, representing 1% of the British population.

The site qualifies under Article 4.2 by regularly supporting an internationally important wintering population of turnstone *Arenaria interpres*. In the five year period 1986/87 – 1990/91, an average peak count of 1,300 turnstones was recorded, representing 2% of the East Atlantic Flyway population and 3% of the British wintering population. The site also supports nationally important wintering populations of a further four species (average peak counts over the five year period 1986/7 – 1990/1): 370 ringed plover *Charadius hiaticula* (over 1% of the British wintering population), 530 grey plover *Pluvialis squatarola* (over 2% of British), 700 sanderling *Calidis alba* (over 5% of Britis), and 40 Lapland bunting *Calcarius lapponicus* (about 11% of British). In addition large numbers of migratory passerine birds pass through the site during the spring and autumn migration periods. These migratory birds have been monitored since 952 by the Sandwich Bay Bird Observatory.

SPA citation
HTR/DAS June 1992.

78. Thanet Coast and Sandwich Bay

Geographical Coordinates: 51°19'N 1°23'E **Area:** 2,183ha

Location: The site includes the majority of the coastline between the towns of Whitstable, Margate, Ramsgate and Deal, on the north and east coasts of the county of Kent, south-east England.

Date of Ramsar Designation: 28 July 1994

Other International Designations: European Union Special Protection Area

National Designations: Site of special scientific interest

Principal Features: The Thanet Coast and Sandwich Bay Ramsar site includes a wide variety of coastal habitats including areas of chalk cliff, rocky shore, shingle, sand and mudflats, saltmarsh and sand dunes. As well as its value for breeding and wintering birds, the site supports outstanding communities of terrestrial and marine plant species, a significant number of rare invertebrate species, and is of considerable geological importance. The site supports a very large number of rare species of wetland invertebrates. A total of at least 15 Red Data Book species associated with wetlands have been recorded. These comprise three species listed as endangered: *Lixus vilis*, *Stigmella repentiella, Bagous nodulosus*. Two species listed as vulnerable: the moth *Deltote bankiana*, the dancefly *Poecilobothrus ducalis*. Ten species listed as rare: *Emblethis verasci, Pionosomus varius, Nabis brevis, Euheptaulacus sus, Melanotus punctolineatus*, *Pelosia muscerda*, the only British population of *Eluma purpurescens*, *Ectemnius ruficornis, Alysson lunicornis, Orthotylus rubidus*. A significant number of non-wetland Red Data Book invertebrates occur, as well as a large number of other notable and scarce wetland invertebrate species. Thanet Coast and Sandwich Bay also regularly supports an internationally important wintering population of *Arenaria interpres*. In the five year period 1986/87 - 1990/91, an average peak count of 1,340 *Arenaria interpres* was recorded, representing 2% of the east Atlantic flyway population. Notable also are nationally important breeding populations of *Sterna albifrons* and nationally important wintering populations of the following species: *Charadrius hiaticula*, *Pluvialis squatarola* and *Calidris alba*. In addition, large numbers of passerine birds pass through the site during the spring and autumn migration periods. (Criteria 2a,3c).

Conservation Issues: Migratory birds have been monitored since 1952 by the Sandwich Bay Bird Observatory. Other land uses include harbour facilities, sewage treatment and disposal, tourism, recreational fishing, and birdwatching. Sandwich Bay and Hacklinge Marsh SSSI has been identified as a high priority site for a water level management plan. Parts of the site have been identified within a proposed European Union Special Area of Conservation.

COUNTY: KENT SITE NAME: SANDWICH BAY AND HACKLINGE MARSHES

DISTRICTS: THANET/DOVER

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authority: THANET DISTRICT COUNCIL/DOVER DISTRICT COUNCIL

National Grid Reference: TR 353585 Area: 1756.5 (ha.) 4338.6 (ac.)

Ordnance Survey Sheet 1:50,000: 179 1:10,000: TR 35 NE, NW, SE, SW; TR 36 SW, SE

Date Notified (Under 1949 Act): 1951 Date of Last Revision: 1981

Date Notified (Under 1981 Act): 1984 (part) 1985 (part) 1990 Date of Last Revision: 1994

Other Information:
Parts of the site are listed in 'A Nature Conservation Review' and in 'A Geological Conservation Review'[2]. The nature reserve at Sandwich Bay is owned jointly by the Kent Trust for Nature Conservation, National Trust and Royal Society for the Protection of Birds. The site has been extended to include a Kent Trust designated Site of Nature Conservation Interest known as Richborough Pasture and there are several other small amendments.

Reasons for Notification:
This site contains the most important sand dune system and sandy coastal grassland in South East England and also includes a wide range of other habitats such as mudflats, saltmarsh, chalk cliffs, freshwater grazing marsh, scrub and woodland. Associated with the various constituent habitats of the site are outstanding assemblages of both terrestrial and marine plants with over 30 nationally rare and nationally scarce species, having been recorded. Invertebrates are also of interest with recent records including 19 nationally rare[3], and 149 nationally scarce[4] species. These areas provide an important landfall for migrating birds and also support large wintering populations of waders, some of which regularly reach levels of national importance[5]. The cliffs at Pegwell Bay are also of geological interest.

Biological Interest
The sand dunes which stretch from the mouth of the River Stour to Deal comprise the most outstanding botanical habitat within the site. The dunes and associated dune slacks and coastal grassland support a distinctive flora with species including crown garlic *Allium vineale*, viper's bugloss *Echium vulgare*, sea holly *Eryngium maritimum* and restharrow *Ononis repens*, whilst the nationally

APPENDIX II – Legislation

A.1 The Habitats Directive (Council Directive 92/43/EEC of 21 May 1992) requires European Union (EU) member states to create a network of protected wildlife areas, known as Natura 2000 sites, across the EU. This network consists of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

A.2 The European Commission approved a list of candidate SACs (cSACs) submitted by the UK, following an assessment to make sure the Habitats Directive had been applied consistently across the EU. This results in the cSACs becoming Sites of Community Importance, which are sites that have been adopted by the EC before they are formally designated as SACs by the UK government.

A.3 Article 6 (3) of the European Union Habitats Directive (1992, as amended, 'the Habitats Directive') sets out the need for 'Appropriate Assessment' of plans or projects which have potential to affect the integrity of a Natura 2000 site (including Special Protection Area (SPA), potential SPA (pSPA), Special Area of Conservation (SAC) and candidate SAC (cSAC) sites such as those in proximity to the Project):

A.4 Any plan or project likely to have a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects, shall undergo an Appropriate Assessment to determine its implications for the site. The competent authorities can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned' (Article 6.3).

A.5 As the purpose of the Natura 2000 network is preservation of examples of species and habitats across Europe, rather than preservation of individual sites, Article 6 (4) allows for exceptional circumstances where negative effects may be permitted. This reads as follows:

A.6 'In exceptional circumstances, a plan or project may still be allowed to go ahead, in spite of a negative assessment, provided there are no alternative solutions and the plan or project is considered to be of overriding public interest1. In such cases the Member State must take appropriate compensatory measures to ensure that the overall coherence of thee Natura 2000 Network is protected (Article 6.4).'

A.7 The Habitats Directive is translated into domestic law in England through the Conservation of Habitats and Species Regulations 2017 (as amended) ('Habitat Regulations'); Regulation 63 (1) states that *'A competent authority before deciding to undertake , or give any consent, permission or other authorization for a plan or project which is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination other plans or projects and is not directly connected with or necessary to the management of that site must make an Appropriate Assessment of the implications for that site in view of that site's conservation objective.*

A.8 Like the Habitats Directive, the Habitat Regulations also make allowance for projects or plans to be completed if they satisfy 'imperative reasons of overriding public interest (IROPI)'2. Regulations 64 and 68 relate to such situations.

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Flood Risk Sequential Test Statement for the Proposed Development at the Land at Jubilee Road, Worth, Kent

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Flood Risk Sequential Test Statement for the Proposed Development at the Land at Jubilee Road, Worth, Kent

Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date
1	0	First issue sent by email.	9th October 2023

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Document Verification

Issue	Revision	Date:	9th October 2023
1	0	Author(s):	AW
		Director Sign Off:	SM-B

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Contents Page

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1 Scope of Appraisal

Herrington Consulting has been commissioned by Mr Stevens, Ms Stevens and Mrs Morgan to prepare a Flood Risk Sequential Test Statement (FRST) for the proposed development at the **Land at Jubilee Road, Worth, Deal, Kent, CT14 0DN.**

The National Planning Policy Framework (NPFF 2023) states that the Local Planning Authority (LPA) should apply the sequential approach as part of the identification of land for development in areas at risk from flooding. The overarching objective of the Sequential Test is to ensure that lower risk sites are developed before sites in higher risk areas. This means that sites located within Flood Zones 2 and 3, and/or which are shown to be at risk of flooding from any other sources (including the impacts of climate change) *typically* require the Sequential Test to be applied.

Inspection of the Environment Agency's (EA) 'Flood Map for Planning' shows that the development site is partially located within Flood Zone 2. Consequently, a Sequential Test is typically required to be applied to determine whether there are any alternative (sequentially preferable) sites that are available, i.e. which are at lower risk of flooding than the subject site.

This FRST has therefore been undertaken in accordance with the requirements of the NPPF (2023) and the National Planning Practice Guidance Suite (NPPG, 2022), published by the Department for Communities and Local Government (DCLG).

2 Application of the Sequential Test

2.1 Sites Exempt from the Sequential Test

The development site (further referred to as 'subject site') lies within Flood Zone 2, as shown by the Environment Agency's (EA) 'Flood Map for Planning' in Section 2.3 of the accompanying FRA report (2023), and therefore, according to the NPPF the development would require the Sequential Test to be applied. Whilst the 'Flood Map for Planning' is typically the starting point for the Sequential Test assessment, national guidance published by the Government and the NPPF provide a list of sites which are exempt from the Sequential Test. These include the following;

- Sites where the Sequential Test has previously been carried out and the site has been considered to be passed, e.g. all of the site being allocated in the Local Plan.
- Development proposals which are classified as 'minor development', i.e.,
    - *minor non-residential extensions: industrial/commercial/leisure etc. extensions with a footprint less than 250 square metres.*
    - *alterations: development that does not increase the size of buildings eg alterations to external appearance.*
    - *householder development: For example; sheds, garages, games rooms etc within the curtilage of the existing dwelling, in addition to physical extensions to the existing dwelling itself. This definition excludes any proposed development that would create a separate dwelling within the curtilage of the existing dwelling e.g. subdivision of houses into flats.*
- Change of use applications, except for caravan, camping chalet, mobile home or park home sites.

In addition, Dover District Council's (DDC) 'Site-specific Guidance for Managing Flood Risk' states that sites located within a conservation area are exempt, providing it can be demonstrated that there is a need for regeneration.

In this case, the proposals are for the construction of 30no. new dwellings, just south of Worth. Consequently, the development would not be classified as minor development or change of use. In addition, the site is not located within a conservation area.

It is acknowledged that part of the site is proposed to be allocated within DDC's emerging Local Plan, with a capacity of 10 units as part of SAP49 (WOR006), as shown in Figure 2.1 below.

Figure 2.1 - Extract from Google Satellite showing the area of the site proposed for allocation (blue outline) and the site boundary for the subject site (red outline).

However, for the purpose of this assessment, the entire development site has been considered and therefore, it is concluded that the subject site does not fit within any of the development categories which are exempt from the Sequential Test. It is therefore concluded that the Sequential Test is required to be applied in this instance.

However, regard has been given to the allocation as part of the Sequential Test searches when identifying alternative sites. This means that sites which could accommodate 20 units have been included, in order to provide a comparable selection of similar sized developments, taking into consideration the *entire* proposed site boundary.

2.2 Identifying Alternative Sites

To pass the Sequential Test, it is necessary to demonstrate that there are no sequentially preferred sites available, i.e., sites which are located in areas at a lower risk than the subject site.

The development site is located within a 'rural' area and therefore, the geographical search area should comprise the ward in which the site is located and the adjoining wards. In this case, there are 9 wards (inclusive of the ward the development site is located in), which have been identified, as follows;

- Sandwich
- Eastry Rural
- North Deal
- Middle Deal
- Mill Hill

- Guston, Kingsdown & St Margaret's-at-Cliffe
- Whitfield
- Aylesham, Eythorne & Shepherdswell
- Little Stour & Ashstone

Size and Scope of Alternative Sites

DDC's guidance state that the subject site should only be compared to those sites that are similar in size and scale. The proposals are for the construction of 30 residential units and consequently, the search process has considered alternative sites which have capacity to accommodate 27 to 33 residential units (i.e., ± 10%).

However, since the guidance was published, the National Planning Policy Guidance (NPPG) has been updated and further guidance has been provided with regard to identifying 'reasonably available sites';

> 'Reasonably available sites' are those in a suitable location for the type of development with a reasonable prospect that the site is available to be developed at the point in time envisaged for the development.
>
> These could include a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development. Such lower-risk sites do not need to be owned by the applicant to be considered 'reasonably available'.

Figure 2.2 - Extract from the National Planning Policy Guidance - Flood risk and coastal change, Paragraph: 028 Reference ID: 7-028-20220825.

Consequently, a conservative approach has been adopted and the searches have been expanded to include smaller sites with an anticipated capacity of 10 units. No upper limit has been applied.

The lower limit of 10 units has been chosen as any further reduction in size would result in the development being spread out across the wards. Furthermore, the likelihood of delivering houses at the same time across the various number of sites is extremely unlikely. However, if the Sequential Test searches were to identify sites in the region of 17 to 27 units, which are suitable and available, further searches would be undertaken for smaller sites (i.e. less than 10 units) in order to make the numbers total up to 30 residential units (commensurate with the subject site).

Sources of Alternative Sites

There are several sources which can be utilised to search for alternative sites. The following section outlines the sources used to determine if there are alternative sites available and discusses the outcome for each source.

Brownfield Register 2023 – The brownfield register identifies sites which have previously been developed and are considered suitable for residential development. Review of the Brownfield Register shows that there are 81 sites which are located within the ward and adjoining wards. Out

of these 81 sites, 21 sites have a proposed number of dwellings which varies between 10 units to 500 units. Three of the 21 sites have been identified to be similar in size to the development, i.e. with the number of dwellings varying between 30 and 32. Consequently, sites listed within the report have been considered further as part of the search.

Authority Monitoring Report 2021/22 – The Authority Monitoring Report (AMR) has been referenced as part of the search for alternative sites. The report provides a list of sites which have extant planning permission and/or are allocated, as of March 2022. The list identifies that there are 265 sites within the geographical search area. However, the list has been separated into sites which are already under construction and sites where construction has not yet started. As sites under construction are not considered to be available anymore and the development is delivered, these sites have not been considered further. Sites where parts of the site have been constructed, but there are outstanding phases, have been considered as part of the searches. The list reveals that there are 23 sites in the search area which have extant planning permission and fall within the size and scope of alternative sites, considered as part of this assessment.

Housing Economic Land Availability Assessment (HELAA) – The HELAA 2022 published as part of the emerging Local Plan has been used to identify potential comparator sites. Sites which have been classed as 'unsuitable' as part of the HELAA process have not been included within the searches. However, there are 73 sites which are stated as 'suitable' or 'partially suitable' and consequently, these have been taken forward for comparison.

It should be recognised that there are potentially a number of sites which have been identified in several sources and therefore, are duplicated. These have subsequently been summarised as part of the comparison process.

2.3 Comparison Process

From the sources listed in Section 2.2, the analysis has been split into two parts, which are classified as follows;

DDC method – Considering comparator sites with a capacity of 27 to 33 residential units.

NPPG method – Considering additional comparator sites with a capacity of 10 to open end residential units.

If no comparator sites can be identified following the DDC method, the NPPG method is followed and other sites, which are smaller and/or parts of larger sites, will be appraised for the suitability and deliverability.

For a site to be considered as a suitable alternative site, it is necessary to consider whether the site is available, and whether a similar type of development could be delivered. Sites which are not considered suitable according to any of these parameters have been discounted from the search.

If following the comparison process, comparator sites can be identified which are suitable and deliverable, whilst also shown to be at lower risk of flooding than the development site, it is considered that the Sequential Test is failed.

The methods and sources used to determine whether a site is appropriate according to the parameters of the search have been outlined below, in order of their application within the comparison process;

Deliverability

Where an extant permission has been implemented, i.e. work has started, these sites have been discounted from the search, as the development has already been delivered. In addition, sites which are considered to be contrary to the Development Plan policy can also be discounted, providing that clear evidence is given. In this case, some of the sites identified have come forward as part of the HELAA process, but have not been allocated for one or more of the following reasons according to the 'The Selection of Site Allocations for the Regulation 19 Submission Local Plan September 2022' document;

- Site is not considered to be in accordance with the Council's growth strategy.
- Site is in conflict with SP4 of the Local Plan.
- The site is subject to other constraints.

These sites have subsequently been discounted.

For sites identified within the HELAA process which have come forward for allocation, the following documents have been further referenced to appraise the suitability and deliverability of the sites;

- *Housing and Economic Land Availability Assessment (HELAA) - Main Report, including all relevant appendices.*
- *Regulation 22 Part 1 Appendix E – Regulation 18 Representations Summary and Response.*
- *The Selection of Site Allocations for the Regulation 19 Submission Local Plan September 2022.*
- *Housing Technical Paper 2021.*

Type of Development

Any alternative site should be able to accommodate a similar type of development to the subject site. In this case, the proposals are for 30 new dwellings, comprising a mix of semi-detached and detached houses. As such, all sites have been assessed to determine whether such development could be accommodated elsewhere. For alternative sites identified, the site has been assessed based upon the description published on Dover District Council's planning portal. For development which is found to provide units through alternative means, i.e. change of use of an existing building or flats or extensions to existing buildings, these sites have been discounted from the search, on the basis that they are not considered to provide a similar type of development.

Availability

To be considered as a suitable alternative site, any comparator site should be available for development. The sites identified to be appropriate for the comparison process have been checked to determine whether they would be available for purchase and development, and that they are not within the ownership of an adjoining landowner (e.g. garden development, sub-divisions, change of use of an existing building). Searches of property agents have been undertaken to determine whether the sites identified from the sources listed above are currently advertised for sale and would therefore be considered available. The following sales portals have been used;

- *Plotfinder*
- *Rightmove*
- *OnTheMarket*
- *Hobbs Parker*
- *UK Land and Farms*
- *Lambert and Foster*

Sites which are not available for purchase have subsequently been discounted.

The findings of the comparison process have been summarised in the following section.

2.4 Summary of Comparison Process

DDC method

9 sites have been identified as part of this method which have subsequently been assessed in terms of their deliverability, suitability, availability and type of development, as defined in the previous section. A summary of the analysis for each individual site is provided within Appendix A.1 – DDC method.

Of the 9 sites identified, three can be discounted, as review of Googlemaps has identified that construction on these sites has started. For two additional sites, planning permission has historically been sought for a significantly smaller scheme, with Googlemaps suggesting that construction has since started on both sites. As such, all of the five sites have been discounted.

For the site at Archers Court Road, reserved matters and discharge of conditions applications are currently being submitted and therefore, it is not considered likely that the site will be 'reasonably available'. This is supported by searches of the sales portals which show that the site is not available for purchase. Consequently, this site has been discounted.

The site at Sandwich Highway Depot is currently proposed to be allocated as part of the emerging Local Plan. However, further review of the Environment Agency's 'Flood Map for Planning' identifies that approximately over 90% of the site is situated within Flood Zone 3. The subject site is situated within Flood Zones 1 and 2 only (i.e. within a lower risk area) and therefore, Sandwich Highway Depot would not be sequentially preferable as it is shown to be at higher risk than the subject site.

Whilst the site at Homestead Lane has been considered as 'potentially suitable' as part of the HELAA process, the site has not been allocated. Consequently, it is concluded that the site is contrary to the Council's policies as stated within section 2.3. In addition, a planning application has been submitted for the construction of two dwellings. These dwellings are partially located on land proposed for the access road to the wider site. Furthermore, as part of the application it has been identified that the site is located within an area of high archaeological potential. Taking this into consideration and the fact that review of sales portals does not list the site to be available for purchase at this time, the site has been discounted.

The site at Eastling Down Farm forms part of the greater Whitfield expansion and lies north of the managed expansion. The site is relatively remote and therefore, parts of the expansion would need to be developed first before the site can come forward. Consequently, the site is not considered to be suitable and 'reasonably available' within the anticipated timescales of the subject site.

Based on the analysis undertaken above, it is evident that all 9 sites identified following the DDC method have been discounted for numerous reasons. As a result, the searches for comparator sites have been expanded and the NPPG method has been applied.

NPPG method

91 sites have been identified in addition to the 9 sites previously discussed which have a number of units varying between 10 and 655 (largest development identified). The analysis for each individual site is provided within Appendix A.2 – NPPG method. A summary list of the main reasons for discounting the sites is below;

- The site is owned by a large developer and therefore, it is not considered that the site will be made available, with some developers advertising sites on their website.
- A few sites, especially in the Sandwich area, are shown to be at greater risk of flooding (i.e. are partially located in Flood Zone 3) than the subject site and therefore, are not considered to be sequentially preferred.
- The number of proposed dwellings is marginally larger than the number of dwellings proposed for the subject site and therefore, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site.
- Construction on the site has started according to Google Maps /Streetview and therefore, the planning permission has been implemented.

For all other remaining sites which have not been discounted based any of the main reasons listed above, searches of the sales portals reveals that these are not currently available for purchase. Therefore, in accordance with the guidance, these sites have been discounted.

Consequently, it has been demonstrated that there are no alternative sites available within the geographical search area, where the proposed development could be located.

On this basis, it is concluded that **the Sequential Test is passed.**

3 Conclusions

The purpose of this document is to determine whether there are any alternative sites which are available at lower risk of flooding than the application site at **Land at Jubilee Road, Worth, Deal, Kent, CT14 0DN.** Consequently, a Sequential Test search has been undertaken for the geographical search area, in accordance with both DDC's guidance on the Sequential Test and the NPPG.

A number of comparator sites (100 in total) have been identified during the search process, following both the DDC method and NPPG method. An assessment of the risk of flooding, availability and suitability of these sites to deliver a similar type of development to the subject site has therefore been undertaken.

The assessment shows that all 100 sites have been discounted as suitable alternative sites, for a variety of reasons. Consequently, it is concluded that the proposed development is located in the safest location, in terms of flood risk, for the sites which are available to purchase.

The conclusion of this Sequential Test evidence is that there are no alternative sites currently available within the ward of the subject site and the adjoining wards of the Dover 'rural' geographical search area. This **Sequential Test evidence concludes that the LPA can pass the Sequential Test for this development**.

