LAND WEST OF HALL ROAD, COPFORD ESSEX

FURTHER STATEMENT TO THE INSPECTOR IN SUPPORT OF REPRESENTATIONS MADE by:

Ms SUSANNA HARRISON

TO THE COLCHESTER BOROUGH LOCAL PLAN 2017-2033 SECTION 2 EXAMINATION

SUBMITTED BY FENN WRIGHT – RPH HAYWARD MRICS

Main Matter 1 – Legal Requirements and Overarching Issues relating solely to the Policies within CLP Section 2

"Has CLP Section 2 been subject to a Sustainability Appraisal (SA) and have the requirements for Strategic Environmental Assessment been met?
Is it clear how the SA influenced the final plan and dealt with mitigation measures?"

We are satisfied that the proposed housing allocation of Land at Hall Road has been subject to a Sustainability Appraisal and that the assessment criteria adopted in that Appraisal (June 2017) remain relevant and appropriate notwithstanding the removal of the Colchester/Braintree Borders Garden Community from CLP Part 1.

Since the Sustainability Appraisal was prepared the landowners have undertaken further detailed investigations of the Preferred Site Allocation (Land West of Hall Road ref. Policy SS4 –Site Ref STN18) which has shown that the objectives set out in the Appraisal can largely be met with limited adverse impacts by use of good design and suitable landscaping. The site therefore will be able to contribute to meeting the housing needs of Colchester Borough over the plan period and provide residential units in a sustainable location. The allocation of the site is justified and is considered to be deliverable as defined by the National Planning Policy Framework.

To provide further assurance that the site allocation is still considered to be suitable and deliverable a Landscape and Visual Assessment dated June 2020 carried out by Southern Ecological Solutions has concluded that "the site off Hall Road, Copford provides a suitable, sustainable location for the proposed residential development from a landscape and visual perspective. The landscape led approach to the development, including the protection and enhancement of existing site features, the design of buildings, and integration of strategic planting will ensure that the proposals will contribute to and enhance the landscape character of the area.

An intrusive Archaeological Investigation by ASE dated October 2016 has shown that the perceived archaeological features are in fact of natural origin and that only a small part of the site in the south-east corner is subject to limited Iron Age activity. It has been agreed that the impact of development on such features can be mitigated by use of a planning condition.

Therefore, the performance of the preferred site allocation on Land West of Hall Road in Policy SS4 when compared against the objectives of the Local Plan and the Sustainability Appraisal have not changed since the site was originally identified by the Council. The site remains available for development and is supported by evidence (from both the Council and the site owners) that it can come forward over the plan period. The site will deliver residential development over the plan period for Copford and the Borough as a whole. .

See Appendix I and II

Main Matter 2 – Sustainable Growth Policies

Question: Is Colchester's Spatial Strategy and the distribution of development as set out in Policy SG1 supported by robust and up to date evidence and otherwise soundly based?

We support Policy SG1, in principle and that strategy is supported by the Sustainability Appraisal and the Council's overall evidence base. The removal of two of the three the Garden Settlements across the North Essex Authorities from Section 1 of the Plan (which was adopted by Colchester Borough Council on 1st February 2021 places greater importance on the delivery of housing and employment growth in Urban Areas and Sustainable Settlements such as Copford and Copford Green as these are more likely to be deliverable earlier in the Plan period whilst meeting the three objectives of sustainable development identified at Para 8 of the NPPF i.e. social, economic and environmental.

The Spatial Strategy which will be delivered through the site allocations identified in the emerging Plan (CLP2) is considered to be sound and provides a plan led approach for the growth and development of Colchester Borough over the plan period.

Question: Does CLP Section 2 Policy SG7 provide a clear indication of how decision makers should secure the necessary infrastructure provision to meet Colchester's economic growth requirements for the Plan period?

We support the overall objective of this Policy and the need to ensure that all development should be supported by and have good access to all necessary infrastructure. However, it remains unclear as to how a decision maker would a) prioritise the delivery of sustainable sites that can be delivered without the need for additional infrastructure capacity; and b) ensure that in the context of cumulative development impacts and larger scale housing releases, the necessary infrastructure contributions can be sought and delivered in advance of occupation of the dwellings. As a result of this, the policy does not provide certainty for the applicant, the local community or service providers and is therefore not positively prepared or effective as outlined in Paragraph 35 of the NPPF.

Site allocations within the plan which are identified as sustainable housing locations are by their nature better connected to existing infrastructure and will have a lower impact in terms of infrastructure requirements than those that are remote from or otherwise poorly served by existing infrastructure. In accordance with the principles of sustainable development as outlined in the NPPF and the Council's Spatial Strategy, opportunities to secure the necessary infrastructure provision should be advanced and given additional weight in the Plan. The need to bring forward infrastructure expenditure to serve other sites must be clearly stated and a methodology for delivering such infrastructure put in place at the plan making stage and not left until the site specific planning applications are being considered on a site by site basis.

By definition, smaller well located sites in Urban Areas and Sustainable Settlements are able to meet housing needs earlier in the Plan period and should therefore be brought forward without delay. The provisions of Policy SG7 appear to conflict with elements of Policy PP1 and greater clarity is needed as regards how these two policies will be applied over the Plan period.

Main Matter 9 – Sustainable Settlements (Policies SS1 – SS16)

Question: Are the Sustainable Settlement Policies and Site Allocations justified by appropriate available evidence having regard to national guidance and local context including meeting the requirements of CLP1?

The Sustainable Settlements identified in the Spatial Strategy Policy SG1 have been shown to be sustainable locations as encouraged by the NPPF where residents will have good access to employment opportunities, be in close proximity to services, shops and facilities and benefit from good accessibility by a variety of vehicular and non-vehicular means. To this end, such settlements are considered to be best suited to meet the three objectives of sustainable development i.e. social, economic and environmental sustainability. Policy SG1 therefore complies with the objectives of Policy SP1 and Policy SP2

The draft allocations proposed in relation to Copford and Copford Green (Policy SS4) are proportionate in size and scale and will ensure that the settlements do maintain their distinctive character and role – an outcome that is less certain in the case of the alternative site options that have been put forward.

The Council's evidence base includes the Copford Parish Profile (2013) which identifies a need for smaller terraced and flatted dwellings to meet the needs of the current population as well as attracting people into the community. The provision of smaller units can appeal to young persons but can also provide opportunities for older persons who are looking to downsize or find a property which better meets their care needs, either at present or in the future. The allocation proposed by Policy SS4 provides opportunity for the number of residential dwellings in Copford to be increased, but also to enable a greater mix of units to meet the local needs.

Question: Do the housing allocations within the Sustainable Settlements show how they will contribute to the achievement of housing requirement of the CLP Section 1 (14720 new homes) and its timescale to delivery?

The sustainable nature of these Settlements, such as Copford, coupled to the accessibility of infrastructure, employment and services etc. mean that these settlements have the best potential to meet the Council's housing target within the Plan period. Utilisation of such smaller sites within the settlements will reduce the pressure to deliver larger greenfield housing allocations in a premature manner before all necessary infrastructure and services can be delivered. Site allocation Policy SS4 provides a positive land allocation which ensures that the needs of Copford are met over the plan period. Through the allocation, the local community, service providers and the landowner have certainty on delivery of a mixture of sites over the Plan period which will ensure that the Council can maintain supply and delivery of sites across the Borough.

The Sustainability Appraisal prepared by the Council compares the Preferred Sites in Site Allocation Policy SS4 with a number of other option sites in Copford and Copford Green. Paras. 14-149 to 151 of CLP 2 raises certain issues that relate to the objective tests applied in the Sustainability Appraisal and the proposed allocation on Land West of Hall Road. In response to the matters raised and in order to demonstrate deliverability, the landowners of Land West of Hall Road prepared and submitted an Outline Planning Application for 49 dwellings Application reference 201236 which was registered by the Council in June 2020. The Outline Planning Application is supported by a full suite of specialist surveys and reports including:

- A Landscape and Visual Site Assessment
- A Transport Statement
- An Arboricultural Impact Assessment
- ASE Archaeology Report
- A Heritage Statement

Copies of the more relevant documents are attached as Appendices to this Submission. The above Reports seeks to demonstrate how the proposed development will respond to and mitigate the impact of local concerns where proven to exist and the issues raised in CLP 2. In particular the setting of an adjacent single Listed Building; landscape impact to the north of the site; archaeological remains and road access.The proposed access improvements to Hall Road were fully discussed and agreed and approved as safe by Essex County Council

The Application was subject to the normal consultation with the local community and other statutory consultees and stakeholders which identified aspects that could be addressed through conditions attached to the Outline application. The case officer published a report which recommended that the Planning Committee approve the application subject to a number of site specific conditions.

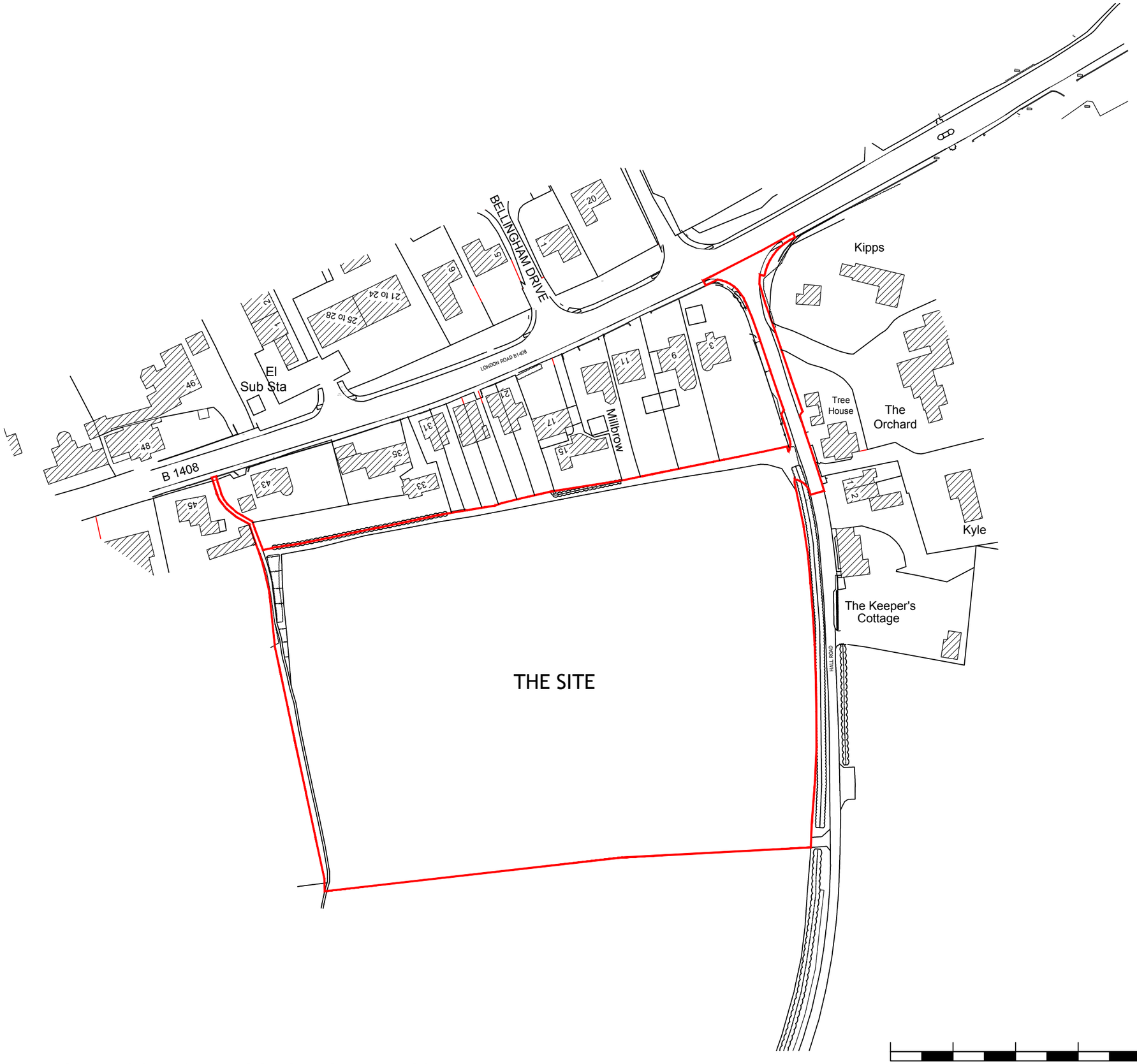
The Officer Report was published on 02nd December 2020, and considered by the Planning Committee on 10th December 2020. Following local objections, The Committee decided to defer the application As a result It was considered appropriate to withdraw the application (5th January 2021) and continue to bring forward the site through the plan making process as encouraged by the NPPF.

The Outline application has highlighted that any site specific issues can be overcome and addressed through onsite works or conditions and securing the allocation through the Local Plan provides opportunity for the principle of development to be considered comprehensively.

Land at Hall Road, identified in Policy SS4 is considered to be a deliverable site which can be brought forward to deliver policy compliant private and affordable housing within the first five years of the plan period. A Statement of Common Ground provided to Colchester Borough Council on 5th February 2021 confirms that the site is viable and available for development.
The allocation is supported by a robust and credible evidence base which has been prepared by the Council, but also by the site promoter.

The case officer report for application 201236 demonstrates that the site will deliver sustainable development that will contribute to meeting the housing needs of the Borough in a timely manner. We support its continued Allocation by way of Policy SS4

Appendix 1	-	Landscape and Visual Assessment by Southern Ecology Solutions
Appendix 2	-	ASE Archaeological Report
Appendix 3	-	Heritage Statement Transport Statement by Richard Jackson and ECC Response 28th September 2020 Arboricultural Impact Assessment
Appendix 4	-	Planning Officers Report 02nd December 2020 Statement of Common Ground - 5th February 2021



0 20 40 60 80 100

Scale in metres

LAND AT HALL ROAD, COPFORD, COLCHESTER, ESSEX

Contractors are to check all levels and dimensions before work is put in hand, and any discrepancies are to be referred to the architects

REV	DATE	DESCRIPTION	DWN	CHKD
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Planning

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Architects + Interior Designers Limited

123 NEW LONDON ROAD, CHELMSFORD, ESSEX. CM2 0QT

TEL: +44 (0) 1245 269755 FAX: +44 (0) 1245 250310

E-MAIL: admin@lap-architects.co.uk

www.lap-architects.com

project

Land at Hall Road,
Copford,
Essex

client

Ms S Harrison

drawing title

Site Location Plan

drawing number	revision
8871 / 01	-
scale 1:1250 @ A3	checked
	drawn ARH
	date May 2020

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Representation ID:	**6458**
Agent:	Unknown
Representor:	Ms Susanna Harrison [3589]
Support / Object:	**OBJECT**
Section:	Policy SP5: Infrastructure and Connectivity
Do you consider the DPD is Legally compliant?	Yes
Do you consider the DPD is Sound?	No
Does it comply with the duty to Co-operate?	No
Failed soundness tests:	Positively prepared
Representation:	We support the overall objectives of this Policy however the wording adopted is unclear and needs greater clarity as regards the timing of the delivery and the extent of " new and improved infrastructure". Infrastructure delivery is at the heart of sustainable development. As written this Policy makes no reference to the need to ensure that strategic infrastructure must be delivered in advance of housing delivery. The phrase used in the fist line, 'identified to serve the needs arising from new development' indicates that it is acceptable for a developer to show that necessary infrastructure will be delivered by the end of each project not in advance of occupation of the dwellings. That approach is not acceptable when seeking to plan positively for major greenfield housing growth and development. A failure to properly address the quality and capacity of strategic infrastructure required to meet the housing projections of Policy SP2,SP3 and SG1 risks the Plan being found unsound. (Paras 162 and 182 of the NPPF)
Summary:	The wording of the Policy is unclear and should be amended to require the delivery of necessary strategic infrastructure in advance of or in parallel with the specified need.
Changes:	Amend the wording of the first line of the Policy as follows: "Development must be supported by the identification and delivery of strategic infrastructure, services and facilities required to serve the needs of the community in parallel with the completion of development"
Yes / No:	Yes
Explanation:	Preferred Options
Attached Files:	None

Representation received successfully, thank you.

Representation ID:	**6398**
Agent:	Unknown
Representor:	Ms Susanna Harrison [3589]
Support / Object:	**SUPPORT**
Section:	Policy SG1: Colchester's Spatial Strategy
Representation:	We support the proposed Spatial Strategy SG1 in principle and the role of Sustainable Settlements such as Copford and Copford Green in meeting the need for housing growth. Copford is well located and benefits from existing infrastructure and services the extent and capacity of which can be readily enhanced during the Plan period.
Yes / No:	Yes
Explanation:	Preferred options
Attached Files:	None

Representation received successfully, thank you.

Representation ID:	**6456**
Agent:	Unknown
Representor:	Ms Susanna Harrison [3589]
Support / Object:	**OBJECT**
Section:	Policy SG7: Infrastructure Delivery and Impact Mitigation
Do you consider the DPD is Legally compliant?	Yes
Do you consider the DPD is Sound?	No
Does it comply with the duty to Co-operate?	No
Failed soundness tests:	Positively prepared

Representation: The wording of Policy SG7 is considered to be potentially misleading. The Policy refers to alternatively, "necessary infrastructure"; "relevant infrastructure" and, at para 12.80 to "appropriate infrastructure". There appears to be some confusion in the Plan as to which infrastructure issues are being addressed in this Policy as compared to Policy SP5. In practice any infrastructure requiring a cross border or pooled funding approach using external agency's might reasonably be referred to as Strategic. That being the case why do we need both Policy SP5 and this Policy to deal with Infrastructure delivery? If the work undertaken in relation to the IDP is to be trusted then one must assume that the Council are satisfied that their Spatial Strategy can be delivered subject to the specified strategic infrastructure improvements referred to in the IDP.
Policy SG7 should be amended to deal solely with the detailed arrangements for the provision of Local Infrastructure (defined as not referred to in SP5) as set out at para 12.80 and 12.81 and the collection of pooled payments where necessary.
The wording of Para (ii) of the Exceptions policy from ".. allowing only for the minimum ..to... to proceed" should be deleted as contrary to the general objectives of Para 173 of the NPPF to give clarity to the Plan process and ensure delivery of the Plan objectives. All aspects of the development will need to be considered in decision taking.

Summary: Lack of clarity as regards what is Strategic and what is Local Infrastructure and how each will be delivered. Provision of strategic infrastructure should be addressed in the Strategic part of the Plan. Reference to specific viability thresholds in Exceptions Policy not in accordance with NPPF guidance at Para 173.

Changes: Include reference to a cross border IDP in Policy SP5 not SG7 Delete the second part of Exception Policy sub-para (ii) from ".. allowing only for the minimum level of.. to... to proceed"

Yes / No: Yes

Explanation: Preferred options

Attached Files: None

Representation received successfully, thank you.

Representation ID: **6196**

Agent: Unknown

Representor: Ms Susanna Harrison [3589]

Support / Object: **SUPPORT**

Section: Policy SS4: Copford and Copford Green

Representation: We support the proposed allocation of land West of Hall Road for mixed family housing and can confirm that the land is both available and highly suitable for the proposed use.
Para 14.149 refer to various possible site constraints. A significant body of evidence exists or has been collected to suggest that most if not all of the stated constraints either do not exist or can be overcome by careful scheme design and highway infrastructure improvements.

A site specific Transport Assessment has been undertaken by Richard Jackson Partnership (RJP) and their Report demonstrates that the necessary means of vehicle and pedestrian access to the site can be delivered. The Report has been shared with Essex County Council who have accepted RJP's proposals and made certain suggestions as to how the proposed access design might be improved.

The identified site area at approx. 2ha is sufficiently large to accommodate any required screening or landscaping that might be needed to mitigate the impact of the proposed works on nearby homes and Listed Buildings. We would point out that Hall Road was not found to score sufficiently highly to be considered worthy of Protected Lane status in the recent Protected Lane Survey by Essex County Council as, "the Lane had suffered considerably from erosion to the verges and the creation of a sewage farm along part of its length reduced its historic integrity. There was also considerable damage caused through parking for access to walks in the local woodland."

The land has been the subject of an Archaeological Evaluation by ASE dated October 2016. The Evaluation included an analysis of the history and setting of the site and the excavation of four trial trenches. The Report concluded that apart from a small area of Iron Age remains in the south-east corner of the site; "
The interpretation of geophysical anomalies as potential archaeological features within the site has been demonstrated by the evaluation as erroneous. The enclosure and linear ditch features have been established to be of wholly natural origin. The authors feel that further investigation of the site and those remains is worthwhile but can be dealt with by planning condition. Therefore, we propose that if the allocation is confirmed Para 14. 150 be amended to make it clear that the allocation is not subject to further evaluation works but can be managed by way of a suitable condition requiring a second stage of trenching.
Para14.151 refers to, "significant water supply and waste water infrastructure capacity issues in Copford2. As made clear in our Preferred Options consultation, this statement is not supported by Anglian Water who have made clear that adequate foul drainage capacity exists in the catchment of the Copford Water Recycling Centre. We would request that the wording of Para 14.151 be updated to reflect the information provided by AWA

Summary: Land West of Hall Road is available and highly suitable for development. Recent site investigations have shown that there no significant archaeological features within the site boundary worthy of retention or likely to restrict the extent of the proposed development. Suitable means of a access to the site for pedestrians and vehicles has been established and considered by Essex County Council. Overall there are no known constraints that would frustrate delivery of the proposed site allocation

Yes / No: Yes

Explanation: Preferred Options

Attached Files:
1. ASE rep 2016371 Copford EV_v3a.pdf
2. 2017.05.09 Transport Letter - Hall Road Copford.pdf
3. 48139_PP_001.pdf
4. AWA Pre Planning Assessment Report - Hall Road, Copford.pdf

Representation received successfully, thank you.

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LAND OFF HALL ROAD, COPFORD

Landscape and Visual Appraisal

On behalf of Ms S Harrison

JUNE 2020

CONTENTS

1. INTRODUCTION

1.1 Background

1.1.1 Southern Ecological Solutions (SES) have been instructed by Fenn Wright to undertake a Landscape and Visual Appraisal (LVA) of land to the south of the B1408 London Road, Copford, Essex (the 'Site'). The report accompanies an outline planning application seeking permission for 49 residential dwellings with associated public open space, parking and access roads to land west of Hall Road, Copford.

1.1.2 The LVA has been prepared to appraise the potential effects of the development on the character and visual amenity of the area.

1.2 Site Context and Study Area

1.2.1 The village of Copford lies across the B1408 some 6km to the west of the centre of Colchester and some 1.3km from Marks Tey to the west. The area lies within the authority of **Colchester Borough Council.**

1.2.2 The area forms part of the 'The Northern Thames Basin' which forms the rising land above the low-lying marshy landscapes adjoining to the east and south east with a predominantly chalk geology. Watercourses feed in or flow from surrounding areas, often along courses incised into boulder clays or tills. The original core of Chalk End follows the old London Road route, but the settlement has been much altered, infilled and expanded by modern development.

1.2.3 The Site, approximately 2ha, is situated to the east of the village (refer to **Figure 1**) and comprises Grade 2 agricultural land currently under arable production. The area, which is irregular in shape, sits behind existing dwellings which front onto the London Road and lies to the west of Hall Road which forms the edge of the Roman River Valley LCA. The site is bounded by existing dwellings to the north, north east and north west, whilst the southern aspect is open to adjoining arable land. The study area shown on **Figure 1** extends approximately 1km from the centre of the Site towards School Road to the west, Stanway to the east and the A12 to the north of the Site.

1.3 Approach and Methodology

Approach

1.3.1 This assessment has been carried out to inform the planning 'appraisal' of the proposed development. The process follows the general principles set out in the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3) published by the Landscape Institute and IEMA[1].

1.3.2 GLVIA3 states that the role of Landscape and Visual Impact Assessment (LVIA) is *"to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource and on people's views and visual amenity."*

1.3.3 The definition of landscape as described in the European Landscape Convention (ELC)[2] is *"an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."* The scope of the ELC concerns all natural, rural, urban and peri-urban areas and applies to all landscapes everywhere and in any condition whether *"outstanding, every day or ordinary."*

1.3.4 Landscape is a dynamic, complex system which has evolved through history in response to physical processes and human intervention and will continue to change as a result of both natural and cultural influences. The process of landscape and visual assessment is important to assist in making judgements and decisions alongside managing and guiding future landscape change.

1.3.5 In this context the assessment seeks to identify the ability of the site and its surrounding landscape to accommodate the development, while seeking to avoid, reduce or mitigate any detrimental effects. In accordance with the guidance the effects on landscape character and visual amenity are appraised separately.

Methodology

1.3.6 The existing (baseline) conditions for both the landscape and visual appraisal are as described in winter 2019 / 2020. The assessment was informed by a desk-based study of OS Maps, aerial images, web searches and published reports such as Landscape Character Assessments. Information on relevant landscape and other designations was obtained. A full list of information is provided in **Appendix 1**.

1.3.7 The full methodology and criteria for the assessment of landscape and visual effects is set out in **Appendix 2**. In accordance with GLVIA3 the approach used is proportional to the scale of the project and the nature of the likely effects; the emphasis being on those that are likely to be important in the planning process.

1.3.8 The assessment was undertaken by a Chartered Landscape Architect, experienced in undertaking landscape and visual appraisals and impact assessments.

1.3.9 The report is set out into a number of sections:

- **Section 2 Planning Context** - identifies the statutory and non-statutory designations within the study area and the associated planning policy context in relation to landscape and design. This includes the identification of potential areas or features of value which are important considerations in the planning process.
- **Section 3 Site and Proposed Development** - provides a description of the site and identifies the principal landscape constraints and opportunities that have informed the design of the development. The subsequent description of the development sets out the layout and design of the proposals on which the landscape and visual assessment is based. This includes the identification of primary or embedded mitigation measures which have been incorporated into the design to avoid or reduce potential effects.
- **Section 4 Landscape Assessment** - describes the landscape of the area and assesses the existing contribution of the site to the locality and its sense of place and how this will change as a result of the development. This includes changes to the individual components (trees, hedges, buildings etc.), and the landscape character of the area.
- **Section 5 Visual Assessment** - describes the existing views of the site from a variety of public viewpoints and how these and the visual amenity experienced by people both living and visiting the area will change.
- **Section 6 Secondary Mitigation and Monitoring Measures** - identifies the additional measures required to ensure the appropriate development of the site during its detailed design, construction / implementation and management.
- **Section 7 Summary and Conclusions** - identifies the residual landscape and visual effects and their relative importance.

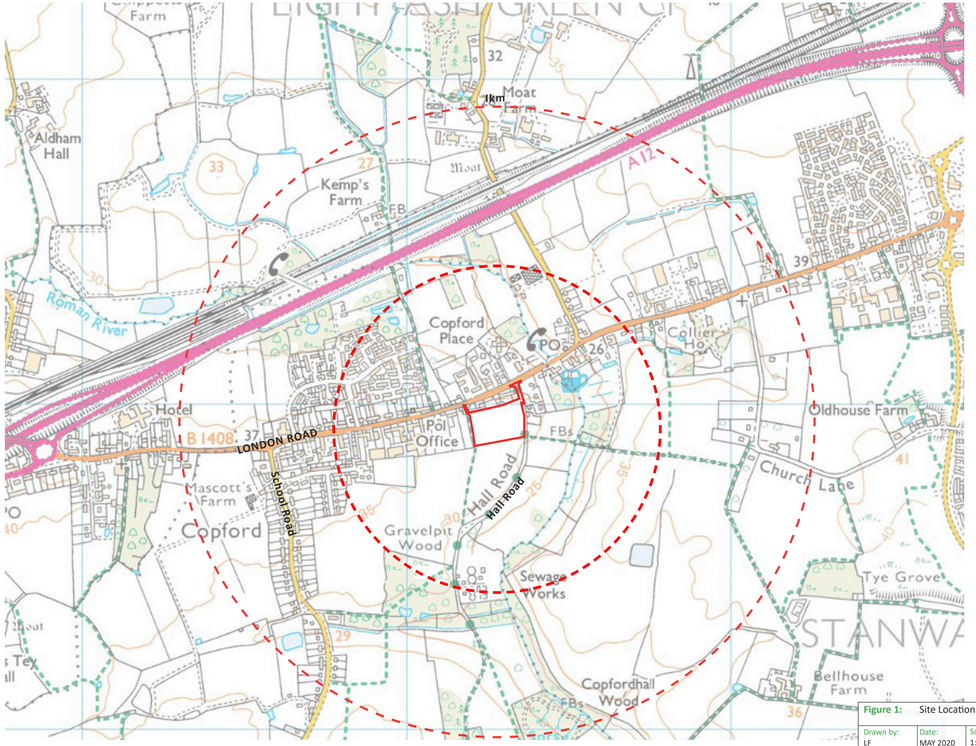
1.4 Assumptions and Limitations

1.4.1 The assessment of landscape and visual effects is based on the submitted planning application information including the Application Statement, the Overall and Residential Site Layouts and accompanying Landscape Strategy. The LVA should be read in conjunction with these planning drawings and documents.

1.4.2 The Landscape Strategy establishes the key principles of the soft landscape, with the detailed design to be prepared and agreed post planning. In terms of new vegetation (Year 1) it is envisaged that the size of the plant stock will provide some immediate impact in key areas such as the site boundaries, while predominantly using stock of more

1 Guidelines for Landscape and Visual Impact Assessment, Landscape Institute and Institute of Environmental Management, 3rd Edition, 2013

2 European Landscape Convention, Council of Europe, 2002



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KEY

Site Boundary

Study Area (approx 0.5km and 1km from site)

Figure 1: Site Location and Study Area

Drawn by:	Date:	Scale:	Rev:
LF	MAY 2020	1:20000 @A3	

Client: MS S HARRISON

Site: LAND OFF HALL ROAD, COPFORD, ESSEX

SES Strategic
Southern Ecological Solutions
Sudbury Stables
Sudbury Road
Downham, Essex CM11 1LB
Tel: 01268 711021

SES SOUTHERN ECOLOGICAL SOLUTIONS LTD

modest size to deliver a mature green framework. Specific aspects regarding the detailed design and implementation of proposed planting is considered in **Section 6.**

1.4.3 The visual survey and baseline photographs were completed in July 2019 and May 2020 in bright and clear conditions. The images represent a time of year when the level of vegetation cover (comprising predominantly deciduous trees and hedgerows) is at its highest and subsequently visibility is at its lowest. The visibility of the site will however vary according to the season; this is acknowledged in the description and magnitude of visual effects

2. PLANNING CONTEXT

2.1 Scope

2.1.1 The following section identifies the statutory and non-statutory designations within the study area and the associated planning policy context in relation to landscape and design.

2.2 Statutory and Non-Statutory Designations

2.2.1 The location of statutory and non-statutory designations is shown on **Figure 2**.

Landscape

2.2.2 The study area is not subject to any designations indicating landscape quality or value. Nevertheless in accordance with District planning policy (see below) all proposals should take full account of the landscape character of the area.

Heritage

2.2.3 Throughout the study area there are a number of listed buildings. These are considered within this LVA in so far as they are components of the current landscape. The listed buildings in closest proximity of the site are:

- Brewers Cottage - Grade II Listed - which lies some 20m to the north of the north western boundary of the site behind an existing hedgerow and sits on a 'plot' that fronts onto the B1408.
- Old Mill House - Grade II Listed - lies some 80m to the north west of the boundary of the Site beyond the B1408 London Road. Again this property lies adjacent to the main road through Copford village.
- Shrub House - Grade II Listed - lies some 70m distant from the edge of the boundary again, adjacent to the B1408 just north west of the Site.
- A number of other listed buildings follow the line of the old London Road infilled with more recent development.

Ecology

2.2.4 There are no ecological designations within or immediately surrounding the Site but a woodland 700m to the south west of the Site (Gravelpit Wood) is mapped by Natural England as the Priority Habitat 'Deciduous Woodland'. Whilst not designated, Local Planning Authorities have a duty to conserve and enhance such habitats under the Rural Environment and Rural Communities Act (2006).

Arboriculture

2.2.5 There are no known Tree Preservation Orders (TPOs) present in or adjacent to the site. Further information on existing vegetation and tree works is provided in the Arboricultural Impact Assessment (EAS- 034 2020-04-27).

2.2.6 A small number of Category C and U trees require removal at the entrance to London Road in order to achieve a safe access and visibility splay. A short stretch of hedgerow to the north east of the Site will be removed to provide access to the Site.

2.2.7 Public Rights of Way and Areas with Public Access

2.2.8 A review of the Essex County Council online interactive map identifies the existing Public Rights of Way (PRoW) within the study area. The area incorporates a good network of footpath and bridleways linking Copford with the surrounding countryside and settlements.

2.2.9 The nearest PRoWs (Footpaths 2 and 3) lies adjacent to the Site. PRow 12_2 runs along the western boundary of the Site linking London Road to the north with the Gravelpit Wood (known as 'Pits Wood') to the south east before joining School Road. This footpath continues (as PRoW 128_1) across the B1408 and again across the A12 beyond.

2.2.10 PRoW 128_3 heads east off Hall Road (opposite the Site) towards Church Road and Stanway.

2.2.11 Further beyond, PRoW 128_4 runs through Gravelpit Wood joining PRoW 12_5, both of which join the routes to School Road to the west of the Site. PRoW 12_7 heads south from Gravelpit Wood to Copford Green.

2.3 National Planning Policy

National Planning Policy Framework

2.3.1 The National Planning Policy Framework (NPPF)[3] sets out that the purpose of the planning system is to contribute to achieving sustainable development; this comprises three overarching objectives - economic, social, and environmental.

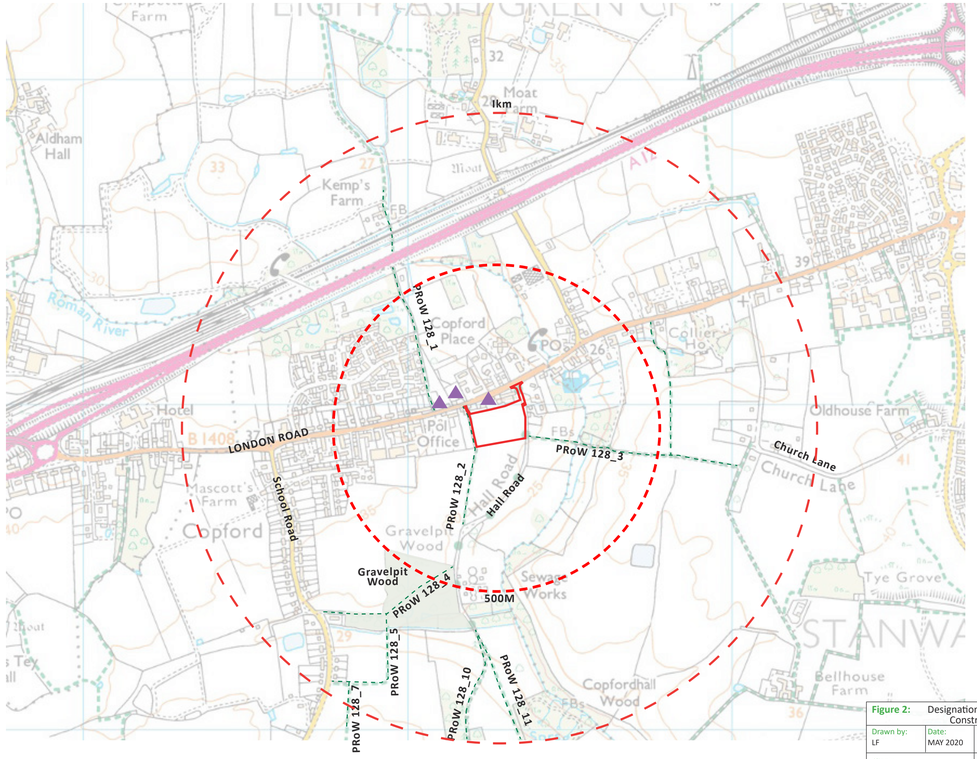
2.3.2 Subsequently the NPPF establishes the need to [inter alia] deliver a sufficient supply of new homes; build a strong, competitive economy; promote healthy and safe communities; promote sustainable transport; make effective use of land; achieve well-design places; and conserve and enhance the natural and historic environment.

2.3.3 In respect of landscape, in accordance with paragraph 170 this means "protecting and enhancing valued landscapes in a manner commensurate with their statutory status or identified quality in the development plan" as well as recognising "the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services- including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland." Any 'harm' to the landscape resource should subsequently be considered against the benefits of a scheme when assessed overall as part of the planning balance.

2.3.4 The NPPF establishes that the creation of high-quality building and places is an important part of the development process and a key aspect of sustainable development. Paragraph 127 states that all new developments should "function *well and add to the overall quality of the area…; be visually attractive as a result of good architecture, layout and appropriate and effective landscaping; be sympathetic to local character and history including the surrounding built environment and landscape setting whilst not preventing appropriate innovation or change…; establish or maintain a strong sense of place…; while optimising the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space).*"

2.3.5 In accordance with paragraphs 170-172 all development should minimise impacts and provide net gains for biodiversity with a strategic approach taken to "*maintaining and enhancing networks of habitats and green infrastructure.*"

3 National Planning Policy Framework (NPPF), Ministry of Housing, Communities and Local Government, February 2019



KEY

- Site Boundary
- Study Area

Landscape Designations

- Listed Building (Grade II)

Public Rights of Way

- PRoW - Footpath

Figure 2: Designations and Policy Constraints

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3
		Rev:

Client: MS S HARRISON

Site: LAND OFF HALL ROAD, COPFORD, ESSEX

SES Strategic
Southern Ecological Solutions
Sudbury Stables
Sudbury Road
Downham, Essex CM11 1LB
Tel: 01268 711021

2.4 District Planning Policy

2.4.1 In addition to the above national policies, the following policies from the adopted Colchester Borough Core Strategy (December 2008) are relevant:

2.4.2 **Policy SS4: Copford - West of Hall Road**

2.4.3 In addition to the infrastructure and mitigation requirements identified in policy PP1, development will be supported on land within the area identified on the policies map which provides:

2.4.4 Up to 50 new dwellings of a mix and type of housing to be compatible with surrounding development;

–(ii) A single site access via Hall Road;

–(iii) Detailed flood modelling to assess flood risk at Hall Road from Roman River; and

–(iv)A safe pedestrian footway agreed with the Highways Authority from the site to London Road to enhance connectivity with Copford.

–(v) A design and layout which complements the listed buildings and their setting as well as any archaeological assets.

2.4.5 **SD1 – Sustainable Development Locations (Revised July 2014)** Colchester Borough Council will promote sustainable development and regeneration to deliver at least 14,200 jobs between 2001 and 2021 and at least 19,000 homes between 2001 and 2023. Throughout the borough, growth will be located at the most accessible and sustainable locations.

2.4.6 Although the Site is not within the settlement boundary within this Adopted Plan, it is acknowledged within the Emerging Local Plan as a sustainable site.

2.4.7 **ENV1 – Environment** states that: *'The Borough Council will conserve and enhance Colchester's natural and historic environment, countryside and coastline.'*

2.4.8 The Site is not allocated within the Adopted Local Plan for development and is therefore considered to be countryside. The Site is however in the draft allocation of the Emerging Local Plan.

2.4.9 Where new development needs, or is compatible with, a rural location, it should demonstrably:

–'i.be in accordance with national, regional and local policies for development within rural areas, including those for European and nationally designated areas; and

–ii. be appropriate in terms of its scale, siting, and design; and

–iii. protect, conserve or enhance landscape and townscape character, including maintaining settlement separation; and

– iv. protect, conserve or enhance the interests of natural and historic assets; and

–v. apply a sequential approach to land at risk of fluvial or coastal flooding in line with the guidance of PPS25; and

–vi. protect habitats and species and conserve and enhance the biodiversity of the Borough; and

–vii. provide for any necessary mitigating or compensatory measures.'

2.4.10 **ENV2 – Rural Communities (Revised July 2014)**

2.4.11 *'The Borough Council will enhance the vitality of rural communities by supporting appropriate development of infill sites and previously developed land (PDL) within the settlement development boundaries of villages. The design and construction of new village development must be high quality in all respects, including design, sustainability and compatibility with the distinctive character of the locality. ...'*

2.4.12 **TA4 – Roads and Traffic states that '**The Borough Council will work with partners to accommodate necessary car travel making the best use of the existing network and manage demand for road traffic. .. '

2.4.13 **TA2 – Walking and Cycling** sets out that: *'The Council will work with partners to promote walking and cycling as an integral and highly sustainable means of transport. Regional and rural links, including national cycle routes, will be improved and better connected with local destinations.'*

2.4.14 **PR1 – Open Space** outlines that *'The Borough Council aims to provide a network of open spaces, sports facilities and recreational opportunities that meet local community needs and facilitate active lifestyles by providing leisure spaces within walking distance of people's home, school and work.'*

2.4.15 **UR 2 – Built Design and Character** sets out that: 'The Borough Council will promote and secure high quality and inclusive design in all developments to make better places for both residents and visitors. The design of development should be informed by context appraisals and should create places that are locally distinctive, people-friendly, provide natural surveillance to design out crime, and which enhance the built character and public realm of the area. High-quality design should also create well-integrated places that are usable, accessible, durable and adaptable.'

2.4.16 **H3 – Housing Diversity (Revised July 2014)**

2.4.17 Colchester Borough Council intends to secure a range of housing types and tenures on developments across the Borough in order to create inclusive and sustainable communities. Housing developments should provide a mix of housing types to suit a range of different households, whilst also realising the opportunities presented by accessible locations.

2.4.18 In addition, the following are relevant:

2.4.19 Adopted Colchester Borough Development Policies (October 2010):

2.4.20 **Policy DP1: Design and Amenity** states that:

–'All development must be designed to a high standard, avoid unacceptable impacts on amenity, and demonstrate social, economic and environmental sustainability.

2.4.21 Development proposals must demonstrate that they, and any ancillary activities associated with them, will:

–'(i) Respect and enhance the character of the site, its context and surroundings in terms of its architectural approach, height, size, scale, form, massing, density, proportions, materials, townscape and/or landscape setting, and detailed design features. Wherever possible development should remove existing unsightly features as part of the overall development proposal;

–(ii) Provide a design and layout that takes into account the potential users of the site including giving priority to pedestrian, cycling and public transport access, and the provision of satisfactory access provision for disabled people and those with restricted mobility;

–(iii) Protect existing public and residential amenity, particularly with regard to privacy, overlooking, security, noise and disturbance, pollution (including light and odour pollution), daylight and sunlight; • *(iv) Create a safe and secure environment;*

–(v) Respect or enhance the landscape and other assets that contribute positively to the site and the surrounding area; and

–*(vi) Incorporate any necessary infrastructure and services including recycling and waste facilities and, where appropriate, Sustainable Drainage Systems (SuDS), and undertake appropriate remediation of contaminated land.'*

2.4.22 **Policy DP16: Private Amenity Space and Open Space Provision for New Residential Development**

Private Amenity

–*All new residential development shall provide private amenity space to a high standard, where the siting, orientation, size and layout make for a secure and usable space, which has an inviting appearance for residents and is appropriate to the surrounding context. All private amenity spaces shall be designed so as to avoid significant overlooking'*

Open Space

–*In addition to private amenity space, all new residential development will be expected to provide new public areas of accessible strategic or local open space.*

2.4.23 **Policy DP17: Accessibility and Access**

–All developments should seek to enhance accessibility for sustainable modes of transport, by giving priority to pedestrian, cycling and public transport access to ensure they are safe, convenient and attractive, and linked to existing networks. Proposals for development shall incorporate satisfactory and appropriate provision for: (i) Pedestrians, including disabled persons and those with impaired mobility; (ii) Cyclists, including routes, secure cycle parking and changing facilities where appropriate; (iii) Public transport and measures that reduce dependency on private vehicles; (iv) Linkages to networks as appropriate including the development of new pedestrian and cycle paths and the development of transit corridors in north and east Colchester; (v) Servicing and emergency vehicles.

2.4.24 **Colchester Borough Council Emerging Local Plan (ELP)**

2.4.25 Paragraph 48 (NPPF) states that authorities may give weight to emerging plans according to the stage of preparation, the extent to which there are unresolved objections to relevant policies (and the significance of these objections- the less significant the greater the weight that can be given) and the degree of consistency of the relevant policies to the NPPF (the closer the policies are to

2.4.26 In terms of Paragraph 48(a) of the NPPF the Emerging Local Plan [ELP] is considered to be at an advanced stage.

2.4.27 The ELP is considered to be relevant to this proposal since it changes the planning context for the site through a proposed site allocation.

2.4.28 Of particular relevance to this proposal are Emerging Policies as set out below:

2.4.29 **SP5 - Creating Quality Places** States that:

–'The North Essex area has a great variety of natural environments, and wonderful towns and villages. It is critical that new development must incorporate high standards of place-making along with urban and architectural design to respect the character of these environments. Major new developments will be planned carefully with the use of masterplans and design codes where appropriate.'

–'Networks of green and blue infrastructure should be provided across new developments, linking new developments within existing networks of open space. These areas can be multi use, providing space for natural species and habitats as well as space for informal recreation and walking links.'

2.4.30 It also sets out that 'This requirement for high design standards will apply across all scales of new development as well as to infrastructure projects.'

2.4.31 The proposals provide space and an environment for high quality design with enhanced green and blue infrastructure linked well with the surrounding landscape whilst respecting the character of the area.

2.4.32 **Policy SP6 - Place Shaping Principles**

–*'All new development must meet the highest standards of urban and architectural design. The local authorities encourage the use of development frameworks, masterplans and other design guidance documents and will use design codes where appropriate for strategic scale developments.'*

2.4.33 Stating that all new development should reflect the following principles:

–*'Respond positively to local character and context to preserve and enhance the quality of existing communities and their environs;*

–*Provide buildings that exhibit individual architectural quality within wellconsidered public and private realms;*

–*Protect and enhance assets of historical or natural value;*

–*Create well-connected places that prioritise the needs of pedestrians, cyclists and public transport services above use of the private car;*

–*Where possible, provide a mix of land uses, services and densities with well defined public and private spaces to create sustainable well-designed neighbourhoods;*

–*Enhance the public realm through additional landscaping, street furniture and other distinctive features that help to create a sense of place;*

–*Provide streets and spaces that are overlooked and active and promote inclusive access;*

–*Include parking facilities that are well integrated as part of the overall design and are adaptable if levels of private car ownership fall;*

–*Provide an integrated network of multi-functional public open space and green and blue infrastructure that connects with existing green infrastructure where possible;*

–*Include measures to promote environmental sustainability including addressing energy and water efficiency, and provision of appropriate wastewater and flood mitigation measures; and*

–*Protect the amenity of existing and future residents and users with regard to noise, vibration, smell, loss of light and overlooking.'*

2.4.34 **Policy ENV1: Environment**

2.4.35 For all proposals, development will only be supported where it:

–(i) 'Is supported with appropriate ecological surveys where necessary;

–(ii) Where there is reason to suspect the presence of a protected species (and impact to), or Species/Habitats of Principal Importance, applications should be accompanied by an ecological survey assessing their presence and, if present, the proposal must be sensitive to, and make provision for their needs;

–(iii) Will conserve or enhance the biodiversity value of greenfield and brownfield sites and minimise fragmentation of habitats;

– (iv) Maximises opportunities for the preservation, restoration, enhancement and connection of natural habitats in accordance with the UK and Essex Biodiversity Action Plans or future replacements; and

– (v) Incorporates beneficial biodiversity conservation features and habitat creation where appropriate.

2.4.36 **Policy ENV3: Green Infrastructure** states that:

2.4.37 *'The Local Planning Authority will aim to protect, enhance and deliver a comprehensive green infrastructure network comprising strategic green links between the rural hinterland, urban Colchester, river corridors and open spaces across the Borough. It will seek to protect and enhance the existing network of green and blue infrastructure features and to secure the delivery of new green infrastructure where deficiencies and gaps are identified that will benefit communities, wildlife and the environment.'*

2.4.38 **Policy DM9: Development Density** sets out that:

2.4.39 *'The Local Planning Authority will support development densities that make efficient use of land and relate to the specific opportunities and constraints of proposed development sites.'*

2.4.40 **Policy DM12: Housing Standards** sets out that:

2.4.41 *'Residential development will be supported where high standards of design, construction and layout are promoted.'*

2.4.42 **Policy DM15: Design and Amenity**

2.4.43 This policy requires that *'All development, including new build, extensions and alterations, must be designed to a high standard, positively respond to its context, achieve good standards of amenity, and demonstrate social, economic and environmental sustainability.'*

2.4.44 **Policy DM16: Historic Environment** states that:

2.4.45 *…'Development affecting the historic environment should seek to conserve and enhance the significance of the heritage asset and any features of specific historic, archaeological, architectural or artistic interest.'…*

2.4.46 Buffer planting to the northern boundary limits the impact on the adjacent heritage assets north of the Site.

2.4.47 **Policy DM18: Provision of Public Open Space**

2.4.48 This policy states that *'New residential development must provide for the recreational needs of new communities. …. All new residential development will be expected to provide new public areas of accessible open space.'*

2.4.49 The proposals provide two areas of public open space to include informal sports equipment and wildlife pond as well as native tree and shrub planting and open areas of grassland.

2.4.50 **Policy DM21: Sustainable Access to Development** States that (inter alia)

– *'All new developments should seek to enhance accessibility for sustainable modes of transport. Proposals for development should:*

– *(i) Give priority to the movement of people walking and cycling;*

– *(ii) Create safe, secure, convenient and attractive layouts which minimise conflicts between traffic, cyclists and pedestrians;*

– *(iii) Link the development to the surrounding walking, cycling and public transport networks taking into consideration the Cycle Strategy SPD;*

– *(iv) Provide and give access to quality public transport facilities'…*

2.4.51 The design incorporates additional ProW and links to existing routes as well as good connectivity with London Road to the north.

2.4.52 **Policy DM24: Sustainable Urban Drainage Systems**

2.4.53 This policy requires that all new residential and commercial development, car parks and hard standings should incorporate Sustainable Drainage Systems (SuDS) *'appropriate to the nature of the site'*.

2.4.54 The Site design incorporates both water attenuation proposals and a small wildlife pond to the south of the Site.

2.4.55 Regard has also been given during the design process to the following Supplementary Planning Guidance/Documents:

- Open Space, Sport and Recreation
- The Essex Design Guide
- External Materials in New Developments.

3. SITE AND PROPOSED DEVELOPMENT

3.1 Application Site

3.1.1 The Site is situated within Copford village south of the B1408 London Road and some 6km west of Colchester and 1.3km east of Marks Tey. The village has been bypassed by the A12 and the 'old' London Road runs through the centre of the village.

3.1.2 The land; some 2 ha, sits behind existing properties that face onto the B1408 London Road. The eastern boundary of the Site follows Hall Road which joins the London Road to Copford Green to the south which includes a primary school and church as well as other village amenities.

3.2 Site Description

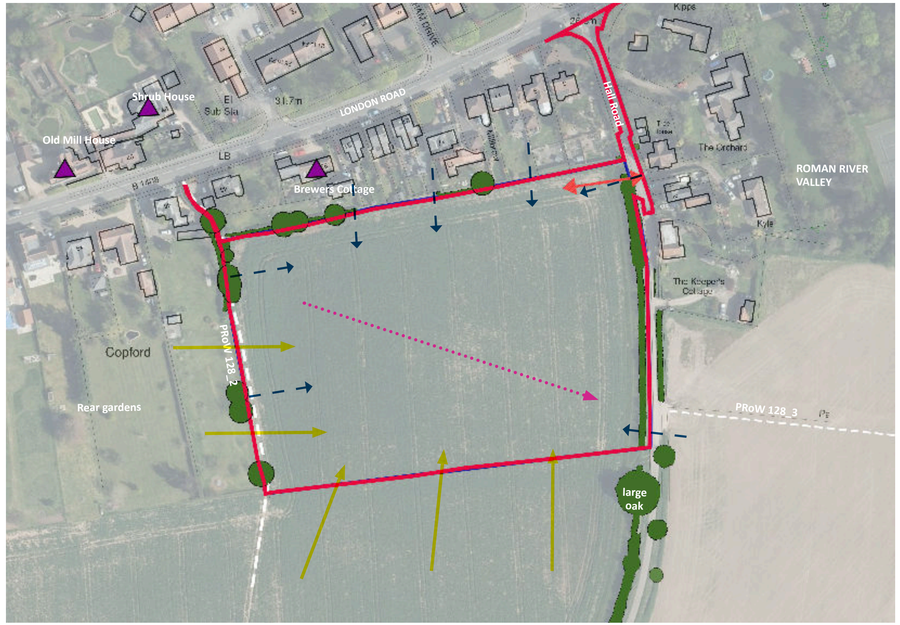
3.2.1 The principal features of the site and its immediately surrounding area are shown on **Figure 3** and are described below.

Landform

3.2.2 The topography of the area comprises a flat to slightly undulating plateau dissected by small river and stream valleys. The settlement of Copford is situated towards the lower slopes of the valley close to the Roman River which runs (south) to the east of the Site some 350m distant.

3.2.3 The Site, rectangular in shape is relatively level with a 1-2m fall over the 350m extent of the Site with a gentle slope to the south east towards Roman River.

3.2.4 Hall Road provides a defined edge to the Roman River Valley to the east.



Imagery ©2019 Google, Map data ©2019

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Figure 3: Site Analysis

Date: June 2020	Scale: 1:1250	Rev: -
Client: MS S HARRISON	SES Strategic	
Site: LAND OFF HALL ROAD, COPFORD	Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021 team@ses-eco.co.uk	

Existing Land Use and Vegetation

3.2.5 The site comprises Grade 2 arable land which is currently cropped.

3.2.6 Structural vegetation is restricted to the edges of the site. This comprises a gappy hedgerow to the north of the Site adjacent to existing dwellings and some trees and hedgerow planting to the west of the Site where the Site abutts existing residential gardens. The boundary with Hall Road is screened in places by an existing reasonable quality hedgerow to the north eastern boundary but is gappy further south. There is one hedgerow oak beyond the Site to the south.

3.2.7 There is no vegetation to the southern boundary of the Site which joins existing arable land.

3.2.8 Woodland, further to the south of the Site comprises a deciduous community woodland joined to the Site by PRoW 128_2.

Historical Context

3.2.9 Historical maps (late C19) demonstrate that the site and surrounding area was formerly open countryside. The area comprised agricultural land, separated into a series of smaller semi-regular fields separated by hedgerows and hedgerow trees, sitting beyond village dwellings along the old Norwich - London Road. The Site itself has not altered considerably with hedgerow trees lining the PRoW to the west (PRoW 128_2)

3.2.10 Historical land use shows small areas of orchard set around the settlements of Copford and Stanway, one being to the north east of Hall Road.

Surrounding Development

3.2.11 The current surrounding development comprises a mix of period and more modern residential development directly adjacent to the Site with some small to mid sized industrial/commercial development further west and north.

3.2.12 There are three Grade II Listed buildings in relatively close promimity to the Site although only one (Brewers Cottage) is to the south of the B1048 ajdacent to the Site. Beyond Hall Road, a few other Listed buildings follow the London Road towards Stanway.

3.2.13 Properties to the west of the Site have very long rear gardens which extend to the south the length of the Site. Beyond these gardens lie the more industrial/commercial area with larger scale buildings, hard surfacing and car parking areas.

3.2.14 Immediately to the east of the site beyond Hall Road, modern and mid 20th century dwellings face on to Hall Road and the Site.

Access

3.2.15 Access to the site is from the Hall Road, off the B1408 London Road. London Road links to the A12 at Marks Tey to the west and Stanway to the east.

3.2.16 The land is in private ownership and not subject to public access. A field access exists to the north east of the Site on to Hall Road.

3.2.17 **Development Proposals**

3.2.18 The proposal is for an outline application for 49 residential dwellings with associated access roads, public open space and parking. The public open space to the south of the Site is to contain a wildlife pond.

3.2.19 The principles of the scheme have been developed from a landscape led approach, incorporating recommendations following the initial baseline assessment and analysis of potential constraints and opportunities. These recommendations include:

- The retention and enhancement of the existing boundary vegetation as a strategic landscape framework into which the new residential buildings will sit. The key aspects of this approach include:
  - The retention, management and enhancement of the existing hedgerows for their landscape, biodiversity and amenity value and as an important GI asset;
  - The retention, management and gapping up as necessary of the existing hedgerow along Hall Road to soften the development and help further screen the development to the east;
  - The creation of a green buffer to the south of the Site in the form of native hedge and hedgerow tree planting to the southern boudary;
  - The southern boundary to be retained by the management company with maintenace strip to the south of rear gardens to prevent residents removing/reducing proposed vegetation and to create a strong green buffer to the development edge.
  - A green buffer to the western boundary; and
  - Augmented green buffer to the northern boundary adjacent to the existing properties on London Road.
- Careful consideration of the development layout and built form. To main principles include:
  - Public open space to the north eastern corner of the Site at the entrance to Hall Road;
  - Careful consideration of building height with a maximum of two storeys across the site;
  - Dwellings fronting onto the PRoW to the west of the Site allowing a green buffer and suitable street scene to this aspect; and
  - The use of a simple palette of building styles and materials, reflective of the Essex vernacular.
- New strategic planting and open space to reinforce key areas within the site. Such planting will create a series of 'layers' of vegetation to increase the level of tree cover and integrate the built form in views from the surrounding area. The key areas of planting incorporate:
  - Additional native trees along the frontage of Hall Road and within the public open space to the northern entrance to provide a positive frontage to the road and break up the proposed buildings when viewed from the east;
  - The establishment of an open space and buffer along the southern boundary with strategic native planting to define and soften the settlement edge; and
  - The use of clusters of native trees throughout the built form to provide features within the internal layout and break up the roofscape of the development in views in the medium- to long-term.

3.2.20 The Application Statement, Site Layout, Street Scenes and Landscape Strategy submitted with this application and replicated in this document as **Figures 4 and 5** set out the form, scale, character and visual appearance of the development and quality envisaged.

Residential Area

3.2.21 Vehicular access to the residential area will be via the proposed entrance onto Hall Road to the north east of the Site. To facilitate the access some existing hedgerow will need to be removed.

3.2.22 The layout incorporates a mix of detached, semi-detached and terraced properties arranged around a series of streets.

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KEY

- Site Boundary
- Site Access
- Existing Vegetation
- Enhanced boundary planting
- Wildlife Pond and water attentuation - approximate location
- Areas of Public Open Space
- Open views
- Breaks in vegetation
- Potential footpath links (east/ west)
- Public Rights of Way (PRoW)
- Listed buildings
- Maintenance strip between boundary hedge and properties
- Slope of Site
- Potential bat roost tree
- Informal trim trail equipment

N

Figure 5: Landscape Strategy

Drawn by:	Date:	Scale:	Rev:
LF	Jun 2020	NTS @A3	.

Client: MS S HARRISON

Site: LAND OFF HALL ROAD, COPFORD

SES Strategic
Southern Ecological Solutions
Sudbury Stables
Sudbury Road
Downham, Essex CM11 1LB
Tel: 01268 711021

3.2.23 The design of the proposed buildings is based on traditional local building forms to 'fit' the Essex landscape. The proposed building materials will be informed by the traditional palette in the village and surrounding area. As such elevational materials include predominantly red brick and black weatherboard with a mix of red / dark plain tile roofs.

3.3 Landscape Strategy

3.3.1 The proposed landscape strategy submitted with the planning application is shown on **Figure 5**. The approach has been designed to integrate the development into the landscape, while providing areas of open space, sustainable drainage and wildlife habitat.

3.3.2 The Site's features primarily consist of various qualities of hedging around the boundaries of the Site. New planting will build on the existing structure to create a landscape dominated setting for the development, breaking up views from the surrounding area and maintaining and enhancing biodiversity.

3.3.3 The details of the proposed planting and specification will be agreed at the reserved matters stage; however, from a strategic perspective the following is envisaged:

- The retention of existing tree and hedgerow cover to all boundaries of the Site. A small section of hedgerow will require removal to achieve safe access onto Hall Road with limited tree removal adjacent to London Road.
- Along the northern boundary the existing hedge will be augmented to create a strong visual and ecological connection around the Site whilst retaining some views in order to integrate the proposed development into the existing built form.
- The southern boundary will comprise a managed native hedge with hedgerow trees to provide both a strong ecological corridor as well as boundary to the Site. The hedge will be offset from the rear gardens of dwellings with a management corridor to prevent the boundary being eroded and to retain a uniform hedge along the length of this boundary.
- The western boundary will be augmented by native tree and hedge planting opening on to the street scene to create a 'village edge' feel to the Site and create interest from the PRoW that runs adjacent to the Site.
- A mix of ornamental and native planting will be provided within the Site to provide a landscaped setting for the buildings with a mix of trees to provide shade and soften areas of hard landscaping.
- Public open space will be provided at the entrance to the Site to help create a suitable semi-rural entrance off Hall Road.
- A further public open space with informal/rustic gym equipment/trim trail will be provided together with a small wildlife pond to the central southern part of the Site.
- A footpath link will be created east/west across the Site in order to link PRoW_2 and 3, providing additional access to both the Roman River Valley and Gravelpit Wood and school lRoad/Village Hall.
- Ecological enhancement will be provided throughout the Site and the choice of species will be for biodiversity gain.

4. LANDSCAPE ASSESSMENT

4.1 Scope

4.1.1 This section describes the existing character of the landscape and assesses the contribution of the site to the area.

4.1.2 The landscape effects of the proposed development on the landscape as a resource are subsequently identified and described. This includes:

- Changes to the landscape components within the site - topography, land cover, land use, vegetation, settlement and buildings; and
- Changes to the character of the landscape and its key characteristics, including aesthetic and perceptual aspects.

4.2 Landscape Baseline

Published Landscape Character Assessments

4.2.1 The published landscape character areas (LCAs) and landscape character types (LCTs) are show on **Figure 6**.

National

4.2.1 The National Landscape Character Map of England identifies broad areas of landscape character. The study area lies within National Character Area (NCA) 111: Northern Thames Basin[4], which extends from Hertfordshire in the west to the Essex coast in the east. The landscape is diverse and ranges from the wooded Hertfordshire plateaux and river valleys, to the open landscape and predominantly arable area of the Essex heathlands. Urban areas are mixed throughout.

4.2.2 The description and key characteristics of the area provide a broad landscape context. Those aspects relevant to the study area are highlighted in **bold**:

- *"**The landform is varied with a wide plateau divided by river valleys.** The prominent hills and ridges of the 'Bagshot Hills' are notable to the north-west and extensive tracts of flat land are found in the south.*
- *Characteristic of the area is a layer of thick clay, producing heavy, acidic soils, resulting in retention of considerable areas of ancient woodland.*
- Areas capped by glacial sands and gravels have resulted in nutrient-poor, free-draining soils which s*upport remnant lowland heathlands, although these are now small. Areas that have alluvial deposits present are well drained and fertile.*
- *The water bearing underlying chalk beds are a main source of recharge for the principal London Basin Chalk Aquifer.*
- *A diverse landscape with a series of broad valleys containing the major rivers Ver, Colne and Lea, and slightly steeper valleys of the rivers Stour, Colne and Roman. Numerous springs rise at the base of the Bagshot Beds and several reservoirs are dotted throughout the area.*
- ***The pattern of woodlands is varied across the area and includes** considerable **ancient semi-natural woodland.** Hertfordshire is **heavily wooded** in some areas* **as are parts of Essex, while other areas within Essex are more open in character**. *Significant areas of wood pasture and pollarded veteran trees are also present.*

4 NE466: National Character Area (NCA) Profile:111 Northern Thames Basin, Natural England, July 2013

• *The field pattern is very varied across the basin reflecting historical activity.* ***Informal patterns of 18th-century or earlier enclosure reflect medieval colonisation of the heaths****. Regular planned enclosures dating from the Romano-British period are a subtle but nationally important feature on the flat land to the south-east of the area.*

• *Mixed farming,* ***with arable land predominating in the*** *Hertfordshire plateaux, parts of the London Clay lowlands and* ***Essex heathlands****. Grasslands are characteristic of the river valleys throughout.*

• *The diverse range of* ***semi-natural habitats include ancient woodland, lowland heath*** *and floodplain grazing marsh and provide important habitats for a wide range of species including great crested newt, water vole, dormouse and otter.*

• *Rich archaeology including sites related to Roman occupation, with the Roman capital at Colchester... Landscape parklands surrounding 16th- and 17th-century rural estates and country houses built for London merchants are a particular feature in Hertfordshire.*

• *The* ***medieval pattern of small villages and dispersed farming settlement remains central to the character of parts of*** *Hertfordshire and* ***Essex****.* ***Market towns have expanded over time*** *as have the London suburbs and commuter settlements.*

• ***Brick-built dwellings are characteristic from the late 17th century onwards. Prior to this dwellings and farm buildings tended to be timber built with weatherboarding,*** *now mainly painted white but* ***traditionally black*** *or tarred,* ***and whitewashed plaster walls.*** *" [1]*

County

4.2.2 Further information is provided by the Essex Landscape Character Assessment[5]. Published in 2003, the assessment is now 17 years old, but as referenced in the Essex Design Guide[6], the document remains the main source of information on landscape character for the county.

4.2.3 The study area encompasses one LCT – 'E: London Clay Landscapes' with one LCA – 'E2: South Colchester Farmlands'. The area, which extends west and south of Colchester is described as "a gently undulating landscape of hedgerowed pasture and arable fields, bisected to the north by the narrow valley of the River Roman which has strongly wooded valleysides and small meadows and marshes in the valley bottom. In the south the large open waterbody of Abberton Reservoir is a surprising contrast to the surrounding farmland landscape. Heathlands were formerly extensive in the area, but now much of this character has been lost. Away from the edge of Colchester the area has a tranquil character.

4.2.4 The key characteristics of the LCA ' South Colchester Farmlands (E2)' are subsequently described as:

• *"Mix of small regular pasture and large arable fields.*

• *Dense woodland in the Roman River valley.*

• *Enclosed, intimate character in the north, more open in the south.*

• *Complex settlement pattern of nucleated and linear villages/hamlets, and farmsteads along*

• *dispersed lanes.*

• *Distinctive elongated large waterbody of Abberton Reservoir within a shallow valley."*

4.2.5 In terms of the evaluation, the LCA is considered to have a 'Medium Sensitivity' to major urban extensions (>5ha). Key issues identified include the moderate to high intervisibility and tranquillity in the north east and south of the area. There is however *"possible opportunities to absorb change with new landscape frameworks of woodland, hedgerows appropriate to character"* with *"restoration of heathland"* where appropriate.

District

4.2.6 A more detailed appraisal of the landscape character of Colchester is provided in the Colchester Borough Council Landscape Character Assessment (November 2005 CHRIS BLANDFORD ASSOCIATES)[7] and was prepared on behalf of Colchester Borough Council.

4.2.7 LANDSCAPE TYPES within this area are described as:

4.2.8 A- River Valley · V-shaped valley landform which dissects Boulder Clay/ Chalky Till plateau; · Main river valley served by several tributaries; · Flat or gently undulating valley floor; · Intimate character in places; · Wooded character in places.

4.2.9 B- Farmland Plateau · Elevated gently rolling Boulder Clay/ Chalky Till plateau landscape; · Network of narrow winding lanes and minor roads; · Medium to large-scale enclosed predominantly arable fields; · Long distance views across valleys from certain locations; · Well wooded in places (with several areas of semi-natural and ancient woodland), interspersed with orchards.

4.2.10 Although within the Wooded Roman River Valley, the Site is on the boundary between this and the B2 Easthorpe Farmland Plateau. Characteristics, and Management Objectives are set out for each Landscape Character Area and it can be seen that the Site ties in more closely with B2 farmland plateau with few characteristics of the valley floor landscape.

4.2.11 **A2 WOODED ROMAN RIVER VALLEY**

Key Characteristics

• · Relatively steep and wooded slopes of narrow v-shaped Roman River valley (tributary of the Colne River); · Large areas of deciduous and coniferous (mixed) woodland on the valley slopes (e.g. Donyland Wood, Friday Wood and Chest Wood);

• · Small patches of ancient woodland on the valley sides; · Large regular fields on northern valley slopes with a concentration of smaller irregular fields at High Park Corner;

• · Several areas of historic parkland, often associated with halls, overlooking the valley floor; · Views across and within the valley restricted by large woodland areas.

Overall Character

4.2.12 The following overall character is described. The Site does not adhere to this character area but is more related to B2, although some limited aspects do apply.

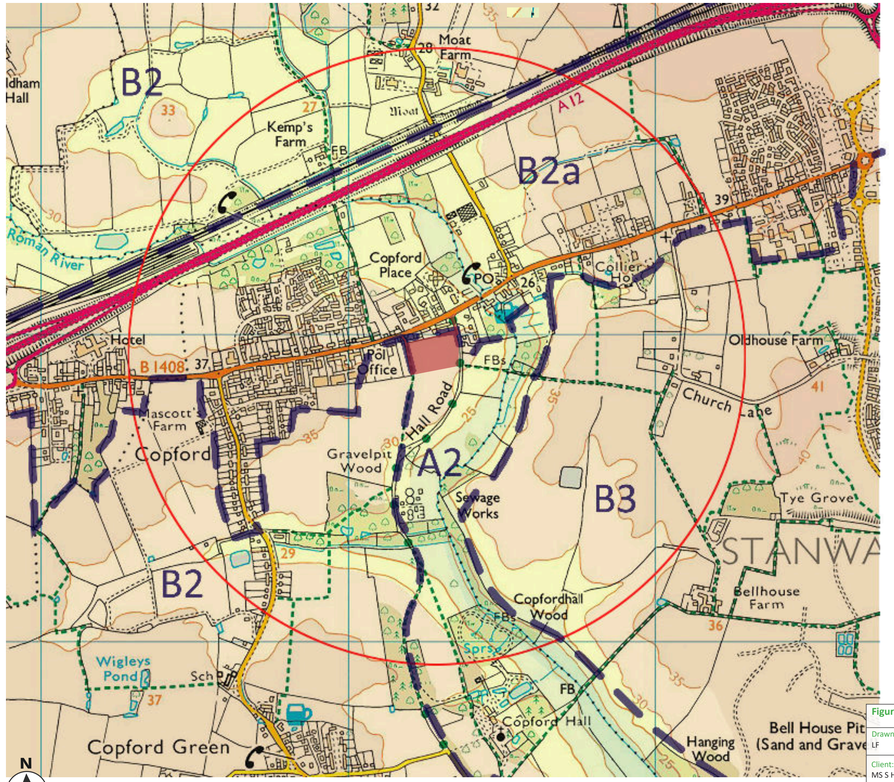
• "This character area encompasses the moderately steep v-shaped slopes of the narrow Roman River Valley, which are swathed in large areas of deciduous and coniferous woodland..."

• "The northern valley slopes are characterised by large fields, with their long axis at right angles to the west-east valley corridor. Bordered to the north by large patches of woodland, the field boundaries are substantially hedged. Land-use consists of a mixture of arable farmland and patches of rough grassland." ...

Visual Characteristics

4.2.13 Limited visual characteristics relating to the Site and its surroundings include:

5 Essex Landscape Character Assessment, Chris Blandford Associates on behalf of Essex County Council, 2003
6 Essex Design Guide, Essex County Council, 2018 https://www.essexdesignguide.co.uk/
7 Essex Landscape Character Assessment, Chris Blandford Associates on behalf of Essex County Council, 2003



KEY

The Site

Study Area

Published Landscape Character Areas

National: NCA 111: Northern Thames Basin
County : E3: Tendring Plain
District: A2:
B2:

Landscape Analysis

50m Topography (m AOD)
45m
40m
35m
30m
25m

Water courses

Local Character Area boundaries

Figure 6: Landscape Analysis

Drawn by:	Date:	Scale:	Rev:
LF	Jun 2020	1:20000 @A3	.

Client: MS S HARRISON

Site: LAND OFF HALL ROAD, COPFORD

SES Strategic
Southern Ecological Solutions
Sudbury Stables
Sudbury Road
Downham, Essex CM11 1LB
Tel: 01268 731021

- Large woodland blocks restrict views across the valley and intervisibility between the valley floodplain and surrounding areas of coastal farmland and farmland plateau;
- Prominent landmark churches- 12th century church of St Michael at Copford (not visible from the Site).

Ecological Features

4.2.14 Ecological features relating to this Character Area relate to the dominant wetland and woodland habitats. The Site does not adhere to this character.

Key Planning and Land Management Issues

4.2.15 One key planning and land management issue that relates to the area is the "Potential decrease in hedgerows and tree cover due to pressure from adjacent agricultural land use".

Landscape Planning Guidelines

4.2.16 There are no landscape planning guidelines that relate to the Site.

Land Management Guidelines

- –Conserve and manage areas of ancient and semi-natural woodland as important landscape, historical and nature conservation features;
- – Conserve and manage the ecological structure of woodland, copses and hedges within the character area;
- – Strengthen the recreational role of the woodland resource.

4.2.17 **B2 EASTHORPE FARMLAND PLATEAU**

Overall Key Characteristics

- – Raised farmland plateau, dissected by the wooded Roman River valley in the east;
- – A mixture of small, medium and large irregular, predominantly arable fields;
- – Small patches of deciduous woodland and several ponds/ reservoirs;
- – Area crossed by a network of narrow, sometimes winding lanes;
- – Airfield, surrounded by large open fields has a dominant influence on the landscape character in the south of the area;
- – Settlement pattern consists of small villages and hamlets with scattered farmsteads amongst predominantly arable agricultural land.
- – Sub Area B2a- Key Characteristics · Linear settlement corridor extending from the western edge of Colchester Urban Area, including the western edges of Stanway, Copford village and Marks Tey in the west;
- – Northern boundary delineated by main A12 and railway corridor which is a dominant visual feature within the character area;
- – Visually dominant major road junctions/ roundabouts within the character area; · Landscape character is disturbed by the visual, movement and noise intrusion of cars on the A12 and also by frequent trains on the main railway line.

