Land between 107-127 Capel Street, Capel-Le-Ferne

Transport Statement

November 2016 Report R01

Prepared for: Cook Associates, on behalf of Mr H & G Odlin **Prepared by:** Markides Associates 9th floor The Tower Building 11 York Road London SE1 7NX United Kingdom

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1.0 INTRODUCTION

Preamble and Site Location

- 1.1 Markides Associates (MA) have been appointed by Cook Associates, on behalf of Mr H & G Odlin ('the Applicant'), to prepare a Transport Statement (TS) in support of their outline planning application for a residential development at a site located at Capel Street, Capel-Le-Ferne, CT18 7EY.
- 1.2 The site is located within the authoritative boundary of Dover District Council (DDC), with Kent County Council (KCC) being the relevant local highway authority.
- 1.3 A site location plan is attached as Figure 1.1, which confirms that the site is bound to the west by agricultural land, to the east by Capel Street and to the south and north by property numbers 107 and 127 respectively. The site is located less than 4km east of the larger settlement of Folkestone.

Existing Land Use

- 1.4 The site is currently used as a paddock for the keeping of horses, with agricultural access taken from Capel Street at the north-east corner of the site.
- 1.5 The site does not, therefore, currently generate any significant levels of traffic.

Development Proposals

- 1.6 The development proposals are to introduce a residential development of 41 units, with access taken from Capel Street. The proposed site layout is attached as **Appendix A**.
- 1.7 **Table 1.1** sets out the proposed accommodation mix.



Unit Size (number of bedrooms)	Total	Bedrooms
1	6	6
2	14	28
3	15	45
4	6	24
Total	41	103
	Bedroom Ratio	2.51

TABLE 1.1: ACCOMODATION MIX

Site Allocation

- 1.8 The site is identified within DDC's Land Allocation Local Plan document (LALP), adopted in 2015, as an appropriate location for residential development, with specific policy reference LA26.
- 1.9 Sections of policy LA26 that are relevant to this TS are reproduced as follows:

Land between 107 & 127 Capel Street

The site is allocated for residential development, with an estimated capacity of 40 dwellings. Planning permission will be permitted provided that:

- *i.* The design and layout should incorporate frontage development with adequate parking arrangements;
- Footway connections are provided within the site and new footway provision is facilitated on KCC highway land on the eastern side of Capel Street to provide pedestrian connectivity to the Primary School and beyond;
- viii. If street lighting is required this should be designed to minimise the impact of light pollution and conserve the dark night skies of the AONB; and
- *ix.* Vehicular access is achieved onto Capel Street, which is designed to minimise the loss of existing hedgerow.



1.10 The supporting narrative to the policy is clear on the requirement for any development to limit the impact on the existing hedgerow that runs along the site's Capel Street frontage and to improve the connectivity between the site and the Primary School, on the opposite side of Capel Street.

Preapplication Dialogue

- 1.11 Cook Associates, the project architect, engaged in pre-application discussions with DDC in July 2015, during which a preferred option for development was considered. DDC's response to this preferred option, which is attached as Appendix B, has informed the layout of the current development proposals.
- 1.12 DDC's response confirmed the requirement for the development to provide a pedestrian and vehicular access solution, including visibility splays, whilst limiting the impact on the existing hedgerow that fronts Capel Street.
- 1.13 DDC's response also identified that any planning application would need to be supported by a TS.

TS Structure

- 1.14 This TS has therefore been prepared in response to the pre-application discussions and is structured as follows:
 - Section 2 reviews relevant transport related planning policy at national, regional and local levels;
 - Section 3 describes the site location, accessibility and existing transport infrastructure;
 - Section 4 describes the development proposals in detail, including scale, layout, pedestrian and vehicular access, parking provision and sustainable transport strategy;
 - Section 5 undertakes a trip generation exercise; and
 - Section 6 provides a summary and conclusion.



2.0 POLICY CONTEXT

Introduction

2.1 Transport related planning policy at national, regional and local levels has been reviewed to ensure specific policies are complemented by the development proposals.

National Policy

National Planning Policy Framework (NPPF)

- 2.2 The NPPF, which replaced Planning Policy Guidance 13: Transport 2011, sets out Government planning policy, provides a framework within which local planning policies should be produced and is a material consideration in planning decisions.
- 2.3 With regards to transport, the NPPF identifies that all developments which generate a significant amount of movement should be supported by a TS or Transport Assessment and that planning decisions should take account of whether:
 - The opportunities for sustainable transport modes have been taken up, depending on the nature and location of the site, to reduce the need for major transport infrastructure;
 - Safe and suitable access to the site can be achieved for all people; and
 - Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.
- 2.4 The NPPF states that planning decisions should ensure that developments generating significant movements are located where the need to travel will be minimised and the use of sustainable modes can be maximised, giving priority to pedestrian and cycle movements and creating safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians.
- 2.5 With regards to car parking, the NPPF does not include any standards and recommends that local planning authorities should set standards based on the

accessibility of the development, availability of public transport and local car ownership levels.

Planning Practice Guidance: Travel plans, transport assessments and statements in decision-taking (PPG)

- 2.6 PPG provides more detailed planning guidance to support the NPPF and states that transport planning submissions can contribute to:
 - encouraging sustainable travel;
 - lessening traffic generation and its detrimental impacts;
 - reducing carbon emissions and climate impacts;
 - creating accessible, connected, inclusive communities;
 - improving health outcomes and quality of life;
 - improving road safety; and
 - reducing the need for new development to increase existing road capacity or provide new roads.

Local/Regional Planning Policy

Land Allocation Local Plan document (LALP) 2015

- 2.7 The Introduction to this TS has confirmed that the site is identified within the LALP as an appropriate place for residential development. The principle of residential development has therefore already been established.
- 2.8 It is also worth highlighting that the Planning Inspectorates consideration of the LALP, set out in their report to DDC dated 5th December 2014, stated the following with regards to the site, *'There is sufficient capacity in the surrounding highway network to accommodate the additional traffic likely to be generated by the development.'*

Core Strategy 2010

- 2.9 DDC's Core Strategy aims to shape how the district develops up to 2026.
- 2.10 The Core Strategy includes a number of Development Management Policies, against which development proposals will be considered.



- 2.11 With regards to transport, Policy DM11 'Location of Development and Managing Travel Demand,' states that planning applications for development that will increase travel demand should assess the quantity and type of trips that would be generated and include measures to promote walking, cycling and the uptake of public transport.
- 2.12 Policy DM12, *'Road Hierarchy and Development,'* is concerned with developments being accessed from an appropriate category of road.
- 2.13 Policy DM13, '*Parking Provision*,' states that parking should be a design based process specific to the characteristics of a site. Residential car parking for rural locations such as this should be based on the parking standards listed below, which are understood to be a reflection of KCC's standards as set out within the Kent Design Guide Review Interim Guidance Note 3 Residential Parking 2008.
 - 1/2 bed flats 1 space per unit, unallocated
 - 1/2 bed houses 1.5 spaces per unit, one of which is allocated if possible
 - 3 bed houses 2 independently accessible spaces per unit, one or both of which is allocated if possible
 - 4 bed houses 2 independently accessible spaces per unit, both of which are allocated if possible.
 - Visitor parking 0.2 spaces per unit, located on-street
 - Garage spaces are considered in addition to the standards
- 2.14 Policy DM13 also refers to cycle parking, stating that this should be based on KCC's Guidance SPG4. This document states that for residential developments there should be one cycle parking space per flat, accommodated within a secure communal facility if necessary, and one cycle parking space per bedroom for each individual residential dwelling, normally provided within the curtilage of each property.

Kent Design Guide (KDG)

2.15 Whilst the KDG is not identified by DDC as a Supplementary Planning Document against which planning applications will be considered, it is the Applicants intention to offer the internal road network within the site for adoption by KCC.