4 Appendices

Appendix A.1 – DDC method

Appendix A.2 – NPPG method

Appendix A.1 – DDC method

Source	APPLICATION number/ HELAA	Site Address	Postcode	Parish / Settlement	No of dwellings	Comments	Discounted/ Taken forward
AMR	16/01328	Land to rear of Archers Court Road, Whitfield	CT16 3HP	Whitfield	28	Reserved matters and discharge of condition application has been submitted in June 2022 by Wellmeadow Plus Ltd. As such, the development seems to be progressing and is unlikely to be 'reasonably available'. Review of sales portals shows that the site not available for sale. In addition, the site is not shown to be considered within 5-year housing supply up to 2025/2026. Consequently, the site is not considered to be 'reasonably' available.	discounted
BR	18/00125	East Studdal Nursery, Downs Road, East Studdal	CT15 5DB	East Studdal	30	Whilst the Brownfield Register lists 30 net dwellings for the site, the application itself seems to have been made for 10 dwellings. In addition, a reserved matters application was submitted in June 2021 which included the proposals of 14 dwellings. Review of the planning portal shows that Discharge of Conditions are currently being submitted. Consequently, this site is not considered suitable when compared to the subject site. In addition, review of Google Streetview from April 2023 would indicate that works have started. Consequently, the site is not considered to be available.	discounted
BR	SAN006	Sandwich Highway Depot,Chippies Way, Ash Road, Sandwich	CT13 9HZ	Sandwich	32	Allocated as part of the emerging local plan. The anticipated timescale for delivery is medium (i.e. 2025-2029). However, further review shows that the site is situated within a high flood risk area, i.e. over 90% of the site is situated within Flood Zone 3. Consequently, the site is at higher risk of flooding than the subject site and therefore would not sequentially be preferred. In addition, as part of the HELAA process, highways concerns and a potential heritage impact have been identified. Review of sales portals shows that the site is not available for sale. Consequently, the site is not considered to be suitable or available.	discounted

Source	APPLICATION number/ HELAA	Site Address	Postcode	Parish / Settlement	No of dwellings	Comments	Discounted/ Taken forward
HELAA	N/A	The Homestead, Homestead Lane, East Studdal	CT15 5BN	Eastry	30	HELAA identification has changed to HELAA TC4S064, however, the site has not been allocated as part of the emerging local plan. In addition, planning permission was previously submitted in 2019 for the construction of two dwellings, partially on land which was proposed for access road to the wider site. As part of the planning application, it has been identified that the smaller site is located within area of high archaeological potential. Review of sales portals shows that the site is not available for sale. Consequently, based on the points raised above, the site is not considered to be suitable or available.	discounted
HELAA	N/A	Eastling Down Farm, Sandwich Road, Waldershare	CT15 5AS	Eastry	27	The site forms part of the greater Whitfield expansion and lies north of the managed expansion. However, given its remote location, it is considered that other parts of Whitfield would need to be developed first before the site becomes viable. In addition, review of sales portals shows that the site is not available for sale. Therefore, the site is not considered to be suitable and 'reasonably' available within the anticipated timescales of the subject site.	discounted
HELAA	DOV/19/00403	Land at Woodnesborough Lane, Eastry	CT13 0DX	Eastry	28	Review of Googlemaps shows that construction has started on site. Consequently, the site is not considered to be suitable or available.	discounted
HELAA	DOV/16/01247	Land to the rear of White Post Farm, Sandwich Road, Ash	CT3 2AF	Little Stour & Ashstone	30	Review of Googlemaps shows that construction has started on site. Consequently, the site is not considered to be suitable or available.	discounted

Source	APPLICATION number/ HELAA	Site Address	Postcode	Parish / Settlement	No of dwellings	Comments	Discounted/ Taken forward
SHLAA	17/00417	Reservoir St Richards Road, Deal (DO146)	CT14 9JT	Mill Hill	32	Review of the planning portal would suggest that planning permission has only been granted for 14 dwellings on a significantly smaller site than the anticipated 32 dwellings. Review of Googlemaps indicates that construction has been completed for the approved development. Even if the remainder of the site was to come forward, it is expected that the proposed number of units will be reduced by approximately 14 dwellings and therefore, would not be commensurate with the size of the subject site. Consequently, the site is not considered to be suitable.	discounted

Appendix A.1 – NPPG method

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Targeted Call for Sites 2021	TC4S023	Land adjacent to Cross Farm	CT13 0HG	Eastry	10	Allocated as part of the emerging local plan. However, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	SHE006	Land at Botolph Street Farm, Shepherdswell	CT15 7NH	Eythorne & Shepherdswell	10	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Existing surface water flow path across the site. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	STM006	Land at New Townsend Farm, Station Road, St Margaret's	CT15 6ES	St Margaret's at Cliffe	10	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
Unimplemented Allocation	N/A	Land at Northbourne Road, Great Mongeham	CT14 0LA	Eastry	10	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
SHLAA	STM010	Land located between Salisbury Road and The Droveway, St Margaret's-at-Cliffe	CT15 6DL	St Margaret's at Cliffe	10	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
Unimplemented Allocation	SHE008	Land off Mill Lane, Shepherdswell	CT15 7LJ	Eythorne & Shepherdswell	10	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
SHLAA	WOO006	Land south of Sandwich Road, Woodnesborough	CT13 0LZ	Sandwich	10	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	GTM003	Land to the east of Northbourne Road, Great Mongeham	CT14 0HJ	Eastry	10	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Unimplemented Allocation	SHE008	Land Adjacent Mill House, Shepherdswell	CT15 7LJ	Aylesham, Eythorne and Shepherdswell	10	Allocated as part of the emerging local plan. The site is within the client ownership for Mill House, however, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	ASH011	Guilton,Ash	CT3 2HS	Little Stour & Ashstone	10	Allocated in the Ash Neighbourhood Plan. Further review of HELAA assessment identifies that there are environmental constraints and comments received by the EA as part of the HELAA process notes that "All sites in Ash should only be developed once the sewerage undertaker has confirmed that the upgraded sewerage network and pump-stations in the area will be able to cope with any additional load of waste water." In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, it is not currently considered to be 'reasonably' available.	discounted
SHLAA	SAN019	Sydney Nursery, Dover Road, Sandwich	CT13 0DB	Sandwich	10	Searches of sale portals have revealed that the site is not currently for sale. In addition, the site is located in Flood Zones 2 and 3, whereas the subject site is solely based in Flood Zones 1 and 2. Consequently, this site is shown to be at higher risk than the subject site and therefore, would not be sequentially preferred. As such, the site is not currently considered to be suitable.	discounted
SHLAA	N/A	Wood Ash Garage at the junction of Beacon Lane and Drainless Road, Woodesborough	CT13 0PR	Sandwich	10	The HELAA 2022 housing site assessment states that the site is unavailable. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
SHLAA	WOR006	Land to the east of Jubilee Road	CT14 0DR	Sandwich	10	This allocation forms part of subject site and therefore, is not considered further as part of these searches.	Part of subject site.
HELAA	N/A	Land at Broomhill, Gobery Hill, Wingham	CT13 1JJ	Little Stour & Ashstone	11	The Document 'The Selection of Site Allocations for the Regulation 19 Submission Local Plan September 2022' states that "WIN006 has been discounted as it was refused planning permission on highway grounds and it is considered at this stage that this cannot be mitigated." Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
HELAA	N/A	Eastling Down Farm, Sandwich Road, Waldershare	CT15 5AS	Eastry	12	The site forms part of greater Whitfield expansion. However, given it's remote location, it is considered that other parts of the Whitfield expansion would need to be developed first before site becomes viable. Therefore, the site is not considered to be available within the same timescale as the subject site.	discounted
HELAA	N/A	Land east of Foxborough Hill, Eastry	CT13 0DL	Eastry	13	Whilst site has been listed under HELAA 2022 housing site assessments, further review would suggest it is considered for employment only. Therefore, the site is not considered suitable for comparison.	discounted
AMR	21/01080	Land off Church Lane, Church Lane, Deal		Sholden	14	Whilst construction has not started, reserved matters application was submitted in June 2021 including discharge of conditions. The site is owned by Quinn Estates (a large developer) and therefore, is not considered to be 'reasonably' available.	discounted
AMR	18/00125	East Studdal Nurseries Downs Road East Studdal	CT15 5DB	East Studdal	14	Discharge of conditions are currently being submitted. The application was made by East Kent Property Developments Ltd, with Hobbs Parker as the agent. Planning portal searches would suggest that the land was sold to East Kent Property Developments Ltd prior to the submission of the reserved matters application. Therefore, the site is not considered to be 'reasonably' available. In addition, review of Google Streetview from April 2023 would indicate that works have started.	discounted
Site Visit	WOR009	Land to the East of former Bisley Nursery, The Street, Worth	CT14 0FD	Sandwich	15	The site was previously considered as part of the Regulation 18 consultation. However, due to comments received, the capacity has been reduced from 20 to 15 dwellings. The reasons for change are listed as "To reflect the landowner's aspirations for the site". The site promoter is listed as Sunningdale development plc. It is recognised that there is uncertainty about the future of Sunningdale development. However, at this stage, the site has not been found for sale through searches of sales portals and therefore, it is concluded that the site is not 'reasonably' available at this stage.	discounted
HELAA	18/00242	Summerfield Nursery, Barnsole Road	CT3 1LD	Little Stour & Ashstone	16	Discharge of conditions have been submitted in January 2023 by Millwood designer homes limited and the development is advertised on their website. Consequently, the site is not considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
HELAA	AYL002	Land at Boulevard	CT3 3BP	Aylesham	17	Local knowledge confirms that construction has started and therefore, the site is not 'reasonably' available.	discounted
HELAA	21/01080 / DEA018	Church Lane/Hyton Drive, Deal	CT14 9SQ	Eastry	18	A reserved matter application was submitted in June 2021 by Quinn Estates, which is a large developer. It is likely that the site will therefore be build out by Quinn Estates. In addition, searches of sale portals have revealed that the site is not currently for sale. Consequently, the site is not considered to be 'reasonably' available.	discounted
HELAA	STM008	Land to the west of Townsend Farm Road, St Margaret's at Cliffe (site A)	CT15 6EP	St Margaret's at Cliffe	18	The HELAA 2022 housing site assessment states that site is only to be taken forward as part of STM007. This would result in a larger development of 36 units which is not commensurate with the scale of subject site. Therefore, the site is not considered suitable.	discounted
HELAA	STM007	Land to the west of Townsend Farm Road, St Margaret's (Site B)	CT15 6JE	St Margaret's at Cliffe	18	The HELAA 2022 housing site assessment states that the site is only to be taken forward as part of STM008. This would result in a larger development of 36 units which is not commensurate with the scale of the subject site. Therefore, the site is not considered suitable.	discounted
BR	20/00693	Aylesham Sports Club, Burgess Road, Aylesham	CT3 3AU	Aylesham	19	Planning permission was previously granted for the erection of a residential block comprising 21no. flats and a drinking establishment. In this case, the subject site comprises the erection of houses only and therefore, it is considered that the size and scope of this development is commensurate with the proposals for the subject site. Therefore, the site is not considered suitable.	discounted
Targeted Call for Sites 2021	N/A	Land to the east of The Street, Preston	CT3 1DP	Little Stour and Ashstone	19	The site has not been allocated. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
Unimplemented Allocation	21/00105	The Old Chalk Pit, Heronden Road, Eastry	CT13 0ET	Eastry	20	A planning submission for 3 dwellings has been granted in June 2021. Whilst construction has not yet started according to Google Maps and Google Streetview, the approved application is not commensurate with the size of the subject site. Consequently, the site is not considered to be suitable.	discounted
HELAA	WIN003	Land adjacent to Staple Road	CT3 1LX	Little Stour & Ashstone	20	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
SHLAA	19/00120	Land North of Lower Road and to the east of Durlock Road, Staple	CT3 1JX	Little Stour & Ashstone	20	Planning permission has been granted for 8 dwellings and review of Google Maps shows that construction has started.	discounted
HELAA	19/00721	Upton House, 4 Mill Lane, Shepherdswell	CT15 7LJ	Eythorne & Shepherdswell	20	Planning permission has previously been granted for parts of the site for the erection of 5 dwellings. Inspection of Google Maps shows that construction has started. The application was previously submitted by the landowner and it is likely that the remainder of the site will be developed by the same land owner. Reference to the HELAA 2022 housing site assessment also states that the site is considered for mixed use. The subject site does only propose residential use and therefore, this site is not considered to be suitable.	discounted
AMR	18/00682	Land to the rear 135 to 147 St Richards Road, Deal		Deal	20	Review of Google Streetview from April 2023 would indicate that works have started.	discounted
HELAA	N/A	Site between play area at Guston and Meadowcroft	CT15 5ER	St Margaret's at Cliffe	20	The site has not been allocated. Potential highways concerns have been raised as part of the Regulation 22 statement. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
Site Visit	PRE016	Site north of Discovery Drive, Preston	CT3 1FG	Little Stour & Ashstone	20	The site was previously considered as part of the Regulation 18 consultation. However, due to comments received, the capacity has been reduced from 35 to 20 dwellings. The reasons for change are listed as "To reflect the landowner's aspirations for the site". The site is currently listed to be promoted by Quinn Estates within the Regulation 22 statement. In addition, the HELAA 2022 housing site assessment states that the site is to be sold to the Council to provide affordable housing. Consequently, the site is not currently considered to be suitable and 'reasonably' available.	discounted
Unimplemented Allocation	17/00312	Land to the rear of 133-147 St Richard's Road, Deal	CT14 9LF	Mill Hill	21	Planning permission has previously been granted for 33 dwellings. Inspection of Google Maps shows that construction has started.	discounted
HELAA	WHI001	Eastling Down Farm, Sandwich Road, Waldershare	CT15 5AS	Eastry	24	The site forms part of the greater Whitfield expansion and only to be taken forward as part of WHI001. However, given its remote location, it is considered that other parts of Whitfield would need to be developed first before the site becomes viable. Therefore, the site is not considered to be 'reasonably' available within the same timescale as subject site.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Targeted Call for Sites 2021	TC4S008	Bridleway Riding School, Station Road, Deal	CT14 9JN	Mill Hill	25	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
Unimplemented Allocation	21/01615 / NON006	Prima Windows, Easole Street/Sandwich Road, Nonington	CT15 4HF	Aylesham	35	A planning application has previously been submitted in October 2021 for 27 dwellings. Whilst a decision is outstanding, the officer's report states that planning permission is recommended to be granted. The application has been submitted by Roma Homes, which is a housing developer and advertises the future development on their website. Therefore, the site is considered to be unavailable.	discounted
HELAA	SAN023	Land at Archers Low Farm, St George's Road, Sandwich	CT13 9LD	Sandwich	35	Allocated as part of the emerging local plan. The Regulation 22 statement lists Fernham Homes Ltd as the site's promoter, which is a construction company. Based on this and that searches of sale portals have revealed that the site is not currently for sale, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	SAN008	Woods' Yard, rear of 17 Woodnesborough Road, Sandwich	CT13 0AA	Sandwich	35	Allocated as part of the emerging local plan. The Regulation 22 statement lists John Elvidge Planning Consultancy as the site promoter and therefore, the site is not considered to belong to a housing developer. However, the majority of the site is located within Flood Zone 3 and therefore, is considered to be at higher risk than the subject site. Due to the proposed dwellings being marginally larger than the site, it is also unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Consequently, it is concluded that the site is not suitable and 'reasonably' available.	discounted
SHLAA	N/A	Lower Gore Field, Lower Gore Lane, Eastry	CT13 0ED	Eastry	35	The HELAA 2022 housing site assessment states that the site is unavailable. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
HELAA	SAN007	Land known as Poplar Meadow, Adjacent to 10 Dover Road, Sandwich	CT13 0BN	Sandwich	35	The site was previously considered as part of the Regulation 18 consultation. However, due to comments received, the capacity has been reduced from 80 to 35 dwellings. The reasons for change are listed as "To reflect the landowner's aspirations for the site". Due to the proposed dwellings being marginally larger than the site, it is also unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. Furthermore, the site is partially shown to be situated within Flood Zones 2 and 3 and therefore, is considered to be located in a higher risk area in terms of flooding than the subject site. Searches of sale portals have revealed that the site is not currently for sale. Consequently, the site is not currently considered to be suitable and 'reasonably' available.	discounted
Unimplemented Allocation	18/00764	Stalco Engineering, Mongeham Road, Deal	CT14 9LL	Eastry	36	A planning application has previously been submitted for the erection of 35 dwellings. A variation of condition has subsequently been submitted in April 2021, however, has since been withdrawn. The original application has been submitted by Woodlands Court Dover Ltd, whereas the variation of condition has been submitted by Kent Housing Development Limited. Consequently, it is considered that the ownership of the site has changed in-between the applications and therefore, the site is unlikely to be available at this stage. The Updated Housing Land Supply Technical Paper would further indicate that the phasing of the site is split into 19 and 16 dwellings. These are not commensurate with the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Consequently, it is concluded that the site is not suitable and 'reasonably' available.	discounted
HELAA	SAN004	Land south of Stonar Lake and to north and east of Stonar Gardens, Stonar Road, Sandwich	CT13 9LY	Sandwich	40	Allocated as part of emerging local plan. The site lies partially within Flood Zones 3 and therefore, is considered to be at higher risk than the subject site. As such, the site is not considered to be sequentially preferred. Due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
SHLAA	LAN003	Land adjacent Langdon Court Bungalow, The Street, East Langdon	CT15 5JF	St Margaret's at Cliffe	40	Allocated as part of the emerging local plan. Due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
HELAA	SHE004	Land to the north and east of St Andrew's Gardens, Shepherdswell	CT15 7LP	Eythorne & Shepherdswell	40	Allocated as part of the emerging local plan. Due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	STM003	Land adjacent to Reach Road bordering Reach Court Farm and rear of properties on Roman Way	CT15 6AH	St Margaret's at Cliffe	40	Allocated as part of the emerging local plan. The Regulation 22 statement does not identify a specific site promoter and therefore, the site is not considered to be owned by a housing developer. However, due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
SHLAA	17/01515	Land to the west of Lansdale, Great Mongeham	CT14 0LB	Eastry	40	Planning permission was previously granted for 12 dwellings. Inspection of Bing Satellite images shows that these have since been constructed.	discounted
HELAA	AYL005	Land off Holt Street, Snowdown, Aylesham	CT15 4JN	Aylesham	40	The site is for a mixed-use scheme, including 40 carbon neutral community based affordable housing units in addition to 12,000sqm floorspace comprising different commercial uses. The site covers an area of over 40ha which is significantly greater than the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not considered to be suitable and 'reasonably' available.	discounted
Site Visit		Site north-west of Appletree Farm, Stourmouth Road, Preston	CT3 1FN	Little Stour & Ashstone	40	The site was previously considered as part of Regulation 18 submission, however, the capacity has been reduced from 75 to 40 dwellings. The reasons for change are listed as "To reflect the landowner's aspirations for the site". Consequently, the site is not currently considered to be suitable and 'reasonably' available. In addition, due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Unimplemented Allocation	SAN013	Land adjacent to Sandwich Technology School, Deal Road, Sandwich	CT13 0BY	Sandwich	40	The site was previously considered as part of the Regulation 18 consultation; however, the capacity has been reduced from 60 to 40 dwellings to take surface water flooding into account. However, due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
AMR	18/01238	Whitfield Urban Extension Phase 1C		Whitfield	41	The 41 dwellings relate to Phase 1C of a wider development area. However, review of Google Satellite suggests that construction on this phase has started.	discounted
AMR	19/00216	Land north west of Pegasus, London Road, Sholden		Sholden	42	A reserved matters application was submitted in September 2021. Review of Google Streetview shows that the land has been acquired by Abbey Developments Ltd which includes a sign stating that new homes will be available soon. Consequently, it is considered that the developer will build out the site and therefore, it is not considered to be 'reasonably' available.	discounted
HELAA	N/A	Field adjacent to Singledge Manor, Singledge Lane, Whitfield	CT15 5AD	Eythorne & Shepherdswell	45	The site forms part of greater Whitfield expansion. However, given it's remote location, it is considered that other parts of the Whitfield expansion would need to be developed first before site becomes viable. Therefore, the site is not considered to be available within the same timescale as subject site.	discounted
HELAA	23/00205	Land at Churchfield Farm, Vicarage Lane, Sholden	CT14 0AL	Middle Deal & Sholden	48	The site has previously been identified as part of the AMR with a proposed capacity of up to 82 dwellings. A new application has been submitted in February 2023 for up to 94 dwellings, by Greenlight Developments Limited being listed as the applicant. As the application seems to be moving forward with a developer and has not been identified to be for sale based on searches of sales portals, the site is not considered to be 'reasonably' available.	discounted
HELAA	EYT008	Land on the south eastern side of Roman Way, Elvington	CT15 4NP	Eythorne & Shepherdswell	50	Allocated as part of the emerging local plan. Due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Unimplemented Allocation	EYT012	Sweetbriar Lane, Elvington	CT15 4EF	Eythorne & Shepherdswell	50	Allocated as part of the emerging local plan. However, the emerging Local Plan suggests allocation alongside EYT003 and EYT009, stating that sites should be master-planned as a whole, totalling 300 dwellings. There is the possibility that the site could come forward as part of a phased approach. However, due to the proposed dwellings being marginally larger than the site, it is unlikely that the site will be split into additional phases. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be suitable and 'reasonably' available.	discounted
AMR	21/00504	Land at Gore Lane, Eastry	CT13 0LJ	Eastry	50	Application has been made by developer Etopia Homes (Eastry) Limited which advertises the development on their website. Consequently, site is not considered to be 'reasonably' available.	discounted
HELAA	KIN002	Land at Woodhill Farm, Ringwould Road, Kingsdown	CT14 8DJ	Ringwould	50	The site was previously considered as part of the Regulation 18 consultation, however, the capacity has been reduced from 80 to 50 dwellings. Due to the proposed dwellings being marginally larger than the site, it is unlikely that the phasing will be split into sizes which are commensurate to the size of the subject site. Searches of sale portals have further revealed that the site is not currently for sale. Therefore, the site is not currently considered to be suitable and 'reasonably' available.	discounted
HELAA		The Former Packhouse, The Drove, Northbourne	CT14 0LW	Eastry	60	The site has not been allocated. As part of the Regulation 22 statement, it was recommended that the capacity of the site is reduced to between 30 to 35 dwellings which would be commensurate with the development site. However, there are constraints in relation to access and public transport. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Unimplemented Allocation	ASH014	Land to the south of Sandwich Road, Ash	CT3 2AH	Little Stour & Ashstone	63	Allocated within the Ash Neighbourhood Plan 2021 which states that the site is owned by multiple owners. Whilst the Council encourages a site-wide approach to master-planning, inspection of Dover District Council's planning portal shows that several applications have been submitted previously for individual plots of land within the larger site boundary. This consist of a full application for the erection of 18no. dwellings and 4no. flats (Phase 1), including an outline application for a building comprising 10no. flats and 5no. dwellings (Phase 2) under 20/00284. The proposed phases are not commensurate with the size of the subject site. In addition, a planning application has been submitted for the erection of 3 no. detached dwellings and 6 no. attached dwellings, under 21/01545. This leaves a deficit of 18 dwellings across the remainder of the larger site, which is not commensurate with the size of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not considered to be suitable and 'reasonably' available.	discounted
AMR	21/00896	Land On The North East Side Of Middle Deal Road Deal Kent		Deal	63	An application was previously made on behalf of developer Quinn Estates. In addition, since outline planning permission has been granted, the Environment Agency has updated their 'Flood Map for Planning' and the site is now partially located within Flood Zones 2 and 3. As a result, the site is considered to be located in a higher risk area with regard to flood risk than the subject site and therefore, would not be sequentially preferred. Therefore, the site is not considered suitable nor 'reasonably' available.	discounted
AMR	18/00981	Former Connaught Barracks, Dover Road, Guston, CT16 1HL (Officers Mess)		Guston	64	Review of Google Streetview from April 2023 would indicate that works have started.	discounted
SHLAA	18/00681	Kumor Nursery, Sandwich	CT13 0DA	Sandwich	67	Planning permission has been granted for 56 dwellings in 2020. Review of Microsoft Bing Satellite imagery shows that the site has since been constructed.	discounted
Brownfield Register	WAL002	Land at Rays Bottom between Liverpool Road and Hawksdown	CT14 7PS	Walmer	75	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
HELAA	WIN014	Footpath Field, Staple Road, Wingham,	CT3 1AL	Little Stour & Ashstone	75	Allocated as part of the emerging local plan. The site was previously considered as part of the Regulation 18 submission, however, the capacity has been increased from 50 to 75 dwellings. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	19/01462	Land adjacent Saunders Lane, Ash	CT3 2BX	Little Stour & Ashstone	76	Outline planning permission has been granted in September 2022. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
Unimplemented Allocation	19/00572	Eastry Hospital, Mill Lane, Eastry	CT13 0JU	Eastry	80	A variation of condition submitted in May 2019 which included a phasing plan for 91 dwellings. This shows that the development will be split into 5 phases, consisting of the following: - Phase 1 - Infrastructure - Phase 2 - 4 dwellings, commercial units and chapel - Phase 3 - 42 dwellings - Phase 4 - 25 dwellings - Phase 5 - 20 dwellings From the above, it is evident that the proposed phasing is not commensurate with the size of the subject site. Therefore, the site is not considered to be suitable.	discounted
HELAA	EAS002	Land at Buttsole Pond, Lower Street, Eastry	CT13 0JF	Eastry	80	Allocated as part of the emerging local plan. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
SHLAA	N/A	Poulders Gardens, Sandwich	CT13 0AJ	Sandwich	80	The site has not been allocated due to poor relation to settlement and highways concerns. Searches of sale portals have further revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
AMR, HELAA	17/00487	Land Opposite 423-459 Dover Road, Walmer		Ringwould with Kingsdown	85	A reserved matters application was submitted (21/00255) in Feb 2021 and granted planning permission in May 2022. Review of Google Streetview from April 2023 would indicate that works have started.	discounted
AMR	19/00895	Land to the rear of Freemans Way, Freemans Way, Deal		Deal	88	Discharge of Conditions application has been submitted in August 2023 by the developer Dandara South East Limited. Review of Google Streetview from April 2023 would indicate that works have already started.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Unimplemented Allocation	19/00690	Land to the west of Chequer Lane, Ash	CT3 2AZ	Little Stour & Ashstone	90	A reserved matters application has been submitted and granted permission in 2019 by Bovis Homes. Review of Google Streetview from April 2023 would indicate that works have started.	discounted
AMR	19/00243	Land east of Woodnesborough Road, Sandwich		Sandwich	92	The 5 year housing supply appendix would suggest that 28 dwellings were phased for 2023/24, however, review of Google Streetview from April 2023 would indicate that works on this phase have started and the last phase is under construction.	discounted
AMR	20/01125	Site at Cross Road, Deal		Deal	100	The site is owned by Abbey Developments Ltd which advertises the site on their website. Therefore, site is not considered to be 'reasonably' available.	discounted
AMR	21/00402	Land South West Of Sandwich Road Sholden	CT14 0AD	Sholden	110	A reserved matters application has been submitted in August 2023 (23/01078) for 48 units which includes phasing plan. The plan shows an initial phase of 48 units with the second phase covering the remainder of the site, i.e. assumed to be 62 units. This is significantly larger than the subject site and therefore, the site is not considered suitable. In addition, Google Streetview would suggest that construction has just started.	discounted
HELAA	ASH004	Land to the north of Molland Lane, Ash	CT3 2JF	Little Stour & Ashstone	110	Allocated within the Ash Neighbourhood Plan 2021. Review of similar sized development would suggest that the phasing sizes are likely to be greater than the development proposed at the subject site. In addition, searches of sale portals have further revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	WHI007	Holly Lodge Retirement Community, Holly Lodge, Sandwich Road, Whitfield	CT16 3JP	Whitfield	111	Site forms part of greater Whitfield expansion and is only to be taken forward as part of WHI005 and WHI001. The HELAA 2022 housing sites assessment states that site should not come forward in isolation. As such, the site is not considered to be suitable and 'reasonably' available at this stage.	discounted
HELAA	EYT003	Land adjoining Terrace Road, Elvington	CT15 4EJ	Eythorne & Shepherdswell	125	Allocated as part of the emerging local plan. However, the emerging Local Plan promotes the site together with EYT009 and EYT012, stating that the sites should be master-planned as a whole, totalling 300 dwellings. There is the possibility that the site could come forward as part of a phased approach. However, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be suitable and 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
Brownfield Register	18/00892	Land at Albert Road, Deal	CT14 9RB	Middle Deal & Sholden	142	A reserved matters application was approved in April 2019 with additional variations of conditions submitted by housing developer Quinn Estate. In addition, Google Maps shows that construction has since started.	discounted
Unimplemented Allocation	19/00243	Land to the west of St Bart's Road, Sandwich	CT13 0BU	Sandwich	156	The site is owned by Abbey Homes. Review of Google Maps shows that construction has started on site.	discounted
AMR	20/00640	WUE, Sub Phase 1c		Whitfield	161	Phase 1C of a wider development area. However, review of Google Satellite suggests that construction on this phase has started.	discounted
AMR	19/01258	Land off, Station Road, Walmer,	CT14 7RH	Walmer	195	The site is owned by Sunningdale House Developments Ltd. Google searches have revealed the following line within the Isle of Thanet news: Administration applications filed to High Court by secured lenders to Sunningdale House Developments. Construction has started, with outstanding phases 4,5 and 6 according to Google maps. Reference to the phasing plan submitted as part of the application shows that Phase 4 consists of 22 dwellings, Phase 5 of 53 dwellings and Phase 6 of 15 dwellings. None of these phases is commensurate with the size of the subject site and therefore, the phases are not considered suitable for comparison.	discounted
AMR, BR	20/00419	Betteshanger Sustainable Parks, Betteshanger Road, Betteshanger		Northbourne	210	A reserved matters application was submitted in October 2022 and Discharge of Conditions were submitted in July 2023. Review of the application documents shows that the site is owned by Redrow plc with the development being advertised on their website. Condition applications submitted as part of the proposed development further show that the site is split into two phases, totalling 165 dwellings (including 12 self-build plots). Phase one consists of approximately 78 dwellings and Phase 2 consists of approximately 75 dwellings. These phases are significantly larger than the subject site, with the development buing built out by a developer. Consequently, the site is neither considered suitable nor 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
AMR	20/00718	Whitfield Urban Extension Phase 1D		Whitfield	221	The application is for a phase of the wider Whitfield Urban Extension and consists of 221 dwellings. The Updated Housing Land Supply Technical Paper would suggest that the phasing is split further into 64 dwelling-phases, with the final phase consisting of 29 dwellings planned for 2025/26. Whilst the final phase would be commensurate with the development size of the subject site, the land for Phase 1D is owned by Abbey Developments Ltd which advertises the site on their website. As such, it is considered that Abbey Developments will also complete the other phases. Therefore, site is not considered to be suitable and 'reasonably' available.	discounted
AMR	19/00447	Connaught Barracks (Main Site), Dover Road, Guston		Guston	300	The original application was made by Homes England, which is the government's housing agency. According to a press release in 2021 by Dover District Council, the site was marketed for development. Google search suggests that the Officer's Mess site is now owned by Quayside Homes with the future development being advertised on their website. No further information was found through desktop searches whether Quayside Homes also owns the main site. However, it is understood that the site is likely to be marketed as a whole rather than being split. This is supported by the Updated Housing Land Supply Technical Paper which shows the site to be phased as follows: 86 units for 2024/25 and 75 units for 2025/26 with the remainder beyond these timescales. Due to the size of the proposed phases, the site is therefore not considered suitable for comparison.	discounted
AMR	19/00821	Aylesham Village Expansion, Aylesham		Aylesham	358	Discharge of conditions applications have been submitted up to August 2023. The sites are owned by the Council according to the Updated Housing Land Supply Technical Paper but historically has been built out by Barratt Homes and Persimmons plc which advertise future development on their websites. Review of Google Maps and Streetview, and based on local knowledge, identifies that construction has either been completed or started for most phases. Phase 3 still seems to be outstanding with a proposed capacity of 68 units, split across two parcels of land. A reserved matters application has been submitted in July 2023 for Phase 3, Parcel 1 for 39 residential units, by Jenner (Contractors) Ltd. It is noted that as part of the application, a different phasing plan has been submitted, suggesting that parcel 2 of phase 3 forms part of the larger development already having been constructed further to the south. The planning decision is still outstanding. No information on Phase 3, parcel 2 has been found during the desktop searches. Review of sales portals reveal that the land is not for sale. Therefore, it is concluded that the outstanding Phase 3, parcel 2 is not 'reasonably' available.	discounted