Overall Character

4.2.18 Rolling boulder clay plateau underlies this character area, which is dissected in the east by the upper reaches of the wooded Roman River valley. The open, expansive large triangular World War II airfield at Birch dominates the southern half of the area, with several large open arable fields adjacent. To the south east of the airfield, a large sand and gravel workings (Birch Pit) introduces further human influence to this area of the plateau landscape. The dominant enclosure pattern on the largely arable farmland plateau is one of medium sized irregular fields with gappy-hedged field boundaries and small to medium-sized patches of woodland (e.g. Fan Wood). Enclosure pattern is smaller and more intricate, with more intimate thickly vegetated field boundaries consisting of overmature hedges with hedge trees, in close proximity to settlements such as Copford. Settlement pattern consists of a combination of linear (Marks Tey) and nucleated (Copford) small settlements, alongside small hamlets (Hardy's Green; Easthorpe; Copford Green) and small farmsteads. Settlements are connected via a network of narrow, sometimes winding lanes, enclosed by hedges in places. Roads running in an east-west direction tend to be straighter (such as the Roman Easthorpe Road) and the Main A12. A number of halls, small reservoirs and ponds are dispersed across the character area.

Visual Characteristics

- – Views across the farmland plateau from roads and public rights of way are limited and framed by hedged field boundaries and small patches of woodland; however, it is generally possible to obtain medium-range views across arable farmland;
- – An attractive cluster of buildings consisting of Easthorpe church, a timber-framed house opposite and Easthorpe Hall to the west, are landmarks with views on approach to Easthorpe and along the Roman Easthorpe Road;
- – The spire of Copford church ('the most remarkable Norman parish church in the county'- Pevsner, 1954:149) on the upper slopes of the Roman River valley is another prominent landmark in views from approach roads to the south and east.

Historic Features

There is evidence of Roman activity within the landscape but no specific features within the Site.

Ecological Features

4.2.19 " The ecological character is defined by pockets of woodland and grassland within an open field landscape…" There are nine woodland SINCs including Gravelpit Wood and Part of Aldercar at Copford.

4.2.20 These being described thus: "Much of the canopies of the semi-natural woodland are comprised of oak and ash with a species-rich ground flora of bluebell, violet and dog's mercury."

4.2.21 …

Key Planning and Land Management Issues

4.2.22 There are no Key Planning and Management issues that relate to this Site.

Landscape Planning Guidelines

- – "Conserve the mostly rural character of the area;
- – Ensure that any appropriate new development responds to historic settlement pattern and uses materials, which are appropriate to landscape character (refer to the Essex Design Guide for Residential and Mixed Use Areas, Essex Planning Officer Association, 1997, for further information). Such development should be well integrated into the surrounding landscape;
- – Ensure that any development on the edges of Marks Tey and Copford responds to traditional settlement patterns and uses design and materials, which are appropriate to local landscape character;

- – New farm buildings such as sheds should be sensitively located within the landscape to respect local character and avoid the skyline. Land Management Guidelines
- – Consider the introduction of new structure planting to shield/ mitigate the visual effects on the A12 / railway and settlement corridor (B2a);
- – Strengthen and enhance hedgerows with hawthorn where gappy and depleted;
- – Conserve and manage areas of ancient and semi-natural woodland (for example to the north east of Messing Lodge) as important landscape, historical and nature conservation features;
- – Conserve historic lanes and unimproved roadside verges."

4.2.23 The Colchester Borough Emerging Local Plan 2017-2033 is currently still at the Examination Stage (at the time of writing)

4.2.24 Colchester Borough Council has prepared a Local Plan to guide development up to 2033. The Local Plan comprises two sections. Section 1, which identifies strategic growth priorities for North Essex, was prepared in partnership with Braintree District Council and Tendring District Council (the North Essex authorities) and also plans for the creation of three garden communities across North Essex, which will include longer term development beyond the plan period. Section 2 is unique to Colchester and includes allocations and policies to guide development in Colchester Borough up to 2033.

4.2.25 The Site is within the draft allocation under the Colchester Borough Emerging Local Plan.

Local Landscape Character

4.2.26 The local landscape context of the site and study area is shown in Figure 5 and summarised in **Table 1**. Given the time frame since the preparation of the published assessments for the area the landscape of the study area is broadly typical of the LCA descriptions but is more closely related to the South Colchester Farmlands than the Wooded Roman RIver Valley.

4.2.27 The Site more closely resembles the plateau farmland and adjoining village layout of Copford with local woods providing breaks in the more distance views. The landscape is relatively intimate due to the surrounding built up area and the local woodlands but does not appear to form part of the wooded, wetland landscape of the Roman River Valley.

4.2.28 Various management objectives are similar in both Character Areas including the retention and enhancement of local woodland, trees and hedgerows and the Site will benefit from this. The use of context sensitive design and materials is important to both character areas and should be considered within any design.

4.2.29 The area has remained relatively intact, but considerable development around the A12 and Colchester have eroded some level of landscape character.

4.2.30 The Site and its surroundings are considered to have a moderate sensitivity to major development, and therefore well considered residential development would not be considered to erode the character unduly.

4.2.31 The Site sits well within the existing residential development area of Copford with built up areas to both the west and the north and the main road through Copford with associated linear development to the north.

4.2.32 Whilst existing features within the site, including the hedgerows and trees are limited, they are important for their landscape, ecological and amenity value. It is therefore fundamental that these features are retained and enhanced. There are also significant opportunities to enhance the existing landscape through native planting characteristic of the local area.

4.3 Landscape Effects

Landscape Receptors

4.3.1 Informed by the baseline assessment the aspects of the landscape that are likely to be affected by the proposed development, or landscape receptors, are:

- The character of the site and its associated landscape elements including:
  - –Topography;
  - –Land use;
  - –Vegetation, primarily boundary hedgerows and;
  - – The Roman River.
- The settlement character of Copford;
- The character of LCA A2: Wooded Roman River Valley of which the site forms part; and
- The character of the adjoining LCA B2: Easthorpe Farmland Plateau.

Sensitivity

4.3.2 In accordance with GLVIA3 the sensitivity of landscape receptors is determined by combining their value with their susceptibility to the proposed development. The contribution that the site makes to the character of the area and the sensitivity of receptors to the proposed development is set out in **Table 1**.

Magnitude of Landscape Change

4.3.3 Landscape effects may arise from the following:

- Changes in and/or partial to complete loss of landscape elements or features that contribute to the character and distinctiveness of the area;
- The addition of new elements or features (natural and built) that will influence the character and distinctiveness of the landscape; and
- The combined effects of these changes on the overall character of the area.

4.3.4 The impacts and subsequent landscape effects arising from the proposed development included embedded mitigation are described in **Table 2**. All of the effects at Year 15 are considered to be permanent.

Assessment of Landscape Effects

4.3.5 Based on an assessment of the sensitivity of the landscape receptors and magnitude of change, the overall effects of the development on the landscape resource and their importance are summarised in **Table 2**.

4.3.6 The principal changes will occur within the site and its immediately surrounding area, particularly following the completion of the development. The existing field will be replaced by residential development inset within the established settlement pattern along London Road/Hall Road.

4.3.7 The development itself has been carefully designed in response to the constraints and opportunities of the site and its locality, including the topography, surrounding vegetation and built form. The resulting layout, buildings and landscape are well-designed, with important vegetation on and around the site boundaries retained and enhanced, along with new strategic planting to provide a strong structure into which the new buildings will sit.

4.3.8 At the Site level, the introduction of development will result in a **High Adverse**magnitude of change; this will decrease to **Medium** over time as new planting establishes, integrating the buildings into the established landscape framework. While the change will be noticeable in the local area, the development would not be uncharacteristic when set within the settlement pattern and context of adjoining development along London Road and Hall Road. The effect is subsequently assessed as **Moderate-Substantial** decreasing to **Moderate-Minor** importance over time.

4.3.9 In compliance with the recommendations in the Landscape Guidelines the site is well related to existing development, while the screening afforded by the mature woodland to the south and the adjacent hedgerows on the eastern boundary ensures that the built form will not intrude into the wider landscape. The retention and enhancement of the existing boundaries, the appropriate and well-designed layout in conjunction with new planting will ensure that other landscape effects are temporary, limited in magnitude and/or localised in their extent.

4.3.10 On completion of the development at Year 1 the change on the overall character of the settlement of Copford will be **Low Adverse-Negligible**. This impact, which is localised will be mitigated by vegetation in the medium-term. Whilst the development will result in a discernible and apparent change when travelling along Hall Road and adjoining footpath 2, it would be characteristic when set within the surrounding context and is discrete from the main London Road, set beyond existing dwellings The overall effect is subsequently assessed as **Minor Neutral to Negligible**.

4.3.11 On completion, the development of the site will result in a **Medium Adverse** magnitude of change to the character of LCAs A2/B2: Wooded Roman River Valley and Easthorpe Farmland Plateau associated with the introduction of new housing. Although there will be a direct loss of a small area of the LCA, this is negligible in the context of the area as a whole. The retention and enhancement of the existing boundaries will ensure that the new development is set within an establishing landscape structure from the outset. By Year 15 as the existing structure is enhanced by strategic planting (native buffer / hedgerow planting and trees) the impact will decrease to **Low**. The residual effect is subsequently assessed as **Moderate-Minor** decreasing to **Minor importance** over time..

4.3.12 The scheme incorporates a number of embedded mitigation measures including the creation of open space in the north east and southern area of the site, the setting back of development from the western boundary and the defined management of the southern boundary, excluding it from residential management. Over time, as new strategic planting matures, the magnitude of change will decrease to **Low / Negligible** with the development creating a soft edge and transition to the surrounding countryside. The residual effect will subsequently reduce by Year 15 to **Minor.** Although the development will be perceptible, the overall rural character of the valley will not be eroded.

Table 1: Sensitivity of Landscape Receptors

Landscape Receptor	Value	Susceptibility	Description	Sensitivity
Site	Medium-Low	Medium-Low	The Site currently comprises an arable field with varying quality boundary trees and hedges. There are no specific special landscape features within the Site and it is not designated for its landscape quality. The Site abutts open farmland to the south and residential properties to the north, west and east.	MEDIUM-LOW
Settlement Character of Copford	Low	Low	The Site sits behind existing residential development along London Road and begins the agricultural landscape to the south of the village towards Copford Green. The Site is not particularly 'important' within the setting of the village and provides a limited contribution to the settlement character, being an ordinary arable field with relatively low quality boundary vegetation. The Site provides some amenity value to the village, PRoW 128_2 running along the western boundary of the Site. The ecological value of the Site is limited by its arable landuse with limited boundary vegetation providing little in the way of ecological corridors to the wider landscape.	LOW
LCA A2: Wooded Roman River Valley	Medium-High	High	The LCA A2, Wooded Roman River Valley is described as having a higher susceptibility to change than the surrounding landscape due to its 'intrinsic strength of character and good condition' (Chris Blandford Associates, 2003). Although the Site is located within the boundary of this LCA, it is directly on the western boundary adjoining LCA B2 to which it far more closely relates. There are few, if any features within the Site and its surroundings that adhere to this sensitive LCA, Hall Road being a natural division between the two Character Areas to the east of the Site. The wooded, wetland landscape which this LCA describes is not represented on the Site. Furthermore, the visual connection between the Roman River Valley landscape and the Site is barely perceptible due to the topography and the intervening vegetation. The Site has therefore been assessed more closely against the adjoining LCA of which is its very representative.	MEDIUM-HIGH
LCA B2: Easthorpe Farmland Plateau	Medium	Medium	The Site is closely related to the LCA B2, Easthorpe Farmland Plateau. This is described as raised farmland plateau, dissected by the wooded Roman River valley in the east; with a mixture of small, medium and large irregular, predominantly arable fields and small patches of deciduous woodland and several ponds/ reservoirs. The area crossed by a network of narrow, sometimes winding lanes. It is assessed as a medium susceptibility to change due to the relatively ordinary landscape and detracting features. The development does not propose any features that are considered to be a threat to the LCA, residential development being an acceptable use within the area. The LCA (including the closely related B2a to the north) currently accommodates linear and nuclear settlements with major roads and road junctions which form a major detracting feature to the area. The Site, an ordinary agricultural field provides a small contribution to the LCA but with very limited landscape receptors of value to the wider landscape.	MEDIUM
Refer to **Appendix 2: Tables A1 - A3** for assessment criteria				

Table 2: Magnitude and Scale of Landscape Effects

Landscape Receptor	Sensitivity	Description	Magnitude / Nature of Change	Importance
Site	Medium-Low	**YEAR 1** The development will result in a permanent change at the site level. The existing agricultural field will be replaced by residential development split Existing landscape elements within the site are limited but are of importance for their landscape, ecological and amenity value. These features will be retained and protected during the course of construction and will be subsequently managed as key components of the landscape framework into which the development will sit. The residential development is informed by assessment of the site and its context will be traditionally designed with a semi-rural character that reflects the character of the area. This will be accompanied by the planting of new strategic vegetation including native trees and boundary hedgerows. Key areas include the gapping up of the existing hedgerow and tree planting along the northern boundary, the establishment of a buffer to the southern boundary and an informal hedgerow and trees on the western boundary. On planting and in the early stages of the development this vegetation will initially be immature.	High Adverse	**MODERATE-SUBSTANTIAL**
		YEAR 15 By Year 15 the development will complement the settlement and character of the area. Whilst remaining a noticeable and apparent change at the site level, the magnitude of the effect at Year 1 will decrease over time as strategic vegetation, street trees and planting matures complementing the built form and locally increasing the level of tree cover.	Medium Adverse	MODERATE-MINOR
Settlement Character of Copford	Low	**YEAR 1** The development is closely related to the existing residential properties along London Road and Hall Road. Although the Site sits behind dwellings on London Road, the proposals will infill the established settlement pattern which already extends between gardens of dwellings on London Road to the housing running down Hall Road to the east. In accordance with landscape guidelines the proposed residential area will incorporate buildings which are appropriate in scale, mass, height and design with a variety of materials and new planting (including native species) to complement the character of the area. The development will be a minor change, although not uncharacteristic when set against the adjoining settlement.	Low Adverse-Negligible	NEGLIGIBLE
		YEAR 15 The effects of the proposed development will decrease over time as strategic vegetation, street trees and planting matures complementing the built form and locally increasing the level of tree cover. The landscape dominated character will ensure that the built form is integrated into the settlement and through good design the development will have a strong sense of place which respects the local character.	Negligible	NEGLIGIBLE
LCA A2: Wooded Roman River Valley	Medium-High	**YEAR 1** On completion, the development of the site will result in a medium adverse magnitude of change to the character of the Wooded Roman River Valley LCA associated with the introduction of housing. The proposal has been designed to respond to the landscape context, and over time the existing structure will be enhanced by new strategic vegetation including native buffer / hedgerow planting and trees. On planting and in the early stages of the development this vegetation will initially be immature. As the Site does not adhere to this LCA description and does not remove any features associated with it, its contribution to the LCA is extremely limited and therefore, the magnitude of change is very limited. It is also unlikey to ever contribute to this LCA. Its importance is therefore reduced.	Medium Adverse	MINOR
		YEAR 15 The proposed development has been designed to integrate with the existing built and landscape context. As planting continues to mature, it will increase the level of tree cover, provide a soft edge and transition with the adjacent countryside and break up the views of the development. Although the development will be noticeable the change will be limited and localised in its extent.	Low Adverse	MINOR
Refer to **Appendix 2: Tables B and E** for assessment criteria Important effects (refer to **Appendix 2 Section 1.4**) are highlighted in **Bold**.				

Table 2: Magnitude and Scale of Landscape Effects Continued:

Landscape Receptor	Sensitivity	Description	Magnitude / Nature of Change	Importance
LCA B2: Easthorpe Farmland Plateau	Medium	**YEAR 1** On completion, the development of the site will result in a medium adverse magnitude of change to the character of the Easthorpe Farmland Plateau LCA associated with the introduction of new housing. The proposal has been designed to respond to the landscape context. Embedded mitigation includes the creation of open space in the southern and northern areas of the Site as well as strong boundary planting to reduce the impact of the development on the surrounding landscape. Over time the existing structure will be enhanced by new strategic vegetation including native buffer / hedgerow planting and trees. Of critical importance is the establishment of the strategic buffer on the southern boundary of the site where the development adjoins open farmland. The management of this will be handed to the management company to eliminate the risk of residents removing this as well as providing the appearance of a uniform managed boundary hedge wit hedgerow trees. Due to the existing open nature of this boundary, in the early stages of the development this vegetation will be immature.	Medium Adverse	**MODERATE-MINOR**
		YEAR 15 The proposed development has been designed to integrate with the existing built and landscape context. As new planting continues to mature the overall level of tree cover will increase creating a soft edge and transition with the adjacent countryside and breaking up the views of the development. Although the development will be noticeable the change will be limited and very localised in its extent.	Low Adverse / Negligible	MINOR
Refer to **Appendix 2: Tables B and E** for assessment criteria Important effects (refer to **Appendix 2 Section 1.4**) are highlighted in **Bold**.				

5. VISUAL ASSESSMENT

5.1 Scope

5.1.1 This section of the report describes the existing views of the site from a variety of public viewpoints and how these and the visual amenity experienced by people both living and visiting the area will change.

5.2 Visual Baseline

Extent of Visibility

5.2.1 The visibility of the site has been determined by a manual assessment of topography and aerial images followed by an assessment on site and a field survey of the study area. The resulting Visual Envelope shown on **Figure 6** demonstrates the approximate extent of the area from which the site and the proposed development will be seen.

5.2.2 As described in **Section 3** and demonstrated by **Figure 5** the village of Copford sits on the edge of a plateau (approximately 30m-35m AOD); land falls from the settlement to the north where the river heads north west around the village into the valley of the Roman River (at approximately 22m AOD and) and to the south and east where the low land heads eventually to the sea.

5.2.3 As shown on **Figure 6,** the Visual Envelope of the site is relatively localised and extends largely to the south west across the more higher area of the plateau. To the east, the views are restricted by topography and woodland associated with the Roman River Valley and to the west by existing development. To the north, the Site is not visible beyond the existing development along London Road.

Potential Visual Receptors

5.2.4 Within the Visual Envelope, the visual receptors i.e. those individuals who may experience changes in visual amenity, include:

- Residential and other properties:
  - –Residents along London Road including:
  - – Residents at Brewers Cottage, Old Mill House and Shrub House (Grade II listed);
  - –Residents along Hall Road;
- Users of roads and lanes:
  - – Hall Road
- User of Public Rights of Way:
  - –Copford footpath 2 which lies directly to the west of the site;
  - –Copford footpath 3 which lies to the east of the site opposite Hall Road;

Representative and Illustrative Views

5.2.5 Within the Visual Envelope fifteen representative viewpoints have been identified. The location of these viewpoints is shown on Figure 6.

5.2.6 The viewpoints have been selected to illustrate the degree of visibility of the site and the visual amenity experienced by receptors and provide a baseline against which the visual effects of the proposed development can be assessed. Such views broadly fall into the following categories:

- Representative: illustrating views from within a wider area, for example 'typical' views from a group of houses, along a street or public right of way; and
- Illustrative: demonstrating a particular effect or issue, for example limited visibility in an area where views might normally be anticipated.

5.2.7 Photographs representing views from private residential dwellings, particularly those bordering the site, are based on the nearest possible publicly accessible location.

5.2.8 Annotated baseline photographs taken at each viewpoint in July 2019 and May 2020 and a supporting description are provided in **Figures 7-15.** While the photographs provide a good indication of visual amenity and the existing visibility of the site it is recommended that all views are best experienced in the field.

5.3 Visual Effects

Sensitivity of Visual Receptors

5.3.1 In accordance with GLVIA3 the sensitivity of visual receptors is determined by combining value with their susceptibility to change. The sensitivity of the receptors to the proposed development is set out in within the tables below the viewpoints.

5.3.2 Receptors with the highest sensitivity generally include residents and users of public rights of way, while those of lower sensitivity include people in their place of work, playing sport or travelling by car and public transport. The majority of views lie to the north, south and east of the site.

Magnitude of Visual Change

5.3.3 Considerations in determining the magnitude of visual change include:

- The nature of the view - for example full, partial, glimpsed;
- The proportion of the development that would be visible - all, part, none;
- The distance of the viewpoint from the site and whether the viewer would focus on the development due to its scale and/or proximity or whether it would comprise a small, minor element in a panoramic view;
- Whether the view is stationary, transient, or one of a sequence of views, as experienced from a footpath or moving vehicle; and
- The nature of the change through the removal or introduction of features (natural or built) and any associated alterations to the profile of the skyline, visual simplicity/complexity, enclosure/ openness and scale.

5.3.4 All of the effects at Year 15 are considered to be permanent.

Assessment of Visual Effects

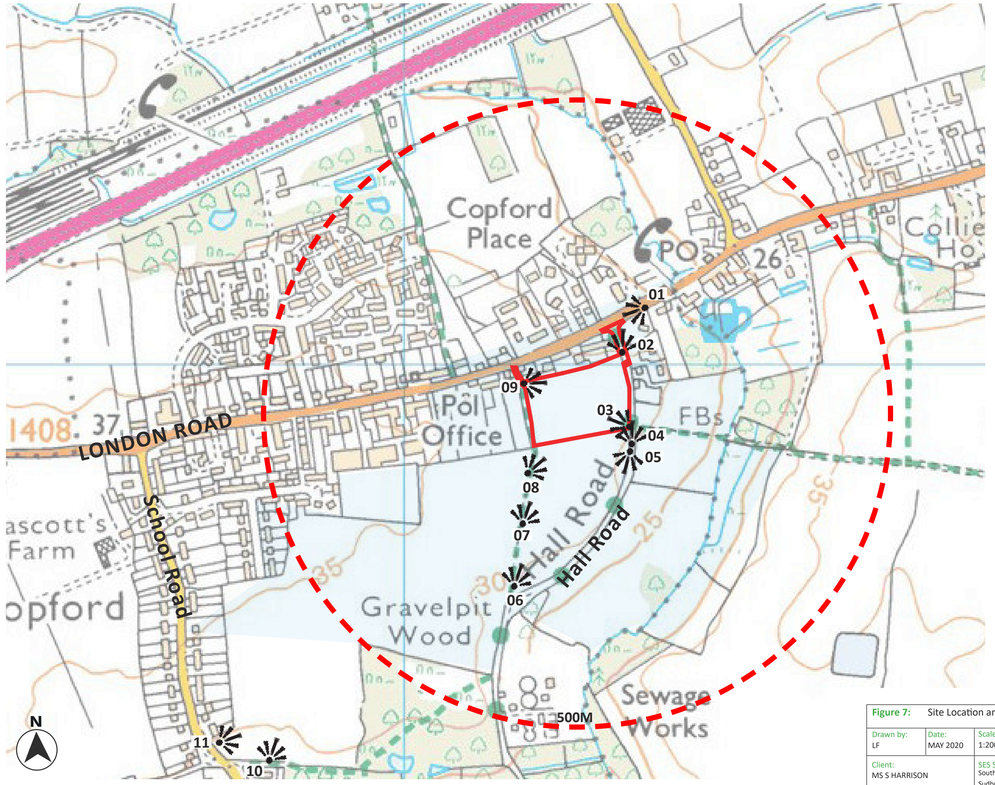
5.3.5 The impacts on existing views likely to arise from the proposed development are set out in the tables accompanying each viewpoint. The overall effects, based on an assessment of the sensitivity of the receptor and the magnitude of change are summarised below.

Residential and Other Properties

5.3.6 The properties that overlook the site on London Road will experience the greatest magnitude of change with views across the field replaced by streets, buildings, parking and garden areas. This will be particularly evident on completion at Year 1, as proposed vegetation will be immature. Views from individual properties will vary depending on their proximity to the development, intervening vegetation and their relationship to the site layout.

5.3.7 To limit their visual influence, part of the northern boundary will be public open space around the entrance to the Site. In addition to this, there will be a good sized vegetative buffer to augment the existing hederow. Some rear gardens will back on to existing development.

5.3.8 To the east the development will have an effect on views from properties along Hall Road. The existing hedgerow is



KEY

Site Boundary

Study Area

Access

PRoW- Footpath

Visual Analysis

Viewpoint Locations (1-9 Refer to photographs on figures 8-22

Approximate Visual Envelope of Proposed Development

Figure 7: Site Location and Study Area

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

Hall Road

View 01 - Looking west along London Road showing the entrance to Hall Road on the left

Description of Existing View (View 1)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located just east of the entrance to Hall Road along London Road. The view shows the residential properties that back on to the Site and a well vegetated streetscene. This section of London Road is predominantly straight, providing good visibility.	Drivers using the London Road/ pedestrians	**YEAR 1 (winter):** In order to create a safe access onto London Road, a number of low category trees will require removal to the eastern side of Hall Road. These trees are either Category C or U, and although they provide some vegetative cover to the street scene, are of low value overall. There will therefore be a slight change to this view. There will be some additional traffic leaving and entering London Road. Construction traffic required for the development will be temporary in nature.	**LOW ADVERSE-NEGLIGIBLE**	**MINOR-NEGLIGIBLE**
	Value: **Medium** Susceptibility: **Low/ medium** Overall Sensitivity: **Low/ medium**	**YEAR 15 (summer):** As there will be no replacement planting to this area of Hall Road, the view will remain as at Year 1.	**LOW ADVERSE-NEGLIGIBLE**	**MINOR-NEGLIGIBLE**
Embedded Mitigation	None.			

Figure 8: Viewpoint 1

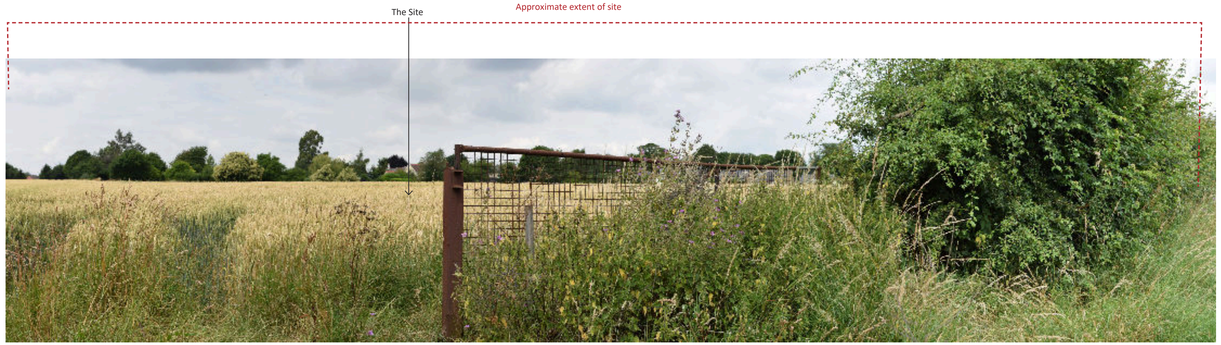
Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

View 02 - Looking north north along Hall Road towards at the junction with London Road

Description of Existing View (View 2)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located towards the north east part of the Site at Hall Road, looking north at the junction with London Road. The view is of a very well treed minor road during summer months.	Road users (predominantly cars)/ pedestrians	**YEAR 1 (winter):** In order to provide safe access onto London Road, a number of Category C and U trees will require removal. From this view, some of the vegetation to the right will be cut back/removed, although a green buffer will still remain. There will be no replacement planting to this area. As the scene is very well vegetated, the loss of some low quality tree species will be acceptable to achieve a safe access and visibility splay. The removal may at Year 1 appear somewhat harsh, with remaining vegetation being exposed but this will 'settle in' as this (previously covered) vegetation regenerates.	**MEDIUM - LOW ADVERSE**	**MODERATE**
	Value: **Medium** Susceptibility: **Low** Overall Sensitivity: **Low**	**YEAR 15 (summer):** No replacement planting is envisaged to this area and the view will remain as at Year 1 although existing vegetation will have regrown somewhat to soften the view.	**LOW ADVERSE**	**MINOR**
Embedded Mitigation	None.			

Figure 9: Viewpoint 2

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			



View 03 - View looking north west towards the Site from Hall Road

Description of Existing View (View 3)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located to the south east corner of the Site looking through a gap in the hedge from Hall Road. The view shows an arable field with the dwellings along London Road visible beyond the Site. The current view is of ordinary agricultural land with no specific qualities. Visual receptors will be users of Hall Road and will be both high sensitivity (those walking) and low sensitivity (driving).	Users of Hall Road (predominantly vehicles/ pedestrians)	**YEAR 1 (winter):** This view will be replaced with residential development. At Year 1 all vegetation will be immature and enhanced boundary planting will not have developed. A footpath will run across the Site linking FP 2 to the west of the Site with FP 2 to the east of Hall Road.	**MEDIUM - HIGH ADVERSE**	**MODERATE**
	Value: **Medium** Susceptibility: **High/Low** Overall Sensitivity: **High/ Low**	**YEAR 15 (summer):** At Year 15, all planting, both on the boundary and within the Site will have established, integrating the development into the scene.	**LOW ADVERSE**	**MINOR**
Embedded Mitigation	Boundary treatment planting.			

Figure 10: Viewpoint 3

Drawn by:	Date:	Scale:	Rev:
LF	MAY 2020	1:20000 @A3	

Client: MS S HARRISON

Site: LAND OFF HALL ROAD, COPFORD, ESSEX

SES Strategic: Southern Ecological Solutions, Sudbury Stables, Sudbury Road, Downham, Essex CM11 1LB, Tel: 01268 711021

View 04 - Looking north along Hall Road close to the southern boundary of the Site by mature oak.

View 05 - Looking south along Hall Road

Description of Existing View (Views 4&5)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
These views are located along Hall Road looking north and south. The views show a rural road set within an arable, well treed landscape.	Road users predominantly vehicles/ pedestrians	**YEAR 1 (winter):** When travelling north along this road, the development will be visible on the left of this view where new planting has not yet established. From the north, the view will be screened by existing vegetion as the user passes the Site.	**MEDIUM-LOW ADVERSE**	**LOW**
	Value: **Medium** Susceptibility: **High/Low** Overall Sensitivity: **High/ Low**	**YEAR 15 (summer):** At Year 15, strong boundary treatment to the south will have established and will predominantly screen the view. Any glimpses of development will be seen within the context of the existing village development and the surrounding landscape.	**NEGLIGIBLE**	**NEGLIGIBLE**
Embedded Mitigation	Strong, managed boundary treatment to the southern boundary of the Site.			

Figure 11: Viewpoints 4 and 5

Drawn by:	Date:	Scale:	Rev:
LF	MAY 2020	1:20000 @A3	

Client: MS S HARRISON

Site: LAND OFF HALL ROAD, COPFORD, ESSEX

SES Strategic: Southern Ecological Solutions, Sudbury Stables, Sudbury Road, Downham, Essex CM11 1LB, Tel: 01268 711021

View 06 - View looking north towards the Site from PRoW 128_2

Description of Existing View (View 6)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located at the southern end of PRoW 128_2 just beyond where it meets Hall Road. The view is looking across the arable field to the south of the Site where the Site joins this field. The view is a pleasant one of an ordinary arable landscape with hedgerows and hedgerows trees interspersed with some residential dwellings in the view. The field is on rising ground and the Site lies beyond a slight ridge in the field.	Users of PRoW 128_2	**YEAR 1 (winter):** The view will change at Year 1 where part of the arable field in view will be replaced by residential development and associated landscaping and public open space. Boundary planting to the south of the site will be provided to soften the development and help to integrate it into the scene. All planting will be immature at this time.	**MEDIUM-LOW ADVERSE**	**MODERATE**
	Value: **Medium**	**YEAR 15 (summer):** By Year 15, the development will have 'settled in' and the boundary and on Site planting will have established. The development will be integrated into the surrounding countryside and village scene. Management of the southern boundary hedge and hedgerow trees will ensure a strong ecological and visual buffer is created and maintained. Some roofs will be visible, glimpsed through the establishing vegetation.	**LOW ADVERSE**	**MINOR-NEGLIGIBLE**
	Susceptibility: **High**			
	Overall Sensitivity: **High**			
Embedded Mitigation	Boundary treatment planting.			

Figure 12: Viewpoint 6

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

View 07 - View looking north towards the Site from PRoW 128_2

Description of Existing View (View 7)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located further north along PRoW 2 where housing along the London Road is more visible.	Users of PRoW 128_2	**YEAR 1 (winter):** At Year 1, a proportion of this view will be replaced by residential development, public open space and boundary planting. The varied layout will provide a mixed roofscape. All planting will be immature at this time and will afford little screening or integration until it begins to develop.	**MEDIUM - HIGH ADVERSE**	**MODERATE**
	Value: **Medium**	**YEAR 15 (summer):** By Year 15, all boundary planting and on site planting will have established. The public open space to the south of the site will reduce the quantity of roofs immediately in view and the managed boundary hedgerow with hedgerow trees will have established to provide a good vegetative screen and improved biodiversity on the Site.	**LOW ADVERSE**	**MINOR**
	Susceptibility: **High**			
	Overall Sensitivity: **High**			
Embedded Mitigation	Boundary treatment planting.			

Figure 13: Viewpoint 7

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

View 08 - View looking east towards the Site from PRoW 128_2

Description of Existing View (View 8)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located almost at the Site whilst walking north along PRoW2. Again, the view is of an arable landscape, although residential dwellings are clearly in view, including both those on London Road and housing opposite Hall Road to the east of the Site.	Users of PRoW 128_2	**YEAR 1 (winter):** At Year 1, this view will be dominated by a new residential development with associated roadways and public open space being visible from this point. Boundary planting to be provided along the PRoW, to the south of the Site and within the Site will be immature at this point. A proposed PRoW will link this footpath with footpath 3 to the east of the Site, improving access to the Pits Wood and the Roman River valley.	HIGH ADVERSE	MODERATE-SUBSTANTIAL
	Value: **Medium** Susceptibility: **High** Overall Sensitivity: **High**	**YEAR 15 (summer):** By Year 15, the boundary planting along the PRoW will have established to provide a mix of native trees and hedging. Further boundary planting to the south of the Site will be managed to ensure its success, providing a strong vegetative buffer. Housing should front on to the footpath to the west providing a pleasing street scene that is in keeping with the local character of the area and providing a good vegetative buffer to the footpath.	LOW-MEDIUM ADVERSE	MINOR
Embedded Mitigation	Boundary treatment and on site planting.			

Figure 14: Viewpoint 8

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

View 09 - View looking east towards the Site from PRoW 128_2

Description of Existing View (View 9)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located in the north west corner of the Site on PRoW 128_2 looking due east into the Site. The view shows the boundary vegetation to the north of the Site adjacent to the residential dwellings along London Road and glimpses of gardens are evident beyond the vegetation. Dwellings on Hall Road are also visible across the Site with the dense boundary vegetation predominantly screening these buildings.	Users of PRoW 128_2	**YEAR 1 (winter):** At Year 1, this view will be replaced by residential development with associated roads and public open space. Boundary and in-site planting will be provided to soften the view but at Year 1 this will be immature. The layout and design should allow for a street frontage to this view to help to integrate the development into the existing landscape and character area. Strong, careful boundary treatment and design will reduce the impact at Year 1.	HIGH ADVERSE	MODERATE-SUBSTANTIAL
	Value: **Medium** Susceptibility: **High** Overall Sensitivity: **High**	**YEAR 15 (summer):** By Year 15, all boundary planting as well as planting within the Site will have established and developed and will integrate the development into the landscape. The field will be replaced by residential development, but careful design and siting of buildings as well as high quality boundary planting will create a cohesive design where local materials and design philosophy will help to mitigate the change in view.	LOW ADVERSE	MINOR
Embedded Mitigation	Boundary treatment planting and on Site design and planting.			

Figure 15: Viewpoint 9

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

View 10 - Looking north east towards the Site from the footpath adjacent to Gravelpit Wood

Description of Existing View (View 10)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located at the southern end of PRoW 128_02 beyond Gravelpit (Pits) Wood looking north east towards the Site. The view shows housing beyond School Road to the west of the Site and one of the arable fields between School Road and the Site. To the right of the view is the north west corner of Gravelpit Wood. As the land rises slighting between Gravel Pit Wood and the housing beyond forming a low ridge it then falls away gently to the north and east. The Site is not visible from this location and the roofline of the proposed development will not be visible beyond the intervening ridge when viewed from this low point.	Users of PRoW 128_2	**YEAR 1 (winter):**	**NO CHANGE**	-
	Value: **Medium**	**YEAR 15 (summer):**	**NO CHANGE**	-
	Susceptibility: **High**			
	Overall Sensitivity: **High**			
Embedded Mitigation	None.			

Figure 16: Viewpoint 10

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

View 11 - Looking north east towards the Site from the footpath adjacent to Gravelpit Wood

Description of Existing View (View 11)	Receptors	Description of Change	Magnitude / Nature of Change	Importance
This view is located at a break in the housing at the end of PRoW 128_2 where it meets School Roadlooking north east towards the Site. The view shows housing beyond School Road to the west of the Site and one of the arable fields between School Road and the Site. To the right of the view the north west corner of Gravelpit Wood is clearly seen. As the land rises slighting between Gravel Pit Wood and the housing beyond forming a low ridge it then falls away gently to the north and east. The Site is not visible from this location and the roofline of the proposed development will not be visible beyond the intervening ridge when viewed from this low point.	Road users (School Lane) Drivers/pedestrians	**YEAR 1 (winter):** No change	**NO CHANGE**	-
	Value: **Medium**	**YEAR 15 (summer):** No change	**NO CHANGE**	-
	Susceptibility: **Low/High**			
	Overall Sensitivity: **Low/ High**			
Embedded Mitigation	None			

Figure 17: Viewpoint 11

Drawn by: LF	Date: MAY 2020	Scale: 1:20000 @A3	Rev:
Client: MS S HARRISON		SES Strategic Southern Ecological Solutions Sudbury Stables Sudbury Road Downham, Essex CM11 1LB Tel: 01268 711021	
Site: LAND OFF HALL ROAD, COPFORD, ESSEX			

to be retained with a small level of hedge removal to allow for safe access. This entrance to the Site will be an area of public open space and will incorporate tree and shrub planting to soften the views into the Site from Hall Road. The existing hedge is a good quality buffer screen and will soften any views into the Site.

5.3.9 Gardens to the residential properties to the west currently overlook the Site and the proposed green buffer and street frontage will both soften this view and incorporate the residential development into the village scene through an attractive frontage.

Users of Roads

5.3.10 For users of London Road (predominantly traffic) the proposed development will be of low impact. There will be additional traffic leaving and entering Hall Road, but this junction sits on a straight section of road with good visibility. The entrance to the Site will not be visible other than for glimpses when directly opposite Hall Road. There will be some limited loss of vegetation along Hall Road. The attention of the drivers will not be on this and therefore their sensitivity is low.

5.3.11 Users of Hall Road will notice more traffic entering and leaving London Road with some traffic also travelling south down Hall Road. The hedgerow to the east of the Site is well established and provides good screening of the Site. The attention of drivers will not be on the development which will appear incidental when travelling along this road.

5.3.12 The additional traffic during construction will be noticeable but will be temporary in nature.

5.3.13 The overall effect on road users (of low sensitivity) is subsequently assessed as **Moderate-Minor** to **Minor Adverse** at Year 1 decreasing to **Neutral** or **Negligible** depending on proximity, with the development providing suitable infill between the existing housing on Hall Road and properties to the west.

Users of Rights of Way

5.3.14 Two Public Rights of Way are affected by the development. PRoW 128_2 runs along the western boundary of the Site joining Gravelpit Wood and School Road to the South with the London Road to the north. This is a well used footpath linking the village to the community woodland and community centre as well as to the local school. PRoW 128_3 runs east west from the southern end of the Site at Hall Road to the Roman River and its valley.

5.3.15 Travelling north along footpath 2 the Site is visible to varying degrees along its length:

5.3.16 Directly adjacent to the Site and close to the southern boundary, views will alter the most, with the arable land being replaced by residential development, associated roads and parking as well as public open space and boundary planting. The attention of the users of this PRoW will be focussed on the view and the entrance to 'open' countryside will be taken further south by a short distance (some 200m). When walking south, the impact will be for a short section of this path, with more viewed when travelling north to London Road. This aspect of the Site will have a road frontage facing onto the footpath which allows for a softer more sensitive boundary treatment and a character that is in line with the existing development within the settlement. These localised views are subsequently assessed as **Moderate-Substantial Adverse** at Year 1 reducing to **Minor Adverse** at Year 15 when boundary and other tree and hedge planting has integrated the development into the landscape.

5.3.17 Further south along this path, the views become less dominant with the development blending in to the existing residential development along London Road. The development, with its strong, well managed southern boundary treatment will bring the building line further south, but this will be in line with the existing garden boundaries to the west of the Site. The effect on the users of this footpath from these short distance views will be **Moderate Averse** reducing to **Minor Adverse - Negligible** over time.

5.3.18 Mid distance views from a gap in the housing along School Road and along the footpath to Gravelpit Wood show glimpses of the Site just over the brow of a small hill. There will be glimpsed views of roofs above crops and at Year 1 these will be quite evident. At Year 15, when boundary planting has established, boundary trees and hedgerows will soften this view and the development will be seen within the context of the surrounding village settlement. The overall effect on the users of this route from mid distance views will be **Minor Adverse** reducing to **Negligible** over time.

5.3.19 Users of PRoW 128_3 to the east of the Site will be less influenced by the development. The hedgerow to the east of the Site is robust and affords good screening to the Site. when travelling west towards Hall Road from the Roman River valley, users may see glimpses of the rooftops of some dwellings above the existing hedge. At this point, a footpath entrance will be created through the existing hedge, continuing the footpath through the Site to join up with PRoW 128_2 to the west, creating a link to the community woodland and School Road. The effect on the users of this footpath will therefore be Minor Adverse at Year 1 where a change to the view will be noticeable and new development will be apparent through the proposed footpath link. At Year 15 the effect will reduce to **Negligible-Minor Positive** as the new footpath planting establishes over time creating a pleasant and safe route to the east/west of the village.

6. SECONDARY MITIGATION AND MONITORING

6.1 Scope

6.1.1 As described in **Section 3** the proposed development has been carefully designed to incorporate a variety of measures to avoid or reduce landscape and visual effects.

6.1.2 This section identifies the additional measures required to ensure that landscape and visual effects are considered as part of the detailed design, construction / implementation and management of the proposed development. Such measures can be agreed post planning and secured by planning conditions.

6.1.3 Proposed planting should be implemented in conjunction with the substantial completion of each phase. To minimise the time that adverse visual effects are experienced, the establishment of strategic vegetation along the southern and western boundaries should be established as early as practicably possible. All soft landscape should be implemented in accordance with the detailed landscape drawings and implementation programme, with works monitored by an appropriately qualified landscape professional.

6.2 Design

6.2.1 As an outline application the detailed design, appearance and landscaping will be agreed at the reserved matters stage. To ensure that landscape and visual effects are minimised, **the design process should incorporate the recommendations set out in this report.** This includes the retention and enhancement of all the existing hedgerows and trees (with the exception of the entrance route to the Site) the buffer planting along the southern boundary and native tree planting as part of a high quality landscape scheme.

6.2.2 Further details are required in respect of the following:

- **Tree Retention and Protection**- The quality and condition of the existing vegetation is set out in the Arboricultural Report. To ensure that the important trees and the woodland are retained and protected an Arboricultural Method Statement and Tree Protection Plan should be prepared prior to the commencement of the development. In accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations.'[8] The report should confirm the trees to be retained and removed; the details any tree works required; the location and specification of barriers / ground protection; the details of any specialist construction works required; and a programme of site supervision and monitoring (see **Section 6.3**)
- **Detailed Soft Landscape**- The Landscape Strategy Plan submitted with the application sets out the principles of the landscape scheme. The detailed design should be prepared prior to the commencement of the development specifying the following:
  - –Existing vegetation to be retained;
  - –Details of all proposed soft landscape (trees, hedges, shrubs, seeding etc.....) including species, planting density and stock size. The size of plant stock should provide immediate impact in key areas such as the northern and eastern boundaries, while generally using stock of more modest size to deliver a green framework in the short- to medium-term;
  - –A specification setting out the standards for the implementation of soft landscape, including details of soil preparation / cultivation, planting and seeding, and the initial maintenance required to ensure their successful establishment; and
  - –A programme setting out the time frames for implementation (see **Section 6.3**).
- **Detailed Hard Landscape -** The arrangement and specification of hard surfacing, enclosures / fencing, street furniture, informal play equipment and other structures. The proposals should be in accordance with the submitted Landscape Strategy Plan.
- **External Materials and Boundary Treatments -** The detailed specification of external building materials and boundary treatments including colours and finishes.
- **External Lighting** - Due to the rural context of the site the lighting scheme should be carefully designed in terms of location, light source and the type of luminaires to ensure that night time effects including light pollution and sky glow are kept to a minimum.

6.3 Construction / Implementation

6.3.1 A number of measures are advised during the construction of the site and implementation of the landscape scheme to ensure that the proposals are carried out in accordance with the approved details.

6.3.2 In accordance with the Arboricultural Method Statement, at suitable intervals during the construction phase and post completion, the protection and condition of existing vegetation should be monitored by a qualified arboriculturist.

6.3.3 Proposed planting should be implemented in conjunction with the substantial completion of each phase. To minimise the time that adverse visual effects are experienced, the establishment of strategic vegetation along the southern and western boundaries should be established as early as practicably possible. All soft landscape should be implemented in accordance with the detailed landscape drawings and implementation programme, with works monitored by an appropriately qualified landscape professional.

6.4 Management

8 BS5837:2012: Trees in Relation to Design, Demolition and Construction – Recommendation, BSi, April 2012

6.4.1 To ensure the long-term management of the boundaries, areas of public open space and strategic planting, a Landscape and Ecological Management Plan (LEMP) should be prepared and agreed for the respective areas of the development prior to occupation.

6.4.2 The LEMP will also enable the management of all strategic vegetation to ensure it is retained in a sustainable and well maintained condition in perpetuity. The should include replacement vegetation as may be required to maintain the landscape framework.

6.4.3 to avoid or reduce landscape and visual effects.

6.4.4 This section identifies the additional measures required to ensure that landscape and visual effects are considered as part of the detailed design, construction / implementation and management of the proposed development. Such measures can be agreed post planning and secured by planning conditions.

7. SUMMARY AND CONCLUSION

7.1 Summary and Conclusion

7.1.1 This Landscape and Visual Appraisal has been prepared by Southern Ecological Solutions (SES) on behalf of Ms S Harrison for land south of the B1408 London Road, Copford, near Colchester, Essex (the 'Site'). The report accompanies an outline planning application comprising:

7.1.2 The report, following the principles set out in the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3), provides an appraisal of the landscape and visual effects of the proposed development. It is supported by a Landscape Strategy Plan and a series of embedded mitigation measures that will assist in integrating the proposals in to the landscape.

Context

7.1.3 The village of Copford is located approximately 6km west of the centre of Colchester, Essex. The settlement extends along the B1408 which links Colchester to Marks Tey with the primary route of the A12 dual carriageway approximately 0.5km to the north. The area lies within the authority of Colchester Borough Council.

7.1.4 The area forms part of the 'South Colchester Farmland Plateau', a slightly undulating plateau dissected by small river and stream valleys. The plateau area (LCA B2: Easthorpe Farmland Plateau) is characterised by Raised farmland plateau dissected by the wooded Roman River valley to the east with a mixture of small, medium and large irregular, predominantly arable fields. Small patches of deciduous woodland and several ponds/ reservoirs exist in the area and the influence of the A12 and major road junctions are evident in the north. The whole area is crossed by a network of narrow, sometimes winding lanes.

7.1.5 The principal valley of the Roman River to the north, east and south of Copford (LCA A2: Wooded Roman River Valley) dissects the plateau northwest-southeast. The topography, woodland (including Ancient Woodland) and the lack of settlement distinguishes the area from the adjoining farmland Plateau and provides visual enclosure within its bounds.

7.1.6 The Site, although situated within A2 LCA, does not adhere to this character area but is representative of LCA B2.

Hall Road to the east of the Site is a natural deliniation of the river valley landscape with gently undulating arable landscapes with wooded areas to the west. The area around Copford has been densely developed to the east, creating detracting features within the LCA.

7.1.7 The study area is not subject to any designations of landscape quality or value.

7.1.8 The principles of both the adopted and emerging policies are to safeguard and enhance the built and natural environment and ensure that development is sustainable and of high-quality design which respects and contributes to the districts character. Fundamental to this approach is the management of the area's natural resources to bring about an increase in biodiversity, a net gain in green infrastructure (GI), and the protection and enhancement of landscape character.

Site and Proposed Development

7.1.9 The site, approximately 2ha, is situated to the south of the B1408 London Road which runs through Copford and comprises a Grade II agricultural field which is currently cropped. The area, which is regular in shape, sits behind existing residential properties along London Road and between properties on Hall Road to the East and large gardens associated with dwellings on London Road to the west.

7.1.10 The Site lies on the edge of the plateau and is flat to gently sloping towards the south east where lower lying land surrounds the Roman River. The character of the area, is generally of a linear village (eastern end of Copford) along the London Road merging into an arable and wooded landscape beyond the built up areas. Hall Road generally dissects the Roman River Valley from the plateau landscape, whilst the A12 cuts through the valley to the north ofthe Site. Existing features within the site (boundary hedgerows) are limited, but are important for their landscape, ecological and amenity value.

7.1.11 The principles of the scheme have been developed from a landscape led approach following an analysis of the potential constraints and opportunities. The key recommendations include:

- The retention and enhancement of the existing boundary vegetation as a strategic landscape framework into which the new residential buildings will sit.
- Careful consideration of the development layout and built form including careful consideration of building height, scale and density; and the use of appropriate building styles and materials.
- New strategic planting and open space to reinforce key areas within the site. Such planting will create a series of 'layers' of vegetation to increase the level of tree cover and integrate the built form in views from the surrounding area.
- The incorporation of water attenuation and a small wildlife pond to the south of the Site.

7.1.12 The Application Statement, Site Layout and Landscape Strategy submitted with this application and set out the form, scale, character and visual appearance of the development and quality envisaged.

Landscape Effects

7.1.13 The effects of the proposed development on the landscape, namely the contribution of the site to the surrounding area, the character of Copford and its landscape context have been assessed.

7.1.14 In compliance with the recommendations in the District Landscape Guidelines the site is well related to existing development, whilst proposed screening to the southern and western boundaries ensures that the built form will not intrude into the wider landscape, the boundary being in line with neighbouring residential gardens. The retention and enhancement of the vegetation, the appropriate and well-designed layout in conjunction with new planting will ensure that other landscape effects are temporary, limited in magnitude and/or localised in their extent.

7.1.15 The principal change will be experienced at the site level where the existing land use will be replaced by a residential development with associated buildings, strategic landscape and open space. In accordance with planning policy and landscape guidelines the landscape elements which are important to the site and character of the area will be retained and enhanced and along with new planting will provide an establishing landscape structure from the outset, containing the majority of the built form from the surrounding landscape in the medium- to long-term. The overall effect on the site is subsequently **Moderate-Substantial Adverse** decreasing to **Minor Adverse** over time. Whilst noticeable, the change is considered appropriate in the local context.

7.1.16 With the introduction of new housing, there will be a change to the character of both the of the Wooded Roman River Valley and the Easthorpe Farmland Plateau LCAs. Such change will however be limited in terms of its magnitude and extent.

7.1.17 The sensitivity of the LCA (South Colchester Farmlands) to major development is considered medium. However, the Roman River Valley LCA (A2) is considered very sensitive to all types of change due to its intrinsic strength of character and good condition. As the Site is located so close to LCA B2 and is far more in keeping with this LCA, the effect on the River Valley landscape is more limited. The Roman Road is a clear demarkation of the character areas at this point and as the visual influence of the Site is so limited to the east, the Site has been judged against LCA B2 more appropriately. The overall assessment therefore assesses the development as **Moderate Adverse** at Year 1**.** Due to the embedded mitigation, this impact will be both temporary and localised. Where the scheme faces the more sensitive LCA, the creation of open space, the setting back of development from the eastern boundary and the retention of the existing good quality boundary hedge all help to softent the development from this sensitive aspect. Although the development will be perceptible, the overall rural character of the valley and the plateau land will not be affected. The residual effect on both of the adjoining LCAs is subsequently assessed as **Minor Adverse**.

7.1.18 The proposed development will have a **Minor Neutral to Negligible** effect on the character of Copford. The scheme is consistent with the character of existing development, and with good design will create a sense of place and identity.

Visual Effects

7.1.19 The area from which the site and proposed development is likely to be visible (the 'Visual Envelope') has been identified and the effects on the visual amenity of the area has been assessed with reference to a range of possible receptors including private properties, roads and public rights of way.

7.1.20 The greatest level of change will be experienced by those properties adjoining the site along London Road as well as users of the PRoW network within Copford.

7.1.21 Views from individual properties on London Road will vary depending on their proximity / relationship to the residential site layout and the extent of intervening vegetation. The use of rear gardens and public open space areas will create a good separation and appropriate edge to the neighbouring development, and while views will change substantially, residential amenity will not be affected.

7.1.22 Along Hall Road the introduction of further buildings will initially have a **Moderate-Minor Adverse** effect on users of the route. In the long-term, the design of the development and the introduction of tree planting; particularly around the entrance area, will create a positive frontage that complements the existing built form. The residual effect is subsequently **Neutral to Negligible**.

7.1.23 Although there will be an increase in traffic flow, users of the London Road will not see the development.

7.1.24 The principal change to footpath users will be experienced on PRoW 128_2 which runs adjacent to the west of the Site.

This view will change from an arable field to a residential development. Well designed strategic boundary planting and houses fronting onto this western aspect will mitigate the change of view by creating a 'village edge' scene which relates to the character of the area. Close range views of the Site will not be screened but good quality, well managed boundary planting, particularly to the southern boundary, will reduce the impact of the development in the longer term. Once boundary planting has established, the development will be seen within the context of the adjacent landscape and residential scene and will be in keeping with the character of the area. The effect is subsequently assessed as **Moderate Adverse** (modeate-substantial close to the site moderate to minor further afield) and reducing to **Minor Adverse** as the new planting matures creating a soft landscape dominated settlement edge.

7.1.25 In all other views from the south the effect is assessed as **Minor Adverse** in the short- to medium-term, with a combination of on-site strategic planting and intervening vegetation ensuring that the residual effect is **Negligible**.

7.1.26 From the east, footpath 3 runs east/west from Hall Road to the Roman River Valley. Views into the Site from the PRoW are limited by the existing good quality boundary hedge to the eastern boundary. A footpath link is proposed through the Site joining PRoW 2 to PRoW 3; linking the river valley landscape to Gravelpit Wood,the community centre and School Road. Although the new route will provide visual links into the Site which will at first be Minor Adverse in effect, the linking of these routes and the provision of additional on-site planting will enhance this route. The residual effect is therefore considered to be **Negligible** to **Minor Positive**.

7.1.27 Secondary Mitigation

7.1.28 A number of additional mitigation measures have been identified to reduce the residual landscape and visual effects and secure the appropriate development of the site from detailed design, through its implementation to long-term management.

7.1.29 As an outline application the detailed design, appearance and landscaping off the employment area will be agreed at the reserved matters stage. To ensure that landscape and visual effects are minimised the design process should incorporate the recommendations set out in Section 3 of this report.

7.1.30 Other design measures for the overall site include the confirmation of additional information on the specification of external materials, hard and soft landscape and lighting. The detailed design of the proposed planting and its specification should be in full accordance with the submitted Landscape Strategy Plans. All areas of strategic vegetation (existing and proposed) should subsequently be retained and managed in perpetuity in accordance with a Landscape and Ecological Management Plan.

7.1.31 All these and other measures can be agreed post planning and secured by planning conditions.

Conclusion

7.1.32 The site off Hall Road, Copford provides a suitable, sustainable location for the proposed residential development from a landscape and visual perspective. The landscape led approach to the development, including the protection and enhancement of existing site features, the design of buildings, and integration of strategic planting will ensure that the proposals will have a minimal residual effect on the landscape character of the area.

7.1.33 The additional provision of a small pond within a public open space, public open space around the entrance and a strategically managed boundary as well as an additional, well linked PRoW, will provide valuable amenity and environmental gains.

7.1.34 The proposed development is subsequently in accordance with the policies of the Adopted and New Local Plans in respect of Environmental Impact, Landscape Character, Green Infrastructure and Design.

APPENDICES

APPENDIX 1 SOURCES OF INFORMATION

Mapping and Other Data

- Ordnance Survey maps (1:25 000 Explorer Series)
- Historic Ordnance Survey maps
- Aerial images
- Multi-Agency Geographic Information for the Countryside (MAGIC) (https://magic.defra.gov.uk/)
- Google Earth Pro
- National Heritage List for England Map Search (https://historicengland.org.uk/listing/the-list/map-search)
- Essex County Council PRoW Interactive Map (https://www.essexhighways.org/Getting-Around/public-rights-of-way/prow-interactive-map.aspx)

Adopted Planning Policy and Guidance

- European Landscape Convention, Council of Europe, Florence, October 2000
- The National Planning Policy Framework (NPPF) and associated Planning Practice Guidance Department of Communities and Local Government, July 2018
- Colchester Borough Council Adopted Local Plan, 2008, revised 2014
- Essex Design Guide, Essex County Council, 2018 https://www.essexdesignguide.co.uk/

Emerging Planning Policy and Support Evidence

- Colchester Borough Draft Local Plan 2017-2033, Colchester Borough Council, June 2017

Landscape Character

- NCA Profile 111: Northern Thames Basin (NE466), Natural England, January 2013 (http://publications.naturalengland.org.uk/publication/4721112340496384)
- Essex Landscape Character Assessment, Chris Blanford Associates on behalf of Essex County Council, 2003
- Colchester Borough Landscape Character Assessment, Chris Blandford Associates, 2005

Other Published Documents / Supporting Information

- Guidelines for Landscape and Visual Impact Assessment, Landscape Institute and Institute of Environmental Management and Assessment, 3rd Edition, 2013
- An Approach to Landscape Character Assessment, Natural England, October 2014 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/691184/landscape-character-assessment.pdf
- Landscape Character Assessment: Guidance for England and Scotland, The Countryside Agency and Scottish Natural Heritage, 2002
- Green Infrastructure Guidance, Natural England 2009
- BS5837:2012: Trees in Relation to Design, Demolition and Construction – Recommendation, BSi, April 2012

1.1 Introduction

Approach

1.1.1 This assessment has been carried out to inform the planning 'appraisal' of the proposed development. The process follows the general principles set out in the 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3) published by the Landscape Institute and IEMA[1].

1.1.2 Landscape and Visual Impact Assessment (LVIA) is a tool used to identify the effects of development on "*landscape as an environmental resource in its own right and on people's views and visual amenity"* (GLVIA para. 1.10). These two elements although inter-related, are assessed separately.

1.1.3 Para. 2.23 of the guidance confirms that professional judgement is an important part of the LVIA process and while there is scope for objectively quantifying changes to the landscape and visual environment, much of the assessment will rely on qualitative professional judgement. It is important that these judgements are based upon a clear and transparent method so that the reasoning can be followed and examined by others.

1.1.4 The approach should be proportional to the scale of the project and the nature of the likely effects, the emphasis being on those that are likely to be significant.

Process

1.1.5 The overall process of LVIA is based on the following steps:

- **Scoping:** An initial judgement on the scope of the assessment and the key issues including identification of the study area for the assessment.
- **Project Description:** A description of the siting, layout and other characteristics of the proposed development including the landscape proposals.
- **Baseline:** The existing nature of both the landscape and visual environment in the study area and its value.
- **Identification and description of effects:** The impacts resulting from the development and the resulting changes on both landscape and visual receptors.
- **An assessment of the importance of the effects:** Based on the nature of the receptor and magnitude of the effects identified.

1.1.6 Measures to avoid/prevent, reduce or compensate for potential landscape and visual effects are described as mitigation. Mitigation can fall into two categories:

- Primary measures - developed through an iterative design process, which are integrated or 'embedded' into the project's design. Such measures are generally informed by the baseline assessment and may include the retention of existing important landscape elements (trees and hedgerows for example); the use of appropriate built form, detailed design, materials and finishes; consideration of levels / landform; and new planting. Those specific to the proposed development are identified and described in the project description and are included in the appraisal of effects.
- Secondary measures - designed to address any residual effects after primary measures have been incorporated. These additional measures, and the methods to secure their implementation are identified separately at the end of the assessment.

1.1.7 As the characteristics of the proposed development, including vegetation, will vary over the life of the project the landscape and visual effects are considered at the following stages:

- **Post Completion (Year 1):** To represent the worst case scenario on the completion of the development, where planting has been implemented but has limited impact; and
- **Completion Year 15:** To represent the best case scenario, where planting is considered to be fully established and effective. These are the permanent residual effects.

1.1.8 Any effects that may arise during construction are considered to be temporary and short-term.

Impacts and Effects

1.1.9 For the purposes of the appraisal, the term 'impact' is used to describe the action or cause and 'effects' are the resultant changes on the landscape and visual context.

1.1.10 Effects can be beneficial, adverse or neutral in nature:

- Positive / Beneficial effects are those which enhance and/or reinforce the characteristics of the landscape or view;
- Negative / Adverse effects are those which remove and/or undermine the characteristics of the landscape or view; and
- Neutral effects are changes which are consistent with the characteristics of the landscape or view.

1.2 Landscape Assessment

1.2.1 The European Landscape Convention (ELC) defines landscape as *"an area as perceived by people, whose character is the result of the action and interaction of natural and/or human factors,"* (Council of Europe, 2000). The scope of the ELC concerns all natural, rural, urban and peri-urban areas and applies to all landscapes everywhere and in any condition whether *"outstanding, every day or ordinary."*

1.2.2 The purpose of the landscape assessment is to determine the effects of the proposed development on the landscape as a resource in its own right. The defined aspects of the landscape resource that have the potential to be affected by the proposals or landscape receptors comprise:

- The physical elements that make up the rural and built environment - topography, hydrology, land cover, land use, vegetation and settlement for example;
- Aesthetic characteristics such as tranquillity or openness; and/or
- The character of a defined area or landscape type and its sense of place.

1.2.3 The appraisal requires a methodical assessment of the sensitivity of the landscape receptors to the proposed development and the magnitude of change which would be experienced by each receptor.

Baseline

1.2.4 The purpose of the baseline assessment is to identify and record the existing character and condition of the landscape and the elements, features and aesthetic and perceptual factors that contribute to it. This was completed by a desk study of published Landscape Character Assessments (from national to district level) supported and refined by field work.

1.2.5 An assessment of the local landscape context was undertaken to identify how representative the locality of the site is of the local landscape character type or area of which it forms part and identify potential landscape receptors.

1 Guidelines for Landscape and Visual Impact Assessment, Landscape Institute and Institute of Environmental Management, 3rd Edition, 2013

Sensitivity

1.2.6 The sensitivity of landscape receptors is assessed by combining the value attached to the landscape and its susceptibility to the type of change which is proposed.

Value

1.2.7 The starting point for assessing the value of landscape receptors is the presence of landscape designations (statutory and non-statutory) and their designation criteria. Such designations may include National Parks, Areas of Outstanding Natural Beauty (AONB), Listed Buildings, Registered Parks and Gardens of Special Historic Interest, Local Landscape Designations (such as Special Landscape Areas), Conservation Areas and Tree Preservation Orders.

1.2.8 Other areas of landscape, or individual elements, features or aesthetic aspects of the landscape which contribute to its character may not be formally designated but nether the less be valued. In this instance published Landscape Character Assessments and associated planning policies can be used to inform an overall judgement based on:

- The condition of landscape elements and their contribution to landscape character;
- The condition and overall strength of the landscape character area as a whole;
- Any important, valuable or special qualities identified; and
- The objectives of landscape strategies and guidance.

1.2.9 The criteria informing the judgement of the value of landscape receptors are set out in **Table A1** - with the value assessed as either High, Medium or Low.

Susceptibility to Change

1.2.10 GLVIA3 defines susceptibility as the *"ability of the landscape receptor to accommodate the proposed development without undue consequences for the baseline situation and/or the achievement of landscape planning policies and strategies."* Judgement of susceptibility is particular to the specific characteristics of the proposed development and the ability of a particular landscape or feature to accommodate the type of change proposed.

Table A3: Overall Landscape Sensitivity

		Susceptibility to Change		
		High	**Medium**	**Low**
Landscape Value	**High**	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

Table A1: Landscape Receptors - Value

Value	High	Medium	Low
Description	Landscape elements that are: • In an excellent to good condition • A fundamental component of landscape character • A distinctive or rare landscape feature These are likely, but not necessarily subject to statutory protection e.g. TPO's or Listed Buildings, given significant protection by planning policy and/or landscape guidance.	Landscape elements that are: • In a good to average condition • Make a contribution to landscape character These may be, but not necessarily protected by planning policy and/or landscape guidance.	Landscape elements that are: • In a poor to average condition • Make a limited contribution to landscape character (or their contribution is significantly reduced by virtue of their condition) • Uncharacteristic and/or detract from the character of the area Planning policies and/or landscape guidance may be, but not necessarily, focused on their removal / replacement or enhancement.
	Landscapes or areas that: • Are in a excellent to good condition • Have a strong character, sense of place and/or scenic quality • Have a particular cultural, historical and/or conservation interest • Have strong perceptual qualities such as wildness or tranquillity • Have few uncharacteristic / detracting elements or features Management objectives are generally focused on conservation of landscape character. These are likely, but not necessarily statutory protected landscapes recognised for their national value e.g. National Park, AONB, Registered Parks and Gardens etc.	Landscapes or areas that: • Are in a good to average condition • Have an identifiable character, sense of place and/or scenic quality • Have a some cultural, historical and/ or conservation interest • Have some perceptual qualities such as a sense of tranquillity • Have some detracting elements or features Management objectives are generally focused on conservation and enhancement of landscape character. These are likely, but not necessarily locally designated landscapes such as Special Landscape Areas or similar.	Landscapes or areas that: • Are in a poor to average condition • Have evidence of erosion of character and/or a limited sense of place • Have limited cultural, historical and/ or conservation interest • Contain some important landscape elements, but detracting features are notable Management objectives are generally focused on enhancement and restoration of landscape character. Designations are unlikely but areas may still be valued by the local community.

Table A2: Landscape Receptors - Susceptibility to Change

Value	High	Medium	Low
Description	Taking account of existing character and quality, the landscape receptor is highly susceptible to the proposed development because: • It is entirely at odds with the character of the area • There is no or very limited potential for substitution or replacement • The key characteristics of the landscape have no or very limited capacity to accommodate it without undue adverse effects • There is low potential for mitigation Proposals may substantially contradict planning policy and/or landscape guidance.	Taking account of existing character and quality, the landscape receptor is moderately susceptible to the proposed development because: • It has a degree of consistency with the character of the area although mitigation may be required • There is some potential for substitution or replacement • The key characteristics of the landscape have some capacity to accommodate it without undue adverse effects • There is some potential for mitigation and/or enhancement Proposals may be partly, but not entirely, in accordance with planning policy and/or landscape guidance.	Taking account of existing character and quality, the landscape receptor has a low susceptibility to the proposed development because: • It is entirely consistent with the character of the area • There is good potential for substitution or replacement • The key characteristics of the landscape have a good ability to accommodate it without undue adverse effects • There is good potential for mitigation and/or enhancement Proposals are generally in accordance with planning policy and/or landscape guidance.

1.2.11 The overall judgement is subsequently based on:

- The capacity of the landscape to accommodate the type / nature of the development proposed;
- The extent to which the development is in accordance with landscape strategies and guidance; and
- The need and potential for mitigation.

1.2.12 The criteria informing the judgement of the susceptibility of landscape receptors to the proposed development are set out in **Table A2** as either High, Medium or Low.

Sensitivity

1.2.13 The overall sensitivity of landscape receptors is defined by correlating value and susceptibility to change as set out in **Table A3** as either High, Medium or Low. Judgements are made about each landscape receptor with the table acting as a guide. Intermediate categories may be used where the value or susceptibility doesn't fall within one of the main categories, or a finer degree of differentiation is required.

Magnitude of Change

1.2.14 The magnitude of landscape change is defined by assessing the size or scale of change, its geographical extent and its duration and reversibility.

1.2.15 The size and/or scale of change in the landscape takes into consideration the following:

- The extent/proportion of landscape elements (built / natural) lost;
- The extent/proportion of new landscape elements (built / natural) added;
- The degree to which aesthetic/perceptual aspects may be altered; and
- Whether this is likely to change the key characteristics of the landscape.

1.2.16 The geographical area over which these changes may be experienced can be at the site level, in the immediate area of the site, or over a wider area.

1.2.17 Effects may be permanent or reversible in the short-, medium- or long-term.

1.2.18 The magnitude of change is assessed on a sliding scale from Very High to Negligible - refer to the criteria in **Table B**. Intermediate categories may be used where the magnitude of change doesn't fall within one of the main categories, or a finer degree of differentiation is required. Effects may be adverse, beneficial or neutral in nature.

1.3 Visual Assessment

1.3.1 The purpose of the visual assessment is to assess the effects of change and development on the views available to people and their visual amenity.

1.3.2 Visual receptors are the people whose views may be affected by the development proposals. They generally include users of public rights of way or other recreational facilities; travellers who may pass through the area because they are visiting, or living or working there; residents; and people at their place of work.

1.3.3 The appraisal requires a methodical assessment of the sensitivity of visual receptors to the proposed development and the magnitude of change which would be experienced.

Table B: Magnitude of Landscape Change

Magnitude / Extent of Change	Description
Very High	The proposals will result in total, irrevocable and wide reaching physical change in the landscape receptor. This is likely to include: • Major / total change to existing landscape elements and their condition and/or the introduction of major or dominant new elements; • Major/ total change to the existing landscape character and context of the area, its key characteristics, condition and/or aesthetic attributes
High	The proposals will result in a large degree of physical change in the landscape receptor, which may be experienced from a large area and be either permanent or reversible only in the long-term. This is likely to include: • Substantial / prominent change to existing landscape elements and their condition and/or the introduction of prominent new elements; • Substantial / prominent change to the existing landscape character and context of the area, its key characteristics, condition and/or aesthetic attributes
Medium	The proposals will result in a medium degree of physical change in the landscape receptor, which may be experienced from a distance from the site in the medium- to long-term. This is likely to include: • Moderate / noticeable change to existing landscape elements and their condition and/or the introduction of moderate new or characteristic elements • Moderate / noticeable change to the existing landscape character and context of the area, its key characteristics, condition and/or aesthetic attributes
Low	The proposals will result in only a minor level or localised physical change in the landscape receptor. This is likely to include: • Minor / discernible change to existing landscape elements and their condition and/or the introduction of minor new or characteristic elements • Minor / discernible change to the existing landscape character and context of the area, its key characteristics, condition and/or aesthetic attributes
Negligible	The proposals will result in no / barely discernible or short-term physical change in the landscape receptor. There will be: • Very little change to existing elements and their condition and negligible effects from the introduction of new or characteristic elements • The overall landscape character and context of the area, its key characteristics, condition and/or aesthetic attributes will be unaffected

The effects can be either beneficial (positive), adverse (negative) or neutral in nature:

Nature of Change	Description
Beneficial	The proposals by virtue of their nature, location and/or design respect or have a good contextual fit with the landform, scale and pattern of the surrounding landscape. The development will have a positive effect on landscape character and its aesthetic aspects by removing uncharacteristic landscape elements; retaining characteristic elements and/or enabling their restoration or replacement; and introducing new elements which make a positive contribution to the landscape and its sense of place in accordance with landscape policy objectives and guidelines. The character and/or condition of the landscape will be enhanced.
Adverse	The proposals by virtue of their nature, location and/or design will be at variance with the landform, scale and pattern of the surrounding landscape. The development will have a negative effect on landscape character and its aesthetic aspects by removing all (or parts of) characteristic landscape elements and/or erode their condition / perception in the landscape; and introduce new elements which are uncharacteristic, make a limited contribution to the landscape and its sense of place. The proposals may conflict or make a limited contribution to policy objectives and guidelines. The character / condition of the landscape will reduce.
Neutral	The proposals by virtue of their nature, location and/or design are not uncharacteristic when set within the landform, scale and pattern of the surrounding landscape. The development is not contrary to but may make a limited contribution to landscape policy objectives and guidelines. The effect on landscape character is neither positive or negative.

APPENDIX 2 METHODOLOGY CONTINUED

Baseline

1.3.4 The purpose of the baseline is to establish the area in which the site and the proposed development may be visible; the different groups of people who may experience views; the locations where they may be affected; and the nature of the existing views at these points.

Visual Envelope

1.3.5 The area in which the site and the development may be visible, the 'visual envelope,' has been determined by a manual assessment of topographical and mapping data in conjunction with field work. The type of viewers and places within the visual envelope which may be affected by the proposed development are identified.

Viewpoints and Views

1.3.6 A number of viewpoints are selected to demonstrate the extent of visibility of the site and future development and the visual amenity currently experienced. The viewpoints are generally representative i.e. are typical of those experienced from residential areas, roads or rights of way, but may be from a specific location, for example a promoted viewpoint or attraction.

1.3.7 The viewpoints take into account a range of factors including:

- Accessibility to the public;
- The type, potential number and sensitivity of viewers who may be affected;
- A range of different directions, distance (near-, middle- and long-distance) and elevation;
- The nature of the viewing experience; and
- The type of view.

1.3.8 Baseline photographs were taken at each location in accordance with best practice.

Sensitivity

1.3.9 The sensitivity of visual receptors is assessed by combining the value attached to the view and the susceptibility to the type of change which is proposed.

Value

1.3.10 Different levels of value are attached to the views experienced by particular groups of people at particular viewpoints. Assessment of value takes account of a number of factors, including:

- Visual amenity;
- Recognition of the view through some form of planning designation or by its association with particular heritage assets; and
- The popularity of the viewpoint, in part denoted by its appearance in guidebooks, literature or art, or on tourist maps, by information from stakeholders and by the evidence of use including facilities provided for its enjoyment.

1.3.11 The criteria informing the judgement of the value of visual receptors are set out in **Table C1**- with the value assessed as either High, Medium or Low.