The internal road network has, therefore, been designed in general conformity with the KDG in terms of vehicular and pedestrian visibilities, centre line radii, turning requirements and carriageway/footway dimensions.

Policy Compliance

- 2.16 In terms of compliance with policy, the site's allocation has already established that it is an appropriate location for residential development, with the proposed scale of development also in keeping with the allocation references.
- 2.17 The TS will therefore confirm that the site layout provides an appropriate car parking provision, vehicular access including visibility splays and pedestrian access and connectivity, whilst limiting the impact on the Capel Street hedgerow.



3.0 EXISTING CONDITIONS

Site Location

3.1 A site location plan is attached as **Figure 1.1**, which confirms that the site is bound to the west by agricultural land, to the east by Capel Street and to the south and north by property numbers 107 and 127 respectively.

Existing Land Use

- 3.2 The site is currently used as a paddock for the keeping of horses, with agricultural access taken from Capel Street at the north-east corner of the site.
- 3.3 Along the full length of the site frontage, up to the existing access, there is a large mature hedgerow which forms the carriageway edge.

Accessibility

- 3.4 As a relatively rural location, proximity to destinations that act as typical trip attractors from residential developments is, as can be expected, slightly limited, with the adjacent settlement of Folkestone, located 4km to the west, being the major centre for employment and retail demands.
- 3.5 Notwithstanding this, there are some land uses located within reasonable proximity that ensure residents are not wholly reliant on travel by private car for all journey purposes.
- 3.6 Those land uses within closest proximity include Capel-Le-Ferne Primary School and nursery, located approximately 150m walk distance south of the site centre, and a local convenience store located on New Dover Road, approximately 900m walk distance from the site centre. The Village Hall, which acts as the centre of the community and which provides outdoor recreation facilities, is located on Lancaster Avenue, 500m walk distance from the site.

Pedestrian Infrastructure

3.7 Pedestrian provision within the village, particularly along New Dover Road, is in general of a good standard. There is a network of Public Rights of Way (PROW) operating through the village, with the Green Street bridleway in particular



providing a direct link between Capel Street and New Dover Road, emerging onto the main road immediately adjacent to existing bus stop infrastructure.

- 3.8 There are, however, some shortfalls in provision, particularly along Capel Street, with narrow sections and/or sections with provision on one-side of the carriageway only or no provision at all. Indeed, from the site's south east corner in a northern direction there is no footway provision on either side of the carriageway.
- 3.9 At the south-east corner of the site, on the opposite side of the carriageway, there is however a concrete path that runs south, connecting with an asphalt footway adjacent to the entrance to the Primary School, separated from the carriageway by a grass verge. Immediately opposite the site's south-east corner this verge meets a vehicle crossover to property number 120. At its narrowest point, where it connects with the existing footway provision immediately north of the Primary School, the verge is approximately 2m wide.
- 3.10 An extent of public highway search has been undertaken which confirms that the grass verge falls within public highway but the concrete path does not. Subsequent sections will identify a strategy therefore to introduce a 1.8m wide footway within the grass verge, with a drop-kerb immediately opposite the site's south-east corner, with the new footway continuing south toward the school, ensuring a safe and continuous pedestrian route from the site.

Cycle Infrastructure

- 3.11 A review of the Sustrans website confirms that Old Dover Road and sections of New Dover Road form part of National Cycle Route 2 (NCR2), with sections of signed on and off road cycleways.
- 3.12 To the west NCR2 provides a link to Folkstone, routeing via Crete Road to avoid the gradient and vehicle speeds of Dover Hill.

Public Transport

3.13 The site benefits from being within an acceptable walk distance of existing sheltered bus stops on New Dover Road, accessed via the Green Lane bridleway.



- 3.14 From Capel-Le-Ferne, bus services 100/101/102, operated by Stagecoach, provide a bus service at least every 20 minutes between Folkestone and Dover, with journey times of approximately 15 minutes and services operating from 06.00, throughout the day, with a less frequent service after 20.00.
- 3.15 Travel by bus is, therefore, a feasible mode of travel for residents to access major employment and retail centres from the site.
- 3.16 There is no train service within an acceptable walk distance of the site.

Local Highway Network

- 3.17 Capel-Le-Ferne is a single carriageway road, subject to a 30mph speed limit, with a carriageway width of approximately 6.5m along the site frontage.
- 3.18 There are no parking controls along Capel Street apart from zig-zag road markings that prevent parking along the Primary School access.
- 3.19 Within the settlement boundary, Capel Street provides access to residential culde-sacs and direct access to private drives, forming a staggered priority junction with Hurst Lane and Winehouse Lane to the north, continuing through rural areas before connecting with northern areas of Dover. To the south Capel Street forms a simple priority junction with the B2011 New Dover Road, which runs parallel with the coast.
- 3.20 In order to inform the site access location, between 10th and 16th September 2016, Automatic Traffic Counts (ATC's) were undertaken at two count locations on Capel Street on approach to the site. The ATC's recorded the peak hour and daily traffic flows along Capel Street, along with the 85th percentile speeds, with results summarised below in **Table 3.1**.



Direction	AM Peak (5 day average)	PM Peak (5 day average)	Daily (5 day average)	85th Percentile Speed (mph) (7 day average)
Southbound	44	32	454	31mph
Northbound	42	32	446	28pmh
Total	86	64	900	NA

TABLE 3.1: ATC RESULTS

- 3.21 Table 3.1 confirms therefore that Capel Street is very lightly trafficked, with a two-way flow of 86 vehicles in the AM peak, 64 in the PM peak and 900 across the day.
 Table 3.1 also confirms that observed 85th percentile speeds are a reflection of the speed limit.
- 3.22 Based on these observed speeds and Manual for Street Stopping Sight Distance calculations, the following visibility splays are required from the site access:
 - 2.4m x 39m in the primary direction (south)
 - 2.4m x 45m in the secondary direction (north)
- 3.23 These visibility requirements have been used to define the site access location and the extent of hedgerow that needs to be removed to ensure a safe vehicular access can be accommodated.

Car Ownership

- 3.24 Car Ownership data from the 2011 Census has been extracted for the ward in which the site is located, Capel-Le-Ferne.
- 3.25 This data demonstrates that for all households, irrelevant of tenure and size, the average car ownership is approximately 1.5 cars per unit.

Method of Journey to Work

3.26 The 2011 Census data has also been examined to establish the method of journey to work of residents within the ward, summarised below in **Table 3.2**.



3.27 Reflecting the relatively rural location, car travel dominates, with 80% of commuting trips undertaken by this mode of travel, with only 4% by public bus despite the village being relatively well connecting to major employment centres via this mode of travel. The data records 3% of trips by rail, which would be reliant on either a car driver, car passenger or bus trip first.

Mode	Percentage (%)
Car Driver	80%
Car passenger	5%
Taxi	0%
Motorcycle	1%
Bus	4%
Underground / Rail	3%
Walk	4%
Cycle	1%

TABLE 3.2: CAPEL-LE-FERNE WARD – MAIN METHOD OF TRAVEL TO WORK

Summary

- 3.28 In summary, this TS has demonstrated that whilst the site is located within a relatively rural setting, there are some land uses that act as typical trip attractors from residential sites that are located within reasonable proximity, which ensures residents are not wholly reliant on travel by private car.
- 3.29 Furthermore, the site benefits from being within close proximity of an existing bus route that provides access to surrounding employment centres, with journey patterns that reflect traditional working hours, with existing bus stop provision being of good standard and accessible via an existing pedestrian network.



4.0 DEVELOPMENT PROPOSALS

Introduction

4.1 This section describes the development proposals in detail and should be considered against the proposed site plan, attached as **Appendix A**.

Development Schedule and Site Layout

- 4.2 The development proposals are to introduce a residential development of 41 units, with access taken from Capel Street.
- 4.3 The accommodation mix shown below as **Table 4.1**.