Source	Application number/Local Plan Policy	Site Address	Postcode	Parish / Settlement	Dwellings	Comments	Discounted/ Taken forward
AMR	14/00058	Discovery Park, Ramsgate Road, Sandwich	CT13 9ND	Sandwich	500	Review of the application documents shows that the site is split into development zones for new residential units. The majority of the development zones are shown to have an estimated number of dwellings of below 24, although a nonmaterial minor amendment application has been submitted in January 2023 to increase the capacity of development parcels 15 to 18 to range between 26 and 41 units. However, review of EA's maps show site to be located within Flood Zone 3, expect for some isolated localised areas. Consequently, the site is shown to be at higher flood risk than the subject site and therefore, is not considered to be sequentially preferred.	discounted
SHLAA/HELAA	N/A	Land adjacent to John's Green and Rose Nursery, Dover Road, Sandwich	CT13 0DE	Sandwich	500	The HELAA 2022 housing site assessment states that the site is unavailable and therefore, the site has not been allocated. Searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
HELAA	WHI001	Land to the north west of Whitfield's current housing allocation	CT15 5AD	Eastry/Eythorne & Shepherdsw	600	The site forms part of the greater Whitfield expansion and lies north of the managed expansion. However, given its remote location, it is considered that other parts of Whitfield would need to be developed first before the site becomes viable. In addition, review of other phases of the managed expansion further to the west show the size of phases to be in the region of 150 to 200 dwellings which is not commensurate with the size of the proposed development as part of the subject site. Therefore, the site is not considered to be suitable.	discounted
HELAA		Land to the south of Spinney Lane, Aylesham	CT3 & CT4	Aylesham	640	Allocated as part of the emerging local plan. Review of similar scale development would suggest that any proposed phasing would consist of a number of units significantly exceeding the units proposed as part of the subject site. In addition, searches of sale portals have revealed that the site is not currently for sale. Therefore, the site is not currently considered to be 'reasonably' available.	discounted
AMR	10/01010	Phase 1, Whitfield Urban Extension,Whitfield, CT16 (Remainder of the O/L)		Whitfield	655	The land of existing phases seems to be owned by main developers, i.e. Barratt Developments plc and Abbey Development Ltd. Consequently, phases of the site are not considered to be suitable and 'reasonably' available.	discounted

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Client: Mr Stevens, Ms Stevens and Mrs Morgan

Flood Risk Assessment and Drainage Strategy for the Proposed Development at the Land at Jubilee Road, Worth, Kent

June 2023

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Flood Risk Assessment and Drainage Strategy for the Proposed Development at the Land at Jubilee Road, Worth, Kent

Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date
1	0	Draft report issued by email	31 May 2023
2	1	Minor amendments. Final report issued by email	01 June 2023

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Document Verification

Issue	Revision	Date:	31 May 2023	
1	0	Author(s):	AB	BW
		First Check By:	AW	EC
		Amendments Agreed:	AB	BW
		Second Check By:	AW	EC
Issue	**Revision**	**Date:**	**01 June 2023**	
2	1	Author(s):	AB	

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Contents Page

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1 Background and Scope of Appraisal

The objectives of the Flood Risk Assessment (FRA) are therefore to establish the following:

- whether a proposed development is likely to be affected by current or future flooding from any source.
- whether the development will increase flood risk elsewhere within the floodplain.
- whether the measures proposed to address these effects and risks are appropriate.
- whether the site will pass Part B of the Exception Test (where applicable).

Herrington Consulting has been commissioned by Mr Stevens, Ms Stevens and Mrs Morgan to prepare a Flood Risk Assessment (FRA) for the proposed development at the **Land at Jubilee Road, Worth, Deal, Kent, CT14 0DN.**

This appraisal has been undertaken in accordance with the requirements of the National Planning Policy Framework (2021) and the National Planning Practice Guidance Suite (August 2022) that has been published by the Department for Communities and Local Government. The *Flood Risk and Coastal Change* planning practice guidance included within the Suite represents the most contemporary technical guidance on preparing FRAs. In addition, reference has also been made to Local Planning Policy.

New development has the potential to increase the risk of flooding to neighbouring sites and properties through increased surface water runoff and as such, an assessment of the proposed site drainage can help to accurately quantify the runoff rates, flow pathways and the potential for infiltration at the site. This assessment also considers the practicality of incorporating Sustainable Drainage Systems (SuDS) into the scheme design, with the aim of reducing the risk of flooding by actively managing surface water runoff.

New developments are also required to undertake an assessment to identify how the foul water from the site will be managed. This assessment considers how foul water is expected to be discharged from the proposed development and whether there are any appropriate connection points, such as nearby sewers or treatment plants.

This report has been prepared to accompany an outline planning application and has been prepared in accordance with the requirements of both national and local planning policy. To ensure that due account is taken of industry best practice, this FRA has been carried out in line with the CIRIA Report C624 ‘Development and flood risk - guidance for the construction industry’. Reference has also been made to, CIRIA Report C753 ‘The SuDS Manual’ and any relevant local planning policy guidance. The surface water management strategy included within this report is not intended to constitute a detailed drainage design.

2 Development Description and Planning Context

2.1 Site Location and Existing Use

The site is located at OS coordinates 633748, 155943, off Jubilee Road in Worth, Deal. The site covers an area of approximately 1.39 hectares and currently comprises undeveloped greenfield land. The location of the site in relation to the surrounding area and watercourses is shown in Figure 2.1.

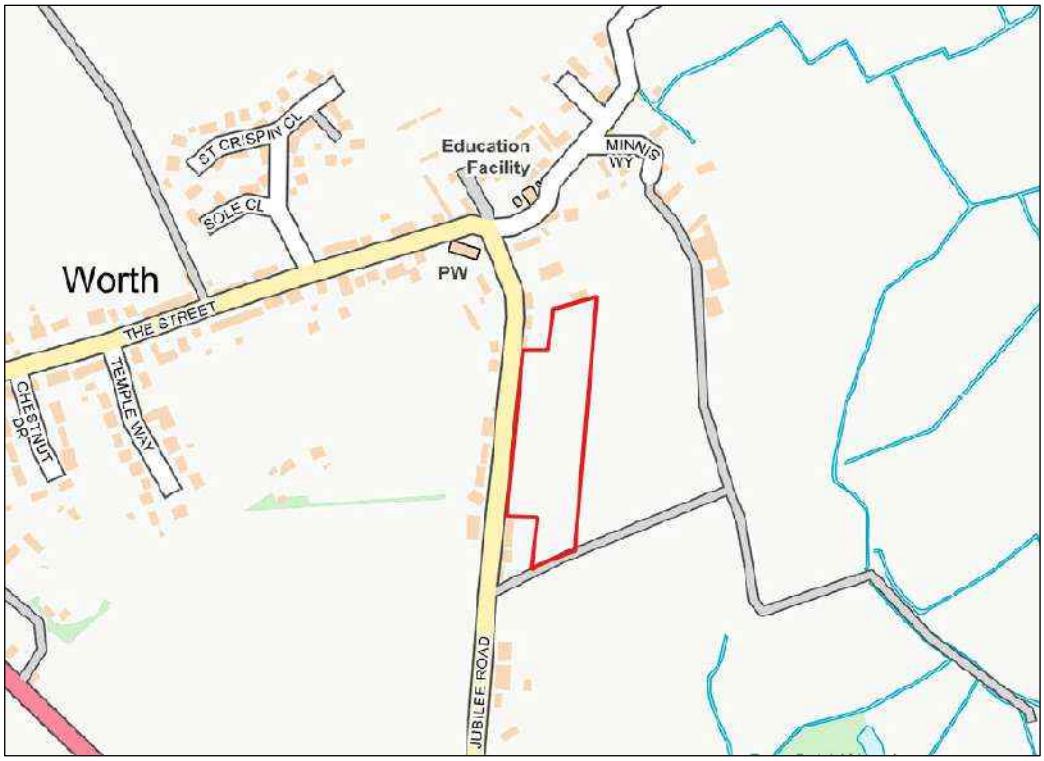

Figure 2.1 – Location map (contains Ordnance Survey data © Crown copyright and database right 2023).

The site plan included in Appendix A.1 of this report provides more detail in relation to the site location and layout.

2.2 Proposed Development

The proposals for development comprise the construction of 30no. new dwellings (Figure 2.2).

Figure 2.2 – Proposed site layout. Red buildings = 1 bed apartment, blue buildings = 2 bed house, green buildings = 3 bed house, and orange building = 4 bed house. Site boundary delineated in red.

Drawings of the proposed scheme are included in Appendix A.1 of this report.

2.3 The Sequential Test

Local Planning Authorities (LPA) are encouraged to take a risk-based approach to proposals for development in or affecting flood risk areas through the application of the Sequential Test. The objectives of this test are to steer new development away from high risk areas towards those areas at lower risk of flooding. However, in some locations where developable land is in short supply there can be an overriding need to build in areas that are at risk of flooding. In such circumstances, the application of the Sequential Test is used to ensure that the lower risk sites are developed before the higher risk ones.

The National Planning Policy Framework (NPPF) requires the Sequential Test to be applied at all stages of the planning process and generally the starting point is the Environment Agency's (EA) 'Flood Map for Planning' (Figure 2.3). Review of the EA's flood zone mapping identifies the development site to be located within Flood Zone 1 and 2.

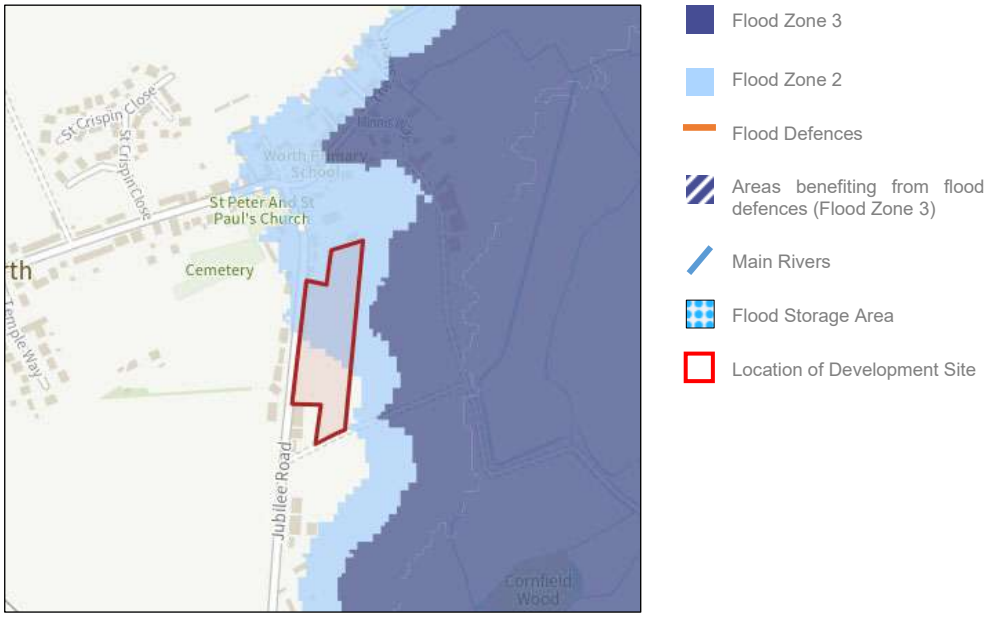

Figure 2.3 – EA's 'Flood Map for Planning' (© Environment Agency).

In this case a Sequential Test assessment has not been undertaken in support of this FRA. However, review of the Dover District Local Plan 2022 shows the western half of the site is 'suitable' and allocated for residential development (SAP49/WOR006). Therefore, the western half of the development site is considered to have passed the Sequential Test. The Local Plan also shows the eastern half of the site to be 'potentially suitable'. As the eastern half is shown to be located within the same flood risk zone as the allocated western half, it is considered that development is acceptable in principle in this location.

2.4 The Exception Test

According to the NPPF, if it is not possible, consistent with wider sustainability objectives, for the development to be located in areas at lower risk, the Exception Test may have to be applied. The application of the Exception Test will depend on the type and nature of the development, in line

with the Flood Risk vulnerability classification set out in the NPPG. This has been summarised in *Table 2.1* below.

Flood Risk Vulnerability Classification	Zone 1	Zone 2	Zone 3a	Zone 3b
Essential Infrastructure – Essential transport infrastructure, strategic utility infrastructure, including electricity generating power stations.	✓	✓	e	e
High Vulnerability – Emergency services, basement dwellings, caravans and mobile homes intended for permanent residential use.	✓	e	×	×
More Vulnerable – Hospitals, residential care homes, buildings used for dwelling houses, halls of residence, pubs, hotels, non-residential uses for health services, nurseries and education.	✓	✓	e	×
Less Vulnerable – Shops, offices, restaurants, general industry, agriculture, sewerage treatment plants.	✓	✓	✓	×
Water Compatible Development – Flood control infrastructure, sewerage infrastructure, docks, marinas, ship building, water-based recreation etc.	✓	✓	✓	✓

Key :

✓ Development is appropriate

× Development should not be permitted

e Exception Test required

Shaded cell represents the classification of this development

Table 2.1 - Flood risk vulnerability and flood zone incompatibility.