Susceptibility to Change

1.3.12 The susceptibility of different visual receptors to changes in views and visual amenity is a function of:

Table C1: Visual Receptors - Value

Value	High	Medium	Low
Description	High to exceptional visual amenity and scenic quality, highly valued by visitors and the local community such that people would travel some distance or go out of their way to experience them. Views may include: • Nationally recognised / important views such as those protected by policy e.g. National Park / AONB or a nationally important trail or route • Designed views • Views from recognised tourist destinations, marked on maps / guidebooks • Recognised views referenced in art or literature	Average to good visual amenity where the quality of existing views is such that there are few / or a limited number of incongruous elements. Views are likely to be valued by visitors and the local community on a day to day basis. Views may include: • Locally recognised or important views including those protected by local policy such as visually important open space or special landscape areas • Views from local destinations and well used footpath routes	Average to poor visual amenity where incongruous elements are present or dominant. Local people are likely to be indifferent to the view. Views may include: • Views from footpaths which are not well used • Views where detracting features are clearly apparent / dominant

Table C2: Visual Receptors - Susceptibility to Change

Value	High	Medium	Low
Description	Observers whose attention or interest is generally focused on the landscape. To include: • Users of public rights of way, recreational trails and waterways • Visitors to heritage assets or attractions where views are an important part of the experience • Users of land with public access including Open Access and National Trust Land • Residential properties, primarily with views from living areas (predominantly ground floor)	Observers where views of the landscape are part of, but not the sole purpose of their activity. To include: • People engaged in sport or recreation where the appreciation of the view is part of the activity • Users of local roads where attention is likely to be focused on the landscape rather than the road ahead for example scenic routes • Residential properties with views from rooms generally unoccupied during the day (predominantly first floor rooms) or oblique views	Observers whose attention or interest is generally focused entirely on their activity rather than the landscape. To include: • People engaged in sport or recreation where the appreciation of the view is not important to the activity • Users of main road / rail routes where the view is incidental to the journey • Places of work or study where setting is not important to the quality of working life

Table C3: Overall Visual Sensitivity

		Susceptibility to Change		
		High	**Medium**	**Low**
Amenity Value	**High**	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

- The occupation or activity of the people at a given location; and
- The extent to which the viewer's attention or interest may be focused on the views and the visual amenity they experience.

1.3.13 The criteria informing the judgement of the susceptibility of visual receptors are set out in **Table C2** as either High, Medium or Low.

Sensitivity

1.3.14 The overall sensitivity of visual receptors is defined by correlating value and susceptibility to change as set out in **Table C3** as either High, Medium or Low. Judgements are made about each visual receptor with the table acting as a guide. Intermediate categories may be used where the value or susceptibility doesn't fall within one of the main categories, or a finer degree of differentiation is required.

Magnitude of Change

1.3.15 The magnitude of visual change is defined by assessing the size or scale of change, its geographical extent and its duration and reversibility.

1.3.16 The size and/or scale of visual change takes into consideration the following:

- The scale of the change considering the loss and/or addition of features in the view, changes in its composition, including the proportion of the view occupied by the proposed development and distance;
- The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and their characteristics, for example in terms of form, scale and mass, line, height, colour and texture;
- The nature of the view of the proposed development, for example whether views will be full, partial or glimpsed or sequential views while passing through the landscape.

1.3.17 The geographical extent of a visual effect will vary with different viewpoints depending on:

- The angle of view in relation to the main activity of the receptor;
- The distance of the viewpoint from the proposed development; and
- With reference to the Visual Envelope, the extent of the area over which the changes would be visible i.e. over the whole length of a footpath or just a small section.

1.3.18 Consideration is also given to the seasonal differences arising from the degree of screening and/or filtering of views as a result of vegetation (existing and proposed) in both summer and winter. The assessment provides for the "average" and "worst-case" situations, the latter being the winter season with the least leaf cover and therefore minimal screening.

1.3.19 Effects may be permanent or reversible in the short-, medium- or long-term. The magnitude of change is assessed on a sliding scale from Very High to Negligible - refer to the criteria in **Table D**. Intermediate categories may be used where the magnitude of change doesn't fall within one of the main categories, or a finer degree of differentiation is required. Effects may be adverse, beneficial or neutral in nature.

Table D: Magnitude of Visual Change

Magnitude / Extent of Change	Description
Very High	The proposals will cause a complete change in the baseline view, to the extent that it will become the dominant feature. The composition and balance of the view and the visual amenity it offers will be totally altered.
High	The proposals will cause a considerable change in the baseline view, to the extent that it will become a prominent and/or large overall component of the view. The composition and balance of the view and the visual amenity it offers will be substantially altered.
Medium	The proposals, which may be one of a number of prominent elements, will cause a clearly noticeable change in the baseline view. The composition and balance of the view and the visual amenity it offers will be altered to a moderate degree.
Low	The proposals, which may be one of many visible elements, will cause a slight but perceptible change to the baseline view. The composition and balance of the view and the visual amenity it offers will be partially altered.
Negligible	The proposals will cause a barely perceptible change in the baseline view. It may be perceived as a background component or be subservient to or complement existing elements. The overall composition and balance of the view and the visual amenity if offers will not be altered.
No Change	The proposals will result in no change to the existing baseline view.

The effects can be either beneficial (positive), adverse (negative) or neutral in nature:

Nature of Change	Description
Beneficial	The proposals will have a positive effect on the view by either removing existing visual detractors and/or introducing elements which are already characteristic. By virtue of good design the development respects the scale, composition, and balance of existing visual elements and/or makes a positive contribution to the view. Visual amenity would subsequently be enhanced.
Adverse	The proposals will have a negative effect on the view by either removing existing positive visual elements and/or introducing elements that are not necessarily already characteristic, or are incongruous. The design of the development is out of keeping with the scale, composition and balance of existing visual elements resulting in a deterioration in the existing view. Visual amenity would subsequently be reduced.
Neutral	The proposals will be a discernible change, but will complement the existing view. The effect on visual amenity is neither positive or negative.

APPENDIX 2 METHODOLOGY CONTINUED

1.4 Importance of Effects

1.4.1 The relative importance of landscape and visual effects is determined by the relationship between the sensitivity of the receptor and the magnitude of the change. **Table E** summarises the nature of the relationship but it is not absolute and the overall conclusion is based on professional judgement.

1.4.2 Effects that fall in the red or orange section of the table (**Major** or **Substantial** categories) i.e. those by virtue of the more sensitive receptors and the greater magnitude of change are generally considered to be the most important in the planning process.

1.4.3 Those effects falling in the yellow (**Moderate**, **Minor** and **Negligible** categories) are generally acceptable levels of change.

1.4.4 Where a development would result in a large proportion of residual Major, Substantial and/or Moderate adverse effects, efforts to reduce impacts through mitigation should be further explored.

Table E: Scale of Importance of Landscape and Visual Effects

		Sensitivity		
		High	**Medium**	**Low**
	Very High	Major	Major	Substantial
Magnitude of Change	**High**	Major	Substantial	Moderate
	Medium	Substantial	Moderate	Minor
	Low	Moderate	Minor	Negligible
	Negligible	Minor / Negligible	Negligible	Negligible

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Archaeological Evaluation

Land at Hall Road
Copford, Colchester
Essex

NGR: TL 93297 23914

ASE Project No: 160784
Event No & Site Code: ECC 3878

ASE Report No: 2016371

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By Sarah Ritchie, MA ACIfA
with contributions by Stacey Adams, Anna Doherty and Mariangela Vitolo

Prepared by:	Sarah Ritchie	Archaeologist	
Reviewed and approved by:	Mark Atkinson	Project Manager	
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Archaeology South-East
27 Eastways
Witham
Essex
CM8 3YQ

Tel: 01376 331470
Email: fau@ucl.ac.uk
www.ucl.ac.uk/archaeologyse

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Abstract

This report presents the results of an archaeological evaluation carried out by Archaeology South-East at Land at Hall Road, Copford, Colchester, in September 2016. The fieldwork was commissioned by RPS in support of a forthcoming planning application for residential development on the site.

A preceding geophysical survey of the site had detected the presence of two anomalies of possible archaeological origin; a linear ditch and an extensive anomaly interpreted to be a possible oval enclosure.

Four evaluation trenches were excavated, two of which were found to contain archaeological remains. The archaeological remains, located in Trenches 3 and 4, consisted of pits and a ditch of earliest/Early Iron Age date (c.800-500BC). The geophysical anomalies of possible archaeological origin were demonstrated to both be of wholly natural origin.

The depth below ground level of the recorded archaeological remains was c.0.20-0.40m below ground level, and thus any below ground excavation as part of the proposed new development has the potential to impact on archaeological remains.

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1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) was commissioned by RPS, to undertake an archaeological evaluation at Land at Hall Road, Copford, Colchester (Figure 1, TL 93297 23914).

1.1.2 The site comprises a parcel of land within a *c.*1.9ha field currently utilised as ploughed farmland. The site is bounded to the north and west by houses fronting London Road; to the east by Hall Road; and to the south by fields (Fig. 1).

1.2 Geology and Topography

1.2.1 Drift geology of the area is predominantly Pleistocene sands and gravel. This is occasionally in a clay matrix, and is sometimes capped by about 300mm of 'cover loam'. The British Geological Survey indicates that the Site is situated close to the junction of Interglacial Lacustrine Deposits – Clay and Silt and Cover Sand. These deposits cap London Clay.

1.2.2 The Roman River runs approximately north/south to the east of the site and Hall Road. The river valley is associated with Holocene alluvium capping the aforementioned Cover Sand deposits.

1.2.3 The Site is on the valley side at approximately 30m above Ordnance Datum at its eastern edge, rising to 35m to the west of the site.

1.3 Planning Background

1.3.1 Prior to the submission of a planning application for residential development of the site, a pre-determination geophysical survey and subsequent targeted archaeological trial trenching was recommended by the archaeological advisor to Colchester Borough Council.

1.4 Scope of Report

1.4.1 This report presents and assesses the results of an archaeological evaluation by targeted trial trenching carried out on the 26th and 27th September 2016 at Land at Hall Road, Copford, Colchester. The archaeological work was recommended by the local planning authority and was undertaken in accordance with a Written Scheme of Investigation produced by RPS and approved by the CBC Archaeological Advisor (RPS 2016).

1.4.2 The site work was carried out by Sarah Ritchie (Project Supervisor), Mike Bazley and Marlena Duleba, and was managed by Andy Leonard (fieldwork) and Jim Stevenson (post-excavation).

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2.0 ARCHAEOLOGICAL BACKGROUND

2.0.1 The archaeological and historical setting of the site and its surrounding area is laid out in detail within the Written Scheme of Investigation (RPS 2016), and a synopsis presented below. For a full history please refer to the WSI.

2.1 Prehistoric (900,000BC-AD43)

2.1.1 Palaeolithic (*c.*900,000-10,000 BC) worked flints including handaxes are occasionally recorded within the Pleistocene sand and gravels around Colchester but are not usually found 'in-situ'. However, a quarry pit to the north of Copford Place at Marks Tay, c.200m to the north of the Site (UAD MC5587) located faunal remains of both a glacial and interglacial period clearly indicating two deposition periods; including warm period bison, beaver, red deer, horse and hippopotamus and cold period mammoth. There appears to be no direct indication of human agency associated.

2.1.2 Mesolithic period (*c.*10,000-4,000BC) hunter-gatherers tended to concentrate their activities in coastal zones and within the river valleys, potentially including along the line of the adjacent Roman River. Concentrations of worked flint typically found in such locations are most likely to relate to transient hunting and gathering activities within an otherwise largely wooded environment. Three axes (presumably of tranchet form) and two other worked flints of Mesolithic date, are referred to on the UAD from Swanfield Cottages, on the west side of the Roman River, *c.*250m to the north-east of the Site (UAD MCC7662).

2.1.3 The Neolithic (*c.*4,000-2,000BC) is defined by the introduction of agriculture to Britain from the continent. There are few signs of Neolithic activity within the vicinity of the site but early farming was typically concentrated on the lighter soils, particularly within the river valley zones. Nevertheless early Neolithic (Mildenhall ware) pottery and flints have recently been recovered from the gravel plateau of the former Colchester Garrison's Hyderabad Barracks above the River Colne (Brooks 2016) and further west *c.*38th century BC (radiocarbon dated) activity, including typical scatters of pits containing cereal remains, worked flints and pottery, have been excavated on the Boulder Clay geology at Priors Green, Takeley, adjacent to the line of Stane Street (Germany, Scruby and Masefield forthcoming). There are currently no early Neolithic finds on the UAD within the vicinity of the site but a collection of hard hammer struck worked flints of Late Neolithic or Early Bronze Age date were found residually within a later feature to the east of Turkey Lane, Stanway *c.*450m to the north-east of the Site (UAD MCC9340).

2.1.4 Bronze Age (*c.*2000-800BC) farming was relatively widespread on the lighter geologies and within the river valleys. The Early Bronze Age is characterised by circular funerary related burial mounds usually defined archaeologically (where plough levelled) by their surrounding ring ditches. A ring-ditch of uncertain (but potentially later Neolithic to Early Bronze Age) date has been identified from aerial photographs south of some potentially later enclosure cropmarks to the south of St Albrights Church *c.*310m to the east of the site (UAD MCC7076).

2.1.5 Copford is located to the west of the western earthwork defences of the major Late Iron Age oppidum of *Camulodunum*. The course of the Roman River further to the south-east of the Site appears to have formed part of the southern defensive arrangement of the oppidum. The defences were probably originally built around the tribal centre of the Trinovantes tribe, but the oppidum was soon claimed by the

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powerful Catuvelluani during expansions that followed the Caesar's expeditionary invasion of 55BC. Significant burial-related enclosures at Stanway, to the east of the site and east of the Roman River, were located just to the west of, but clearly related to, the defensive dyke system. These enclosures contained Late Iron Age to early Roman high status cremation burials.

2.1.6 Some of the aforementioned finds recovered northwest of Copford Hall, in the Hall grounds and in the churchyard, may be of Iron Age date. An undated cropmark complex to the north of Copford Hall, which is partially destroyed by a farm reservoir (UAD MCC7685), includes a circular enclosure whose form is more likely to prehistoric than later.

2.2 Roman (AD43-410)

2.2.1 Roman Colchester is particularly significant for the study of Roman Britain, especially given that Claudius' defeat of the Catuvelluani at Camulodunum in AD43 led to the establishment of a Colonia as the capitol of the Roman province until the Boudican revolt of AD 60 or 61. The town was famously sacked then by the revolting Iceni, along with the Trinovantes. The site lies well to the west the town, but the B418 (London Road) to its north side broadly follows the course of Stane Street leading to Colchester from Braughing (UAD MCC7518 & 8754; Margary 1955). This major Roman road passed through Marks Tey before crossing Copford parish from west to east and progressing east to Colchester.

2.2.2 According to Margary (1955), two other minor Roman roads appear to intersect each other west of Copford Green. One would in theory run across current fields to the west of the site, before connecting Stane Street close to the point it ran to the north of the site beneath the B1408 London Road. Although the putative road is not referenced on the UAD, its projected line, as provided by Margary as 'Roman Road 3b' – the 'Great Road', would link Chelmsford (and ultimately *Londinium*) to Colchester. The UAD also reports that two undated east/west aligned ditches, 25m and 37m to the north of the London Road (Stane Street) respectively, were found during investigations by CAT at Holmwood Grove to the north of the Site (UAD MCC5670). Given that they run parallel to the Roman road they are likely to be of Roman or later date.

2.2.3 A Roman villa is reported to have been located to the north of the church and Hall at Copford, with foundations also reported beside the Hall itself.

2.2.4 Roman metal-detecting finds within the vicinity of the site include a coin of Late Iron Age to AD260 date (MCC6705) that was found within the site itself; and five coins of late Roman date from three other locations to the south and south-west of the site (MCC5778/6701/6707). These coins may represent causal losses within the Roman landscape.

2.2.5 Undated, but possibly Romano-British, cropmarks to the north of Copford Hall include a possible 'double enclosure' of rectangular form, another trackway and the circular enclosure mentioned above that may more typically be prehistoric in date (UAD MCC7685).

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2.3 Anglo-Saxon (AD410-1066)

2.3.1 The settlement of Copford was in existence in the late Saxon period hence its inclusion in the Domesday Book (as 'Copeforda') which records that there were 16 bordarii, 5 servi, and 12 sokemen (totalling 33 households) in 1066. The name can be translated as 'Ford of a man called Coppa' and clearly refers to Stane Street's ford over the Roman River. The main infrastructure of Stane Street and its ford to the north-east of the Site thus remained in place. Consequently, Saxon occupation sites are quite likely to be located within the hinterland of the route and as in all periods the Rover itself in providing water for livestock is likely to have been attractive for any new settlers at this time.

2.4 Medieval (AD1066-1530)

2.4.1 According to British History Online (VCH) the 'ancient parish of Copford', which comprises an area of 1,034ha, 'was an irregular shape, stretching c. 5 miles from north to south.' The parish of Stanway lies to the east of the Roman River and Marks Tey is located to the west.

2.4.2 The Domesday Book further records that by 1086 there were 14 bordarii, 3 servi, and 10 sokemen (totalling 27 households) within the parish. The relatively large village included 120 poll tax payers in 1377 but was of a dispersed character comprising of scattered cottages and farms, presumably many of which lined the key roads. A number of woodland related local place-names nevertheless suggest piecemeal early woodland clearance. The presence of Copford Green or Tye is also recorded in 1467.

2.4.3 In addition to the former Roman road alignment to the north side of the site, a road known as Colneweye, mentioned in 1401, connected the thriving medieval town of Colchester to Halstead and Cambridge, and appears be respected the northern parish boundary. Hall Road was a relatively minor route along the west side of the Roman River floodplain leading to Copford Hall and the church to the south of the site. The Wormingford to Abberton (water) Pipeline works, undertaken in 2011, included investigations by Oxford Archaeology East to the east of Turkey Cock Lane, Stanway, *c.*450m to the north-east of the site (UAD MCC9340). Ditches of a horse-shoe shaped enclosure, a large circular pit potentially associated with clay extraction, a number of ditches and structural post-holes, produced medieval pottery that may relate to adjacent settlement. A coin of AD1279 to 1307 was also recovered as a stray find (MCC6055).

2.4.4 There are several timber–framed Listed Buildings of medieval date within the vicinity, including 15th-16th century Walden Cottage and Swan Cottage (UAD MCC4528), 15th century Vine Cottage & No. 366 London Road (UAD MCC4555) and the late 15th century Sparrow Hall (UAD MCC4556). 'Vineyards', Church Road, which is on the site of Pakes, was recorded in 1400, also incorporates late 15th or early 16th century fabric in the east cross wing.

2.5 Post-Medieval & Modern (1530 - present)

2.5.1 Various tax records confirm the presence of 59 households in 1671, a minimum of 80 adult men in 1696, sixty families in 1723 and c.70 in 1778. British history Online relays that the population was 495 in 1801, rising to 775 in 186. It then fell to 706 in 1871 and was 684 in 1901.

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2.5.2 The aforementioned road leading from Colchester to Halstead and Cambridge was turnpiked in 1766 and disturnpiked in 1866. Copford was described as 'a pleasant parish of scattered houses' in 1848, and several houses were clustered at Copford Green. The poet Matthew Arnold described it as 'deeply rural character' in *c.*1870, a fact confirmed by the early Ordnance Survey mapping. By 1923 it was promoted as an attractive residential area for 'a City gentleman desiring the delights and pursuits of the country'.

2.5.3 The historic mapping shows that the site comprised a field from at least 1839 and was certainly farmland prior to then. Chapman and Andre's map of Essex 1777 shows the site to the south of two cottages and bordered to the east by Hall Road. Hall Road is named after 'The Hall' shown to the south of the site. A Quakers meeting house is labelled to the north side of the London Road close to the windmill, with two unlabelled properties shown to the immediate north side of the site. Properties labelled 'Bastards' and 'A Brick Kiln' are labelled further to the north. The 1839 Tithe map shows seven structures north of the field flanking the road, but the site itself is simply a single field, as today. The apportionment indicates this field was called 'Lower Fishers Field'. Another house is shown to the east side of Hall Road opposite the site. The 1st Edition Ordnance Survey map of 1876 shows that the eastern of the buildings immediately north of the site was a smithy; no doubt taking advantage of London Road traffic. The field commensurate with the site (labelled '205') remains unchanged with further fields to the south and west.

2.5.4 A number of 17th century and post-medieval later Listed Buildings flank the London Road. Those to the north-west of the Site comprise 18th century 'Stanway Bridge', 18th century 'Old Mill House', 19th century 'Shrub House' and (MCC3875/ 3869/ 3870) and those to the north-east comprise and 17th century Brook Cottage, 18th century 'Copford Place' & 'Stable North of Copford Place' (MCC3874/ 3872/ 3873). Shrub House and Copford Place are shown and labelled on the 1st Edition OS map.

2.6 Undated

2.6.1 A geophysical Survey undertaken at the present proposed development site by Stratascan in August 2016 (in accordance with stage 1 of the WSI) identified a probable oval enclosure within the south-east area of the field, with a boundary ditch (of likely later date) running north/south through its east side (Fig.2).

2.7 Project Aims and Objectives

2.7.1 The general aim of the archaeological evaluation was to:

- Establish the likely presence/absence of archaeological features within the site

2.7.2 The project-specific aims were to:

- Establish the date, form, preservation and significance of the probable oval enclosure
- Establish whether the enclosure relates to a stock corralling and/or settlement via examination of internal and external areas

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- Establish the date, form, preservation and significance of the north-south aligned ditch through the east side of the putative enclosure.

2.7.3 In accordance with the relevant Research Agendas (Brown and Murphy 2000; Medlycott 2011), the specific Research Objectives were to:

- Inform whether Palaeolithic and/or Mesolithic hunter-gathers were active within this area of the local landscape beyond the Roman River floodplain
- Inform how the landscape was used and to what level of intensification, in Neolithic to Iron Age periods prior to the construction of Camulodunum to the east
- Establish whether the site contains Roman period archaeology associated with Stane Street and the putative Chemsford road link
- Address the question of the effect of the establishment of the Roman town on the agricultural hinterland
- Elucidate the presence/absence of Anglo-Saxon and/or medieval occupation or landscape at the Site and whether any such settlement was aligned on a medieval predecessor of Hall Road

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3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

3.1.1 The archaeological evaluation comprised the excavation of four trenches, each measuring 1.8m x 25m. Trench 3 was, at the request of RPS, extended by 7m. The trenches were positioned in order to test the results of the geophysical survey (Fig. 2).

3.1.2 The trenches were stripped of topsoil by a tracked 360° excavator, equipped with a 1.8m wide toothless ditching bucket. The removal of the modern overburden was archaeologically supervised and undertaken to the top of surviving archaeological deposits or else the top of the natural deposit.

3.1.3 The trenches were recorded using standard ASE trench sheets. Archaeological features and deposits were recorded using the standard context record sheets. Discrete archaeological features were half-sectioned and slots excavated across linear features, with their sections hand-drawn on drawing film sheets. All exposed remains were planned and levelled from the site survey using a Digital Global Positioning System (DGPS).

3.1.4 A full photographic record comprising colour digital images was made. All trenches were photographed from each end (trench shots) and all excavated contexts were photographed (context shots). The photographic register includes the shot number, location of shot, direction of shot and a brief description of the subject photographed.

3.1.5 Finds, where present, were retrieved from all investigated features/deposits. These were securely bagged and labelled with the appropriate site code and context number on site, and retained for specialist identification and study.

3.1.6 Bulk soil samples for environmental remains were taken from all linears and charcoal rich fills.

3.1.7 All the trenches were backfilled upon completion of the excavations.

3.2 Archive

3.2.1 Guidelines contained in the CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (2014d) and the Guidelines on the Preparation and Transfer of Archaeological Archives to Colchester Museum will be followed for the preparation of the archive for museum deposition.

3.2.2 Finds from the archaeological fieldwork will be kept with the archival material.

3.2.3 Subject to agreement with the legal landowner ASE will arrange with the Colchester and Ipswich Museums Service for the deposition of the archive and artefact collection. The landowner will be asked to donate the finds to the local museum.

3.2.4 A digital vector plan will be included with the report which will be compatible with MapInfo GIS software so that it can be integrated with the Colchester Urban Archaeological Database. AutoCAD files will also be exported and saved into a format that can be imported into MapInfo (e.g. as .dxf or .TAB files).

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3.2.5 The contents of the archive are tabulated below (Tables 1 and 2).

Context sheets	28
Section sheets	2
Plans sheets	1
Colour photographs	0
B&W photos	0
Digital photos	47
Context register	0
Drawing register	1
Watching brief forms	0
Trench Record forms	4

Table 1: Quantification of site paper archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	1
Registered finds (number of)	0
Flots and environmental remains from bulk samples	5
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

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4.0 RESULTS

4.1 General

4.1.1 Archaeological features were present in Trenches 3 and 4. These are described below in sections 4.2-4.3.

4.1.2 No archaeological deposits, features or finds were present in Trenches 4 and 5. These trenches are summarised in section 4.5.

4.2 Trench 3 (Fig. 3)

Context	Type	Interpretation	Length m	Width m	Depth/ thickness m	Height m AOD
3/001	Layer	Plough Soil	32m	1.8m	0.23-0.26m	31.61-31.49
3/002	Fill	Fill of pit 004	1.1m	1.3m	0.10m	31.31
3/003	Fill	Fill of pit 004	1.1m	0.98m	0.32m	31.21
3/004	Cut	Pit	1.1m (to LOE)	1.3m	0.42m	31.31
3/005	Fill	Fill of pit 007	1.2m	1.5m	0.12m	31.31
3/006	Fill	Fill of pit 007	1.2m	1.5m	0.40m	31.28
3/007	Cut	Pit	1.2m (to LOE)	1.5m	0.52m	31.31
3/008	Fill	Fill of pit 009	1.5m	0.44m		31.31
3/009	Cut	Pit	1.5m	0.44m		31.31
3/010	Layer	Natural	32m	1.8m	NFE	31.39-31.21

Table 3: Trench 3 list of recorded contexts

4.2.1 Trench 3 revealed natural sand and gravel [3/010] at 31.24m OD, sloping down to 31.39m OD in the south of the trench. Cut into the natural deposits were pits [3/004]; [3/007] and [3/009].

4.2.2 Circular pit [3/004] measured c.1.3m in diameter and 0.42m deep and was filled with a primary fill of mid grey-brown sandy silt with frequent flint [3/003] and secondary fill [3/002], consisting of a mid-grey sandy silt with frequent charcoal. Pottery retrieved from [3/002] suggests an earliest/Early Iron Age date (c.800-500BC).

4.2.3 Pit [3/009], extending beyond the eastern trench limit, was filled with a loose greyish-brown sandy-silt [3/008]. It was heavily truncated to the north by oval pit [3/007], which was filled with 0.40m of mid greyish-brown sandy silt with frequent flint inclusions [3/006]. This primary fill was sealed by secondary fill [3/005]; a dark grey-brown sandy-silt with frequent charcoal inclusions. Pottery collected from [3/005] suggests an earliest/Early Iron Age date. The three pits within Trench 3 have been interpreted as rubbish pits, and it is likely that the charcoal rich secondary fills of [3/004] and [3/007] represent hearth waste.

4.2.4 Trench 3 was sealed by c.0.25m of mid brown sandy-silt plough soil with frequent flint inclusions [3/001]. The modern ground level sloped from 31.61m OD in the north down to 31.49m OD in the south. The trench originally measured 25m in length, however, RPS requested the trench was extended c.7m to the south in order to try and locate more of ditch [4/003] (described in section 4.3). However, no further remains from the ditch were observed.

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4.3 **Trench 4** (Fig. 4)

Context	Type	Interpretation	Length m	Width m	Depth/ thickness m	Height m AOD
4/001	Layer	Plough Soil	25m	1.80m	0.31m	31.43-30.61
4/002	Fill	Fill of ditch 003	2.5m	1.18m	0.55m	31.00
4/003	Cut	Ditch	2.5m	1.18m	0.55m	31.00
4/004	Layer	Subsoil	25m	1.80m	0.10-0.19m	30.49
4/005	Fill	Fill of pit 006	0.80m	0.80m	0.13m	30.31
4/006	Cut	Pit	0.80m	0.80m	0.13m	30.31
4/007	Layer	Natural	25m	1.80m	0.52m	31.06-30.29
4/008	Fill	Fill of pit 009	1.2m	1m	0.45m	30.31
4/009	Cut	Pit	1.2m	1m	0.45m	30.31
4/010	Fill	Fill of pit 011	0.80m	0.70m	0.40m	30.31
4/011	Cut	Pit	0.80m	0.70m	0.40m	30.31
4/012	Fill	Fill of pit 013	0.64m	0.20m	0.34m	30.31
4/013	Cut	Pit	0.64m	0.20m	0.34m	30.31

Table 4: Trench 1 list of recorded contexts

4.3.1 Trench 4 revealed natural sand and gravel [4/007] at 31.04m OD, sloping down to 30.29m OD in the south-east of the trench. Cut into the natural deposits were ditch [4/003] and pits [4/006]; [4/009]; [4/011] and [4/013].

4.3.2 Ditch [4/003] was orientated east/west and measured c.1.18m wide and 0.55m deep. It was filled with a mid grey-brown sandy silt with occasional flint and charcoal flecks [4/002]. Pottery retrieved from [4/002] suggests an earliest/Early Iron Age date.

4.3.3 Pit [4/006] was filled with firm mid grey-brown sand and gravel [4/005] with occasional pottery inclusions of earliest/Early Iron Age date.

4.3.4 Pit [4/006] was very shallow, and at 0.13m deep probably represents the very base of a larger refuse or quarry pit.

4.3.5 The trench also revealed a series of intercutting pits. Pit [4/009] measured 1.20m x 1m x 0.45m deep, and was filled with a firm mid-grey sandy silt with frequent gravel inclusions and charcoal flecks [4/008]. Pottery of earliest/Early Iron Age date was recovered. Pit [4/009] was truncated to the south by pit [4/011]. This measured 0.80m wide and 0.40m deep and was filled with a firm mid grey-brown sandy silt with charcoal flecking [4/010] from which pottery of earliest/Early Iron Age date and the apex fragment of a triangular shaped Iron Age or Roman loom weight were recovered. Pit [4/011] was in turn truncated to the south by pit [4/013] that was filled with a mid-brown-grey sandy silt with charcoal flecks [4/012]. These pits have been interpreted as a series of rubbish pits, although it is possible they are intercutting quarry pits for ether flint or clay that have subsequently been filled with domestic rubbish.

4.3.6 The southern half of Trench 4 was sealed by a light yellowish-brown sandy silt subsoil [4/004], which was sterile, and might represent the natural cover loam often seen within the Colchester area. The whole trench was sealed by a c.0.30m thickness of mid brown sandy-silt plough soil with frequent flint inclusions [4/001]. The modern ground level sloped from 31.43m OD in the north down to 30.61m OD in the south.

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4.3.7 The ditch anomaly identified by the geophysical survey at this location (Fig. 2) was not visible as a below-ground archaeological feature within Trench 4, and is likely just the variations in the natural deposits.

4.4 Trenches 1 and 2 (Figs 5 and 6)

4.4.1 Trenches 1 and 2 revealed only a simple deposit sequence of modern plough soil above natural deposits. Neither contained archaeological features, however both contained fragments of peg tile in plough soil [001].

4.4.2 Both trenches had been positioned over possible ditches indicated by geophysical survey anomalies. Both possible ditches were revealed to be natural clay deposits. A machine slot was dug through the clay deposit in Trench 2, which revealed it to be a band of clay naturally deposited where the land slopes down from a high island of sand and gravel to the lower-lying natural Lowestoft Formation deposits.

Trench	Context	Type	Interpretation	Depth/ thickness m	Height m AOD
1	1/001	Layer	Plough soil	0.28m	31.14-30.69
	1/002	Layer	Natural silt, clay and gravel	NFE	30.87-30.41
2	2/001	Layer	Plough soil	0.28-0.38m	31.61-31.27
	2/002	Layer	Natural cover loam	0.15-0.28m	31.28-30.89
	2/003	Layer	Natural silt, clay and gravel	NFE	30.93-30.51

Table 5: Archaeologically negative trenches; list of recorded contexts

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5.0 FINDS

5.1 Summary

5.1.1 A small assemblage of finds was recovered during the evaluation on land at Hall Road. All finds were washed and dried or air dried as appropriate. They were subsequently quantified by count and weight and were bagged by material and context (Table 6). All finds have been packed and stored following CIfA guidelines (2014).

Context	Worked flint	Weight (g)	Pottery	Weight (g)	CBM	Weight (g)	Stone	Weight (g)	Fire Cracked Flint	Weight (g)	Fired Clay	Weight (g)
1/001	1	12			4	54						
2/001					1	38						
3/001	1	<2										
3/002	2	4	10	20			3	120	11	464		
3/005	4	22	9	98					9	100		
4/002			5	10								
4/006			18	40								
4/008	2	18	19	102			2	182	2	88	16	46
4/010			6	22	2	202			4	74	9	58
Total	*10*	*56*	*67*	*292*	*7*	*294*	*5*	*302*	*26*	*726*	*25*	*10*

Table 6: Finds quantification

5.1 Flintwork

5.2.1 A small assemblage of struck flint, comprising just 16 pieces weighing 79g, was recovered through hand collection and from sample residues. The pieces were thinly distributed. They came from topsoil and subsoil contexts in trenches 1 and 3, and from contexts [3/005], [4/008] and [4/010]. No chronologically diagnostic pieces were present, and the assemblage comprised 13 flakes, a bladelet, a blade-like-flake and a piece of irregular waste. They were manufactured from a fine-grained dark grey flint with a stained abraded cortex. The overall good condition of the flints suggests minimal post depositional movement. The small assemblage size and fragmentary condition of the flakes does not allow particularly confident dating. The bladelet from context [3/001] is likely to be Mesolithic or Early Neolithic, but only a broad prehistoric date can be proposed for the remaining pieces.

5.2.2 A small quantity of burnt unworked flint fragments (2819g) was also recovered from six numbered contexts ([3/002], [3/005], [4/002], [4/008], [4/010] and [4/011]). The majority are small-sized and display a red tinge indicating that they have only been burnt at low temperatures.

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5.3 Prehistoric Pottery

5.3.1 A small assemblage of hand-collected prehistoric pottery, totalling 61 sherds, weighing 270g, was recovered from six contexts in Trenches 3 and 4. Most of the deposits also produced a few small sherds from the residues of environmental samples (quantified in Table 7).

5.3.2 All of the contexts containing prehistoric pottery ([3/002], [3/005], [4/002], [4/006], [4/008] and [4/010]) produced material of similar character. The majority of the pottery is associated with fabrics containing fairly sparse flint set within a very silty or coarse sandy matrix. Most contexts also contained one or two fabrics with quartz sand and no flint inclusions. Because the assemblage generally comprises quite small groups of fairly fragmented and abraded bodysherds, it is difficult to assign spot-dates to any individual context with absolute confidence. However overall, the range of fabric types is fairly typical of earliest/Early Iron Age assemblages dating to *c*.800-500BC; a slightly later date is also possible but assemblages dating to after *c*.500BC typically contain higher proportions of non-flint-tempered wares. Two very small partial rim sherds with beaded rim profiles from context [3/002] would also be broadly in keeping with an earlier Iron Age date range.

5.4 Ceramic Building Material

5.4.1 Six pieces of ceramic building material (CBM) weighing a total of 97g were recovered from three evaluation contexts: [1/001], [2/001] and [4/010]. Topsoil [1/001] produced the most, with three peg tile fragments and one crumb of brick spall. A further piece of tile was collected from topsoil [2/001] and another brick spall piece from pit fill [4/010], the latter being small enough to be intrusive. All of the CBM was formed from red-orange clay with moderate amounts of unsorted quartz and none can be dated with any accuracy due to the poor state of preservation.

5.5 Fired Clay

5.5.1 A small fired clay assemblage of 26 fragments weighing 299g was hand-recovered from two separate contexts, with a further nine pieces weighing 16g being retrieved from environmental sample <5>. The majority of the fragments are small, very abraded and amorphous in nature with no diagnostic features present. As such, they are not indicative of function or date.

5.5.2 Only the largest clay piece, collected from [4/010], displayed any diagnostic characteristics; being the apex fragment of a triangular shaped Iron Age or Roman loom weight (RF<1>). Although very chipped, the approximate shape was still intact, as was a single perforation through which the weight would have been suspended.

5.6 Geological Material

5.6.1 A small assemblage of five stone fragments weighing 302g was recovered. The assemblage includes two water worn cobbles and three fragments of fine to medium grained sandstones of probable local origin. Although these may have been curated they show no evidence of human modification and are not inherently datable.

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6.0 ENVIRONMENTAL SAMPLES by Stacey Adams and Mariangela Vitolo

6.1 Introduction

6.1.1 Five bulk environmental samples were collected from pit fills [3/002], [3/005], [4/007] and [4/011] and ditch fill [4/002] for the recovery of environmental remains such as plant macrofossils, wood charcoal, fauna and mollusca. The following report includes details of the charred plant material and discusses its potential to inform on the diet, arable economy, environment and fuel selection and use of the site.

6.2 Methods

6.2.1 The flotation samples were each 40 litres in volume, excluding pit fill [4/008], where only 20 litres of soil was collected. The samples were processed by flotation tank with a 250µm mesh for retention of the flot and a 500µm mesh for the heavy residue, before being air dried. The heavy residues were passed through graded sieves of 8, 4 and 2mm and each fraction sorted for environmental and artefactual remains (Table 1). Artefacts recovered from the samples were distributed to specialists, and are incorporated in the relevant sections of this volume where they add further information to the existing finds assemblage. The flots were scanned under a stereozoom microscope at 7-45x magnifications and their contents recorded (Table 2). Preliminary identifications of macrobotanical remains were made with reference to modern comparative material and published reference atlases (Cappers *et al*. 2006; Jacomet 2006) where necessary. Nomenclature follows Stace (1997).

6.2.2 Charcoal fragments recovered from the heavy residues and flots were fractured along three planes (transverse, radial and tangential) according to standardised procedures (Gale and Cutler 2000). Specimens were viewed under a stereozoom microscope for initial grouping, and an incident light microscope at magnifications up to 400x to facilitate identification of the woody taxa present. Taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Hather 2000; Schoch *et al.* 2004; Schweingruber 1990). Genera, family or group names have been given where anatomical differences between taxa are not significant enough to permit more detailed identification. Nomenclature used follows Stace (1997), and taxonomic identifications of charcoal are recorded in Table 7.

6.3 Results

Samples <1> [3/002], <2> [3/005], <3> [4/002], <4> [4/008] and <5> [4/011].

6.3.1 The flots consisted of between 10 and 99% modern roots and contained occasional recent seeds of Chenopodiaceae, bramble (*Rubus* sp.) and black bindweed (*Fallopia convolvulus*). Wood charcoal fragments were abundant in pit fills [3/002] and [3/005], frequent in the fill of the ditch [4/002] and rare or absent in pit fills [4/008] and [4/011]. Charred macrobotanical remains were only identified in pit fill [3/005] as represented by knotweed (*Polygonum* sp.) and a single speedwell (*Veronica* sp.) caryopsis, of which preservation was good.

6.3.2 Wood charcoal fragments were frequent in the heavy residues, as was fire-cracked flint. Pottery fragments and worked flint were also recovered in small numbers whilst coal fragments and magnetic material was common.

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6.3.3 Pit fills [3/002] and [3/005] contained enough charcoal fragments to warrant identification work. The following taxa were identified: elm (*Ulmus* sp.), oaks (*Quercus* sp.), oak/chestnut (*Quercus* sp./*Castanea sativa*), hazel (Corylus avellana) and the Maloideae subfamily, which includes taxa that cannot be distinguished on grounds of anatomic characteristics, such as apple, pear, hawthorn and rowan, among others. Most fragments in both samples displayed evidence of vitrification, which happens when the wood anatomy fuses becoming glassy. This phenomenon is generally linked to the use of high temperatures, although other factors might concur to make charcoal vitrified. Nevertheless, the preservation was generally good; there was no evidence of sediment encrustations and most fragments were identifiable.

6.4 Discussion

6.4.1 Charred macrobotanical remains were absent from almost all of the flots. They were most likely present naturally within the wood charcoal assemblage and do not inform on the diet or arable economy of the site. The charcoal data suggest that a variety of vegetation environments were present near the site and tapped into for fuel, such as deciduous woodland, shrubs and hedgerows.

6.4.2 The good preservation of the wood charcoal and the wild seeds highlights the potential for the recovery of well-preserved charred plant macrofossils and charcoal from other primary deposits if present.

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Sample Number	Context	Spit (if relevant eg. cremation)	Context / deposit type	Sample Volume litres	Sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charcoal Identifications	Other (eg ind, pot, cbm)
1	3/002		Upper fill of pit	40		*	<1	***	1	*Ulmus* sp. 6 (1rw), cf *Ulmus* sp. 1 (radial cracks) Maloideae 2, *Corylus avellana* 1. Most fragments vitrified	Pot */ 19g Flint */ 6g Mag Mat <2mm ***/ 2g FCF ***/ 638g
2	3/005		Fill of pit	40		***	4	***	2	Maloideae 4, Quercus sp. 2, Quercus sp./Castanea sativa 2, Indet 3 (1 knot wood, 2 vitrified). Most fragments vitrified	FCF ***/ 100g Flint */ 3g Pot * 3g Mag Mat >2mm */ <1g Mag Mat *** 1g
3	4/ 002		Fill of ditch	40		**	1	***	3		FCF ***/ 307g Pot **/ 63 Coal **/ <1g Mag Mat <2mm ***/ <1g
4	4/008		Fill of pit	40		*	1	***	<1		FCF **/ 94g Pot */ 63g Coal */ <1g/ Mag Mat >2mm */ <1g Mag Mat <2mm **/ 1g
5	4/011		Fill of pit	20		**	2	**	<1		FCF **/ 45g Pot */ 9g Mag Mat <2mm */ <1g Flint */ 17g Fired Clay */ 15g Coal */ <1g

Table 7: Environmental sample residue quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and weights in grams

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Sample Number	Context	Weight g	Flot volume ml	Volume scanned	Uncharred %	Seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	Weed seeds charred	Identifications	Preservation
1	3/002	44	200	100	60	Chenopodiaceae (**) *Rubus* sp. (*) *Fallopia convolvulus* (*)	***	***	***			
2	3/005	23	110	100	80	Chenopodiaceae (**)	**	***	***	*	*Polygonum* sp. *Veronica* sp.	(+++)
3	4/002	3	10	100	95	Chenopodiaceae (*)	*	*	**			
4	4/008	2	5	100	95	*Rubus* sp. (*) Chenopodiaceae (*)			*			
5	4/011	1	<5	100	99	Chenopodiaceae (*) *Rubus* sp. (*)						

Table 8: Environmental sample flot quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and preservation (+ = poor, ++ = moderate, +++ = good)

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7.0 DISCUSSION AND CONCLUSIONS

7.1 Overview of stratigraphic sequence

7.1.1 The stratigraphic sequence consisted of a high 'island' of natural sand and gravel located at c. 31.39m OD, sloping down to the north, west and south and becoming a mixed clay, silt and flint to the north and west. Cut into the higher sands and gravels were an east/west orientated linear ditch and a number of pits of earliest/Early Iron Age date, the fills of which contained pottery and charcoal suggesting a function as refuse, or perhaps quarry, pits.

7.1.2 The recorded archaeological remains were sealed by c.0.20-0.40m of modern plough soil.

7.2 Potential impact on archaeological remains

7.2.1 The exact design and depths of the proposed development works have not been finalised at this time, and so it is not currently known what the impact will be on the archaeological remains. However, given the presence of archaeological survival c.0.20-0.30m below ground level any intrusive construction works, such as excavations for foundations, drainage or landscaping, are likely to impact on the surviving archaeological content of the site.

7.3 Consideration of research aims

7.3.1 *Establish the likely presence/absence of archaeological features within the site.*

The evaluation has established the presence of archaeological remains within the site.

7.3.2 *Inform whether Palaeolithic and/or Mesolithic hunter-gathers were active within this area of the local landscape beyond the Roman River floodplain*

A bladelet from context [3/001] is likely to be Mesolithic or Early Neolithic, but only a broad prehistoric date can be proposed for the remaining flintwork.

7.3.3 *Inform how the landscape was used and to what level of intensification, in Neolithic to Iron Age periods prior to the construction of Camulodunum to the east*

The presence of Early Iron Age pottery from the pits and linear confirms Iron Age activity within the site. However, from the data available at present it is not possible to say how intensive the Iron Age activity was, or whether the features observed are part of an occupation site, or evidence of more rural activities, such as quarrying and farming.

7.3.4 *Establish whether the site contains Roman period archaeology associated with Stane Street and the putative Chelmsford road link*

No Roman finds or features were observed during the evaluation.

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7.3.5 *Address the question of the effect of the establishment of the Roman town on the agricultural hinterland*

The evaluation did not provide any evidence that would shed light on this question.

7.3.6 *Elucidate the presence/absence of Anglo-Saxon and/or medieval occupation or landscape at the Site and whether any such settlement was aligned on a medieval predecessor of Hall Road.*

No Anglo-Saxon or medieval evidence was observed within the evaluation.

7.3.7 *Establish the date, form, preservation and significance of the probable oval enclosure;*
Establish whether the enclosure relates to a stock corralling and/or settlement via examination of internal and external areas

The oval enclosure anomaly recorded by the geophysical survey was revealed to be variations within the natural geology, and not archaeological in nature.

7.3.8 *Establish the date, form, preservation and significance of the north-south aligned ditch through the east side of the putative enclosure.*

The possible north/south aligned ditch anomaly interpreted by the geophysical survey was revealed to be variations within the natural geology, and not archaeological in nature.

7.4 Conclusions

7.4.1 The interpretation of geophysical anomalies as potential archaeological features within the site has been demonstrated by the evaluation as erroneous. The enclosure and linear ditch features have been established to be of wholly natural origin.

7.4.2 The evaluation has revealed the presence of Early Iron Age activity within the south-east of the site, in the form of pits and a linear ditch cut into the natural deposits and sealed by modern plough soil. From the evaluation sample the density of archaeological features does not appear to be high, and in terms of extent there is no evidence to confirm the features spread as far north as Trench 1, or as far west as Trench 2.

7.4.3 The depth of the recorded archaeological remains below ground level was c.0.20-0.40m. Groundworks undertaken as part of the proposed new development therefore have the potential to impact these and other archaeological remains present within the site.

7.4.4 The WSI for this reported stage of pre-determination trenching (Appendix 3) consolidates the CBCAO's potential requirement for a second stage grid of evaluation trenches across the remainder of the proposal site at post-determination stage (i.e. by Condition). In addition the small area of Iron Age activity identified via Trenches 3 and 4 is likely to require 'preservation by

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record' archaeological excavation by Condition to mitigate any ground impacts from development.

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Appendix 1: EHER Summary

Site name/Address: Land at Hall Road, Copford, Colchester	
Parish: Copford	***District:*** Colchester Borough
NGR: TL 93297 23914	***Site Code:*** ECC 3878
Type of Work: Trial-trench evaluation	***Site Director/Group:*** Sarah Ritchie / Archaeology South-East
Date of Work: 26-27 September 2016	***Size of Area Investigated:*** 1.9ha
Location of Finds/Curating Museum: Colchester Museum	***Funding source:*** Client
Further Seasons Anticipated?: Yes	***Related HER No's:***
Final Report: EAH roundup?	***OASIS No:*** 264959
Periods Represented: Post-medieval, modern	
SUMMARY OF FIELDWORK RESULTS: Archaeological evaluation was carried out in advance of a planning application for the residential development on the site. A preceding geophysical survey of the site had identified two possible archaeological features to be present; a linear ditch anomaly and an extensive anomaly interpreted to be a possible oval enclosure ditch. Four evaluation trenches were excavated, two of which were found to contain archaeological remains. The archaeological remains, located in Trenches 3 and 4, consisted of pits and a ditch all of earliest/Early Iron Age date. The possible archaeological anomalies detected by the geophysical survey were determined to be created by variations in the natural deposits.	
Previous Summaries/Reports: n/a	
Author of Summary: Sarah Ritchie	***Date of Summary:*** 29/09/2016

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Appendix 2: OASIS Form

OASIS ID: archaeol6-264959	
Project details	
Project name	Land at Hall Road, Copford, Colchester, Essex
Short description of the project	Archaeological evaluation was carried out in advance of a planning application for residential development of the site. A preceding geophysical survey had detected two possible archaeological anomalies; a linear ditch and an extensive anomaly interpreted to be a possible oval enclosure ditch. Four evaluation trenches were excavated, two of which were found to contain archaeological remains. The archaeological remains, located in Trenches 3 and 4, consisted of pits and a ditch of earliest/Early Iron Age date (c.800-500BC). Both possible archaeological anomalies were demonstrated to be of wholly natural origin.
Project dates	Start: 26-09-2016 End: 27-09-2016
Previous/future work	No / Not known
Associated project reference codes	ECC 3878 - Sitecode 160784 - Contracting Unit No. ECC 3878 - HER event no.
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 4 - Character Undetermined
Monument type	PIT Early Iron Age DITCH Early Iron Age
Significant Finds	POT Early Iron Age FLINT Early Neolithic CBM Uncertain LOOM WEIGHT Iron Age
Methods & techniques	"'Targeted Trenches"'
Development type	Housing estate
Prompt	Direction from Local Planning Authority - Direction 4
Position in the planning process	Pre-application
Project location	
Country	England
Site location	ESSEX COLCHESTER COPFORD Land at Hall Road
Postcode	CO6 1BN
Study area	1.9 Hectares
Site coordinates	TL 93297 23914 51.87971912055 0.808689107136 51 52 46 N 000 48 31 E Point

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Height OD / Depth	Min: 30.31m Max: 31.61m
Project creators	
Name of Organisation	Archaeology South-East
Project brief originator	RPS Consulting
Project design originator	RPS Consulting
Project supervisor	Sarah Ritchie
Type of sponsor/funding body	Client
Project archives	
Physical Archive recipient	Colchester Museum
Physical Archive ID	ECC 3878
Digital Archive recipient	Colchester Museum
Digital Archive ID	ECC 3878
Paper Archive recipient	Colchester Museum
Paper Archive ID	ECC 3878
Project bibliography	
Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Evaluation Land at Hall Road, Copford, Colchester, Essex
Author(s)/Editor(s)	Ritchie, S.
Date	2016
Issuer or publisher	Archaeology South-East
Place of issue or publication	Witham
Entered by	Mark Atkinson (mark.atkinson@ucl.ac.uk)
Entered on	10 October 2016

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Appendix 3: Written Scheme of Investigation

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LAND AT HALL ROAD COPFORD, COLCHESTER

WRITTEN SCHEME OF INVESTIGATION (WSI) FOR GEOPHYSICAL SURVEY AND PRE-DETERMINATION ARCHAEOLOGICAL TRIAL TRENCHING

AUGUST 2016

August 2016

Our Ref:
RM/JAC22028

RPS
140 London Wall
London
EC2Y 5DN

CONTENTS

1 INTRODUCTION

1.1 This Written Scheme of Investigation (WSI) is provided in support of a forthcoming planning application for residential development within a *c*.1.9ha field west of Hall Road, Copford. Colchester (Fig. 1). It is an updated version following completion of stage 1 geophysical survey.

1.2 The WSI provides a method statement and procedures for a pre-determination geophysical survey and subsequent targeted pre-determination archaeological trenching, in the event that the geophysical survey indicates anomalies of potential archaeological interest.

1.3 The Draft Colchester Borough Local Plan shows the land parcel as one of the Copford and Copford Green residential allocation sites. The Draft Colchester Borough Local Plan contains the following text in relation to development of this site:

> **'Development of land to the west of Hall Road will be supported which also provides for:**
>
> - **Up to 50 new dwellings of a mix and type of housing to be compatible with surrounding development.**
> - **A single site access via Hall Road**
> - **A safe pedestrian access agreed with the Highways Authority from the site to existing footways and Copford to enhance connectivity**
> - **The potential archaeological significance of the site should be further explored, by way of pre-determination evaluation (geophysical survey and trial trenching). Any findings from the evaluation will need to be reflected in a detailed mitigation strategy for further investigation to be agreed and submitted with the application to preserve in-situ or adequately recorded by excavation, secured by a planning condition.'**

1.4 In a correspondence between RPS and the Colchester Borough Council Archaeological Officer (CBCAO) of 20th July 2016 it was further clarified that the geophysical survey would be used to confirm whether pre-determination trenches would be required to target identified anomalies found by the geophysical survey at this stage. However, in the event that the geophysical survey did not identify archaeological features of potential interest (such as possible settlement, industrial or funerary related features) it was agreed that trial trenching would be deferred until the post-determination stage, with a grid approach to trenching then used to inform any detailed mitigation strategy which may be required to mitigate any archaeology, if present.

1.5 Therefore the pre-determination stage comprises geophysical (magnetometer) survey, with targeted trial trenches if required; whilst post-determination evaluation will comprise a grid of trenches based on a pre-agreed percentage sample of the Site. Following agreement of method with the CBCAO the geophysical survey stage was completed in late August 2016 and has allowed refinement of this WSI to include defined locations for targeted trenching based on a possible oval enclosure identified by the survey. The trench plan provided here is included for

agreement by the CBCAO in accordance with the previously agreed WSI (RPS 2106), with associated details of methodology reiterated in this updated version.

1.6 This report has been prepared by Robert Masefield of RPS on behalf of Ms Susanna Harrison and is specifically designed to provide a sound basis for the evaluation surveys and sets out proposals for the archaeological fieldwork, production of a report, and deposition of the archive. The WSI mirrors standards and practices contained in Guidelines on Standards and Practices for Archaeological Fieldwork in the Borough of Colchester (Colchester Borough Council's 1996. revised 1999).

1.7 This WSI is also in accordance with the National Planning Policy Framework (March 2012) which includes the following:

> **"…local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting.**
>
> **Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation."** (Section 12, Paragraph 128)

1.8 The WSI has been produced in association with Stratascan and names Archaeology South East (ASE) as the nominated archaeological contractor. The nominated archaeological contractor will be required to adhere to the methodologies provided within this WSI as a requirement of their commission.

2 GEOLOGICAL, ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

a) Geology and topography

2.1 Drift geology of the area is predominantly Pleistocene sands and gravel. This is occasionally in a clay matrix, and is sometimes capped by about 300mm of 'cover loam'. In particular the British Geological Survey (http://mapapps.bgs.ac.uk/geologyofbritain/home.html) indicates that the Site is situated close to the junction of 'Interglacial Lacustrine Deposits – Clay and Silt (3 million years old - Quaternary) with 'Cover Sand- Clay, Silty, Sandy superficial deposits of similar Quaternary date. These deposits cap London Clay laid down 34-56 million years ago. The Roman River runs approximately north-south to the east of the Site and Hall Road. The river valley is associated with Holocene alluvium capping the aforementioned Cover Sand deposits.

2.2 The Site is on the valley side at approximately 30m above Ordnance Datum at its eastern edge, rising to 35m to the west of the Site.

2.3 British History Online (http://www.british-history.ac.uk/vch/essex/vol10/pp139-143#p3) records that: 'The part of the parish south of London Road, which includes Copford Green, with the Hall and the church at the eastern edge, occupies a plain of fertile boulder clay 30-40 m. high, which falls away eastwards to below 20 m. at Roman river, and northwards to the same river north of London Road. Bands of sands and gravels run alongside the river. North of Roman river the land rises to more than 40 m. and the soil is a mixture of glacial sand and gravel with bands of London clay.'

2.4 LiDAR data held by the Environment Agency has been reviewed for this report but does not reveal and topographical features of interest surviving as earthworks within the field (Fig. 3).

b) Archaeological and historical background

2.5 The archaeological and historical setting of the Site and its surrounding area is based on a search of the Urban Archaeological Database (UAD, held by Colchester Borough Council at Colchester Museums) for a 500m radius around the Site and on available bibliographical and cartographic sources (Fig. 2; Appendix 1).

Prehistoric (900,000BC-AD43)

2.6 Palaeolithic (*c*.900,000-10,000 BC) worked flints including handaxes are occasionally recorded within the Pleistocene sand and gravels around Colchester but are not usually found 'in-situ'. However a quarry pit to the north of Copford Place at Marks Tay, c.200m to the north of the Site (RPS 14 on Fig. 2; UAD MC5587) located faunal remains of both a glacial and interglacial period clearly indicating two deposition periods; including warm period bison, beaver, red deer, horse and hippopotamus and cold period mammoth. There appears to be no direct indication of human agency associated.

2.7 Mesolithic period (*c*.10,000-4,000BC) hunter-gatherers tended to concentrate their activities in coastal zones and within the river valleys, potentially including along the line of the adjacent Roman River. Concentrations of worked flint typically found in such locations are most likely to relate to transient hunting and gathering activities within an otherwise largely wooded environment. Although such artefacts are scarce within the Study Area three axes (presumably of tranchet form) and two other worked flints of Mesolithic date, are referred to on the UAD from Swanfield Cottages, on the west side of the Roman River, *c*.250m to the north-east of the Site (RPS 15; UAD MCC7662).

2.8 The Neolithic (*c*.4,000-2,000BC) is defined by the introduction of agriculture to Britain from the continent. There are few signs of Neolithic activity within the Study Area but early farming was typically concentrated on the lighter soils, particularly within the river valley zones. Nevertheless early Neolithic (Mildenhall ware) pottery and flints have recently been recovered from the gravel plateau of the former Colchester Garrison's Hyderabad Barracks above the River Colne (Brooks 2016) and further west *c*.38th century BC (radiocarbon dated) activity, including typical scatters of pits containing cereal remains, worked flints and pottery, have been excavated on the Boulder Clay geology at Priors Green, Takeley, adjacent to the line of Stane Street (Germany, Scruby and Masefield forthcoming). There are currently no early Neolithic finds on the UAD within the Study Area but a collection of hard hammer struck worked flints of Late Neolithic or Early Bronze Age date were found residually within a later feature to the east of Turkey Lane, Stanway *c*.450m to the north-east of the Site (RPS 16; UAD MCC9340).

2.9 Bronze Age (*c*.2000-800BC) farming was relatively widespread on the lighter geologies and within the river valleys. The Early Bronze Age is characterised by circular funerary related burial mounds usually defined archaeologically (where plough levelled) by their surrounding ring-ditches. A ring-ditch of uncertain (but potentially later Neolithic to Early Bronze Age) date has been identified from aerial photographs south of some potentially later enclosure cropmarks to the south of St Albrights Church *c*.310m to the east of the Site (RPS 27; UAD MCC7076). In addition to the worked flint mentioned above, an undated but potentially prehistoric tumulus (mound) is also recorded 'within woodland' on the UAD to the north of Copford Hall some 320m to the south of the Site (RPS 28; UAD MCC7618). Equally the mound may be of much later date.

2.10 Yates (2007) has been able to show that co-axial field-systems developed within the valley floodplains and flanking slopes of southern and eastern England after *c*.1500BC generally. At Colchester itself there are signs of significant occupation in the Late Bronze Age at the former Cavalry Barracks (*c*.900BC). More locally to the Site (but beyond the Study Area) a Middle Bronze Age palstave (axe) was discovered in the west area of Copford parish, with further Bronze Age or Iron Age finds to the north-west of Copford Hall and at the churchyard – to the south of the Site (British History Online).

2.11 Copford is located to the west of the western earthwork defences of the major Late Iron Age oppidum of Camulodunum. The course of the Roman River further to the south-east of the Site appears to have formed part of the southern defensive arrangement of the oppidum. The defences were probably originally built around the tribal centre of the Trinovantes tribe, but the oppidum was soon claimed by the powerful Catuvelluani during expansions that followed the Caesar's expeditionary invasion of 55BC. Cunobelin, the celebrated king of the Catuevelluani, was seemingly based at Camulodunum until his death in AD40, with his royal farmstead probably

at Gosbecks and his mint and trading centre on the Colne at Sheepen (CAR Report 11, 1995; Crummy 1997). Significant burial related enclosures at Stanway, to the east of the Study Area and east of the Roman River, were located just to the west of, but were clearly related to, the defensive dyke system. These enclosures contained Late Iron Age to early Roman high status cremations.

Some of the aforementioned finds recovered northwest of Copford Hall, in the Hall grounds and in the churchyard may be of Iron Age date. An undated cropmark complex to the north of Copford Hall which is partially destroyed by a farm reservoir (RPS 29; UAD MCC7685) includes a circular enclosure whose form is more likely to prehistoric than later. The location is approximately 320m to the south-east of the Site. In addition the aforementioned cropmarks south of Albrights Church, *c*.310m to the east of the Site, included a rectangular enclosure, an east-west trackway and linear features that would most typically be of late prehistoric or Romano-British date (RPS 27; UAD MCC7076).

Roman (AD43-410)

2.12 Roman Colchester is particularly significant for the study of Roman Britain, particularly given that Claudius' defeat of the Catuvelluani at Camulodunum in AD43 led to the establishment of a Colonia as the capitol of the Roman province until the Boudican revolt of AD 60 or 61. The town was famously sacked then by the revolting Iceni, along with the Trinovantes. The Site lies well to the west the town, but the B418 (London Road) to its north side broadly follows the course of Stane Street leading to Colchester from Braughing (RPS 18/19; UAD MCC7518 & 8754; Margary 1955). This major Roman road passed through Marks Tey before crossing Copford parish from west to east and progressing east to Colchester. According to British History Online (http://www.british-history.ac.uk/vch/essex/vol10/pp139-143#p3) the Copford place-name refers to the ford of Roman River where crossed by the London road (Stane Street ultimately providing the link to Londinium) where Stanway bridge was later built. There is also some possibility that Stane Street followed a late Iron Age track from Braughing to Camulodunum.

2.13 According to Ivan Margary 1955 and British History Online (*ibid*) two other minor Roman roads appear to intersect each other west of Copford Green. One would in theory run across current fields to the west of the Site, before connecting Stane Street close to the point it ran to the north of the Site beneath the B1408 London Road (Fig. 2). Although the putative road is not referenced on the UAD, its projected line, as provided by Margary (1955) as 'Roman Road 3b' – the 'Great Road', would link Chelmsford (and ultimately Londoninium) to Colchester. The UAD also reports that two undated east-west aligned ditches 25m and 37m to the north of the London Road (Stane Street) respectively, were found during investigations by CAT at Holmwood Grove to the north of the Site (RPS 30; UAD MCC5670. Given that they run parallel to the Roman road they are likely to be of Roman or later date.

2.14 Although road junctions provide a typical location for settlements (of any period) there have been few certain indications of significant Roman occupation in the vicinity of the Site. However, some occupation nearby is hinted at by Roman finds northwest of Copford Hall, in the Hall grounds, and in the churchyard. Most significantly a Roman villa is reported to have been located to the north of the church and Hall, with foundations also reported beside the Hall itself, those these may be of later date according to British History Online (*ibid*). In general Romano-British

farmsteads are found between about 500m and 1km apart within densely settled agricultural landscapes. The hinterland around the major Roman town of Colchester, as would be expected, has been shown to contain a large number of villas/farmsteads, many of which appear to have gone out of use in the 3rd century AD (possibly due to insecurity caused by civil war and Barbarian raiding).

2.15 Roman metal-detecting finds within the Study Area include a coin of Late Iron Age to AD260 date (RPS 17; MCC6705) that was found within the Site itself; and five coins of late Roman date from three other locations to the south and south-west of the Site (RPS 20, 21 & 22; MCC5778/6701/6707). These coins may represent causal losses within the Roman landscape.

2.16 In addition to the aforementioned early Roman phase of use of the high status burial enclosures at Stanway, and possible Roman date of the aforementioned undated cropmark complex south of Albrights Church, similarly undated but possibly Romano-British cropmarks to the north of Copford Hall include a possible 'double enclosure' of rectangular from, another trackway and the circular enclosure mentioned above that may more typically be prehistoric in date (RPS 29; UAD MCC7685).

Anglo-Saxon (AD410-1066)

2.17 The settlement of Copford was in existence in the late Saxon period hence its inclusion in the Domesday Book (as 'Copeforda') which records that there were 16 bordarii, 5 servi, and 12 sokemen (totalling 33 households) in 1066. The name can be translated as 'Ford of a man called Coppa' and clearly refers to Stane Street's ford over the Roman River. The main infrastructure of Stane Street and its ford to the north-east of the Site thus remained in place. Consequently Saxon occupation sites are quite likely to be located within the hinterland of the route and as in all periods the Rover itself in providing water for livestock is likely to have been attractive for any new settlers at this time.

Medieval (AD1066-1530)

2.18 According to British History Online (VCH) the 'ancient parish of Copford' which comprises an area of 1,034 ha. 'was an irregular shape, stretching c. 5 miles from north to south.' The parish of Stanway lies to the east of the Roman River and Marks Tey is located to the west.

2.19 The Domesday Book further records that by 1086 there were 14 bordarii, 3 servi, and 10 sokemen (totalling 27 households) within the parish. The relatively large village included 120 poll tax payers in 1377 but was of a dispersed character comprising of scattered cottages and farms, presumably many of which lined the key roads. A number of woodland related local place-names nevertheless suggest piecemeal early woodland clearance (via assarting). The presence of Copford Green or Tye is also recorded in 1467. Interestingly it seems that tennis (a form of) was played unlawfully on common land somewhere within the parish in 1476.

2.20 In addition to the former Roman road alignment to the north side of the Site, a road known as Colneweye, mentioned in 1401, connected the thriving medieval town of Colchester to Halstead and Cambridge, and appears be respected the northern parish boundary. Hall Road was a relatively minor route along the west side of the Roman River floodplain leading to Copford Hall and the church to the south of the Study Area. It is possible the route was of early derivation.

2.21 The Wormingford to Abberton (water) Pipeline works, undertaken in 2011, included investigations by Oxford Archaeology East within the Study Area to the east of Turkey Cock Lane, Stanway, *c.*450m to the north-east of the Site (RPS 16; UAD MCC9340). Ditches of a horse-shoe shaped enclosure, a large circular pit potentially associated with clay extraction, a number of ditches and structural post-holes, produced medieval pottery that may relate to adjacent settlement. A coin of AD1279 to 1307 was also recovered as a stray find from the southern area of the Study Area (RPS 23; MCC6055).

2.22 There are several timber–framed Listed Buildings of medieval date within the Study Area, including 15th-16th century Walden Cottage and Swan Cottage (RPS 8; UAD MCC4528), 15th century Vine Cottage & No. 366 London Road RPS 9; UAD MCC4555 and the late 15th century Sparrow Hall (RPS 11; UAD MCC4556). 'Vineyards', Church Road, which is on the site of Pakes, was recorded in 1400, also incorporates late 15th or early 16th century fabric in the east cross wing.

Post-Medieval & Modern (1530 - present)

2.23 Post-medieval records on the Borough's UAD include the former site of a 18th-19th century windmill on the London Road to the north-west of the Site (RPS 25; UAD MCC7682) and a 17th century coin (RPS 24; UAD MCC6385).

2.24 Various tax records confirm the presence of 59 households in 1671, a minimum of 80 adult men in 1696, sixty families in 1723 and c.70 in 1778. British history Online (ibid) relays that the population was 495 in 1801, rising to 775 in 186. It then fell to 706 in 1871 and was 684 in 1901.

2.25 The aforementioned road leading from Colchester to Halstead and Cambridge was turnpiked in 1766 and disturnpiked in 1866. Copford was described as 'a pleasant parish of scattered houses' in 1848, and several houses were clustered at Copford Green. The poet Matthew Arnold described it as 'deeply rural character' in *c.*1870, a fact confirmed by the early Ordnance Survey mapping. By 1923 it was promoted as an attractive residential area for 'a City gentleman desiring the delights and pursuits of the country'.

2.26 In the later 18th century and early 19th further small pieces were inclosed, mainly at the greens, and by 1834 only 3 a. of waste remained' (ibid).

2.27 The mapping historic mapping shows that the Site comprised a field from at least 1839 and was certainly farmland prior to then. Chapman and Andre's map of Essex 1777 (Fig. 4) shows the Site area to the south of two cottages and bordered to the east by Hall Road. Hall Road is named after 'The Hall' shown to the south of the Site (Fig. 4). A Quakers meeting house is labelled to the north side of the London Road close to the windmill, with two unlabelled properties shown to the immediate north side of the Site. Properties labelled 'Bastards' and 'A Brick Kiln' are labelled further to the north. The 1839 Tithe map (Fig. 5) shows seven structures north of the field flanking the road, but the Site itself is simply a single field, as today. The apportionment indicates this field was called 'Lower Fishers Field'. Another house is shown to the east side of Hall Road opposite the Site. The 1st Edition Ordnance Survey map of 1876 (Fig. 6) shows that the eastern of the buildings immediately north of the Site was a smithy, no doubt taking advantage of London Road traffic. The field commensurate with the Site (labelled '205') remains unchanged with further fields to the south and west.

2.28 A number of 17th century and post-medieval later Listed Buildings flank the London Road (See Fig. 2 and Appendix 1). Of these those to the north-west of the Site comprise 18th century 'Stanway Bridge', 18th century 'Old Mill House', 19th century 'Shrub House' and (RPS 1, 3 and 4; MCC3875/ 3869/ 3870) and those to the north-east comprise and 17th century Brook Cottage, 18th century 'Copford Place' & 'Stable North of Copford Place' (RPS 5, 6, and 7/14; MCC3874/ 3872/ 3873). Shrub House and Copford Place are shown and labelled on the 1st Edition OS map (Fig. 6).

Undated

2.29 The geophysical Survey undertaken at the present proposed development site by StratascanSUMO in August 2016 (in accordance with stage 1 of this WSI) has identified a probable oval enclosure within the south-east area of the field, with a boundary ditch (of likely later date) running north-south through its east side (Fig 7).

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3 STRATEGY AND AIMS

3.1 This method statement is developed in consultation with CBCAO and complies with the guidelines laid down in Planning Policy Guidance on Archaeology and Planning (NPPF) and with the Chartered Institute of Field Archaeologist's Standards and Guidance for Archaeological Watching Brief (CIfA 2014). Stratascan and ASE (the contractors) will liaise closely with RPS (the Archaeological Project Managers and advisors to the client) with respect to all important matters concerning the co-ordination and management of the project. The CBC archaeological officer (CBCAO) will be kept fully informed of all archaeological developments.

3.2 If pre-determination trenching is required following the geophysics all trenches will be monitored and 'signed off' by the RPS Archaeological Project Manager and the CBCAO monitor prior to backfilling.

3.3 The general aim of the archaeological evaluation, in accordance with the relevant Research Agendas (Brown and Murphy 2000; Medlycott 2011) is to;

- Establish the likely presence/absence of archaeological features within Site.
- Inform whether Palaeolithic and/or Mesolithic hunter-gathers were active within this area of the local landscape beyond the Roman River floodplain;
- Inform how the landscape was used and to what level of intensification, in Neolithic to Iron Age periods prior to the construction of Camulodunum to the east;
- Establish whether the Site contains Roman period archaeology associated with Stane Street and the putative Chemsford road link;
- Address the question of the effect of the establishment of the Roman town on the agricultural hinterland;
- Elucidate the presence/absence of Anglo-Saxon and/or medieval occupation or landscape at the Site and whether any such settlement was aligned on a medieval predecessor of Hall Road.

3.4 The Specific Aims are:

- Establish the date, form, preservation and significance of the probable oval enclosure
- Establish whether it relates to a stock corralling and/or settlement via examination of internal and external areas
- Establish the date, form, preservation and significance of the north-south aligned ditch through the east side of the putative enclosure.

4 METHOD STATEMENT

a) Geophysical Survey (StratascanSUMO)

4.1 The detailed magnetic survey was carried out using a Bartington Grad 601-2. The instrument consists of two fluxgate sensors mounted 1m vertically apart, and very accurately aligned to nullify the effects of the earth's magnetic field. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background.

4.2 Data was collected across full 30m grids. Readings will be taken at 0.25m centres along traverses 1m apart.

4.3 The Grad 601-2 has a typical depth of penetration of 0.5m to 1.0m. This would be increased if strongly magnetic objects have been buried in the site. The collection of data at 0.25m centres provides an appropriate methodology balancing cost and time with resolution.

4.4 The readings are logged consecutively into the data logger which in turn is daily downloaded into a portable computer whilst on site. At the end of each job, data is transferred to the office for processing and presentation.

4.5 The report for the survey will comprise a written section describing the background to the survey, the methodologies used and a discussion of the results. The text will be illustrated using plots of the results using CAD to overlay the results and interpretations over the base mapping. The format for these drawings will either be A3 or A1 depending on the size and configuration of the survey areas.

4.6 Processing of the data will be carried out using specialist software. This can emphasise various aspects contained within the data but which are often not easily seen in the raw data. Basic processing of the magnetic data involves 'flattening' the background levels with respect to adjacent traverses and adjacent grids. 'Despiking' is also performed to remove the anomalies resulting from small iron objects often found on agricultural land. Once the basic processing has flattened the background it is then possible to carry out further processing which may include low pass filtering to reduce 'noise' in the data and hence emphasise the archaeological or man-made anomalies.

4.7 The presentation of the CAD drawings will include:

- a general location plan
- detailed site location showing the grid position
- the raw data both as grey scale and extreme colour plots
- grey scale plot of the processed data (if necessary)
- Interpretation plot showing anomalies identified

4.8 As a minimum the report will contain;

- Non-technical summary
- Introductory statement
- Aims and purposes of the evaluation
- Methodology
- Results, including a confidence rating for the results and their interpretation
- Conclusion
- Plans/plots, including interpretive plans of the results
- Index to and location of digital archive
- References

Targeted pre-determination trial trenching (required on the basis of the geophysics)

b) Machining protocols:

4.9 Archaeology South East (ASE) will provide a mechanical excavator and undertake the archaeological evaluation. ASE will require any known services that might be encountered by the trench positions as shown on Figure 2 to be notified to them. The trenches will also be CAT scanned ahead of cutting as a further precaution.