Unit Size (number of bedrooms)	Total	Bedrooms
1	6	6
2	14	28
3	15	45
4	6	24
Total	41	103
Bedroom I	2.51	

TABLE 4.1: ACCOMODATION MIX

- 4.4 Of the total units, 10 are flats, with the remainder being houses.
- 4.5 The proposed site layout sees the majority of the units accessed from a new spine road, with either direct driveway access or access via short cul-de-sacs that connect with the main spine road.
- 4.6 A single unit will, however, be accessed directly from Capel Street to the north of the site, accessed from the same location as the existing agricultural access, with sufficient on-plot space to allow forward gear entry and exit.



Vehicular Access

- 4.7 The location of the vehicular access into the site has been governed by the results of the speed surveys detailed in Section 3, and the requirement to minimise the loss of hedgerow.
- 4.8 Drawing number **16-038-100** therefore confirms the proposed site access location can achieve the necessary visibility splay requirements. The 2.4m x 39m visibility requirement to the south is achieved via the introduction of a dedicated footway toward the south-east corner of the site, facilitated by the removal of the hedgerow in this location. The 2.4m x 43m visibility requirement to the north is facilitated by cutting back the existing hedgerow, rather than full removal.
- 4.9 A management agent will be responsible for the on-site landscaping within the site, covered by a residential management charge. The Applicant will accept the responsibility to ensure that the hedgerow to the north of the site access does not encroach into this visibility splay.

Pedestrian Access

- 4.10 South of the proposed site access, a new 1.8m wide footway will be introduced along the site frontage. Whilst this will terminate at the south-east corner of the site, a drop-kerb will be introduced on both sides of the carriageway to encourage pedestrians to cross to a new footway that will be accommodated on the eastern side of the carriageway in place of an existing verge, with **Appendix C** providing highway boundary information that confirms this verge is public highway. This new footway will continue south for a length of approximately 30m, where it will connect with existing provision.
- 4.11 These footway works are indicated on the attached drawing **16-038-101**. It is envisaged that they will be delivered via a S278 Agreement or a contribution, which can be secured via a S106 Agreement.
- 4.12 North of the proposed site access, a new 1.5m wide footway will be accommodated to the rear of the existing hedgerow, which will run toward the northern edge of the site, allowing off-site residents to walk within the site rather than on the existing Capel Street carriageway, with there being no footway provision in this location.

Internal Layout

- 4.13 The site layout has been designed in general accordance with the Kent Design Guide, with a 5.5m wide shared surface, but with an additional 2m strip that will act as a pedestrian safe zone and service strip. The footway provision into the site will terminate approximately 15m from the access junction, where a raised table will mark the start of the shared surface. The introduction of a buildout on the northern edge of the internal access road will reinforce this change in character and help to slow vehicle speeds through the site.
- 4.14 The site layout has been designed to accommodate a minimum centre line radius of 12m to ensure low vehicle speed across the site but whilst maintaining a safe forward visibility.
- 4.15 Whilst the site is a shared surface, care has been taken to ensure there is pedestrian intervisibility on approach to private drives.
- 4.16 It is the Applicants intention for the internal road network to be offered for adoption and a formal Section 38 application would follow any planning approval.
- 4.17 Vehicle swept path analysis has been undertaken to demonstrate that the proposed site layout is accessible to a large refuse vehicle, attached as drawing number **16-038-102**. The refuse vehicle can get within 25m of each property.

Parking

- 4.18 Policy DM13, '*Parking Provision*,' details the following minimum parking standards.
 - 1/2 bed flats 1 space per unit, unallocated
 - 1/2 bed houses 1.5 spaces per unit, one of which is allocated if possible
 - 3 bed houses 2 independently accessible spaces per unit, one or both of which is allocated if possible
 - 4 bed houses 2 independently accessible spaces per unit, both of which are allocated if possible.
 - Visitor parking 0.2 spaces per unit, located on-street



- Garage spaces are considered in addition to the standards
- 4.19 Each of the proposed 4+ bedroom units have a dedicated double garage and associated drive, with these properties therefore benefiting from at least 4 parking spaces.
- 4.20 Each of the proposed 3 bedroom units have at least one allocated parking space, with an additional unallocated space accommodated within the layout.
- 4.21 Each of the proposed 2 bedroom houses have at least one allocated parking space, with additional unallocated provision across the site.
- 4.22 Each of the proposed 1 and 2 bedroom flats will have 1 allocated parking space.
- 4.23 The proposed car parking therefore satisfies relevant planning policy on a unit by unit basis.
- 4.24 With regards to cycle parking, each of the houses benefit from private space within which a cycle can be accommodated, such as a garden. For the flats, suitable provision will be made at ground floor internally within each of the blocks.



5.0 TRIP GENERATION

Introduction

5.1 This section of the TS estimates the vehicular trip generation associated with the proposed residential development. There is no significant trip generation associated with the existing use.

Proposed Land Use

- 5.2 The TS has relied upon the industry standard TRICS database to quantify the trip generation associated with the proposed residential land use.
- 5.3 Surveys of proxy sites of privately owned houses, in out of town locations with parking provision of at least 2 spaces per unit and a bedroom ratio of at least 2.5 spaces per unit were selected. A total of 12 sites fulfilled these criteria, with the TRICS outputs attached as **Appendix C**.
- 5.4 **Table 5.1** below indicates these vehicular trip rates per unit, along with the anticipated number of trips generated by the proposed number of units (41). In order to ensure a robust analysis, 85th percentile trip rates were adopted.

	08.00-09.00		17.00-18.00			07.00-19.00			
Scenario	IN	Ουτ	TOTAL	IN	Ουτ	TOTAL	IN	Ουτ	TOTAL
Trip Rate (per unit)	0.153	0.417	0.57	0.367	0.202	0.569	2.442	2.508	4.95
Trips (41 units)	6	17	23	15	8	23	100	103	203

TABLE 5.1: PROPOSED LAND USE: VEHICLE TRIPS

5.5 **Table 5.1** therefore indicates that the proposed scale of development is anticipated to generate approximately 23 two way trips in the AM peak, 23 in the PM peak and 203 across the day.



Traffic Impact

- 5.6 Whilst the additional trips generated by the proposed development will result in a significant percentage increase in traffic on Capel Street, this is only because traffic flows are already very low. These additional trips would not result in a material impact in the operation of Capel Street and can be readily accommodated, a conclusion drawn by the Planning Inspectorate in consideration of DDC's Land Allocation document.
- 5.7 Based on the low traffic movements on Capel Street it is also unnecessary to undertake a capacity assessment of the site access, with a PICADY model likely to demonstrate no concerns with regards to ratio of flow to capacity.



6.0 SUMMARY AND CONCLUSIONS

- 6.1 Markides Associates have been appointed by Cook Associates, on behalf of Mr H & G Odlin to prepare a Transport Statement in support of their outline planning application for a residential development at a site located at Capel Street, Capel-Le-Ferne, CT18 7EY.
- 6.2 The development proposals are to introduce a residential development totalling41 units, with access taken from Capel Street.
- 6.3 The site is identified within Dover District Council's Land Allocation Local Plan document, adopted in 2015, as an appropriate location for residential development. Policy LA26 requires development to provide adequate car parking, footway connections within the site and to the off-site pedestrian network and a vehicular access that limits the loss of existing hedgerow along the site frontage.
- 6.4 Whilst the principle of residential development at this relatively rural site is already accepted, this Transport Statement has demonstrated that there are a number of land uses that act as typical trip attractors from residential sites within reasonable proximity, which ensures residents are not wholly reliant on travel by private car for all journey purposes, including in particular a Primary School.
- 6.5 The proposed vehicular access location has been informed by speed survey results and is located to ensure that minimum visibility requirements can be achieved whilst minimising the impact on existing hedgerows.
- 6.6 South of the proposed site access, a new 1.8m wide footway will be introduced along the site frontage. Whilst this will terminate at the south east corner of the site, a drop-kerb will be introduced on both sides of the carriageway to encourage pedestrians to cross to a new footway that will be accommodated on the eastern side of the carriageway in place of an existing verge. This footway will continue south for a length of approximately 30m, where it will connect with existing provision. North of the proposed site access, a new 1.5m wide footway will be accommodate to the rear of the existing hedgerow, which will run toward the northern edge of the site, allowing off-site residents to walk within the site rather



than on the existing Capel Street carriageway, with there being no footway provision in this location.