From *Table 2.1* above it can be seen that the development falls into a classification that does not require the Exception Test to be applied. Notwithstanding this, Paragraph 167 of the NPPF requires all development in Flood Zones 2 and 3 to be subject to a FRA and to meet the requirements for flood risk reduction. This is therefore the primary focus of this document.

3 Definition of Flood Hazard

3.1 Site Specific Information

Information from a wide range of sources has been referenced to appraise the true risk of flooding at this location. This section summarises the additional information collected as part of this FRA.

Site specific flood level data provided by the EA – The EA has provided the model results of the East Kent Coast Modelling and Mapping Study carried out in 2018 (by others), which have been referenced as part of this appraisal.

Information contained within the SFRA – The Dover District Council SFRA (2019) contains detailed mapping showing historic flood records for a wide range of sources. This document has been referenced as part of this site-specific FRA.

Information provided by Southern Water – Southern Water has provided the results of an asset location search for the site. The response is included in Appendix A.2.

Site specific topographic surveys – A topographic survey has been undertaken for the site and a copy of this is included in Appendix A.1. From the survey, it can be seen that the level of the site varies between 2.23m and 4.75m Above Ordnance Datum Newlyn (AODN). Land levels are highest in the southwest of the site and gradually fall towards the northeast.

Geology – Reference to the British Geological Survey (BGS) map shows that the underlying solid geology in the location of the subject site is Margate Chalk Member (chalk) and Thanet Formation (sand, silt and clay), see Figure 3.1 below. Overlying this are superficial deposits of Head (clay and silt).

Figure 3.1 - Geology map showing the bedrock on the site (© British Geological Survey, mapping contains Ordnance Survey Data © Crown copyright and database right 2023).

Historic flooding – Information provided by the SFRA and the EA's Historic Flood Map GIS data shows that there are no recorded incidents of flooding at the site or immediate surrounding area.

3.2 Potential Sources of Flooding

The main sources of flooding have been assessed as part of this appraisal. The specific issues relating to each one and its impact on this development are discussed below. *Table 3.1* at the end of this section summarises the risks associated with each of the sources of flooding.

Flooding from the Sea – The site lies within Flood Zone 1 and 2 as shown on the EA's 'Flood Map for Planning' (Figure 2.3). The flood zone maps are used as a consultation tool by planners to highlight areas where more detailed investigation into the risk of flooding is required. The fact that the site lies within Flood Zone 2 means that the risk of flooding from this source is examined in more detail in Section 5 of this FRA.

Flooding from Rivers, from Ordinary or Man-Made Watercourses – Natural watercourses that have not been enmained and man-made drainage systems such as irrigation drains, sewers or ditches could potentially cause flooding.

Inspection of OS mapping identifies that there are no main rivers nearby. There is a network of drainage ditches to the east of the site, which forms part of the Hacklinge Marshes. The primary role of these watercourses is to reduce groundwater level within the surrounding land, with pumps or tidal sluices being used to discharge flows to the sea.

Extreme rainfall or the failure of a pumping station can prevent the system discharging, which may result in increased water levels in the network of drains and ditches. However, due to the large and relatively flat nature of the land that is drained, the consequence of such an event is likely to be water logging of the ground and shallow flooding in the lower-lying areas. Inspection of aerial height data shows that the site is situated over 1m above the lower-lying land located further to the east. Consequently, it is considered unlikely that levels are reached which could result in the development site to become flooded from this source. Consequently, the risk of flooding from this source in isolation is considered to be *low*.

Flooding from Surface Water – Surface water, or overland flooding, typically occurs in natural valley bottoms as normally dry areas become covered in flowing water and in low spots where water may pond. This mechanism of flooding can occur almost anywhere but is likely to be of particular concern in any topographical low spot, or where the pathway for runoff is restricted by terrain or man-made obstructions.

The EA's 'Flood Risk from Surface Water' map (Figure 3.2) shows the development site is mainly located in an area classified as having a 'very low' risk of surface water flooding. However, there is a small, localised area of 'high' risk in the west of the site.

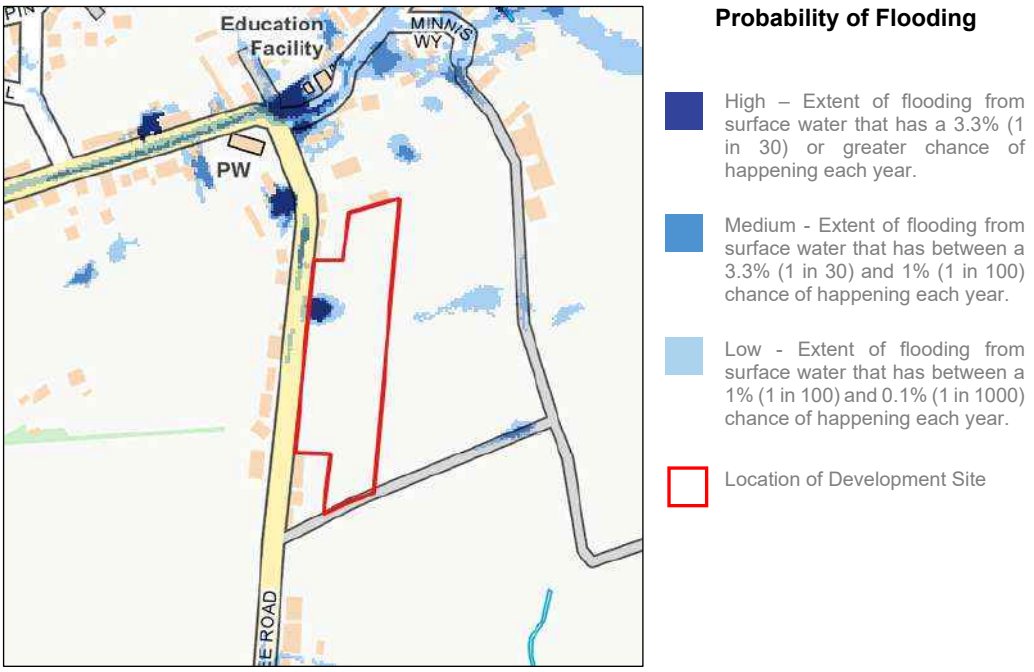

Figure 3.2 – EA's 'Flood Risk from Surface Water' map (© Environment Agency).

Inspection of aerial height data shows there is a depression in the northwest of the site where surface water could accumulate following an extreme rainfall event. Further interrogation of Figure 3.2 would suggest that the volume of surface water collecting within these low points is limited to surface water runoff generated on site. Nevertheless, inspection of the scheme drawings shows that this area will be retained at lower land levels, with levels in the surrounding area being partially raised. In addition, this area will be retained as open space and include SuDS features. As a result, surface water is unlikely to impact the proposed development and surrounding area.

To ensure that the proposed development does not increase the risk of flooding offsite, it is recommended that a sustainable drainage system is installed (refer to Section 9). This would be aimed at capturing the rainfall landing on site, thus preventing the accumulation of floodwater and managing surface water runoff from the site.

Therefore, taking the above into consideration and the fact that there are no historic records of flooding on site, it is considered that the risk of flooding from this source is *low*.

Flooding from Groundwater – Water levels below the ground rise during wet winter months, and fall again in the summer as water flows out into rivers. In very wet winters, rising water levels may lead to the flooding of normally dry land, as well as reactivating flow in 'bournes' (streams that only flow for part of the year).

Groundwater flooding is most likely to occur in low-lying areas that are underlain by permeable rock (aquifers). The underlying geology in this area is Margate Chalk Member (chalk) and Thanet Formation (sand, silt, and clay). The type of geology is typical permeable and therefore can be associated with groundwater flooding.

Inspection of BGS groundwater flood risk mapping data shows that the general area in which the development site lies is identified as being at moderate risk from groundwater flooding. However, mapping on groundwater emergence provided as part of the Defra Groundwater Flood Scoping Study (May 2004) shows that no groundwater flooding events were recorded during the very wet periods of 2000/01 or 2002/03 and that the site itself is not located within an area where groundwater emergence is predicted.

Notwithstanding the above, the purpose of the surrounding drainage network is to maintain low groundwater levels. Furthermore, inspection of aerial height data for the surrounding area shows that land levels fall away from the site in a north-easterly direction towards the lower-lying land which is situated more than 1m below land levels at the site. Therefore, in the unlikely event that groundwater flooding was to occur in this area, it is likely to be intercepted by the drainage network and confined to these lower lying regions to the east.

Taking the above into consideration and the fact that the Dover District Council SFRA identifies that there are no records of historic flooding from groundwater at the site or the immediate surrounding area, the risk of groundwater flooding is considered to be *low*.

Flooding from Sewers – In urban areas, rainwater is typically drained into surface water sewers or sewers containing both surface and wastewater known as "combined sewers". Flooding can result when the sewer is overwhelmed by heavy rainfall, becomes blocked, or has inadequate capacity; this will continue until the water drains away.

Inspection of the asset location mapping provided by Southern Water (Figure 3.3) identifies that the sewers in this area are foul only.

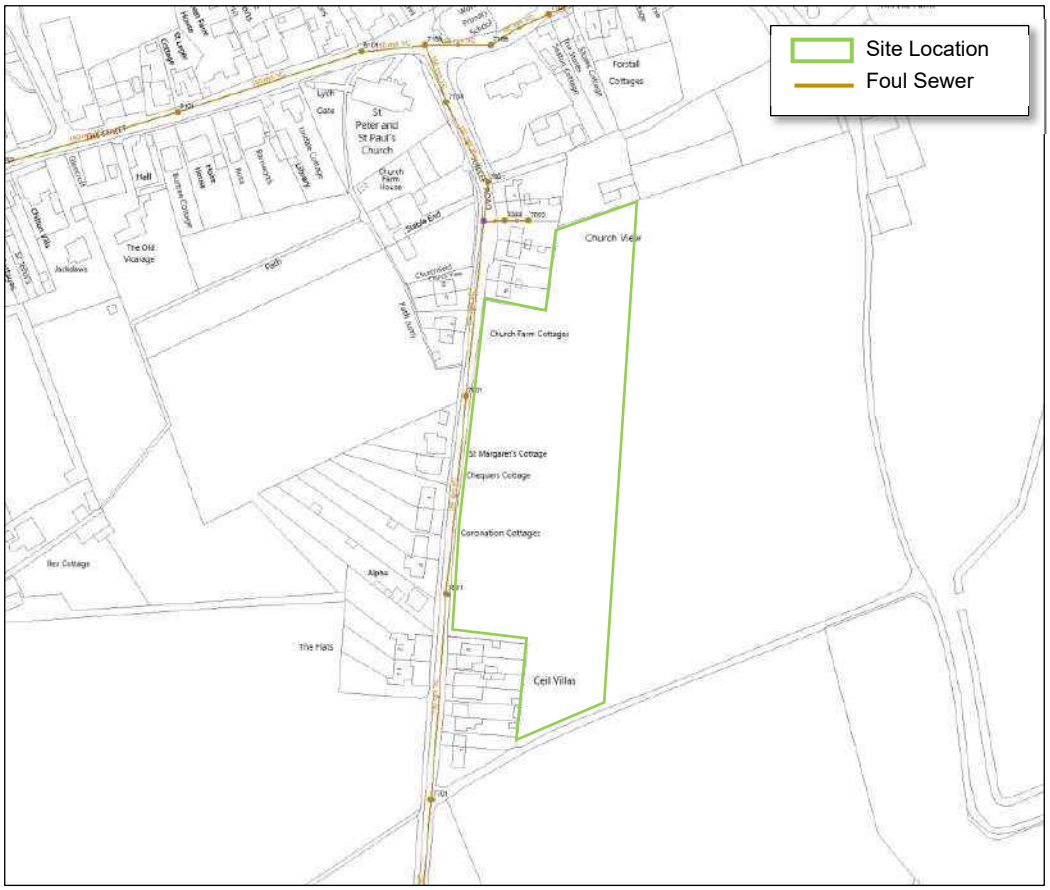

Figure 3.3 - Asset location mapping provided by Southern Water (a full scale copy can be found in Appendix A.2).

There are no known records of flooding from sewers in this area. However, if water was to exit the sewer network i.e., as a result of a blockage or exceedance of capacity, water is expected to emerge in the lower lying regions to the north of the site, where land levels are lower. Consequently, the risk of flooding from this source is considered to be *low*.

Flooding from Reservoirs, Canals and Other Artificial Sources – Non-natural or artificial sources of flooding can include reservoirs, canals, and lakes, where water is retained above natural ground level. In addition, operational and redundant industrial processes including mining, quarrying, and sand or gravel extraction, may also increase the depth of floodwater in areas adjacent to these features.

The potential effects of flood risk management infrastructure and other structures also needs to be considered. For example, reservoir or canal flooding may occur as a result of the facility being overwhelmed and/or as a result of dam or bank failure.

Inspection of the OS mapping for the area shows that there are no artificial sources of flooding within close proximity to the site. In addition, the EA's 'Flood Risk from Reservoirs' map shows that the site is not within an area considered to be at risk of flooding from reservoirs. Therefore, the risk of flooding from this source is considered to be *low.*

A summary of the overall risk of flooding from each source is provided in *Table 3.1* below.

Source of Flooding	Initial Level of Risk	Appraisal method applied at the initial flood risk assessment stage
Sea	Appraised further in Section 5	OS mapping and the EA's 'Flood Map for Planning'
Rivers, Ordinary and Man-Made Watercourses	Low	OS mapping and aerial height data
Surface Water	Low	EA's 'Flood Risk from Surface Water' map, historic records contained within the Dover District Council SFRA and SWMP, aerial height data, OS mapping and site-specific topographic survey
Groundwater	Low	BGS groundwater flood hazard maps, Defra Groundwater Flood Scoping Study, site-specific geological data, aerial height data, OS mapping, site-specific topographic survey, historic records contained within the SFRA
Sewers	Low	Aerial height data, OS mapping, site-specific topographic survey, asset location data provided by Southern Water and historic sewer records contained within the SFRA
Artificial Sources	Low	OS mapping and EA's 'Flood Risk from Reservoirs' map

Table 3.1 – Summary of flood sources and risks.

3.3 Existing Flood Risk Management Measures

A formal flood defence is present along the coastline which provides protection to the development site. A recurved concrete sea wall and rock armour were constructed from Sandown Castle to Deal Castle as part of the Deal Coastal Flood Defence Scheme in 2013. This scheme provides a 1 in 300 year standard of protection. The shingle beach also provides an additional level of protection by reducing bank erosion and wave overtopping, as well as the revetment at Sandown Castle and Sandwich Bay Estate providing a 1 in 200 year standard of protection.

4 Climate Change

The global climate is constantly changing, but it is widely recognised that we are now entering a period of accelerating change. Over the last few decades there have been numerous studies into the impact of potential changes in the future and there is now an increasing body of scientific evidence which supports the fact that the global climate is changing as a result of human activity. Past, present, and future emissions of greenhouse gases are expected to cause significant global climate change during this century.

The nature of climate change at a regional level will vary: for the UK, projections of future climate change indicate that more frequent short-duration, high-intensity rainfall and more frequent periods of long-duration rainfall could be expected.

These effects will tend to increase the size of Flood Zones associated with rivers, and the amount of flooding experienced from other inland sources. The rise in sea level will change the frequency of occurrence of high water levels relative to today's sea levels. It will also increase the extent of the area at risk should sea defences fail. Changes in wave heights due to increased water depths, as well as possible changes in the frequency, duration and severity of storm events are also predicted.

4.1 Planning Horizon

To ensure that any recommended mitigation measures are sustainable and effective throughout the lifetime of the development, it is necessary to base the appraisal on the extreme flood level that is commensurate with the planning horizon for the proposed development. The NPPF and supporting Planning Practice Guidance Suite state that residential development should be considered for a minimum of 100 years, but that the lifetime of a non-residential development depends on the characteristics of the development. The development that is the subject of this FRA is classified as residential therefore a design life of 100 years has been assumed.

4.2 Potential Changes in Climate

Extreme Sea Level

Global sea levels will continue to rise, depending on greenhouse gas emissions and the sensitivity of the climate system. The relative sea level rise in England also depends on the local vertical movement of the land, which is generally falling in the south-east and rising in the north and west.

Reference to guidance published by the EA specifies allowances for different epochs and regions across England. The predicted rates of relative sea level rise for the 'South East' region, relevant to the subject site, are shown in *Table 4.1*. These values which correspond with the Higher Central and Upper End percentiles (the 70th and 90th percentile respectively).

Administrative Region	Allowance Category	Net Sea Level Rise (mm/yr) (Relative to 2000)			
		2000 to 2035	2036 to 2065	2066 to 2095	2096 to 2125
South East	Higher Central	5.7	8.7	11.6	13.1
	Upper End	6.9	11.3	15.8	18.2

Table 4.1 – Recommended contingency allowances for net sea level rise.

From these values, the extreme sea level at the site can be seen to change with time and this change is not linear. The 1 in 200 year extreme sea level at the site has therefore been calculated for a number of steps between the current day and the year 2125 and these values are shown in *Table 4.2* below.

Year	'Higher Central' Scenario	'Upper End' Scenario
Current Day (year 2017)	4.64	4.64
2035	4.74	4.76
2065	5.00	5.10
2085	5.24	5.42
2115	5.58	5.89
2125	**5.71**	**6.08**

Table 4.2 – Climate change impacts on extreme sea levels for a 1 in 200 year return period event based on values taken from the EA's Coastal Flood Boundary Condition database.

The development that is the subject of this FRA is classified as residential and therefore the extreme sea level is taken as 5.71m AODN in the 'Higher Central' scenario, and 6.08m AODN in the 'Upper End' scenario.

It is recognised that the East Kent Coast Modelling study undertaken in 2018 was completed before the latest guidance on climate change was published. The model is therefore based on previous estimates of sea level rise as opposed to the values stated in Table 4.2. However, in the absence of detailed modelling which references the latest guidance, the East Kent Coast Modelling has still been referenced in Section 5 of this report in order to quantify the risk of flooding to the development site.

Peak Rainfall Intensity

Recognising that the impact of climate change will vary across the UK, the allowances were updated in May 2022 to show the anticipated changes to peak rainfall across a series of management catchments. The proposed development site is located in the **Stour Management**

Catchment, as defined by the 'Peak Rainfall Allowance' maps, hosted by the Department for Environment, Food and Rural Affairs. Guidance provided by the EA states that this mapping should be used for site-scale applications (e.g. drainage design), in small catchments (less than 5km^2), or urbanised drainage catchments. For large rural catchments, the peak river flow allowances should be used.

The development site lies within a small drainage catchment and will include a surface water management strategy. Therefore, the Peak Rainfall Allowances for the Stour Management Catchment should be applied to the hydraulic calculations undertaken as part of this.

For each Management Catchment, a range of climate change allowances are provided for two time epochs and for each epoch, there are two climate change allowances defined. These represent different levels of statistical confidence in the possible scenarios on which they are calculated. The two levels are as follows:

- Central: based on the 50th percentile
- Upper End: based on the 90th percentile

The EA has provided guidance regarding the application of the climate change allowances and how they should be applied in the planning process. The range of allowances for the Management Catchment in which the development site is located are shown in Table 4.3 below.

Management Catchment Name	Annual exceedance probability	Allowance Category	2050s	2070s
Stour	3.3 %	Central	20%	20%
		Upper End	40%	40%
	1 %	Central	20%	20%
		Upper End	45%	45%

Table 4.3 – Recommended peak rainfall intensity allowances for each epoch for the Stour Management Catchment.

For a development with a design life of 100 years the Upper End climate change allowance is recommended to assess whether:

- there is no increase in flood risk elsewhere, and;
- the development will be safe from surface water flooding.

From Table 4.3 above, it can be seen that the recommended climate change allowance for this site is a 45% increase in peak rainfall. Therefore, this increase has been applied to the hydraulic

drainage model constructed to inform the surface water management strategy. Where this allowance has been applied the abbreviation “+45%cc” has been used.

5 Probability and Consequence of Flooding

When appraising the risk of flooding to new development it is necessary to assess the impact of the 'design flood event'. Flood conditions can be predicted for a range of return periods, and these are expressed in either years or as a probability, i.e., the probability that the event will occur in any given year, or Annual Exceedance Probability (AEP). The design flood event is taken as the 1 in 200 year (0.5% AEP) event for sea or tidal flooding, including an appropriate allowance for climate change (refer to Section 4.2).

5.1 The Actual Risk of Flooding

The EA has provided the modelling results from the East Kent Coast Modelling Study (2018), which includes defended and undefended scenarios. The site currently benefits from the presence of a shingle beach and the sea defence infrastructure (as outlined in Section 3.3) and, therefore, the undefended outputs would provide an unrealistic representation of the actual risk to the site.

When the results of the defended scenario are considered, the site is shown to be located outside the predicted extent of flooding during both a 1 in 30 year return period event (i.e., the functional floodplain), and a 1 in 200 year return period event. Even when an allowance for climate change is considered (i.e., the design flood event), the site is shown to remain dry. Consequently, it is concluded that the actual risk of flooding to the development from the sea is *low*.

5.2 The Residual Risk of Flooding

Whilst the tidal defences in this area provide a very high standard of protection, and are also maintained to a safe and serviceable standard, there is always the risk that a small section of this infrastructure could fail; either as a result of structural failure, or through less predictable mechanism such as ship impact or an act of terrorism. This is known as the residual risk of flooding.

The EA has modelled several breach locations along the coast as part of the East Kent Coast Modelling Study. The results show that the site could be affected by floodwater from one of these breach scenarios: a breach at Sandown Castle. The maximum predicted flood level for a breach in the defences under design event conditions is **3.29m AODN**. When this level is compared to the site-specific topographic survey, the maximum predicted depth of flooding onsite is 1.06m (Figure 5.1).