4.10 An ASE archaeologist will observe the machining. Significant archaeological deposits will not be removed by machine unless sanctioned by the CBC Archaeological Officer (or in the case of the Roman circus by Historic England). In circumstances where vertical stratigraphy is found or where archaeology is vulnerable the machining will be monitored by a senior member of staff. Care will be taken to ensure that machines used do not rut, compact or otherwise damage buried or exposed archaeological features and deposits ahead of recording. No potentially significant archaeological deposits will be removed prior to recording and sampling (if necessary) to provide an adequate understanding of their character.

4.11 Surveying: Following the overburden stripping temporary bench marks will be surveyed with respect to an Ordnance Survey datum and all features and deposits will be recorded relative to their OD height. The TBM's will be shown on the site location plans.

4.12 The exposed surface of the natural will be hand cleaned sufficiently to define any archaeological features present. This process will facilitate accurate planning and allow for metal detected finds to be correctly assigned following an initial scan of the site.

4.13 Complex areas (areas of intercutting features, surviving layers, where features are complex in form or where surface finds may plotted) will be planned by hand, usually at a scale 1:20. These plans will located via total station, scanned, vectorised and imported via ASE's CAD programme on the OS grid-based plan. Less complex areas of the site (where features are absent or rare and of simple form) will be planned using a total station with the data input directly onto CAD and the OS tiles. There will be no site grid on the ground. All site plans will show OS grid points and

spot levels and will be fully indexed and related to adjacent plans. It is not anticipated that single context recording will be appropriate. However, should particularly complex sequences of deposits or features be encountered, then single context recording will be undertaken. A uniform site plan will be produced showing all site features.

c) Sampling Strategy

4.14 Archaeological excavation will be by hand and will respect the stratigraphy of archaeological layers, features, deposits and structures. Each context will be excavated in sequence. Occasionally further use of the mechanical excavator may be required. Such techniques are only appropriate for the removal of homogenous low-grade deposits that may give a "window" into underlying levels. They will not be used on complex stratigraphy and the deposits to be removed must have been properly recorded first. If encountered horizontal deposits (e.g. layers) should be hand excavated or sample excavated in 1m grid squares and should not be removed by machine.

4.15 The following sampling strategy will be adopted to ascertain the nature, depth, date and state of preservation of archaeological features as well as the stratigraphical relationships of these deposits and features to one another.

(i) Normally 50% of the fills of all pits and other discrete archaeological features will be excavated. However, in the event that complex areas of pitting are encountered a representative sample will be excavated (although all will be planned). Tree throw holes will not normally be investigated.

(ii) At least 20% of the exposed lengths of ditches will be excavated. The segments will be placed to provide adequate coverage of the ditches and will include excavation of all terminals and intersections. A flexible approach will be adopted to the location of excavation samples such that areas of exposed ditch fill with higher artefact or ecofact content may be targeted. A lower excavation sample ratio of ditches will only be acceptable in the event that the research aims will not be further advanced. Any such reduction in sample ratio will be agreed with CBC and RPS.

(iii) At least 50% excavation of ring gullies will include excavation of the terminals and sections at each side to the rear of the gully. Special regard will be given to significant stratigraphical relationships and concentrations of artefactual material.

(iv) In the event that stone structures are encountered, these will be excavated in sufficient detail to establish their construction sequence and sequence of repairs or extensions. All stratigraphic associations will be recorded. Should floor levels (which are not anticipated) be encountered, these will be fully excavated and environmentally sampled.

(v) Sufficient investigation of hearths or kilns will be undertaken to determine their function and date. However, in the event such features are encountered they will be left in-situ for any resulting mitigation stage (i.e. if impacted).

(vi) Human burials, including cremations, will only be excavated at evaluation stage should they have been damaged by their exposure. In normal circumstances only sufficient work shall be

undertaken at evaluation stage to identify whether burials are present. Any human remains identified, including cremations, will be left in-situ, covered and protected, unless otherwise directed. Human remains will normally only be excavated at subsequent mitigation stage after obtaining the relevant Ministry of Justice Licence, as required by the Burials Act of 1857 (amended 1981). The discovery of human remains will be reported to the local coroner. Other structured or placed deposits will be recorded and retained as "small finds". Should sufficient human bone be exposed to warrant specialist examination *in situ*, a human bone specialist may be required to attend to examine the remains (subject to CBCAO requirements).

(vii) Metal detectors will be used to scan for metallic finds on spoil heaps, vacated areas, areas of modern disturbance and during the excavation of key archaeological features or deposits.

d) <u>Recording</u>

4.16 The following procedures will always be initiated:

(i) All features will be planned either by means of a total station or hand drawn plans where appropriate.

(ii) Sections: all sectioned and excavated archaeological features will be drawn at a scale of 1:20 or 1:10, or at a smaller scale (if appropriate). All sections will be levelled to ordnance datum.

(iii) All archaeological features, layers or deposits will be allocated unique context numbers prior to any hand excavation including contexts for which there is no archaeological interpretation or definition. All archaeological features, layers or deposits will be recorded on pro-forma context sheets detailing: character, contextual relationships, a detailed description, associated finds, interpretation and cross referencing to the drawn, photographic and finds records. On-site matrices will be compiled during the excavation such that the results of the written stratigraphical records may be fully analysed and phased.

(iv) An adequate photographic record of the investigation will be made of all archaeological features and deposits. Standard record shots of contexts will be taken on a digital camera. The record will include working and promotional shots to illustrate more generally the nature of the archaeological operations. All photographic records will include information detailing: site code; date; context(s); section number; a north arrow and a scale. All photographs will be listed and indexed on context record sheets.

(v) A record of the full extent in plan of all archaeological features, deposits or layers encountered will be produced. The detailed hand drawn plans will be related to the site, and O.S. national grid and be drawn at an appropriate scale, generally 1:20. Where necessary e.g. when recording an inhumation, additional plans at 1:10 scale, or where appropriate 1:20 will be drawn. The O.D. height of all principal strata and features will be calculated and indicated on the appropriate plans and sections.

(vi) A record or index will be maintained of all site drawings and these will form part of the project archive. All site drawings will contain the following information: site name; site number and code; scale; plan or section number; orientation, date and compiler.

e) Treatment of Samples

4.17 Industrial residues will be recorded and sampled in accordance with the Society of Museum Archaeologists (SMA, 1993) guidelines. The presence of such residues will always be recorded and quantified fully, even where comprehensive retention is considered to be inappropriate. Large technological residues will be collected by hand. Separate samples (c.10ml) will be collected where appropriate for identification of hammer scale and spherical droplets. The advice provided in the Historic England/ Metallurgy Society document Archaeometallurgy in archaeological projects, will be referred to. Structural remains will be similarly recorded in accord with the SMA guidelines.

4.18 The environmental sampling policy is as follows. ASE is advised by the Historic England Regional Advisor in Archaeological Science. In consultation with Kris Krawiec, ASE's in-house geoarchaeological and wetland environment specialist, ASE will bulk sample any potentially rich environmental layers or features in addition to all reliably dated deposits. These will be assessed by KK, and future sampling policy on other excavations areas will follow her advice. If any complex or outstanding deposits are encountered, then KK will be asked onto site to advise. Pollen is not expected to survive within these soils, but should deep deposits with pollen preservation potential be encountered column samples will be retrieved for laboratory analysis.

4.19 In addition to retrieving environmental evidence (above), bulk sampling will be used to collect charcoal for potential C14 dating.

4.20 The procedures set in A guide to sampling deposits for environmental analysis (Murphy and Wiltshire 1994) and Environmental Archaeology – A guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage Centre for Archaeology Guidelines 2002) will be consulted. The following procedures will be followed unless otherwise amended following consultations between RPS, the Historic England Advisor in Archaeological Science, the bioarchaeologist and the Site Director:

f) Treatment of Samples

4.21 Industrial residues will be recorded and sampled in accordance with the Society of Museum Archaeologists (SMA, 1993) guidelines. The presence of such residues will always be recorded and quantified fully, even where comprehensive retention is considered to be inappropriate. Large technological residues will be collected by hand. Separate samples (c.10ml) will be collected where appropriate for identification of hammer scale and spherical droplets. The advice provided in the Historic England/ Metallurgy Society document Archaeometallurgy in archaeological projects, will be referred to. Structural remains will be similarly recorded in accord with the SMA guidelines.

4.22 The environmental sampling policy is as follows. ASE is advised by the East of England Historic England Regional Advisor in Archaeological Science (Dr Zoe Outram). In consultation with Kris Krawiec, ASE will bulk sample any potentially rich environmental layers or features in addition to

all reliably dated deposits. These will be assessed by KK, and future sampling policy on other excavations areas will follow her advice. If any complex or outstanding deposits are encountered, then the Historic England Regional Advisor in Archaeological Science and/or KK will be asked onto site to advise. Pollen is not expected to survive within these soils, but should deep deposits with pollen preservation potential be encountered column samples will be retrieved for laboratory analysis.

4.23 In addition to retrieving environmental evidence (above), bulk sampling will be used to collect charcoal for potential C14 dating. There is a contingency in the budget for 1 to 2 C14 dates, although use of such dating techniques at this stage will depend on whether or not pottery has resolved feature dating and the reliability of the material selected to date the associated feature (e.g. use of articulated animal bone, feature contemporary dumps of charred material).

4.24 The procedures set in 'A guide to sampling deposits for environmental analysis' (Murphy and Wiltshire 1994) and 'Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition)' (English Heritage 2011) will be consulted. The following procedures will be followed unless otherwise amended following consultations between RPS, the Historic England Advisor in Archaeological Science (Mark Ruddy), the bioarchaeologist and the Site Director:

(i) 40 litre bulk samples (or 100% of smaller contexts) of anthropogenic concentrations will be taken and of selected deposits where remains are not visible (but may nevertheless occur). These shall include well sealed deposits, floors, hearths etc.

(ii) Monoliths for pollen analysis will be taken as appropriate to answer specific research questions.

(iii) 40 litre bulk samples will be taken (if possible) from a selected sample of closely dated pits and from undated features. These deposits will be sampled regardless of whether or not there are visible macrofossils or molluscs.

(iv) Whole fill samples from a selection of post-holes of definable structures will taken for assessment.

(v) Cremations and other "special deposits" will be 100% sampled and sieved for the retrieval of remains.

(viii) 100% recovery of animal bones will be undertaken from the soil samples. It is possible that 100 litre samples for bone may also be necessary in some circumstances.

g) <u>General Methodology</u>

4.25 All works will be undertaken by a team of professional archaeologists. The proposed team structure is given in the appendix (end of document).

4.26 All work will be undertaken in accordance with this WSI and the MoLA (1994) Field Manual, and will be informed by Management of Archaeological Projects (English Heritage 1991), and Guidelines on Standards and Practices for Archaeological Fieldwork in the Borough of Colchester (Colchester Borough Council 1996, revised 1999).

4.27 Animal and human burials, including cremations, will only be excavated should they have been damaged by their exposure. A Ministry of Justice (MOJ) licence is required for the excavation of human remains. Where a licence for their excavation is issued by the MOJ, the requirements of that licence will be followed.

4.28 All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

4.29 For purposes of deposition of the archive, a museum accession code will be obtained through Colchester Museum. This will be used this as the site code.

4.30 The Code of Conduct of the Chartered Institute of Field Archaeologists (ClfA) will be followed.

4.31 Following completion of the manual excavation and recording the trenches will be backfilled flush with ground level. There are no proposals to reinstate the surfaces with simple backfilling of trenches the agreed method.

4.32 Industrial residues will be recorded and sampled in accordance with the Society of Museum Archaeologists (SMA, 1993) guidelines. The presence of such residues will always be recorded and quantified fully, even where comprehensive retention is considered to be inappropriate. Large technological residues will be collected by hand. Separate samples (c.10ml) will be collected where appropriate for identification of hammer scale and spherical droplets. The advice provided in the English Heritage/ Metallurgy Society document Archaeometallurgy in archaeological projects, will be referred to. Structural remains will be similarly recorded in accord with the SMA guidelines.

4.33 The environmental sampling policy is as follows. ASE will bulk sample any potentially rich environmental layers or features in addition to all reliably dated deposits. These will be assessed by Kris Krawiec, and future sampling policy on other excavations areas will follow her advice. If any complex or outstanding deposits are encountered, then the of England Historic England Regional Advisor in Archaeological Science and/or Kris Krawiec will be asked onto site to advise. Pollen is not expected to survive within these soils, but should deep deposits with pollen preservation potential be encountered column samples will be retrieved for laboratory analysis.

4.34 In addition to retrieving environmental evidence (above), bulk sampling will be used to collect charcoal for potential C14 dating.

4.35 The procedures set in *'A guide to sampling deposits for environmental analysis'* (Murphy and Wiltshire 1994) and *'Environmental Archaeology – A guide to the theory and practice of methods, from sampling and recovery to post-excavation'* (English Heritage Centre for Archaeology Guidelines 2002) will be consulted. The following procedures will be followed unless otherwise amended following consultations between RPS, the Historic England Advisor in Archaeological Science, the bioarchaeologist and the Site Director.

(i) 40 litre bulk samples (or 100% of smaller contexts) of anthropogenic concentrations will be taken and of selected deposits where remains are not visible (but may nevertheless occur).

These shall include well sealed deposits, floors, hearths etc. A representative range of features should be sampled and environmental sampling should include undated, as well as dated, archaeological contexts.

(ii) Monoliths for pollen analysis will be taken as appropriate to answer specific research questions.

(iii) 40 litre bulk samples will be taken (if possible) from a selected sample of closely dated pits. These deposits will be sampled regardless of whether or not there are visible macrofossils or molluscs.

(iv) Whole fill samples from a selection of post-holes of definable structures will taken for assessment.

(v) Any excavated cremations and other “special deposits” will be 100% sampled and sieved for the retrieval of remains.

(vi) 100% recovery of animal bones will be undertaken from the soil samples. It is possible that 100 litre samples for bone may also be necessary in some circumstances.

5 PUBLIC ARCHAEOLOGY

5.1 Public access will not normally be provided unless findings are of particular public interest and suitable Health & Safety procedures are put in place.

6 HEALTH AND SAFETY

6.1 Stratascan and ASE will provide a Risk Assessment for the project for RPS and the client to review and approve prior to the commencement of the works.

6.2 All the latest Health and Safety guidelines will be followed on site. Stratascan and ASE have standard safety policies (SUMO Surveying Services 2015; ASE 2015), which will be adhered to.

6.3 No personnel will work in deep or unsupported excavations. The sides of all excavations or trenches deeper than 1.2 metres will be stepped or battered. Due to the difficulty of working in shored trenches, shoring will be avoided wherever possible. Safety helmets will worn by personnel in deep trenches or other potentially unsafe positions. All deep trenches shall be fenced off and will be clearly indicated by “deep excavation” signs.

6.4 The archaeologist(s) will not enter an area under machine excavation without alerting the machine driver to his/her intention.

6.5 The archaeologist(s) shall remain alert and take due care not to impede the progress of moving machinery. He/she shall stand well back from the turning circle of an excavator’ buckets and cabs.

6.6 Spoil will be stored at a safe distance away from trench edges.

6.7 Suitable accommodation will be provided for staff to shelter from inclement weather and during breaks. Hand washing facilities will be provided.

6.8 ASE will provide any necessary protective footwear, high-visibility jackets, and safety helmets. All staff and visitors to the site will be expected to wear full PPE at all times.

6.9 The RPS project manager will be provided with a list of all personnel working on site each day by the ASE Supervisor.

6.10 CAT scanning will be undertaken prior to and during machine excavation.

7 FINDS

7.1 Unstratified finds (from the pre-determination evaluation – if trenching is required) will only be collected where they contribute significantly to the research aims or are of intrinsic interest. All finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed according to the United Kingdom Institute for Conservation's Conservation Guidelines No.2, the Council for British Archaeology's First Aid for Finds (Third Edition, 1998) and the Institute of Field Archaeologist's Guidelines for Finds Work (1992). Iron finds may require X-rays prior to conservation and similarly residues on pottery may require study ahead of any conservation which may be appropriate.

7.2 All finds and bones will be recorded, collected and labelled according to their individual stratagraphical context. Finds from each archaeological context will be allocated an individual finds tray and waterproof labels will be used for each tray to identify unique individual contexts. Each label will be marked with the appropriate context number in waterproof ink and will be securely attached to each tray.

7.3 A policy of marking for pottery and other finds will be agreed with Colchester Museum. Marking will include the site code and context number.

7.4 All lifting, conservation or other on-site treatment of delicate finds will be done by Colchester Museums' staff. It is anticipated that robust items such as intact cremations will be lifted by site staff.

7.5 The site archive will be presented to Colchester Museums in accordance with the requirements for conservation and storage as outlined in Guidelines on the Preparation and Transfer of Archaeological Archives to Colchester Museums (Colchester Borough Council 1996).

7.6 All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects. Any other finds remain for the landowner to assess and dispose of.

7.7 Finds work will be to accepted professional standards and adhere to the Chartered Institute for Archaeologists' published booklet Guidelines for Finds Work.

7.8 Agreement with the landowner will be sought for deposition of the finds and paper archive. Arrangements for the finds to be viewed by the landowner will be made if he/she wishes.

7.9 The following specialists will be approached as necessary for artefact and environmental analysis:

- Prehistoric and Roman pottery — Anna Doherty (ASE)
- Saxon pottery — Susan Tyler (external: Essex)
- Medieval and post-medieval pottery — Helen Walker (external: Essex)

▪ CBM	Isa Benedetti-Whitton (ASE)
▪ Fired Clay	Isa Benedetti-Whitton (ASE)
▪ Clay Tobacco Pipe	Elke Raemen (ASE)
▪ Glass	Elke Raemen (ASE)
▪ Slag	Luke Barber, Lynne Keyes (external); Trista Clifford (ASE)
▪ Metalwork	Trista Clifford (ASE)
▪ Worked Flint	Karine Le Hégarat (ASE)
▪ Geological material/ worked stone	Luke Barber (external)
▪ Human bone incl cremated bone	Lucy Sibun & Paola Ponce (ASE)
▪ Animal bone incl fish	Gemma Ayton (ASE)
▪ Marine shell	Elke Raemen (ASE); David Dunkin (external)
▪ Registered Finds	Elke Raemen; Trista Clifford (ASE)
▪ Coins	Trista Clifford (ASE)
▪ Treasure administration	Trista Clifford (ASE)
▪ Conservation and x-ray	Elena Baldi (ASE) using facilities at Fishbourne Roman Villa or UCL Institute of Archaeology
▪ Geoarchaeology/Palaeolithic archaeology	Dr Matt Pope (ASE)
▪ Geoarchaeology (incl wetland environments)	Kristina Krawiec (ASE)
▪ Macro-plant remains	Dr Lucy Allott & Karine Le Hégarat (ASE)
▪ Charcoal	Dr Lucy Allot & Mariangela Vitolo (ASE)
▪ Waterlogged wood	Dr Lucy Allott (ASE)

8 REPORTING

8.1 At the start of (geophysical survey) work an OASIS online record http://ads.ahds.ac.uk/project/oasis/ must be initiated and key fields completed on Details, Location and Creators forms. When the project is completed (i.e. the post-determination stage of evaluation) all parts of the OASIS online form must be completed and a .pdf version of the entire report should be uploaded to the OASIS website. A copy of the OASIS online form should be included as an appendix to the report. A copy of the WSI should be included as an appendix to the report.

8.2 A UAD Event number must be obtained the CBCAO; this will be the unique reference number for the work in the UAD.

8.3 Following completion of fieldwork a will be completed within 6 months and submitted to RPS Planning for distribution to the CBCAO for his approval.

8.4 Expert advice and reporting (in relation to cultural artefacts and ecofacts) will be provided by individual Specialists appointed as appropriate.

8.5 All records and materials will be compiled in a structured archive in accordance with the guidelines of Appendix 3 in the Historic England procedural document, Management of Archaeological Projects (1991).

8.6 The MoRPHE Project Managers Guide (EH 2006) will be adhered to with regard to post-excavation management in relation to this and any subsequent mitigation that may be required.

8.7 A digital copy of the report, marked DRAFT, will be presented to the CBCAO for scrutiny. Following acceptance, a single digital and hard copy of the report should be presented to both the Colchester UAD and Essex HER. A hard copy of the report should be deposited with the archive at Colchester and Ipswich Museum.

8.8 Copies of the final report will also be issued to the RPS the client if required.

8.9 The report should include relevant background context information.

8.10 At the end of the project, a copy of the digital vector plan, which must be compatible with MapInfo GIS software, will be sent by ASE to CBC for integration in the UAD. AutoCAD files should be exported and saved into a format that can be imported into MapInfo (for example, as a .dxf or .TAB files).

a) Publication

8.11 The results of the geophysical survey, if significant and leading to further archaeological fieldwork, will be published following the post-determination stage of trial trenching.

8.12 Minimum publication will consist of a note in a suitable archaeological journal.

9 ARCHIVE AND FINDS DEPOSITION

9.1 All retained artefacts will be cleaned, conserved and packaged in accordance with the requirements and guidelines of the United Kingdom Institute for Conservation's' Conservation Guidelines No. 2, the Council for British Archaeology's First Aid for Finds (Second Edition, 1987), the Chartered Institute for Archaeologist's Guidelines Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives Published December 2014. Small finds will be boxed separately from the bulk finds. Plans will be presented on hanging strips to fit Colchester Museum storage systems. A full archive will be prepared to standards outlined in Management of Archaeological Projects: 2 (English Heritage 1991).

9.2 The full archive will be deposited at Colchester Museums, subject to client consent and subject to the guidelines and requirements of MAP 2, as soon as is practicable, and within six months of completion of publication text on the project. All requirements for archive storage as given in Colchester Borough Council's Guidelines for the standards and practice of archaeological fieldwork in the Borough of Colchester, will be followed.

9.3 Finds (and other retained materials) will be bagged and boxed in the manner recommended by Colchester Museums.

9.4 Photographic archive is to be presented as follows: original digital data on CD Roms, hard copies of digital photos on high quality paper, or as otherwise requested by Colchester Museums.

9.5 CD Roms of material held on computers will be presented to Colchester Museums, along with bound copies of printouts.

9.6 Deposition of the archive will be confirmed in writing to CBCAO, and a summary of the contents of the archive shall be supplied to CBCAO.

9.7 All artefacts recovered from the archaeological excavation shall be deposited at the Colchester Museums. All recovered artefacts shall be fully catalogued, shall constitute one single deposit and shall be deposited within two years of the completion of the archaeological excavation.

10 STAFFING AND TIMETABLE

10.1 The overall archaeological project will be managed by Robert Masefield CMIfA (RPS). The geophysical survey contractor (Stratascan) will be managed by David Elks. Should trial pre-determination trial trenching be required this would be managed for ASE by Andy Leonard. The experience of the ASE project team is included in the Appendix of this method statement.

10.2 It is estimated the geophysical survey will take a 1-2 days to complete on site depending on ground conditions.

10.3 The work is likely to begin in late August or early September 2016 following crop harvesting.

10.4 Any pre-determination trial trenching would follow a rapid agreement of a trenching strategy, based on the geophysics, between RPS and the CBCAO in early September with the aim of conducting such trenching by mid-September.

11 MONITORING

11.1 A programme of monitoring of the project in the field shall be agreed in advance between RPS, CBC and the client.

11.2 Any variation or modification to the project programme in terms of working or recording either on site or off will be fully discussed and agreed with RPS, the client and the CBCAO in advance.

11.3 Any variations of the WSI shall be agreed between RPS the client and CBCAO prior to their being carried out.

11.4 The involvement of CBCAO shall be acknowledged in any report or publication generated by this project.

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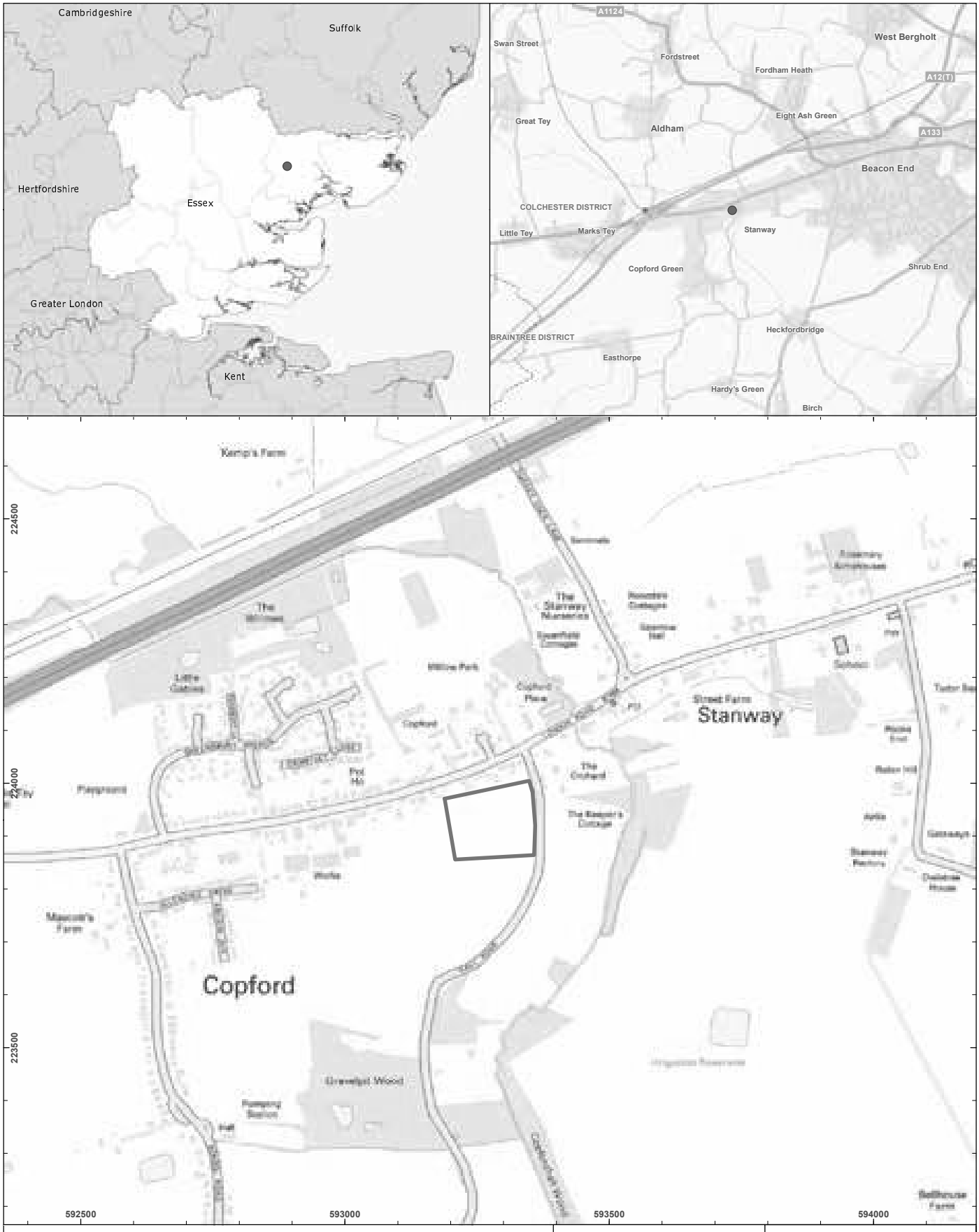

Site Boundary

N

RPS

Scale at A4: 1:10,000

0 250 m

Figure 1:
Site Location

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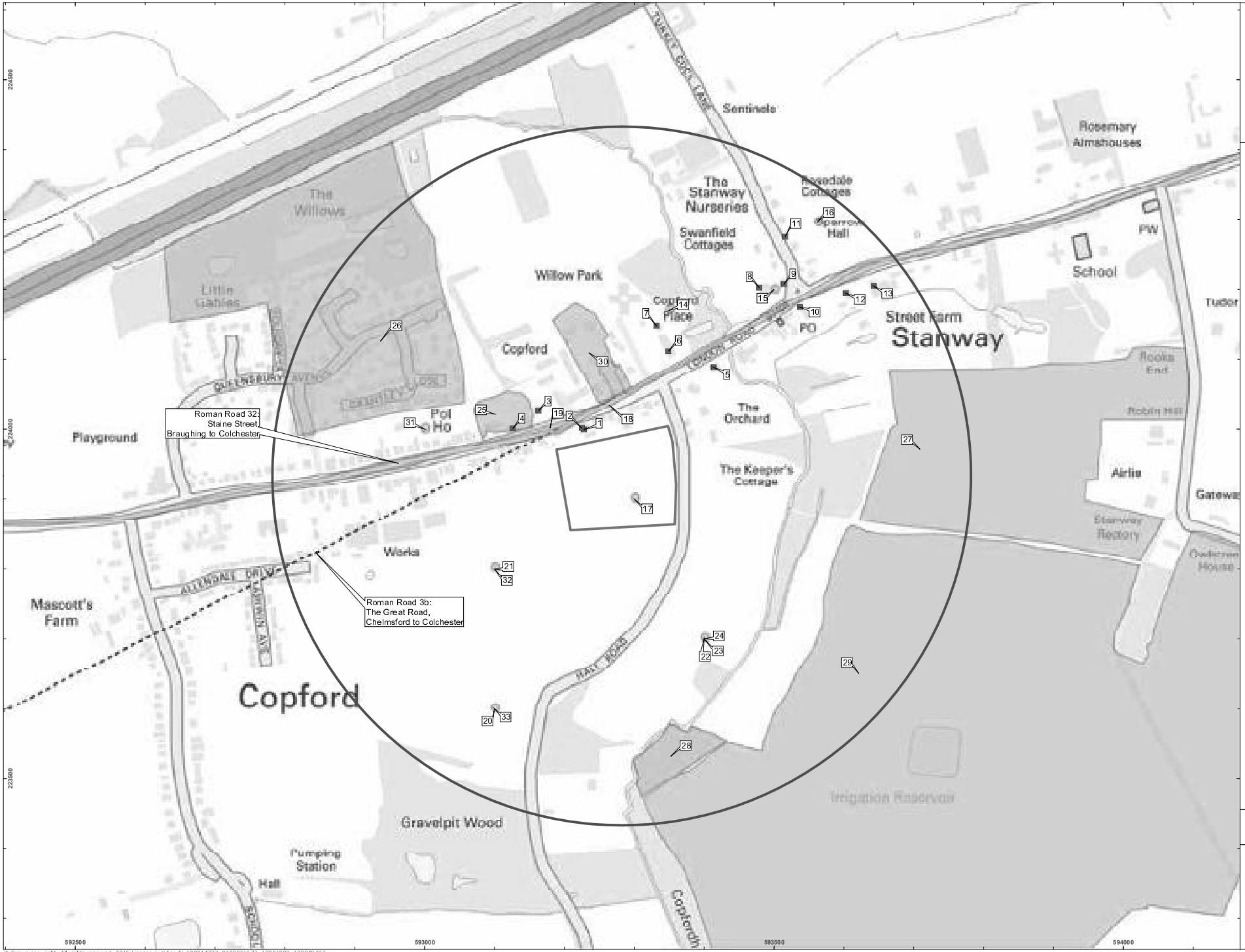

Figure 2:
HER Plot

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RPS

Site Boundary

N

Scale at A4: 1:3,500

0 100m

Figure 3:
EA Lidar Plot
(1m DSM)

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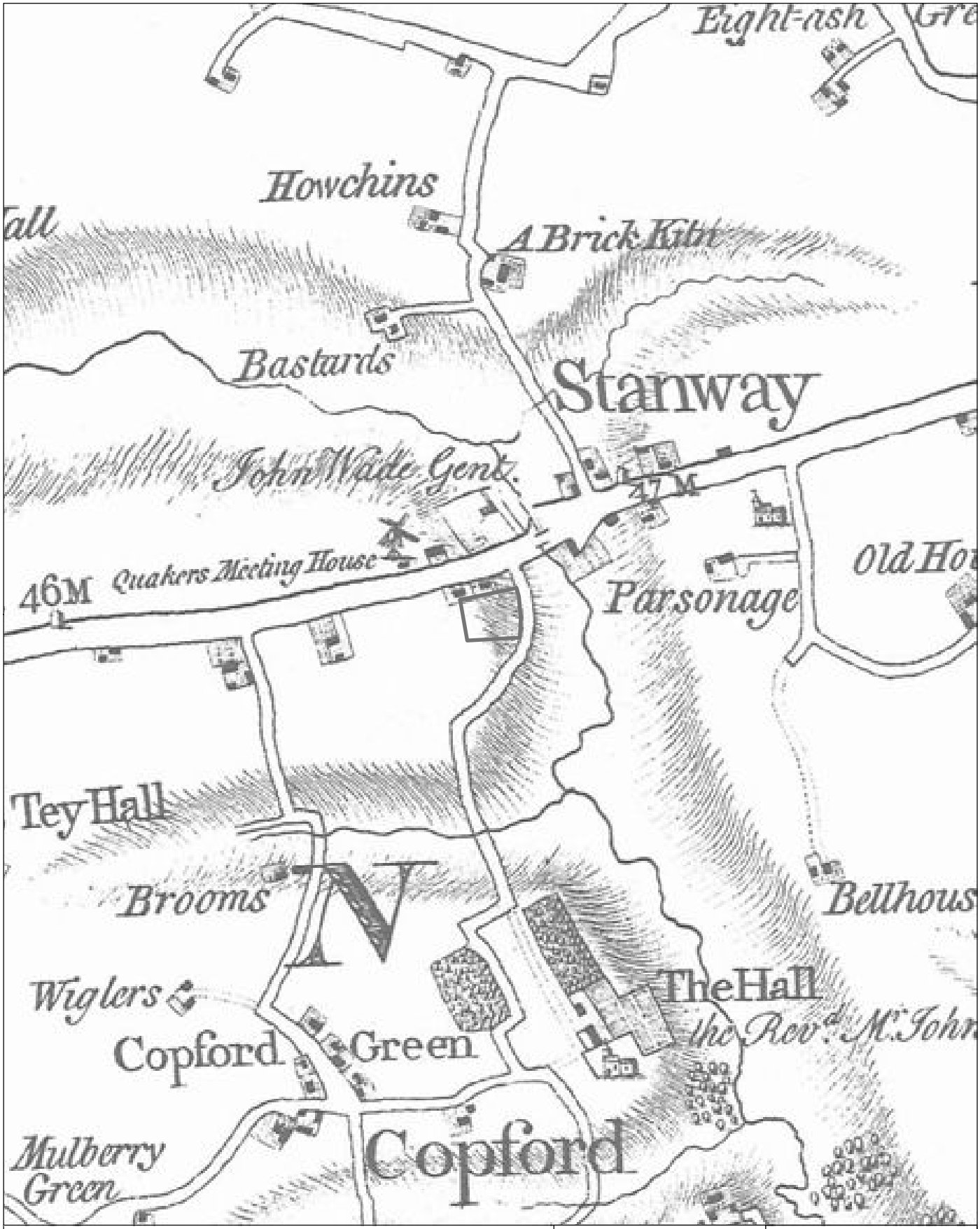

Site Boundary

Scale at A4: 1:15,000

0 450 m

RPS

Figure 4:
1777 Chapman & Andre, Essex

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Site Boundary

N

Scale at A4: 1:5,000

0 150 m

RPS

Figure 5:
1839 Tithe Map

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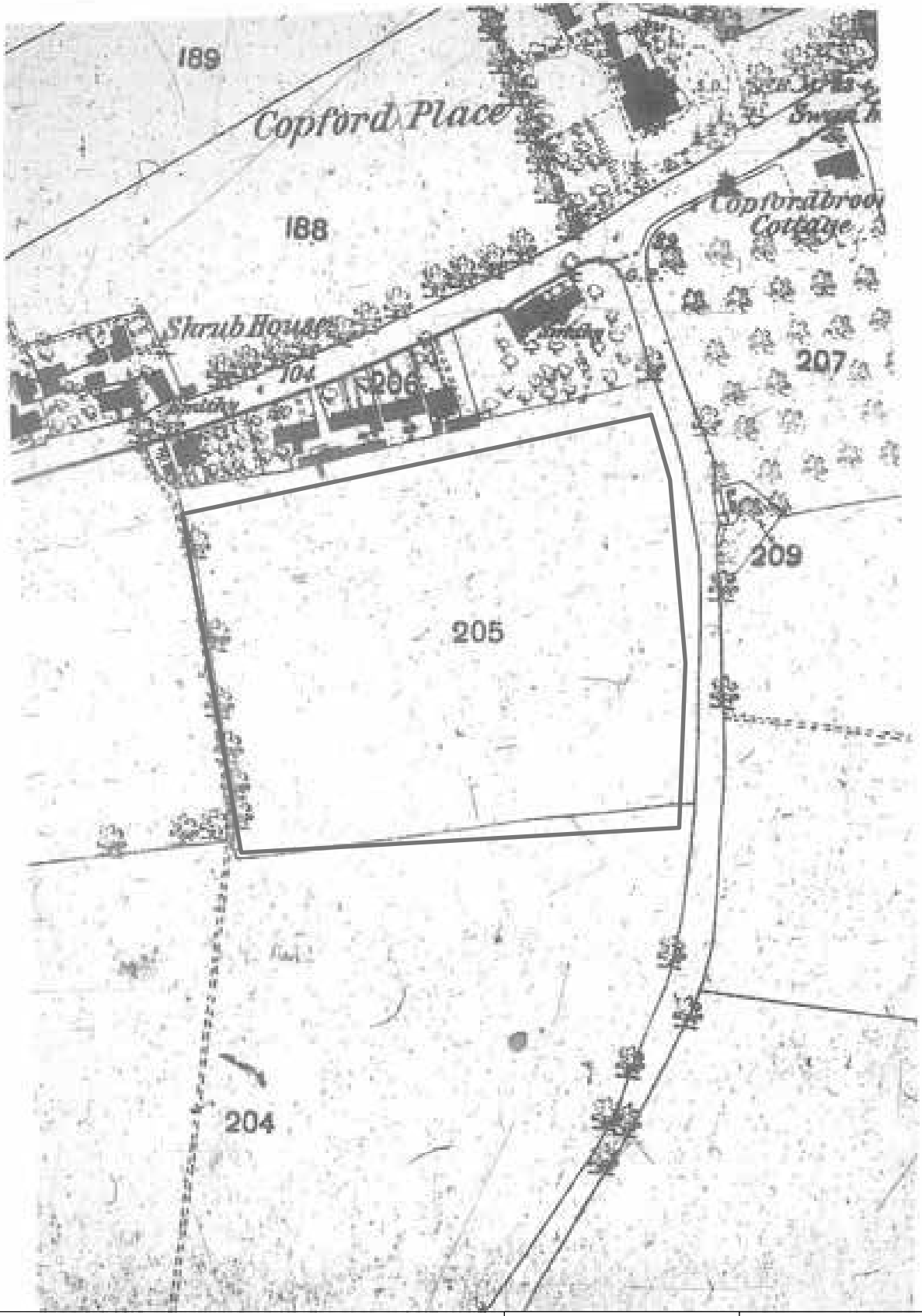

Site Boundary

N

RPS

Scale at A4: 1:2,000

0 60 m

Figure 6:
Ordnance Survey Map of 1876

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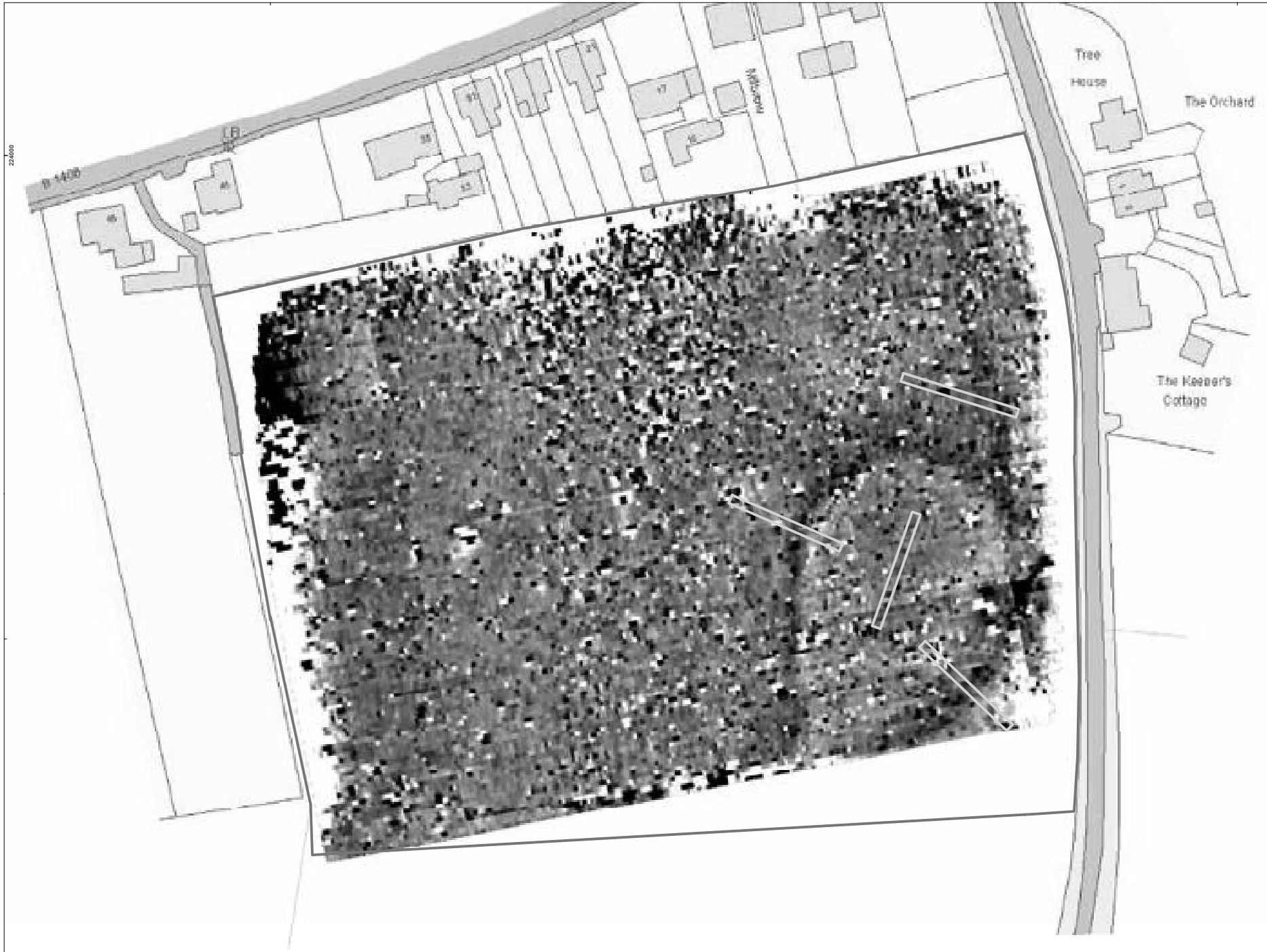

RPS

Site Boundary

Trench Locations

N

Scale at A4: 1:750

0 20 m

Proposed Trench Locations

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Report Figures

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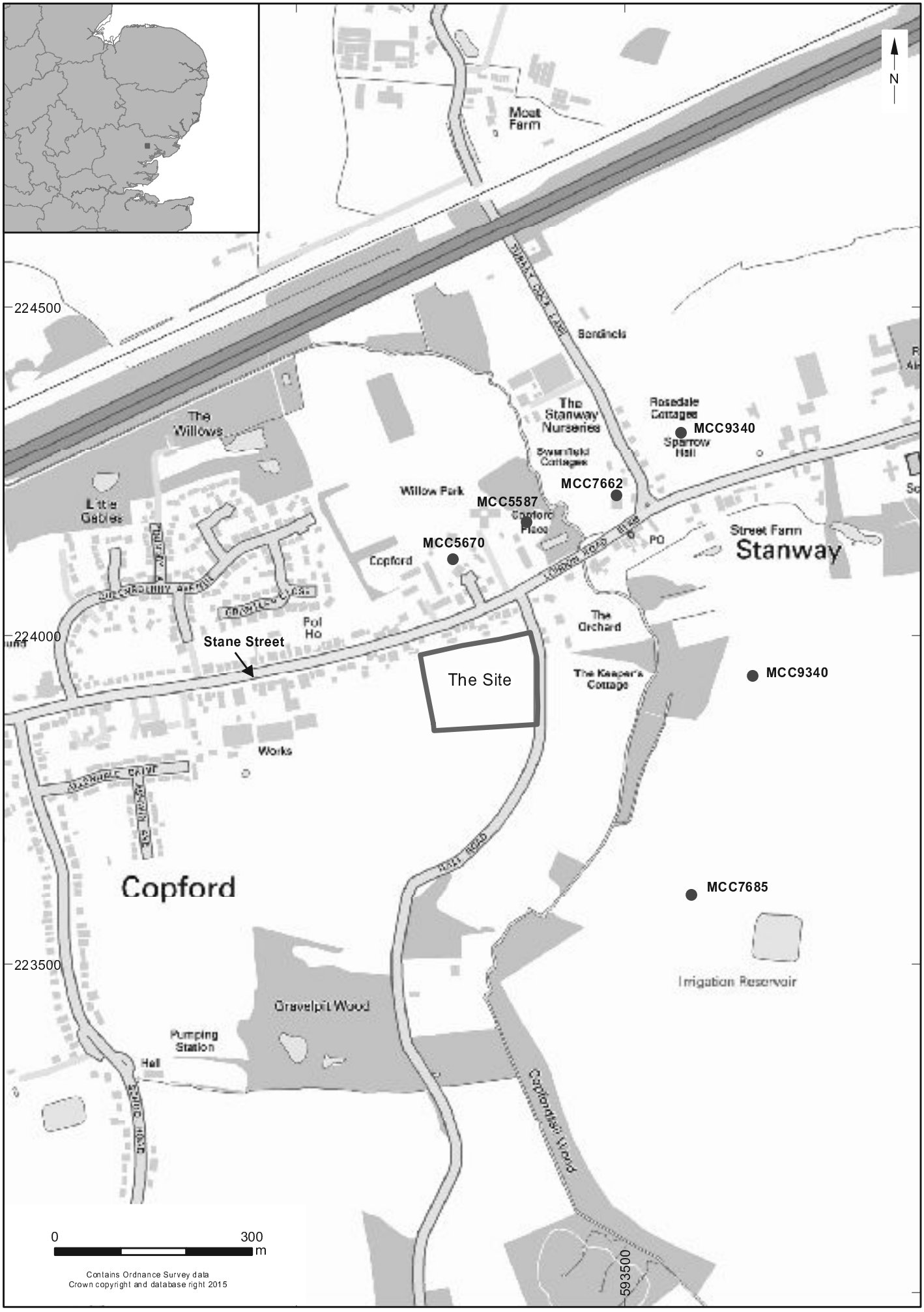
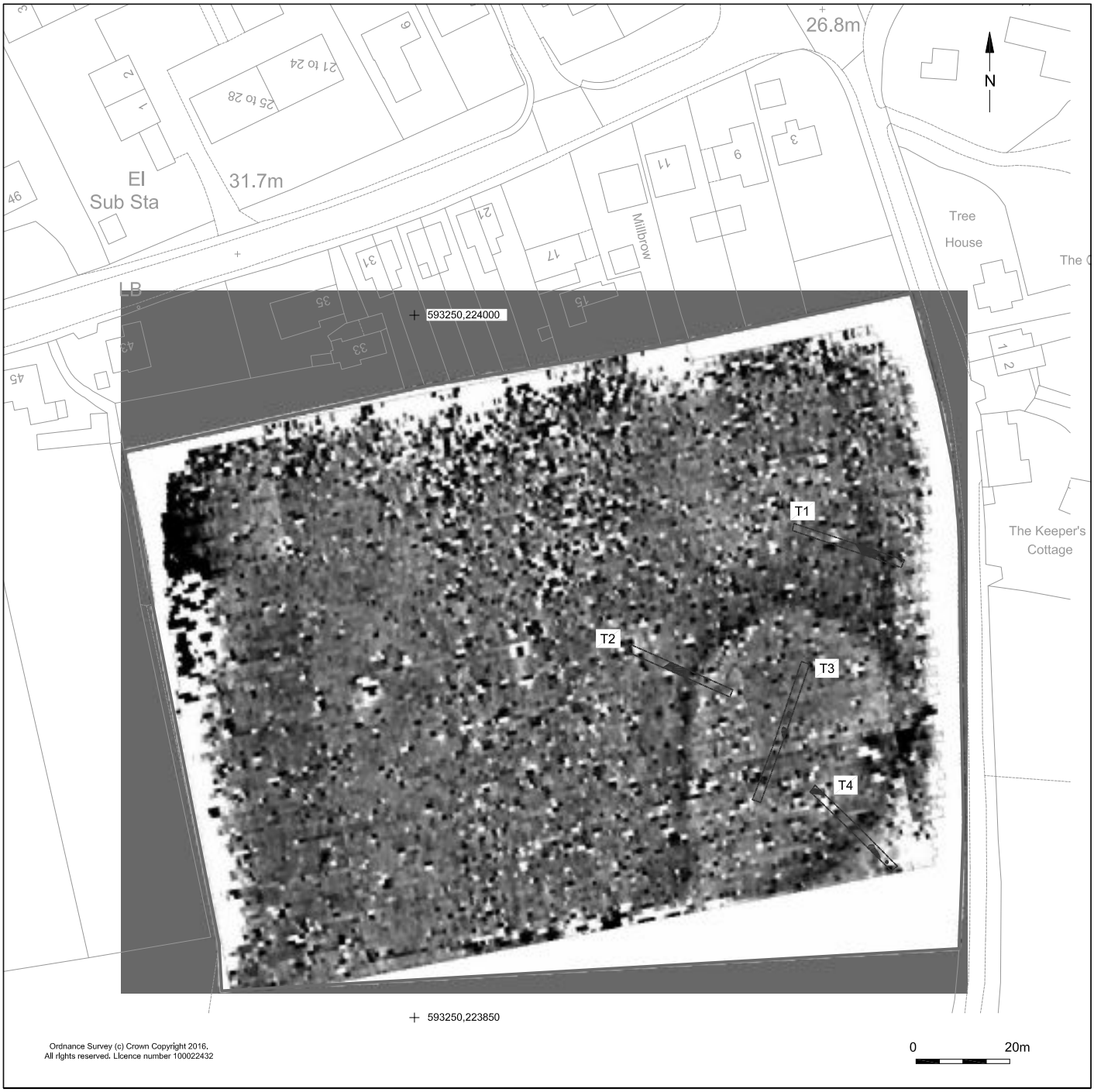


© Archaeology South-East		Land at Hall Road, Copford	Fig. 1
Project Ref: 160784	Sept 2016	Site location and selected HER references	
Report No: 2016371	Drawn by: APL		



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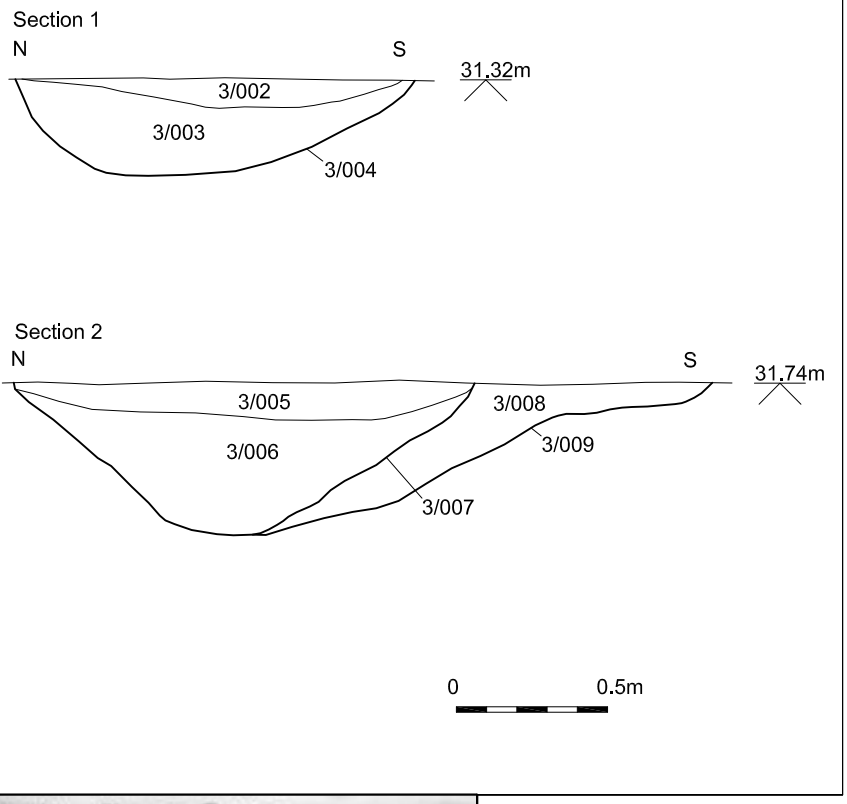
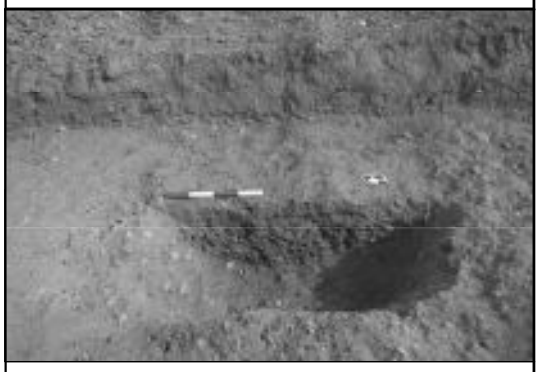
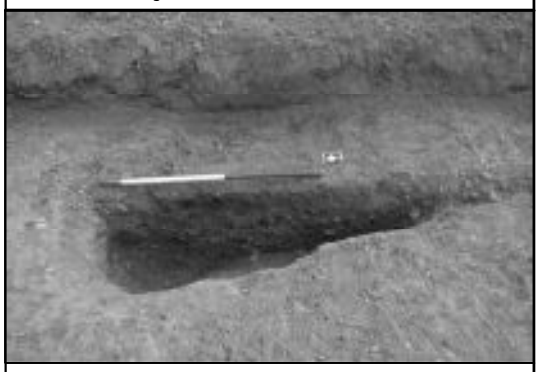
Project Ref: 160784	Sept 2016	Trench locations and geophysical survey results	
Report Ref: 2016371	Drawn by: APL		



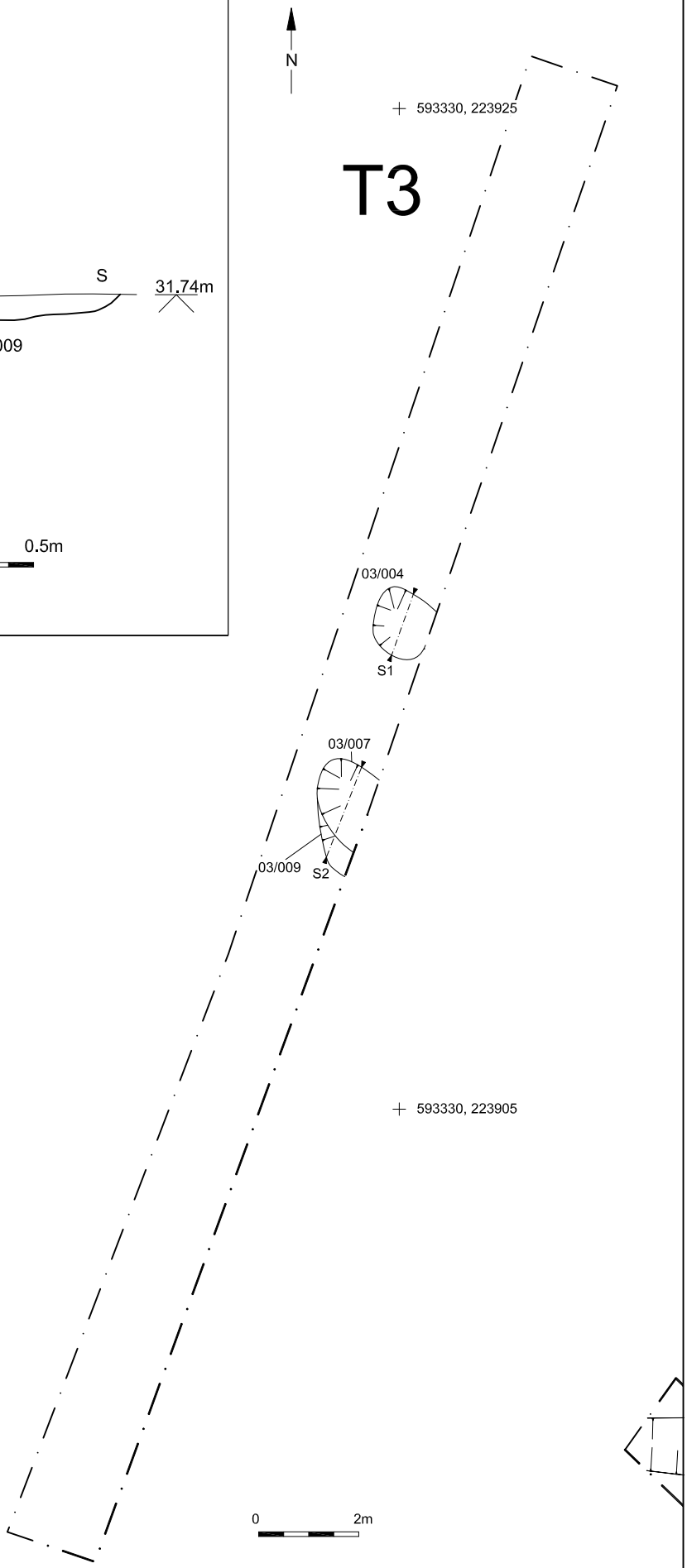
Trench 3, looking north-east, 1m scale



Pit 3/004 looking south-east, 0.4m scale



Pit 3/007 & 3/009 looking south-east, 1m scale



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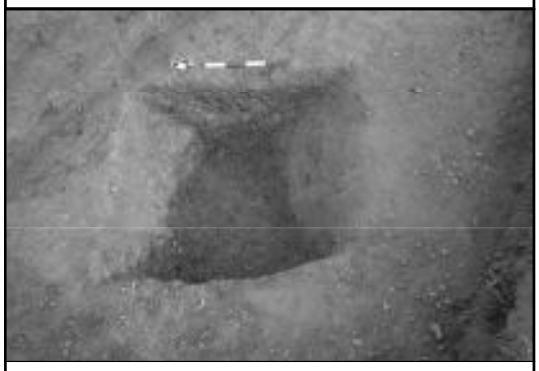
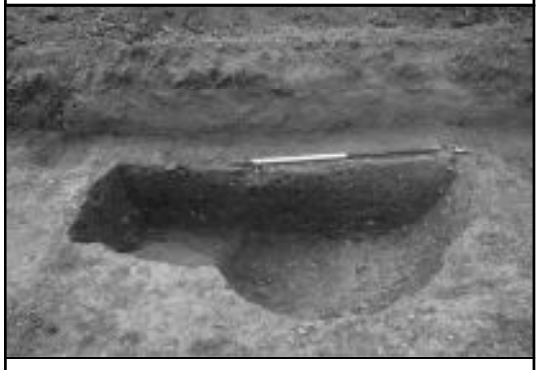
Project Ref: 160784	Sept 2016	Trench 3 plan, sections and photographs	
Report Ref: 2016371	Drawn by: APL		

Trench 4, looking north-west, 1m scale

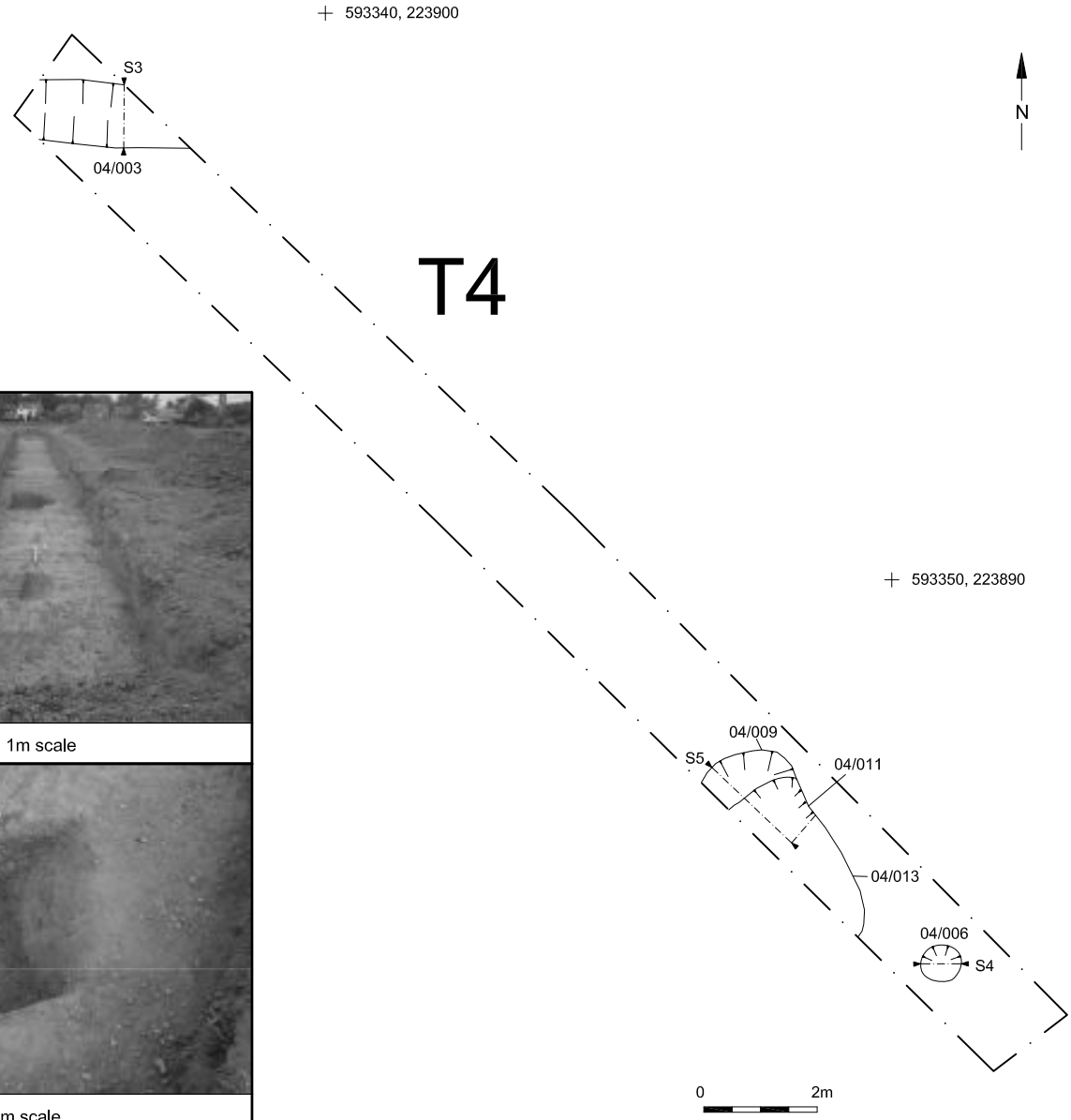


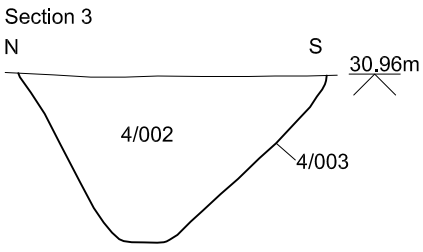
Ditch 4/003, looking east, 0.4m scale

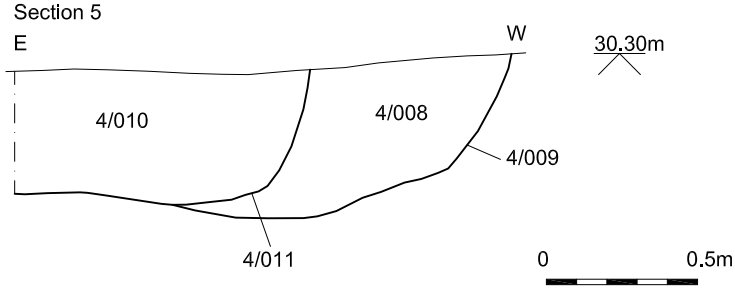
Pit 4/006 looking south, 1m scale



Pits 4/009 & 4/011 looking south-west, 1m scale







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Project Ref: 160784	Sept 2016	Trench 4 plan, sections and photographs	
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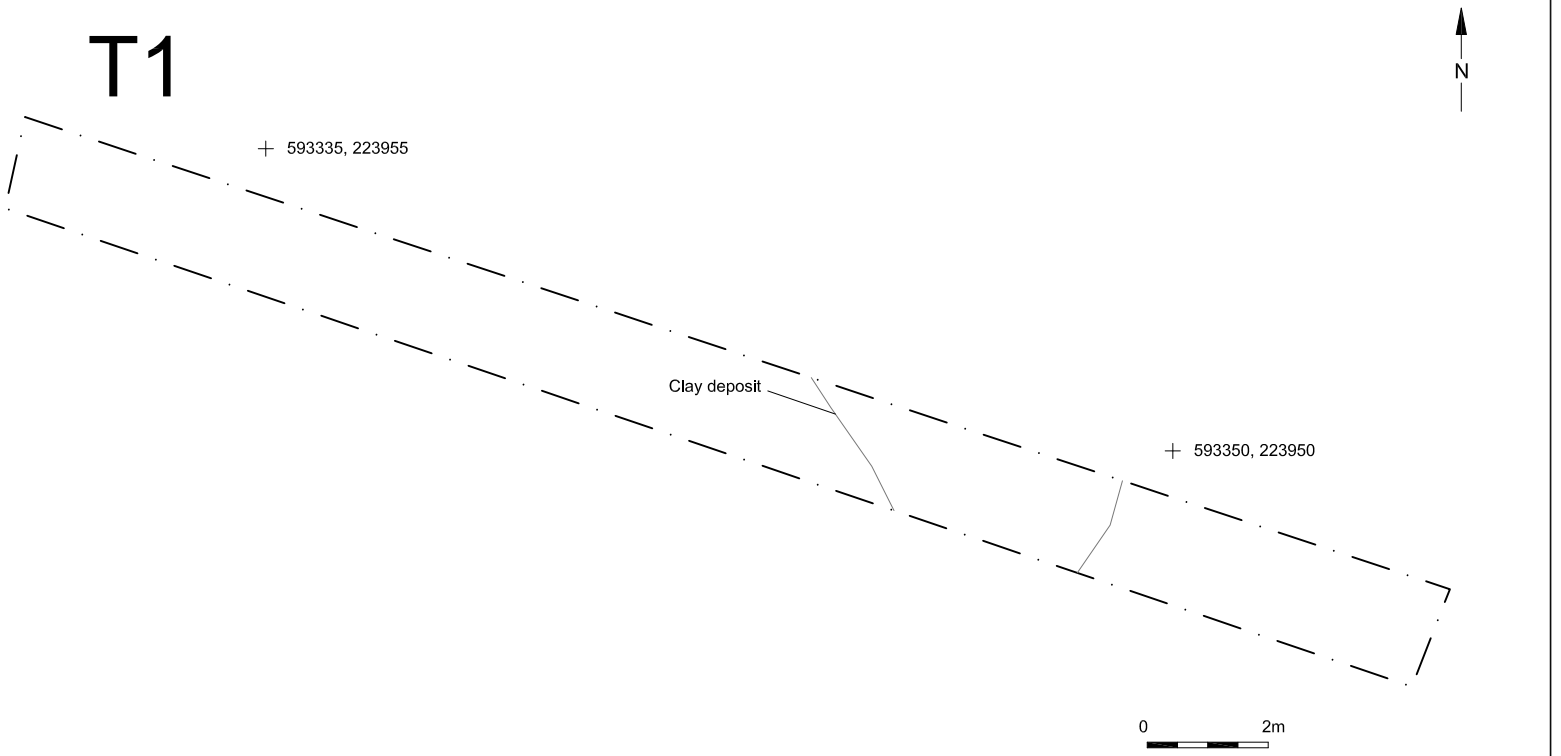
Trench 1 looking north-west, 1m scale



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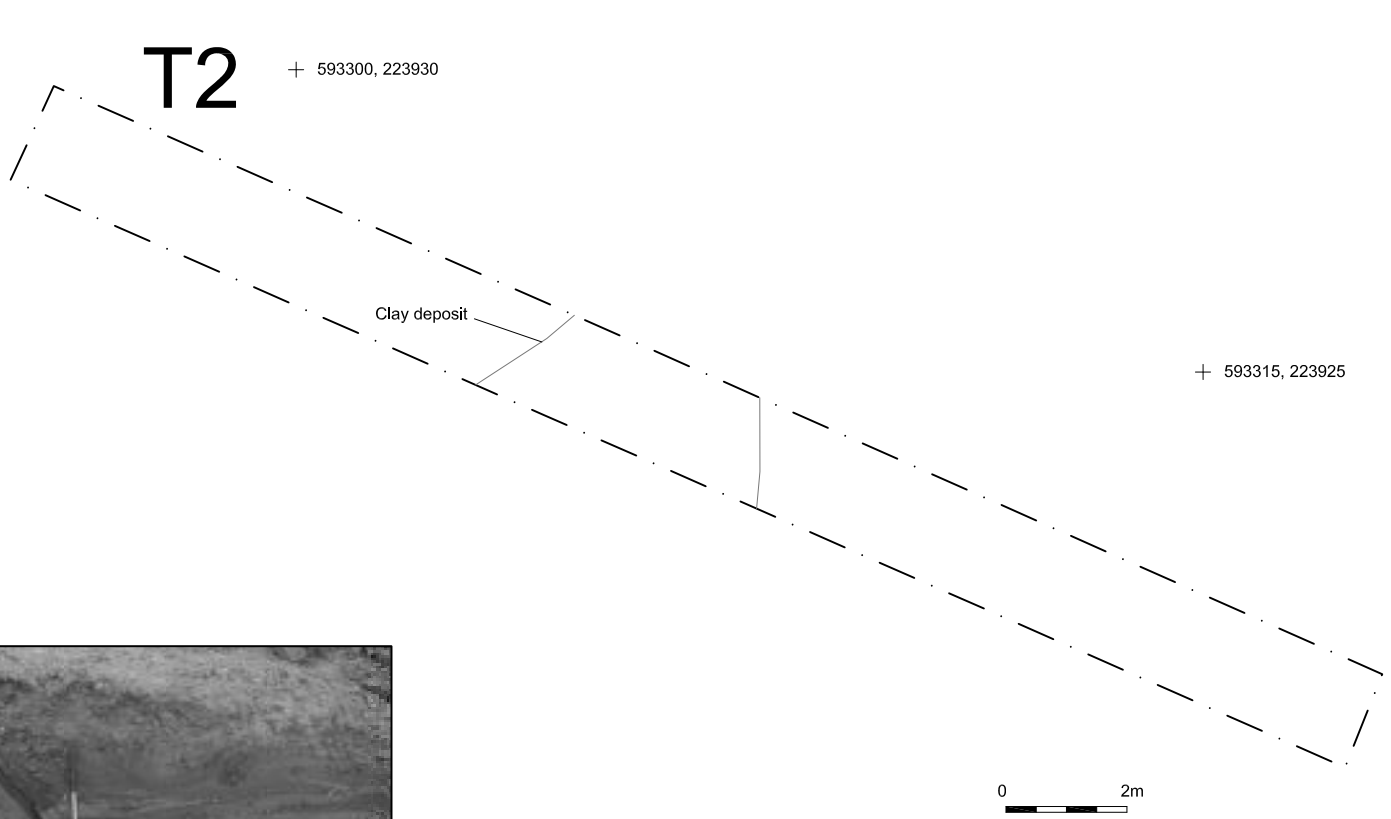
Project Ref: 160784	Sept 2016	Trench 1 plan and photograph	
Report Ref: 2016371	Drawn by: APL		



Trench 2 looking north-west, 1m scale

Trench 2, clay deposit facing south, 1m scale

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Project Ref: 160784	Sept 2016	Trench 2 plan and photographs	
Report Ref: 2016371	Drawn by: APL		

Sussex Office
Units 1& 2
2 Chapel Place
Portslade
East Sussex BN41 1DR
tel: +44(0)1273 426830
email: fau@ucl.ac.uk
web: www.archaeologyse.co.uk

Essex Office
27 Eastways
Witham
Essex
CM8 3YQ
tel: +44(0)1376 331470
email: fau@ucl.ac.uk
web: www.archaeologyse.co.uk

London Office
Centre for Applied Archaeology
UCL Institute of Archaeology
31-34 Gordon Square
London WC1H 0PY
tel: +44(0)20 7679 4778
email: fau@ucl.ac.uk
web: www.ucl.ac.uk/caa

Jon Bell Bsc (Hons) Architecture, MSc Conservation of Buildings
designandconservation

T: 07484 791794
E: jbell@designandconservation.co.uk

Suite 9
Holly House Business Centre
220-224 New London Road
Chelmsford
Essex
CM2 9AE

Heritage Statement

Site: **Land at Hall Road, Copford, Colchester, CO6 1BN**
Proposal: **Proposal for 49 units and associated works.**
Date: **May 2020**

1.0 Introduction

This Heritage Statement has been written and prepared by Jon Bell Design and Conservation, to accompany a planning application 49 residential units to land located to the West of Hall Road, Copford. The site is not located in a conservation area, however it has been advised that a heritage statement is required due to the possibility that the proposals may impact on the setting of a number of listed buildings within the village.

This heritage study has been carried out and a statement produced in order to;

- Understand the history of the site and its setting
- Identify the significance of the listed buildings within proximity of the site
- Assess how the proposals may impact on the appearance, character and significance of the listed buildings

This Heritage Statement has been prepared in conjunction with Section 16 of the 2018 National Planning Policy Framework (NPPF 2018)

189. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. (P55, NPPF, 2018)

2.0 Location, description and history of the site

The site can be described as a parcel of arable agricultural land located to the South-East of the village and West of Hall Road. Below is a location plan identifying the location of the site.