- 6.7 The development proposals provide a quantum of car parking in accordance with relevant parking standards and will include cycle parking for those units without access to a secure garage or garden.
- 6.8 The Transport Statement has demonstrated that the site layout is readily accessible to all user groups, with delivery and service vehicles able to enter and exit the site in forward gear. The site layout has been designed in general accordance with the Kent Design Guide, with a 5.5m wide shared surface and an additional 2m strip that will act as a pedestrian safe zone and service strip. The site layout has been designed to accommodate a minimum centre line radius to ensure low vehicle speed across the site, further reinforced by selectively located buildouts. Whilst the site is a shared surface, care has been taken to ensure there is pedestrian intervisibility on approach to private drives. It is the Applicants intention for the internal road network to be offered for adoption and a formal Section 38 application would follow any planning approval.
- 6.9 This Transport Statement includes a trip generation analysis and demonstrates that the proposed land use will generate 26 two-way vehicle movements in each of the peak periods, which can be readily accommodated within the existing highway network.
- 6.10 On this basis, Markides Associates are of the view that there are no transport related reasons why the outline planning application should not be supported, with the TS demonstrating that the site can be readily accessed and connections can be provided to the wider footway network, with the site layout being readily accessible to all intended user groups.

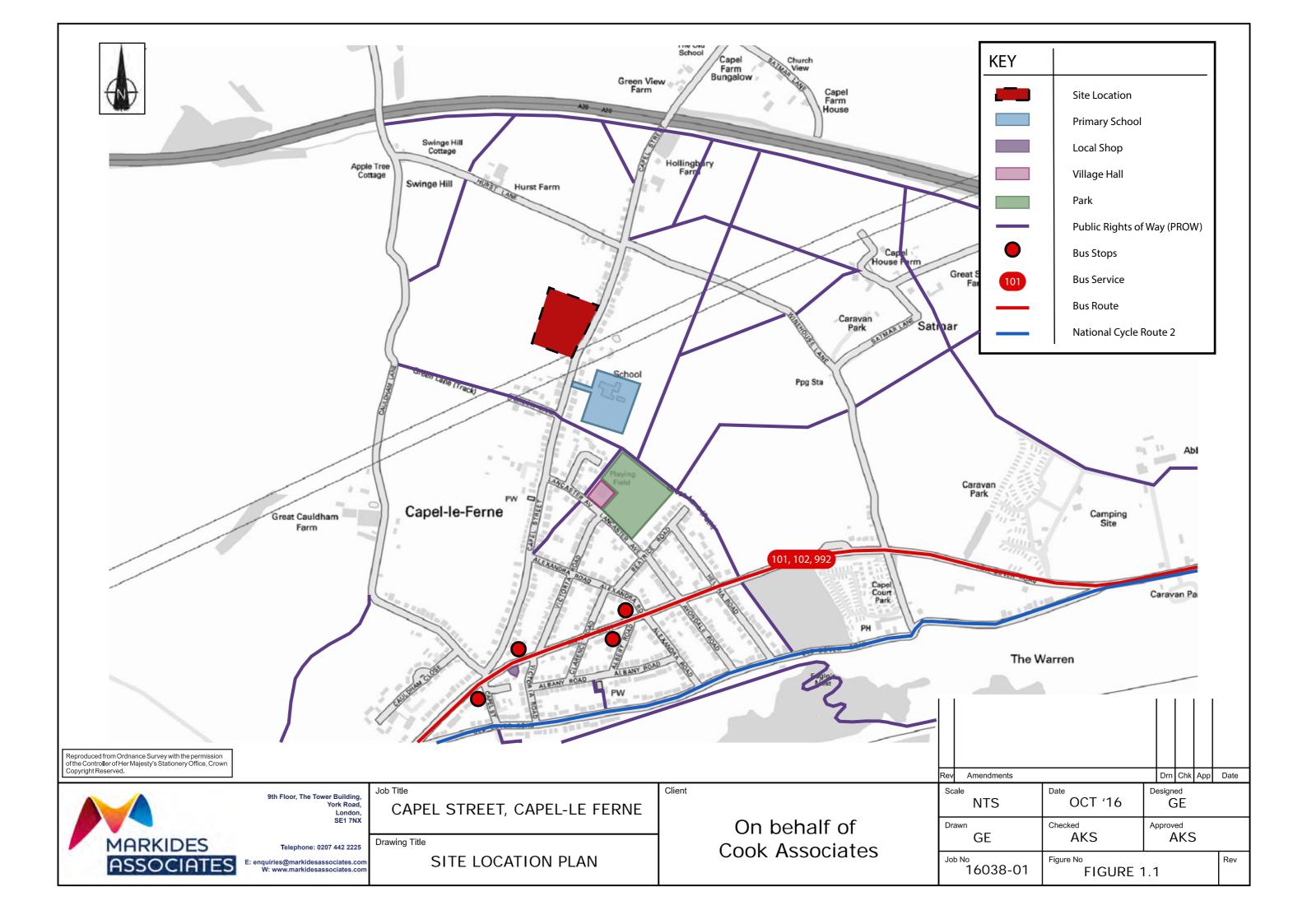


FIGURES AND DRAWINGS

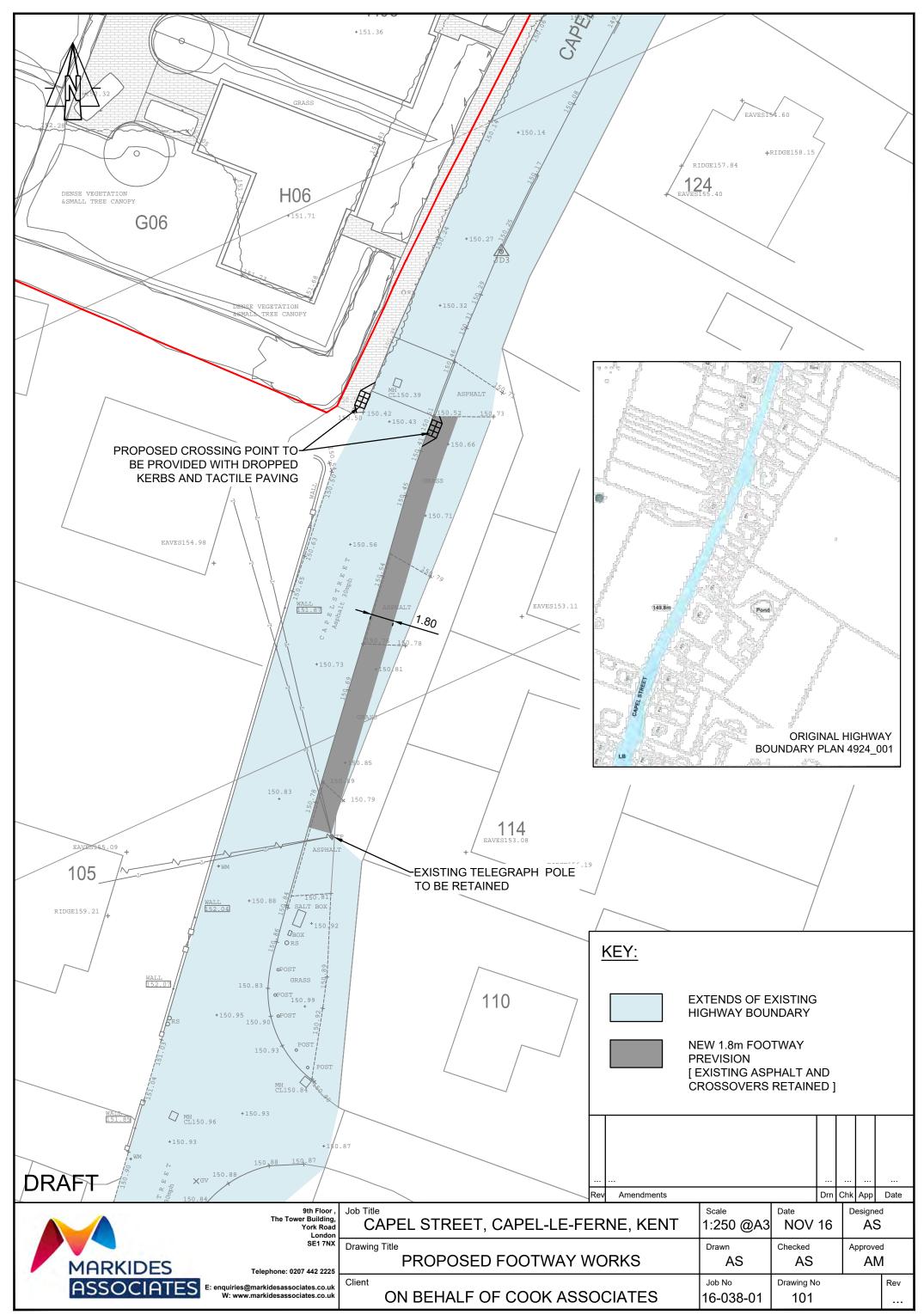
FIGURE 1.1 – SITE LOCATION PLAN

DRAWING 16-038-100 – VISIBILITY SPLAY ANALYSIS DRAWING 16-038-101 – PEDESTRIAN IMPROVEMENTS DRAWING 16-060-102 – VEHICLE SWEPT PATH ANALYSIS LARGE REFUSE









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APPENDIX A PROPOSED SITE LAYOUT PLAN





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Client:

Mr T Odlin

Project: Land Adj. No.107 - 127 Capel Street Capel Le Ferne Kent

Drawing Title : Proposed Site Layout Plan Drawn by : Check SIB Date : Scale October 2016 Status: PRELIMIN Drawing No : 100

Project No : **16017**

KEY

1 Bedroorn / 2 Persor	n Flat - 50.0m² approx
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- 2 Bedroom / 3 Person Flat 61.0m² approx
- 2 Bedroom / 4 Person House 100.0m² approx
- 3 Bedroom / 5-6 Person House 115.0m² approx
- 4+ Bedroom / 7-8 Person House

SCHEDULE OF ACCOMMODATION

6 x 1 Bedroom Flat	(15% mix)
14×2 Bedroom Flat / House	(34% mix)
15 x 3 Bedroom House	(36% mix)
6 x 4 Bedroom House	(15% mix)

TOTAL 41 UNITS

Site Area = 15,115m² (1.51 HA)

PARKING

Based on Kent Design Guide Review: Interim Guidance Note 3 November 2008: Residential Parking

Suburban Edge / Village / Rural

1 & 2 Bed Flats	= 1 space per unit (not allocated)	= 10 spaces
1 & 2 Bed Houses	= 1.5 spaces per unit (Allocation of one space)	= 15 spaces
3 Bed Houses	= 2 spaces per unit (Allocation of one or both spaces)	= 30 spaces
4+ Bed Houses	= 2 spaces per unit (Allocation of both spaces possible)	= 12 spaces
Additional Visitor Pa	rking = 0.2 spaces per unit (On-street Areas)	= 8 spaces
TOTAL 75 spaces		

ut Plan	1:500
	50m 100m
cked by: e @ A1: 1:500	Cook Associates Architects Engineers
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APPENDIX B PRE-APPLICATION DIALOGUE



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Your ref: PE/DOV/15/00112 Date: 07/08/2015

Mr P Cook Cook Associates Capital House 3 Jubilee Way Faversham Kent ME13 8GD

Dear Mr Cook

Town and Country Planning Act 1990 (As Amended)

Proposal: Pre-application advice – residential development Location: Land between 107 and 127 Capel Steet, Capel-le-Ferne

I write with reference to your request for planning guidance which was received on 29th June 2015. Thank you for meeting with me on 20th July 2015.

Three alternative schemes have been presented within your submission. As discussed on site, it is considered that of these three alternatives, Scheme 3 provides the best starting point and as such my advice will be based on this option.