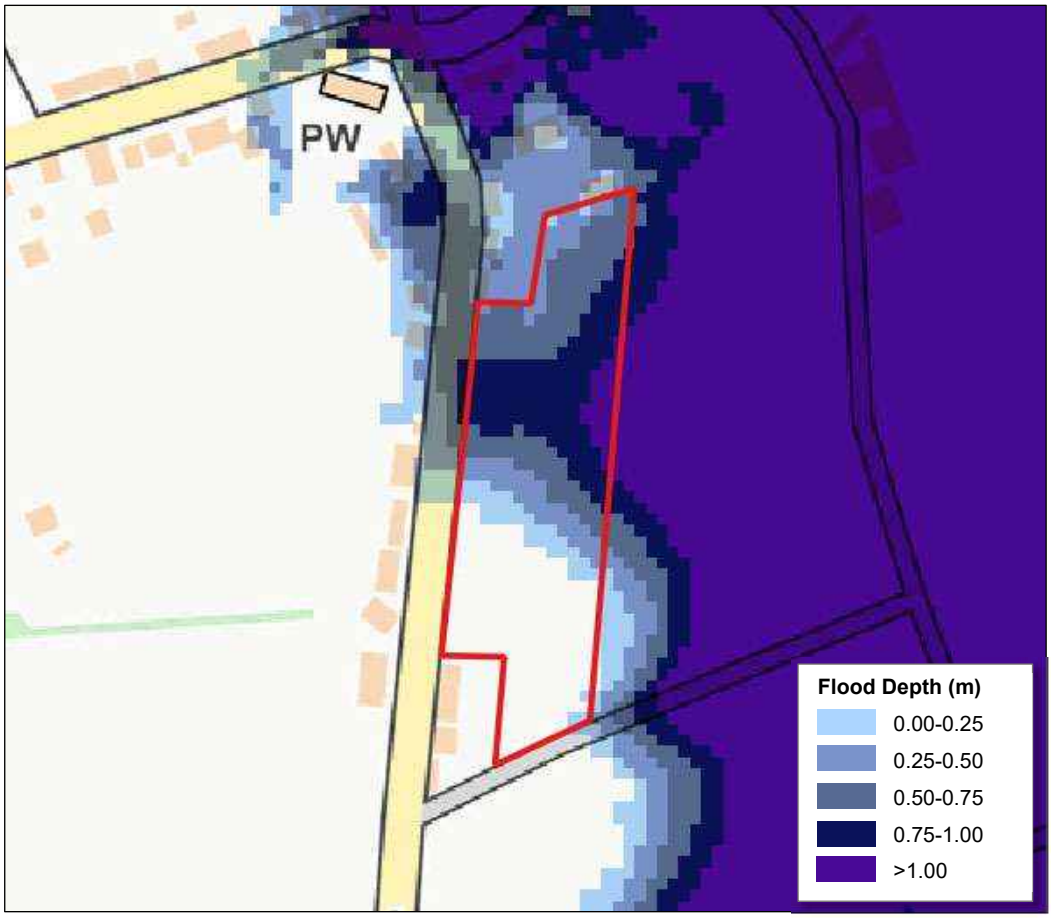

Figure 5.1 – Maximum predicted extent and depth of flooding during a breach in the defences at Sandown Castle under design event conditions (© Environment Agency - contains Ordnance Survey data © Crown copyright and database right 2023).

5.3 Time to Inundation

The site is located over 3km from the sea defences and consequently it is likely that there will be a residual delay between the defences breaching and floodwater reaching the site. Temporal results from the EA breach model are not available, although reference to the model data for the 'undefended' climate change scenario suggests that it would take in excess of 7 to 8 hours before water is expected to reach the site. This is considered sufficient time to allow the occupants to receive forewarning of a breach and to evacuate the site.

With respect to the locations of the proposed residential units within the site and the local topography, it is evident that the site is located on the edge of the maximum predicted flood extents. Consequently, once floodwater has reached the east of the site, the rate of rise of the floodwater is estimated to be gradual, as floodwater would continue to fill the wider floodplain. This would again allow the occupants the opportunity to evacuate the site in a westerly direction, away from the floodwater.

6 Offsite Impacts and Other Considerations

6.1 Displacement of Floodwater

The construction of a new building within the floodplain has the potential to displace water and to increase the risk elsewhere by raising flood levels. A compensatory flood storage scheme can be used to mitigate this impact, ensuring the volume of water displaced is minimised.

However, where development is proposed in tidal floodplains such as is the case here, it is generally accepted by the EA that raising the ground or building on the floodplain is unlikely to impact on maximum tidal levels.

6.2 Public Safety and Access

The NPPF states that safe access and escape should be available to/from new developments located within areas at risk of flooding. The Practice Guide goes on to state that access routes should enable occupants to safely access and exit their dwellings during design flood conditions and that vehicular access should be available to allow the emergency services to safely reach the development.

When the proposed development is considered, it can be seen that the site is currently protected from tidal flooding by the sea defence infrastructure, and even when climate change is taken into account the site is predicted to remain dry. Consequently, safe access and escape from the site can be achieved.

It is only in the extremely unlikely event that a breach should occur in the defence infrastructure (residual risk event), that the site could flood and safe access would not be available. It is therefore recommended that residents sign up to receive the EA's Flood Warnings to enable them to receive forewarning of conditions which could result in flooding (refer to Section 7.4). This should provide residents with sufficient time to prepare the site and evacuate if necessary to an area outside the flood extent (i.e. 220m to the west of the site).

Nevertheless, in the unlikely event that there is insufficient time to evacuate the site, safe and dry refuge will be available within the properties. In addition, it is proposed to raise land within the lower parts of the site where proposed development is located, further reducing the risk and hazard to the people.

6.3 Proximity to Watercourse and Flood Defence Structures

Under the Water Resources Act 1991 and Land Drainage Byelaws, any proposals for development in close proximity to a 'main river' would need to take into account the EA's requirement for an 8m buffer zone between the river bank and any permanent construction such as buildings or car parking etc. This buffer zone increases to 16m for tidal waterbodies and sea defence infrastructure.

The development site is located more than 165m from the nearest watercourse and over 3km from the sea defence infrastructure. As such, the buildings do not compromise any of the EA's maintenance or access requirements.

7 Flood Mitigation Measures

The key objectives of flood risk mitigation are:

- to reduce the risk of the development being flooded.
- to ensure continued operation and safety during flood events.
- to ensure that the flood risk downstream of the site is not increased by increased runoff.
- to ensure that the development does not have an adverse impact on flood risk elsewhere.

The following section of this report examines ways in which the risk of flooding at the development site can be mitigated.

Mitigation Measure	Appropriate	Comment
Careful location of development within site boundaries (i.e., Sequential Approach)	✓	Refer to Section 7.1
Raising floor levels	✓	Refer to Section 7.2
Land raising	✓	
Compensatory floodplain storage	x	Not required
Flood resistance & resilience	✓	Refer to Section 7.3
Alterations/ improvements to channels and hydraulic structures	x	Not required
Flood defences	x	Not required
Flood warning	✓	Refer to Section 7.4
Surface water management	✓	Refer to Section 9

Table 7.1 – Appropriateness of mitigation measures.

7.1 Application of the Sequential Approach at a Local Scale

The sequential approach to flood risk management can also be adopted on a site based scale and this can often be the most effective form of mitigation. For example, on a large scheme this would mean locating the more vulnerable dwellings on the higher parts of the site and placing parking, recreational land or commercial buildings in the lower lying and higher risk areas.

For the development that is the subject of this FRA it can be seen that this approach has been adopted, with 15no. of the proposed residential dwellings being located within Flood Zone 1. In addition, all dwellings have 'more vulnerable' uses (i.e., sleeping accommodation) on the upper floors.

7.2 Raising Floor Levels & Land Raising

The analysis has shown that the main risk of flooding to the proposed development site is from a tidal source of flooding. When this risk is considered in more detail it is evident that the site is currently protected from a tidal flood event by flood defence infrastructure, and therefore the actual risk of tidal flooding at the development site is *low*.

It is recognised that the site could be subject to flooding in the extremely unlikely event of a breach scenario. Whilst land raising and floor level raising is limited due to ridge height limitations and the presence of the surrounding development, it has been proposed to undertake land raising. More detail of the proposed land raising is included within Appendix A.1. The land raising will ensure that the finished floor levels for all living accommodation are situated above the breach level, i.e. at a minimum level of 3.29m AODN. All sleeping accommodation is proposed to be situated on the first floor, well above the maximum predicted breach level.

For eight dwellings, the proposed ground floor will be situated below the breach level, with a minimum floor level of 2.84m AODN. For these dwellings, only less vulnerable elements such as parking and utilities will be located on the ground floor. All living and sleeping accommodation will be situated on the first floor and above, above the maximum predicted flood level.

In addition to the above, it is also recommended for all residential dwellings located within the flood extent to include flood resistance and resilience measures (refer to Section 7.3).

7.3 Flood Resistance and Resilience

During a flood event, floodwater can find its way into properties through a variety of routes including:

- Ingress around closed doorways.
- Ingress through airbricks and up through the ground floor.
- Backflow through overloaded sewers discharging inside the property through ground floor toilets and sinks.
- Seepage through the external walls.

- Seepage through the ground and up through the ground floor.
- Ingress around cable services through external walls.

Since flood management measures only manage the risk of flooding rather than eliminate it completely, flood resilience and resistance measures may need to be incorporated into the design of the buildings. The two possible alternatives are:

Flood Resistance or 'dry proofing', where flood water is prevented from entering the building. For example, using flood barriers across doorways and airbricks, or raising floor levels. These measures are considered appropriate for 'more vulnerable' development where recovery from internal flooding is not considered to be practical.

Flood Resilience or 'wet proofing', accepts that flood water will enter the building and allows for this situation through careful internal design for example raising electrical sockets and fitting tiled floors. The finishes and services are such that the building can quickly be returned to use after the flood. Such measures are generally only considered appropriate for some 'less vulnerable' uses and where the use of an existing building is to be changed and it can be demonstrated that no other measure is practicable.

It has been shown that the proposed development could be affected by floodwater, albeit that the risk of such occurrence is considered to be very low. Nevertheless, by incorporating flood resistance measures into the design of the buildings, it will be possible to ensure that the dwellings will remain dry in the extremely unlikely event of a breach. Due to the varying finished floor levels, there will be different levels of protection when flood resistance is taken into consideration. Consequently, Figure 7.1 below shows the proposed finished floor levels (FFL) and the level flood resistance (FR) is considered to be effective to.

Flood resistance measures are proposed for the dwellings which have a minimum finished floor level of 3.29m AODN, effectively providing protection to a level of 3.89m AODN. These dwellings are represented in pink in Figure 7.1 below. For the eight dwellings where the finished floor levels are below the breach level (orange and green dwellings in Figure 7.1), the minimum level of protection will be 3.44m AODN which is above the predicted breach level. In addition, the orange and green dwellings only contain less vulnerable elements such as parking and utilities on the ground floor. All living and sleeping accommodation will be situated on the first floor and above, the maximum predicted flood level (3.29m AODN).

Figure 7.1 – Finished Floor Levels (FFLs) and the level Flood Resistance (FR) is effective to.

In addition to flood resistance measures, it is still recommended that flood resilience measures are incorporated. Details of flood resilience and flood resistance construction techniques can be found in the document '*Improving the Flood Performance of New Buildings; Flood Resilient Construction'*, which can be downloaded from www.gov.uk.

A Code of Practice (CoP) for Property Flood Resilience (PFR) has been put in place to provide a standardised approach for the delivery and management of PFR. Further information on the CoP and guidance on how to make a property more flood resilient can be accessed, and downloaded, from the Construction Industry Research and Information Association (CIRIA) Website:

https://www.ciria.org/Resources/Free_publications/CoP_for_PFR_resource.aspx

7.4 Flood Warning

The nature of the flood mechanism in this location is tidal flooding associated with a tidal surge in the North Sea. It has been demonstrated that it is only in the unlikely event that the tidal defences were to breach that the site could be subject to flooding. Whilst it is not possible to predict the onset of a breach occurring accurately, such an event is associated with tidal conditions in the North Sea which are dependent on meteorological conditions and can be reliably monitored with a warning of at least 12 hours. This forewarning should be sufficient to allow the residents to prepare and evacuate to an area outside the predicted flood extent in anticipation of a flood event.

Whilst the probability of an event of sufficient magnitude to cause floodwaters to reach the levels discussed in this report is very low, the risk of such an occurrence is always present. With the sophisticated techniques now employed by the EA to predict the onset of flood events the opportunity now exists for all residents within the flood risk area to receive early flood warnings.

This forewarning could be sufficient to either allow residents to evacuate the area or prepare themselves and their property for a flood event. It is therefore recommended that the occupants of the site sign up to the EA's Flood Warning Service either by calling 0345 988 1188, or by visiting;

www.gov.uk/sign-up-for-flood-warnings

The flood warning service could also be used in combination with a robust Flood Warning and Evacuation plan (FEP) for the site. An FEP could be issued to each of the residents and would need to be reviewed on an annual basis.

A Flood Warning and Evacuation Plan:

- identifies areas of the site that are above the predicted flood level and will therefore be used as a safe haven until floodwaters recede.
- contains detailed site plans that identify emergency access routes through the site.
- provides information to residents on flood warning procedures.

- includes emergency contact numbers and other site-specific information that will enable residents to manage the impacts of flood event.

8 Existing Drainage

8.1 Existing Surface Water Drainage

As a result of the permeable geology, it is likely that the runoff from the existing site currently drains via infiltration into the ground. Greenfield runoff rates for the part of the site that is to be developed have been calculated using the FEH methodology and synthetic rainfall data derived using the variables obtained from the FEH online web service. The results are outlined in *Table 8.1* below.

Return Period (years)	Peak runoff from the existing site (l/s)
1	1.1
Qbar	1.3
30	3.0
100	4.8

Table 8.1 – Summary of peak runoff rates for the existing site.

Southern Water has provided sewer mapping as part of their asset location data for the site and surrounding area (as shown in Figure 3.3). Inspection of the asset location mapping identifies that there are only foul sewers in the area. The closest foul sewer network is to the west of the site, along Jubilee Road.

9 Sustainable Drainage Assessment

9.1 Site Characteristics

The important characteristics of the site, which have the potential to influence the surface water drainage strategy, are summarised in Table 9.1 below.

Site Characteristic	Development Site	
Total area of site	~1.39 ha	
Current site condition	Undeveloped (Greenfield)	
Greenfield runoff rates (based on the FEH methodology and existing impermeable area)	1:1 yr = 1.3 l/s Qbar = 1.5 l/s 1:30 yr = 3.5l/s 1:100 yr = 4.8 l/s	
Infiltration	0.1 m/hr (assumed based on underlying geology and typical soil conditions)	
Current surface water discharge method	Drains into the ground	
Is there a watercourse nearby?	No	
Impermeable area	**Existing** **0**	**Proposed** **~ 6,250 m^2**

Table 9.1 – Site characteristics affecting rainfall runoff.

Based on *Table 9.1* above, it is evident that the development proposals will increase the total impermeable area across the site. As a result, the rate at which the surface water runoff is discharged from the site is likely to increase. Consequently, measures will need to be put in place to ensure that the impact of this additional surface water runoff is appropriately managed.

9.2 Planning Policy and Context

The general requirement for all new development is to ensure that the runoff is managed sustainably, and that the development does not increase the risk of flooding at the site, or within the surrounding area. In the case of brownfield sites, drainage proposals are typically measured against the existing performance of the site, although it is preferable (where practicable) to provide runoff characteristics that are similar to greenfield behaviour.

The Non-statutory Technical Standards for SuDS (NTSS) specify criteria to ensure sustainable drainage is included within development classified as ‘major development’ as set out in Article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2010.

It is, however, recognised that SuDS should be designed to ensure that the maintenance and operation requirements are economically proportionate.

In this instance, the proposed development is for the construction of 30 residential units with a total floor space greater than 2350m2. As a result, the proposals are classified as 'major' development and therefore, the NTSS will apply. Reference to the NTSS has therefore been made throughout the following sections of this report to ensure the principles of sustainable drainage are considered.

9.3 Opportunities to Discharge Surface Water Runoff

Part H of the Building Regulations summarises a hierarchy of options for discharging surface water runoff from developments. The preferred option is to **infiltrate** water into the ground, as this deals with the water at source and serves to replenish groundwater. If this option is not viable, the next option is for the runoff to be discharged into a **watercourse**. The water should only be conducted into the **public sewer** system if neither of the previous options are possible.

Water Re-Use – Water re-use systems should ideally be considered to reduce the reliance on the demand for potable water. However, such systems can rarely manage 100% of the surface water runoff discharged from a development, as this requires the yield from the building and hardstanding area to balance perfectly with the demand from the proposed development. Consequently, whilst rainwater recycling systems can be considered for inclusion within the scheme, an alternative solution for attenuating storm water will still be required.

Infiltration – The soil and underlying geology at this location has been analysed using the BGS mapping. The geology of the site is made up of Margate Chalk Member (chalk) and Thanet Formation (sand, silt and clay). The above-mentioned strata is likely to have a high permeability, capable of discharging surface water runoff. An assumed infiltration rate of 0.1m/hr has been used for the design. Notwithstanding this, it is recommended that site investigations are carried out at detailed design stage to confirm infiltration rates and the depth of the groundwater table. Infiltrating runoff into the ground is assessed as being a viable method of discharging the surface water runoff from the development and is proposed as part of the drainage system.

Discharge to Watercourses – There are no watercourses located within close proximity to the site, which show onward connectivity to a main river, the sea, or any other large surface water body. As a result, there is no opportunity to discharge surface water runoff from the development to an existing watercourse.

Discharge to Public Sewer System - Inspection of the asset location mapping identifies that there are only foul sewers in the area and a more suitable solution for discharging surface water from the proposed development is available. Discharging surface water from the development into the public sewer system is, therefore, not considered necessary.

9.4 Constraints and Further Considerations

The key constraints that are relevant to this development are listed below:

- Any infiltration features that result in a concentrated discharge of surface water runoff to the ground, such as soakaways, should not normally be located within 5.0 metres of any existing or proposed (adjacent) buildings.
- A 3.66m easement from soakaways to adoptable highways is also required.
- A minimum of a 1.0 metre unsaturated zone shall be maintained between the base of any infiltration SuDS and the maximum seasonal water table.
- Infiltration SuDS intended to drain highway or parking areas will usually require additional safeguards, such as seal-trapped gullies or oil/grit separators.
- Surface water runoff will need to be managed separately for the adoptable roads, due to highway maintenance policies.

9.5 Proposed Surface Water Management Strategy

The drainage strategy set out below discusses each of the different elements of the proposed scheme, along with the results from a numerical drainage model constructed for the site, which can be used to demonstrate how the overall objectives can be achieved. This does not represent a detailed surface water drainage design; it is simply an assessment to demonstrate that the objectives and requirements of the NPPF and NTSS can be met at the planning stage.

Water Butts

To reduce the developments reliance on potable water supplies for external use, there is the potential to incorporate water butts within the private gardens of the residential units. Typical sizes and dimensions of water butts are outlined below.

Typical house water butt options	Dimensions of a typical house water butt	Volume of storage provided (litres)
Type 1 (wall mounted – small)	1.22m high x 0.46m x 0.23m	100
Type 2 (standard house water butt)	0.9m high x 0.68m diameter	210
Type 3 (large house water butt)	1.26m high x 1.24m x 0.8m	510
Type 4 (column tank – very large)	2.23m high x 1.28m diameter	2,000

Table 9.2 – *Estimated storage capacity of available water butts.*

In this case, the demand for potable water from each of the gardens is likely to be relatively small and as a result, small wall mounted water butts (typical 100 litre units) are likely to be the most appropriate size for inclusion within the scheme.

It is recognised that each of the water butts will need to overflow into the main drainage system for the site, to ensure that in the event the water butt is full prior to the onset of the design rainfall event, water can be discharged away from the properties without increasing the risk of flooding.

Permeable Surfacing

Runoff from the driveways and the non-adoptable sections of the access roads, will drain into a layer of open graded subbase material, located beneath permeable surfacing. The base of the permeable surfacing system will be underlain with a permeable geotextile liner, to allow water to discharge to the ground via infiltration. A summary of the Causeway Flow+ analysis for permeable surfacing is shown in Table 9.3 below.

Parameter	**Value (1:100yr+45%cc event)**
SuDS	Permeable Surfacing (driveways and non-adoptable roads)
Total area draining to permeable surfacing and a 10% allowance for urban creep	1470m^2
Area of permeable surfacing	1323m^2
Infiltration	Permitted (Assumed 0.1 m/h)
Minimum sub-base depth	200mm
Sub-base porosity	30%
Half drain time (30-year event)	50min
Critical storm duration	60min

Table 9.3 – Summary of permeable surfacing SuDS.

Crate Storage Soakaway

Surface water runoff from the adoptable roads will be discharged into a crate soakaway systemlocated within the centre of the site. The soakaway will allow for additional storage before infiltrating into the underlying geology. Calculations have been undertaken to determine the depth and volume of the crate system required and the results are summarised in *Table 9.4* below.

Parameter	Value (1:100yr+45%cc event)
SuDS	Soakaway
Total area draining to permeable surfacing	2430m^2
Area of Soakaway	156 m^2
Infiltration	Permitted (Assumed 0.1 m/h)
Depth	1.6m
Porosity	95%
Half drain time (30-year event)	825min
Critical storm duration	960min

Table 9.4 – Summary of Crate Storage Soakaway.

Infiltration Basin

Surface water runoff discharging from the roofs and additional hardstanding areas across the site will be drained into the ground via an infiltration basin. The infiltration basin will allow for additional storage before infiltrating into the underlying chalk. Small, raised terraces can be designed to remain dry during most return period rainfall events. These would provide variation in the available habitats for wildlife. A boundary planting may be used to restrict and limit public access to the basin. The Causeway Flow+ calculations for the basin are summarised in *Table 9.4*.

Parameter	Value (1:100yr+45%cc event)
SuDS	Infiltration basin
Total area draining to Infiltration basin and a 10% allowance for urban creep	2354m^2
Basin area	337 m^2
Infiltration	Permitted (Assumed 0.1 m/h)
Embarkment	1:3
Depth	1.5m
Half drain time (30-year event)	540min
Critical storm duration	960minutes

Table 9.5 – Summary of infiltration basin.

9.6 Indicative Drainage Layout Plan

Figure 9.1 below is an indicative drainage layout plan delineating how the proposed SuDS can be incorporated into the scheme proposals.

Figure 9.1 - Indicative drainage layout plan showing the proposed location of SuDS.

A full-scale copy of this layout is located in Appendix A.4 of this report.

9.7 Management and Maintenance

In order for any surface water drainage system to operate as originally designed, it is necessary to ensure that it is adequately maintained throughout its lifetime. Therefore, over the lifetime of a development there is a possibility that the performance of the system could be reduced or could fail if it is not correctly maintained. This is even more important when SuDS form a part of the surface water management system, as these require a more onerous maintenance regime than a typical piped network.

The key requirements of any management regime are routine inspection and maintenance. When the development is taken forward to the detailed design stage, an 'owner's manual' will need to be prepared. This should include:

- A description of the drainage scheme.
- A location plan showing all of the SuDS features and equipment, such as flow control devices etc.
- Maintenance requirements for each element, including any manufacturer-specific requirements.
- An explanation of the consequences of not carrying out the specified maintenance.
- Details of who will be responsible for the ongoing maintenance of the drainage system.

For the SuDS recommended by this assessment, the most obvious maintenance tasks will be desilting and cleaning the basin and soakaway, and regular brushing of the permeable surfacing. General maintenance schedules have been included within the Appendix A.5 of this report, which demonstrate the maintenance requirements of the proposed SuDS. For developments such as this, that to some extent rely on the ongoing inspection and maintenance of SuDS, it will be necessary to ensure that measures are in place to maintain the system for the lifetime of the development.

For the communal SuDS, it is likely that the management company responsible for maintaining the rest of the site will be tasked with the inspection and maintenance of these features. For the SuDS located within the private garden areas, it is likely that maintenance will be the responsibility of the individual property owners / occupants. In this case maintenance tasks are likely to include the desilting of the water butts.