Fig 1. Google view

A number of historic maps of the site have been analysed and reveal that the sites historic former use was arable agricultural land throughout the 19th and 20th century. A study of the Andre and Chapman 1777 map further confirms that the land was agricultural throughout the 18th century.

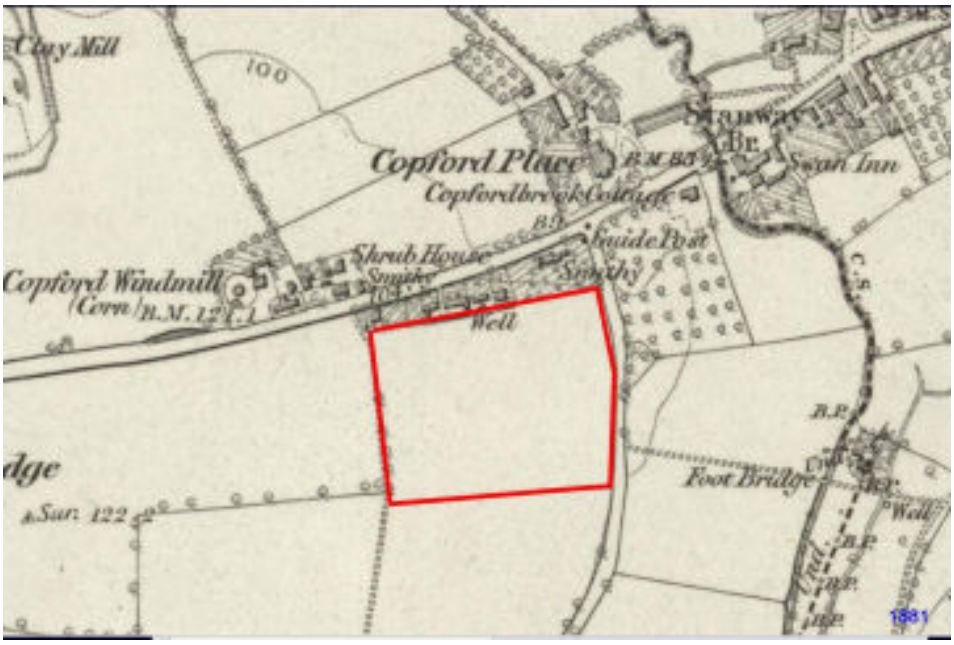


Fig 2. 1881 Historic Map

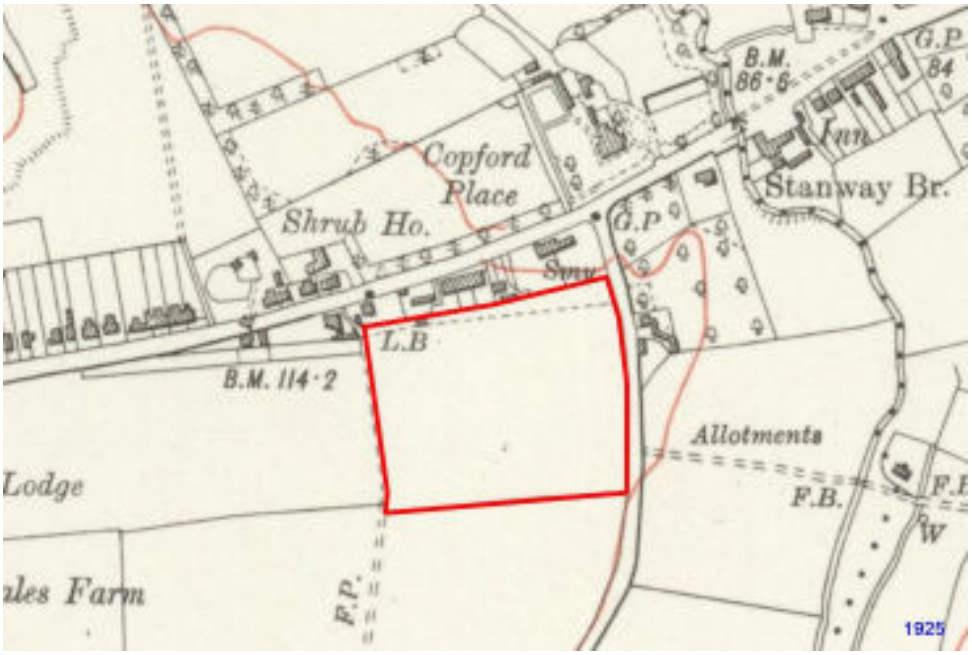


Fig 3. 1925 Historic Map

3.0 The setting of listed buildings

Below is a key plan identifying the locations of listed buildings within proximity of the site.

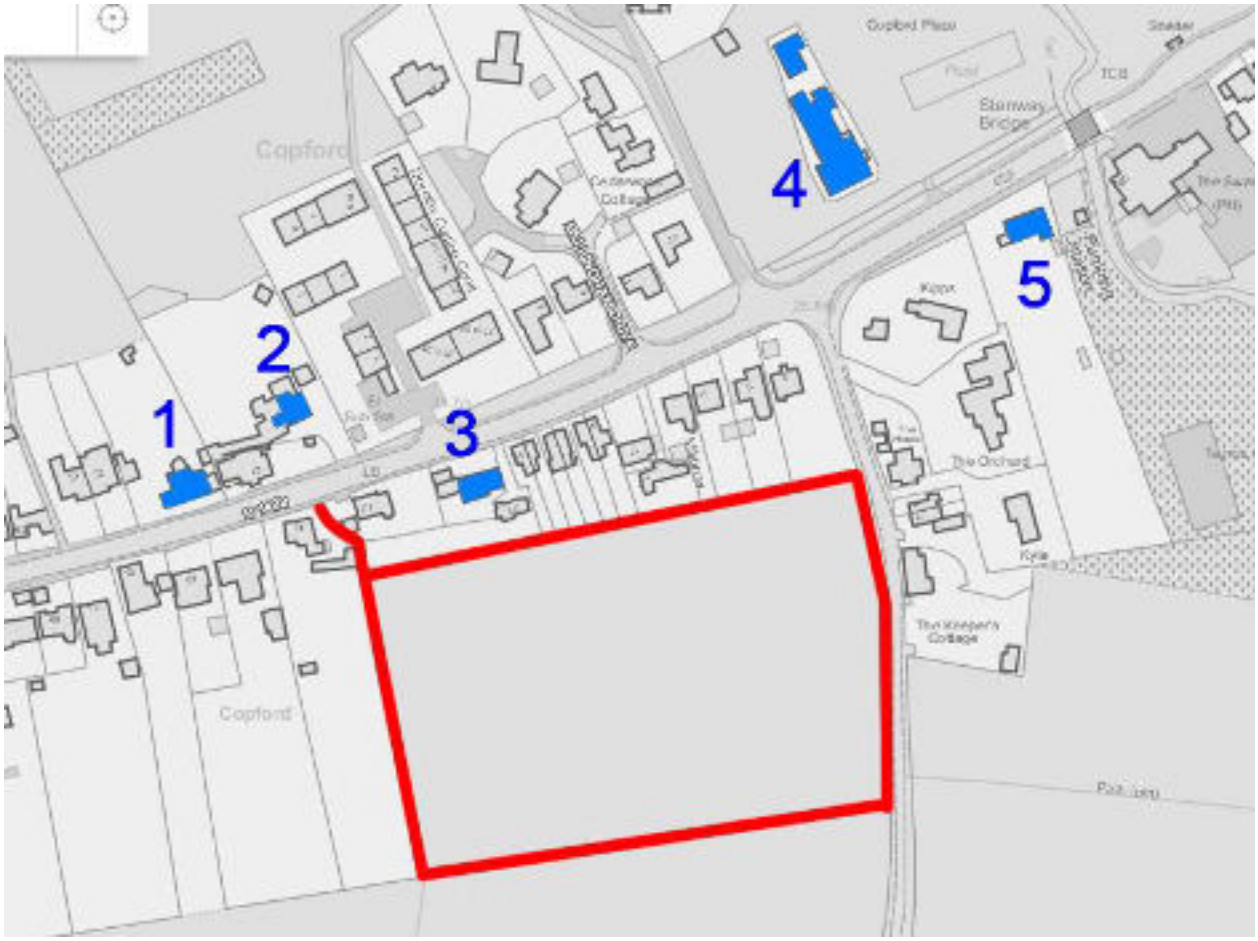


Fig 4. Listed Building location

1 – Old Mill House

Old Mill House is a grade 2 Listed Georgian period house, brickwork to external finish, 6 over 6 sash windows and rooms in the roof. It is a building of fine appearance and dominant character. The setting of the building is associated with that of London Road and the buildings along it. Opposite the building is positioned two new build dwellings that reflect the character and appearance of the building. It is deemed that due to Old Mill House being positioned on the North side of London Road and some distance from the site, the proposals will have no impact on the setting, character, or appearance of the building.

2 – Shrub House

Shrub house is a19th century grade 2 listed plastered 2 storey house, with sash windows. The building is located to the North side of London road, set back some distance from the road and orientated East/West. It is deemed due to the building being located to the North side of London Road, by some distance and orientated to face East/West, the development of the proposal site will not impact on the setting of the building.

3 – Brewers Cottage

Brewers Cottage is a grade 2 listed timber frame and plastered gambrel roof dwelling with attic rooms and two storey weather boarded extension to the West. The building is located to the South of London road and the closest listed building in proximity to the site. The site is within the setting of the listed building, due to it being located to the South of the building, however in more recent history a dwelling has been constructed directly behind Brewers Cottage (number 33). It is unclear on the true date of the property to the South, but it is present on historic maps dating from 1960. It is deemed that the dwelling to the rear of Brewers Cottage disconnects the relationship between the application site and the listed building. It is concluded that the level of impact can be categorized at such a low amount, within the scale of 'less than substantial harm', that the proposals will have no harm to the significance of the setting, character or appearance of Brewers Cottage.

4 – Copford Place

Copford place is a large 18th/19th century timber frame and plastered grade 2 listed building located on the North Side of London Road adjacent to the junction to Hall Road. The building is located some distance from the road and well screened by mature trees and hedgerows. It is deemed that due to the large distance from the application site and secluded setting of the building, the proposed development will not impact on the setting of the listed building.

5 – Brook Cottage

Brook cottage is a 17th/18th century timber frame grade 2 listed building facing London Road. Due to the building being some distance from the application site and having a confined setting characterised by the mature trees surrounding the building, it is concluded that the proposed development will not impact on the setting of the listed building.

4.0 Site Proposals

The proposal is for 49 units and associated works on the proposed site. Following pre-application discussions regarding the development on the site it was highlighted a heritage statement was required to assess the impact on the setting of the listed buildings. Following the advice at pre-application stage, the scheme has been re-designed so that the proposed units located to the South of the buildings facing London Road, have been re-orientated to face East / West. This results in the development having lesser impact on the setting of the buildings facing London Road. It also results in 1st floor windows from existing buildings retaining views across to fields beyond the development.

5.0 Conclusion

Following an assessment of historic maps, it is concluded that the application site is a parcel of arable agricultural land that is of no historical significance. The application site may have had previous uses that pre-date 800AD, due to the close proximity to London Road, however this can only be ascertained through archaeological methods.

Following an assessment of the listed buildings within proximity of the site, it is concluded that buildings 1, 2, 4 and 5 are not within the setting of the site and therefore the proposed development will not impact on the setting of these listed buildings. Brewers Cottage is located adjacent to the boundary of the site, but due to number 33 being constructed to the South of the cottage there is very little connection between the application site and the listed building. It is therefore concluded It is concluded that the level of impact can be categorized at such a low amount, within the scale of 'less than substantial harm', that the proposals will have no harm to the significance of the setting, character or appearance of Brewers Cottage.

The proposed scheme has been re-designed following pre-application discussions to respond to the setting of Brewers Cottage, and the other buildings to the South of London road, by re-orientating the dwellings to ensure views of the countryside from 1st floor windows are retained and the amount of built form adjacent the site boundary to the North is reduced to an insignificant level.

APPEDIX A – BUILDING LISTINGS

Statutory Address:
OLD MILL HOUSE, LONDON ROAD
The building or site itself may lie within the boundary of more than one authority.

County:
Essex
District:
Colchester (District Authority)
Parish:
Copford
National Grid Reference:
TL 93126 24000

Details

COPFORD LONDON ROAD 1. 5214 Old Mill House TL 92 SW 11/20 II 2. Early C18 house, with later alteration. Red brick with red plain tile roof. Parapet walls. Two storeys, attics and cellars. Main facade has 3 window range C18 vertical sliding double hung sashes with glazing bars, in gauged arched heads. Grey brick pilasters. Moulded and modillioned cornice. Two gabled dormers. C18 red brick chimney. Pedimented doorcase, with moulded pilasters and linings. East end has mid C18 extension in red brick, 2 storeys. Parapet front. Red plain tile roof. Modillioned cornice. Two window range at first floor, one window range below, C18 double hung vertical sliding sashes with glazing bars.

Listing NGR: TL9312624000

Statutory Address:
BREWERS COTTAGE, 35, LONDON ROAD
The building or site itself may lie within the boundary of more than one authority.

County:
Essex
District:
Colchester (District Authority)
Parish:
Copford
National Grid Reference:
TL 93225 24001

Details

COPFORD LONDON ROAD 1. 5214 No 35 TL 92 SW 11/22 (Brewers Cottage) II 2. C17 house, timber framed and plastered with red plain tile gambrel half hipped roof. One storey and attics. Three window range, 2 modern casements, and one C18 horizontal sliding sash. Two 'Catslide' dormers with horizontal sliding sashes. C19 lean-to at rear.

Listing NGR: TL9322524001

Statutory Address:

SHRUB HOUSE, LONDON ROAD

The building or site itself may lie within the boundary of more than one authority.

County:

Essex

District:

Colchester (District Authority)

Parish:

Copford

National Grid Reference:

TL 93163 24026

Details

COPFOED LONDON ROAD 1. 5214 Shrub House TL 92 SW 11/21 II 2. Early C19 house, brick and timber framed and plastered, with grey slate hipped roof. Two storeys. Three window range double hung vertical sliding sashes with glazing bars. Pilasters. Pedimented porch with detached plain columns. Late C19 bay window.

Listing NGR: TL9316324026

Statutory Address:

COPFORD PLACE, LONDON ROAD

The building or site itself may lie within the boundary of more than one authority.

County:

Essex

District:

Colchester (District Authority)

Parish:

Copford

National Grid Reference:

TL 93349 24111

Details

COPFORD LONDON ROAD 1. 5214 TL 92 SW 11/17 Copford Place 7.4.65 II 2. C18 house, altered in early C19. Timber framed and plastered, with parapetted south and east facades in grey gault brick. Red plain tile hipped roof. Two storeys, attics and cellars. East front is 5 window range vertical sliding double hung sashes with glazing bars. Large C19 flat topped porch with Doric columns, now infilled. Three hipped dormers. South front has 7 window range sashes to match east front. Middle first floor window blocked. Three hipped dormers. West side has 2 hipped dormers, one with circa 1700 leaded casement. L-shaped plan. Good C18 detailing internally.

Listing NGR: TL9334924111

statutory Address:

BROOK COTTAGE, LONDON ROAD

The building or site itself may lie within the boundary of more than one authority.

County:

Essex

District:

Colchester (District Authority)

Parish:

Copford

National Grid Reference:

TL 93414 24088

Details

COPFORD LONDON ROAD 1. 5214 Brook Cottage TL 92 SW 11/24 II 2. C17 house, with late C18 alterations. Timber framed and faced in painted brick. Red plain tile hipped roof. Two storeys. Three window range vertical sliding double hung sashes with glazing bars. C17 chimney stack, rebuilt at top in C19. Flat topped door surround with moulded and recessed. architraves.

Listing NGR: TL9341424088

EnviroArb-Solutions Ltd

ARBORICULTURAL IMPACT ASSESSMENT

Site:	**Land off Hall Road, Copford**
Client:	**Miss S Harrison c/o Fenn Wright**
Date	**27th April 2020**
Our Ref:	**EAS-034v2**

EnviroArb-Solutions Ltd - 16 Compton Road, Colchester, Essex T: 07734 715337 E: paul.allen@enviroarb-solutions.co.uk

CONTENTS

1.0 EXECUTIVE SUMMARY

1.1 The site is currently a greenfield site with arable agricultural land use located south of London Road, B1408 and west of Hall Road. The land lies south of residential rear gardens off London Road and is bordered by native mixed hedgerow along Hall Road and mixed garden hedges along its northern boundary.

1.2 The trees on the site surround the northern, eastern and part of the north western boundary. Trees are intermittent within the hedges or located in 3rd party land off the site boundaries. The largest trees are located offsite at the Hall Road junction with London Road and will constrain the now approved new junction layout in regard to junction visibility splays and new footpaths.

1.3 The development proposal is to develop the northern part of the site for residential dwellings with associated infrastructure, parking and landscaping.

1.4 The primary tree related constraints relate to highways issues for new site access and visibility splays along with constructing pedestrian access to London Road within the north western corner of the site.

1.5 A summary of the 25 affected trees and part of H3 is detailed in the table below:

Arboricultural Impact	**Reason for Impact**	**A**	**B**	**C**	**U**
Trees to be removed: - **Development** - **Poor Condition**	To facilitate the development or due to their condition (U cat)	/	Northern section of H3	T12, T16, T17, T18, T21, T22, T23, T24, T25, T26, T31, T36, T37, T38, T39 & T40	T19, T20, T28, T29, T30, T33 T34, T35 and T54 (T32 – dead stump)
Trees with RPA encroachment	To facilitate construction	/	T68, T71, T72, T73	T74 - T79 & H9	/
Retained trees to be pruned	To address identified defects / facilitate construction	/	T10, T41, T42, H1 & H2	H4, T27, T44, T47, T48, T49, T50, T51, T52, T53, T55, T56, T57, T61	/

Project Team Contacts List

CONTACTS	Company	Position	Contact No.
Paul Allen DipArb (RFS) MICFor MAE paul.allen@enviroarb-solutions.co.uk	EnviroArb-Solutions Ltd	Principal Arboricultural Consultant	M: 0773471537
Roger PH. Hayward MRICS rphh@fennwright.co.uk	Fenn Wright	Senior Partner	DD: 01245 292825 MB: 07831 235050 Office: 01245 261226

2.0 REPORT METHODOLOGY

2.1 EnviroArb Solutions Ltd (EAS) aim is to provide “fit for purpose” field survey, data capture and report based on the client brief. EAS approach broadly follows the guidance contained in “Trees in relation to demolition, design and construction – Recommendations” (BS5837:2012); however, the use of any terms or concepts contained within it does not imply EnviroArb Solutions Ltd acceptance of their validity or accuracy and the use of any section or concept contained within the standard is on the principle of its advisory status as guidance.

3.0 SCOPE

3.1 EnviroArb Solutions Ltd. has surveyed the key trees on and adjacent to the site and has provided guidance within this report on the measures necessary to ensure successful tree retention during any development, with recommendations for tree removal and / or tree works as necessary. The scope was as follows:

3.2 To visit the site and complete a survey of trees, shrubs, hedgerows and other vegetation that may materially be of interest relative to development proposals.

3.3 To assess the likely impacts of the development on the trees and make ‘in principle’ recommendations relating to tree removals, tree retention and tree protection during development.

3.4 To carry out an arboricultural impact assessment on the effect of the new development at the site, identifying the Construction Exclusion Zones (CEZ) that are shown on the Tree Protection Plan (TPP). This plan will also show the locations for tree protective fencing and any temporary ground protection required, as well as identifying ‘No-Dig’ zones for any RPAs shown to be outside of CEZs.

3.5 To produce a Tree Constraints Plan (TCP), showing the locations of surveyed trees, their BS5837:2012 categorisation and the theoretical Root Protection Areas (RPAs)

3.6 To make any other observations or recommendations required based on the survey.

4.0 PLANS AND REFERENCE DOCUMENTS

4.1 BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'

4.2 BS3998:2010 'Tree work – recommendations'

4.3 NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007"

4.4 Information from the Colchester Borough Council local plan and website

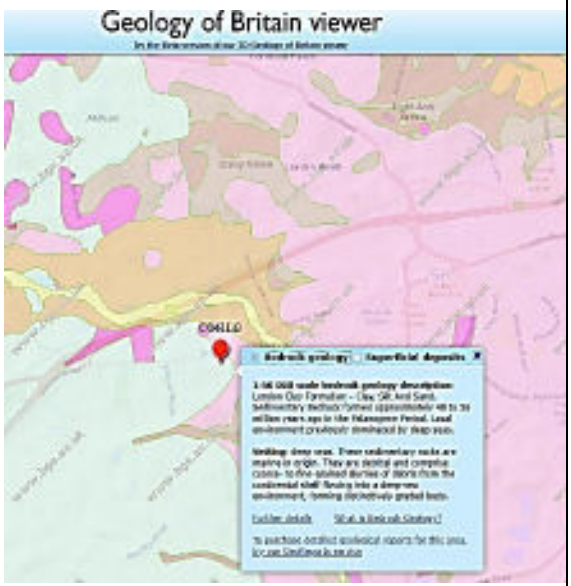
4.5 CBC Pre-Application Enquiry Reference: 192689

4.6 BGS Open Source Soil Data http://www.bgs.ac.uk/nercsoilportal/maps.html

4.7 We understand that the scheme is currently at the pre-application stage.

5.0 DESCRIPTION OF SITE GEOLOGY

5.1 The site consists of arable agricultural land use. The immediate and distant landscape character is rural countryside. The topography is mostly level.

10. Site Location	11. Site Location (BGS Soil)
	
British Geology Survey (Online) – Soils Summary London Clay Formation - Clay, Silt and Sand with superficial (drift) deposits of Lowestoft Formation - Diamicton. http://mapapps.bgs.ac.uk/geologyofbritain/home.html	

5.2 The underlying site soil has been identified as CLAY, and great care should therefore be taken to ensure no compaction of the soils occurs within the identified RPAs, as this soil type is less favourable to tree root growth / moisture movement and aeration.

5.3 All comments regarding soils should be verified with on-site geotechnical investigations and laboratory testing, with foundation depth and design determined by a structural engineer in accordance with the requirements of NHBC Chapter 4.2.

6.0 THE TREES

6.1 There were 91 individual trees, 9 hedges and 2 hedge groups surveyed on-site or immediately adjacent to the site boundary.

6.2 By BS5837:2012 Categorisation, the trees can be summarised as follows:

BS 5837 Cat	A	B	C	U
Specific Trees	T88 and T89	T1, T6, T10, T11, T13, T14, T31, T38, T41, T42, T65, T68, T69, T70, T71, T72, T73, T80, T81, T82, T83, T84, T85, T86, T87 and T90 (H1, H2, H3)	T2, T3, T4, T5, T7, T8, T9, T12, T15, T16, T17, T18, T21, T22, T23, T24, T25, T26, T27, T36, T37, T39, T40, T43, T44, T45, T46, T47, T48, T49, T50, T51, T52, T53, T55, T56, T57, T58, T59, T60, T61, T62, T63, T64, T66, T67, T74, T75, T76, T77, T78, T79 and T91 (H4-H9 & HG1, HG2)	T19, T20, T28, T29, T30, (T32), T33, T34, T35 and T54
Total Number	2	26	53	10

6.3 By group area, there were 2 ‘C’ category hedge groups and 6 ‘C’ category hedges. 3 hedges were ‘B’ category. In total, there were 10 ‘U’ category individual trees that were identified as being in poor condition or dead / in decline with less than ten years’ useful life expectancy. These should be felled and replaced, regardless of any impact of the development proposal. T32, Ash stumps, were already felled so require no further felling works.

6.4 These trees' locations and a summary of their visual contributions can be summarised as follows:

BS 5837 Cat	A	B	C
Northern Boundary - Contributing to private amenity residential rear gardens	T88, T89	T65, T68, T69, T70, T71	T62, T63, T64, T66, T67, H6-H8, HG2
Western Boundary - Contributing to the private amenity of rear residential gardens	/	T72, T73, T80 – T87	T74 -T79, H9
Eastern Boundary - Contributing to the street scene from Hall Road	/	H2, H3	/

6.5 The amenity value of the trees and hedges on site are restricted to the site boundaries for predominantly private amenity space. However, the trees surveyed offsite on London Road at the junction with Hall Road have higher amenity value as linear groups not as individuals to the general street tree / hedgerow scene.

6.6 The hedgerows identified on the site are not likely to be classified as 'important' within the Hedgerow Regulations 1997.

6.7 Our detailed check with the Local Planning Authority online mapping system shows no trees are subject to statutory protection on or close to the site boundaries.

7.0 ARBORICULTURAL IMPACT ASSESSMENT

7.1 Tree Removals

7.1.1 The following 25 individual trees and northern section of H3 will need to be removed due to mostly their poor condition and to facilitate the required new highways access arrangements off London road:

Arboricultural Impact	Reason for Impact	A	B	C	U
Trees to be removed: - **Development** - **Poor Condition**	. To facilitate the development or due to their condition (U cat)	. /	. Northern section of H3	T12, T16, T17, T18, T21, T22, T23, T24, T25, T26, T31, T36, T37, T38, T39 & T40	. T19, T20, T28, T29, T30, T33 T34, T35 and T54 (T32 – dead stump)

7.1.2 Every effort has been made to reduce the number of trees removed from the site. The majority of works are, however, of low landscape significance and can be adequately mitigated as part of the overall landscaping of the site and new site entrance and junction arrangement.

7.1.3 Recommended tree works are detailed within the Tree Works Schedule at Appendix 5.

7.2 ROOT PROTECTION AREA (RPA) INCURSIONS

7.2.1 The following incursions into the RPAs of trees to be retained have been identified:

Arboricultural Impact	Reason for Impact	A	B	C	U
Trees with RPA encroachment	To facilitate construction	/	T68, T71, T72, T73	T74 - T79 & H9	/

7.2.2 The most significant RPA incursions are for the proposed new surfacing to a pedestrian footpath linking the site to London Road in the north western corner of the site.

7.3 FOUNDATIONS

7.3.1 The foundations of the development proposal for residential units will not encroach into the RPA of on or offsite trees Please refer to the Tree Protection Plan for further information.

7.3.2 In instances where soil conditions are known to be of a shrinkable clay the retained and removed trees have the potential to constrain the foundation design for any adjacent new buildings within influencing distance. Final decisions as to the risks presented by retained / removed trees upon adjacent new buildings should be subject to detailed site geotechnical information being available, assessed by a structural engineer.

7.4 HARD SURFACES

7.4.1 The development requires the installation of new surfaces within the RPA of T71, T72, T73, T74 - T79 & H9 for a new pedestrian footpath. Where existing hard and soft surfaces within the RPAs of trees to be retained are to be replaced / upgraded, they should be undertaken by controlled methods to avoid compaction of the underlying ground and direct damage to roots.

7.4.2 To minimise the disruption on the retained trees, it is proposed that a 'reduced' surface is installed in the areas indicated on the Tree Protection Plan. These surfaces sit above ground level after surface vegetation removal and ensure that no tree roots are severed during their installation.

7.4.3 Ideally, the profile of new surfaces within the RPAs of trees to be retained should be kept within the depth of profile for existing surfaces. Where existing profile depths are insufficient or there is no existing hard surface, the depth of sub-base to hard surfaces might be minimised by use of a 3D cellular confinement system, e.g. ProtectaWeb, details of which are included at Appendix 9.

7.4.4 Please refer to a Site Specific Arboricultural Method Statement (SSAMS), for full details on the proposed installation.

Photographs of 'Reduced-dig' 3D webbing system ground protection – 'ProtectaWeb' supplied by WREKIN PRODUCTS.

7.5 SERVICES

7.5.1 The route of any services needs to be carefully considered so as to avoid unnecessary encroachment into retained trees' RPAs. These should, where possible, not encroach within the RPAs of retained trees. Where excavations slightly encroach into adjacent trees' RPAs, the excavation should only be considered when supervised by the consultant arboriculturist from EnviroArb Solutions Ltd and may need to be undertaken using an 'Airspade' / hand tools.

7.6 GROUND LEVELS

7.6.1 No significant changes to existing ground levels are proposed within the RPAs of retained trees / Where changes in levels, mounding, retaining walls, slopes and hard landscaping features apply close to retained tree RPAs the impact of any alterations to levels and protection methods to be employed should be detailed within the SSAMS.

7.7 SHADING

7.7.1 No shading issues have been identified with the proposal on the basis of the orientation of the tree resource relative to the proposal.

7.8 SITE SUPERVISION / MONITORING

7.8.1 Most damage to trees on development sites is caused inadvertently, and to ensure continued protection during development, a system of site monitoring is proposed.

7.8.2 Basic checks will ensure that protective fencing remains intact. Any unforeseen issues can also be identified and discussed before damage to the tree(s) occurs.

7.8.3 The number of proposed visits is driven by the scale of the proposal. A more detailed explanation of what will be assessed during the proposed monitoring visits is contained in Appendix 6.

7.9 DEMOLITION

7.9.1 No Demolition of existing structures is proposed.

8.0 RECOMMENDATIONS

8.1 The preliminary tree works we have recommended are contained within the tree works schedule at Appendix 5.

8.2 Our additional recommendations are as follows:

8.2.1 That during the construction build phase, following current consultation with the arboriculturist from EnviroArb Solutions Ltd, adequate provision is made for the protection of existing trees on site and the areas to be planted with new trees and shrubs.

8.2.2 That by liaison with the council tree officer, formal agreement should be sought regarding the tree pruning required and tree protection methods employed to protect retained trees. These will be via the production of an SSAMS and will include:

- Tree protective fencing as shown on the tree protection plan.
- No ground excavations within tree RPAs, unless approved by the tree officer.
- Any anti-compaction measures required to be taken.
- The specific locating of services trenches to avoid excavations within RPAs where possible, or if necessary being undertaken by hand dig only.
- Specific methods for construction of site access routes close to or within retained trees' RPAs.

8.2.3 That pre-commencement site meetings should be arranged to discuss the recommendations in this and subsequent reports and method statements, and that copies of all relevant arboricultural reports should be available on site.

8.2.4 That the SSAMS should be developed further with the contractor through the development process to include comments made by them, the client and the design team, as well as council officers. A copy of the tree report, including the SSAMS and tree protection plan, should always be kept on site.

8.2.5 That details of site inspection / supervision visits by the consultant arboriculturist are recorded and sent to the council tree officer, with copies retained by the site manager.

9.0 CONCLUSIONS

9.1 The site is located within a rural landscape setting. There are some trees of low to modest amenity value on or adjacent to the site, most of which are 'B' and 'C' category hedgerow standard trees. The dominant individual tree species on this site is Ash, Birch, English Oak, with Sycamore / Field Maple as the other standard trees present. None of these trees are protected by Tree Preservation Orders neither is the site located within a Conservation Area. Most of the trees are in need of some basic crown pruning works due to their lack of recent management.

9.2 The number of trees identified to fell in light of the development proposal is low, with 16 'C' category trees and the northern section of H3 for the current site access. Nine trees are 'U' category and should be felled regardless of the proposed development. Any trees or groups felled as a result of the development proposal will be mitigated by replacement planting to at the least the same percentage canopy cover as that removed. The trees removed for the agreed new site junction arrangements off London road will be mitigated by new native hedgerow planting out of agreed visibility splays for the junction.

9.3 Retained trees will be fully protected by at least sturdy tree protection fencing, as described at Appendix 8. Where encroachment into theoretical RPA is unavoidable temporary ground protection measures will be used which can utilise 3D 'Reduced-Dig' cellular confinement sub-base systems. All tree protection measures are detailed according to construction drawings as part of an SSAMS which will include protection methods and supervision by a consultant arboriculturist from EnviroArb Solutions Ltd. Sufficient development room will be available after protection measures are instigated as described within this report.

9.4 Overall, it is concluded that, subject to appropriate controls, the development can be implemented without undue impact on retained trees. These should be detailed within the SSAMS that should be submitted to and agreed in writing by the Local Planning Authority prior to the commencement of the development, as a condition of any consent.

Paul Allen MICFor Dip Arb (RFS) MAE
Consultant Arboriculturist
27th April 2020

10.0 APPENDICES

APPENDIX 1 **Key To Tree Tables**

APPENDIX 2 **Tree Survey Tables**

APPENDIX 3 **Tree Constraints Plan**

APPENDIX 4 **Tree Protection Plan**

APPENDIX 5 **Tree Works Schedule**

APPENDIX 6 **Site Inspection & Monitoring schedule**

APPENDIX 7 **BS5837:2012 Tree Constraints & Protection Methods**

APPENDIX 8 **Tree Protection Fencing Specification**

APPENDIX 9 **Proprietary Information for 'Reduced-Dig' Sub-Base**

APPENDIX 10 **Photographs**

APPENDIX 11 **Report Caveats**

APPENDIX 1

KEY TO TREE TABLES

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Key

BS 5837 Cat	Description
A	Those of high quality and value: in such a condition as to be able to make a substantial contribution (> 40 years)
B	Those trees of moderate quality and value: those in such a condition as to make a significant contribution (> 20 years)
C	Those trees of low quality and value: currently in adequate condition to remain until new planting could be established (> 10 years)
U	Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed regardless of development

Note: Sub categories are denoted in the tree survey data (A1, B1, C2 etc.). You are referred to the BS for further detail if required.

Tree No.	T (tree), G (group), H (hedge), W (woodland) + Ref No.
Species	Common Name
Ht (m)	Measured height in metres
DBH (m)	Diameter at 1.5m above ground level
Branch Spread	In m to cardinal points
Cr Ht Clearance (m)	Overall height of lowest branches from the ground level on side of proposed development
Life Stage	Young, Semi-Mature, Early-Mature, Mature, Over-Mature
General Observations	Observations on the condition of the tree(s)
Tree Work Specification	Proposed tree works in accordance with BS3998
BS Cat	See above
Life Exp	Estimated remaining contribution in years.
RPA Radius(m)	Radius of the trees Root Protection Area measured from the trunk to the edge of the RPA circle in metres
RPA (m2)	Overall Root Protection Area in m2
*	Indicates where tree data may have been estimated as tree was offsite / restricted access / dense vegetation hindering full inspection

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APPENDIX 2

TREE SURVEY TABLES

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ARBORICULTURAL IMPACT ASSESSMENT
TREE SURVEY TABLES
Surveyor: Paul Allen
Date Surveyed: 7th February 2020

TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T1	Oak (English)	5	3	3	3	3	300	1	41	3.6	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, minor dead wood throughout crown.	No works.
T2	Maple (Field)	5	2	1	2	1	300	1	41	3.6	C2	Early Mature	20-39	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown. Previously trimmed as part of hedge.	No works.
T3	Maple (Field)	5	2	1	2	1	200	1	18	2.4	C2	Early Mature	20-39	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown. Previously trimmed as part of hedge.	No works.
T4	Oak (English)	4	2	2	2	2	200	1	18	2.4	C2	Early Mature	20-39	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown. Bramble clad.	No works.
T5	Maple (Field)	6	4	4	4	3.5	300	1	41	3.6	C2	Early Mature	20-39	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown. Previously trimmed as part of hedge.	No works.
T6	Oak (English)	5	2	2	2	2	300	1	41	3.6	B1	Early Mature	40+	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T7	Maple (Field)	6	2	1	2	1	300	1	41	3.6	C2	Early Mature	20-39	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown. Previously trimmed as part of hedge.	No works.
T8	Ash (Common)	5	1	1	1	1	150	1	10	1.8	C2	Semi-Mature	20-39	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown. Previously trimmed as part of hedge.	No works.
T9	Oak (English)	7	3	3	3	3	320	2	46	3.8	C2	Early Mature	40+	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown. Co dominant tree with moderate basal included unions. Bramble clad.	No works.
T10	Oak (English)	15	7	7	7	7	800	1	290	9.6	B1	Mature	40+	Average Hedgerow form, shape and condition. Dense crown, major dead wood throughout crown. Trunk epicormic growth.	Crown lift to 6m over public highway. Remove dead wood over 5cm diameter throughout the crown. Remove epicormic growth to a height of 5m.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T11	Oak (English)	8	4	4	4	4	300	1	41	3.6	B1	Early Mature	40+	Average Hedgerow form, shape and condition. Dense crown, minor dead wood throughout crown.	No works.
H1	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	2.5	1	1	1	1	100	m/s	5	1.2	B2	Mature	20-39	Managed native field boundary hedge. Trimmed / flailed.	Annual trimming maintenance
H2	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	2.5	1	1	1	1	100	m/s	5	1.2	B2	Mature	20-39	Managed native field boundary hedge. Trimmed / flailed.	Annual trimming maintenance
H3	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	6	2	2	2	2	100	m/s	5	1.2	B2	Mature	20-39	Recently un-managed native field boundary hedge. Previously trimmed to 2m. Interfering with BT wires. In conflict with the new site entrance arrangements.	Fell northern section for approx. 10m hedge section to ground level to enable new site access. Annual trimming maintenance to the remainder of the hedge.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T12	Yew (Common)	6	2	1	2	2	300	m/s	41	3.6	C2	Early Mature	40+	Average form (asymmetric canopy), shape and condition. Subject to historic crown management; trimmed over road. Dense crown, minor dead wood throughout crown. In conflict with new site entrance arrangements.	Fell to ground level and remove completely.
T13	Olive	3	2	2	2	2	100	1	5	1.2	B1	Semi-Mature	40+	Average form, shape and condition. No significant recent crown management. 3rd party off site tree, unable to fully inspect.	No works.
T14	Pittosporum and Hawthorn	5	3	3	3	3	200	m/s	18	2.4	B1	Early Mature	20-39	Average form, shape and condition. No significant recent crown management. 3rd party off site tree, growing around BT pole. Trimmed over road.	No works.
H4	Yew and Laurel	5	2	2	2	2	100	m/s	5	1.2	C2	Early Mature	20-39	Average form, shape and condition. Subject to historic crown management; trimmed over road. Dense crown, Minor dead wood throughout crown.	Annual trimming maintenance.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T15	Hawthorn	5	3	3	3	3	200	m/s	18	2.4	C2	Early Mature	20-39	Average form, shape and condition. No significant recent crown management. 3rd party off site tree, growing in highway verge. Trimmed over road. Ivy clad crown, unable to fully inspect.	No works.
T16	Blackthorn	5	3	2	5	2	250	2	28	3	C2	Early Mature	20-39	Average form, shape and condition. No significant recent crown management. tree, growing in highway verge. Trimmed over road. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T17	Hawthorn	5	2	2	2	2	150	1	10	1.8	C2	Early Mature	20-39	Average form, shape and condition. No significant recent crown management. tree, growing in highway verge. Trimmed over road. In conflict with new site entrance arrangements.	Fell to ground level and remove completely.
T18	Maple (Field)	6	1	1	1	1	100	1	5	1.2	C2	Semi-Mature	20-39	Average form, shape and condition. No significant recent crown management. tree, growing in highway verge. Trimmed over road. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T19	Elm	6	1	1	1	0.5	200	1	18	2.4	U	Early Mature	<10	Dead standing tree in highway verge. Ivy clad.	Fell to ground level and remove completely.
T20	Elm	6	1	1	1	0.5	200	1	18	2.4	U	Early Mature	<10	Dead standing tree in highway verge.	Fell to ground level and remove completely.
T21	Elm	10	4	2	3	4	200	2	18	2.4	C2	Early Mature	Oct-19	Co dominant tree in highway verge. Trunk epicormic growth. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T22	Elm	9	3	1	1	3	200	2	18	2.4	C2	Early Mature	Oct-19	Co dominant tree in highway verge. Trunk epicormic growth. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T23	Elm	11	4	1	2	4	200	1	18	2.4	C2	Early Mature	Oct-19	Hedgerow tree in 3rd party highway verge. Trunk epicormic growth. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T24	Holly	7	2	2	2	2	200	m/s	18	2.4	C2	Early Mature	Oct-19	Average multiple stemmed form, shape and condition. Dense crown, Minor dead wood. Tree, in highway verge. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T25	Blackthorn	7	3	3	1	3	200	m/s	18	2.4	C2	Early Mature	Oct-19	Average multiple stemmed form, shape and condition. Dense crown, Minor dead wood. Tree, in highway verge. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T26	Holly	10	4	2	2	3	250	m/s	28	3	C2	Mature	Oct-19	Average multiple stemmed form, shape and condition. Dense crown, Minor dead wood. Tree, in highway verge. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T27	Plum (Purple leafed)	10	4	5	5	3	350	2	55	4.2	C2	Mature	Oct-19	Average multiple stemmed form, shape and condition. Dense asymmetric crown, Major dead wood. 3rd party off site tree, on bank in highway verge.	Remove major dead wood overhanging the highway.
T28	Plum (Purple leafed)	5	1	1	1	1	300	1	41	3.6	U	Mature	<10	Dead standing tree on bank over hanging highway.	Fell dead tree overhanging the highway.
T29	Plum (Purple leafed)	4	1	1	1	1	300	2	41	3.6	U	Mature	<10	Dead standing tree on bank over hanging highway.	Fell dead tree overhanging the highway.
T30	Plum (Purple leafed)	4	1	1	1	1	300	2	41	3.6	U	Mature	<10	Dead standing tree on bank over hanging highway.	Fell dead tree overhanging the highway.

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ARBORICULTURAL IMPACT ASSESSMENT
TREE SURVEY TABLES
Surveyor: Paul Allen
Date Surveyed: 7th February 2020

TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T31	Sycamore	12.5	7	7	7	7	480	1	104	5.8	C1	Mature	20-39	Average form, shape and condition. Subject to historic crown management; cut back lower branches over highway. Dense crown, moderate dead wood. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove stump completely.
T32	Ash	4	0	0	0	0	600	m/s	163	7.2	U	Over Mature	<10	Ivy clad dead stumps at 4m High on 3rd party garden boundary.	No works.
H5	Laurel	3	1	1	1	1	150	m/s	10	1.8	C2	Early Mature	Oct-19	3rd party managed garden hedge. Trimmed.	No works.
T33	Plum (Purple leafed)	3	3	1	1	1	300	m/s	41	3.6	U	Mature	<10	Dead windblown tree on bank over hanging highway. Ivy clad	Fell dead tree overhanging the highway.
T34	Elm	7	1	1	1	1	100	1	5	1.2	U	Early Mature	<10	Dead / dying Hedgerow tree in highway verge.	Fell to ground level and treat.
T35	Plum (Purple leafed)	3	3	1	1	1	300	m/s	41	3.6	U	Mature	<10	Windblown tree on highway verge bank over hanging highway. Ivy clad	Fell tree overhanging the highway verge.
T36	Plum (Purple leafed)	3	1	1	2	1	150	m/s	10	1.8	C2	Semi-Mature	Oct-19	Suppressed tree on bank over hanging highway. Ivy clad. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely

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ARBORICULTURAL IMPACT ASSESSMENT
TREE SURVEY TABLES
Surveyor: Paul Allen
Date Surveyed: 7th February 2020

TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T37	Elm	3	3	1	2	3	100	m/s	5	1.2	C2	Semi-Mature	Oct-19	Suppressed tree on bank over hanging highway. Ivy clad. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely
T38	Sycamore	19	7	7	7	7	1100	m/s	547	13	C1	Mature	20-39	Average form, shape and condition. Dense crown, moderate dead wood throughout crown. Tree with overhanging branches. Co dominant tree with moderate included unions. Ivy clad stem, unable to fully inspect. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove stumps completely.
T39	Elm	5	2	1	1	2	100	1	5	1.2	C2	Semi-Mature	Oct-19	Suppressed tree on bank over hanging highway. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely
T40	Elm and Blackthorn	9	5	3	2	4	300	m/s	41	3.6	C2	Early Mature	Oct-19	Suppressed trees on bank over hanging highway. Ivy clad x 2 Elm and 1 Blackthorn growing close together. Asymmetric crowns over road. On retaining wall. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
HG1	Elm and Blackthorn	7	2	2	2	2	100	m/s	5	1.2	C2	Early Mature	Oct-19	Suppressed x 9 hedgerow group trees on 3rd party bank over hanging highway. Asymmetric crowns over road. On retaining wall.	No works.
T41	Sycamore	17	8	6	8	8	600	1	163	7.2	B1	Mature	20-39	Average form, shape and condition. Dense crown, moderate dead wood throughout crown. 3rd party off site tree with overhanging branches. Ivy clad stem, unable to fully inspect.	Remove major dead wood overhanging the road. Crown lift to 6m over public footpath / highway. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T42	Sycamore	19	7	8	7	4	900	m/s	366	11	B1	Mature	20-39	Average asymmetric form, shape and condition. Dense crown, moderate dead wood throughout crown. 3rd party off site tree with overhanging branches. Co dominant tree between x 3 stems with moderate basal included unions. Ivy clad stem, unable to fully inspect.	Remove major dead wood overhanging the road. Crown lift to 6m over public footpath / highway. Sever Ivy at 2m from ground level and remove section. Re-inspect.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T43	Sycamore	15	5	5	5	5	430	2	84	5.2	C2	Early Mature	Oct-19	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Co dominant stems with basal included unions.	No works.
T44	Sycamore	15	5	5	5	5	300	1	41	3.6	C2	Early Mature	Oct-19	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Crown lift to 6m over public highway. Remove major dead wood overhanging highway. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T45	Sycamore	15	3	3	3	3	250	1	28	3	C2	Early Mature	Oct-19	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T46	Sycamore	15	3	3	3	3	250	1	28	3	C2	Early Mature	Oct-19	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches.	No works.
T47	Sycamore	15	5	5	5	5	300	1	41	3.6	C2	Early Mature	Oct-19	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.
T48	Sycamore	15	5	5	5	5	300	1	41	3.6	C2	Early Mature	Oct-19	Poor form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad. Co dominant tree with moderate included unions.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T49	Sycamore	16	5	5	2	5	300	1	41	3.6	C2	Early Mature	Oct-19	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.
T50	Sycamore	1	5	5	2	5	350	1	55	4.2	C2	Early Mature	Oct-19	Poor asymmetric form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.
T51	Sycamore	16	5	5	5	5	350	1	55	4.2	C2	Early Mature	Oct-19	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T52	Holly (Common)	10	4	4	4	4	400	m/s	72	4.8	C2	Early Mature	Oct-19	Poor multiple stemmed form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches.	Crown lift to 6m over public footpath / highway.
T53	Holly (Common)	10	4	4	4	4	400	m/s	72	4.8	C2	Early Mature	Oct-19	Poor multiple stemmed form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches.	Crown lift to 6m over public footpath / highway.
T54	Dead tree	6	2	2	2	2	200	1	18	2.4	U	Early Mature	<10	Dead standing tree on 3rd party highway verge.	Fell to ground level.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T55	Sycamore	16	7	7	7	7	350	1	55	4.2	C2	Early Mature	Oct-19	Poor form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad. Rubbing BT wires.	Crown lift to 6m over public highway. Remove major dead wood overhanging highway. Sever Ivy at 2m from ground level and remove section. Re-inspect. Cut back to suitable side growth point to provide 2-3m clearance from BT wires.
T56	Sycamore	16	7	7	4	7	300	1	41	3.6	C2	Early Mature	Oct-19	Poor form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad. Rubbing BT wires.	Crown lift to 6m over public highway. Remove major dead wood overhanging highway. Sever Ivy at 2m from ground level and remove section. Re-inspect. Cut back to suitable side growth point to provide 2-3m clearance from BT wires.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T57	Holly (Common)	11	5	5	5	5	1000	m/s	452	12	C2	Mature	Oct-19	Multiple stemmed form, shape and condition. Dense crown, moderate dead wood. 3rd party off site tree on garden boundary bank, unable to fully inspect with overhanging branches.	Crown lift to 6m over public footpath / highway.
T58	Ash (Common)	9	3	3	3	3	150	1	10	1.8	C2	Semi-Mature	Oct-19	Self-set form, shape and condition. Dense upper crown. 3rd party off site tree behind garden fence, unable to fully inspect with overhanging branches.	No works.
T59	Hawthorn	7	2	2	2	2	150	m/s	10	1.8	C2	Early Mature	Oct-19	Self-set multiple stemmed form, shape and condition. Dense crown. 3rd party off site tree behind garden fence, unable to fully inspect with overhanging branches. Ivy clad.	No works.
T60	Holly (Common)	4	2	2	2	2	150	m/s	10	1.8	C2	Early Mature	Oct-19	Self-set multiple stemmed form, shape and condition. Dense crown. 3rd party off site tree behind garden fence, unable to fully inspect with overhanging branches.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T61	Sycamore	14	5	5	5	5	500	m/s	113	6	C2	Mature	Oct-19	Multiple stemmed form, shape and condition. Dense crown, moderate dead wood. 3rd party off site tree on riverbank, unable to fully inspect with overhanging branches over BT pole.	Crown lift to 6m over public footpath / highway and cut back by 2m off BT pole.
T62	Eucalyptus	5	2	2	2	2	100	1	5	1.2	C2	Semi-Mature	20-39	Average form, shape and condition. Dense crown, minor dead wood. 3rd party off site tree, unable to fully inspect with overhanging branches.	No works.
T63	Fir	4	1	1	1	1	100	1	5	1.2	C2	Semi-Mature	20-39	Average form, shape and condition. Dense crown, minor dead wood. 3rd party off site tree, unable to fully inspect with overhanging branches.	No works.
T64	Fir	4	1	1	1	1	100	1	5	1.2	C2	Semi-Mature	20-39	Average form, shape and condition. Dense crown, minor dead wood. 3rd party off site tree, unable to fully inspect with overhanging branches.	No works.

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Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
H6	Laurel	3	1	1	1	1	100	m/s	5	1.2	C2	Semi-Mature	20-39	Average form, shape and condition garden boundary hedge. Dense crown, minor dead wood. 3rd party off site hedge, unable to fully inspect with trimmed overhanging branches.	No works.
HG2	Blackthorn and Hazel	3	1	1	1	1	100	m/s	5	1.2	C2	Semi-Mature	20-39	Average form, shape and condition garden boundary hedge group. Dense crowns, minor dead wood. 3rd party off site shrubs, unable to fully inspect with trimmed overhanging branches.	No works.
T65	Maple (Norway)	9	5	5	5	5	400	1	72	4.8	B1	Early Mature	20-39	Average form, shape and condition garden tree. Dense crown, minor dead wood. 3rd party off site tree, ivy clad, unable to fully inspect with overhanging branches.	No works.
H7	Laurel	2	1	1	1	1	100	m/s	5	1.2	C2	Semi-Mature	20-39	Average form, shape and condition garden boundary hedge. Dense crown, minor dead wood. 3rd party off site hedge, unable to fully inspect with trimmed overhanging branches.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T66	Rhus	6	2	2	2	2	200	m/s	18	2.4	C2	Early Mature	20-39	Average multiple stemmed form, shape and condition garden trees. Dense crown, minor dead wood. 3rd party off site tree, unable to fully inspect with overhanging branches. Phytotoxic sap.	No works.
T67	Sycamore	6	2	2	2	2	180	2	15	2.2	C1	Semi-Mature	20-39	Poor form, shape and condition garden tree. Dense crown, minor dead wood. 3rd party off site tree, ivy clad, unable to fully inspect with overhanging branches.	No works.
T68	Oak (English)	8	4	4	4	4	200	1	18	2.4	B1	Early Mature	40+	Average form, shape and condition garden tree. Dense crown, minor dead wood. 3rd party off site tree, ivy clad, unable to fully inspect with overhanging branches.	No works.
T69	Hawthorn	6	3	3	3	3	200	1	18	2.4	B1	Early Mature	20-39	Average form, shape and condition garden tree. Dense crown, minor dead wood. 3rd party off site tree, ivy clad, unable to fully inspect with overhanging branches.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T70	Oak (English)	13	6	6	6	6	350	1	55	4.2	B1	Early Mature	20-39	Average form, shape and condition garden tree. Dense crown, minor dead wood. 3rd party off site tree, ivy clad, unable to fully inspect with overhanging branches.	No works.
H8	Privet	2	1	1	1	1	200	m/s	18	2.4	C2	Semi-Mature	20-39	Average form, shape and condition garden boundary hedge. Dense crown, minor dead wood. 3rd party off site hedge, unable to fully inspect with trimmed overhanging branches.	No works.
T71	Cherry	10	7	7	7	7	480	1	104	5.8	B1	Mature	Oct-19	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect. Ivy clad	No works.
T72	Cherry	10	7	7	7	7	400	2	72	4.8	B1	Mature	Oct-19	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T73	Cherry	9	6	6	6	6	400	2	72	4.8	B1	Mature	Oct-19	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect. Ivy clad.	No works.
T74	Elm	4	1	1	1	1	100	1	5	1.2	C2	Semi-Mature	Oct-19	Poor hedgerow sucker form, shape and condition. Dense crown, low dead wood throughout. Ivy clad.	No works.
T75	Elm	48	4	4	4	4	150	1	10	1.8	C2	Semi-Mature	Oct-19	Poor hedgerow sucker form, shape and condition. Dense crown, low dead wood throughout. Ivy clad.	No works.
T76	Elm	48	4	4	4	4	150	1	10	1.8	C2	Semi-Mature	Oct-19	Poor hedgerow sucker form, shape and condition. Dense crown, low dead wood throughout. Ivy clad.	No works.
T77	Elm	48	4	4	4	4	150	1	10	1.8	C2	Semi-Mature	Oct-19	Poor hedgerow sucker form, shape and condition. Dense crown, low dead wood throughout. Ivy clad.	No works.
T78	Elm	48	4	4	4	4	150	1	10	1.8	C2	Semi-Mature	Oct-19	Poor hedgerow sucker form, shape and condition. Dense crown, low dead wood throughout.	No works.
T79	Ash (Common)	14	6	6	6	6	450	1	92	5.4	C1	Mature	Oct-19	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect. Ivy clad.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
H9	Laurel	4	2	2	2	2	200	m/s	18	2.4	C2	Mature	20-39	Average form, shape and condition garden boundary hedge. Dense crown, minor dead wood. 3rd party off site hedge, unable to fully inspect with trimmed overhanging branches.	No works.
T80	Sweet Chestnut	6	3	3	3	3	200	2	18	2.4	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.
T81	Sweet Chestnut	6	3	3	3	3	250	2	28	3	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.
T82	Walnut	6	3	3	3	3	200	1	18	2.4	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T83	Walnut	7	4	4	4	4	400	2	72	4.8	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect. Co dominant tree with moderate basal included unions.	No works.
T84	Sweet Chestnut	9	5	5	5	5	400	1	72	4.8	B1	Early Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.
T85	Walnut	6	3	3	3	3	150	1	10	1.8	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.
T86	Walnut	6	3	3	3	3	100	1	5	1.2	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.

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TREE TABLES

Land off Hall Road, Copford

Tree No	Species	Ht (m)	CS N	CS E	CS S	CS W	DBH (mm)	No of Stems	RPA (m2)	RPR (m)	BS Cat	Age Class	Life Expect	Observations	Recommendations
T87	Oak (English)	7	4	3	4	4	300	1	41	3.6	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect. Trimmed back over field margin.	No works.
T88	Oak (English)	16.5	8	8	8	8	600	1	163	7.2	A1	Mature	40+	Good form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect. Previously crown reduced	No works.
T89	Birch (Silver)	11.5	6	6	6	6	400	1	72	4.8	A1	Mature	40+	Good form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.
T90	Walnut	6	1	1	1	1	150	1	10	1.8	B1	Semi-Mature	40+	Average form, shape and condition. Dense crown, moderate dead wood. 3rd party off site garden boundary tree, unable to fully inspect.	No works.
T91	Cherry	6	2	2	2	2	180	2	15	2.2	C1	Semi-Mature	20-39	Poor form, shape and condition garden tree. Dense crown, minor dead wood. 3rd party off site tree, not able to inspect.	No works.

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APPENDIX 3

TREE CONSTRAINTS PLAN

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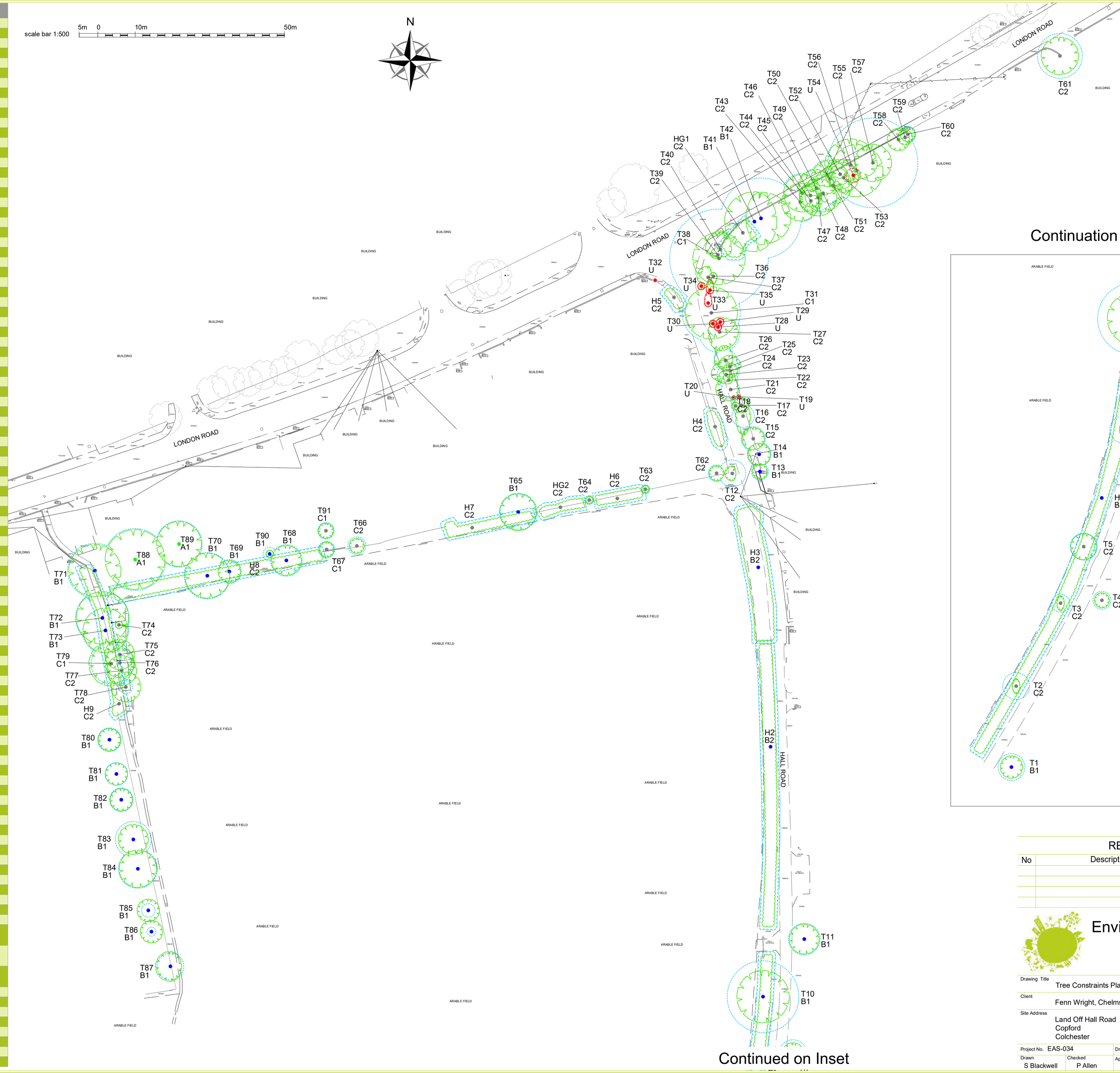
Tree No	Species	DBH(m)	No of Stems	Ht (m)	BS Cat
T1	Oak (English)	0.3	1	5	B1
T2	Maple (Field)	0.3	1	5	C2
T3	Maple (Field)	0.2	1	5	C2
T4	Oak (English)	0.2	1	4	C2
T5	Maple (Field)	0.3	1	6	C2
T6	Oak (English)	0.3	1	5	B1
T7	Maple (Field)	0.3	1	6	C2
T8	Ash (Common)	0.15	1	5	C2
T9	Oak (English)	0.32	2	7	C2
T10	Oak (English)	0.8	1	15	B1
T11	Oak (English)	0.3	1	8	B1
T12	Yew (Common)	0.3	m/s	6	C2
T13	Olive	0.1	1	3	B1
T14	Pittosporum and Hawthorn	0.2	m/s	5	B1
T15	Hawthorn	0.2	m/s	5	C2
T16	Blackthorn	0.25	2	5	C2
T17	Hawthorn	0.15	1	5	C2
T18	Maple (Field)	0.1	1	6	C2
T19	Elm	0.2	1	6	U
T20	Elm	0.2	1	6	U
T21	Elm	0.2	2	10	C2
T22	Elm	0.2	2	9	C2
T23	Elm	0.2	1	11	C2
T24	Holly	0.2	m/s	7	C2
T25	Blackthorn	0.2	m/s	7	C2
T26	Holly	0.25	m/s	10	C2
T27	Plum (Purple leafed)	0.35	2	10	C2
T28	Plum (Purple leafed)	0.3	1	5	U
T29	Plum (Purple leafed)	0.3	2	4	U
T30	Plum (Purple leafed)	0.3	2	4	U
T31	Sycamore	0.48	1	12.5	C1
T32	Ash	0.6	m/s	4	U
T33	Plum (Purple leafed)	0.3	m/s	3	U
T34	Elm	0.1	1	7	U
T35	Plum (Purple leafed)	0.3	m/s	3	U
T36	Plum (Purple leafed)	0.15	m/s	3	C2
T37	Elm	0.1	m/s	3	C2
T38	Sycamore	1.1	m/s	19	C1
T39	Elm	0.1	1	5	C2
T40	Elm and Blackthorn	0.3	m/s	9	C2
T41	Sycamore	0.6	1	17	B1
T42	Sycamore	0.9	m/s	19	B1
T43	Sycamore	0.43	2	15	C2
T44	Sycamore	0.3	1	15	C2
T45	Sycamore	0.25	1	15	C2
T46	Sycamore	0.25	1	15	C2
T47	Sycamore	0.3	1	15	C2
T48	Sycamore	0.3	1	15	C2
T49	Sycamore	0.3	1	16	C2
T50	Sycamore	0.35	1	1	C2
T51	Sycamore	0.35	1	16	C2
T52	Holly (Common)	0.4	m/s	10	C2
T53	Holly (Common)	0.4	m/s	10	C2
T54	Dead tree	0.2	1	6	U
T55	Sycamore	0.35	1	16	C2
T56	Sycamore	0.3	1	16	C2
T57	Holly (Common)	1	m/s	11	C2
T58	Ash (Common)	0.15	1	9	C2
T59	Hawthorn	0.15	m/s	7	C2
T60	Holly (Common)	0.15	m/s	4	C2
T61	Sycamore	0.5	m/s	14	C2
T62	Eucalyptus	0.1	1	5	C2
T63	Fir	0.1	1	4	C2
T64	Fir	0.1	1	4	C2
T65	Maple (Norway)	0.4	1	9	B1
T66	Rhus	0.2	m/s	6	C2
T67	Sycamore	0.18	2	6	C1
T68	Oak (English)	0.2	1	8	B1
T69	Hawthorn	0.2	1	6	B1
T70	Oak (English)	0.35	1	13	B1
T71	Cherry	0.48	1	10	B1
T72	Cherry	0.4	2	10	B1
T73	Cherry	0.4	2	9	B1
T74	Elm	0.1	1	4	C2
T75	Elm	0.15	1	48	C2
T76	Elm	0.15	1	48	C2
T77	Elm	0.15	1	48	C2
T78	Elm	0.15	1	48	C2
T79	Ash (Common)	0.45	1	14	C1
T80	Sweet Chestnut	0.2	2	6	B1
T81	Sweet Chestnut	0.25	2	6	B1
T82	Walnut	0.2	1	6	B1
T83	Walnut	0.4	2	7	B1
T84	Sweet Chestnut	0.4	1	9	B1
T85	Walnut	0.15	1	6	B1
T86	Walnut	0.1	1	6	B1
T87	Oak (English)	0.3	1	7	B1
T88	Oak (English)	0.6	1	16.5	A1
T89	Birch (Silver)	0.4	1	11.5	A1
T90	Walnut	0.15	1	6	B1
T91	Cherry	0.18	2	6	C1
H1	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	0.1	m/s	2.5	B2
H2	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	0.1	m/s	2.5	B2
H3	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	0.1	m/s	6	B2
H4	Yew and Laurel	0.1	m/s	5	C2
H5	Laurel	0.15	m/s	3	C2
H6	Laurel	0.1	m/s	3	C2
H7	Laurel	0.1	m/s	2	C2
H8	Privet	0.2	m/s	2	C2
H9	Laurel	0.2	m/s	4	C2
HG1	Elm and Blackthorn	0.1	m/s	7	C2
HG2	Blackthorn and Hazel	0.1	m/s	3	C2

scale bar 1:500 5m 0 10m 50m

N



Tree Survey Drawing Key

Root Protection Area m2
Tree Canopy Extent
Stem Location / Coloured disc denotes BS: 5837 Category
Tree Number

See EnviroArb Tree Survey for Individual Tree Details

KEY
Please refer to EnviroArb arboricultral report for details

- Category A - high quality and value
- Category B - moderate quality and value
- Category C - low quality and value
- Category U - removal

RPA - root protection area as defined by Table 2 BS 5837:2012

Category U - removal

REVISIONS

No	Description	By	Date	Chkd

EnviroArb-Solutions Ltd
16 Compton Road, Colchester Essex
Tel 07734 715337
E-mail paul.allen@enviroarb-solutions.co.uk
www.enviroarb-solutions.co.uk

Drawing Title: Tree Constraints Plan (TCP)
Client: Fenn Wright, Chelmsford
Site Address: Land Off Hall Road, Copford, Colchester

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Project No.	Drawing No.	Sheet
EAS-034	EAS-034 TCP	Sheet 1 of 1

Drawn	Checked	Approved	Date	Scale
S Blackwell	P Allen	P Allen	08/02/20	1:500

A1

APPENDIX 4

TREE PROTECTION PLAN

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scale bar 1:500 5m 0 10m 50m

N

Tree Survey Drawing Key

Root Protection Area m2
Tree Canopy Extent
Stem Location / Coloured disc denotes BS: 5837 Category
Tree Number

See EnviroArb Tree Survey for Individual Tree Details

KEY

- Tree to be retained
- Crown lift to 6m over the highway
- Tree to be Pruned
- Tree to be removed
- Tree protective fencing
- No Dig Surface

EXTENT OF EXISTING 2.4M X 70M VISIBILITY SPLAY

REINSTATED AS VERGE

RETAINING WALL MAX RETAINED HEIGHT = 1.2m

FOOTWAY TO BE MINIMUM 25mm HIGHER THAN ROAD LEVEL TO ENABLE OVERRUN IF REQUIRED

EXISTING 2.4m X 77m VISIBILITY SPLAY

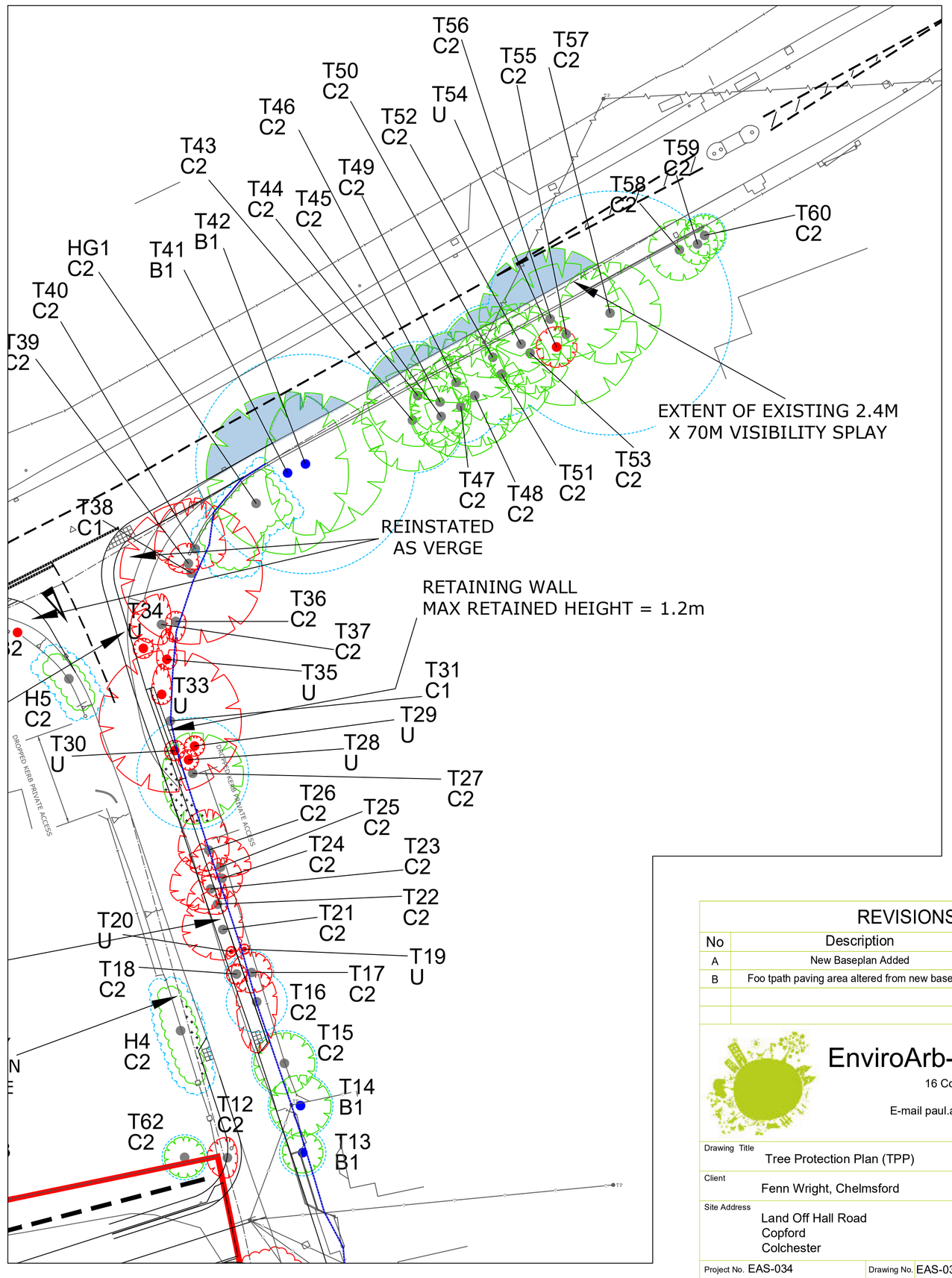
NEW FOOTWAY LINK TO BE PROVIDED BETWEEN SITE ACCESS AND B1408 LONDON ROAD

2.4m X 46m VISIBILITY SPLAY (WITH VEGETATION CLARENCE WHERE REQUIRED)

2.4m X 46m VISIBILITY SPLAY (WITH VEGETATION CLARENCE WHERE REQUIRED)

Private Garden
Public Open Space
Attenuation Basin

ENLARGED AREA OF T12-T60 - NO TO SCALE



REVISIONS

No	Description	By	Date	Chkd
A	New Baseplan Added	SPB	13/03/20	PA
B	Foo tpath paving area altered from new baseplan	SPB	24/04/20	PA

EnviroArb-Solutions Ltd
16 Compton Road, Colchester Essex
Tel 07734 715337
E-mail paul.allen@enviroarb-solutions.co.uk
www.enviroarb-solutions.co.uk

Drawing Title: Tree Protection Plan (TPP)

Client: Fenn Wright, Chelmsford

Site Address: Land Off Hall Road, Copford, Colchester

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Project No.	Drawing No.	Sheet
EAS-034	EAS-034 TPP	Sheet 1 of 1

Drawn	Checked	Approved	Date	Scale
S Blackwell	P Allen	P Allen	08/02/20	1:500

A1

APPENDIX 5

TREE WORKS SCHEDULE

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NOTE: All tree works to be undertaken in accordance with BS 3998:2010 'Tree work - Recommendations'. All pruning cuts to be made at suitable growing points, in line with the principles of natural target pruning.

Trees To Be Pruned

Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observations	Recommendations
T10	Oak (English)	15	800	B1	Mature	Average Hedgerow form, shape and condition. Dense crown, major dead wood throughout crown. Trunk epicormic growth.	Crown lift to 6m over public highway. Remove dead wood over 5cm diameter throughout the crown. Remove epicormic growth to a height of 5m.
H1	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	2.5	100	B2	Mature	Managed native field boundary hedge. Trimmed / flailed.	Annual trimming maintenance
H2	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	2.5	100	B2	Mature	Managed native field boundary hedge. Trimmed / flailed.	Annual trimming maintenance
H4	Yew and Laurel	5	100	C2	Early Mature	Average form, shape and condition. Subject to historic crown management; trimmed over road. Dense crown, Minor dead wood throughout crown.	Annual trimming maintenance.
T27	Plum (Purple leafed)	10	350	C2	Mature	Average multiple stemmed form, shape and condition. Dense asymmetric crown, Major dead wood. 3rd party off site tree, on bank in highway verge.	Remove major dead wood overhanging the highway.
T41	Sycamore	17	600	B1	Mature	Average form, shape and condition. Dense crown, moderate dead wood throughout crown. 3rd party off site tree with overhanging branches. Ivy clad stem, unable to fully inspect.	Remove major dead wood overhanging the road. Crown lift to 6m over highway. Sever Ivy at 2m from ground level and remove section.

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Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observations	Recommendations
T42	Sycamore	19	900	B1	Mature	Average asymmetric form, shape and condition. Dense crown, moderate dead wood throughout crown. 3rd party off site tree with overhanging branches. Co dominant tree between x 3 stems with moderate basal included unions. Ivy clad stem, unable to fully inspect.	Remove major dead wood overhanging the road. Crown lift to 6m over public footpath / highway. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T44	Sycamore	15	300	C2	Early Mature	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Crown lift to 6m over public highway. Remove major dead wood overhanging highway. Sever Ivy at 2m from ground level and remove section. Re-inspect.
T47	Sycamore	15	300	C2	Early Mature	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.
T48	Sycamore	15	300	C2	Early Mature	Poor form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad. Co dominant tree with moderate included unions.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.