Principle

The site is included within the Land Allocations Local Plan, which allocates land for development. Pages 94 and 95, and in particular Policy LA26, set the framework for how the development of the site will be considered. Subject to the requirements of Policy LA26 being met, the principle of the development will be acceptable.

Policy LA26 sets out nine criteria which the development would need to meet. These criteria are:

- i. the design and layout should incorporate frontage development with adequate parking arrangements;
- ii. the existing boundary hedgerows and vegetation to the west are retained;
- iii. a landscape buffer is provided along the western boundary to reduce impact on the AONB;
- iv. development proposals are sensitively designed in terms of height and massing in order to ensure the development does not have an adverse impact on the AONB

and countryside;

- v. footway connections are provided within the site and new footway provision is facilitated on KCC highway land on the eastern side of Capel Street to provide pedestrian connectivity to the Primary School and beyond;
- vi. a financial contribution is secured to mitigate the impact on the Thanet Coast and Sandwich Bay SPA;
- vii. development should provide a connection to the sewerage system at the nearest point of adequate capacity and ensure future access to the existing sewerage and water supply infrastructure for maintenance and upsizing purposes;
- viii. if street lighting is required this should be designed to minimise the impact of light pollution and conserve the dark night skies of the AONB; and
- ix. vehicular access is achieved onto Capel Street which is designed to minimise the loss of the existing hedgerow.

Owing to the fact that this is a criteria based policy, it will be extremely important that any planning application addresses all of the criteria in policy LA26 and, consequently, the documents submitted with any formal application should make particular reference to this policy and how each of its objectives have been met.

In addition to these site specific criteria, the development must be acceptable in all other material respects. I will discuss the pre-application schemes compliance with these policy objectives, as well as its acceptability in other respects, within the relevant sections of this response.

Housing Mix

The proposal would provide 40 dwellings comprising 15 two bed houses, 20 three bed houses and 5 four bed houses.

Number of Bedrooms	Percentages Proposed	Percentages Recommended
One (0)	0%	15%
Two (x15)	37.5%	35%
Three (x20)	50%	40%
Four (x5)	12.5%	10%

As can be seen from the above table, whilst the proportions of two three and four bed dwellings is broadly in-line with the recommended provision (albeit all above the recommended percentages), no one bedroom dwellings are proposed. Whilst the recommended proportions should inform the housing mix, and are certainly not rigid, I am concerned that the development would be biased towards larger dwellings. It is recommended that any application is supported by a clear explanation and justification of the proposed mix, having regard for the identified need within Dover, including the need identified within the Strategic Housing Market Assessment.

Character and Appearance of the Area

The site is primarily visible from Capel Street, albeit the existing hedgerow to the edge of the highway conceals much of the site. From the west (within the AONB) views of the site are

possible along parts of Cauldham Lane, where there are gaps in the hedgerow, and from Green Lane, which is a public right of way between Capel Street and Cauldham Lane.

Policy LA26 contains two requirements in respect of the developments impact on the character and appearance of the development. These require that the "design and layout should incorporate frontage development with adequate parking arrangements" and that the "development proposals are sensitively designed in terms of height and massing in order to ensure the development does not have an adverse impact on the AONB and countryside". The policy also includes three references to landscaping, which will be covered later in this report.