Further details of the maintenance and management strategy should be confirmed, following the completion of a detailed drainage design for the development.

9.8 Sensitivity Testing and Residual Risk

When considering residual risk, it is necessary to consider the impact of a flood event that exceeds the design event, or the implications if the proposed drainage system was to become blocked.

For the water butts, there is the potential for a small amount of localised flooding to occur if the overflows from these features were to become blocked. Given the small catchment area draining to each of these features, the volume of floodwater will be relatively small, and it is unlikely to present a risk to the properties or occupants.

In case of an exceedance event, surface water could cause localised flooding in the open space, where the soakaway and basin are located. Flood water would then follow the topography towards the east and away from the buildings.

Some localised flooding could also occur above the permeable surfacing. Raised kerbing can be used to create a temporary holding area and keep the flooding within the road.

Figure 9.2 below delineates the most likely path water would take during an event that exceeds the design storm.

Figure 9.2 – Anticipated flow routes during an exceedance or blockage event (indicated by blue arrows)

Based on the analysis above it is therefore concluded that the proposed drainage system outlined within this strategy will not result in an increased risk of flooding to properties at the site or within the surrounding area.

10 Foul Water Management Strategy

10.1 Background

The objective of this foul water drainage strategy is to ensure a viable solution is available for managing foul effluent discharged from the proposed development site.

In general, there are two methods for draining effluent from proposed developments. The preferred solution is a connection to the public sewer network, which is controlled by the sewerage undertaker. Nonetheless, if there are no sewers near to the development site or there are particular reasons why a connection to the public sewer system would not be possible i.e., topography, cost, environmental concerns, then the use of package treatment systems or cesspits is permitted.

The Environment Agency's "Binding Rules" control the use of package treatment systems and require the development to connect to the public sewer system if the site boundary is located within 30m of an existing sewer (plus an additional 30 meters for every proposed unit). In this case, the proposed development, is located within close proximity of a public foul sewer. Therefore, the use of package treatment systems is unlikely to be considered appropriate for this development.

10.2 Sewer Connection

As indicated in Figure 3.3, there is an existing public foul sewer to the western side of the site. It is anticipated that the proposed development will connect into the existing sewer network at manholes 7801 and 7901, as shown in Figure 10.1 below.

Figure 10.1 - Proposed connection to the foul sewer network.

In accordance with the Design and Construction Guidance (DCG), the design peak flow rate for foul water discharged from the proposed development has been calculated as 1.39 l/s (120m³/day). It is recommended that a sewer capacity check is undertaken at the detailed design stage to allow the sewerage undertaker to confirm whether there is sufficient capacity within the existing public

foul sewer and to confirm whether the proposed increase in the discharge rate from the new development is acceptable.

10.3 The Water Industry Act

The Water Industry Act 1991 provides developers with a mechanism for connecting to the public sewerage infrastructure. The type of connection depends on the type and location of the sewers in relation to the site and third-party land.

As the nearest sewers to the site are located outside of the development site boundary, the developer must requisition a new length of sewer from the sewerage undertaker, through a Section 98 application.

As part of the Section 98 process, it is necessary to determine whether the existing sewer network requires any upgrades to accommodate effluent from the development site. If upgrades to the sewerage system are required these will be requisitioned under the same Section 98 application. It is acknowledged that the cost of a new connection and any additional works which are required to upgrade the public sewer system (to accommodate the additional foul effluent from the development) can be charged to the developer.

Under Section 101, the sewerage undertaker must undertake any works as part of this process within a reasonable timeframe, which is typically 6 months following the agreement being made. Mitigating circumstances and Grampian planning conditions can, however, result in different timescales.

10.4 Summary

The opportunities for managing foul effluent discharged from the development site have been analysed and it is concluded that a connection to the public sewer system, located to the west of the site, is likely to present the most viable solution.

Following the award of planning permission, a full detailed design of the site layout and foul drainage system will be required as part of the Section 98 application, which will require a new connection to be requisitioned and any necessary upgrades made to the public sewer system. These upgrades are likely to be economically proportionate to the size of the development, however, it is recognised that a solution for managing foul wastewater from the proposed development will be available.

11 Conclusions and Recommendations

The overarching objective of this report is to appraise the risk of flooding at the Land at Jubilee Road, Worth, to ensure that the proposals for development are acceptable and that any risk of flooding to the residents of the proposed residential units is appropriately mitigated. In addition, the NPPF also requires the risk of flooding offsite to be managed, to prevent any increase in flood risk as a result of the development proposals. This report has therefore been prepared to appraise the risk of flooding from all sources and to provide a sustainable solution for managing the surface water runoff discharged from the development site, in accordance with the NPPF and local planning policy.

In this case, the proposals are for the construction of 30no. new residential dwellings. The site has been shown to be located within Flood Zones 1 and 2. Whilst a Sequential Test may be required, the evidence provided within this report can be used in the application of the Sequential Test.

It is also necessary to determine whether the Exception Test is required. In this case, the proposed development is located within Flood Zone 2 and is classified as 'more vulnerable'. Such a combination of risk and vulnerability does not typically require the Exception Test to be applied. Nevertheless, the NPPF requires all development in Flood Zones 2 and 3 to be subject to a FRA.

The risk of flooding has therefore been considered across a wide range of sources and it is only the risk of coastal flooding that has been shown to have any bearing on the development. However, when this risk is examined in detail, it has been demonstrated that the risk of flooding from this source is limited to the failure of the defence infrastructure (i.e. the residual risk event).

Considering the high standard of protection provided by defences, the good condition they are maintained to, and the low probability of their failure, it is considered that the likelihood of these defences failing over the lifetime of the development is low. Nevertheless, it is still considered appropriate to mitigate this risk.

Consequently, the following mitigation measures are proposed to be incorporated as best practice;

- ***Raising land and finished floor levels.*** It is proposed to raise land and finished floor levels above the breach flood level, refer to Section 7.2. A drawing of the proposed land raising is included within Appendix A.1.

- ***Flood resilience measures should be incorporated into the design of the proposed dwellings where possible.*** This will increase its resilience to flooding and thereby reduce the impact if water was to enter the properties.

- ***The residents of the dwellings should sign up to the EA's Flood Warning Service.*** The Flood Warning Service will enable the residents to receive forewarning of a storm

event, enabling them to prepare themselves and their properties and evacuate the site if required.

- ***A Flood Warning and Evacuation Plan (FEP) should be prepared***. The FEP can be used to inform residents on how to safely evacuate the buildings and direct occupants to an area above the predicted flood level. It is recommended that this forms a condition of planning.

Furthermore, this FRA has demonstrated that the development will not increase flood risk elsewhere and by incorporating appropriate mitigation measures and SuDS features within the design of the surface water drainage system, it will be possible to limit the impact with respect to surface water runoff. The preferred solution that has been identified comprises the use of a crate storage soakaway, an infiltration basin and permeable surfacing which will all allow surface water to infiltrate into the underlying geology.

The opportunities for discharging foul effluent from the site have also been considered and the appraisal demonstrates that the most viable solution is to connect into the existing foul sewer network.

In conclusion, following the recommendations of this report, the residents of the development will be safe and the development will not increase the risk of flooding elsewhere. Consequently, it has been demonstrated that the development will meet the requirements of the NPPF.

12 Appendices

Appendix A.1 – Drawings

Appendix A.2 – Southern Water Asset Location Data

Appendix A.3 – Surface Water Management Calculations

Appendix A.4 – Indicative Drainage Layout

Appendix A.5 – Maintenance Schedules

Appendix A.1 – Drawings

Scale: 1:1000

0 10 30 50 100m

N

Revision Note & Date

Rev	Date	Note	Amended	Checked

ON ARCHITECTURE

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Project Title
LAND OFF JUBILEE ROAD, WORTH

Clients Details
FINN'S

Drawing Title
PROPOSED SITE PLAN

BIM Number
22.044 - 0100

Scale	Date	Drawn	Checked
1:1000@A3	MAY 2023	SH	JR

Drawing Status
PLANNING

Project No.	Drawing No.	Status	Revision
22.044	0100	-	P0

O:\2022 PROJECT FOLDER\22.044 Jubilee Road, Worth (Finn's)\WIP\DR\22.044-0100-DR Proposed Site Plan.dwg

TITLE

Proposed Land Raising for the Land at Jubilee Road, Worth

herrington CONSULTING LIMITED

Canterbury (HO): Unit 6-7 Barham Business Park, Elham Valley Road, Canterbury. Kent CT4 6DQ
London: Unit 52.11, Woolyard, 52 Bermondsey Street, London. SE1 3UD

LEGEND

- Site Boundary
- Proposed Land Raising (Volume m)
  - 0.09 - 0.10
  - 0.10 - 0.20
  - 0.20 - 0.30
  - 0.30 - 0.40
  - > 0.40
- Proposed Land Raising Contours
- Existing Contours

NOTES

1. This drawing contains Ordnance Survey data © Crown copyright and database copyright 2023.
2. All dimensions are in metres unless otherwise stated
3. All heights are in metres Above Ordnance Datum Newlyn (mAODN) unless otherwise stated

REV	DESCRIPTION	DATE
1	1st issue	30-05-2023

CLIENT Mr Stevens, Ms Stevens, and Mrs Morgan

PROJECT Jubilee Road, Worth

SCALE	PROJECT No.	INITIALS	CHECKED BY
1: @ A3	3034	AB	--

DRAWING No. **HC-3034-1**

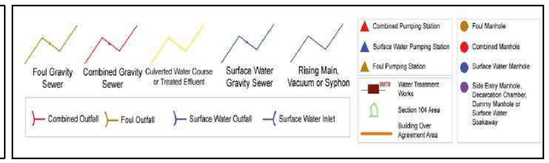
Appendix A.2 – Southern Water Asset Location Data

(c) Crown copyright and database rights 2022 Ordnance Survey 100031673 | Date: 06/07/22 | Scale: 1:1250 | Map Centre: 633718,155937 | Data updated: 16/06/22 | Our Ref: 894719 - 1 | Wastewater Plan A2

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2022 Ordnance Survey 100031673 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.



flood@herringtonconsulting.co.uk

AB/3034

WATER for LIFE from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
4001	F	5.67	2.63	
4002	F	0.00	0.00	
4003	F	0.00	0.00	
4801	F	7.52	5.52	
5001	F	5.24	2.15	
5101	F	4.07	1.65	
6101	F	2.73	1.10	
7001	F	3.12	0.80	
7002	F	0.00	0.00	
7003	F	0.00	0.00	
7104	F	3.17	0.73	
7105	F	2.19	0.59	
7106	F	2.12	0.40	
7107	F	2.25	0.27	
7701	F	5.31	2.01	
7801	F	4.47	1.52	
7901	F	3.02	1.11	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Appendix A.3 – Surface Water Management Calculations

Design Settings

Rainfall Methodology	FEH-13	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Inverts
Additional Flow (%)	45	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	0.350
Time of Entry (mins)	4.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	200.0		

Nodes

Name	Area (ha)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
Pond 1	0.235	10.000	2.351	6.952	1.500
Tank	0.243	10.000	5.114	6.957	1.950
PP	0.147	10.000	5.000	6.000	0.300

Simulation Settings

Rainfall Methodology	FEH-13	Drain Down Time (mins)	10080	30 year (l/s)	3.6
Summer CV	1.000	Additional Storage (m³/ha)	0.0	100 year (l/s)	4.8
Winter CV	1.000	Check Discharge Rate(s)	✓	Check Discharge Volume	x
Analysis Speed	Normal	2 year (l/s)	1.3		
Skip Steady State	x	10 year (l/s)	2.4		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	45	0	0	30	45	0	0
10	45	0	0	100	45	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	QBar/QMed conversion factor	1.136	QBar	1.5
Greenfield Method	FEH	Growth Factor 2 year	0.88	Q 2 year (l/s)	1.3
Positively Drained Area (ha)	1.380	Growth Factor 10 year	1.62	Q 10 year (l/s)	2.4
SAAR (mm)	642	Growth Factor 30 year	2.40	Q 30 year (l/s)	3.6
Host	1	Growth Factor 100 year	3.19	Q 100 year (l/s)	4.8
BFIHost	0.732	Betterment (%)	0		
Region	7	QMed	1.3		

Node Pond 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.10000	Safety Factor	2.0	Invert Level (m)	8.500
Side Inf Coefficient (m/hr)	0.10000	Porosity	1.00	Time to half empty (mins)	740

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	92.0	92.0	1.500	337.0	337.0

Node Tank Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.10000	Invert Level (m)	8.050	Depth (m)	1.600
Side Inf Coefficient (m/hr)	0.10000	Time to half empty (mins)	726	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	13.000	Number Required	1
Porosity	0.95	Pit Length (m)	12.000		

Node PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.10000	Invert Level (m)	9.700	Slope (1:X)	9999.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.200
Safety Factor	2.0	Width (m)	13.400	Inf Depth (m)	
Porosity	0.30	Length (m)	100.000		

Results for 2 year +45% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	Pond 1	344	8.943	0.443	12.7	56.7255	0.0000	OK
360 minute summer	Tank	264	8.416	0.366	16.5	54.1741	0.0000	OK
30 minute summer	PP	22	9.732	0.032	35.3	10.9720	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
480 minute summer	Pond 1	Infiltration	2.2
360 minute summer	Tank	Infiltration	2.4
30 minute summer	PP	Infiltration	12.0

Results for 10 year +45% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	Pond 1	336	9.203	0.703	17.2	104.9791	0.0000	OK
360 minute winter	Tank	344	8.765	0.715	17.8	106.0064	0.0000	OK
30 minute summer	PP	23	9.766	0.066	71.7	24.5181	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
360 minute winter	Pond 1	Infiltration	2.8
360 minute winter	Tank	Infiltration	2.7
30 minute summer	PP	Infiltration	18.6

Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	Pond 1	660	9.390	0.890	16.9	146.4789	0.0000	OK
480 minute winter	Tank	456	9.052	1.002	18.7	148.4531	0.0000	OK
30 minute summer	PP	24	9.794	0.094	96.1	35.6019	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
960 minute summer	Pond 1	Infiltration	3.2
480 minute winter	Tank	Infiltration	2.9
30 minute summer	PP	Infiltration	18.6

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	Pond 1	690	9.695	1.195	24.1	226.6835	0.0000	OK
960 minute winter	Tank	765	9.641	1.591	16.5	235.8272	0.0000	OK
60 minute summer	PP	43	9.831	0.131	89.0	50.4498	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	Outflow (l/s)
960 minute summer	Pond 1	Infiltration	4.0
960 minute winter	Tank	Infiltration	3.3
60 minute summer	PP	Infiltration	18.6

Appendix A.4 – Indicative Drainage Layout

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS, ARCHITECTS AND SPECIALISTS DRAWINGS AND THE SPECIFICATION.
2. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT BRITISH STANDARDS, EUROPEAN NORMS, CODES OF PRACTICE AND BUILDING PRACTICE.
3. ALL DIMENSIONS ARE TO BE CHECKED BY THE CONTRACTOR PRIOR TO STARTING THE WORKS ON SITE. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
4. INFILTRATION FEATURES WILL BE SUBJECT TO SITE SPECIFIC INFILTRATION TESTING AND TRIAL HOLES.
5. ALL DRAINAGE SYSTEMS WILL NEED TO BE INSTALLED AND DESIGNED FOR SUITABLE LOADING REQUIREMENTS.
6. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL AND ALL NECESSARY LICENCES FROM THE THE HIGHWAY AUTHORITY AND/OR SEWERAGE UNDERTAKER BEFORE CARRYING OUT ANY WORKS.
7. THIS DRAWING WAS PRODUCED FOR USE IN CONJUNCTION WITH A PLANNING SUBMISSION AND SHOULD NOT BE USED FOR OTHER PURPOSES. A MORE DETAILED DESIGN INCLUDING PRODUCT SPECIFICATIONS WILL NEED TO BE PRODUCED PRIOR TO CONSTRUCTION.

KEY:

- SURFACE WATER DRAIN
- MH — SURFACE WATER MANHOLE
- PPIC — SURFACE WATER PPIC
- RWP — RAINWATER PIPE
- PERMEABLE SURFACE
- CRATE STORAGE SOAKAWAY
- INFILTRATION POND
- ADOPTABLE ROADS
- HEADWALL

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Rev	Description	Author	Checked	Date
P1	First issue	BW	EC	30/05/23

CLIENT: MR STEVENS, MS STEVENS AND MRS MORGAN

PROJECT: JUBILEE ROAD, WORTH

SCALE	PROJ REF	ORIGINATOR	CHECKED BY
1:500	3034	BW	EC

HC DWG REF.: 3034_DWG_r1

DWG TITLE: INDICATIVE SURFACE WATER DRAINAGE LAYOUT

DWG No.: HC-3034-501

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS, ARCHITECTS AND SPECIALISTS DRAWINGS AND THE SPECIFICATION.
2. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT BRITISH STANDARDS, EUROPEAN NORMS, CODES OF PRACTICE AND BUILDING PRACTICE.
3. ALL DIMENSIONS ARE TO BE CHECKED BY THE CONTRACTOR PRIOR TO STARTING THE WORKS ON SITE. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
4. INFILTRATION FEATURES WILL BE SUBJECT TO SITE SPECIFIC INFILTRATION TESTING AND TRIAL HOLES.
5. ALL DRAINAGE SYSTEMS WILL NEED TO BE INSTALLED AND DESIGNED FOR SUITABLE LOADING REQUIREMENTS.
6. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL AND ALL NECESSARY LICENCES FROM THE THE HIGHWAY AUTHORITY AND/OR SEWERAGE UNDERTAKER BEFORE CARRYING OUT ANY WORKS.
7. THIS DRAWING WAS PRODUCED FOR USE IN CONJUNCTION WITH A PLANNING SUBMISSION AND SHOULD NOT BE USED FOR OTHER PURPOSES. A MORE DETAILED DESIGN INCLUDING PRODUCT SPECIFICATIONS WILL NEED TO BE PRODUCED PRIOR TO CONSTRUCTION.

KEY:

- EXISTING FOUL WATER SEWER
- EXISTING FOUL WATER CHAMBER
- FOUL WATER DRAIN
- FOUL WATER MANHOLE
- FOUL WATER PPIC

SCALE 1 : 500 @ A1

10 m 0 40 m

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Rev	Description	Author	Checked	Date
P1	First issue	BW	EC	24/05/23

CLIENT: MR STEVENS, MS STEVENS AND MRS MORGAN

PROJECT: JUBILEE ROAD, WORTH

SCALE	PROJ REF	ORIGINATOR	CHECKED BY
1:500	3034	BW	EC

HC DWG REF: 3034_DWG_r1

DWG TITLE	DWG No.
INDICATIVE FOUL DRAINAGE LAYOUT	HC-3034-601

Appendix A.5 – Maintenance Schedules

Operation and Maintenance Schedule – Infiltration Basins		
Maintenance Schedule	**Required Action**	**Typical Frequency**
Routine maintenance	Remove debris and litter from within and around the basin area.	Monthly
	Cut grass for landscaped areas within the basin	Monthly, although should be adjusted to be most frequent during the growing season.
	Cut grass around the basin	Half yearly (spring and autumn), should be undertaken before the start of the nesting season.
	Manage other vegetation and remove nuisance plants	Monthly at start, then as required.
	Inspect siltation rates and establish program for silt removal.	Inspection should be at annually and adjusted based recorded siltation rates.
Occasional Maintenance	Reseed areas with poor vegetation growth or where scouring is detected	As required following the detection of an issue during inspection.
	Prune and manage trees and nuisance plants in and around the basin.	
	Remove sediment from pre-treatment system when it is 50% full.	
Remedial Actions (Following Storms or scheduled inspections)	Repair erosion of other damage by reseeding or turfing damaged areas.	As required following the detection of an issue during inspection.
	Realign rip rap on inlets and outlets.	
	Repair inlet, outlet, and overflow structurers if damaged	
	Scarify infiltration surface especially if the performance of the basin has deteriorated.	
	Relevel areas which have settled or become eroded and ensure the land levels across the basin still match the design specifications.	
Monitoring and inspections	Inspect inlets, outlets and overflows for blockages. Clear blockages if detected.	At least monthly.
	Inspect pipework, and the base and banks of the feature for damage. Repair if detected	At least monthly.
	Inspect sediment traps, and the inlet structure for silt. Remove silt if necessary and adjust inspection frequencies to minimise the potential for a large build-up of silt to occur between inspections.	At least Half Yearly
	Inspect infiltration surfaces for silt, compaction, and ponding. Remediate areas (e.g. scarify grass) when detected	At least monthly.

General Operation and Maintenance Table for Infiltration Basins.

Operation and Maintenance Schedule – Pervious paving / surfacing		
Maintenance Schedule	**Required Action**	**Typical Frequency**
Regular Maintenance	Brushing and vacuuming (for driveways this can be a standard cosmetic sweep over whole surface).	At minimum once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – particular attention must be payed to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment.
Occasional maintenance	Stabilise and mow contributing and adjacent areas.	As required.
	Removal of weeds or management using a suitable weed killer which will not adversely affect water quality. Weed killer should be applied directly into the weeds by an applicator rather than spraying.	As required – once per year on less frequently used pavements.
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving / surfacing.	As required when damage or erosion is detected following inspection. For block paving systems jointing material to be replaced shortly after installation and subsequently when required.
	Remedial work to any depressions. Rutting and cracked or broken blocks and replace lost jointing material (where block paving is used).	
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

General Maintenance Requirements for Permeable Surfacing (additional requirements may apply depending on type of surfacing material used).

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Operation and Maintenance Schedule – Soakaways		
Maintenance Schedule	**Required Action**	**Typical Frequency**
Regular maintenance	Inspect for sediment and debris in pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	Annually
	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required based on inspections)
Occasional maintenance	Remove sediment and debris from pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	As required, based on inspections
Remedial Actions	Reconstruct soakaway and/or replace or clean void fill, if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will require reconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year and then annually
	Check soakaway to ensure emptying is occurring	Annually

General Operation and Maintenance Table for Soakaways.

Scale: 1:500

0 10 32 50m

N

Revision Note & Date
Rev Date Note Amended Checked

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Project Title
LAND OFF JUBILEE ROAD, WORTH

Client Details
FINN'S

Drawing Title
PROPOSED SITE LAYOUT

Job Number
22.044 - 0100

Scale	Date	Drawn	Checked
1:500@A1	MAY 2023	SH	JR

Drawing Status
PLANNING

Project No.	Drawing No.	Status	Revision
22.044	0100	-	P0

O:\2022 PROJECT FOLDER\22.044 Jubilee Road, Worth (Finn's)\WIP\DR\22.044-0100-DR Proposed Site Layout.dwg

LAND OFF JUBILEE ROAD

JUBILEE ROAD,WORTH,DEAL

DESIGN AND ACCESS STATEMENT

MAY 2023

ON ARCHITECTURE

Land Off Jubilee Road, Worth: Design and Access Statement

This Design and Access Statement has been prepared by On Architecture on behalf of Finn's.