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Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observations	Recommendations
T49	Sycamore	16	300	C2	Early Mature	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.
T50	Sycamore	1	350	C2	Early Mature	Poor asymmetric form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect. Remove dead wood overhanging Road. Crown lift to 6m over public footpath / highway.
T51	Sycamore	16	350	C2	Early Mature	Poor form, shape and condition. No significant recent crown management. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad.	Sever Ivy at 2m from ground level and remove section. Re-inspect.
T52	Holly (Common)	10	400	C2	Early Mature	Poor multiple stemmed form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches.	Crown lift to 6m over public footpath / highway.
T53	Holly (Common)	10	400	C2	Early Mature	Poor multiple stemmed form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches.	Crown lift to 6m over public footpath / highway.

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Tree No	Species	Ht (m)	DBH (mm)	BS Cat	Age Class	Observations	Recommendations
T55	Sycamore	16	350	C2	Early Mature	Poor form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad. Rubbing BT wires.	Crown lift to 6m over public highway. Remove major dead wood overhanging highway. Sever Ivy at 2m from ground level and remove section. Re-inspect. Cut back to suitable side growth point to provide 2-3m clearance from BT wires.
T56	Sycamore	16	300	C2	Early Mature	Poor form, shape and condition. Dense suppressed crown, moderate dead wood. 3rd party off site tree on highway bank, unable to fully inspect with overhanging branches. Ivy clad. Rubbing BT wires.	Crown lift to 6m over public highway. Remove major dead wood overhanging highway. Sever Ivy at 2m from ground level and remove section. Re-inspect. Cut back to suitable side growth point to provide 2-3m clearance from BT wires.
T57	Holly (Common)	11	1000	C2	Mature	Multiple stemmed form, shape and condition. Dense crown, moderate dead wood. 3rd party off site tree on garden boundary bank, unable to fully inspect with overhanging branches.	Crown lift to 6m over public footpath / highway.
T61	Sycamore	14	500	C2	Mature	Multiple stemmed form, shape and condition. Dense crown, moderate dead wood. 3rd party off site tree on riverbank, unable to fully inspect with overhanging branches over BT pole.	Crown lift to 6m over public footpath / highway and cut back by 2m off BT pole.

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Trees To Be Removed

Tree No	Species	Ht (m)	DBH (mm)	No of Stems	BS Cat	Age Class	Observations	Recommendations
H3	Mixed species hedge; Hawthorn, Field Maple, Blackthorn	6	100	m/s	B2	Mature	In conflict with the new site entrance arrangements.	Fell northern section for approx. 10m hedge section to ground level to enable new site access. Annual trimming maintenance to the remainder of the hedge.
T12	Yew (Common)	6	300	m/s	C2	Early Mature	In conflict with new site entrance arrangements.	Fell to ground level and remove completely.
T16	Blackthorn	5	250	2	C2	Early Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T17	Hawthorn	5	150	1	C2	Early Mature	In conflict with new site entrance arrangements.	Fell to ground level and remove completely.
T18	Maple (Field)	6	100	1	C2	Semi-Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T19	Elm	6	200	1	U	Early Mature	Dead standing tree in highway verge. Ivy clad.	Fell to ground level and remove completely.
T20	Elm	6	200	1	U	Early Mature	Dead standing tree in highway verge.	Fell to ground level and remove completely.
T21	Elm	10	200	2	C2	Early Mature	In conflict with new site entrance arrangements.	Fell to ground level and remove completely.
T22	Elm	9	200	2	C2	Early Mature	. In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T23	Elm	11	200	1	C2	Early Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T24	Holly	7	200	m/s	C2	Early Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T25	Blackthorn	7	200	m/s	C2	Early Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.

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Tree No	Species	Ht (m)	DBH (mm)	No of Stems	BS Cat	Age Class	Observations	Recommendations
T26	Holly	10	250	m/s	C2	Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T28	Plum (Purple leafed)	5	300	1	U	Mature	Dead standing tree on bank over hanging highway.	Fell dead tree overhanging the highway.
T29	Plum (Purple leafed)	4	300	2	U	Mature	Dead standing tree on bank over hanging highway.	Fell dead tree overhanging the highway.
T30	Plum (Purple leafed)	4	300	2	U	Mature	Dead standing tree on bank over hanging highway.	Fell dead tree overhanging the highway.
T31	Sycamore	12.5	480	1	C1	Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely.
T33	Plum (Purple leafed)	3	300	m/s	U	Mature	Dead windblown tree on bank over hanging highway. Ivy clad	Fell dead tree overhanging the highway.
T34	Elm	7	100	1	U	Early Mature	Dead / dying Hedgerow tree in highway verge.	Fell to ground level and treat.
T35	Plum (Purple leafed)	3	300	m/s	U	Mature	Windblown tree on highway verge bank over hanging highway. Ivy clad	Fell tree overhanging the highway verge.
T36	Plum (Purple leafed)	3	150	m/s	C2	Semi-Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely
T37	Elm	3	100	m/s	C2	Semi-Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely
T38	Sycamore	19	1100	m/s	C1	Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove stumps completely.
T39	Elm	5	100	1	C2	Semi-Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely
T40	Elm and Blackthorn	9	300	m/s	C2	Early Mature	In conflict with new Essex Highways Improvement works.	Fell to ground level and remove completely
T54	Dead tree	6	200	1	U	Early Mature	Dead standing tree on 3rd party highway verge.	Fell to ground level.

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APPENDIX 6

SITE INSPECTION & MONITORING SCHEDULE

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General Tree Protection Methods

1. Site Inspections and Supervision of construction works close to, within of adjacent to retained tree RPAS will avoid potentially costly breach of tree protection conditions.

2. We recommend the arboricultural consultant from EnviroArb Solutions Ltd is retained to undertake inspections and supervision and work with the site manager to ensure compliance with tree protection conditions and advise where appropriate.

3. Both scheduled and unannounced site visits is often the most effective as these will serve to identify any damage to the Tree Protection Fencing, poor working practices, potential problems and points of conflict between the construction process and the health of the trees. The associated reports will include recommendations for remedial action.

4. During these instructed visits, any changes to the proposed works will be discussed, their impact assessed and recommendations for best practice will be outlined. After each of these visits, a copy of the report should be sent to the Site Agent, Local Authority Tree Officer and Client. The remedial action undertaken will be recorded on the next visit.

5. It is essential to the successful implementation of the principles set out in this report that effective supervision and remedial actions are implemented from the outset, as detailed in the site supervision schedule below:

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Constraints Item	Site Monitoring Required?	Visits No.	Timing of Site Visits	Actual Visit Date
Approved Tree works tree mark up	Yes	Visit 1	Prior to construction	
Pre-commencement meeting with site manager to discuss CEZ, tree protection methods etc.	Yes	Visit 1	Prior to site clearance	
Establishment and protection of Root Protection Areas (RPAs) for retained trees, to 'sign off' installed tree protection fencing and temporary ground protection	Yes	Visit 1	Prior to site clearance	
Supervision of any changes in soil levels near retained trees	Yes	Visit 2	During site clearance phase	
Location of temporary access route through / adjacent to the retained trees and for access for construction vehicles and avoidance of compaction to the RPAs of retained trees	Yes	Visit 2	During construction phase	
Protection and prevention of damage to retained tree canopies during construction	Yes	Visit 2	During construction phase	
Supervision of the Installation of any 'Reduced-dig' special surfacing within / through retained tree RPAs	Yes	Visit 3	During construction phase	
Supervision of the excavation of services trenches near retained trees	Possible	Visit 4	During construction phase	
Generic construction site constraints: **1 Site office / welfare unit location** **2 Temporary toilets** **3 Siting of fuel tanks / mortar silos** **4 Location of contaminant storage and washout areas** **5 Location of stripped topsoil**	Yes	Visits 1-5	During construction phase	
Post construction site assessment for any required remedial tree works operations recommendations	Yes	Visit 5	Post construction	

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APPENDIX 7

BS5837: 2012 TREE CONSTRAINTS & PROTECTION METHODS

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1 Pre-Construction / Tool-Box Talk Meeting

Prior to commencement of demolition / construction, an onsite meeting will be held with all relevant parties, including the site manager and appointed arboricultural consultant from EnviroArb Solutions Ltd. The purpose of this meeting is to ensure features on site match those in the approved Tree Protection Plan and CMS.

2 Installation of Tree Protection Measures

Usually in conjunction with 1. Above the tree protection fencing should be inspected to ensure it is installed at the correct locations prior to any demolition or groundworks commencing and remain in place throughout construction and be removed only after completion of construction works on the site. The demolition and construction process should not be commenced until the tree surgery works have been completed and the protective areas have been fenced off. Clear notices are to be fixed to the outside of the fencing with words such as 'TREE PROTECTION AREA – NO ACCESS OR WORKING WITHIN THIS AREA'.

3 Installation of Temporary Ground Protection

Within the fenced off area (or Construction Exclusion Zone – CEZ), no materials or chemicals should be stored at any time, no fires should be lit and no pedestrian or vehicle traffic should be allowed. Level changes within these areas should be kept to an absolute minimum. Every effort should be taken to protect a maximum possible area of the root system. No level changes or excavation within the RPAs should be undertaken without the consent of the LPA Tree Officer. Where ingress is unavoidably required suitable temporary ground protection may be laid as approved in writing by the LPA council tree officer, as described at Appendix 9.

The site manager, all contractors and other relevant personnel are to be informed of the role of all the tree protection measures installed and their importance. A copy of the approved Tree Protection Plan will be displayed on site at all times during construction.

4 - Locations of Site Offices Compound and Storage Area

The site office, welfare facilities, storage yard and contractors' parking area need to be located within an area of the site that is outside the Root Protection Areas (RPAs). The compound will remain at least 1 metre outside the RPAs, with access from the main access road. All fuel storage and Mortar silos are stored in the designated compound area and bunded to prevent overspill into protected CEZ's.

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5 - Groundworks, Level Changes and Foundations

With regard to the approved drawings provided, the construction of foundations for the new build is ideally located beyond the Root Protection Areas (RPAs) of retained trees. Where close to or slightly within RPA's specialised low impact foundation design should be used as recommended by a structural engineer and approved by the council tree officer. If the subsoil is found to be plastic, the foundations will be specified to take into account the potential influence of the vegetation on the moisture content and volume of the subsoil.

6 - Services

We recommend that all drainage and underground service routes are located beyond the RPAs of all the retained trees. If the service runs are to be located within an RPA, we recommend that this matter is dealt with by the approved SSAMS secured by planning condition. If services are located within an RPA, special implementation techniques such as moling, airspade, or hand digging may be required by the LPA. In the majority of cases, however, careful excavation with a low tonnage mechanical excavator, supervised by the consultant arboriculturist from EnviroArb Solutions Ltd, can adequately undertake services excavations. When tree roots are encountered, hand digging and root protection can then be undertaken as and when they are observed.

7 - Dismantling Protection Barriers & Post Construction Site 'Sign Off'

Dismantling the protection barriers around retained trees may be required to allow completion of final surface treatments and landscaping. Supervision of this exercise and control of the landscaping thereafter will be administered by the appointed arboricultural consultant from EnviroArb Solutions Ltd. The removal of the Tree Protection Fencing is not an opportunity for machinery to access the previously fenced off area.

No further excavation will be carried out during this process and soils levels will not be raised above that existing by greater than 100mm and not within 4m of the trunk. Any removal of existing structures within the Root Protection Areas, including gardens type walls or paths, will be carried out by hand.

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APPENDIX 8

TREE PROTECTION FENCING SPECIFICATION

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on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray (Figure 3b).

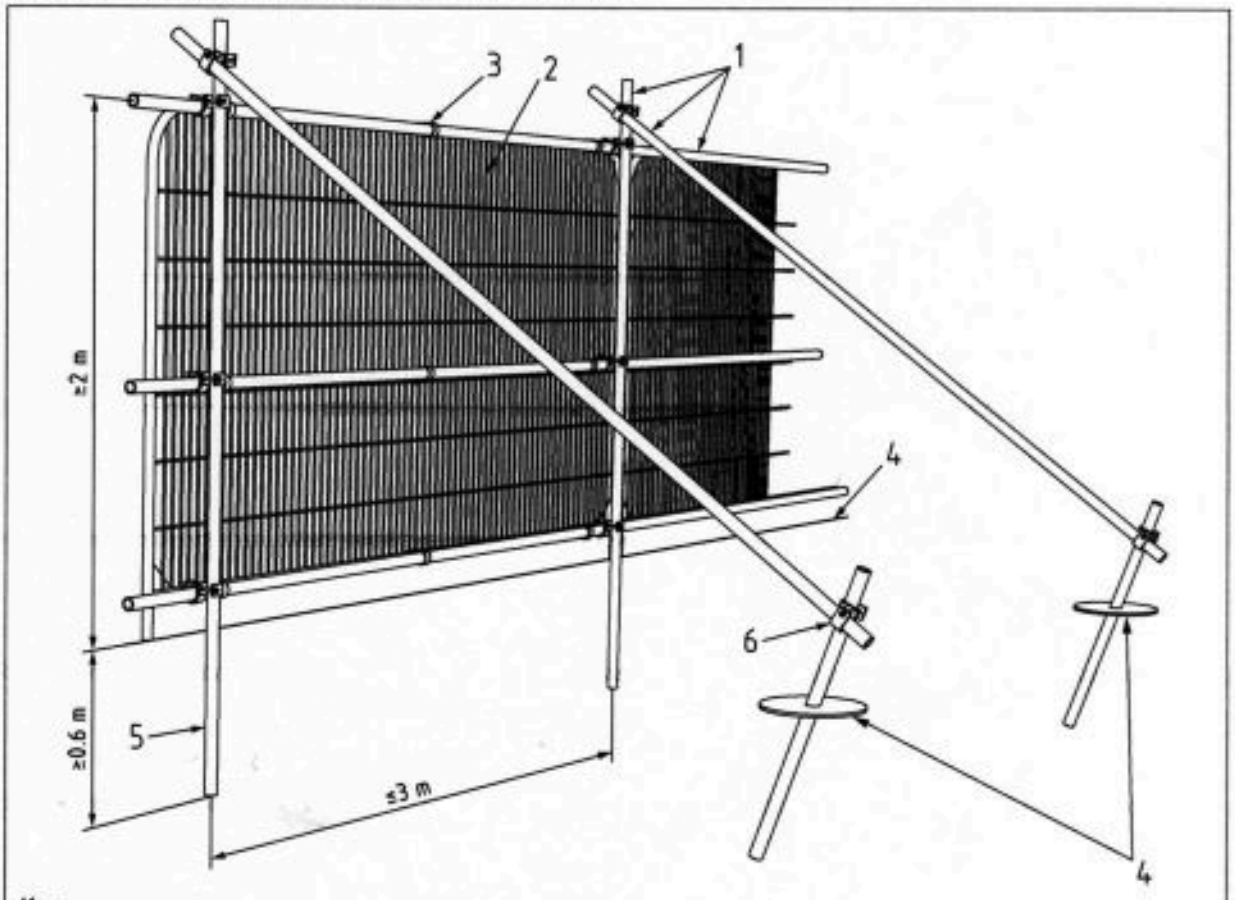
NOTE 1 Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18.

NOTE 2 It might be feasible on some sites to use temporary site office buildings as components of the tree protection barriers, provided these can be installed and removed without damaging the retained trees or their rooting environment.

6.2.2.4 All-weather notices should be attached to the barrier with words such as:

"CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

Figure 2 **Default specification for protective barrier**



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

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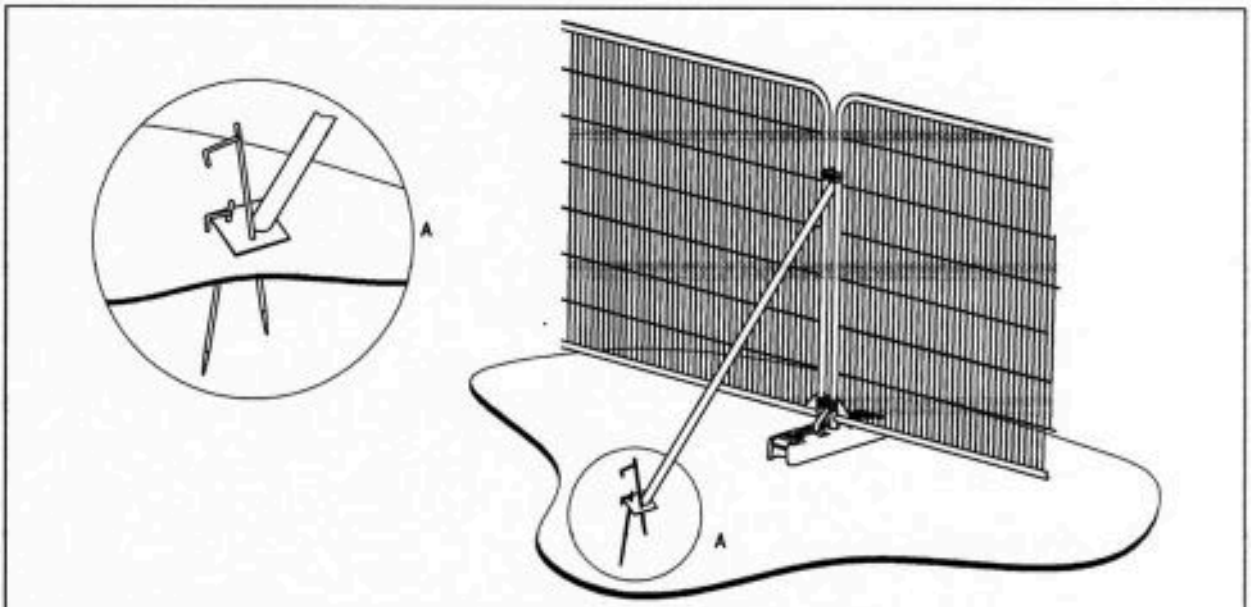
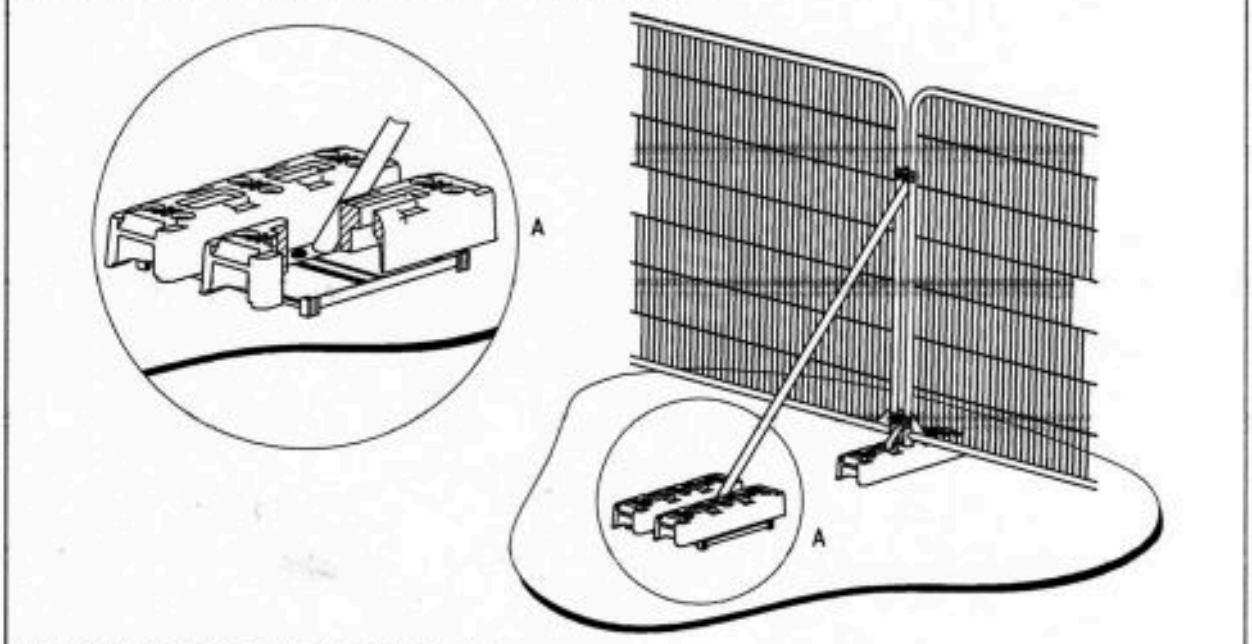
Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

6.2.3 Ground protection during demolition and construction

6.2.3.1 Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable existing hard surfacing that is not proposed for re-use as part of the finished design should be retained to act as temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.

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SUGGESTED TREE PROTECTION SIGN

TREE PROTECTION AREA

KEEP OUT

(TOWN & COUNTRY PLANNING ACT 1990)

THE VEGETATION PROTECTED BY THIS FENCE IS PROTECTED BY PLANNING CONDITIONS AND/OR IS THE SUBJECT OF A TREE PRESERVATION ORDER.

IF YOU REQUIRE ACCESS INTO THIS AREA PLEASE CONTACT THE SITE MANAGER AND CONSULTANT FROM

ENVIROARB SOLUTIONS LTD FOR ADVICE ON:

M: 07734 715337

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APPENDIX 9

PROPRIETARY INFORMATION FOR ‘REDUCED-DIG’ SUB-BASE

Installation guide

WREKIN PRODUCTS

ProtectaWeb Method Statement

For the Installation of ProtectaWeb Tree Root Protection System

Introduction

The Wrekin Tree Root Protection System is available in 4 different depths for varied traffic loadings, each site should have a specific design detailed to ensure the correct depth of product is used.

However, unless the existing ground conditions contain very weak soils and have a low CBR the the following can apply:

- Footpath System- Geogrid and Geotextile combination with Asphalt/Resin- for Pedestrains and Cycleways, no vehicular traffic.
- 75mm- For Pedestrians Cycleways and Vehicles up to 1.5tons
- 100mm- For Cars, 4 wheel drives, vans etc up to 6tons
- 150mm- For Fire engines, removal vehicles and dust carts up to 20-30tons
- 200mm- For Contruction vehicles, cranes etc 40tons and all above.

No dig System
Material List:

- ProtectaWeb 3 Dimensional Cellular Confinement System
- Root-Tex 30 minimum separation and protection fleece
- Root-Tex 10 minimum separation geotextile
- Steel 700mm staking pins
- Stapler and Staples/heavy cable ties
- 4/20mm or 40/20mm Clean Angular Stone to Bs EN 13242 and 12620
- Finish porous surfacing materials are preferable

Stage 1-Ground Preparation

- Remove surface vegetation to treat with suitable herbicide to level-under the supervision of the project Arboriculturist.
- Fill any hollows that may be in the exposed ground with no fines 4/20mm clean angular stone.
- Place Root-Tex 30 Geotextile over the area to be protected ensuring laps with a minimum of 300mm.
- Mark out the area to be protected with edging detail. For Example: Timber boards.

Stage 2-Installation of ProtectaWeb TRP

- Roll out Root-Tex 30 Geotextile to cover the area to be protected.
- Insert 4 equally spaced steel pins along the the width of the panel.
- Expand the panel over the Root-Tex 30 and the pins, extend to the required length, then pin across the opposite panel end.
- Pin along the length of the panel each side.
- If full panels are not being used then ensure the cells have been expanded to their full dimension.
- Staple or cable tie any adjacent panels together.

The ProtectaWeb panels can be cut to shape if required with a heavy duty Stanley Knife.

WREKIN PROTECTAWEB

1. Wrekin Products Ltd is continually seeking to improve our products and therefore reserves the right to alter product specifications without prior notice.
2. It is the responsibility of all users to satisfy themselves that the above data is current.
3. Wrekin cannot be held responsible for the performance of these products as conditions of use are beyond our control.

WREKIN PRODUCTS LIMITED Europa Way, Britannia Enterprise Park, Lichfield, WS14 9TZ
www.wrekinproducts.com

T: 01543 440440
F: 01543 440444
E: sales@wrekinproducts.com

WREKIN PRODUCTS

Stage 3-Filling the ProtectaWeb

Using 4/20mm or 40/20mm clean angular stone to Bs EN 13242 and 12620 (depending on the cell depth being used)

- Fill the cells of the ProtectaWeb with a 4/20mm or 40/20mm clean angular stone.
- Allow 25mm overfill for any settlement of the stone into the cells.
- If the area is to be trafficked immeadiately, slighly increase the amount of surcharge overfill to a maximumof 50mm over the ProtectaWeb with 4/20mm or 40/20mm clean angular stone.

Stage 4-Finish Surfacing Details

The ProtectaWeb TRP system can be surfaced with the materials listed below:

Finish 1- Block Paving

- Place Root-Tex 10 sepertion fabric over the filled ProtectWeb
- Lay sand/gravel bedding material as per to manufacturers recommendations
- Place porous/standerd blocks as per manufacturers instructions

Finish 2-Porous and standard Asphalt

- Slightly surcharge the ProtectaWeb with 25mm of 4/20mm or 40/20mm clean angular stone
- Place hot Asphalt as per to manufacturers instructions

Finish 3- Resin Bound Gravels

- Place Root-Tex 20 separation fabric over the filled ProtectaWeb
- Lay Asphalt carpet and resin bound gravel to the required thickness and as per the manufacturers instructions

Finish 4-Loose Gravel

- Option 1- Slightly overfill the ProtectaWeb with the clean angular stone
- Option 2- Place a 25mm thick decorative stone on top of the filled ProtectaWeb

Finish 5- CellTrack Gravel Retention System

- Place Root-Tex 10 separation geotextile over the filled ProtectaWeb
- 20mm bedding layer of 5mm single sized stone and lightly tamp
- Lay CellTrack porous pavers and fill with a 6-10mm decorative stone

Finish 6- CellTrack Grass Protection System

- Place Root-Tex 10 separation geotextile over the filled ProtectaWeb
- 70mm of Rootzone bedding layer (60% sand/40% soil) and lightly tamp
- Lay CellTrack porous pavers and fill with Rootzone mix, seed accordingly (please allow 4-6 weeks for the seed to germinate before trafficking)

NEW Finish 7- Trial-Flex

- Place Root-Tex 10 separation geotextile over the area for pedestrian protection.
- Roll over Egrid on top of the Geotextile (strength based per application)
- Cover to a depth of 50mm of TrialFlex porous flexible resin bound finish.

Finish 8- Concrete

- Place Root-Tex 10 separation Geotextile over the filled ProtectaWeb
- Cast the concrete slab over the Geotextile

WREKIN PROTECTAWEB

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APPENDIX 10

PHOTOGRAPHS

T1 - Oak (English)

T2 - Maple (Field)

T6 - Oak (English)

T8 - Ash (Common)

T9 - Oak (English)

T10 - Oak (English)

T11 - Oak (English)

H1 - Mixed species hedge; Hawthorn, Field Maple, Blackthorn

H3 - Mixed species hedge; Hawthorn, Field Maple, Blackthorn

T12 - Yew (Common)

T19 - Elm

T27 - Plum (Purple leafed)

T28 - Plum (Purple leafed)

T31 - Sycamore

T32 - Ash

T40 - Elm and Blackthorn

T42 - Sycamore

T43 - Sycamore

T54 - Dead tree

T57 - Holly (Common)

T61 - Sycamore

H6 - Laurel

HG2 - Blackthorn and Hazel

T65 - Maple (Norway)

H7 - Laurel

T66 - Rhus

T67 - Sycamore

T68 - Oak (English)

T70 - Oak (English)

T71 - Cherry

T73 - Cherry

T78 - Elm

T79 - Ash (Common)

H9 - Laurel

T84 - Sweet Chestnut

T87 - Oak (English)

T88 - Oak (English)

T89 - Birch (Silver)

APPENDIX 11

REPORT CAVEATS

Full Legal Disclaimer

This report was prepared as a report of work instructed by the client (as specified). Neither EnviroArb Solutions Ltd nor any associated company, nor any of their contractors, subcontractors or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or any third party's use or the report and its findings. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favouring by EnviroArb Solutions Ltd or any associated company. The views and opinions of authors expressed herein do not necessarily state or reflect those of EnviroArb Solutions Ltd or any associated company.

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Specific - Trees

All tree inspections, unless specified, have been undertaken from ground level and using non-invasive techniques. Comments contained within the report on the condition and risk associated with any tree relate to the condition of the tree at the date and time of survey. Please note that the condition of trees is subject to change. This change may occur but is not limited to biological and non-biological factors as well as mechanical/ physical changes to conditions in the proximity of the tree. Trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE and Central Government guidance. EnviroArb Solutions Ltd can provide further information on this matter if required. Please note no statutory control checks have been undertaken (unless specified). Where tree surgery works have been identified these works are based on the assumption that planning is approved, no tree works should be undertaken prior to determination of this application without up to date confirmation of the Tree Preservation Order / Conservation Area Status of the vegetation. All works should be undertaken in accordance with the appropriate Duty of Care. This should include, for example, site specific risk assessments and due diligence inspections for the presence of protected species.

Any comment relating to 3rd party trees has been made without full access to the tree(s). Should these trees have any impact on the proposed development we would advise you to instruct us to contact the 3rd party and undertake further inspection work.

EnviroArb-Solutions Ltd

EnviroArb-Solutions Ltd
16 Compton Road,
Colchester,
Essex

T: 07734 715337

E: paul.allen@enviroarb-solutions.co.uk

W: **www.enviroarb-solutions.co.uk**

Your Ref: 201236
Our Ref: HT/TPD/SD/MAM/COL/201236 (Site Number 29012)
Date: 28th September 2020

CC: Kevin Bentley - County Member
Rob Lee – Development Management
[redacted]

To: **James Ryan**
Colchester Borough Council
PO Box 889
Rowan House
33 Sheepen Road
COLCHESTER
CO3 3WG

Essex County Council

Andrew Cook
Director for Highways and Transportation

County Hall
Chelmsford
Essex CM1 1QH

Recommendation

Application No.	201236
Applicant	Ms S Harrison
Site Location	Hall Road, Copford
Proposal	Outline application for the erection of up to 49 houses and associated highway works

From a highway and transportation perspective the impact of the proposal is acceptable to the Highway Authority subject to the following requirements:

Continued….

[redacted]

……
pp. Director for Highways and Transportation
[redacted]

1. Prior to commencement of the development a construction traffic management plan, to include but shall not be limited to details of vehicle/wheel cleaning facilities within the site and adjacent to the egress onto the highway, shall be submitted to and approved in writing by the Local Planning Authority. The development shall be constructed in accordance with the agreed plan

   Reason: To protect highway efficiency of movement and safety in accordance with policy DM1 of the Highway Authority's Development Management Policies as adopted as County Council Supplementary Guidance in February 2011

2. No occupation of the development shall take place until the following have been provided or completed:

   a) A priority junction off Hall Road to provide access to the proposal site as shown in principle on the planning application drawings
   b) Improvements to Hall Road between the proposal site access and London Road as shown in principle on the planning application drawings
   c) Upgrade to current Essex County Council specification of the two bus stops which would best serve the proposal site (details shall be agreed with the Local Planning Authority prior to commencement of the development)
   d) Improvements to Public Footpath Copford 2 between the proposal site and London Road (details shall be agreed with the Local Planning Authority prior to commencement of the development)
   e) Residential Travel Information Packs in accordance with Essex County Council guidance

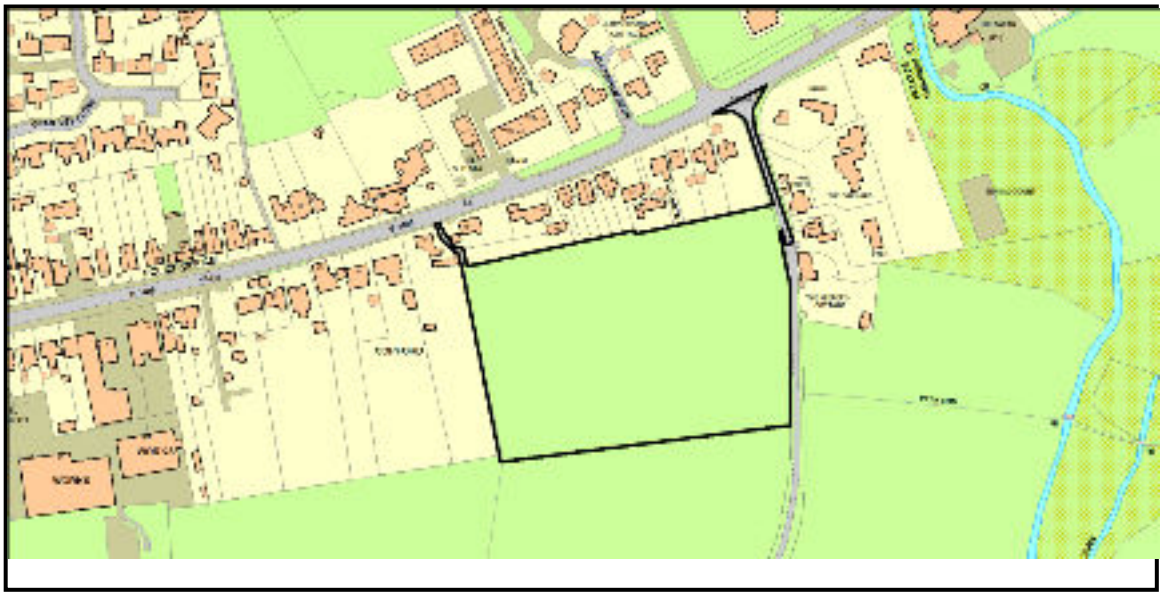
   Reason: To protect highway efficiency of movement and safety and to ensure the proposal site is accessible by more sustainable modes of transport such as public transport, cycling and walking, in accordance with policy DM1, DM9 and DM10 of the Highway Authority's Development Management Policies as adopted as County Council Supplementary Guidance in February 2011

Notes:

- The above requirements should be imposed by way of negative planning conditions or planning obligation agreements as appropriate
- In making this recommendation the Highway Authority has treated all planning application drawings relating to the internal layout of the proposal site as illustrative only
- All residential developments in Essex which would result in the creation of a new street (more than five dwelling units communally served by a single all-purpose access) will be subject to the Advance Payments Code, Highways Act 1980. The developer will be served with an appropriate notice within 6 weeks of building regulations approval being granted and prior to commencement of the development must provide guaranteed deposits, which will ensure the new street is constructed in accordance with a specification sufficient to ensure future maintenance as highway by the Highway Authority
- Prior to any works taking place in the highway the developer should enter into an agreement with the Highway Authority under the Highways Act 1980 to regulate the construction of the highway works
- All or some of the above requirements may attract the need for a commuted sum towards their future maintenance (details should be agreed with the Highway Authority as soon as possible)

Continued….

- The proposal should be in accordance with the Parking Standards Design and Good Practice Supplementary Planning Document dated September 2009
- All work within or affecting the highway should be laid out and constructed by prior arrangement with and to the requirements and satisfaction of the Highway Authority, details to be agreed before commencement of the works. An application for the necessary works should be made to development.management@essexhighways.org



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Item No: 7.1

Application: 201236
Applicant: Ms S Harrison
Agent: Mr Roger Hayward, Fenn Wright
Proposal: Outline application for the erection of up to 49 houses and associated highway works.
Location: Hall Road, Copford, Colchester
Ward: Marks Tey & Layer
Officer: James Ryan

Recommendation: Approval

1.0 Reason for Referral to the Planning Committee

1.1 This application is referred to the Planning Committee because the application is a departure from the adopted local plan and it is a major application where a legal agreement will be required.

2.0 Synopsis

2.1 The key issues for consideration is the principle of the development on a site that is outside of the defined development boundary in the adopted Local Plan but allocated for development in the in the Emerging Local Plan. The highway implications of the scheme are also key as access is a matter for consideration now.

2.2 The application is subsequently recommended for approval subject to conditions.

3.0 Site Description and Context

3.1 The site, approximately 2ha, is situated to the east of the village of Copford and comprises agricultural land currently under arable production. The area, which is irregular in shape but broadly square, sits behind existing dwellings which front onto the London Road and lies to the west of Hall Road. A public right of way runs along the western boundary.

3.2 The site is bounded by existing dwellings to the north, north east and north west, whilst the southern aspect is open to adjoining arable land.

4.0 Description of the Proposal

4.1 Outline planning approval is sought for the erection of up to 49 houses and associated highway works. All matters apart from access are reserved for future consideration, those being Layout, Landscaping, Appearance and Scale.

5.0 Land Use Allocation

5.1 Agricultural Land

6.0 Relevant Planning History

6.1 None

7.0 Principal Policies

7.1 Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. The National Planning Policy Framework (NPPF) must be taken into account in planning decisions and is a material consideration, setting out national planning policy. Colchester's Development Plan is in accordance with these national policies and is made up of several documents as follows below.

7.2 The adopted Colchester Borough Core Strategy (adopted 2008, reviewed 2014) contains local strategic policies. Particular to this application, the following policies are most relevant:

SD1 - Sustainable Development Locations
SD2 - Delivering Facilities and Infrastructure
H1 - Housing Delivery
H2 - Housing Density
H3 - Housing Diversity
H4 - Affordable Housing
UR2 - Built Design and Character
PR1 - Open Space
PR2 - People-friendly Streets
TA1 - Accessibility and Changing Travel Behaviour
TA2 - Walking and Cycling
TA3 - Public Transport
TA4 - Roads and Traffic
TA5 - Parking
ENV1 - Environment
ENV2 - Rural Communities
ER1 - Energy, Resources, Waste, Water and Recycling

7.3 The adopted Colchester Borough Development Policies (adopted 2010, reviewed 2014) sets out policies that apply to new development. Specific to this application are policies:

DP1 Design and Amenity
DP2 Health Assessments
DP3 Planning Obligations and the Community Infrastructure Levy
DP4 Community Facilities
DP12 Dwelling Standards
DP14 Historic Environment Assets
DP16 Private Amenity Space and Open Space Provision for New Residential Development
DP17 Accessibility and Access
DP18 Transport Infrastructure Proposals
DP19 Parking Standards
DP20 Flood Risk and Management of Surface Water Drainage
DP21 Nature Conservation and Protected Lanes
DP25 Renewable Energy

7.4 Some “allocated sites” also have specific policies applicable to them. The adopted Site Allocations (adopted 2010) policies should be taken into account in the decision making process. This site is not allocated in the adopted local plan.

7.5 The area does not have a Neighbourhood Plan.

7.6 Submission Colchester Borough Local Plan 2017-2033:

The Council is developing a new Local Plan that has been submitted to the Planning Inspectorate for examination (October 2017). In particular emerging policy SS4 is relevant and this will discussed in the main body of the report.

An Inspector has been appointed and the formal examination commenced in January 2018. The examination is ongoing.

Paragraph 48 of the Framework states that decision makers may give weight to relevant policies in emerging plans according to:

1. The stage of preparation of the emerging plan;
2 The extent to which there are unresolved objections to relevant policies in the emerging plan; and
3 The degree of consistency of relevant policies to the policies in the Framework.

The Emerging Local Plan is at an advanced stage and is, therefore, considered to carry some weight in the consideration of the application, but as it is yet to undergo a full and final examination, it is not considered to outweigh the material considerations assessed above in accordance with up-to-date planning policies and the NPPF.

7.7 Regard should also be given to the following adopted Supplementary Planning Documents (SPD):

The Essex Design Guide
External Materials in New Developments
EPOA Vehicle Parking Standards
Affordable Housing
Community Facilities
Open Space, Sport and Recreation
Sustainable Construction
Cycling Delivery Strategy
Sustainable Drainage Systems Design Guide
Street Services Delivery Strategy
Planning for Broadband 2016
Managing Archaeology in Development.
Developing a Landscape for the Future
ECC’s Development & Public Rights of Way
Planning Out Crime
Air Quality Management Guidance Note, Areas & Order

8.0 Consultations

8.1 The stakeholders who have been consulted and who have given consultation responses are as set out below. More information may be set out on our website.

8.2 Anglian Water

No objection raised, informatives requested.

8.3 Archaeology

A trial-trenched evaluation was undertaken of this proposed development site in 2016 by Archaeology South-East (HER Event no. ECC3878; ASE Report 2016371) and this followed a geophysical survey (HER Event no. ECC3882). Below-ground archaeological remains dating to the Iron Age period were defined by this work. Groundworks relating to any development have the potential to disturb and damage any archaeological remains.

There are no grounds to consider refusal of permission in order to achieve preservation *in situ* of any important heritage assets. However, in accordance with the *National Planning Policy Framework* (Paragraph 199), any permission granted should be the subject of a planning condition to record and advance understanding of the significance of any heritage asset before it is damaged or destroyed.

8.4 Cadent Gas

No objection.

8.5 Contaminated Land

It has been concluded that the site could be redeveloped for the proposed residential use, with the requirement for gas mitigation measures still to be subject to further investigation/monitoring. Based on all the information provided to date, this conclusion would appear reasonable.

It would appear that this site could be made suitable for the proposed residential use, with the recommended ground gas risk assessment and any necessary mitigation measures addressed by way of planning condition(s).

8.6 Environmental Protection

No objection, conditions requested.

8.7 Environment Agency

No comment received.

8.8 Essex Police

The published documents have been studied and, unfortunately, do not provide sufficient detail to allow an informed decision. Essex Police would recommend the applicant incorporate Crime Prevention through Environmental Design and apply for nationally acknowledge and police recommended Secure By Design accreditation. (*Officer note: This can be secured through the reserved matters applications*)

8.9 Historic Buildings and Areas

No objection to the scheme but noted that scheme will cause less than substantial harm to the setting of the Grade ii Listed Brewers Cottage and at reserved matters stage this needs to be taken into consideration. The indicative layout is not acceptable in this respect. (*Officer note: The layout is a reserved matter and mitigation can be secured through the detailed layout*)

8.10 Landscape Advisor

No objection in principle but design changes are needed at reserved matters stage.

8.11 LLFA

Having reviewed the Flood Risk Assessment and the associated documents which accompanied the planning application, we do not object to the granting of planning permission subject to conditions.

8.12 Natural England

No objection subject to securing RAMS contribution if required by the LPA's Appropriate Assessment.

8.13 North Essex Badger Group

I have read through the Ecological Assessment and would point out that there are several badger locations around the proposed development which they are probably not aware of, and the site is regularly accessed by foraging badgers.
Should this Application be approved, we would ask in the first instance, that care should be taken when clearing the boundaries. Secondly, we would suggest that once work begins, open excavations are covered at night to avoid any foraging badger falling down and being unable to exit.

8.14 Trees

I am in agreement with the tree survey element of the report provided.

The internal layout of the site also needs to be reviewed. Where trees are close to the built form, particularly in the Northern Boundary/North West corner of the site redesign will be required to give more space to comply DP1 & UR2. (*Officer note: This can be secured through the reserved matters applications*)

8.15 Urban Design

Objects to scheme for a number of reasons – see main body of report. (*Officer note: These matters can be resolved through the reserved matters applications*)

8.16 Essex County Highways

Comment that from a highway and transportation perspective the impact of the proposal is acceptable to the Highway Authority subject to conditions and informatives.

9.0 Parish Council Response

9.1 The Parish Council have objected to the scheme. The full objection is very detailed and can be read online but in summary:

Hall Road is a 'call for sites' allocated site CBC. Why is it the subject of an Outline Planning Permission now when LP2 has not yet been examined? The current Borough Local Plan is still in operation until the end of 2021 and within this there is no housing allocation for Copford. This planning application is opportunistic, speculative and premature.

Other main reasons for objections:

- Vehicle access/egress from Hall Road to London Road
- Pedestrian/vehicle safety in Hall Road due the 'shared' surface and narrow road
- Number of houses proposed does not work with Hall Road width
- Privacy issues for nearby homes
- Negative impact on historic Grade 2 listed home, and its setting, also on nearby homes
- Negative impact on local landscape - LOWS Conservation area
- Urban sprawl design of homes in a rural area
- Flooding risk on development site
- Possibility of Ground gas
- Negative impact on possible Archaeological remains
- Urban Design Consultation Comments

9.2 Copford with Easthorpe Parish Council strongly objects to this application.

10.0 Representations from Notified Parties

10.1 The application resulted in a number of notifications to interested third parties including neighboring properties. In response 128 objections were received, some from the same address. A support representation was also received. A number of the representation were very detailed and it is beyond the scope of this report to reproduce them all in full but the full text of all of the representations received is available to view on the Council's website. However, a summary of the objections raised is given below.

- The Emerging Plan has not been Examined yet.
- This scheme is premature.
- The site should not have been allocated.
- It will be visually intrusive.
- Other sites were preferable to this one, for example the car boot sale site north of London Road.
- The scheme undermines the Emerging Plan.
- The Council should be confident in it's five-year housing supply.
- The Council should wait for the garden communities.
- Copford is at capacity.
- The Highway network can't cope.
- The Transport Statement is inaccurate.
- The site exceeds the 25 dwellings a shared surface can have.
- Hall Road is a narrow rural lane, not a road, and its intensification is not appropriate.
- Hall Road is used by walkers, runners and cyclists.
- London Road is extremely busy.
- There are lots of other developments in the area so we don't need this this one too.
- The other facilities in the area can't cope, for example schools/doctors/dentists.
- The sewage treatment works cant cope and wont cope with this.
- Harm to setting of listed buildings.
- We were led to believe this site would not be built on.
- The Emergency services are already under pressure.
- The local schools are oversubscribed.
- We don't need any more dwellings.
- 49 is too many dwellings.
- Is this needed in the post Coivd-19 world?
- I endorse all the suggested objections in the newsletter.
- This will result in 100 more cars in the areas which is unacceptable.
- This is developer profit over everything else.
- Is nothing sacred anymore?
- The needs of local families and the wider community are not being considered here.
- The scheme is not in-keeping with the area.
- The applicants have ignored the pre-app advice.

- This is low density development when we should be promoting high density development in more urban areas.
- The density is too high, there should be no more than 25 dwellings.
- The scheme comprises overdevelopment.
- The modern house types are not appropriate in this area.
- Bungalows are needed.
- This is urban sprawl.
- Scheme will be materially harmful to my amenity.
- Light from headlight will be materially harmful.
- Loss of good agricultural land which is actively farmed for food.
- The consultation exercise has not changed anything.
- The water treatment plant cannot cope with 49 more houses.
- The Doctor's surgery can't cope and is highly oversubscribed.
- This will destroy wildlife/ecological impact.
- Loss of important trees.
- Flooding and drainage issues.
- Harm to Archaeology
- Increased off site flood risk.
- How would this scheme be built out without compromising the access to the existing dwellings on Hall Road.
- The design is poor as shown by the Council's own Urban Designer.
- Please see our representation to the Emerging Policy (this is addressed in the principle section of the report below).
- I support the scheme but note a number of concerns some of which are fundamental to the acceptability of the scheme.

11.0 Parking Provision

11.1 This scheme is an application for outline permission only but there is sufficient space to ensure that all dwellings will enjoy parking space numbers that comply with adopted standards; including on site visitor parking provision.

12.0 Accessibility

12.1 At reserved matters stage the scheme will be able to deliver a scheme that is sufficiently accessible to enable the proposal to comply with the Emerging Policy in that regard. The affordable housing request in the 'Development Team' section below sets out what accessibility standards are required and it can be seen that the affordable dwellings meet these requirements (it is appreciated that this may change along with a change in layout however).

13.0 Open Space Provisions

13.1 The site is of a sufficient size to provide 10% on site open space which can be secured at reserved matters stage.

14.0 Air Quality

14.1 The site is outside of any Air Quality Management Area and will not generate significant impacts upon the zones.

15.0 Planning Obligations

15.1 As a "Major" application, there was a requirement for this proposal to be considered by the Development Team. It was considered that Planning Obligations should be sought. The Obligations that would be agreed as part of any planning permission would be:

The scheme was discussed at the 9/7/2020 Development Team and the following requests were made:

Archaeology - £17,553 Contingent on finds:

£14,400 for museum quality display case, design and display material £2,400 for an interpretation panel

£753 for enhancement of the Colchester HER £348 will be required if no archaeological remains are affected by the development, to integrate the information from the archaeological resource.

Communities - £88,200 Project - Copford Village Hall: Needs new flooring, upgrade to kitchen facilities, new lighting, decoration and car park resurfacing. Estimated £40K Alma Community Shop and Hub: The pub created a not for profit community hub during the COVID pandemic and aim to continue to provide the services in partnership with the parish council and local volunteers. Estimates for conversion of the outbuilding are £45K

NHS - No contribution request due to numbers of units falling below our threshold of 50.

Housing – The development is proposed to deliver 49 dwellings on a site which is an emerging allocation, where 30% affordable housing will apply. The affordable housing proposed as it is, is not acceptable because the affordable housing is heavily weighted to the two bed dwellings. The table below sets out what has been proposed and also the affordable housing requested which will deliver a more balanced mix of affordable housing which can be suitable for a range of family sizes.

Dwelling Type	No. Dwellings	Affordable Proposed	30% Policy Requirement	Affordable Requested
Two Bed House	11	9	3.3	5
Three bed House	26	6	7.8	8
Four Bed House	12	0	3.6	2
	49	15	14.7	17

The layout of the dwellings is not available at this stage, but as the affordable three bed houses that have been offered are 102 sqm, I would suggest that it is designed to suit a family of 6 persons. The smallest four bed is 116sqm. I would suggest that the layout is designed to suit a family of 7 persons, or if the size of the four bed is to be reduced down to around 106 sqm, this will be in line with nationally described space standards for a family of 6 persons and would also be acceptable. A four bed 6 person house could be more suitable to house a family where there are children in the household of mixed sexes where they are above the age where they can share a bedroom.

The tenure mix would be expected at no less than 80% for affordable rent and no more than 20% intermediate (shared ownership). This would be the equivalent of no more than 3 dwellings as shared ownership. The shared ownership can be a combination of the two and three bed dwellings.

All affordable dwellings are being designed to meet Part M4 Cat 2 which is in line with policy and all dwellings meet or exceed the nationally described space standards which indicates they are of a good size. A level access shower had previously been requested for one of the Cat 2 dwellings. This is no longer requested as through internal discussions with the allocations team and occupation therapist, it has been concluded that Cat 3 homes are better suited for the provision of level access showers.

Highways – The improvements to Hall Road are required to provide a safe means of access to the proposal site for vehicles, cyclists and pedestrians.

a) Upgrade to current ECC specification of the two bus stops which would best serve the proposal site (details to be agreed)

b) Improvements to Public Footpath Copford 2 between the proposal site and London Road (details to be agreed)

c) Residential Travel Information Packs in accordance with ECC guidance Requirements conditioned and delivered either as part of the site or by a S278 agreement

Parks & Recreation - £294,296 offsite contribution.

We would seek LEAP children's playground to be provided. If adopted a maintenance contribution of £22,772.50

Project - Access and pathway improvements to provide a DDA pathway/gates/car park which is suitable for wheelchair and mobility users from the new development to Copford Pits Wood (Copford Pits Wood Trust) and Copford Village Hall.(Copford Parish Council). @£222,607.00. Based on an access survey of Pits Wood carried out in October 19. Playground improvements to the play equipment at Copford Village Hall Open Space if no on-site provision. @£71,689.00 Supports the Copford Pits Wood Open to All project which also includes a changing places toilet. (see Communities requests) Projects subject to consultation with voluntary groups, trustees and Parish Council.

(It is noted that the Parks and Recreation Spend Purpose is subject to change and this is still open to discussion.

Education – £486, 834.60

No EY&C contribution required.

This development would sit within the Priority Admissions Area of Copford CE Primary School, which has a Published Admission Number of 30 pupils per year. Due to demand, the school has taken over this number in some years and, as of January, had a total of 214 children on roll. The school currently relies upon temporary classbases to accommodate this number. Any further development in the village adds to the case for additional permanent accommodation to be built.

The closest secondary school to this development would be The Stanway School. The school increased their published admission number to 280 in 2018 and last September took slightly over this number. As set out in the Essex School Organisation Service's 10 Year Plan to meet demand for school places, demand for secondary school places in Colchester (Group 1) is increasing. Despite the next cohort being a relatively small year, The Stanway is again expected to fill and already has a waiting list.

14.70 multiplied by £17,268 = £253,839.60
9.80 multiplied by £23,775 = £232,995.00

Indexation from April 2020 is requested.

16.0 Report

Material Planning Considerations

Principle of Development

Introduction

The planning policy approach to the proposal reflects the Council's current position in the plan-making process where both an adopted and an emerging Local Plan are relevant. The relationship of the proposal to each of those plans and the compliance of relevant adopted and emerging policies with the 2019 NPPF are accordingly key variables in assessing the planning balance. The Council considers that it has a 5-year housing land supply and therefore there is no need to apply the tilted balance principle.

It is considered that the fundamental principles of both the Adopted and Emerging Local Plans are compliant with the new NPPF. The analysis below will consider whether there are any relevant non-compliant elements of CBC policy with the NPPF that justify a reduction in the weight to be given to the policy in assessing the planning balance in this case. For the Emerging Local Plan, the following analysis reflects the NPPF criteria on the weight to be given to policies, which depends on the stage of preparation of the plan; the extent to

which there are unresolved objections to relevant policies; and the degree of consistency of the relevant policies to the Framework (see paragraph 48). In terms of the first criteria, the ELP is in the examination stage so can be given some weight

Copford are also preparing a Neighbourhood Plan although in the early stages of preparation having recommenced work in 2018, so no weight can be applied in the context of the Development Plan.

Adopted Local Plan

The NPPF continues to support the Policy approach in the Adopted Local Plan in principle, in respect of the key policies on settlement hierarchy relevant to this proposal, SD1 and ENV1. As the Council is able to demonstrate a 5 year housing land supply these policies are relevant to the decision making on this proposal. Policy SD1 accords with Paragraphs 10-12 of the 2019 NPPF which provide for a presumption in favour of sustainable development. Policy SD1 is consistent with the NPPF's approach to decision-taking which entails approving proposals that accord with the Local Plan unless material considerations indicate otherwise, and which involves the LPA working proactively with applicants. It is noted, however, that the housing and jobs target provided in the policy no longer remain current. Whilst the supply figure itself may be out of date the principle of the overarching spatial strategy and the settlement hierarchy are not and as such weight should still be afforded. SD1 includes Copford as a 'Rural Communities' which lies at the bottom of the spatial hierarchy.

Since the proposal falls outside the settlement boundary for Copford, policy ENV1 covering the countryside outside settlement boundaries is relevant. The requirements of policy ENV1 for the conservation and enhancement of Colchester's natural and historic environment is in accordance with paragraph 170 which clearly recognises the intrinsic character and beauty of the countryside and demonstrates that planning policies should contribute to and enhance the natural local environment via protection, maintenance, and preventing unacceptable risk. It is considered that the criteria-based approach of ENV1 accords with the more flexible approach to countryside development adopted in the NPPF.

Based on the protection afforded to land outside Settlement Boundaries (SBs) and outside of the most sustainable locations in SD1 and ENV1, the proposal is not considered to be compliant with these policies. While Policy ENV2 on rural communities covers rural exception sites, it is of no relevance to this specific proposal which is not based on the rural exception principle. Other policies are relevant to the proposal including those relating to affordable housing and design and layout, which will be dealt with in the relevant section.

Emerging Local Plan (ELP)

The NPPF also advocates consideration of other factors including emerging local plans which can be afforded weight when they reach an advanced stage of preparation. In this respect Paragraph 48 states that authorities may give weight to emerging plans according to the stage of preparation, the extent to which there are unresolved objections to relevant policies (and the significance of these objections - the less significant the greater the weight that can be given) and the degree of consistency of the relevant policies to the NPPF (the closer the policies are to policies in the NPPF the greater the weight that may be given). Testing these criteria will inform the judgement about the weight which should be afforded to the Emerging Local Plan in this case.

In terms of Paragraph 48(a) of the NPPF the ELP is considered to be at an advanced stage having been submitted in 2017 with examination commenced in January 2018. A technical consultation was undertaken from 19 August to 30 September 2019. This consultation was limited to the additional evidence base documents including SA, requested by the Inspector in relation to section 1. Further examination hearing sessions are scheduled from 14 January to 30 January 2020.

Amongst other matters, the ELP seeks to allocate additional land to meet the housing targets up to 2033 of 920 homes per year on sites which are in accordance with the revised Spatial Strategy (SG1).

Copford is identified as a Sustainable Settlement in the spatial strategy. As such policy SS4 proposes the allocation of land for 120 dwellings on 2 sites in Copford. Land West of Hall Road is allocated to provide 50 dwellings and Land East of Queensberry Avenue to provide for 70 dwellings.

The proposed allocation policy SS4 is of particular relevance providing a different policy context than the Adopted Local Plan. The policy wording is set out below:

SS4: Copford

West of Hall Road

In addition to the infrastructure and mitigation requirements identified in policy PP1, development will be supported on land within the area identified on the policies map which provides:

(i) Up to 50 new dwellings of a mix and type of housing to be compatible with surrounding development;

(ii) A single site access via Hall Road;

(iii) Detailed flood modelling to assess flood risk at Hall Road from Roman River; and

(iv) A safe pedestrian footway agreed with the Highways Authority from the site to London Road to enhance connectivity with Copford.

(v) A design and layout which complements the listed buildings and their setting as well as any archaeological assets.

The Spatial Strategy Policy SG1 and Policy SS4 are aligned with the NPPF as follows:

- Paragraphs 15 and 16 reinforce that development should be plan led and contribute to the achievement of sustainable development.
- Paragraphs 18 and 28 outline that Local Plans should include non-strategic policies which provide more detail for specific areas and types of development.
- Paragraph 59 reiterates the Government objective of increasing the supply of homes.
- Policy SS4 is one of a number which allocates sites for residential dwellings within Sustainable Settlements as identified by the Spatial Strategy.

The key policies in the Emerging Local Plan relevant to this scheme are accordingly considered to be highly consistent with the NPPF and should therefore in respect of paragraph 48(c), be afforded considerable weight.

The final issue to be considered when determining the weight to be afforded to the ELP is the level of unresolved objection to the relevant policies. Accordingly, further consideration of the issues raised in representations to Policy SS4 is necessary to guide the judgement of the weight which should be given to the emerging policy in this case. There were 38 representations received to Policy SS4. A report was also received from the VOICE Group (Village opinions in Copford and Easthorpe) supported by 221 residents and endorsed by a further 5 respondents. The key issues raised are summarised below:

Development in Copford

- Limited facilities in Copford - oversubscribed schools, no health facilities, lack of shops, post office, lack of employment provision, lack of green and open space including playing fields
- Issues with existing infrastructure capacity including sewage and water capacity, local road network and rail services
- Threat to Forest School and green environment of agricultural fields
- Air quality and health impacts (particularly from increased traffic)
- Proposed sites are not in the right location - north and east of Copford, no provision in Copford Green or Easthorpe
- Growth for Copford exceeds all other village developments
- Poor engagement and publicity of Local Plan, with previous comments not considered.
- Promotion of alternative sites, including Former Car Boot Site, London Road by VOICE Group and others.

Land West of Hall Road allocation

- Developer support for the allocation.
- Brownfield sites in the village should be considered first.
- Hall Road unsuitable to serve a development of 50 additional houses, unable to support two car width road with pavement and visibility concerns of turning right out of Hall Road into London Road at peak times particularly.
- London Road already congested, issues with parking and air quality concerns.
- Hall Road is an important local pedestrian route and bridleway which is designated as a Protected Lane in the adopted Local Plan.
- Impact to listed buildings and archaeological site (Iron Age remains may be present on site)
- Hall Road is a historic route and has recently been deallocated as a historic land status, during the preparation of the Local Plan.
- Existing capacity issues at sewage facility, development would require connection to main Colchester system.
- Existing sewage facility causing odour and air quality impacts.
- Not well placed in relation to secondary school, health services, shops, libraries and Marks Tey Station.
- Existing developments at London Road already pressure on local facilities, roads, traffic flow and other issues. Further development in this area along with the Garden Village at West Tey is not appropriate.
- Hall Road development would infringe on sports provision.
- Impact to existing biodiversity, birds and wildlife particularly to Roman River, Pits Wood (LoWS) and Copford Wood
- Hall Road site has been under an environmental stewardship scheme to help increase biodiversity (agricultural land)
- Hall Road and Hall Lane are full of wildlife and accessed via local people encompasses village life to engage in walking, cycling and other leisure activities would result in a major local amenity impact.
- Development will threaten setting of Copford Green Conservation Area and does not recgonise importance of Roman River Valley Conservation Area.
- Development would remove the break between large scale developments off London Road, would result in the merging of Copford Village with Colchester.
- Historic flooding to the north west corner of the site on several occasions.
- Impact to air, water and soil quality are uncertain as outlined the SA.
- Development would set a precedent for further applications to extend the built area further to the south and south east of Copford.
- Current housing development in area is of ribbon type and not built up as stated at paragraph 14.149

- Highways England - Copford and Copford Green development of the scale proposed is unlikely, on its own, to have a severe impact on the strategic road network.
- Copford with Easthorpe Parish Council - welcome reduction in housing numbers for 180 to 120 but does not result in improved local infrastructure. Supports intention of protecting green spaces, but suggest Car Boot site for 40 units as alternative to other sites. Two locations proposed are amongst worst fit although consideration of other sites off School Road could provide similar level of housing and less issues than those proposed.

It is considered by the Council that the scale of development proposed at Copford through the Emerging Local Plan is consistent with the level of development proposed for other Sustainable Settlements. However, there were a high number of representations to the Regulation 19 Local Plan Consultation, including the promotion of a number of alternative sites; most frequently the former Car Boot Sales field, London Road.

The Council are also aware that there have been contamination issues historically in the Copford area. As per ELP Policy ENV5, this will require specialist consideration and investigation to inform a planning application. It is noted that Environmental Protection did not raise any concerns on this issue in their response to this planning application.

The Council need to consider whether the proposed development is able to address these objections in order for these to be considered resolved, in line with paragraph 48 of the NPPF. The policy requirements in ELP Policy SS4 and other relevant policies, provide the framework to do this to ensure ecological, agricultural and heritage assets are addressed with the necessary mitigation. There is also a requirement to consider infrastructure requirements including wastewater treatment and sewage infrastructure as required by ELP Policy PP1.

The key concerns regarding infrastructure capacity appear to be related to the local road network and access road, education, sewage and water capacity and flood risk. In order to resolve a number of these responses, the view of the relevant infrastructure providers will therefore be an important consideration in weighing up the balance to be afforded to these issues. The most relevant agencies are listed below:

- Essex County Council - Highways Authority;
- Highways England;
- Environment Agency;
- Anglian Water;
- Essex County Council - Local Education Authority; and
- Essex County Council - Lead Local Flood Authority.

The Colchester Water Cycle Study (AECOM, 2016) to support the ELP, provides a RAG rating for each proposed site in terms of wastewater and water supply network. The Hall Road, Copford site are scored with an ‘amber’ rating for both assessments. An amber rating for wastewater network concludes that *“Pumping*

station or pipe size may restrict growth, or non sewered areas, where there is a lack of infrastructure: a pre-development enquiry is recommended before planning permission is granted". An amber rating for water supply concludes that *"infrastructure and/or treatment upgrades required to serve proposed growth or diversion of assets may be required."*

The response from Infrastructure providers to planning applications and the Local Plan is the best measure of the extent to which there is capacity for the planned growth. This also provides the context for considering whether any objections to the Local Plan proposals remain unresolved. The responses from the relevant infrastructure providers is therefore an essential element in determining the balance and the weight to be afforded to the ELP. In the event that either support/no objection or appropriate mitigation is available from all relevant infrastructure providers, this would suggest that there was capacity for the growth proposed, and any objections lodged against the proposed allocation in the ELP are capable of being resolved and this is the case.

Planning Balance

The Adopted Local Plan did not include the proposal site as an allocation and the proposal is therefore contrary to policies SD1 and ENV1 restricting development outside of development boundaries. Both policies are considered to be up-to-date in so far as they relate to the proposal.

It is also the case that the Council is able to demonstrate it has a 5- year housing land supply. The Council's latest published Annual Housing Position Statement (April 2020) demonstrates a housing supply of 5.4 years based on an annual target of 1,078 dwellings which is calculated using the Standard Methodology. This equates to a need for 5,659 dwellings over the 5 year period when a 5% buffer is added. We can demonstrate 6,108 dwellings. This relates to the current monitoring period which covers the period 1.4.20 to 31.3.25. The Council's 5-year supply has been tested at appeal and found to be robust.

As the Council is able to demonstrate a 5- year Housing Land Supply, paragraph 11(d) of the NPPF is not engaged.

It is also relevant to consider the extent to which the application is compliant with the ELP. Policy support for any proposal is unlikely to be afforded unless it is fully compliant with all of the relevant emerging policy requirements as indicated in the ELP. In this case, there are not specific infrastructure requirements listed in the allocation policy (SS4), these are addressed in other policies such as PP1 (infrastructure and mitigation requirements) and DM8 (affordable housing) in the ELP. However, concerns regarding infrastructure capacity of the proposed site have been raised to Policy SS4.

The allocation policy in the ELP for the site at Hall Road, Copford includes a range of requirements including a single access road and pedestrian footway and consideration of the listed buildings and their setting and archaeological assets; with other policies in the plan requiring acceptable measures which would include ensuring any development was of an acceptable design and layout and

appropriately landscaped for example. A scheme of 49 units at this site which is fully policy compliant in respect of all relevant ELP policies, is likely to be able to satisfactorily mitigate against the impacts raised in the objection to the ELP which are specific to this site.

The Council is increasingly faced with applications for speculative development on sites which are not allocated in the Adopted or ELP, including a number of these going to Appeal. A number of speculative applications have been made in other Sustainable Settlements, including Tiptree and West Bergholt. It is anticipated that pressure from speculative development is only likely to increase until the Emerging Local Plan has been Adopted in locations throughout the Borough, which could include Copford. Therefore, a pragmatic approach to proposed allocations is required. It is preferable to allow schemes on allocations in the Emerging Local Plan where they are policy compliant. The Emerging Local Plan allocations have been through a Sustainability Appraisal, public consultation and other rigorous assessment as part of the Local Plan process. Whereas speculative proposals are usually, in locations which received less favourable Sustainability Appraisal/or other assessment or, have not been through such assessments as part of the Local Plan process.

The ELP is considered to be relevant to this proposal since it changes the planning context for the site through a proposed site allocation. It makes up one of two sites proposed to accommodate planned growth for Copford with the key requirements set out in Policy SS4. In respect of Paragraph 48 of the NPPF, it is considered that the ELP can be given weight due to its stage of preparation and consistency with the NPPF. The final consideration in the weight to be given to the ELP is the level to which representations can be resolved. It is noted that objections made to the proposal at the Local Plan stage have continued with a large number of objections at the planning application stage. Weighing up the weight to be given to these concerns involves consideration of the responses by the infrastructure providers and Council's specialists to a planning application to determine if there is capacity for the development with mitigation where appropriate. In this instance, while it is noted that statutory providers are largely satisfied with the level of infrastructure to be provided, subject to condition, the Council's Urban Designer continues to raise significant objections to the scheme on design, access, visual amenity, layout and architecture which compromise the extent to which the proposal meet policy requirements but as an outline proposal is not held to be reasonable to refuse this scheme on the basis of design which can be dealt with at reserved matters stage. On that basis the scheme is held to be acceptable in principle.

Highways

Aside from the principle of development, the only matter for approval at this stage is the access. It is therefore also important to consider the impact on the highway network.

Core Strategy policy TA4 seeks to make the best use of the existing highway network and manage demand for road traffic. The policy makes it clear that new development will need to contribute towards transport infrastructure improvements to support the development itself and to enhance the broader network to mitigate impacts on existing communities. Development Plan policy DP17 requires all development to maintain the right and safe passage of all highways users. Development Plan policy DP19 relates to parking standards in association with the Vehicle Parking Standards SPD (see Section 11 of this report for details of parking requirements).

The highway works as set out on the plans that accompany the application and make up the Transport Assessment have been carefully considered by the Highway Authority. They do not object to the scheme on the basis that the internal layout is for future consideration, subject to a number of conditions that have been suggested at the end of this report.

This scheme will require some improvements to the Hall Road/London Road junction and to do this a number of trees will need to be removed to improve the currently poor vehicular visibility – in particular the visibility east when exiting Hall Road onto London Road in either direction. The arboriculture implications of this are discussed in the relevant section below.

There have been some detailed comments about the acceptability of the highway geometry proposed, For example:

"*The access design proposed is substandard. The Essex Design Guide Street Type Table 6.1 requires 5.5m carriageway plus 2 no 2m footpaths as shown in the submitted site plan. Yet the access from London Road relies on a section of adopted highway restricted to a total width of 5.3m including one 1.2m footpath with a crossover and with no effective physical demarcation from the carriageway. Two modern cars (combined width including mirrors an average of 4.2m with zero separation between them) cannot pass without overrunning the footpath. A large van is 2.4m wide including mirrors. 25mm high kerbs are proposed (intentionally to permit overrunning) which will imply a priority to vehicles and deter pedestrians and cyclists therefore not promoting the use of public transport, contrary to policy. Footpath overrun areas are normally only provided for service vehicles with deterrent paving for other vehicles. The proposed design effectively encourages overrunning of the already substandard width single footpath by vehicles. Reference is only made to the Street Manual to justify minimal widths and only considers the concept of "Movement" with no regard to "Place". There is no reference in the design to avoid disability discrimination*."

The applicants argue that it is accepted that the current proposed highway works to Hall Road do not adhere to the Essex Residential Design Guide (2018) for a Type E Access Road that provides design parameters for roads serving development between 25 to 200 dwellings in a cul-de-sac format. However, this is a 'Guide' not a definitive highway design document such as that set out in the

Design Manual for Roads and Bridges for Trunk Roads. Should the highway authority allow it, relaxations to the design parameters set out in the Design Guide can be acceptable. As set out in Manual for Streets 2 in section 3.2 'Design Guidance and Professional Judgement' in respect to the use of adhering to guidance, it states:

"*3.2.1 For some time there have been concerns expressed over designers slavishly adhering to guidance regardless of local context. Local Transport Note 1/08 (para 3.2.1) specifically advises: 'Regulations and technical standards have a key role in the delivery of good design, but, if used as a starting point, they may serve to compromise the achievement of wider objectives. A standards-based template view of road junction design, for example, is inappropriate.'*

3.2.2 In reality, highway and planning authorities may exercise considerable discretion in developing and applying their own local policies and standards. LTN 1/08 3.2.3 goes on to state that 'Designers are expected to use their professional judgement when designing schemes, and should not be over-reliant on guidance.'… 'Available guidance is just that, guidance, and cannot be expected to cover the precise conditions and circumstances applying at the site under examination."

The Highway Engineers employed by the applicants (Richard Jackson Ltd) therefore undertook pre-application consultation (including an on-site meeting) with a Essex Highways Development Engineer (who considers it from a policy and design perspective) and a Highway Engineering Team Leader (who considers it from a technical, adoption and maintenance perspective). The pre-app advice was undertaken at the request of the LPA and as it was known that the necessary improvements to Hall Road would not adhere to the Essex Design Guide parameters, therefore requiring input and support from the Highway Authority.

Through the pre-app process the plans were revised to show a 4.3m carriageway with a 1.2m over runnable footway area at the request from ECC; as it was originally 4.1m with a 1.2m footway area. The proposed highway works were also subject to an independent Road Safety Audit (to the relevant industry standard) at the request of ECC, which did not identify any safety points that needed addressing (as noted by the Transport Statement).

To ensure deliverability of the works within highway controlled land, the applicants obtained highway record plans from ECC to determine the highway boundary. The determined highway boundary has been set out on the provided highway drawings as best as we can and was submitted to the highway officers to confirm again the highway boundary. These plans can be provided to you on request or can be requested by any member of public via the ECC website.

They applicants argue that the total width of Hall Road infrastructure therefore proposed is 5.5m rather than that suggested in the public comment above of 5.3m. The current road width (with no current footway area) of Hall Road ranges from 3.8 to 4.3m between the site access and the London Road junction bell mouth. As set out in Manual for Streets (MfS) 1 and 2, the suggested minimum width requirements of different types of passing vehicles are indicated in Figure 7.1 of MfS 1. A 4.1m road will allow two cars to pass and a large goods vehicle / cyclist to pass each other, at slow speeds. Should a large goods vehicles need to pass another vehicle a recommended minimum width is 4.8 to 5.5m. The proposed 4.3m road carriageway width will allow two cars to pass at low speeds without the need to overrun on to the footway area. Hall Road is not a through road with the only key attractor for vehicles beyond the Site is the Anglian Water pumping station. The automatic traffic survey undertaken on Hall Road did not identify any Heavy / Large Goods Vehicles over a full 7-days. A refuse truck is likely 1-2 times per week with a few large box vans per day (i.e. food delivery) expected as a result of the proposed development post-completion. The likelihood of the use of the footway overrun area when a Large / Heavy Good Vehicle arrives / departs is therefore minimal and is only over a short distance of 50m. Overrunning of the footway is therefore not encouraged, only acknowledged it might need to occur on a very occasional basis and therefore accounted for to reduce maintenance issues.

The traffic survey commissioned by the applicants also picked up the 7-day average of total vehicles on Hall Road was 30 in either direction (and less than 5 in any one hour period) per day; the Transport Statement identifies vehicular movements will increase and therefore it was acknowledged that the existing geometry of Hall Road would not be sufficient to account for the increase in vehicles, pedestrians and cyclists; hence the proposed highways works submitted within the planning application. Even with the higher vehicle numbers on Hall Road, the chances of an LGV, a car and a pedestrian being within the 50m section of highway at the same time are minimal.

It should be noted that Hall Road will increase in width for the last 15m of the road as it approaches London Road to enable easier vehicle passing in this critical area and reduce the chance of any backing up on to London Road.

The applicants Engineers argue that by strictly adhering to the design parameters set out in the ECC design guide of two footways and a 5.5m carriageway it will encourage higher vehicle speeds along Hall Road compared to the current vehicle speeds recorded and wished to be retained. Hall Road would then become more urbanised rather than trying to retain a more rural feel to the road given its history and context. The proposed highway works would provide an improvement over the existing situation whilst being sensitive to the nature of the area and how the road has been used to date.