In assessing the character and appearance of the scheme, I have considered the principles contained within the Kent Design Guide and Building for Life 12.

The development includes four properties adjacent to Capel Street; Plots 11, 21, 30 and 40. In accordance with Policy LA26, and having regard for the strong character of frontage development on Capel Street, these properties should address Capel Street. I can understand your concern that by addressing Capel Street, these properties may require the removal of sections of the existing hedgerow for accesses. However, it is considered that such a relationship is important to ensure that these properties relate to the existing pattern of development and the site integrates into its context, rather than appearing as an isolated and detached addition to the village. To achieve this, it is considered that the dwellings should be brought closer to the Capel Street boundary (with a similar set back from the road as the properties to either side of the site) whilst the principle elevation should be to the west to these dwellings, facing the road. To minimise the loss of hedge, you may wish to consider whether it would be appropriate to provide vehicular accesses to the side or rear of these buildings.

The layout of the site appears to be prescribed by the road layout, producing a highway dominated scheme. Whilst on site you confirmed that the layout shown is a working model and any formal submission would amend the layout to produce more variation and interest. Any such layout should be more organic, and less rigid, in character and should include the provision of chicanes which are integrated into the design of the scheme, for example by providing curved roads or staggered buildings. It is also considered that the turning heads and parking courts are relatively urban features, which may appear out of place within this context.

The buildings within the development would be, typically, split into short terraces of three dwellings. Concern was raised on site that this arrangement, necessitated by the layout of the scheme, would result in the side and rear elevations of housing, and in some cases boundary walls or fences, being visually exposed and prominent. It was confirmed that the intention was to provide small clusters of dwellings separated by hedging to provide a rural character and conceal some of the side elevations and boundary treatments. Whilst the introduction of new hedges throughout the development is to be applauded, I am concerned that this approach would be unlikely to provide sufficient screening, whilst this character would also be at odds with the prevailing character of frontage development within Capel-le-Ferne. Furthermore, it would not be possible to secure the retention of this hedging in perpetuity, so it could not be relied upon to mitigate the concerns raised regarding the layout of the development. It is also noted that the predominant dwelling types in this part of the village are detached and semi-detached. As such, it may be more appropriate to follow this typology rather than terraced units.

As identified by Policy LA26, the sensitive height and massing of buildings within the development is particularly important. From Capel Street, the visible dwellings must sit comfortably with the mix of one, one and half and two storey dwellings which typically front the street. Equally, the height and massing of properties towards the west of the site must ensure

that the buildings are not unduly harmful to the setting of the AONB. Within the interior of the site, where buildings will be less visible, it may be possible to increase the height and massing of the buildings, perhaps including some two and a half storey dwellings. It appears from the layout plan, that the largest properties would be concentrated to the Capel Street frontage, with the remainder of the site having a mix of two-bed and three-bed dwellings.

The detailed design of the dwellings has not been submitted at this pre-application stage. However, two sets of visuals have been provided showing other schemes by Cook Associates which have been granted permission in Kent. I understand that these sites are adjacent to the railway track in Selling and on the edge of Greenhill, near Herne Bay. Both of these schemes are similarly in semi-rural locations; however, I would caution that each scheme must respond to its own context. In this instance, whilst this part of Capel-le-Ferne has a varied character and choice of materials, some repetition can be found which provides identity. Some properties often include pitched roof dormers or half dormers, particularly on one and a half storey dwellings. Varied gables fronting the road are also common. In terms of materials, there is a mixture of render, weatherboarding and hanging tiles used. Equally, it is considered that a sensitive contemporary approach could be successful. The detailed design of any formal application should be locally distinctive and justified within the accompanying Design and Access Statement. Whichever approach is chosen, the scheme should incorporate variety to the individual design of buildings.

The site and the surrounding area, which includes the AONB, are particularly susceptible to increases in light pollution. Policy LA26 requires that, if street lighting is required, it should be designed to minimise the impact of light pollution and conserve the dark night skies of the AONB. Your submission does not confirm whether street lighting is proposed or, if so, what form this would take. In accordance with LA26, if external lighting is required, it should be kept to the minimum required to provide a safe environment and should be designed in such a way to avoid light spill, sky glow and light intrusion outside the site. This can be achieved through a combination of measures, such as: attaching lighting to building or, if this is demonstrated not to be possible, reducing the height of lighting columns; using low intensity light sources; angling and cowling light sources to produce asymmetric beams which avoid upward lighting or the lighting of unnecessary areas; and the careful choice of hard and soft landscaping to reduce upward reflected light. A lighting assessment should be submitted with any formal application.

Landscaping is identified as an important factor in the successful development of this site: providing screening of the development in important views; allowing the development to sit comfortably in its context; and to provide visual maturity to the site. Policy LA26 includes three criteria relating to the retention and provision of landscaping, requiring that:

- the existing boundary hedgerows and vegetation to the west are retained;
- a landscape buffer is provided along the western boundary to reduce impact on the AONB; and
- vehicular access is achieved onto Capel Street which is designed to minimise the loss of the existing hedgerow.

The proposal shows vegetation to all boundaries. This includes the retention of the existing vegetation along the western boundary of the site, meeting criterion ii of Policy LA26. However, it appears that this vegetation is all that will comprise the landscape buffer to the western boundary, with properties 12, 22 and 31 sited close to the retained vegetation. I am concerned that the erection of dwellings so close to the western boundary would result in the development being prominent when viewed from the AONB, providing an inadequate landscape buffer. It is not, therefore, considered that criterion iii of Policy LA26 has been met.

The third criterion, point ix of Policy LA26, requires that the vehicular access onto Capel Street is sited to minimise the loss of the existing hedgerow. The proposal would remove this existing hedgerow and replace it, several metres back into the site. Whilst on site we discussed this and you confirmed that this removal was necessary due to the need to provide pedestrian access (point v of LA26). However, the policy wording specifies that this footpath should be on KCC highway land. Furthermore, I have discussed the requirements for access under Policy LA26 with the Councils Policy and Projects Manager, who was involved in writing the policy and can confirm that the policy does not seek to provide a footpath along the entire Capel Street frontage, but instead requires a that pedestrian access is provided to all dwellings and a footpath link to the southern corner of the site, where it would link to the existing footpath to the eastern side of Capel Street.

Following a further visit to the site, it is considered that a footpath could be provided with only relatively minor works to the existing hedgerow. To conclude, whilst the provision of one access, as shown, would meet the criterion ix of Policy LA26, the removal and reprovision of the existing hedge runs contrary to the aims of the policy. Any formal application should be accompanied by a tree and hedge survey, which can be used to inform where the most appropriate location of accesses should be to reduce the loss of existing vegetation.

<u>Highways</u>

The Core Strategy, in conformity with national policy, requires that developments should be balanced in favour of sustainable modes of transport, whilst car parking should reach an appropriate balance between meeting the needs generated by the development and meeting design objectives.

I have not consulted KCC Highways and Transportation as part of this pre-application process and, as such, you may wish to consult them separately. However, I will make some observations.

The development proposes one vehicular and pedestrian access towards the north of the eastern boundary of the site and a second pedestrian access to the south of the same boundary. I am concerned that this location is relatively close to northern boundary of the site with No.127 Capel Street and, as such, the required visibility from the proposed junction may be difficult to achieve.

Having regard for the pedestrian access requirements, as outlined previously, and the concern regarding the visibility from the vehicular access to the site, you may wish to consider providing one access to the site which is located roughly centrally along the frontage, together with a footpath running from this access to the southern corner of the site. All properties should be connected to pedestrian routes through the site, with links to the access and road crossing point to the southern corner of the site.