This document has been designed to be printed double sided at A3 (landscape).

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First published by On Architecture Ltd, May 2023.

Please note:
Unless otherwise stated all drawings, maps, images and diagrams contained within this document are not to scale.

Prepared by	YB
Checked by	SH
Date Issued	September 2023
Revision	A

CONTENTS

01 Introduction

Application site

Image courtesy of Google Earth

This document is prepared by On Architecture, on behalf of Finn's, in support of an outline planning application for residential redevelopment at Land at Jubilee Road, Worth.

The structure and content of the Design and Access Statement has been prepared in accordance with the Town and Country Planning (Development Management Procedure)(England) Order 2015 and The Government's online National Planning Practice Guidance (NPPG) 2014 (as revised).

The aim is to explain how the proposed development is a suitable response for the site and its setting within Worth. It sets out the design process that has been undertaken and provides details of the site context and key design principles that have informed the proposals, demonstrating the commitment of the applicant and design team to achieving Good Design and meeting the requirements of planning policy, legislation and good practice guidance.

02 Assessment

SITE LOCATION

Red boundary line indicates application site

Image courtesy of Google Earth

WIDER CONTEXT

Worth is a well connected village close to the south east coast, with transport links to Sandwich and Deal. A number of local amenities exist including a primary school, village hall and pub, enabling Worth to provide services for it's own community.

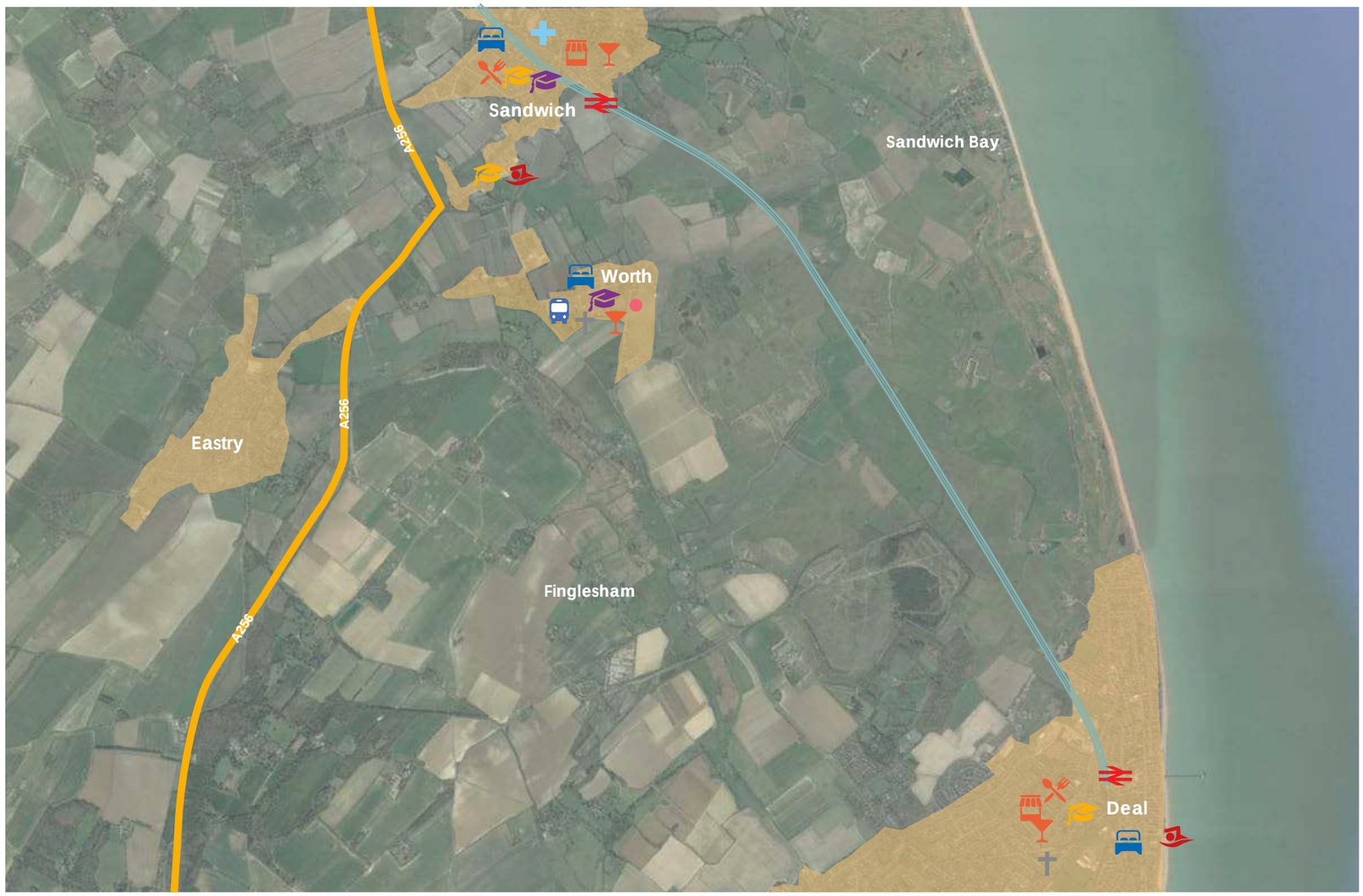


Image courtesy of Google Maps

N

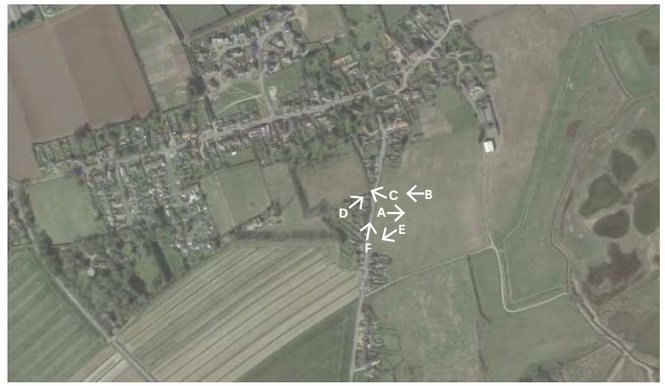
Key

- Application site location
- Town / village centre
- Train station
- Bus stop
- GP surgery
- Supermarket
- Shops
- Church
- Sport and leisure centre
- Secondary school
- Primary school
- Hotel
- Pub
- Restaurant

Distances from Site:

Deal – 17 min (Driving)
Sandwich Town Centre – 7 min (driving)
London St. Pancras – 2 hrs 40 min (bus and train)

SITE PHOTOGRAPHS



Images courtesy of Google N

CONTEXTUAL STUDY

A - Jubilee Road Looking East

B - Jubilee Road Looking West

Images courtesy of Google

LISTED BUILDINGS

Application Site

Church of St Peter & St Paul, The Street

Grade II Listed (Dated first Listed 11th October 1963)

Listing details : Parish Church. C12 origin, remodelled C13 and C19. Restored 1888 by James Brooks. Flint and rubble with ragstone chancel. Plain tiled roof and shingled spire. Chancel with north and south chapels, nave with south aisle, west tower and north porch. West tower 2 bays wide with central offset buttress. Two renewed C12 lancets. Shingle spire overhanging timber tower

Exterior : Hollow moulded C13 west doorway. Large gabled dormer over south aisle. C19 fenestration throughout, except 2 trecusped ogee headed lights in north chapel. Timber glazed north porch, the north doorway within renewed C12 with attached shafts and roll moulding, the whole looking as if re-set here from elsewhere.

Barton Farmhouse, The Street

Grade II Listed (Date First Listed 11th October 1963)

Listing Details : House. Late C17 altered early C20. Red brick and plain tiled roof. Two storeys and attic on plinth with boxed eaves to roof with segmental Dutch gable to left and half-hipped roof to right, with 4 hipped dormers inserted early C20, and stack to centre left.

Exterior : Four glazing bar sashes on first floor and 3 on ground floor with segmental heads. Central glazed door, the doorway original 1 bay to left, the pilastered doorcase now missing. Single storey with attic, extension to right with glazed door and early C19 shop front with large glazing bar sashes. Interior: inglenook, large scantling chamfered ceiling joists.

St Crispin Inn, The Street

Grade II Listed (Date First Listed 24th March 1987)

Listing Details : Public house. Circa 1800. Rendered with plain tiled roof.

Exterior : Two storeys on plinth with stack to centre right. Three glazing bar sashes on first floor and 2 on ground floor with half-doors to left and to centre right. Two storey slate roofed extension to left with 2 glazing bar sashes and half- door to left. Included for group value.

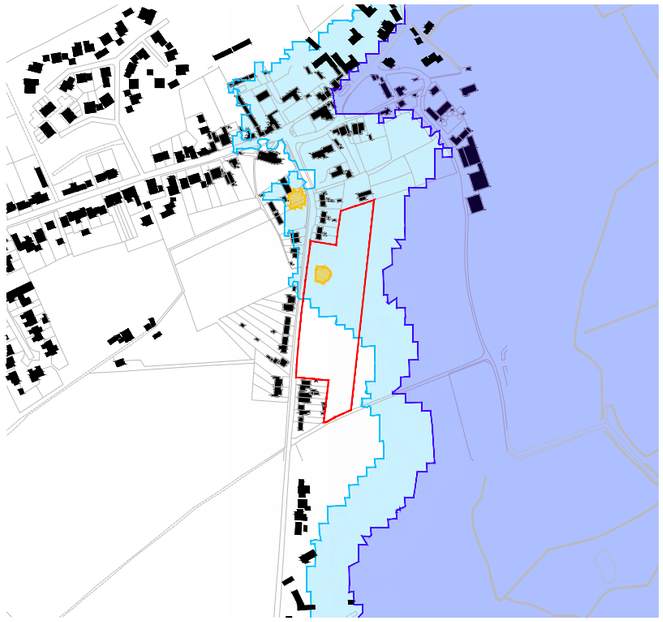
Information obtained from historicengland.org.uk

CONSTRAINT MAPPING

SSSI

Key

- SSSI



Flood Zones

Key

- Flood Zone 02
- Flood Zone 03
- Area with High Probability of Flood

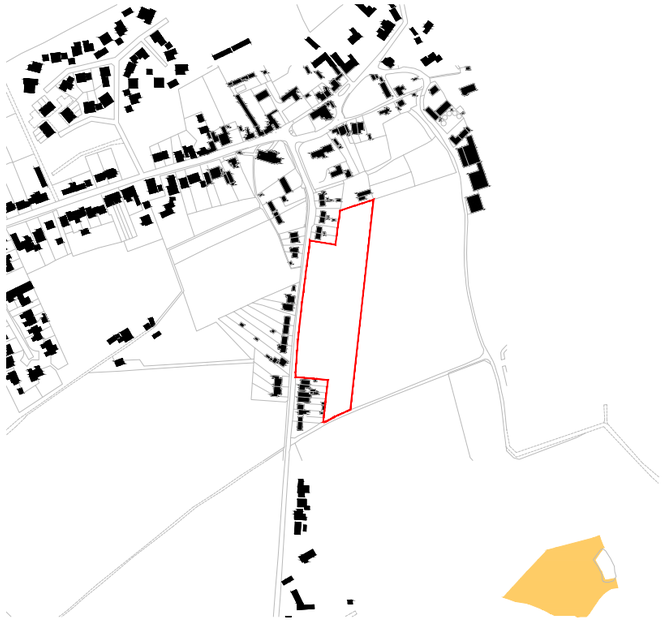
Not to scale

RAMSAR

Key

- RAMSAR

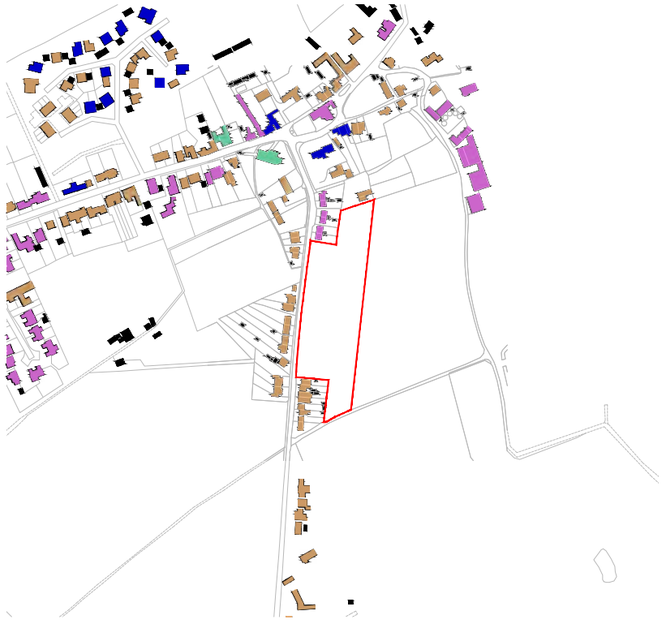
CONSTRAINT MAPPING



Ancient Woodland

Key

- Ancient Woodland & Ecology



Building Heights

Key

- 1 Storey
- 2 Storey
- 2.5 Storey
- 3 Storey

Listed Buildings

Key

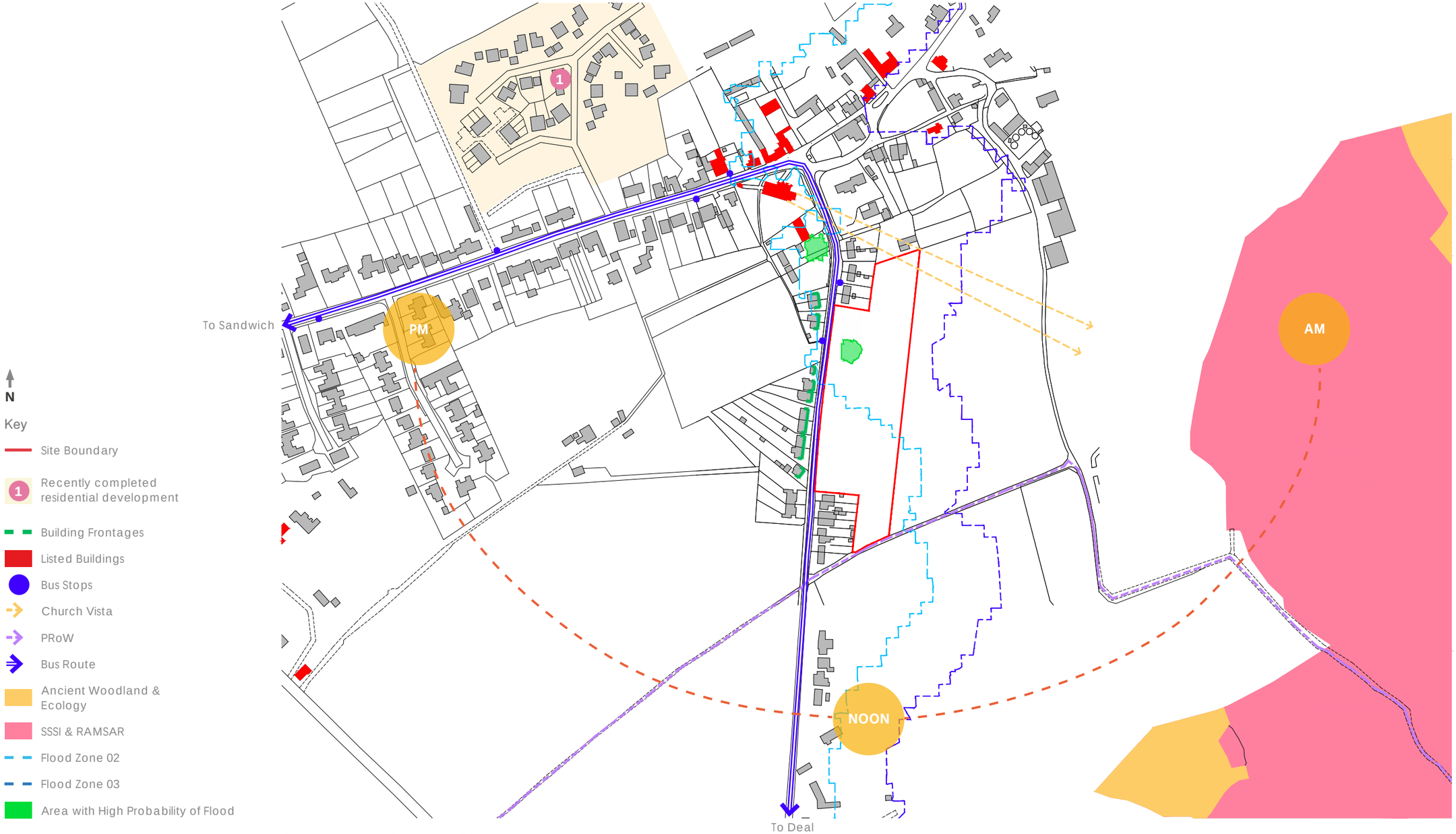
- Listed building

N

Not to scale

03 Evaluation

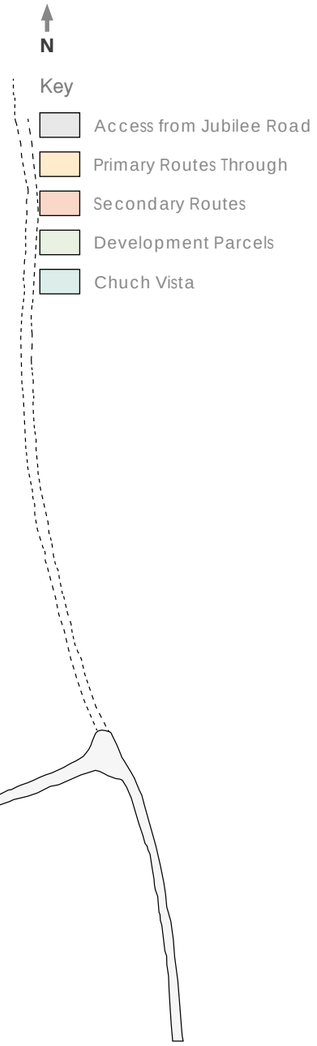
OPPORTUNITIES AND CONSTRAINTS



Opportunities and Constraints Diagram

INITIAL CONCEPT

High level strategy for the site



Initial sketch layout

Not to scale

» The initial strategy above was developed in response to the site opportunities and constraints. The site has been split into three sections, forming the main routes into the proposal. The separation of these areas is to mimic the development to the West of Jubilee Road, where gaps occur along the streets building line.

» Following on from the strategy, the sketch above is an interpretation of a cluster of units split within the three small parcels. There is an area of High Flood Probability from surface water which is located to the North of the site. It is here where we may be able to make a SUDS feature, which can form a strong entrance to the site.

» The units will be set front to back in the centre parcel with some dual aspects on the corners. There will be private drives to the East which could hold larger units overlooking the open fields.

MASSING STUDIES

Sketch Massing - Looking North West

- Units are set back from Jubilee Road to follow existing building line and address flank windows to existing dwelling
- The plot to the far south will be dual aspect to face the Public Right of Way and fields to the west
- The western boundary will be defined by a green buffer, with planting in places to screen some views from the south without detracting from the open nature of surrounding fields

Sketch Massing - Looking South West

- The entrance to the site is characterised by a green open space, which picks up on the openness on the opposite side of Jubilee Road enabling views through the site
- The open space could feature a permanently wet SuDS feature as this area has already been identified as having a high probability of flooding

PRE APPLICATION ADVICE

Pre-application advice was sought in September 2022 in relation to adjacent site layout for 30 dwellings, with the following key points raised:

- Due to the location of the site, and the existing surrounding development, it appears that proposed development within the site of a suitable scale and density, would have the potential to be read within the boundary of built context of existing development and the wider village
- The draft allocation recomends that a landscape buffer is provided, to soften the edge to the built up area
- Any planning application should be supported by a Landscape and Visual Impact Assessment
- The proposed scheme responds to the existing character and pattern of development by virtue of the layout, form and scale proposed
- The majority of buildings should be 2 storey, but 2.5 storeys would be acceptable in key locations
- Height and mass should be reduced at the southern boundary adjacent to PROW in order to reduce the visual impact of the property proposed here
- The scheme should be designed to allow safe and convenient walking and cycle routes with good connectivity to footways, PROWs and bus stops
- In terms of layout, scale, character and appearance the proposed development would form a compatible and suitable expansion of the village
- The proposed mix generaly reflects the markethousing requirements of the SHMA, but will need adjusting to consider affordable housing requirements - 30% of homes should be affordable
- The proposed scheme would not have an unnaceptable impact on the living conditions of existing neighbours
- The scheme should provide a safe and suitable access with sufficient visibility splays, and avoid tandem parkng in favour of independently accessible parking spaces

Key

- 1B2P = 645 SQM
- 2 B4P = 861 SQM
- 3B5P = 1022-10276 SQM
- 3B6P = 1097-1140 SQM
- 4B7P = 1270-1302 SQM

LOCAL CHARACTER AND PRECEDENTS

Willow House, The Street, Worth, Deal, CT14 0BY

The Cottages, The Street, Worth, Deal, CT14 0BY

Sole Close, Worth, Deal, CT14 0FA

Summary of key references:

Building form and style: traditional / detached / terraced / hipped roofs / gables / chimneys

Building Materials: red brick / white render / weatherboard / red roof tile

Boundary treatments: landscaped boundaries / picket fencing / low-level walls

Local Architectural Features and Materials

Within the local area a variety of building typologies are found, constructed in different styles with varying materials and details, as shown in the adjacent photos. These units are predominantly 2 storeys, with some dormers providing rooms in roof and extending the building height to 2.5 storeys. Most residences are set back from the road, behind modest gardens.

Materials include red or multi-stock brick, red & brown clay tiles with some examples of buff brick and slate tiles. Some feature properties have render, timber cladding or boarding. Windows and doors are predominently constructed of white timber or uPVC.

Millwood Designer Homes

Orchard Gate (as shown above) is a project that was completed by Millwood Designer Homes. The site is located between East and West Malling and is situated within the Kent Downs Area of Outstanding Natural Beauty.

The site layout and the house designs were inspired by the architecture of the surrounding towns and villages. The materials palette for the site was derivative of a Kent Market Town due to the use of vernacular materials. The site Is well proportioned with plenty of open space and has incorporated allotments which break up the soft landscaping and gives the site and alternative use. This development provides a ‘best practice’ example of development that responds well to it’s context, using contemporary construction methods to provide traditional features.

04 Design

PROPOSED SITE LAYOUT

The proposed layout has been carefully designed in response to pre-application advice and site specific opportunities and constraints, demonstrating that the proposed development can be successfully accommodated on site with a design that responds well to the surrounding context.