The design approach used here has the aim of giving priority to pedestrians / cyclists rather than vehicles but one key aspect is vehicle speeds less than 20mph. The traffic survey on Hall Road identified that average vehicle speeds were under 20mph. The current 30mph speed limit on Hall Road is suggested to be extended further south and past the proposed access point, but could also be considered to be reduced to 20mph given the current excellent adherence to the speed limit already.

With regards to the footway width, the suggested 1.2m width will allow a wheelchair user on their own; a visually impaired person with cane or assistance dog / person; or a school child with parent to walk along the route adequately which is an improvement over the existing situation given there is no hardstanding for pedestrians other than within the carriageway, should a vehicle be passing. This 1.2m footway width is also only over a 65m distance before a pedestrian joins the slightly wider footways on London Road, which is a more significant and well used road category compared to Hall Road. The 25mm kerb upstand between the carriageway area and the footway area is a standard minimum dimension used to demarcate the edge of the footway area albeit is low enough to allow easy vehicle mounting. It is also held to be sufficient height for those who are visually impaired to highlight the area to keep to, although the kerb upstand could be increased up to 40mm (with the exception of private accesses – which will need to be 25mm) to demarcate the pedestrian area more, should it be required. The use of asphalt surfacing rather than the typical block paving used in shared use roads, provides not only less maintenance issues for ECC but reduces the risk of uneven surfaces and trips / falls as well making the use of mobility / wheelchairs more comfortable and efficient.

To access the development site from Hall Road, there is an uncontrolled crossing point which will include flush kerbing and tactile paving to enable pedestrians and those with visual / mobility disabled to access and egress the site towards London Road.

It is also noted that the proposed highway works will be subject to a Section 278 agreement with the Highway Authority. As long as an appropriately worded condition is imposed (as is suggested at the end of this report) the works will be completed prior to first occupation of the proposed dwelling. Officers would also suggest that adequate access to the Public Right of Way on the western side is catered for prior to first occupation as this will be another pedestrian route to London Road and a desire line to the nearest train station.

The applicants have also noted that there is a separate public objection that refers to the withdrawn DfT Local Transport Note 1/11: Shared Space. It should be noted that this is temporarily withdrawn due to a ministerial request following publication of the DfT Inclusive Transport Strategy to suspend advice on shared spaces until further consultation and assessment work is undertaken and with regard to those with mobility / visual impairment. However, this document relates to completely level shared surface areas with no upstand to assist pedestrians. It is also more related to areas where there is high pedestrian footfall like a high street. As Hall Road will have low pedestrian and vehicular movements and

there is a compliant kerb upstand to the define the footway area, albeit would occasionally be over runnable, this is technically not 'Shared Space' as referred to in LTN 1/11.

Public Right of Way

A Public Right of Way runs north/south along the western end edge of the site, within the red line. From the north west corner of the site it connects to London Road between existing dwellings. The reserved matters submission will be able to take this right of way into consideration and will preserve its setting. It will provide a very useful pedestrian link to London Road from the site. It will mean that pedestrians will be able to exit and enter the along London Road without using the Hall Road junction. This additional pedestrian permeability is a benefit of the scheme.

Design and Layout

In considering the design and layout of the proposal, Core Strategy policy UR2 and Development Plan policy DP1 are relevant. These policies seek to secure high quality and inclusive design in all developments, respecting and enhancing the characteristics of the site, its context and surroundings.

As an outline application with all matters except for access reserved, details of design and layout would be put forward at reserved matters stage and would be assessed in accordance with relevant planning policy to ensure that the proposals are acceptable. There is no further detail required at outline stage as it essentially determines the principle of development rather than the detail. In this instance however a great deal of detail has been supplied including a full layout and house types.

The Council's Locum Urban Designer objected to the scheme for a number of reasons and a number of the public representations quote his response. Following this the Council has a new full time Urban Designer and this scheme has been discussed with him also.

The issues raised by the Locum Urban Designer are all accepted and have been relayed to the applicants. The layout as proposed is overly rigid and is generally uninspiring with little sense of place created. Cars dominate the layout. The house types are somewhat lacking in detailed and have little local distinctiveness.

Fundamentally, is important to note that these issues are not a reason for refusal of outline permission when landscape, layout, appearance and scale is reserved for further consideration.

It has been agreed with the applicants to assess the layout as a proofing drawing and capacity study. On that basis the layout is sufficient to demonstrate that it is possible to comfortably fit 49 dwellings on this circa 2ha site resulting in a relative low density of around 25 dwellings per hectare. An informative is suggested to be imposed on any permission setting out how the layout in the submitted drawings is not satisfactory and would be expected to be significantly improved if a reserved matters submission is to be approved. The Council's Urban Designer is

happy to work with the applicants via the Council's pre-app service to improve both the layout and the house types.

Flood Risk/SuDS

The site is within Flood Zone 1. As such, it is at the lowest risk of fluvial or tidal flooding in accordance with the Technical Guidance that accompanies the NPPF and is suitable for residential development from a flood risk perspective.

The Emerging Local Plan (Paragraph 15.125) states that the overall aim of national policy and guidance on flood risk is to steer new development towards land on the lowest risk from flooding (Flood Zone 1). As noted above the site specific policy SS4 specifically requires the scheme to be safe in flood risk terms. The scheme has been accompanied by a flood risk assessment by Richard Jackson Engineering Consultants.

The FRA notes that The finished floor levels of the dwellings will be sufficient to raise the residential dwellings well above the level of the 1.0% annual probability storm event, in accordance with the NPPF. Access and egress to the site will not be impeded during these events. It is recommended that all buildings have finished floor levels which are at least 300mm above the local sewer network.

In terms of any residual risk (ie the portion of overall risk that remains once risk mitigation measures have been implemented) there is always the very low risk potential for storm events greater than a 1.0% annual probability event. Overflow of surface water would fall generally towards the northern boundary of the site and along the route of the highway towards Hall Road. Sufficient capacity volume has been allowed for in the SuDS features and appropriate factors of safety applied to accommodate the design storm event and a following 10% annual probability event as required by the LLFA guidance. The residual risk to the development is therefore considered to be low.

As noted above, as part of the proposals, SUDs are proposed. These features are strategically located to work with the existing topography of the site in order to manage surface water runoff and to ensure the site manages surface water entirely within the site to reduce the risk of flooding elsewhere. The detail of this arrangement can be dealt with at reserved matters stage and it is hoped that a more natural solution where water is kept on the surface can be proposed (as opposed to buried plastic crates as shown on the proofing layout) however the solution will depend on the layout.

The LLFA are satisfied with the scheme and have recommended conditions. At outline stage, this matter is held to be acceptable.

Impact on Heritage Assets

Policy DM16 states that the historic environment should be conserved where possible through new development proposals. This includes preserving and enhancing Listed Buildings as per the statutory test (s.66(1) Pl (Lb & Ca) Act 1990 requiring special regard to be paid to the desirability of preserving listed buildings together with their settings.

The scheme has been accompanied by a Heritage Statement carried out by John Bell Design and Conservation. This stated that following an assessment of historic maps, it is concluded that the application site is a parcel of arable agricultural land that is of no historical significance. The application site may have had previous uses that pre-date 800AD, due to the close proximity to London Road, however this can only be ascertained through archaeological methods (see relevant section of this report).

The Grade II Listed Brewers Cottage is located adjacent to the boundary of the site, but due to number 33 being constructed to the South of the cottage it is argued that is very little connection between the application site and the listed building. It is therefore concluded It is concluded that the level of impact can be categorized at such a low amount, within the scale of 'less than substantial harm', that the proposals will have no material harm to the significance of the setting, character or appearance of Brewers Cottage. Whilst the in house Historic Buildings and Areas Officer does not concur that there is little connection between the site and Brewers Cottage, they do concur that any harm would be 'less than substantial' and outweighed by the public benefits of delivering this quantum of new homes.

The Heritage Statement concludes that the proposed scheme has been re-designed following pre-application discussions so the proofing layout responds to the setting of Brewers Cottage, and the other buildings to the South of London road, by re-orientating the dwellings to ensure views of the countryside from 1st floor windows are retained and the amount of built form adjacent the site boundary to the North is reduced to an insignificant level. Notwithstanding this, it is held that the layout could be improved further to allow a greater level of 'breathing space' to be afforded to the heritage assets in the vicinity as requested by the in house Historic Buildings and Areas Officer. This can be achieved at reserved matters stage. On that basis it is held that an acceptable layout can be designed and the setting of the adjacent Brewers Cottage not a manner that would reasonably warrant refusal of this outline scheme.

Ecology

Section 40 of the Natural Environment and rural Communities (NERC) Act 2006 places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity and a core principle of the NPPF is that planning should contribute to conserving and enhancing the natural environment. Development Plan policy DP21 seeks to conserve or enhance biodiversity and geodiversity in the Borough. New developments are required to be supported by ecological surveys where

appropriate, minimise the fragmentation of habitats, and maximise opportunities for the restoration, enhancement and connection of natural habitats. Policy ENV1 of the emerging Local Plan states that the Local Planning Authority will conserve and enhance Colchester's natural and historic environment, countryside and coastline. Furthermore, proposals for development that would cause direct or indirect adverse harm to nationally designated sites or other designated areas, protected species or result in the loss of irreplaceable habitats such as ancient woodland, important hedgerows and veteran trees will not be permitted.

A Preliminary Ecological Appraisal has been prepared by Ecology Solutions. This seats out how on the basis of the current evidence there is no overriding ecological constraint to the development of the allocated site. The survey work that was undertaken identified the site as being of limited ecological value. The proposed loss of part of a hedgerow to facilitate the new access element proposals will be offset through the provision of new replacement habitats and bolstering of retained features which aim to significantly improve the site's ecological interest. The development has scope to offer biodiversity net gains and meet with all relevant planning policy. The report considers that there is therefore no ecological justification to refuse planning permission.

Habitats Regulations Assessment (HRA) /Appropriate Assessment (AA)

It is necessary to assess the application in accordance with the Habitats and Species Regulations 2017 (as amended). The whole of Colchester Borough is within the zone of influence of a European designated site and it is anticipated that the development is likely to have a significant effect upon the interest features of relevant habitat sites through increased recreational pressure, when considered either alone or in-combination with other plans and projects. An appropriate assessment was therefore required to assess recreational disturbance impacts as part of the draft Essex Coast Recreational disturbance Avoidance Mitigation Strategy (RAMS).

The applicants have agreed to pay the RAMS contribution as required by the Council's AA. On that basis it is held that the scheme will mitigate the potential off site impact to off-site protected areas. This will also be secured by the Legal Agreement.

Landscape and Trees

Core Strategy Policy ENV1 seeks to conserve and enhance Colchester's natural and historic environment, countryside and coastline, with Development Plan Policy DP1 requiring development proposals to demonstrate that they, and any ancillary activities associated with them, will respect and enhance the character of the site, context and surroundings in terms of (inter alia) its landscape setting.

The scheme has come with a Landscape Visual Impact Assessment (LVIA) carried out by Southern Ecological Solutions.

This states that the Site lies on the edge of the plateau and is flat to gently sloping towards the south east where lower lying land surrounds the Roman River. The character of the area, is generally of a linear village (eastern end of

Copford) along the London Road merging into an arable and wooded landscape beyond the built up areas. Hall Road generally dissects the Roman River Valley from the plateau landscape, whilst the A12 cuts through the valley to the north of the Site. Existing features within the site (boundary hedgerows) are limited, but are important for their landscape, ecological and amenity value.

The LVIA noted that the principal change will be experienced at the site level where the existing land use will be replaced by a residential development with associated buildings, strategic landscape and open space. In accordance with planning policy and landscape guidelines the landscape elements which are important to the site and character of the area will be retained and enhanced and along with new planting will provide an establishing landscape structure from the outset, containing the majority of the built form from the surrounding landscape in the medium- to long-term. The LVIA considers that the overall effect on the site is subsequently Moderate-Substantial Adverse decreasing to Minor Adverse over time. Whilst noticeable, the change is considered acceptable in the local context.

The LVIA concluded that the site provides a suitable, sustainable location for the proposed residential development from a landscape and visual perspective.

The in-house Landscape Advisor originally raised a number of concerns with regards to the layout. Following further discussions, the Landscape Officer has stated:

The preferred option in landscape terms would still be that unit's face/side onto the proposed southern hedge. However, if the Urban Design Officer agrees the layout cannot be amended to achieve this then units backing onto but set back from the hedge will need to be considered. If this 'backing onto' option is agreed, then the offset space might be designed to ecologically enhance the site through the proposal of species rich grasses & wildflower. The fencing off of this offset area would need to be agreed by the Urban Design Officer with regard to site permeability and secure by design requirements.

In short, it is held that it is possible to design a reserved matters submission that is not harmful to the interests of the landscape.

In terms of trees, the scheme has been accompanied by a Tree Survey and Arboricultural Impact Assessment (AIA). Officers have met on site with the applicants Arboricultural Consultant to discuss the trees that are proposed to be removed. They are all low category trees with limited lifespan, rated as category U and category C. They are within the highway boundary and have not been well maintained for years. As can be seen in drawing EAS 034 TPP in the AIA, they are recommended to be removed but the majority actually sit outside of the area where highway works would require them to be removed.

The new access point in Hall Road will also require a break to be inserted into the existing hedge. The front of this hedge will also require facing back to achieve vehicular visibility splays. It is therefore suggested that at reserved matters stage it is bolstered from behind with additional hedge planting.

Whilst this scheme will result in the loss of some vegetation that has a beneficial softening in the streetscene, in particular from London Road, no trees with a realistic possibility of long term longevity are to be removed. As part of the landscaping scheme it will be ensured that good quality tree planting will be secured.

Loss of Agricultural Land

Some representations have argued that the scheme will result in the loss of good quality agricultural land. The LVIA rates the land as Grade 2. This scheme will therefore result in the loss of good quality agricultural land however at roughly 2ha this loss is not held to be significant and is outweighed by the public benefits associated with delivery of new homes in the planning balance.

Contamination

Development Plan policy DP1 requires new development to undertake appropriate remediation of contaminated land.

In this instance the application has been accompanied by a ground investigation report by Richard Jackson Sept 2019.

This report makes reference to an earlier Phase 1 Desk Study report, *Richard Jackson, 'Phase One Desk Study Report', Land off Hall Rd, Copford, Final, Ref. 49896, dated 02/08/19.* Whilst not submitted in support of the current application, it was reviewed by Environmental Protection with reference to an earlier PE application (192689), and a summary is included in the ground investigation report. The Ground Investigation Report seeks to evaluate the potential contamination risks identified in the initial Conceptual Site Model.

It is noted that representative soil samples have been recovered and appropriately analysed and laboratory results compared to relevant generic assessment criteria. None of the chosen determinants exceeded the target values and no asbestos was detected. It was concluded that there are no unacceptable risks to end users or to controlled waters and remediation action for soils is not considered necessary.

Despite a potential risk from ground gases having been identified in the Desk Study, ground gas monitoring was not undertaken as a part of this intrusive investigation and it has been concluded that this risk cannot be excluded at this time. It has been recommended that an appropriate gas monitoring programme be undertaken to clarify the risks to the proposed development. The Contaminated Land officer has requested that if gas monitoring takes place at the sites as specified on the map, attention is drawn to the North West Corner of the site to include gas monitoring in that area as currently there is no sampling point in this location.

On the basis of the information currently submitted, the site considered suitable for its proposed use in accordance with paragraph 178 of the National Planning Policy Framework, subject to conditions as requested by the Contaminated Land Officer.

Impact on Amenity

Development Plan policy DP1 requires all development to be designed to a high standard that protects existing public and residential amenity, particularly with regard to privacy, overlooking, security, noise and disturbance, and daylight and sunlight.

The only matter for consideration at this stage is access. The position of the access point is considered to be sensible as forcing it further down Hall Road would result in further erosion of the rural character of the lane. It is accepted that the existing residents will notice the increased in traffic movements including headlights from cars pulling out of the access onto Hall Road. This has been carefully considered but the impact on amenity is not to a point that is held to be unacceptable. It is noted that the bell mouth of the proposed access it is in a position that is close to other residential dwellings – directly opposite Trewe House, the access to Kyle and 1 and 2 Hall Road, but on balance that is not held to cause demonstrable harm in term of its impact on amenity.

The proofing layout supplied demonstrates that there is enough space on site to provide a layout that complies with the back to back guidance as set out in the Essex Design Guide. Whilst officers have concerns about the layout in urban design terms, the proofing layout demonstrates that at the density it will be possible to provide an internal layout that does not materially compromise neighbouring residential amenity.

Health

Representations have addressed the oversubscription of Doctors surgeries and the local school. Adopted Development Policy DP2 does not require a Health Impact Assessment for development under 50 such as this and the Emerging Policy DM1 (Health and Wellbeing) does not require one for under 100 units. The NHS have not requested a contribution to this scheme as it falls below their threshold of interest and therefore they do not consider this scheme to result in a level of additional need that warrants mitigation. The scheme us therefore acceptable in that regard.

Education

The Education Authority (ECC) has made a request for a financial contribution as set out in the Development Team section of this report. This will be secured via a legal agreement and will be necessary to mitigate the impact of the scheme on the local school provision. The scheme us therefore acceptable in that regard.

Environmental and Carbon Implications

The Council has declared a Climate Emergency and has committed to being carbon neutral by 2030.

The purpose of the planning system is to contribute to the achievement of sustainable development as defined in the National Planning Policy Framework.

Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways. These are economic, social and environmental objectives.

This report has taken into account the Climate Emergency and the sustainable development objectives set out in the NPPF. This scheme has limited detail as it is an outline proposal however it is hoped to be possible to secure good quality tree planting on site as part of the landscape element which is a reserved matter.

In addition to this Environmental Protection have suggested EV charging points to be conditioned and the applicants have agreed to a condition requiring approval of a scheme for EV charging. This will help facilitate the uptake of ultra-low emission vehicles.

It is therefore considered that on balance the application is considered to represent sustainable development.

17.0 Conclusion and Planning Balance

17.1 National policy requires planning to be genuinely plan-led. The proposal is considered to accord with the emerging Local Plan but is contrary to the adopted Local Plan as the site is outside the current settlement boundary of Copford. The National Planning Policy Framework (the Framework) makes it plain that the purpose of the planning system is to contribute to the achievement of sustainable development and identifies three dimensions to sustainable development: economic, social and environmental. In respect of the first of these, the current proposal would provide economic benefits, for example in respect of employment during the construction phase, as well as support for existing and future businesses, services, and facilities by introducing additional residents that would make use of them and provide future spend in the local economy. The social role of sustainable development is described as supporting strong, vibrant and healthy communities by providing the supply of housing required to meet the needs of present and future generations and by creating a high-quality built environment with accessible local services that reflect the community's needs and support its health, social and cultural well-being.

17.2 The proposal is considered to meet these objectives as it would contribute towards the number of dwellings required to support growth in Copford and is located within walking distance of a number of key local services and facilities required for day-to-day living. In respect of the third dimension (environmental), the proposal will provide housing in a sustainable location so that future residents would not be reliant on private car, being able to walk or use public transport to access necessary services and facilities, thereby minimising environmental impacts; ecological enhancements can also be secured as part of the development.

17.3 There is also sufficient evidence to be confident that overall the development would not cause significant harm to the amenity of nearby residents or have a severe impact upon the highway network. The design shortcomings raised in the report above can reasonably be addressed as part of any future reserved matters application. Whilst the proposed development would have an impact on the existing character of the site (i.e. by introducing built development where there is none currently) through a general suburbanising effect on the wider setting, which weigh against the proposal, the positive economic and social effects, as well as the sustainability of the proposal would weigh in favour of this scheme and could reasonably be judged to clearly outweigh the shortcomings identified given the weight afforded to the supply of new homes in the Framework.

17.4 In conclusion, it is considered that the benefits of the scheme convincingly outweigh any adverse impacts identified and the proposal is considered to be acceptable on this basis. The Planning Balance therefore tips strongly in favour of an approval.

18.0 Recommendation to the Committee

18.1 The Officer recommendation to the Committee is for:

APPROVAL of planning permission subject to the signing of a legal agreement under Section 106 of the Town and Country Planning Act 1990, within 6 months from the date of the Committee meeting. In the event that the legal agreement is not signed within 6 months, to delegate authority to the Head of Service to refuse the application, or otherwise to be authorised to complete the agreement. The permission will also be subject to the following conditions the precise details of which are also requested to be the subject of officer delegation:

1. Time Limit for Outline Permissions Part 1 of 3
No development shall be commenced until plans and particulars of "the reserved matters" referred to in the below conditions relating to the APPEARANCE, LANDSCAPING, LAYOUT AND SCALE have been submitted to and agreed, in writing, by the Local Planning Authority. The development shall be carried out in accordance with the approved details.
Reason: The application as submitted does not provide sufficient particulars for consideration of these details.

2.Time Limit for Outline Permissions Part 2 of 3
Application for approval of the reserved matters shall be made to the Local Planning Authority before the expiration of three years from the date of this permission.
Reason: To comply with the requirements of Section 92 of the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004.

3. Time Limit for Outline Permissions Part 3 of 3
The development hereby permitted shall be begun before the expiration of two years from the date of approval of the last of the reserved matters to be approved.
Reason: To comply with the requirements of Section 92 of the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004

4. Development to Accord With Approved Plans
The development hereby permitted shall be carried out in accordance with the details shown on the submitted Drawing Numbers;

Site Location plan: 8871 / 01
Tree Protection Plan: EAS-034 TPP contained within the AIA
Access Plan: 49896/PP/001 Rev B contained within the Transport Statement.

No other drawings are hereby approved.

Reason: For the avoidance of doubt and to ensure that the proposed development is carried out as approved.

5. Control of Mix
Any reserved matters application seeking approval of scale and layout shall include a detailed schedule of the proposed housing mix, to be agreed by the Local Planning Authority through the approval of that reserved matters application. No development shall commence until the housing mix schedule has been agreed as part of the reserved matters and the development shall be carried out in accordance with the approved details. The detailed schedule shall include the following:

>The plot number,
>The type of dwelling,
>The number of storeys,
>The number of bedrooms and bedspaces,
>The size of the outdoor private amenity space,
>The number and sizes of parking/garage spaces provided

Reason: Whilst this application contains a good degree of detail the layout and elevation drawings are not acceptable in urban design terms and do not form part of the approved plans. It is expected that this schedule is submitted as part of any reserved matters submission.

6.Archaeology
No works shall take place until the implementation of a programme of archaeological work has been secured, in accordance with a Written Scheme of Investigation that has been submitted to and approved, in writing, by the Local Planning Authority.
The scheme shall include an assessment of significance and research questions; and:
a. The programme and methodology of site investigation and recording.
b. The programme for post investigation assessment.
c. Provision to be made for analysis of the site investigation and recording.
d. Provision to be made for publication and dissemination of the analysis and records of the site investigation.
e. Provision to be made for archive deposition of the analysis and records of the site investigation.
f. Nomination of a competent person or persons/organisation to undertake the works.
The site investigation shall thereafter be completed prior to development, or in such other phased arrangement, as agreed, in writing, by the Local Planning Authority. The development shall not be occupied or brought into use until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.
Reason: To safeguard archaeological assets within the approved development boundary from impacts relating to any groundworks associated with the development scheme and to ensure the proper and timely investigation, recording, reporting and presentation of archaeological assets affected by this development, in accordance Adopted Development Policy DP14 (2010, Revised 2014) and the Colchester Borough Adopted Guidance titled Managing Archaeology in Development (2015).

7. ZPA – Construction Method Statement

No works shall take place, including any demolition, until a Construction Method Statement has been submitted to and approved, in writing, by the Local Planning Authority. The approved Statement shall be adhered to throughout the construction period and shall provide details for:

the parking of vehicles of site operatives and visitors;

hours of deliveries and hours of work;

loading and unloading of plant and materials;

storage of plant and materials used in constructing the development;

the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate;

wheel washing facilities;

measures to control the emission of dust and dirt during construction; and

a scheme for recycling/disposing of waste resulting from demolition and construction works.

Reason: In order to ensure that the construction takes place in a suitable manner and to ensure that amenities of existing residents are protected as far as reasonable.

8. ZPD - Limits to Hours of Work

No demolition or construction work shall take outside of the following times;

Weekdays: 08:00-18:00

Saturdays: 08:00-13:00

Sundays and Bank Holidays: No working.

Reason: To ensure that the construction phase of the development hereby permitted is not detrimental to the amenity of the area and/or nearby residents by reason of undue noise at unreasonable hours.

9. **EV Charging points**
Prior to occupation the development must provide EV charging point infrastructure to encourage the use of ultra-low emission vehicles at the rate of 1 charging point per unit (for a dwelling with dedicated off road parking) and/or 1 charging point per 10 spaces (where off road parking is unallocated).
Reason: To encourage the uptake of low emission vehicles in the interests of sustainability and in line with the Council's Climate Emergency.

10. Highways
No occupation of the development shall take place until the following have been provided or completed:

a) A priority junction off Hall Road to provide access to the proposal site as shown in principle on the planning application drawings
b) Improvements to Hall Road between the proposal site access and London Road as shown in principle on the planning application drawings
c) Upgrade to current Essex County Council specification of the two bus stops which would best serve the proposal site (details shall be agreed with the Local Planning Authority prior to commencement of the development)
d) Improvements to Public Footpath Copford 2 between the proposal site and London Road (details shall be agreed with the Local Planning Authority prior to commencement of the development)
e) Residential Travel Information Packs in accordance with Essex County Council guidance

Reason: To protect highway efficiency of movement and safety and to ensure the proposal site is accessible by more sustainable modes of transport such as public transport, cycling and walking.

11. ZGX - Contaminated Land Part 1 of 4 (Site Characterisation)

No works shall take place until an investigation and risk assessment, in addition to any assessment provided with the planning application, has been completed in accordance with a scheme to assess the nature and extent of any contamination on the site, whether or not it originates on the site. The contents of the scheme are subject to the approval, in writing, of the Local Planning Authority. The investigation and risk assessment must be undertaken by competent persons and a written report of the findings must be produced. The written report is subject to the approval in writing of the Local Planning Authority. The report of the findings must include:

(i) a survey of the extent, scale and nature of contamination, including contamination by soil gas and asbestos;

(ii) an assessment of the potential risks to:

- human health,
- property (existing or proposed) including buildings, crops, livestock, pets, woodland and service lines and pipes,
- adjoining land,
- groundwaters and surface waters,
- ecological systems,
- archaeological sites and ancient monuments;

(iii) an appraisal of remedial options, and proposal of the preferred option(s).

This must be conducted in accordance with all relevant, current, best practice guidance, including the Essex Contaminated Land Consortium's 'Land Affected by Contamination: Technical Guidance for Applicants and Developers'.

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors

12. ZGY - Contaminated Land Part 2 of 4 (Submission of Remediation Scheme)

No works shall take place until a detailed remediation scheme to bring the site to a condition suitable for the intended use by removing unacceptable risks to human health, buildings and other property and the natural and historical environment has been prepared and then submitted to and agreed, in writing, by the Local Planning Authority. The scheme must include all works to be undertaken, proposed remediation objectives and remediation criteria, timetable of works and site management procedures. The scheme must ensure that the site will not qualify as contaminated land under Part 2A of the Environmental Protection Act 1990 in relation to the intended use of the land after remediation.

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can

be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors

13. ZGZ - Contaminated Land Part 3 of 4 (Implementation of Approved Remediation Scheme)

No works shall take place other than that required to carry out remediation, the approved remediation scheme must be carried out in accordance with the details approved. The Local Planning Authority must be given two weeks written notification of commencement of the remediation scheme works. Following completion of measures identified in the approved remediation scheme, a verification/validation report that demonstrates the effectiveness of the remediation carried out must be produced, and is subject to the approval in writing of the Local Planning Authority.

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors

14. ZG0 - Contaminated Land Part 4 of 4 (Reporting of Unexpected Contamination)

In the event that contamination is found at any time when carrying out the approved development that was not previously identified it must be reported in writing immediately to the Local Planning Authority. An investigation and risk assessment must be undertaken in accordance with the requirements of condition 11 and where remediation is necessary a remediation scheme must be prepared in accordance with the requirements of condition 12, which is subject to the approval in writing of the Local Planning Authority. Following completion of measures identified in the approved remediation scheme a verification report must be prepared, which is subject to the approval in writing of the Local Planning Authority in accordance with condition 13.

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

15.ZG3 - *Validation Certificate*

Prior to the first OCCUPATION/USE of the development, the developer shall submit to the Local Planning Authority a signed certificate to confirm that the remediation works have been completed in accordance with the documents and plans detailed in Condition 11..

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

16. SUDS

No works shall take place until a detailed surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro geological context of the development, has been submitted to and certified as technically acceptable in writing by the SUDs approval body or other suitably qualified person(s) . The certificate shall thereafter be submitted by the developer to the Local Planning Authority as part of the developer's application to discharge the condition. No development shall commence until the detailed scheme has been approved in writing by the Local Planning Authority**.** The approved scheme shall subsequently be implemented prior to occupation and should include but not be limited to:

- Discharge via infiltration all storm events up to and including the 1 in 100 year rate plus 40% allowance for climate change.

- Demonstrate sufficient structural engineering and geotechnical advice as part of the detailed design process to appropriately design and assess the permeable paving and foundations for discharge via infiltration.

-
- Demonstrate that all storage features can half empty within 24 hours for the 1 in 30 plus 40% climate change critical storm event.

- Final modelling and calculations for all areas of the drainage system.

- The appropriate level of treatment for all runoff leaving the site, in line with the Simple Index Approach in chapter 26 of the CIRIA SuDS Manual C753.

- Detailed engineering drawings of each component of the drainage scheme.

- A final drainage plan which details exceedance and conveyance routes, FFL and ground levels, and location and sizing of any drainage features.

- A written report summarising the final strategy and highlighting any minor changes to the approved strategy.

Reason: To prevent surface water flooding and to mitigate any environmental harm that may be caused to the local water environment. To ensure the effective operation of SuDS features over the lifetime of the development. To provide mitigation of any environmental harm which may be caused to the local water environment. Failure to provide the above required information before commencement of works may result in a system being installed that is not sufficient to deal with surface water occurring during rainfall events and may lead to increased flood risk and pollution hazard from the site.

17.SuDS
No works shall take place until a scheme to minimise the risk of offsite flooding caused by surface water run-off and groundwater during construction works and prevent pollution has been submitted to, and approved in writing by, the local planning authority. The scheme shall subsequently be implemented as approved.
Reason: The National Planning Policy Framework paragraph 163 and paragraph 170 state that local planning authorities should ensure development does not increase flood risk elsewhere and does not contribute to water pollution.
Construction may lead to excess water being discharged from the site. If dewatering takes place to allow for construction to take place below groundwater level, this will cause additional water to be discharged. Furthermore the removal of topsoils during construction may limit the ability of the site to intercept rainfall and may lead to increased runoff rates. To mitigate increased flood risk to the surrounding area during construction there needs to be satisfactory storage of/disposal of surface water and groundwater which needs to be agreed before commencement of the development. Construction may also lead to polluted water being allowed to leave the site. Methods for preventing or mitigating this should be proposed.

18.SuDS
Prior to occupation a maintenance plan detailing the maintenance arrangements including who is responsible for different elements of the surface water drainage system and the maintenance activities/frequencies, has been submitted to and agreed, in writing, by the Local Planning Authority.
Should any part be maintainable by a maintenance company, details of long term funding arrangements should be provided.
Reason: To ensure appropriate maintenance arrangements are put in place to enable the surface water drainage system to function as intended to ensure mitigation against flood risk.
Failure to provide the above required information prior to occupation may result in the installation of a system that is not properly maintained and may increase flood risk or pollution hazard from the site.

19. SuDS
The applicant or any successor in title must maintain yearly logs of maintenance which should be carried out in accordance with any approved Maintenance Plan. These must be available for inspection upon a request by the Local Planning Authority.
Reason: To ensure the SuDS are maintained for the lifetime of the development as outlined in any approved Maintenance Plan so that they continue to function as intended to ensure mitigation against flood risk.

20.Tree and Hedgerow Protection: General
All existing trees and hedgerows shall be retained throughout the development construction phases, unless shown to be removed on the approved drawing (Tree Protection Plan: EAS-034 TPP) and all trees and hedgerows on and immediately adjoining the site shall be protected from damage as a result of works on site in accordance with the Local Planning Authorities guidance notes and the relevant British Standard. All existing trees and hedgerows shall then be

monitored and recorded for at least five years following contractual practical completion of the development. In the event that any trees and/or hedgerows die, are removed, destroyed, fail to thrive or are otherwise defective during such a period, they shall be replaced during the first planting season thereafter to specifications agreed, in writing, with the Local Planning Authority. Any tree works agreed to shall be carried out in accordance with BS 3998.
Reason: To safeguard the continuity of amenity afforded by existing trees and hedgerows.

21. Landscape Management
Prior to the first occupation of the development, a landscape management plan including long term design objectives, management responsibilities and maintenance schedules for all landscape areas other than small, privately owned, domestic gardens shall be submitted to and agreed, in writing, by the Local Planning Authority. The landscape management plan shall thereafter be carried out as approved at all times unless otherwise agreed in writing with the Local Planning Authority.
Reason: To ensure the proper management and maintenance of the approved landscaping in the interests of amenity and the character and appearance of the area.

22. Ecology
No development shall take place except in complete accordance with the submitted ecology report by Ecology Solutions May 2020 ref 8818.EcoAs.vf, including the 'mitigation and enhancement' sections of the species specific paragraphs of chapter 5.
Reason: In the interests of ecology and biodiversity.

23. Z1A – Street Name Signs
Prior to the first occupation of any of the dwellings hereby approved street name signs shall have been installed at the junction of the new highway with the existing road network.
Reason: To ensure that visitors to the development can orientate themselves in the interests of highway safety.

19.0 Informatives

19.1 The following informatives are also recommended:

1. Design Informative
The layout and elevational drawing submitted with this application are not acceptable in design terms. It is strongly suggested that discussions between the applicant and the LPA occur prior to taking a Reserved Matters submission any further. The approval of outline permission including the access point must not be taken as an indication that the indicative layout or house types are acceptable. They are not.

2. Advisory Note on Construction & Demolition
The developer is referred to the attached advisory note *Advisory Notes for the Control of Pollution during Construction & Demolition Works* for the avoidance of pollution during the demolition and construction works. Should the applicant require any further guidance they should contact Environmental Control prior to the commencement of the works.

3.Informative on Conditions Stating Prior to Commencement/Occupation
PLEASE NOTE that this permission contains a condition precedent that requires details to be agreed and/or activity to be undertaken either **before you commence the development or before you occupy the development**. This is of critical importance. If you do not comply with the condition precedent you may invalidate this permission and be investigated by our enforcement team. Please pay particular attention to these requirements. To discharge the conditions and lawfully comply with your conditions you should make an application online via www.colchester.gov.uk/planning or by using the application form entitled 'Application for approval of details reserved by a condition following full permission or listed building consent' (currently form 12 on the planning application forms section of our website). A fee is also payable, with the relevant fees set out on our website.

4..Informative on Any Application With a Site Notice
PLEASE NOTE that a site notice was erected in a publicly visible location at the site. Colchester Borough Council would appreciate your co-operation in taking the site notice down and disposing of it properly, in the interests of the environment.

5.Anglian Water Informative
Anglian Water has assets close to or crossing this site or there are assets subject to an adoption agreement. Therefore the site layout should take this into account and accommodate those assets within either prospectively adoptable highways or public open space. If this is not practicable then the sewers will need to be diverted at the developers cost under Section 185 of the Water Industry Act 1991. or, in the case of apparatus under an adoption agreement, liaise with the owners of the apparatus. It should be noted that the diversion works should normally be completed before development can commence.

1) INFORMATIVE -
Notification of intention to connect to the public sewer under S106 of the Water Industry Act Approval and consent will be required by Anglian Water, under the Water Industry Act 1991. Contact Development Services Team 0345
606 6087. (2) INFORMATIVE - Notification of intention to connect to the public sewer under S106 of the Water Industry Act Approval and consent will be required by Anglian Water, under the Water Industry Act 1991. Contact Development Services Team 0345 606 6087. (3) INFORMATIVE - Protection of existing assets - A public sewer is shown on record plans within the land identified for the proposed development. It appears that development proposals will affect existing public sewers. It is recommended that the applicant contacts Anglian Water Development Services Team for further advice on this matter. Building over existing public sewers will not be permitted (without agreement) from Anglian Water. (4) INFORMATIVE -

Building near to a public sewer - No building will be permitted within the statutory easement width of 3 metres from the pipeline without agreement from Anglian Water. Please contact Development Services Team on 0345 606 6087. (5) INFORMATIVE: The developer should note that the site drainage details submitted have not been approved for the purposes of adoption. If the developer wishes to have the sewers included in a sewer adoption agreement with Anglian Water (under Sections 104 of the Water Industry Act 1991), they should contact our Development Services Team on 0345 606 6087 at the earliest opportunity. Sewers intended for adoption should be designed and constructed in accordance with Sewers for Adoption guide for developers, as supplemented by Anglian Water's requirements.

Fenn Wright LLP
20 Duke Street
Chelmsford
Essex
CM1 1HL
T: 01245 261 226

Our Ref: RPHH/cah
Your Ref:

05 February 2021

Ms Bethany Jones
Planning Policy Officer
Colchester Borough Council
Rowan House
33 Sheepen Road
Colchester
Essex CO3 3WG

By email only
Bethany.jones@colchester.gov.uk

Dear Bethany

EMERGING LOCAL PLAN SECTION 2 ALLOCATONS - VIABILITY UPDATE
LAND WEST OF HALL ROAD, COPFORD – ALLOCATION FOR 50 DWELLINGS

Thank you for your letter of 1 February 2021. I was pleased to note the progress of the Emerging Local Plan Section 2 and can confirm that this allocation is the subject of a recently withdrawn planning application reference 201236 for seeking permission for the construction of 49 residential units. The application was the subject to extensive ground and site surveys and was recommended for approval by Officers to the Planning Committee meeting on 12 January 2021.

Having regard to extensive investigation works undertaken prior to submitting the application we are satisfied that there are no issues concerning viability ownership or infrastructure that would prevent the site coming forward (in accordance with the policies contained in the Emerging Local Plan).

The site has been the subject of intrusive ground and archaeological surveys that have shown the site to be capable of delivery 49 units within two years of the grant of Outline permission having regard to the need to secure Reserved Matters approvals.

I trust this Statement demonstrates the wide range of issues that have been addressed in considering viability of the scheme and we are happy to provide evidence to the Inspector if required of the site's viability and deliverability.

Many thanks.

Yours sincerely

Roger Hayward MRICS
Senior Partner
D. 01245 292 825 I M. 07831 235 050
E. rphh@fennwright.co.uk

Fenn Wright LLP is registered in England under no. OC431458
Registered office: 1 Tollgate East, Colchester, Essex, CO3 8RQ
A list of members is open to inspection at our offices.

fennwright.co.uk

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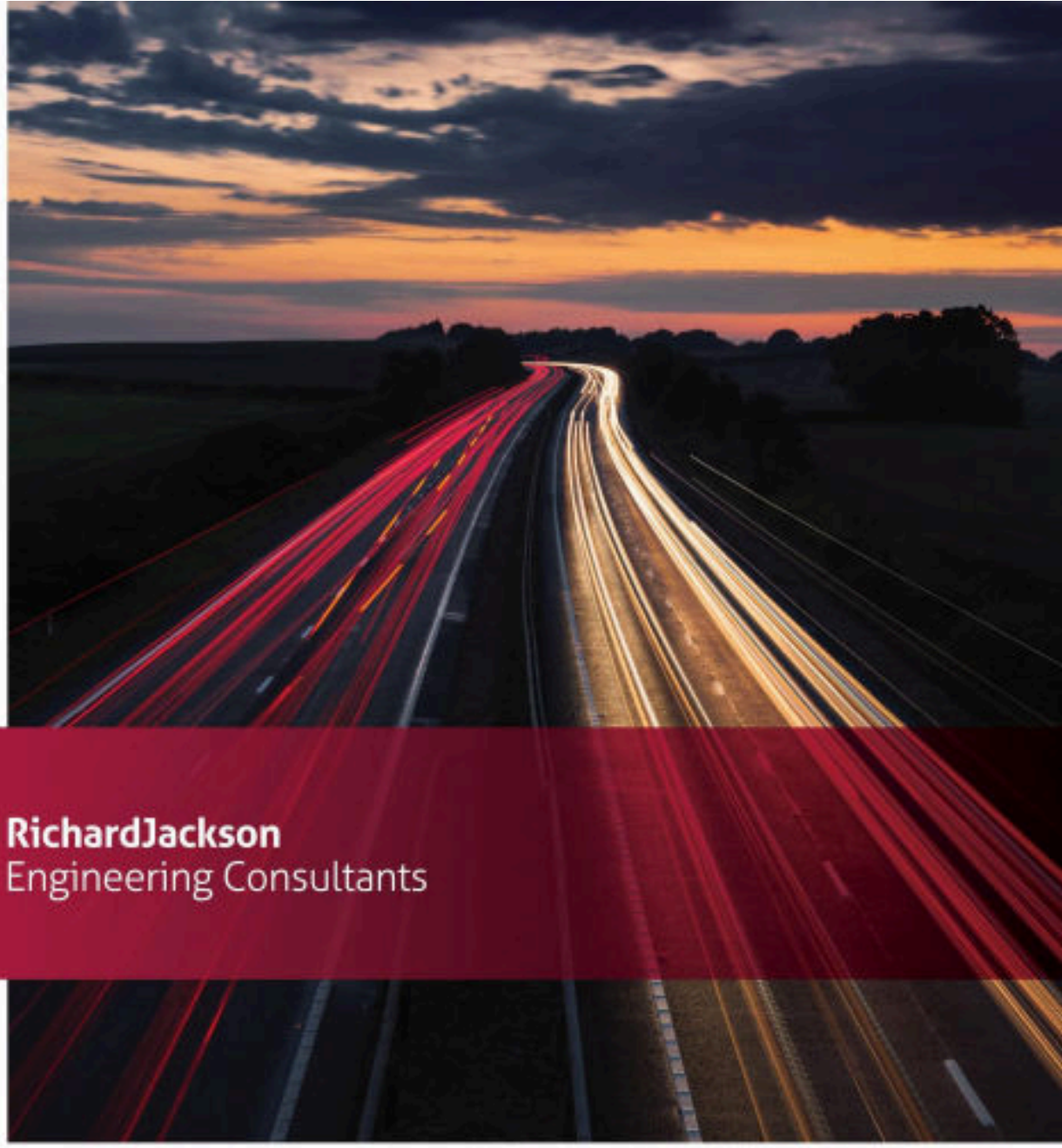

RichardJackson
Engineering Consultants

TRANSPORT STATEMENT

Land off Hall Road, Copford

Ms S Harrison

April 2020

Project no: 49896

RichardJackson
Engineering Consultants

Document Review Sheet: -

Document prepared by: -	*George Hood BA(Hons)* on behalf of Richard Jackson Ltd on behalf of Richard Jackson Ltd
Date: -	27 March 2020
Document checked by: -	*Duncan Palmer BSc (Hons) MCIHT MTPS* on behalf of Richard Jackson Ltd
Date: -	31 March 2020
Document Approved by: -	*Raymond Long BSc(Hons) IEng MCIHT TMICE* on behalf of Richard Jackson Ltd
Date: -	08 April 2020

Document Status

DRAFT	FINAL
☐	☒

Revision Status

Issue	Date	Description	Prepared	Checked	Approved

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RichardJackson Engineering Consultants

Contents:-

Figures & Drawings

Appendices

1. INTRODUCTION

1.1. Richard Jackson Ltd have been commissioned by Ms S Harrison to prepare a Transport Statement (TS) in support of an outline planning application for the construction of up to 49 dwellings at Land off Hall Road, Copford. The location of the site is shown on **Figure 1** with an Ordnance Survey midpoint of 593284, 223938 and a postcode of CO3 8LU.

1.2. The site lies to the south of London Road, with access to be taken from Hall Road on the eastern site boundary. To the north west of the site is the village of Copford. South of the site is arable farmland, with Stanway Village to the east.

1.3. The site is within the Local Authority (LA) area of Colchester Borough Council (CBC) who are also the local planning authority for the development. The local highway authority for the development is Essex County Council (ECC).

1.4. CBC were consulted on the proposed scheme under a pre-application advice enquiry. ECC have also been consulted for pre-application advice with respect to the access strategy which assisted in developing the proposed highway works to Hall Road on **Drawing 49896/PP/001**.

1.5 This TS will cover the following areas:

- **Chapter 2** will review the National and Local land-use/transport policy.
- **Chapter 3** describes the existing conditions including the surrounding highway network, the available facilities for public transport, cyclists and pedestrians, the range of local amenities and local highway safety.
- **Chapter 4** will discuss the proposed development access, trip generation and construction traffic.
- **Chapter 5** will set out the summary and conclusions of this report.

1.6. The copyright of this report is vested in Richard Jackson Ltd. The client or its appointed representative may copy this report in connection with the development described herein. However, it should be noted that this report shall not be copied or distributed in any other form by any other party or used for any other purpose without the written consent of Richard Jackson Ltd.

2. POLICY CONSIDERATION

National Policy

2.1 National Planning Policy reflects and responds to growing concern over environmental issues and a greater public awareness of the problems associated with unrestrained car use. Current policies place a greater emphasis on increasing accessibility by more sustainable modes, such as walking, cycling and public transport.

National Planning Policy Framework (NPPF)

2.2 NPPF provides advice on assessing transport, infrastructure and sustainability for new developments. The NPPF highlights that *"transport issues should be considered from the earliest stages of plan-making and development proposals"* and that *"the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed".*

2.3 The NPPF identifies that priority should be given to pedestrian and cycle movements, followed by public transport. The development should address the needs of those with disabilities or reduced mobility, create places that are safe, secure and attractive minimising scope for conflicts between transport modes, allow for efficient delivery of goods and access by emergency services, and provide for the charging of plug-in and other ultra-low emission vehicles.

2.4 The highways acceptability criteria is identified at paragraph 109 which states that: *"development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or of the residual cumulative impacts on the road network would be severe."*

ECC Development Management Policies (February 2011)

2.5 The Development Management Policies adopted by ECC provide guidance on the main requirements for a development to be assessed against in relation to transport. The following policies are applicable for the development being considered:

- DM1 – General Policy
- DM6 – Estate Roads
- DM7 – Application of Design Standards
- DM9 – Accessibility and Transport Sustainability
- DM10 – Travel Plans
- DM11 – Public Rights of Way
- DM20 – Construction Management

Local Development Framework Core Strategy

2.6 The Colchester Borough Core Strategy (adopted 2008) provides the strategic direction for the Local Development Framework and for the delivery of a development in terms of infrastructure, facilities and services, to 2021. Policies relevant to the transport situation of the site include:

- TA1 – Accessibility and Changing Travel Behaviour
- TA2 – Walking and Cycling
- TA3 – Public Transport
- TA5 – Parking

Emerging Local Plan

2.7 The Emerging Local Plan is set to cover the period to 2033. Copford is identified as a Sustainable Settlement in the spatial strategy. The site is allocated in the ELP Policy SS4, for up to 50 dwellings, from a single access onto Hall Road.

Compliance with Planning Policy

2.8 The NPPF identifies the need for this TS to assess the potential impact of the development proposals and will demonstrate that the impact of the development is not severe. The TS will demonstrate the opportunities for sustainable travel to show the development proposal is sustainable on transport grounds in accordance with the requirements of the local planning policy. In addition to the review of sustainable travel, this TS will also consider potential trip generation, highway safety and consider any mitigation measures that may be required to facilitate the delivery of the development.

3. EXISTING CONDITIONS

Site Location & Existing Access

3.1 Copford is located to the west of Colchester between the settlements of Marks Tey to the west and Stanway to the east. To the south lies Copford Green with the A12 to the north. The site is located to the south of the B1408, London Road and west of Hall Road. The site location is shown in **Figure 1**. Hall Road only serves a small number of existing dwellings, agricultural field access and an Anglian Water sewage treatment plant. The road is a 'no through road'.

3.2 Footway access to the site is presently via the Public Right of Way (PRoW) on the site's western boundary, which connects to London Road. The site is accessed by farm traffic from its south-eastern corner via a field access to Hall Road.

Pedestrian & Cycle Network

3.3 A footway extends along both sides of London Road in the vicinity of the site. Street lighting is present along the full length of London Road. A pedestrian refuge island is located approximately 80m east of Hall Road to assist in crossing of London Road.

3.4 There are a number of PRoW locally which include routes to Stanway and Marks Tey. The aforementioned PRoW along the western boundary of the site is PRoW 128 path number 2, connecting to London Road from Hall Road, through the field south of the site, as shown in **Figure 2**.

3.5 Hall Road was previously classified as a 'Protected Lane' in the current adopted Local Plan, however, the road has since lost its classification as indicated in the emerging Local Plan following a study on County 'Protected Lanes' commissioned by the Local Authority. Although Hall Road currently has no dedicated footway provision, this will be addressed through the proposed highway works outlined in the following chapter that have been consulted on with ECC.

3.6 There are no cycle routes located in close proximity to the site, however Copford is covered by a 30-mph speed limit with wide road widths which is generally considered to be suitable for cycle trips.

Public Transport

3.7 The nearest bus stops are located approximately 150m (east) and 220m (west) from the site access, on London Road. There are presently no footway provisions along Hall Road (which is considered further in **Chapter 4**), however there are along London Road. Additionally, there is a pedestrian refuge island along London Road which assists with accessing the bus stop on the northern side of the road. The key bus services from these stops are summarised in **Table 3.1** with timetable information included in **Appendix A** and the routes shown on **Figure 2**.

Table 3.1 – Local Bus Provisions (non-school services)

Operator	Service	Typical Frequency
First in Essex	**70** – Chelmsford – Great Leighs – Braintree – Coggeshall - Colchester	**Monday – Saturday** Every 30 minutes **Sunday –** Every 2 hours
First in Essex	**70** – Colchester – Coggeshall – Braintree – Great Leighs – Chelmsford	**Monday – Saturday** every 30 minutes **Sunday** – every 2 hours
First in Essex	**71/71A/71C/71X** Chelmsford – Witham – Kelvedon – Marks Tey - Colchester	**Monday – Saturday** Every 30 minutes **Sunday –** Every 2 hours
First in Essex	**71/71A/71C/71X** Colchester – Marks Tey – Kelvedon – Witham – Chelmsford	**Monday – Saturday** Every 30 minutes **Sunday** – Every 2 hours

*71A also stops in Boreham and service 71C also stops in Hatfield Peverel.

3.8 Less frequent bus services (Hedingham 82, 85, 903 and Stephensons 506) also operate from this stop to destinations such as Kelvedon, Easthorpe, Layer Brenton, etc. There are also dedicated school bus services to Stanway Secondary School and Colchester Norman Way Schools, that run along London Road and can be accessed at the nearest bus stops.

3.9 Furthermore, ECC offer a Colchester Borough Card, which offers unlimited bus travel in and around Colchester. Bus operators' part of this scheme include First Essex, Arriva Colchester, Panther Travel, Ipswich Busses, Stephensons of Essex and Hedingham Omnibus. An adult daily ticket costs £7.20 and a weekly adult ticket costing £29.00.

3.10. Community transport links are present in the area. Transport 360 operates in Colchester, providing services for medical appointments and social activities.

3.11. The nearest rail station is at Marks Tey, approximately 2.4km from the site thus easily accessible by bicycle. Each platform has step free access. There are 257 car parking spaces and 60 sheltered cycle storage spaces. The station can be reached via bus service number 70 or via the network of footways. Bus service number 71 can also be used to reach the station, however, it would be necessary to cross the A12 via a foot bridge going to the station, with the journey from the station using the same stop as service number 70. The station operates regular services to London Liverpool Street, Colchester and Ipswich.

Highway Network

3.12. London Road is subject to a 30mph speed limit and connects to the A12 to the west which leads to Chelmsford to the south west. London Road provides further connections to Braintree via the A120 to the west of the site at the junction with the A12. East along London Road provides a route into the

centre of Colchester and a further link to the A12 for travel to the north east and Ipswich.

Existing Local Amenities

3.13. A number of local amenities are available close to the site which are relevant for potential residents. These are summarised in **Table 3.3** below and illustrated on **Figure 2**.

Table 3.3 – Nearest Local Amenities

Amenity	Description	Location	Distance (km) from site
Petrol Filling Station	Shell	London Road	1.4
Primary School	Copford Primary School	School Road	1.9*
Secondary School	The Stanway School	Winstree Road	2.9
Post Office	Stanway Post Office	London Road	0.3
Local Shop	Stanway Post Office	London Road	0.3
Village Hall	Copford Village Hall	School Road	1.5*
Place of Worship	Marks Tey Methodist Church	Point Chase	1.4
Public House	Swan Inn	London Road	0.2
Pharmacy	Marks Tey Pharmacy	London Road	1.7
Rail station	Marks Tey Rail Station	Station Road	2.4
Employment Zone	Roselands Retail Park	London Road	0.7
Supermarket	Sainsburys	London Road	1.7
Doctors Surgery	Tollgate Surgery	London Road	1.7

*A shorter route exists via the PRoW footpath 4.

3.14. The conclusions that can be drawn from the table above are that most of the amenities are available in the local area. Walking offers the greatest potential to replace car journeys of less than 2.0km whilst cycling also has the potential to replace many car trips of less than 5.0km, which may also form part of longer journeys supported by public transport. For travel outside of the immediate area there are bus services available to Colchester Town Centre. Stanway, with further amenities, is also within 5.0km of the Site, which is an easy cycling distance for most people.

Highway Safety

3.15. Five year highway injury records have been rewiewed from ECC data obtained at **https://www.essexworkstraffweb.org.uk/rtc/main.html** for the time period covering 01/01/2015 to 31/12/2019. The accident location plan obtained is shown in **Figure 3**.

3.16. London Road between its roundabout with the Stanway Western Bypass and its roundabout with the A120 has been assessed. Additionally, Hall Road has been assessed. The data shows that in the five-year period there were 3 'slight' accidents and 4 'serious' accidents along London Road. No accidents were reported along Hall Road.

3.17. Three 'serious' accidents occurred between the roundabout with the A120 and the junction with School Road. None of these accidents involved pedestrians, cyclists or children, and did not occur close to pedestrian crossing facilities.

3.18. The closest accident to Hall Road occurred approximately 250m west. This was a 'slight' accident, involving two vehicles and resulted in one casualty.

3.19. The remaining three accidents occurred between the junction with Turkey Cock Lane and Church Lane. The two 'slight' accidents did not involve any pedestrians, cyclists or children and did not occur near any pedestrian crossing facilities. One 'serious' accident occurred in this section which involved four vehicles and one cyclist, resulting in one casualty.

3.20. The available highway injury accident data indicated that there are no recurring accidents in the vicinity of the site that would be disproportionately affected by the proposed development.

Compliance with Planning Policy

3.21. There are opportunities for residents to travel to local amenities/services on foot, bicycle or public transport. The site can be considered to be in a sustainable location in terms of existing alternative transport infrastructure to that of the private car. Opportunities therefore exist to access sustainable transport as required by policies TA1, TA2 and TA3. It is considered that there are no specific issues with local highway safety in the area which could be affected by the development.

4. PROPOSED DEVELOPMENT

4.1. The proposed development is for the construction of up to 49 residential dwellings (planning use C3) and associated parking. A copy of the proposed site layout plan is included in **Appendix B**.

4.2 Improvement works are proposed for the bus stop to the east of Hall Road on the northern side of London Road as it leads into Colchester, as this stop will likely be used more frequently than the southern one. This is confirmed through assessment of 2011 Census data[1] for the Marks Tey and Stanway areas for bus use, that indicates all bus users travel to Colchester. It is recommended that the existing bus shelter is replaced and new bus accessibility kerbs are installed at this bus stop.

4.3. Once the development is completed residents will be provided with travel information packs and bus vouchers, to encourage sustainable travel. This can be conditioned on any planning approval

Access

4.4. Access for pedestrians will also be encouraged via the existing PRoW in the north-western corner of the site and the development layout will enable access to this PRoW along its western boundary. It was set out in the pre-application response from CBC that the PRoW be surfaced from London Road to the southwest corner of the site. This can be undertaken through an appropriate S106 contribution to CBC.

4.5 Access will be provided via a Type E Minor Access Road, from Hall Road. This consists of a 5.5m road width and two 2.0m wide footways.

4.6. Visibility splays of 2.4m x 43m can be achieved onto Hall Road, with vegetation clearance where required. The existing hedge, south of the proposed access will be replanted and set back behind the visibility splay on to Hall Road. The visibility splays and access design are shown in **Drawing 49896/PP/001**. Traffic Surveys were undertaken on Hall Road which identified the maximum 85th percentile road speed was 23mph and existing traffic volumes are very low. The traffic survey data is included in **Appendix C**.

4.7. It is proposed to provide improvements along Hall Road between the proposed access and the London Road junction. This consists of providing a consistent 4.3 carriageway width, which can allow two cars to pass each other as indicated in Manual for Streets Figure 7.1[2].

4.8. In addition, a 1.2m footway area will also be provided, primarily along the eastern side of Hall Road, which can allow two adults to walk together side by side[3]. This footway area would be 25mm higher than the carriageway and

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[1] **https://commute.datashine.org.uk/**
[2] Department for Transport (2007), *Manual for Streets.* London: Thomas Telford Publishing, Chapter 7
[3] Department for Transport (2002), *Inclusive Mobility A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure.* London: Department for Transport.

defined by a kerb line. This would allow the combined footway / carriageway area to be a 'shared surface' arrangement given Hall Road would only serve the proposed dwellings along with the existing uses identified in paragraph 3.1. This will require the provision of minor retaining features such as a paving slab revetment for low level retained heights and a concrete retaining wall of less than 1.5m retained height. This approach has been confirmed to be acceptable to ECC, subject to detailed design. The impacts of trees along Hall Road have been considered as part of a separate arboricultural assessment which have identified all trees to be of low categories of value.

4.9. Improvements are also suggested at the Hall Road / London Road junction to reduce the kerb radii to reduce vehicle speeds entering / exiting Hall Road and to reduce the crossing distance of the junction bell mouth for pedestrians.

4.10. The above drawing for the access strategy and the proposed improvements to Hall Road have been assessed by independent Road Safety Audit consultants. The Stage 1 Road Safety Audit is included in **Appendix D** and did not identify any points that required addressing.

Parking

4.11. The minimum parking standard for C3 dwellings are set out in the 2009 Essex Parking Standards. The standard is for one space for dwellings with one bedroom and two spaces for dwellings with two or more bedrooms. A minimum of 0.25 visitor vehicle parking spaces are required per dwelling. Parking spaces should be a minimum of 5.0m x 2.5m. For garages intended for car parking, the minimum internal dimensions should be 7.0m x 3.0m.

4.12 The minimum cycle parking standard is one secure covered space per dwelling. However, no spaces are required if garages or a secure area is provided with curtilage of the dwelling. For visitor cycle parking a minimum of one space per 8 dwellings is required.

4.13. The proposed level of vehicular parking is shown in **Appendix B**. The final provision for both vehicular and cycle parking spaces is to be agreed with the planning authority as part of reserved matter application(s).

Trip Generation

4.14. The TRICS database has been used to estimate the likely vehicular trip generation from the proposed development. The selection criteria included for houses privately owned, in edge of town locations or a suburban area in England, excluding sites in Greater London. Sites within close proximity of a rail station were also included, due to the site's general vicinity to Marks Tey rail station. Sites with a Travel Plan have been excluded. The TRICS default date range (01/01/11 to 19/09/19) has been used for the site selections. Site reference DH-03-A03 has been excluded from the site selection due to it having two vehicular access points. The TRICS output is shown in **Appendix E**.

4.15. A summary of the AM and PM proposed development trips, as well as the total 12-hour generations is summarised in **Table 4.1**.

Table 4.1 – Typical Weekday Vehicular Trip Generation

Vehicular Trip Rates & Trips	AM Peak		PM Peak		12 Hour	
	Arr	Dep	Arr	Dep	Arr	Dep
Private Dwelling Trip Rate	**0.139**	**0.403**	**0.354**	**0.147**	**2.356**	**2.407**
Total Trips (49 Dwellings)	**7**	**20**	**17**	**7**	**115**	**118**

4.16. As shown in the above table, the trips generated by the proposed development are expected to be minimal. They are therefore not expected to have a material impact on the local highway network.

Construction Traffic

4.17. It is difficult to ascertain construction vehicle movements associated with the development until a contractor is on the project team. It is recommended therefore that on any planning approval given, a Construction Management Plan (CMP) is conditioned to be prepared and agreed with ECC. This will allow input from a Principal Contractor (PC) on vehicle numbers, routing and programming.

4.18. Given the site's location, construction traffic is likely to reach the development via the A12, with some light goods vehicles coming from Colchester, on the A120 then the B1408. Any abnormal loads associated with on-site construction vehicles will be managed with respect to the current ECC Highways abnormal loads policies; however, these are not expected.

4.19. Hall Road improvements should be completed to binder course level prior to starting on site in order to allow access for existing properties and pedestrian movements for future residents. It is recommended that a temporary construction access is provided in the south east corner of the site (existing field access location) to reduce temporary turning movements of construction vehicles / deliveries outside of existing properties.

Compliance with Planning Policy

4.20. The development will be provided in accordance with design guidance and policy as required by the LA. The proposed level of car parking for the completed development should been informed by Essex Parking Standards and to the requirements of policy TA5. The proposed access strategy is in accordance with the Essex Design Guide for a Type E access. Residential travel packs will be provided as in accordance DM10.

5. SUMMARY AND CONCLUSION

5.1. Richard Jackson Ltd have reviewed the transport implications for the construction of up to 49 new residential dwellings at land off Hall Road, Copford. This TS has also reviewed the relevant planning policy for the site with respect to transport and it is considered that the proposals comply with policy with respect to transport matters.

5.2. A number of local amenities lie within walking and/or cycling distances of the site, which can be accessed via a network of existing and proposed footways. Access to further destinations such as Colchester centre, Braintree and Chelmsford can be achieved via the existing local bus services, rail services and community transport.

5.3. Access to the local highway network will be provided via a simple priority junction onto Hall Road. Onward travel will primarily be via the B1408 London Road, with connection to the A12 and A120 to the west and the A12 and Colchester Town centre to the east.

5.4. The review of local highway safety records found no reoccurring issues or location of accidents. The development is considered unlikely to have a disproportionate impact on local highway safety.

5.5. Trip generation for the current proposals has been reviewed. The levels of trips expected is unlikely to have a severe impact on the local highway network.

5.6. Access for pedestrians will still be enabled to the existing PRoW along the western boundary of the site through the design of the layout. Hall Road has been identified as no longer having a 'Protected Lane' status in the emerging Local Plan.

5.7. Highway improvements are suggested along Hall Road to improve vehicular and pedestrian access by creating a 'shared surface' arrangement to keep vehicle speeds low and define a pedestrian route to London Road. A Section 106 agreement contribution can be made towards the surface improvements to the PRoW on the west boundary of the Site to London Road.

5.8. Improvements to the Colchester bound bus stop are recommended (east of Hall Road) to promote the use of bus travel along with Travel Information Packs (including bus vouchers) which can be conditioned on any planning approval.

5.9. The expected construction traffic has also been considered with construction vehicles likely to use the A12 and B1408 to/from the development. A Construction Management Plan has however been identified to help manage traffic movements during the construction period.

5.10. In conclusion, the proposed development would be in accordance with the aims and objectives of Local and National Transport Planning Policy and would not have a severe impact on the local transport network.

6. LIMITATIONS

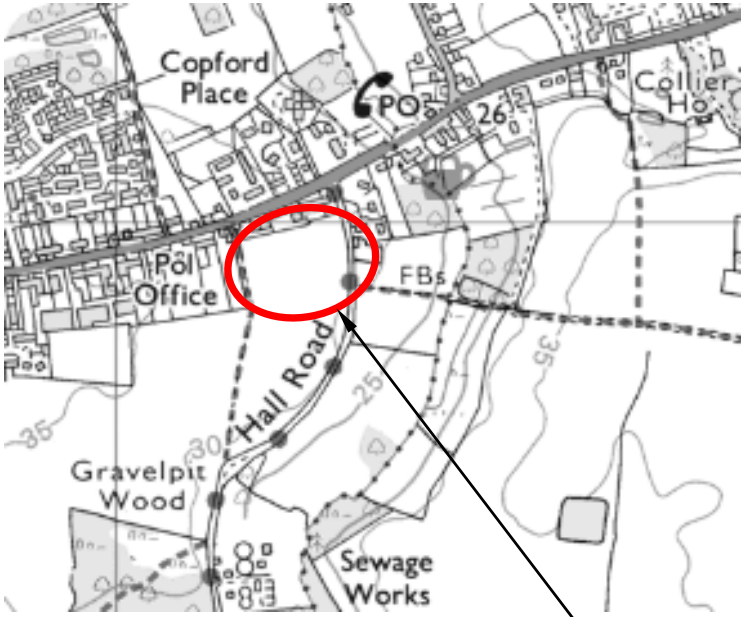
6.1 This report has been prepared for the sole use of Ms S Harrison in conjunction with the development of Land off Hall Road, Copford. Its contents should not be relied upon by others without the written authority of Richard Jackson Ltd. If any unauthorised third party makes use of this report, they do so at their own risk and Richard Jackson Ltd owes them no duty of care or skill.

6.2 All information provided by others is taken in good faith as being accurate, but Richard Jackson Ltd cannot, and does not, accept any liability for the detailed accuracy, errors or omissions in such information.

RichardJackson
Engineering Consultants

FIGURES & DRAWINGS

INDICATIVE SITE LOCATION



INDICATIVE SITE LOCATION

REPRODUCED FROM ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONARY OFFICE, © CROWN COPYRIGHT RICHARD JACKSON LTD – ACC No. 100002572

Site location grid reference 593285, 223930 and postcode CO6 1LG

Client:	Drawing Title:		
Ms S Harrison	**Site Location Plan**		
Job Title:	Date:	Job No:	Dwg No:
Land off Hall Road, Copford	**10.03.2020**	**49896**	**Fig. 1 (NTS)**

RichardJackson Engineering Consultants
4 The Old Church, St Matthews Road, Norwich, NR1 1SP
Tel. 01603 230240
www.richardjackson.uk.com

DO NOT SCALE

N

Roman River

Copford

Copford Green

Contains Ordnance Survey data © Crown copyright and database right 2020

KEY OF AMENITIES:

- INDICATIVE SITE BOUNDARY
- BUS STOPS
- PETROL FILLING STATION
- PRIMARY SCHOOL
- POST OFFICE
- LOCAL SHOP
- PLACE OF WORSHIP
- PUBLIC HOUSE
- VILLAGE HALL
- PHARMACY
- RAIL STATION
- PUBLIC RIGHTS OF WAY
- BUS SERVICE 70 ROUTE
- BUS SERVICE 71/ 71A ROUTE

REV	DATE	DESCRIPTION	DRAWN	CHKD

Project Title
LAND WEST OH HALL ROAD, COPFORD, ESSEX

Client Title
MS S HARRISON

Drawing Title
LOCAL AMENITIES, PROW AND BUS ROUTES

Scale	Drawn	Date
1:10,00@A3	GH	14/02/2020
Job Manager	Checked	Approved
RL	RL	RL

This drawing is to be read in conjunction with all other Engineer's drawings and all other project information. Any discrepancy between the Engineer's drawings and other project information is to be reported to the Engineer immediately.

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847 The Crescent, Colchester, Essex CO4 9YQ Tel: 01206 228800 ☐
Unit 6040, 6th Floor, Aldgate Tower, 2 Leman Street, London E1 8FA Tel: 020 7448 9910 ☐
5 Quern House, Mill Court, Great Shelford, Cambs CB22 5LD Tel: 01223 314794 ☐
4 The Old Church, St. Matthews Road, Norwich, Norfolk NR1 1SP Tel: 01603 230240 ☒
The Wheelhouse, Bonds Mill, Stonehouse, Gloucestershire GL10 3RF Tel: 01172 020070 ☐

Email Address: mail@rj.uk.com Website: http://www.rj.uk.com

Drawing No.
FIGURE 2

Revision

Drawing Status
☒ INFORMATION ☐ APPROVAL ☐ COSTING
☐ TENDER ☐ CONSTRUCTION ☐ AS CONSTRUCTED

A3

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Display Dates

Collisions displayed:

01/01/2015 to 31/12/2019

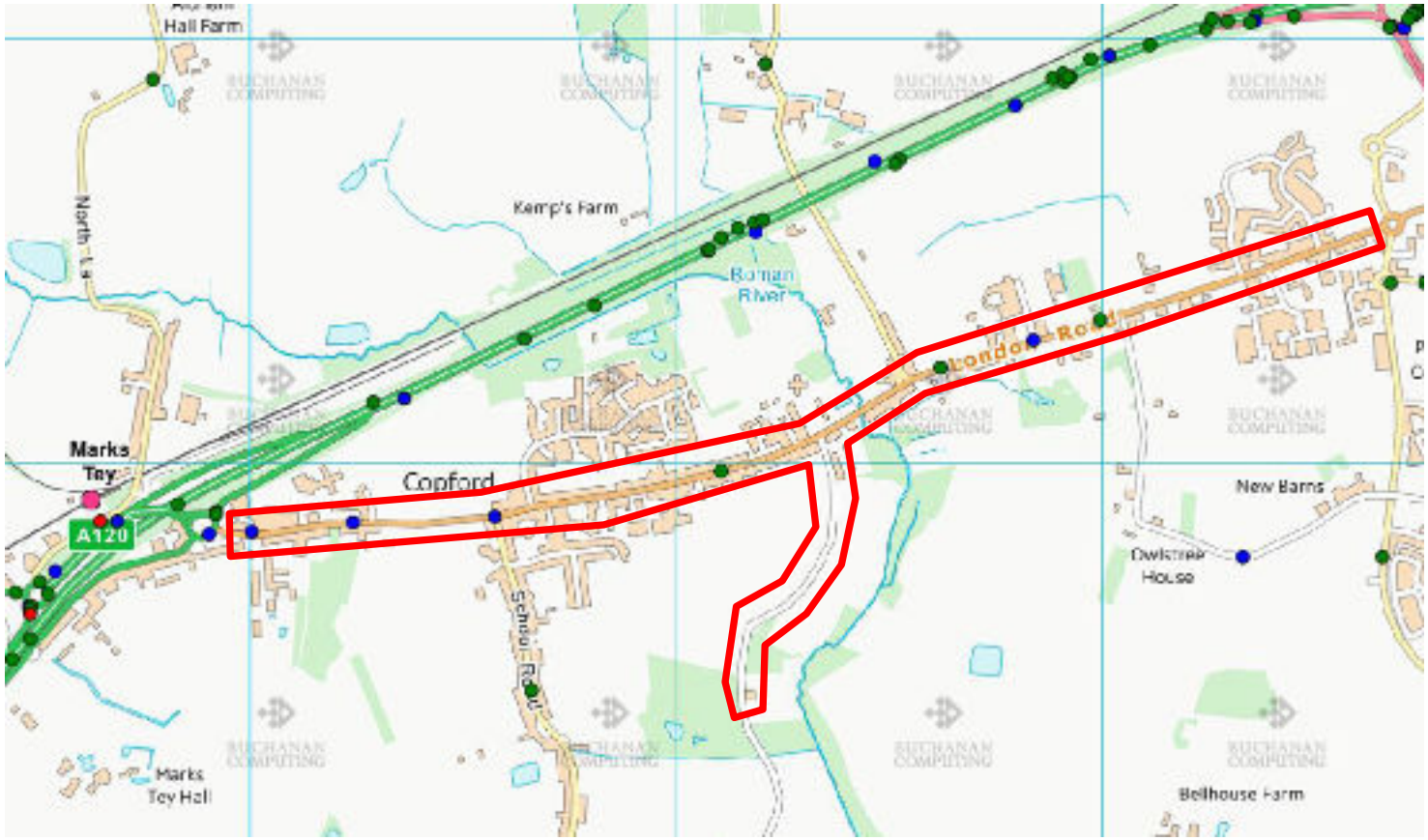
Display

collisions available from: 01/01/2015 to 31/12/2019

Accidents

- Fatal
- Serious
- Slight

Assessed area



Data obtained from https://www.essexworkstraffweb.org.uk/rtc/main.html.