Whilst movement through the site would be relatively easy, I do have some concerns regarding the layout of the internal roads and the provision of chicanes through the site, which has been discussed in detail earlier in this report.

The development would provide 80 car parking spaces for residents, plus 8 communal spaces for visitors. This provision is slightly above the recommended minimum provision suggested by Table 1.1 within the Core Strategy. Whilst the overall provision of car parking spaces is considered to be acceptable, some concern is raised regarding the location and form of some of these spaces. Five properties are served by tandem car parking spaces and, consequently, these spaces would not be independently accessible. All of these properties are either 3-bed or 4-bed properties. One property, number 8, would only have one space, whilst No.38 would

be separated from its car parking. Whilst these issues are unlikely in themselves to warrant refusal, it is advised that alternative arrangements which would overcome these matters should be investigated.

Kent County Council Guidance SPG4, which is referenced within Policy DM13, recommends that dwellings provide one cycle parking space per bedroom. The development will therefore be expected to provide each dwelling with covered, secure cycle parking spaces, the details of which should be submitted with the application. The provision should be designed to integrate into the development and should be convenient for occupiers of the dwellings.

Having regard for the potential sensitivity of the location of the access and the use of highway land for the provision of the new footpath, you may wish to submit a separate pre-application request to KCC Highways and Transportation. Information on KCC's pre-application process can be found at:

http://www.kent.gov.uk/waste-planning-and-land/planning-applications/planningadvice/highway-pre-application-advice

Residential Amenity

The site is directly adjacent to neighbouring properties to both its northern and southern boundaries.

To the north the site is bounded by No.127 Capel Street and its garden, with the property to the eastern end of the plot. The closest of the proposed dwellings to No.127 is Plot 11, which is located approximately 24m to the south. Whilst Plots 1 and 4 are closer to the boundary with No.127, these properties would be set a substantial distance from the dwelling itself. It is therefore considered that due to these separation distances, no unacceptable loss of light, sense of enclosure or overlooking would occur to No.127.

The closest property to the south of the site is No.107. Plots 37 to 40 would be set approximately 14m to 16m from the boundary with No.107, whilst Plot 40 would be set around 20m from the side elevation of No.107. Whilst I am of the opinion that this distance would be sufficient to ensure that no unacceptable loss of light or sense of enclosure would be caused, I am concerned that any windows within the southern elevations of Plots 37 to 40 could give rise to unacceptable overlooking. It is therefore advised that this constraint should be taken into account when finalising the layout and designing the proposed dwellings.

The remainder of the southern boundary backs onto fields in equestrian use and, as such, there are no concerns with residential amenity to this portion of the site.

Detailed designs of the buildings have not been provided at this pre-application stage. Whilst I am therefore unable to give a full response regarding whether the living conditions of future occupiers will be acceptable, I am able to provide some comments in respect of the layout of the scheme.

Some of the plots are sited relatively close to each other, which could, depending on the detailed design of the scheme, cause a sense of enclosure and overlooking. In particular, the relationships which give rise to some concern are: Plot 12's impact on Plot 3; Plot 4's impact on Plot 7; Plots 15, 16 and 17's impact on Plot 14; Plot 20's impact on Plot 29; Plot 28's impact on Plot 26; and Plots 35 and 36's impact on Plot 37.

The development will need to provide refuse storage and recycling storage. This provision should be integrated into the design of the development and be easily accessible to both

residents and collection workers. Consideration should also be had for the routes which could be used by service vehicles.

Ecology

The EU Habitats Directive 1992, requires that the precautionary principle is applied to all new projects, to ensure that they produce no adverse impacts on European Sites. The proposed development would place an additional recreational pressure on the Thanet Coast and Sandwich Bay Special Protection Area (SPA), which will need to be mitigated to ensure that it would not lead to any adverse effect on the integrity of the SPA, as outlined in point 6 of Policy LA26. A financial contribution to support wardening at the SPA is an accepted method of mitigation, as described on pages 144 and 145 of the Land Allocations Local Plan.

The site is currently used for the grazing of horses and is laid to grass. Around the periphery of the site are hedges and trees of varying maturity. Beyond the site to the north are open fields used to grow arable crops. Having regard for the vegetation which is on site and on the adjacent land, there is a reasonable likelihood that it could provide habitat for protected species and the application will therefore need to be supported by an ecological survey of the site, together with species specific studies and mitigation measures if required.

Sustainable Urban Drainage

The development will be expected to be provide Sustainable Urban Drainage System (SUD's). The SUD's proposed should be multi-functional, incorporating the primary drainage function and being well integrated into the development, together with a recreational space function and an ecological function where possible.

Prior to submitting an application you may wish to consult with KCC, the Lead Local Flood Authority for the area, who can provide assistance on integrating multi-functional SUD's into the scheme. KCC's SUD's team can be contacted by e-mail at <u>suds@kent.gov.uk</u>.

Sewerage

Policy LA26 requires that the development provides a connection to the sewerage system at the nearest point of adequate capacity and ensure that future access to the existing sewerage system and water supply. No details of sewerage have been submitted with this request for pre-application advice, so I am unable to comment on this matter. Any formal application should be accompanied by details of the proposed sewerage arrangements.

Affordable Housing

Under Policy DM5, developments in excess of 15 dwellings will need to provide affordable housing. This provision must be 30% of the total number of dwellings on site and should be homes of a type to meet the identified needs and will be expected to be provided on-site. The Council's preferred approach is generally to seek a ratio of social rented to intermediate housing of 70:30. These dwellings should also be of a mix to meet the prioritised needs of the district, as shown in the following table (taken from page 108 of the Core Strategy):

Home Type	Social Rented (70%)	Intermediate (30%)
One and two bedroom flats	25%	5%
Two bedroom houses	10%	35%
Three bedroom houses	55%	60%
Four bedroom houses	10%	

It is recommended that that proposed affordable housing provision on site is formulated having regard to the identified needs and, where variations occur, is justified within the documents accompanying any formal planning application.

Additional information regarding the provision of affordable housing can be found on the Council's website, via the following link:

http://www.dover.gov.uk/Planning/Planning-Policy/Local-Development-Framework/Other-Information-AMR/Supplementary-Planning-Documents/Affordable-Housing.aspx

Contributions

Policy DM27, which can be found in the Land Allocations Local Plan, requires that new development provides open space to meet the needs generated by the development, together with a minimum of 15 years maintenance. This provision includes accessible green space, outdoor sports facilities, children's equipped play space and community gardens/allotments. Whilst the first preference is typically for on-site provision, in this instance it may be impractical to do so, in which case a commuted sum may be agreed to provide the provision of new, or enhancements to existing, accessible off-site provision. The scheme, at present, does not include any on-site open space. A commuted sum for the off-site provision of open space may therefore be appropriate. I have discussed options for off-site contributions with the Councils Principal Infrastructure and Delivery Officer, who has advised that it is likely a contribution would be sought to increase the capacity of the nearby recreation ground. The Councils Principal Infrastructure and Delivery Officer, Emma-Jane Allen, can be contacted by phone on 01304 872120, or by e-mail at <u>emma.allen@dover.gov.uk</u>.

It is likely that Kent County Council will request contributions for the increased demand on, for example, the provision of education, libraries, youth services and adult social services. This request will be based on the capacity of existing infrastructure and the additional costs which will be borne to support the additional housing.

Conclusions

The principle of the development is established by established by Policy LA26. However, concerns are raised regarding the character and appearance of the development and the access arrangements for the site. However, having regard for the advice contained within this response, I am hopeful that these concerns can be successfully resolved.

I trust that the above advice is of some assistance to you. Please note this is informal officer advice only and would not prejudice the formal decision of the Council.