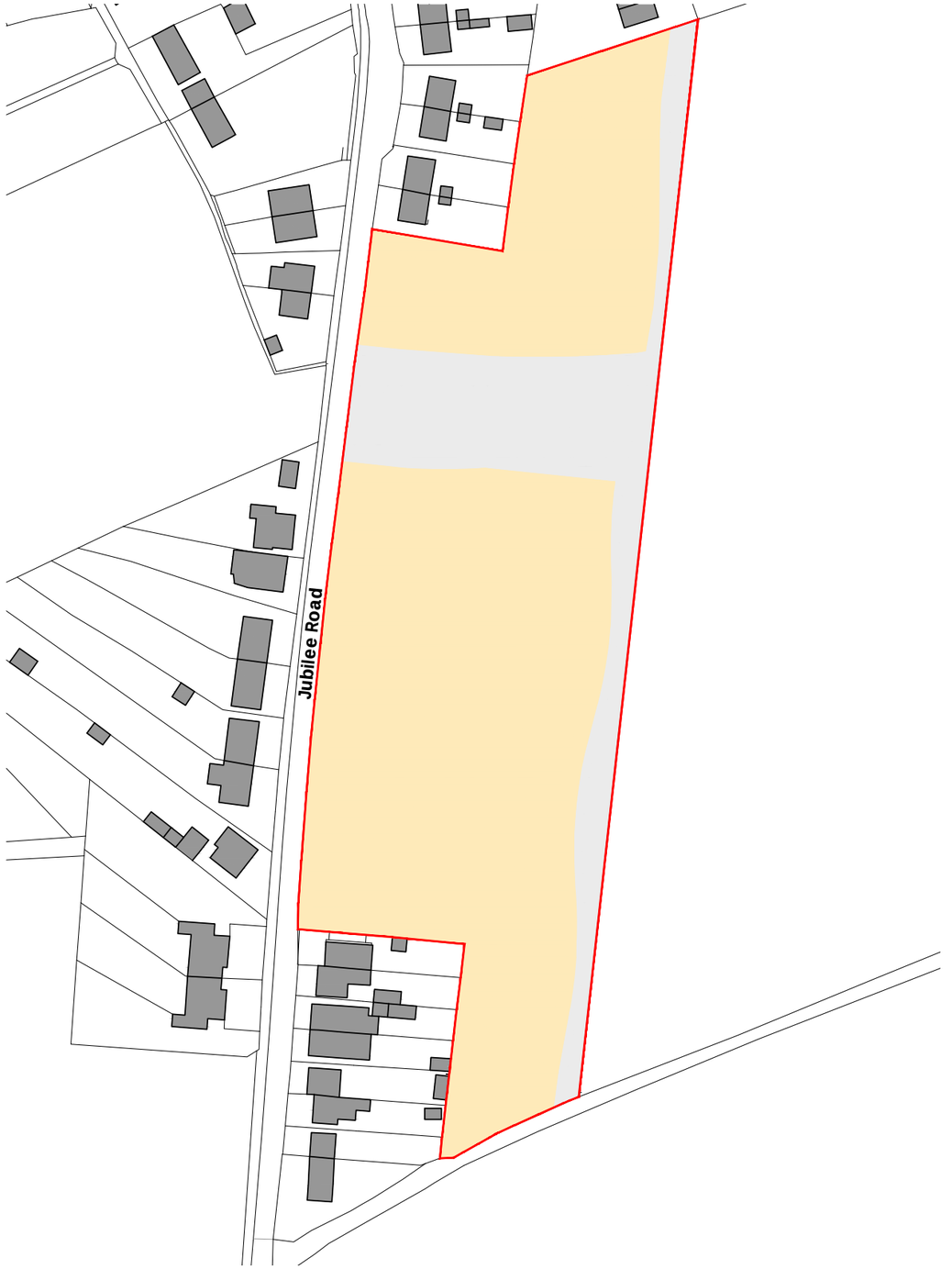
The layout provides 30 high quality new homes within a low density, landscaped setting. Key design principles have evolved from discussions with the LPA, statutory consultees and the project design team, including:

- Visual permeability through the site is retained
- Central open space provided to retain openness and views through the site as well as create a landscaped setting for SuDS features
- Landscaped buffer along the eastern boundary screens development in places, but retains the open character of fields and countryside beyond
- The existing pattern of development along Jubilee Road is continued through the building line with units set back slightly from the road, allowing for a landscaped verge
- Flood risk has been addressed through the provision of SuDS features and some 2.5 storey dwellings
- A mixture of dwelling types are proposed from 1 bedroom apartments to 3 and 4 bedroom family homes, in accordance with the SHMA
- A total of 9 affordable houses are proposed, in accordance with local policy (30%)
- The majority of houses are to be 2 storeys, in keeping with the surrounding context, with some 2.5 storey houses proposed to provide a strong frontage to the open green space and line views through the site
- A footpath has been proposed along Jubilee Road, ensuring safe and convenient walking routes and good connectivity with the village
- Parking is provided in accordance with policy, with all private parking provided by independently accessible on-plot spaces and visitor spaces distributed evenly around the site

Type	Area (sqft)
1 Bed Flat	2
2 Bed House	6
3 Bed House	13
4 Bed House	9
	30

LAND USE PARAMETER PLAN

The proposed residential development area has been developed in response ot the site's constraints. A central green and the eastern boundary have been kept clear of development to enable sufficient provision for SuDS and landscaping features, which will contribute to the overall character of the site.



LANDSCAPE PARAMETER PLAN

The layout has been developed from the intial landscape-led concept design to ensure that key landscape features continue to inform the character of the site.

An open green space provides a focal point at the site entrance, creating a distinctive character with prominant frontage and SuDS features, enabling views to be retained through the site. The street frontage along Jubilee Road is characterised by a strong building line and planted verge, whilst the eastern boundary features lower densisty planting to retain the existing open character of the fields and countryside beyond.

Key

- Open green space
- Landscape buffer
- Green verge
- Indicative location of SuDS Feature

Not to scale N

BUILDING HEIGHTS PARAMETER PLAN

The majority of development is proposed to be limited to 2 storeys, in response to the existing surrounding residential context.

It is proposed a small area of development fronting the central green space will be limited to 2.5 storeys in height, in order to address the risk of flooding in this area, enabling habitable rooms to be raised above the minimum required finished floor level. Providing 2.5 storey dwellings in this area will also create variety within the street scene, and provide a strong frontage to the central green space, lining views through the site to the open countryside beyond.

Key

- Up to 2 storeys
- Up to 2.5 storeys

Not to scale N

ACCESS PARAMETER PLAN

Access

Vehicular Access

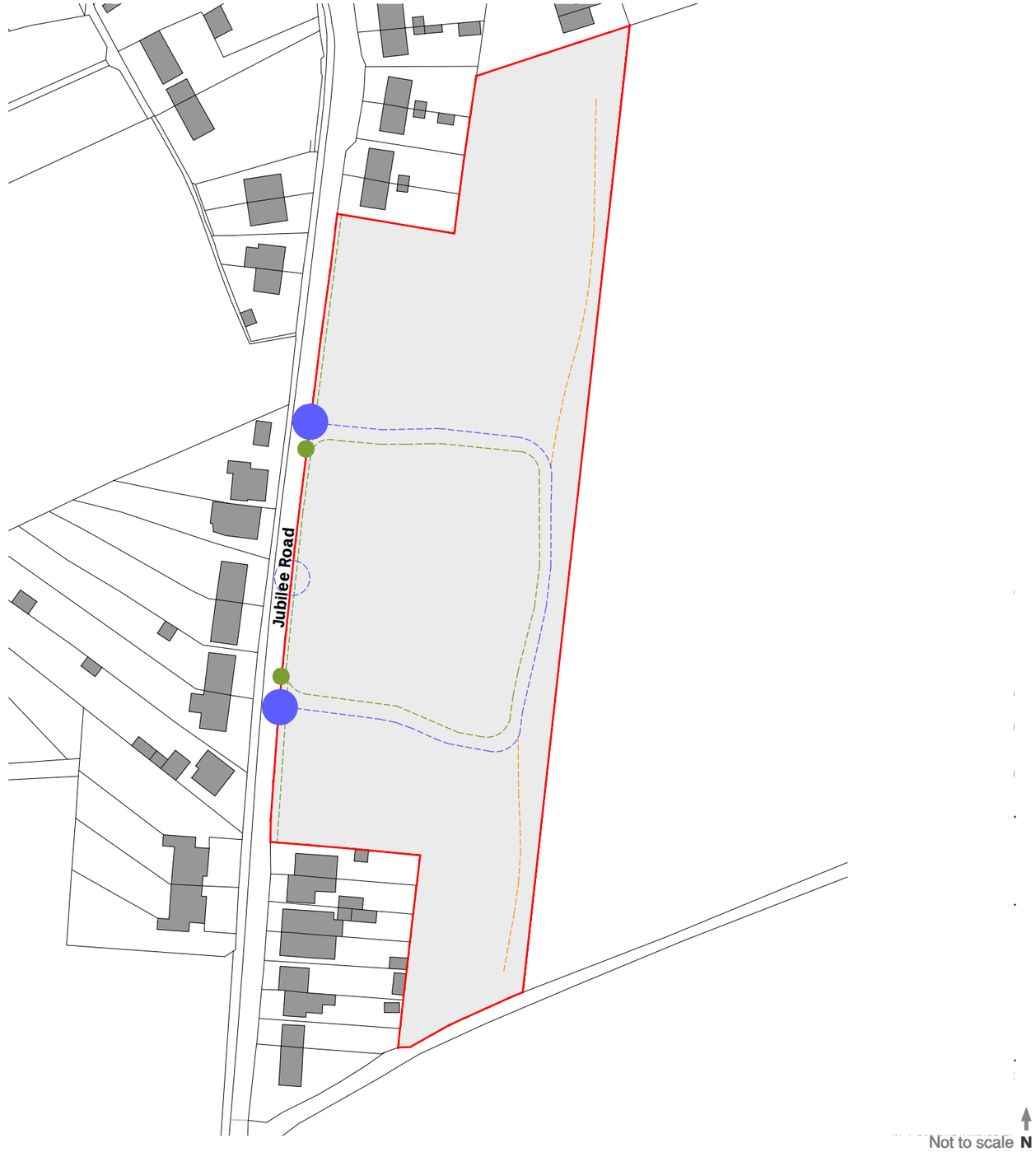
Two access points proposed off Jubilee Road, enabling vehicular and pedestrian access to the site. The access roads have been developed in collaboration with KCC Highways and the design team, to ensure safe and sufficient access. A primary access road is proposed around the centre of the site, enabling vehicles to enter and exit the site in a forward gear, with secondary roads providing access to the northern and southern areas of the site.

Pedestrian Access

Pedestrian access is proposed alongside the main access roads into the site, following the primary route through the centre of the site. It is proposed that the small number of dwellings to the north and south of the site will be accessed via private drives. A new footpath is proposed along the site's boundary with Jubilee Road.

Car Parking

A total of 58 no. parking spaces are proposed, which provides 2 no. parking spaces for each house and 1 no. parking space for each apartment. A total of 6 no. visitor spaces are proposed, which will be evenly distributed across the site. All parking spaces are independently accessible with no instances of tandem parking.



CHARACTER AND APPEARANCE

Whilst details of appearance and materials are reserved, it is proposed that any forthcoming development should look to respond to the surrounding context, nearby Listed Buildings and character of the village to ensure that the development is sympathetic to it's surroundings.

The materials and features included on this page contibute to the character of the surrounding context and should form the basis of future design development.

Red Brick, Rafter Feet, Barn Hipped Roof, Dormer Windows

White Render, Hipped Roof, Picket Fencing

Red Brick, Red Russet Roof Tile, Chimneys, White Picket Fencing

Red Multi Stock Brick

Clay Roof Tiles

Gable Roof

Canopy

Barn Hips

Dormers

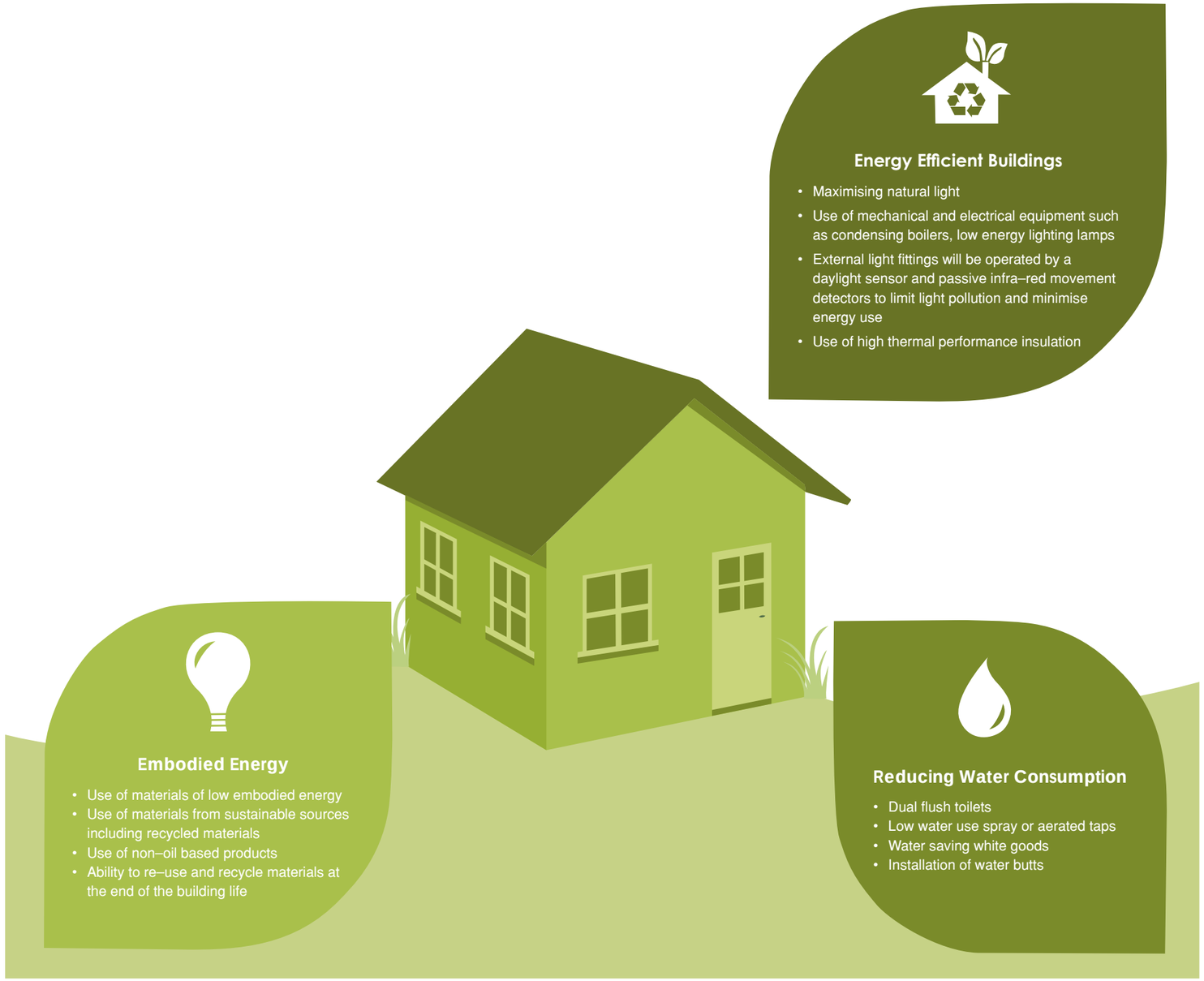
Ilustrative Street Scene along Jubilee Road

SUSTAINABLE DESIGN AND CONSTRUCTION ASSESSMENT

The need to provide a high degree of sustainable construction and energy conservation will influence the detailed design and form of the proposed dwellings and final layout of the site. Houses will be energy efficient and will be designed to meet the Building Regulations.

The approach will result in a housing development which will consume reduced amounts of energy, resulting in benefits for the environment through reduced greenhouse gas emissions and better adaptation to climate change, consistent with the Development Plan, NPPF and Council's SPG guidance.

The project will demonstrate credible use of sustainable methods of construction and energy saving methods, including those listed on the adjacent diagram.



CONCLUSION

The outline application development proposals for Land off Jubilee Road will deliver a high quality scheme, providing a natural continuation of existing development and enabling the site to be read within the boundary of the wider village. The scheme includes a range of house types from 1 bedroom apartments to 2, 3 and 4 bedroom houses to cater for first time buyers, downsizers and larger families in addition to delivering 30% affordable housing to meet a specific and important need in the Dover District.

Local character studies, coordination with a specialist consultant team and discussions with the Local Planning Authority have informed the layout to ensure the proposed development is achievable and sits comfortably within it's context. Site opportunities and constraints have been addressed from concept stage and throughout the design development, resulting in an illustrative layout that responds to the immediate context.

The Design and Access Statement concludes that the proposals are fully acceptable in Design and Access terms.

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Town and Country Planning Act 1990 (As Amended)

APPLICATION NUMBER 23/00769

NOTIFICATION OF REFUSAL of Outline Planning Permission

Proposal: Outline application for the erection of 30 dwellings, new vehicular access, parking and gardens (all matters reserved except access and layout)
Location: Land East Of Jubilee Road, Worth, CT14 0DR

TAKE NOTICE that Dover District Council, the District Planning Authority under the Town and Country Planning Act, **HAS REFUSED** Outline Permission for the proposal in accordance with the application and accompanying plans

The reasoning underlying such refusal is as follows:-

1 The proposed development would be located outside of any settlement confines, it would not functionally require a rural location and would not be ancillary to existing development. It would represent disproportionate growth to the settlement, being of a scale that is inappropriate to the size of the village and the range of services, facilities and infrastructure serving it. It would generate significant travel demand and would constitute unsustainable development due to the reliance on private car travel to access everyday services and facilities, with little alternative, more sustainable, options available. In addition, by virtue of the size of the development, it would not be compatible with the character and layout of the settlement. It would therefore represent an unsustainable form of development contrary to polices WDP02 of the Worth Neighbourhood Plan, CP1, DM1, DM11 and DM15 of the Core Strategy, and SP1, SP3, SP4, SAP49 and TI1 of the draft Local Plan.

2 The development would result in an unacceptable intrusion into the open countryside, with no appropriately designed landscape buffer proposed. As such it would not conserve and enhance landscape character. Insufficient information has been submitted to allow an assessment of the implications of the development on the setting of the grade II* listed church, including within the surrounding landscape. Consequently, it would be contrary to policies DM15 and DM16 of the Core Strategy, and SP4, SAP49, HE1 and HE2 of the draft Local Plan.

3 Insufficient information has been submitted to allow a full assessment of the implications of the development on the ecological and nature conservation value of the surrounding European Protected Sites. In the absence of this information the proposal would be harmful to matters of ecological importance and a likely significant effect on the European protected sites cannot be ruled out. The local planning authority cannot positively conclude (through an appropriate

assessment under the Conservation of Habitats and Species Regulations 2017) that the development would not be harmful to the conservation objectives of the European protected sites. The development is therefore contrary to the Conservation of Habitats and Species Regulations 2017 (as amended), draft policies SP13, NE3 and paragraphs 174, 180 and 181 of the National Planning Policy Framework.

4 The proposed development has failed to demonstrate that it has passed the sequential test, and does not apply a sequential approach to the siting of development within the site. As such, the proposed development represents an unacceptable increased risk to flooding, contrary to Section 14 of the National Planning Policy Framework and draft local plan policies SP1, SAP49 and CC5.

Dated: 20th September 2023

DISTRICT COUNCIL OFFICES WHITE CLIFFS BUSINESS PARK DOVER, KENT CT16 3PJ TEL: (01304) 821199	Signed:  **Head of Planning and Development**

In accordance with paragraph 38 of the NPPF, Dover District Council (DDC) takes a positive and proactive approach to development proposals focused on solutions. DDC works with applicants/agents in a positive and proactive manner by: Offering a pre-application advice service; where possible, suggesting solutions to secure a successful outcome; and, as appropriate, updating applicants/agents of any issues that may arise in the process of their application.

YOUR ATTENTION IS ALSO DRAWN TO THE FOLLOWING NOTES/INFORMATIVES WHICH FORM PART OF THIS NOTICE.

Development Low Risk Area - Standing Advice

The proposed development lies within a coal mining area which may contain unrecorded coal mining related hazards. If any coal mining feature is encountered during development, this should be reported immediately to the Coal Authority on 0345 762 6848.

Further information is also available on the Coal Authority website at:
www.gov.uk/government/organisations/the-coal-authority

Standing Advice valid from 1st January 2023 until 31st December 2024

The application was dealt with without delay.

Appeals to the Secretary of State

* If you are aggrieved by the decision of the Council to refuse permission for the proposed development, or to grant permission subject to conditions, you may wish to discuss with the Council whether a revised proposal would be likely to succeed; the District Council is likely to charge for such discussions. Otherwise you may appeal to the First Secretary of State under Section 78 of the Town and Country Planning Act 1990. If you wish to appeal, you must do so within 6 months of the date of this notice or within 12 weeks of this date if your application concerned is householder development or minor commercial. Planning Inspectorate, Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN, Tel: 0303 444 5000, or online at www.planningportal.gov.uk/pcs.

* The Secretary of State has power to allow a longer period for giving notice of an appeal, but he will not be prepared to use this power unless there are extraordinary circumstances which excuse the delay in giving notice of appeal.

* The Secretary of State need not consider an appeal if it seems to him that the Council could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

* In practice, the Secretary of State does not refuse to consider appeals solely because the Council based its decision on a direction given by him**.**

Purchase Notices

* If either the Council or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.

* In these circumstances, the owner may serve a purchase notice on the Council. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990**.**

Environmental Statements

* If you submitted an Environmental Statement, the Local Planning Authority has taken that environmental information into consideration in reaching its decision.

Other Matters

* Any planning permission or approval granted is confined to permission under the Town and Country Planning Act and the Town and Country Planning (General Development Procedure) Order 2015, and does not negate the need for compliance with any other enactment, bylaw, or other provision whatsoever or of obtaining from the appropriate authority or authorities any permission, consent, approval or authorisation which may be required. This includes the need to apply for Listed Building Consent should the proposal involve the demolition or alteration (internal or external) of, or extension to, a building listed as being of Architectural or Historic Interest, or of any structure built before July 1948 within the curtilage of a listed building, for the total or substantial demolition of any unlisted building if it is situated within a designated conservation area.

* You are advised particularly to contact the Building Control Officer at the District Council Offices, White Cliffs Business Park, Dover (01304 821199) to ascertain whether permission is necessary under the Building Regulations. Attention is also drawn in particular to the provisions of Section 53 of the County of Kent Act 1981, which may be applicable, the requirements of the Party Wall Etc Act 1996 concerning notifying affected neighbours and the Housing Act 2004 concerning the adequacy of lighting to habitable rooms. Many species of wildlife and their habitat are protected by law.

* Should any change be required to your proposal, however minor, in connection with other legislation or otherwise, a further planning permission is likely to be required to ensure that the development is authorised.