Client:	Drawing Title:		
MS S Harrison	**Accident Location Plan**		
Job Title:	Date:	Job No:	Dwg No:
Land West of Hall Road, Copford, Essex	**18/02/20**	**49896**	**Fig. 3 (NTS)**

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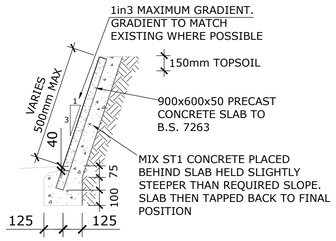
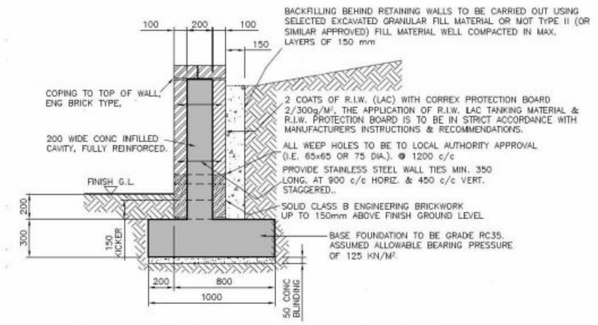
4 The Old Church, St Matthews Road, Norwich, NR1 1SP
Tel. 01603 230240
www.richardjackson.uk.com

DO NOT SCALE



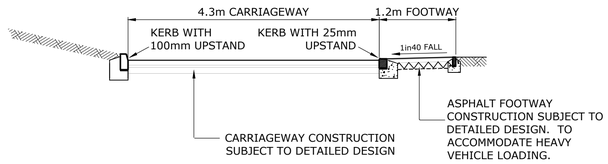
TYPICAL PAVING SLAB REVETMENT

Scale 1:20



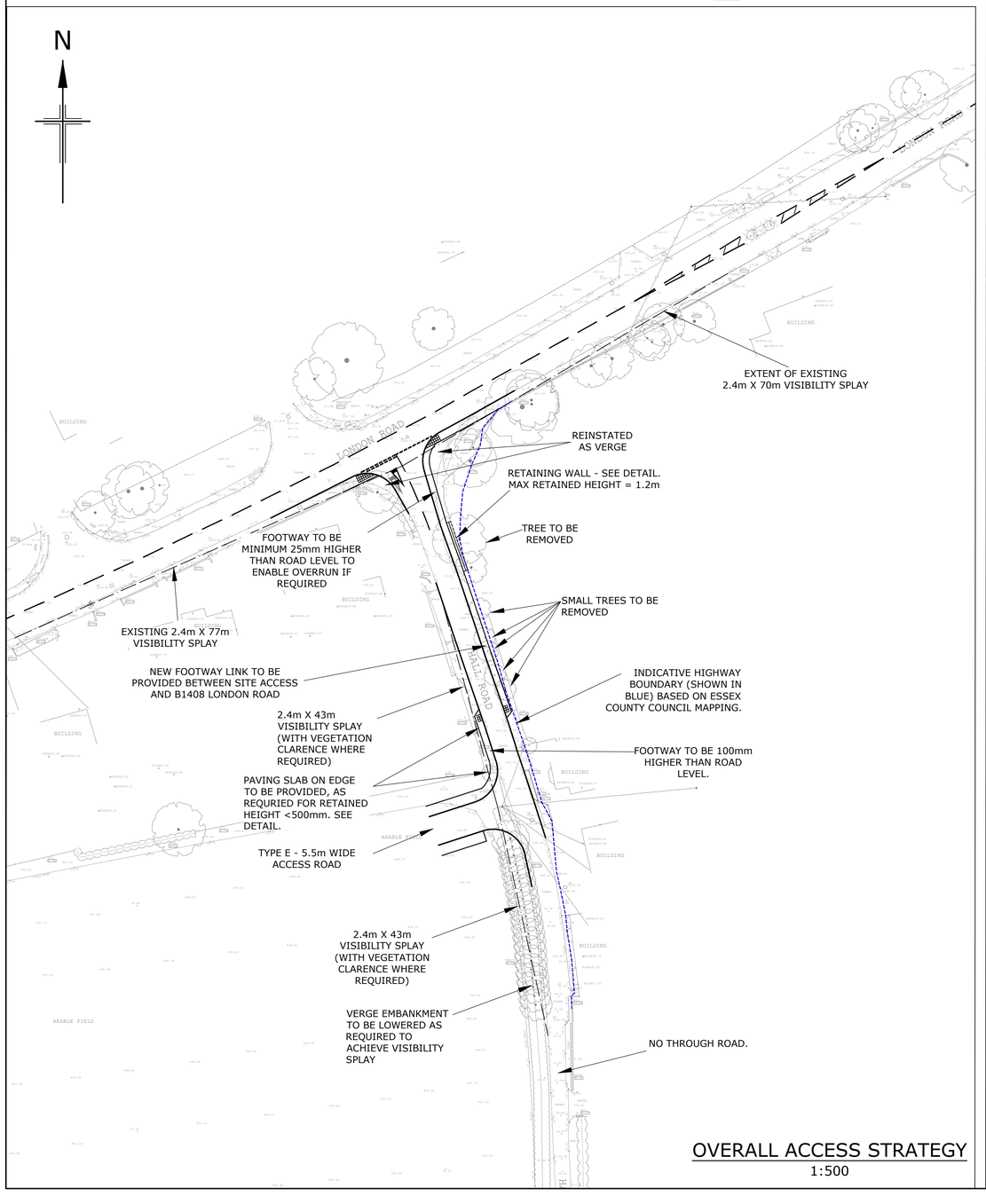
TYPICAL RETAINING WALL DETAIL (<1.5m RETAINED HEIGHT)

N.T.S



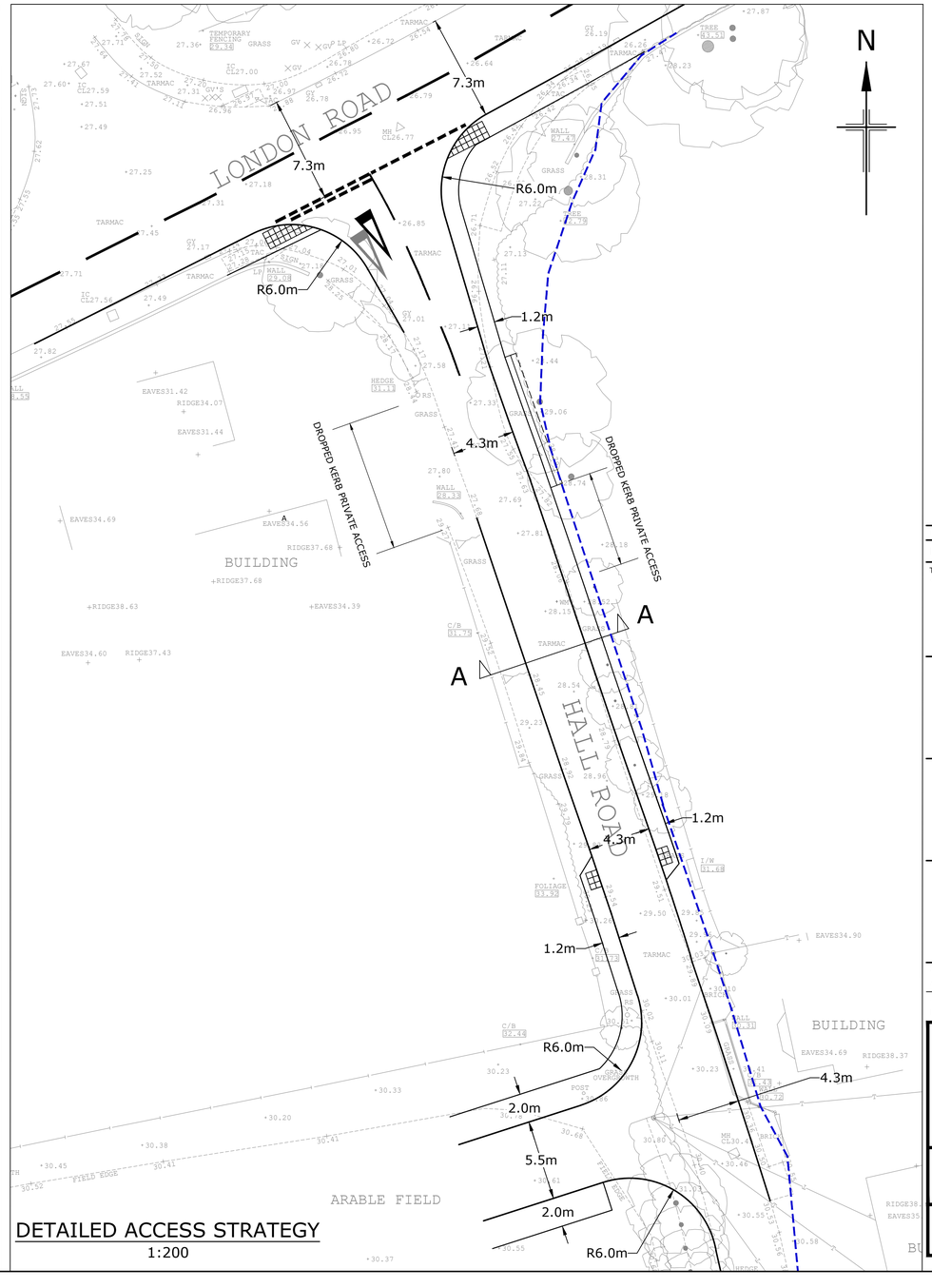
SECTION A-A ROAD CROSS SECTION

SCALE 1:50



OVERALL ACCESS STRATEGY

1:500



DETAILED ACCESS STRATEGY

1:200

NOTES:

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
2. ALL LEVELS ARE IN METRES ABOVE ORDNANCE SURVEY DATUM.
3. ROAD MARKINGS SHOWN INDICATIVELY AND FOR INFORMATION ONLY.
4. BASED ON TOPOGRAPHICAL SURVEY BY SJ GEOMATICS DRAWING SJG2372 DATED 02/05/17.
5. HIGHWAY IMPROVEMENTS ARE SHOWN INDICATIVELY AND ARE SUBJECT TO DETAILED DESIGN. STREET LIGHTING AND DRAINAGE REQUIREMENTS TO BE APPRAISED AT DETAILED DESIGN.
6. VISIBILITY SPLAYS SHOWN ARE IN EXCESS OF THE REQUIREMENTS OF MANUAL FOR STREETS FOR A 30mph SPEED LIMIT.
7. IMPROVEMENTS SHOWN BASED ON HIGHWAY BOUNDARY INFORMATION PROVIDED BY ESSEX COUNTY COUNCIL, REFERENCE 2510327 DATED 05/05/17.
8. RETAINING WALL TO BE DESIGNED BASED ON ON-SITE TESTING AND CONFIRMATION OF LEVELS ALONG EMBANKMENT. DESIGN IS FORE REFERENCE ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION OR COSTING.
9. HALL ROAD MAY REQUIRE FULL RECONSTRUCTION. ESSEX COUNTY COUNCIL TO CONFIRM AS PART OF DETAILED DESIGN STAGE.

REV	DATE	DESCRIPTION	DRAWN	CHKD
B	06.04.20	AMENDED NOTES AND SITE FOOTWAY WIDTHS	RNL	RNL
A	05.03.20	ADDED RETAINING FEATURE AND KERB RADII	RNL	DDP

REVISIONS

This drawing is to be read in conjunction with all other Engineer's drawings and all other project information. Any discrepancy between the Engineer's drawings and other project information is to be reported to the Engineer immediately.

Project
LAND WEST OF HALL ROAD
COPFORD
ESSEX

Title
INDICATIVE HIGHWAY
ACCESS STRATEGY

Client
MS S HARRISON

Scale	Drawn	Date
AS SHOWN @ A1	R LONG	14.02.20
Job Manager	Checked	Approved
R. LONG	D. PALMER	R. LONG

RichardJackson Engineering Consultants
847 The Crescent, Colchester, Essex CO4 9YQ Tel: 01206 228800
Unit 6040, 6th Floor, Aldgate Tower, 2 Leman Street, London E1 8FA Tel: 020 7448 9910
5 Quern House, Mill Court, Great Shelford, Cambs CB22 5LD Tel: 01223 314794
4 The Old Church, St. Matthews Road, Norwich, Norfolk NR1 1SP Tel: 01603 230240
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Email Address: mail@rj.uk.com Website: http://www.rj.uk.com

Drawing No. 49896/PP/001 Revision B

Drawing Status
[X] INFORMATION [ ] APPROVAL [ ] COSTING
[ ] TENDER [ ] CONSTRUCTION [ ] AS CONSTRUCTED

A1

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APPENDICES

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APPENDIX A

Bus timetable

Stanway, opp The Swan Stanway

Next bus times on your phone

the code for this stop is **esxdagwm**

Mobile internet: Use the QR code (left) if you can, or enter the stop code at www.nextbuses.mobi
By SMS: text the stop code to 84268. Add a space and service number for just that service.

Internet enquiries incur normal mobile internet charges. SMS messages cost 25p plus your normal text message charge.
Live Departure information will be given if available (eg 3 mins) - otherwise scheduled times will be shown as clock times (eg 1007).

70 Chelmsford - Gt Leighs - Braintree - Coggeshall - Colchester

First in Essex

here → Stanway, Tollgate Centre (4) → Lexden, Halstead Road Corner (9) → Colchester Town Centre, Head Street (19)
Lexden, Halstead Road Corner (9) → Colchester Town Centre, Osborne Street (18) → Colchester, The Albert (24) → Colchester, Catchpool Road (25) → Colchester, Jump Street (27)

71 Chelmsford - Witham - Kelvedon - Marks Tey - Colchester

First in Essex

here → Stanway, Sainsburys Store (3) → Lexden, Halstead Road Corner (7) → Colchester Town Centre, Osborne Street (17)

71A Chelmsford - Boreham - Witham - Kelvedon - Marks Tey - Colchester

First in Essex

here → Stanway, Sainsburys Store (3) → Lexden, Halstead Road Corner (7) → Colchester Town Centre, Osborne Street (16)

The numbers circled indicate approximate timings in minutes from Stanway, The Swan Stanway

Mondays to Fridays

Bus times as at 14th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0656	71		*0812*	70	NSch	*0911*	71		*1124*	71		*1324*	71		*1523*	71		*1703*	71		*1846*	70	
0705	70		*0818*	70	Sch	*0937*	70		*1137*	70		*1337*	70		*1531*	70	Sch	*1719*	70	NSch	*1906*	71	
0727	71		*0827*	71	Sch	*0945*	71		*1154*	71		*1354*	71		*1536*	70	NSch	*1729*	70	Sch	*1914*	70	
0738	70		*0830*	71	NSch	*1007*	70		*1207*	70		*1407*	70		*1553*	71		*1734*	71		*1942*	71A	
0750	70	Sch	*0832*	70	NSch	*1024*	71		*1224*	71		*1424*	71		*1556*	70		*1752*	70		*2052*	71A	
0754	71	Sch	*0836*	70	Sch	*1037*	70		*1237*	70		*1437*	70		*1616*	70		*1804*	71		*2142*	71A	
0757	71	NSch	*0857*	70	Sch	*1054*	71		*1254*	71		*1454*	71		*1631*	71		*1819*	70		*2252*	71A	
0800	70	NSch	*0907*	70	NSch	*1107*	70		*1307*	70		*1507*	70		*1644*	70		*1840*	71				

Saturdays

Bus times as at 15th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0716	70		*0910*	70		*1055*	71		*1237*	70		*1424*	71		*1610*	70		*1756*	71		*2052*	71A	
0746	70		*0921*	71		*1107*	70		*1254*	71		*1437*	70		*1626*	71		*1810*	70		*2142*	71A	
0749	71		*0940*	70		*1124*	71		*1307*	70		*1454*	71		*1640*	70		*1827*	71		*2252*	71A	
0812	70		*0951*	71		*1137*	70		*1324*	71		*1507*	70		*1656*	71		*1840*	70				
0824	71		*1010*	70		*1154*	71		*1337*	70		*1524*	71		*1710*	70		*1859*	71				
0840	70		*1026*	71		*1207*	70		*1354*	71		*1537*	70		*1726*	71		*1942*	71A				
0854	71		*1037*	70		*1224*	71		*1407*	70		*1556*	71		*1740*	70		*2003*	70				

Sundays

Bus times as at 16th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0957	70	2	*1157*	70	2	*1357*	70	2	*1557*	70	2	*1757*	70	2	*1957*	70	2	*2157*	70	1	*2232*	70	1

Notes: **NSch** - Not Schooldays **Sch** - Schooldays only **1** - terminates at Colchester Town Centre, Head Street **2** - terminates at Colchester, Jump Street
Times shown in italics are approximate times

traveline public transport info
traveline.info/se
0871 200 22 33
Calls cost 12p per minute plus your phone company's access charge
open daily 0700-2200

Essex County Council

To report a problem with this display contact:
0345 603 7631 (not for timetable enquiries)

server vs11151; date 14.02.2020 10:42:53; stop Stanway, The Swan Stanway ; layout small; NAPTANID: 150014005009

Bus timetable

Stanway, opp The Swan Stanway

Next bus times on your phone

the code for this stop is **esxdagwm**

Mobile internet: Use the QR code (left) if you can, or enter the stop code at www.nextbuses.mobi
By SMS: text the stop code to 84268. Add a space and service number for just that service.

Internet enquiries incur normal mobile internet charges. SMS messages cost 25p plus your normal text message charge.
Live Departure information will be given if available (eg 3 mins) - otherwise scheduled times will be shown as clock times (eg 1007).

71C Chelmsford - Hatfield Peverel - Witham - Marks Tey - Colchester — First in Essex

here → Stanway, Sainsburys Store (3) → Lexden, Halstead Road Corner (8) → Colchester Town Centre, Osborne Street (20)

71X Chelmsford - Witham - Marks Tey - Colchester — First in Essex

here → Stanway, Sainsburys Store (3) → Lexden, Halstead Road Corner (7) → Colchester Town Centre, Osborne Street (17)

82 Colne Engaine - Earls Colne - Marks Tey - Stanway - Colchester — Hedingham

here → Stanway, Sainsburys Store (3) → Stanway, Lucy Lane South (5) → Lexden, Halstead Road Corner (7) → Colchester Town Centre, Head Street (17) → Colchester Town Centre, Osborne Street (20)

85 Colchester - Stanway - Copford - Birch - Layer Breton — Hedingham

here → Stanway, Sainsburys Store (7) → Lexden, Halstead Road Corner (11) → Colchester Town Centre, Osborne Street (19)

The numbers circled indicate approximate timings in minutes from Stanway, The Swan Stanway

Mondays to Fridays — Bus times as at 14th February 2020

Time	Service	Note
0558	71X	
0628	71X	
0938	82	
1148	85	We
1351	82	
1504	71X	Sch
1830	82	

Saturdays — Bus times as at 15th February 2020

Time	Service	Note
0647	71X	
0717	71X	
0938	82	
1737	82	

Sundays — Bus times as at 16th February 2020

Time	Service	Note
0945	71C	
1145	71C	
1345	71C	
1545	71C	
1745	71C	
1945	71C	
2145	71C	

Notes: **We** - Operates only on Wednesdays **Sch** - Schooldays only
Times shown in italics are approximate times

traveline public transport info
traveline.info/se
0871 200 22 33
Calls cost 12p per minute plus your phone company's access charge
open daily 0700-2200

Essex County Council

To report a problem with this display contact:
0345 603 7631 (not for timetable enquiries)

server vs11151; date 14.02.2020 10:42:53; stop Stanway, The Swan Stanway ; layout small; NAPTANID: 150014005009

Bus timetable

Stanway, opp The Swan Stanway

Next bus times on your phone

the code for this stop is **esxdagwm**

Mobile internet: Use the QR code (left) if you can, or enter the stop code at www.nextbuses.mobi
By SMS: text the stop code to 84268. Add a space and service number for just that service.
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Live Departure information will be given if available (eg 3 mins) - otherwise scheduled times will be shown as clock times (eg 1007).

506 Heybridge - Gt Totham - Inworth - Marks Tey - Colchester — Stephensons of Essex

here — Colchester, Norman Way Schools (14) — Colchester, Park Road (16) — Colchester, Beverley Road (19)

903 The Stanway School - Marks Tey - Easthorpe - Tiptree - Kelvedon — Hedingham

here — Birch, Hardys Green (5) — Layer Breton, Hare and Hounds (12) — Great Wigborough, Church Lane (14) — Tiptree, The Centre (29) — Inworth, The Prince of Wales (34) — Feering, Gore Pit Corner (37) — Kelvedon, The Railway Tavern (40)

903 Kelvedon - Tiptree - Easthorpe - Marks Tey - The Stanway School — Hedingham

here — Stanway, Secondary School (6)

The numbers circled indicate approximate timings in minutes from Stanway, The Swan Stanway

Mondays to Fridays

Bus times as at 14th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note
0806	506	Sch	*0819*	903	S,Sch	*1551*	903	K,Sch

Saturdays

No Service

Sundays

No Service

Notes: **Sch** - Schooldays only **K** - towards Kelvedon **S** - towards Stanway
Times shown in italics are approximate times

traveline public transport info
traveline.info/se
0871 200 22 33
Calls cost 12p per minute plus your phone company's access charge
open daily 0700-2200

Essex County Council

To report a problem with this display contact:
0345 603 7631 (not for timetable enquiries)

server vs11151; date 14.02.2020 10:42:53; stop Stanway, The Swan Stanway ; layout small; NAPTANID: 150014005009

Bus timetable

Stanway, o/s The Swan Stanway

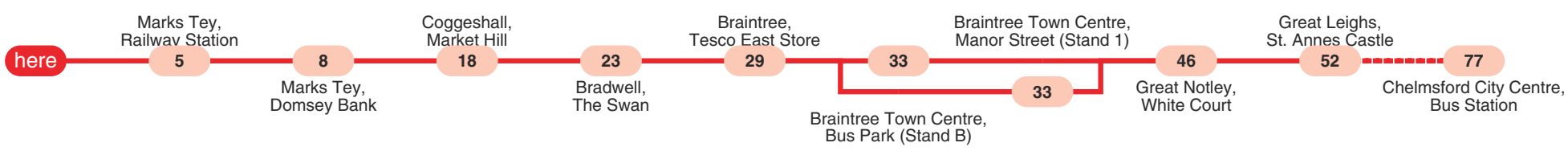
Next bus times on your phone

the code for this stop is **esxdagwp**

Mobile internet: Use the QR code (left) if you can, or enter the stop code at www.nextbuses.mobi
By SMS: text the stop code to 84268. Add a space and service number for just that service.

Internet enquiries incur normal mobile internet charges. SMS messages cost 25p plus your normal text message charge.
Live Departure information will be given if available (eg 3 mins) - otherwise scheduled times will be shown as clock times (eg 1007).

70 Colchester - Coggeshall - Braintree - Gt Leighs - Chelmsford — First in Essex



The numbers circled indicate approximate timings in minutes from Stanway, The Swan Stanway

Mondays to Fridays

Bus times as at 14th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0618	70	Sch	*0724*	70	Sch	*0904*	70		*1059*	70		*1259*	70		*1504*	70		*1632*	70		*1829*	70	
0618	70	1,Sch	*0724*	70	1,Sch	*0904*	70	1	*1059*	70	1	*1259*	70	1	*1504*	70	1	*1632*	70	1	*1829*	70	1
0632	70	NSch	*0729*	70	NSch	*0929*	70		*1129*	70		*1329*	70		*1534*	70		*1652*	70		*1959*	70	
0632	70	1,NSch	*0729*	70	1,NSch	*0929*	70	1	*1129*	70	1	*1329*	70	1	*1534*	70	1	*1652*	70	1	*1959*	70	1
0653	70	Sch	*0759*	70		*0959*	70		*1159*	70		*1359*	70		*1604*	70	NSch	*1712*	70				
0653	70	1,Sch	*0759*	70	1	*0959*	70	1	*1159*	70	1	*1359*	70	1	*1604*	70	Sch	*1712*	70	1			
0707	70	NSch	*0834*	70		*1029*	70		*1229*	70		*1429*	70		*1604*	70	1,NSch	*1742*	70				
0707	70	1,NSch	*0834*	70	1	*1029*	70	1	*1229*	70	1	*1429*	70	1	*1604*	70	1,Sch	*1742*	70	1			

Saturdays

Bus times as at 15th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0616	70		*0759*	70	1	*0959*	70		*1129*	70	1	*1329*	70		*1459*	70	1	*1659*	70		*1930*	70	1
0616	70	1	*0829*	70		*0959*	70	1	*1159*	70		*1329*	70	1	*1529*	70		*1659*	70	1			
0701	70		*0829*	70	1	*1029*	70		*1159*	70	1	*1359*	70		*1529*	70	1	*1729*	70				
0701	70	1	*0859*	70		*1029*	70	1	*1229*	70		*1359*	70	1	*1559*	70		*1729*	70	1			
0731	70		*0859*	70	1	*1059*	70		*1229*	70	1	*1429*	70		*1559*	70	1	*1827*	70				
0731	70	1	*0929*	70		*1059*	70	1	*1259*	70		*1429*	70	1	*1629*	70		*1827*	70	1			
0759	70		*0929*	70	1	*1129*	70		*1259*	70	1	*1459*	70		*1629*	70	1	*1930*	70				

Sundays

Bus times as at 16th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0717	70		*0917*	70		*1117*	70		*1317*	70		*1517*	70		*1717*	70		*1917*	70		*2117*	70	3
0717	70	1	*0917*	70	1	*1117*	70	1	*1317*	70	1	*1517*	70	1	*1717*	70	1	*1917*	70	1	*2117*	70	2

Notes: **NSch** - Not Schooldays **1** - serves Braintree Town Centre, Manor Street (Stand 1) **3** - terminates at Braintree Town Centre, Manor Street (Stand 1)
Sch - Schooldays only **2** - terminates at Braintree Town Centre, Bus Park (Stand B)

Times shown in italics are approximate times

traveline public transport info
traveline.info/se
0871 200 22 33
Calls cost 12p per minute plus your phone company's access charge
open daily 0700-2200

Essex County Council

To report a problem with this display contact:
0345 603 7631 (not for timetable enquiries)

server vs11151; date 14.02.2020 10:42:29; stop Stanway, The Swan Stanway ; layout small; NAPTANID: 150014005010

Bus timetable

Stanway, o/s The Swan Stanway

Next bus times on your phone

the code for this stop is **esxdagwp**

Mobile internet: Use the QR code (left) if you can, or enter the stop code at www.nextbuses.mobi
By SMS: text the stop code to 84268. Add a space and service number for just that service.
Internet enquiries incur normal mobile internet charges. SMS messages cost 25p plus your normal text message charge.
Live Departure information will be given if available (eg 3 mins) - otherwise scheduled times will be shown as clock times (eg 1007).

71 Colchester - Marks Tey - Kelvedon - Witham - Chelmsford

First in Essex

here → Marks Tey, Post Office (3) → Kelvedon, Post Office (13) → Witham, Freebournes Road (21) → Witham Town Centre, Newland Street (24) → Hatfield Peverel, Station Road (31) → Boreham, Elm Way (37) → Springfield, Sainsburys (41) → Chelmer Village, Shopping Centre (46) → Chelmsford City Centre, Bus Station (56)

71A Colchester - Marks Tey - Kelvedon - Witham - Boreham - Chelmsford

First in Essex

here → Marks Tey, Post Office (4) → Kelvedon, Post Office (14) → Kelvedon, London Road (14) → Witham Town Centre, Newland Street (22) → Hatfield Peverel, Station Road (31) → Boreham, St Andrew Church (37) → Springfield, Sainsburys (42) → Chelmer Village, Shopping Centre (45) → Chelmsford City Centre, Bus Station (54)

71C Colchester - Marks Tey - Witham - Hatfield Peverel - Chelmsford

First in Essex

here → Marks Tey, Post Office (3) → Kelvedon, Post Office (14) → Witham Town Centre, Newland Street (24) → Hatfield Peverel, Station Road (31) → Boreham, Waltham Road (35) → Boreham, St Andrew Church (37) → Springfield, Sainsburys (42) → Springfield, The Plough (45) → Chelmsford City Centre, Bus Station (55)

The numbers circled indicate approximate timings in minutes from Stanway, The Swan Stanway

Mondays to Fridays

Bus times as at 14th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0610	71		*0817*	71		*1042*	71		*1242*	71		*1442*	71		*1623*	71	Sch	*1821*	71		*2130*	71A	
0637	71		*0856*	71		*1112*	71		*1312*	71		*1512*	71		*1644*	71		*1851*	71		*2220*	71A	1
0708	71		*0942*	71		*1142*	71		*1342*	71		*1542*	71		*1719*	71		*1921*	71		*2330*	71A	
0741	71		*1012*	71		*1212*	71		*1412*	71		*1612*	71	NSch	*1753*	71		*2020*	71A	1			

Saturdays

Bus times as at 15th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0700	71		*0942*	71		*1142*	71		*1342*	71		*1542*	71		*1741*	71		*2020*	71A	1
0801	71		*1012*	71		*1212*	71		*1412*	71		*1612*	71		*1811*	71		*2130*	71A	
0832	71		*1042*	71		*1242*	71		*1442*	71		*1642*	71		*1841*	71		*2220*	71A	1
0907	71		*1112*	71		*1312*	71		*1512*	71		*1712*	71		*1916*	71		*2330*	71A	

Sundays

Bus times as at 16th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0828	71C		*1028*	71C		*1228*	71C		*1428*	71C		*1628*	71C		*1828*	71C		*2028*	71C		*2228*	71C	

Notes: **NSch** - Not Schooldays **Sch** - Schooldays only **1** - terminates at Kelvedon, London Road
Times shown in italics are approximate times

traveline public transport info
traveline.info/se
0871 200 22 33
Calls cost 12p per minute plus your phone company's access charge
open daily 0700-2200

Essex County Council

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server vs11151; date 14.02.2020 10:42:29; stop Stanway, The Swan Stanway ; layout small; NAPTANID: 150014005010

Bus timetable

Stanway, o/s The Swan Stanway

Next bus times on your phone

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By SMS: text the stop code to 84268. Add a space and service number for just that service.

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Live Departure information will be given if available (eg 3 mins) - otherwise scheduled times will be shown as clock times (eg 1007).

71X Colchester - Marks Tey - Witham - Chelmsford

First in Essex

here → Marks Tey, Post Office (4) → Witham Town Centre, Newland Street (20) → Springfield, Sainsburys (35) → Chelmer Village, Shopping Centre (42) → Chelmsford City Centre, Retail Market (53)

82 Colchester - Stanway - Marks Tey - Earls Colne - Colne Engaine

Hedingham

here → Marks Tey, Railway Station (3) → Great Tey, Church (11) → Wakes Colne, The Street (19) → Earls Colne, The Lion (25) → Colne Engaine, The Green (34)

85 Layer Breton - Birch - Copford - Stanway - Colchester

Hedingham

here → Copford, Copford Lane (2) → Copford, Copford Green (7) → Birch, Hardys Green (11) → Birch, Mill Lane (17) → Layer Breton, Lower Road (19)

The numbers circled indicate approximate timings in minutes from Stanway, The Swan Stanway

Mondays to Fridays

Bus times as at 14th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0917	71X	Sch	*0957*	71X		*1236*	82		*1521*	85	We	*1633*	82	

Saturdays

Bus times as at 15th February 2020

Time	Service	Note
1633	82	

Sundays

No Service

Notes: **We** - Operates only on Wednesdays **Sch** - Schooldays only
Times shown in italics are approximate times

traveline public transport info
traveline.info/se
0871 200 22 33
Calls cost 12p per minute plus your phone company's access charge
open daily 0700-2200

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server vs11151; date 14.02.2020 10:42:29; stop Stanway, The Swan Stanway ; layout small; NAPTANID: 150014005010

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Live Departure information will be given if available (eg 3 mins) - otherwise scheduled times will be shown as clock times (eg 1007).

506 Colchester - Marks Tey - Inworth - Gt Totham - Heybridge

Stephensons of Essex

here
- 2 Copford, Copford Lane
- 3 Marks Tey, Motel
- 15 Inworth, The Prince of Wales
- 19 Tiptree, Windmill Green
- 26 Great Totham, The Compasses
- 31 Wickham Bishops, Snows Corner
- 35 Great Totham, Memorial
- 38 Heybridge, Scylla Close
- 41 Heybridge, Oak Road
- 43 Heybridge, Church

903 The Stanway School - Marks Tey - Easthorpe - Tiptree - Kelvedon

Hedingham

here
- 10 Marks Tey, Ashbury Drive
- 15 Copford, Copford Green
- 23 Easthorpe, Well Lane
- 31 Birch, Hardys Green
- 38 Layer Breton, Hare and Hounds
- 40 Great Wigborough, Church Lane
- 55 Tiptree, The Centre
- 60 Inworth, The Prince of Wales
- 63 Feering, Gore Pit Corner
- 66 Kelvedon, The Railway Tavern

903 Kelvedon - Tiptree - Easthorpe - Marks Tey - The Stanway School

Hedingham

here
- 8 Easthorpe, Well Lane
- 16 Copford, Copford Green
- 21 Marks Tey, Ashbury Drive
- 36 Stanway, Secondary School

The numbers circled indicate approximate timings in minutes from Stanway, The Swan Stanway

Mondays to Fridays

Bus times as at 14th February 2020

Time	Service	Note	Time	Service	Note	Time	Service	Note
0749	903	S,Sch	*1525*	903	K,Sch	*1603*	506	Sch

Saturdays

No Service

Sundays

No Service

Notes: **Sch** - Schooldays only **K** - towards Kelvedon **S** - towards Stanway
Times shown in italics are approximate times

traveline
public transport info
traveline.info/se
0871 200 22 33
Calls cost 12p per minute plus your phone company's access charge
open daily 0700-2200

Essex County Council

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0345 603 7631 (not for timetable enquiries)

server vs11151; date 14.02.2020 10:42:29; stop Stanway, The Swan Stanway ; layout small; NAPTANID: 150014005010

RichardJackson
Engineering Consultants

APPENDIX B

Contractors are to check all levels and dimensions before work is put in hand, and any discrepancies are to be referred to the architects

REV	DATE	DESCRIPTION	DWN	CHKD

Land at Hall Road, Copford

Accommodation Schedule

	Housetype	No. of Bedrooms	Storey	Sqft	No. of Units	Total Sqft	% Housetype used on Site
PRIVATE UNITS	Type 1	2	2	950	2	1900	4.88
	Type 2	3	2	1180	10	11800	20.41
	Type 3	3	2	1115	10	11150	20.41
	Type 4	4	2	1764	4	7056	8.16
	Type 5	4	2	1400	3	4200	6.12
	Type 6	4	2	1634	5	7670	10.20
SUBTOTAL					34	41886	69.39
AFFORDABLE	Type 1 (M4(2))	2	2	950	9	8550	10.37
	Type 2 - M4(2)	3	2	1180	5	5580	10.29
	Type 2 - M4(3)	3	2	1180	1	1180	2.04
SUBTOTAL					15	15950	30.61
GRAND TOTAL					49	30256	100.00

Planning

LAP

Architects + Interior Designers Limited

123 NEW LONDON ROAD, CHELMSFORD, ESSEX. CM2 0QT

TEL: +44 (0) 1245 269755 FAX: +44 (0) 1245 250310

E-MAIL: admin@lap-architects.co.uk

www.lap-architects.com

project

Land at Hall Road,
Copford,
Essex

client

Ms S Harrison

drawing title

Site Layout Plan

drawing number	revision
8871 - 03	-
	checked
scale 1:500 @ A2	drawn ARH
	date Aug 2019

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0 10 20 30 40 50

Scale in metres

LAND AT HALL ROAD, COPFORD, COLCHESTER, ESSEX

RichardJackson
Engineering Consultants

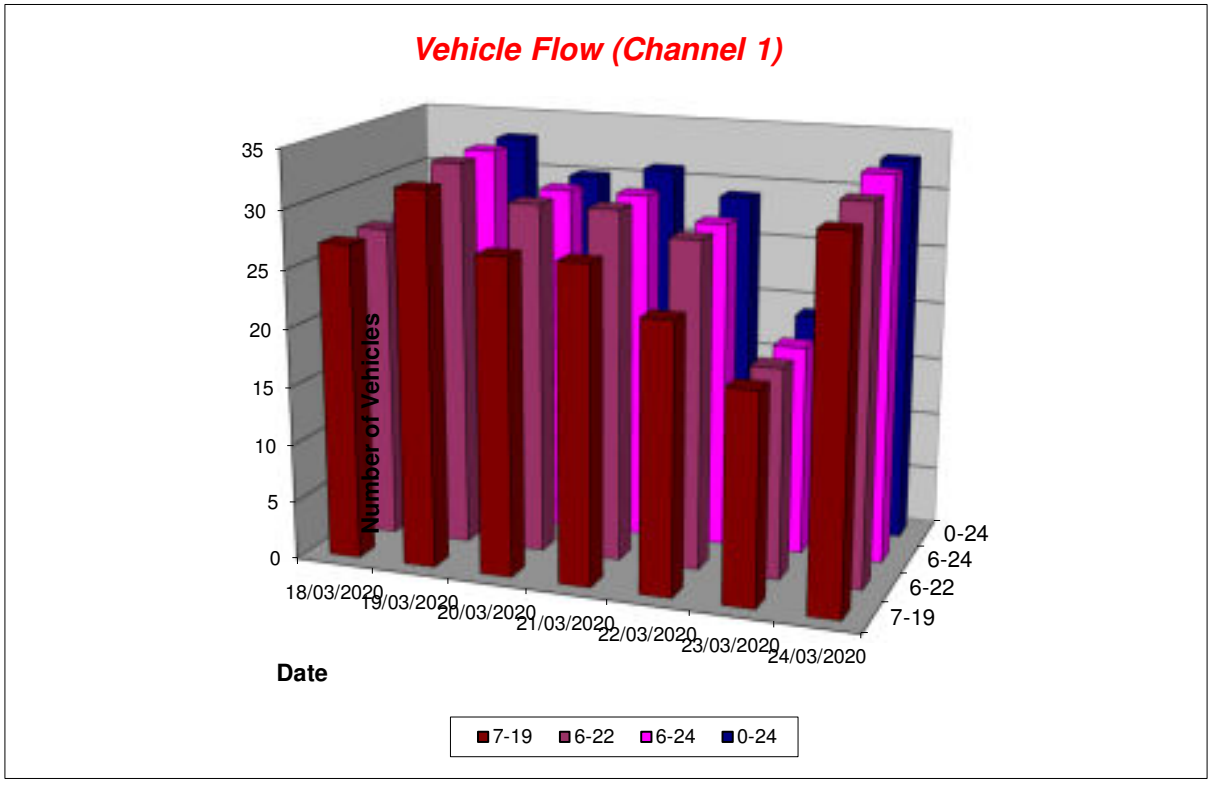
APPENDIX C

Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 1 - Northbound | **Vehicle Flow** | **Week 1**

Hr Ending	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday	5 Day Ave	7 Day Ave
1	0	0	0	0	0	1	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	1	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	1	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	5	2	2	2	0	3	1	3	2
9	3	5	3	0	0	2	6	4	3
10	1	1	3	1	2	0	3	2	2
11	4	4	4	2	1	3	2	3	3
12	3	7	1	3	2	1	3	3	3
13	2	1	5	2	2	2	3	3	2
14	3	3	2	4	8	0	2	2	3
15	1	3	2	3	2	4	5	3	3
16	3	3	1	3	2	1	4	2	2
17	1	1	2	2	1	1	1	1	1
18	1	1	2	4	3	1	1	1	2
19	0	1	0	1	0	0	0	0	0
20	0	1	1	1	1	0	0	0	1
21	0	0	1	2	2	0	0	0	1
22	0	0	1	0	2	0	1	0	1
23	0	0	0	0	0	0	1	0	0
24	0	0	0	0	0	0	0	0	0
7-19	27	32	27	27	23	18	31	27	26
6-22	27	33	30	30	28	18	32	28	28
6-24	27	33	30	30	28	18	33	28	28
0-24	27	33	30	31	29	19	33	28	29



Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 1 - Northbound **Average Speed** **Week 1**

Hr Ending	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday
1	-	-	-	-	-	21.2	-
2	-	-	-	-	-	-	-
3	-	-	-	-	15.5	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	17.4	-	-	-
7	-	-	-	-	-	-	-
8	12.2	17.3	17.9	18.7	-	16.9	20.4
9	12.1	20.4	19.9	-	-	11.4	17.6
10	11.8	17.8	21.0	17.8	12.5	-	18.6
11	13.9	13.9	14.4	19.6	14.4	17.9	25.3
12	17.3	16.4	19.0	12.8	15.6	12.1	16.4
13	19.3	20.1	16.9	20.4	6.1	20.5	15.4
14	18.7	14.0	18.3	16.2	14.0	-	11.8
15	15.1	17.9	13.1	21.8	18.6	19.9	18.4
16	15.7	20.9	20.8	19.0	15.8	17.5	13.7
17	26.1	8.2	18.7	14.1	21.3	19.8	27.7
18	18.4	14.3	14.3	13.9	17.5	20.6	18.5
19	-	8.8	-	9.3	-	-	-
20	-	15.9	28.9	26.2	17.7	-	-
21	-	-	27.2	26.4	21.8	-	-
22	-	-	20.8	-	25.1	-	20.8
23	-	-	-	-	-	-	19.0
24	-	-	-	-	-	-	-
10-12	15.4	15.5	15.3	15.5	15.2	16.4	19.9
14-16	15.6	19.4	15.7	20.4	17.2	19.4	16.3
0-24	15.5	16.7	18.2	17.7	16.0	17.8	17.7

Average	17.1

Channel 1 - Northbound **85th Percentile**

Hr Ending	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	16.6	19.7	19.3	20.8	-	17.7	-
9	14.8	24.4	22.3	-	-	14.1	20.2
10	-	-	23.7	-	12.7	-	22.4
11	18.3	19.5	17.5	24.2	-	19.6	26.8
12	18.4	20.9	-	17.1	16.9	-	18.6
13	22.0	-	19.0	22.1	6.2	21.3	18.6
14	22.3	18.7	18.3	21.2	20.0	-	12.1
15	-	19.2	18.3	27.9	18.9	25.7	21.2
16	17.0	27.4	-	20.6	16.0	-	15.0
17	-	-	22.7	20.5	-	-	-
18	-	-	15.9	20.6	20.0	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	30.0	22.2	-	-
22	-	-	-	-	26.7	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-
10-12	19.1	20.7	19.4	21.9	16.5	19.3	24.8
14-16	16.7	23.8	20.7	23.6	18.6	24.4	19.1
0-24	19.5	20.9	22.2	23.9	21.3	21.1	21.7

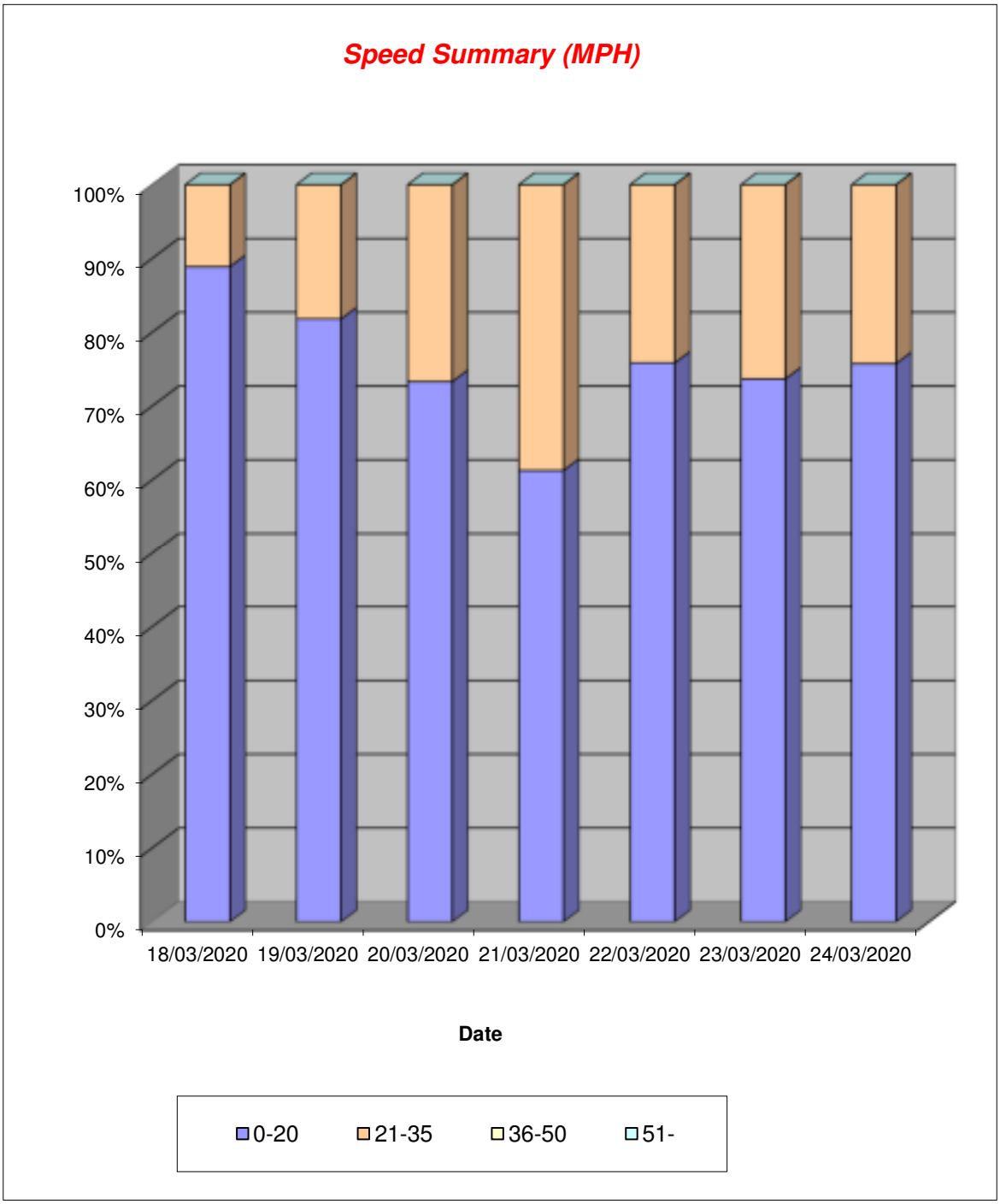
85th %ile	21.7

Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 1 - Northbound | **Speed Summary** | **Week 1**

Speed (MPH)	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday
0-20	24	27	22	19	22	14	25
21-35	3	6	8	12	7	5	8
36-50	0	0	0	0	0	0	0
51-	0	0	0	0	0	0	0
TOTAL	**27**	**33**	**30**	**31**	**29**	**19**	**33**



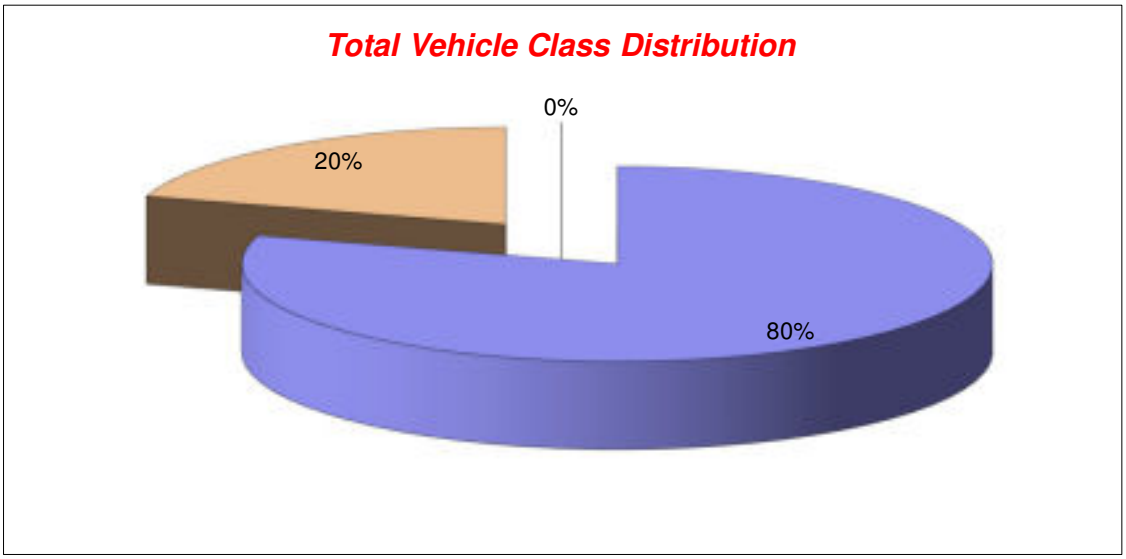
Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 1 - Northbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
18/03/2020				
7-19	19	8	0	27
6-22	19	8	0	27
6-24	19	8	0	27
0-24	19	8	0	27
19/03/2020				
7-19	26	6	0	32
6-22	26	7	0	33
6-24	26	7	0	33
0-24	26	7	0	33
20/03/2020				
7-19	22	5	0	27
6-22	25	5	0	30
6-24	25	5	0	30
0-24	25	5	0	30
21/03/2020				
7-19	23	4	0	27
6-22	26	4	0	30
6-24	26	4	0	30
0-24	27	4	0	31
22/03/2020				
7-19	21	2	0	23
6-22	24	4	0	28
6-24	24	4	0	28
0-24	25	4	0	29
23/03/2020				
7-19	13	5	0	18
6-22	13	5	0	18
6-24	13	5	0	18
0-24	14	5	0	19
24/03/2020				
7-19	24	7	0	31
6-22	25	7	0	32
6-24	25	8	0	33
0-24	25	8	0	33

Average				
7-19	21	5	0	26
6-22	23	6	0	28
6-24	23	6	0	28
0-24	23	6	0	29

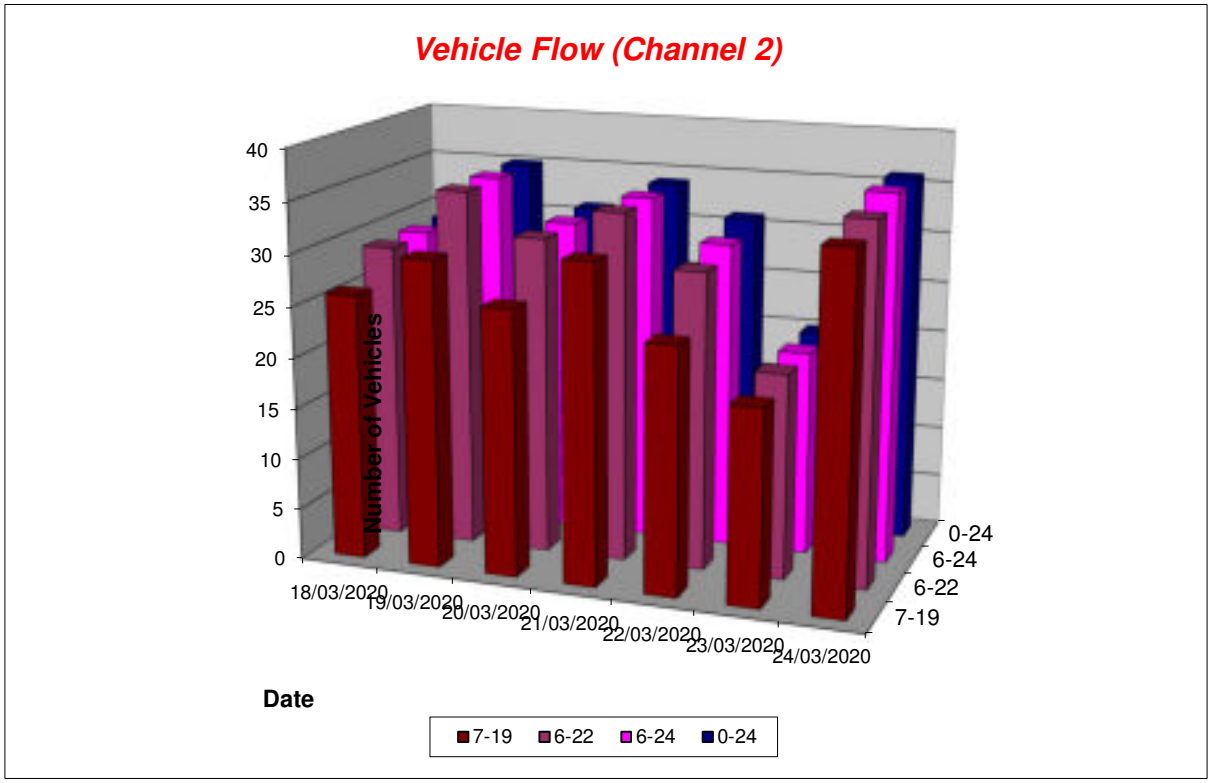


Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 2 - Southbound **Vehicle Flow** **Week 1**

Hr Ending	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday	5 Day Ave	7 Day Ave
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	1	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	1	1	1	0	0	1	0	1	1
8	3	3	1	2	1	2	5	3	2
9	3	1	4	2	1	1	5	3	2
10	1	4	0	3	0	2	1	2	2
11	4	7	4	1	2	1	2	4	3
12	1	5	1	2	3	1	2	2	2
13	1	1	3	6	5	1	3	2	3
14	3	3	2	3	4	1	2	2	3
15	2	3	3	2	3	4	5	3	3
16	3	1	3	3	3	2	3	2	3
17	3	0	1	0	0	1	4	2	1
18	1	1	2	5	2	1	1	1	2
19	1	1	2	2	0	2	1	1	1
20	0	1	3	3	3	0	0	1	1
21	2	3	1	0	2	0	0	1	1
22	0	0	0	0	0	0	1	0	0
23	0	0	0	0	0	0	1	0	0
24	0	0	0	0	1	0	0	0	0
7-19	26	30	26	31	24	19	34	27	27
6-22	29	35	31	34	29	20	35	30	30
6-24	29	35	31	34	30	20	36	30	31
0-24	29	35	31	34	31	20	36	30	31



Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 2 - Southbound **Average Speed** **Week 1**

Hr Ending	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	18.6	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	22.2	21.1	23.4	-	-	18.8	-
8	8.5	18.1	17.8	11.3	24.2	19.1	20.4
9	7.6	15.1	19.4	17.3	20.5	14.2	15.7
10	19.3	16.3	-	19.0	-	20.8	20.4
11	19.5	17.6	11.8	18.8	17.1	17.3	15.8
12	15.3	16.8	14.8	12.0	16.6	12.9	12.5
13	18.5	8.4	15.4	21.5	12.2	17.8	15.7
14	16.5	17.4	17.1	22.5	16.0	19.8	17.5
15	14.8	21.3	16.4	21.7	14.2	14.6	15.0
16	13.3	21.5	18.8	14.8	18.2	25.3	10.2
17	16.0	-	5.7	-	-	18.0	15.7
18	24.8	24.2	16.9	16.4	18.7	21.4	20.5
19	16.9	13.5	17.2	21.1	-	17.0	7.5
20	-	12.5	25.2	21.0	14.8	-	-
21	17.3	14.8	23.4	-	27.1	-	-
22	-	-	-	-	-	-	20.7
23	-	-	-	-	-	-	8.6
24	-	-	-	-	21.1	-	-
10-12	18.7	17.3	12.4	14.2	16.8	15.1	14.2
14-16	13.9	21.4	17.6	17.5	16.2	18.2	13.2
0-24	15.3	17.2	17.4	18.5	17.0	18.2	15.7

Average	17.0

Channel 2 - Southbound **85th Percentile**

Hr Ending	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	11.4	20.9	-	14.7	-	21.1	21.8
9	8.5	-	20.6	19.1	-	-	19.0
10	-	17.5	-	25.4	-	22.3	-
11	22.5	19.4	18.1	-	18.6	-	17.0
12	-	23.4	-	14.2	19.4	-	14.0
13	-	-	16.3	23.6	17.8	-	19.7
14	18.8	20.4	20.5	24.3	19.3	-	18.3
15	19.1	23.7	22.0	24.4	18.3	19.7	17.9
16	16.7	-	22.9	17.0	20.2	27.8	13.5
17	18.4	-	-	-	-	-	18.6
18	-	-	21.7	24.9	20.9	-	-
19	-	-	19.0	27.5	-	17.6	-
20	-	-	25.9	25.0	16.3	-	-
21	17.3	19.1	-	-	28.0	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-
10-12	22.0	20.8	17.3	17.7	19.4	16.6	16.2
14-16	19.3	23.7	23.2	21.0	20.2	25.5	17.5
0-24	20.5	21.5	23.4	25.4	20.9	22.1	20.3

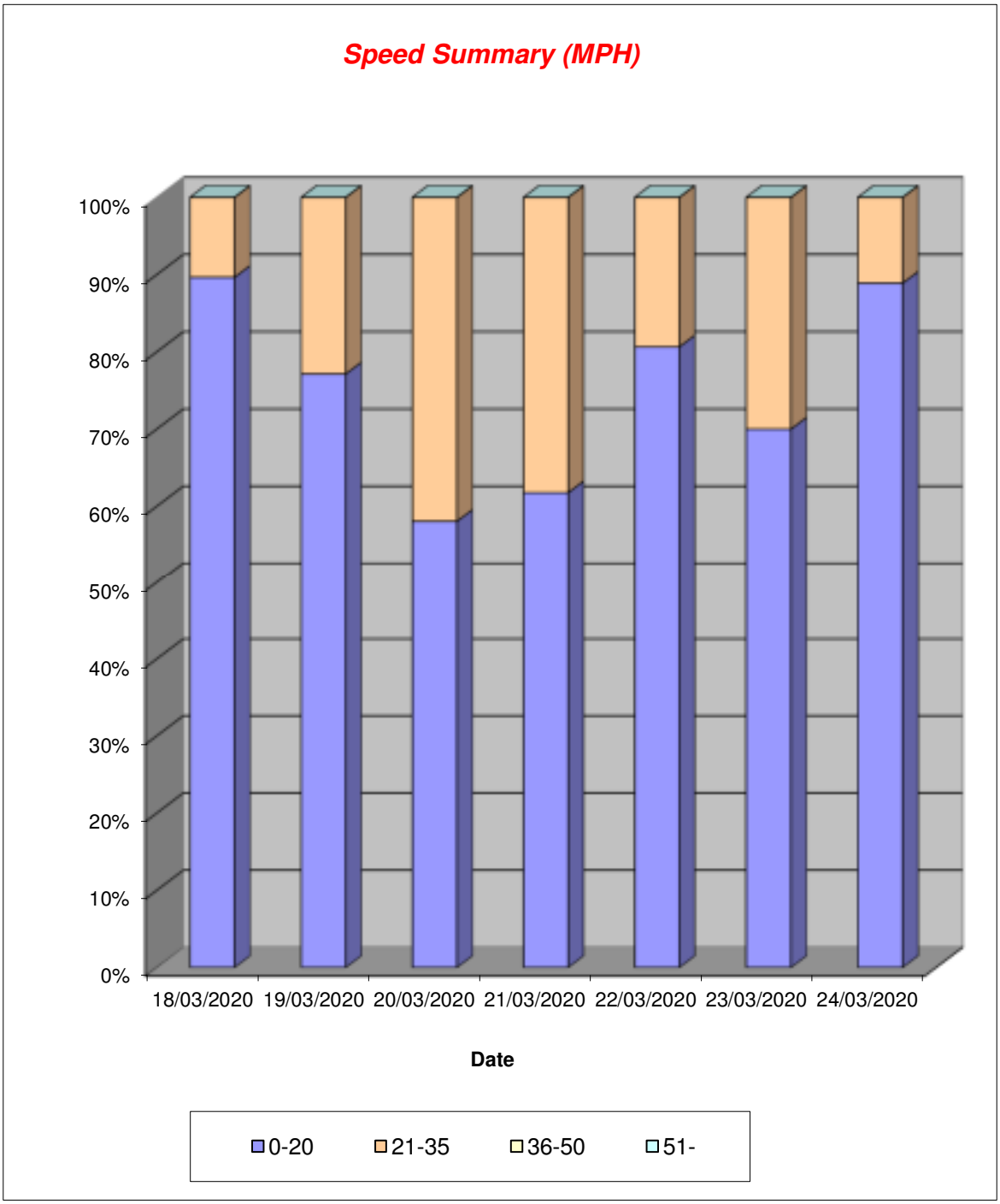
85th %ile	22.4

Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 2 - Southbound | **Speed Summary** | **Week 1**

Speed (MPH)	18/03/2020 Wednesday	19/03/2020 Thursday	20/03/2020 Friday	21/03/2020 Saturday	22/03/2020 Sunday	23/03/2020 Monday	24/03/2020 Tuesday
0-20	26	27	18	21	25	14	32
21-35	3	8	13	13	6	6	4
36-50	0	0	0	0	0	0	0
51-	0	0	0	0	0	0	0
TOTAL	**29**	**35**	**31**	**34**	**31**	**20**	**36**



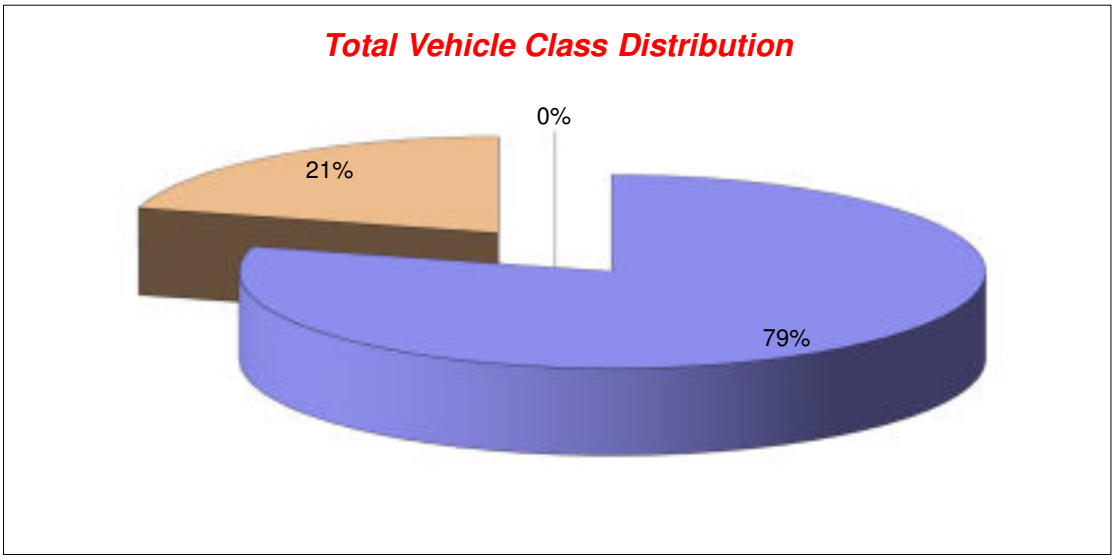
Copford ATC, Hall Road

Produced by Road Data Services Ltd.

Channel 2 - Southbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
18/03/2020				
7-19	21	5	0	26
6-22	24	5	0	29
6-24	24	5	0	29
0-24	24	5	0	29
19/03/2020				
7-19	22	8	0	30
6-22	25	10	0	35
6-24	25	10	0	35
0-24	25	10	0	35
20/03/2020				
7-19	21	5	0	26
6-22	26	5	0	31
6-24	26	5	0	31
0-24	26	5	0	31
21/03/2020				
7-19	26	5	0	31
6-22	29	5	0	34
6-24	29	5	0	34
0-24	29	5	0	34
22/03/2020				
7-19	21	3	0	24
6-22	25	4	0	29
6-24	26	4	0	30
0-24	27	4	0	31
23/03/2020				
7-19	13	6	0	19
6-22	13	7	0	20
6-24	13	7	0	20
0-24	13	7	0	20
24/03/2020				
7-19	26	8	0	34
6-22	27	8	0	35
6-24	27	9	0	36
0-24	27	9	0	36

Average				
7-19	21	6	0	27
6-22	24	6	0	30
6-24	24	6	0	31
0-24	24	6	0	31



RichardJackson
Engineering Consultants

APPENDIX D

C J Safety Audit

LAND WEST OF HALL ROAD, COPFORD, ESSEX
PROPOSED HIGHWAY WORKS

STAGE 1 ROAD SAFETY AUDIT

REPORT REF: RJL25/JMJ/RSA1
March/April 2020

Report prepared for: Richard Jackson Ltd
4 The Old Church
St Matthews Road
Norwich
NR1 1SP

Project Information:

Client	Richard Jackson Ltd on behalf of Ms S Harrison
Client Ref	49896
Title	Land West of Hall Road, Copford, Essex - Proposed Highway Works
Report author	J M Jones IEng FIHE MCIHT MSoRSA

Report Status:

Issue	Status	Purpose	Date
1	Signed	Client use	08/04/20

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Disclaimer: C J Safety Audit accepts no responsibility to any third parties to whom the information contained in this report is made known.

1. Introduction

1.1 This report has been produced as a result of a Stage 1 Road Safety Audit (RSA) carried out at the request of Richard Jackson Ltd. The audit brief was supplied by Raymond Long of Richard Jackson Ltd.

1.2 The RSA Team membership was as follows:-

J M Jones IEng MCIHT FIHE MSoRSA
Principal Road Safety Consultant
CJ Safety Audit

N G Calder BSc(Hons) CEng MICE MCIHT MSoRSA
Principal Road Safety Consultant
CJ Safety Audit

1.3 The RSA was undertaken in March/April 2020 and comprised an examination of the documents provided by the client (see Appendix A) together with a site visit on 12th March 2020 between the hours of 15:00 and 15:30. The weather was cold and bright the road surface dry. Traffic flows on Hall Road were very light.

1.4 The terms of reference of the RSA are as described in GG 119 *Road Safety Audit*. The audit team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design to any other criteria.

1.5 The audited scheme provides for a new access junction off Hall Road to serve a development of up to 49 residential properties. Also included is the provision of a footway on the eastern side of Hall Road, regularising of carriageway width and minor improvements to the junction with London Road

1.6 The auditors have reviewed the most recent 5-year police accident record (Jan 2014 to Dec 2018) for the location provided by CrashMap.com. During this period there have been no recorded injury accidents in the vicinity.

2. Items Raised at Previous Road Safety Audits

The auditors are not aware of any previous audits of this scheme.

3. Items Raised at this Stage 1 Road Safety Audit

General

3.1 No comment

Road Alignment

3.2 No comment

Junctions

3.3 Comment

Location: Existing private drive on eastern side of Hall Road

The auditors not that the proposed retaining wall will restrict visibility from this driveway to a viewpoint just 1.2m back from the edge of carriageway, which is the width of the new footway. This is less than the recommended 2m, although still an improvement over the existing situation.

Non-Motorised Users

3.4 No comment

Signing and Lighting

3.5 No comment

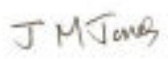
4. Audit Team Statement

We certify that this audit has been carried out in accordance with Road Safety Audit Standard GG 119.

Audit Team Leader

Malcolm Jones
Member of the Society of Road Safety Auditors (MSoRSA)
Principal Road Safety Consultant
CJ Safety Audit

Signed:



Date: 08 April 2020

Audit Team Members

Nevil Calder
Member of the Society of Road Safety Auditors (MSoRSA)
Principal Road Safety Consultant
CJ Safety Audit

Signed:

Date: 08 April 2020

C J Safety Audit

t: 07427 638060

e: malcolm@cjsafetyaudit.co.uk

w: www.cjsafetyaudit.co.uk

APPENDIX A - Audit Submission Documents

The following documents were submitted for this road safety audit:-

49896/PP/001	Rev. B	Highway Strategy
Essex CC	Rev. -	Highway Boundaries/Public Rights of Way

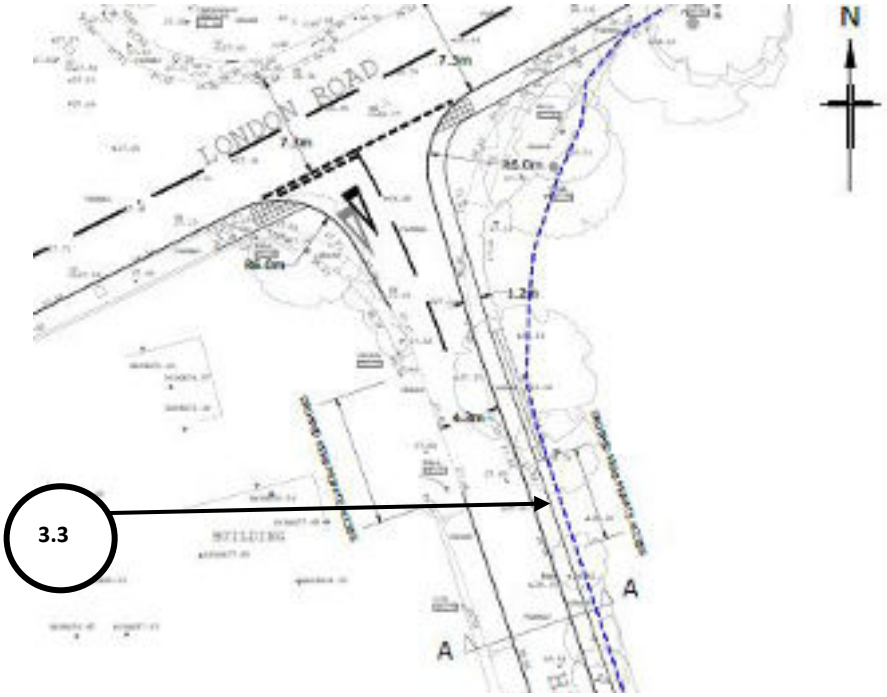
Summary of traffic speed and flow data from ATC April 2020

Summary of estimated trip generation

5yr Accident Data (to Dec 2018) from CrashMap

No departures from standard were submitted

APPENDIX B – Problem Location Plan



RichardJackson
Engineering Consultants

APPENDIX E

Calculation Reference: AUDIT-738101-200213-0216

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	KC	KENT	1 days
	SC	SURREY	1 days
03	**SOUTH WEST**		
	DC	DORSET	1 days
	DV	DEVON	2 days
	SM	SOMERSET	1 days
	WL	WILTSHIRE	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	2 days
	SY	SOUTH YORKSHIRE	1 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	1 days
09	**NORTH**		
	DH	DURHAM	1 days

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

Secondary Filtering 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: 26 to 71 (units:)
Range Selected by User: 25 to 75 (units:)

Parking Spaces Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 19/09/19

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:

Monday	4 days
Tuesday	3 days
Wednesday	4 days
Thursday	5 days
Friday	1 days

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

Selected survey types:

Manual count	17 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:

Suburban Area (PPS6 Out of Centre)	9
Edge of Town	8

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.

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.

Secondary Filtering selection:

Use Class:

C3	17 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	2 days
20,001 to 25,000	3 days
25,001 to 50,000	3 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	1 days
50,001 to 75,000	2 days
75,001 to 100,000	5 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	2 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	3 days
1.1 to 1.5	14 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:

No	17 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.

PTAL Rating:

No PTAL Present	17 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 **CA-03-A-05** **DETACHED HOUSES** **CAMBRIDGESHIRE**
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

2 **DC-03-A-08** **BUNGALOWS** **DORSET**
HURSTDENE ROAD
BOURNEMOUTH
CASTLE LANE WEST
Edge of Town
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *24/03/14* *Survey Type: MANUAL*

3 **DH-03-A-01** **SEMI DETACHED** **DURHAM**
GREENFIELDS ROAD
BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

4 **DV-03-A-01** **TERRACED HOUSES** **DEVON**
BRONSHILL ROAD
TORQUAY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 37
Survey date: WEDNESDAY *30/09/15* *Survey Type: MANUAL*

5 **DV-03-A-03** **TERRACED & SEMI DETACHED** **DEVON**
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

6 **GM-03-A-10** **DETACHED/ SEMI** **GREATER MANCHESTER**
BUTT HILL DRIVE
MANCHESTER
PRESTWICH
Edge of Town
Residential Zone
Total Number of dwellings: 29
Survey date: WEDNESDAY *12/10/11* *Survey Type: MANUAL*

7 **KC-03-A-03** **MIXED HOUSES & FLATS** **KENT**
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

8 **LC-03-A-31** **DETACHED HOUSES** **LANCASHIRE**
GREENSIDE
PRESTON
COTTAM
Edge of Town
Residential Zone
Total Number of dwellings: 32
Survey date: FRIDAY *17/11/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **NF-03-A-01** **SEMI DET. & BUNGALOWS** **NORFOLK**
YARMOUTH ROAD
CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

10 **NY-03-A-09** **MIXED HOUSING** **NORTH YORKSHIRE**
GRAMMAR SCHOOL LANE
NORTHALLERTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

11 **NY-03-A-10** **HOUSES AND FLATS** **NORTH YORKSHIRE**
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

12 **SC-03-A-04** **DETACHED & TERRACED** **SURREY**
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

13 **SH-03-A-05** **SEMI-DETACHED/ TERRACED** **SHROPSHIRE**
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

14 **SM-03-A-01** **DETACHED & SEMI** **SOMERSET**
WEMBDON ROAD
BRIDGWATER
NORTHFIELD
Edge of Town
Residential Zone
Total Number of dwellings: 33
Survey date: THURSDAY *24/09/15* *Survey Type: MANUAL*

15 **ST-03-A-08** **DETACHED HOUSES** **STAFFORDSHIRE**
SILKMORE CRESCENT
STAFFORD
MEADOWCROFT PARK
Edge of Town
Residential Zone
Total Number of dwellings: 26
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

16 **SY-03-A-01** **SEMI DETACHED HOUSES** **SOUTH YORKSHIRE**
A19 BENTLEY ROAD
DONCASTER
BENTLEY RISE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 54
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 WL-03-A-02 SEMI DETACHED WILTSHIRE
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: THURSDAY 22/09/16 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
DH-03-A-03	2 vehicle accesses

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		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	17	44	0.074	17	44	0.257	17	44	0.331
08:00 - 09:00	17	44	0.139	**17**	**44**	**0.403**	**17**	**44**	**0.542**
09:00 - 10:00	17	44	0.153	17	44	0.201	17	44	0.354
10:00 - 11:00	17	44	0.138	17	44	0.164	17	44	0.302
11:00 - 12:00	17	44	0.180	17	44	0.166	17	44	0.346
12:00 - 13:00	17	44	0.182	17	44	0.169	17	44	0.351
13:00 - 14:00	17	44	0.177	17	44	0.193	17	44	0.370
14:00 - 15:00	17	44	0.165	17	44	0.205	17	44	0.370
15:00 - 16:00	17	44	0.262	17	44	0.185	17	44	0.447
16:00 - 17:00	17	44	0.309	17	44	0.178	17	44	0.487
17:00 - 18:00	**17**	**44**	**0.354**	17	44	0.147	17	44	0.501
18:00 - 19:00	17	44	0.223	17	44	0.139	17	44	0.362
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.356			2.407			4.763

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.*

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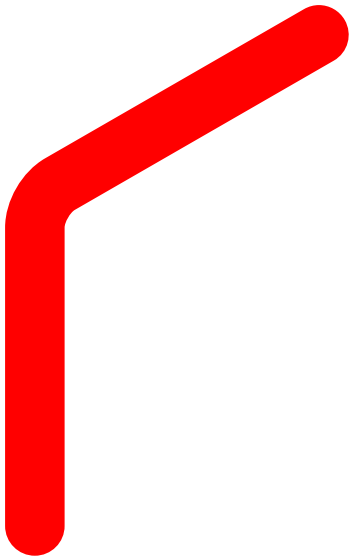
Parameter summary

Trip rate parameter range selected:	26 - 71 (units:)
Survey date date range:	01/01/11 - 19/09/19
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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.



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