If you did choose to pursue a formal application then the following documents would be required to accompany it:

- Application Form
- Site Location Plan
- Block/Layout Plan
- Existing and Proposed Elevations, Floor Plans and Roof Plans
- Existing and Proposed Sections Through the Site, Including Capel Street
- Street Scene Elevations
- Planning Statement
- Design & Access Statement

- Photos/Photomontages (including from the AONB)
- Biodiversity Survey and Assessment and Protected Species Surveys as recommended.
- Flood Risk Assessment, including a Surface Water Drainage Assessment
- Foul Sewerage and Utilities Assessment
- Waste Management Plan
- Affordable Housing Statement
- Draft S106 Agreement/Draft Heads of Terms
- Statement of Community Involvement
- Transport Statement/Assessment
- Tree/Hedge Survey
- Landscape Character Assessment
- Lighting Assessment

Yours sincerely

Luke Blaskett Principal Planner

APPENDIX C TRICS OUTPUT – PROPOSED LAND USE



Markides Associates Ltd York Road London

Calculation Reference: AUDIT-860401-161030-1053

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL Category : A - HOUSES PRIVATELY OWNED VEHICLES

Selected regions and areas:

00.00			
02	SOU	TH EAST	
	ΕX	ESSEX	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	1 days
03	SOU	TH WEST	
	SM	SOMERSET	1 days
04	EAST	ANGLIA	
	NF	NORFOLK	1 days
	SF	SUFFOLK	1 days
06	WES	T MIDLANDS	
	SH	SHROPSHIRE	1 days
	WK	WARWICKSHIRE	1 days
07	YORI	KSHIRE & NORTH LINCOLNSHIRE	
	NY	NORTH YORKSHIRE	1 days
08	NOR	TH WEST	
	СН	CHESHIRE	2 days
	GM	GREATER MANCHESTER	1 days
09	NOR	TH	
	CB	CUMBRIA	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	Number of dwellings
Actual Range:	10 to 237 (units:)
Range Selected by User:	6 to 4334 (units:)

Public Transport Provision: Selection by:

Include all surveys

Date Range: 01/01/08 to 13/11/15

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:	
Tuesday	3 days
Wednesday	4 days
Thursday	5 days
Friday	1 days
Thursday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:	
Manual count	13 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations: Edge of Town

13

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories

Markides Associates Ltd York Road London

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Filtering Stage 3 selection:

Use Class: C3

13 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:			
1,001 to 5,000	1 days		
5,001 to 10,000	5 days		
10,001 to 15,000	3 days		
15,001 to 20,000	3 days		
20,001 to 25,000	1 days		

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:			
5,001 to 25,000	1 days		
25,001 to 50,000	2 days		
50,001 to 75,000	2 days		
75,001 to 100,000	3 days		
100,001 to 125,000	3 days		
125,001 to 250,000	1 days		
500,001 or More	1 days		

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:	
0.6 to 1.0	5 days
1.1 to 1.5	8 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:	
Yes	1 days
No	12 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

York Road

London

Markides Associates Ltd

1	CB-03-A-03 SEMI DETACHED HAWKSHEAD AVENUE		CUMBRIA
2	WORKINGTON Edge of Town Residential Zone Total Number of dwellings: Survey date: THURSDAY CH-03-A-02 HOUSES/FLATS SYDNEY ROAD	40 20/11/08	Survey Type: MANUAL CHESHIRE
3	CREWE Edge of Town Residential Zone Total Number of dwellings: Survey date: TUESDAY CH-O3-A-O5 DETACHED SYDNEY ROAD SYDNEY CREWE	174 14/10/08	Survey Type: MANUAL CHESHIRE
4	Edge of Town Residential Zone Total Number of dwellings: Survey date: TUESDAY EX-03-A-01 SEMI-DET. MILTON ROAD CORRINGHAM STANFORD-LE-HOPE	17 14/10/08	Survey Type: MANUAL ESSEX
5	Edge of Town Residential Zone Total Number of dwellings: Survey date: TUESDAY GM-03-A-10 DETACHED/SEMI BUTT HILL DRIVE PRESTWICH MANCHESTER	237 13/05/08	Survey Type: MANUAL GREATER MANCHESTER
6	Edge of Town Residential Zone Total Number of dwellings: Survey date: WEDNESDAY NF-03-A-03 DETACHED HOUSES HALING WAY	29 12/10/11	Survey Type: MANUAL NORFOLK
7	THETFORD Edge of Town Residential Zone Total Number of dwellings: Survey date: WEDNESDAY NY-03-A-11 PRIVATE HOUSING HORSEFAIR	10 16/09/15	Survey Type: MANUAL NORTH YORKSHIRE
	BOROUGHBRIDGE Edge of Town Residential Zone Total Number of dwellings: Survey date: WEDNESDAY	23 18/09/13	Survey Type: MANUAL

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York Road

Markides Associates Ltd

Sunday 30/10/16 Page 4 Licence No: 860401

LIST OF SITES relevant to selection parameters (Cont.)

London

8	SC-03-A-04 HIGH ROAD	DETACHED & TERRAC	CED	SURREY
9	BYFLEET Edge of Town Residential Zone Total Number of dwe Survey date: SF-03-A-05 VALE LANE		71 23/01/14	Survey Type: MANUAL SUFFOLK
10	BURY ST EDMUNDS Edge of Town Residential Zone Total Number of dwe Survey date: SH-03-A-03 SOMERBY DRIVE BICTON HEATH SHREWSBURY	ellings: WEDNESDAY DETATCHED	18 09/09/15	Survey Type: MANUAL SHROPSHIRE
11	Edge of Town No Sub Category Total Number of dwe Survey date: SM-03-A-01 WEMBDON ROAD NORTHFIELD BRIDGWATER		10 26/06/09	Survey Type: MANUAL SOMERSET
12	Edge of Town Residential Zone Total Number of dwe Survey date: WK-03-A-02 NARBERTH WAY POTTERS GREEN		33 24/09/15	Survey Type: MANUAL WARWICKSHIRE
13	COVENTRY Edge of Town Residential Zone Total Number of dwe Survey date: WS-03-A-04 HILLS FARM LANE BROADBRIDGE HEAT HORSHAM	THURSDAY MIXED HOUSES	17 17/10/13	Survey Type: MANUAL WEST SUSSEX
	Edge of Town Residential Zone Total Number of dwe Survey date:		151 11/12/14	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection	
CB-03-A-04	Parking Ratio	
CH-03-A-09	Parking Ratio	
DC-03-A-08	Bedroom Ratio	
ES-03-A-02	Parking Ratio	
NE-03-A-02	Parking Ratio	
NY-03-A-07	Parking Ratio	
NY-03-A-10	Parking Ratio	
SH-03-A-05	Parking Ratio	
SH-03-A-06	Parking Ratio	

Markides Associates Ltd York Road London

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED VEHICLES Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	64	0.089	13	64	0.295	13	64	0.384
08:00 - 09:00	13	64	0.153	13	64	0.417	13	64	0.570
09:00 - 10:00	13	64	0.128	13	64	0.186	13	64	0.314
10:00 - 11:00	13	64	0.139	13	64	0.176	13	64	0.315
11:00 - 12:00	13	64	0.141	13	64	0.152	13	64	0.293
12:00 - 13:00	13	64	0.166	13	64	0.154	13	64	0.320
13:00 - 14:00	13	64	0.178	13	64	0.140	13	64	0.318
14:00 - 15:00	13	64	0.194	13	64	0.205	13	64	0.399
15:00 - 16:00	13	64	0.337	13	64	0.241	13	64	0.578
16:00 - 17:00	13	64	0.316	13	64	0.186	13	64	0.502
17:00 - 18:00	13	64	0.367	13	64	0.202	13	64	0.569
18:00 - 19:00	13	64	0.234	13	64	0.154	13	64	0.388
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.442			2.508			4.950

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected:	10 - 237 (units:)
Survey date date range:	01/01/08 - 13/11/15
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	9

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

