ENVIRONMENT, HIGHWAYS AND WASTE CABINET COMMITTEE

Wednesday, 19th June, 2013

10.00 am

Darent Room, Sessions House, County Hall, Maidstone

AGENDA

ENVIRONMENT, HIGHWAYS AND WASTE CABINET COMMITTEE

Wednesday, 19 June 2013, at 10.00 am
Darent Room, Sessions House, County Hall, Maidstone

Ask for: **Karen Mannering**
Telephone: **01622 694367**

Tea/Coffee will be available 15 minutes before the start of the meeting

Membership (12)

Conservative (7):	Mrs P A V Stockell (Chairman), Mr M A C Balfour, Mr M J Harrison, Mrs S V Hohler, Mr J M Ozog, Mr C Simkins and Mr M A Wickham
UKIP (2)	Mr M Baldock and Mr L Burgess
Labour (2)	Mr C W Caller and Dr M R Eddy
Liberal Democrat (1):	Mr I S Chittenden

UNRESTRICTED ITEMS
(During these items the meeting is likely to be open to the public)

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A. Committee Business

A1 Introduction/Webcasting

A2 Substitutes

A3 Election of Vice-Chairman

A4 Declarations of Interests by Members in items on the Agenda

A5 Minutes of the meetings held on 23 April 2013 and 23 May 2013 (Pages 1 - 12)

B. Key or Significant Cabinet/Cabinet Member Decisions(s) for recommendation or endorsement

B1 North Farm Link Road (Longfield Road) Improvement, Tunbridge Wells - Decision No.13/00031 (Pages 13 - 22)

B2 Kent Farmsteads Guidance - guidance for landowners, developers and planners to assist in understanding the character of historic farmsteads - Decision No.13/00046 (Pages 23 - 172)

B3 Variation of Traveller pitch allocations policy for Coldharbour Gypsy & Traveller site, Aylesford - Decision No. 13/00047 (Pages 173 - 200)

B4 Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term in line with 'Bold Steps for Aviation' (Pages 201 - 206)

B5 Westwood Relief Strategy - widening of Poorhole Lane and associated junction improvements - Decision No.13/00049 (Pages 207 - 216)

B6 Environment, Highways & Waste Forthcoming Executive Decisions - current entry (Pages 217 - 222)

C. Monitoring of Performance

C1 Enterprise & Environment 2012/13 end of year Business Plan outturn monitoring and Directorate Dashboard (Pages 223 - 238)

D. Other items for comment/recommendation to the Leader/Cabinet Member/Cabinet or officers

D1 Cabinet Member's and Corporate Director's Update (Oral report)

D2 Pothole Find & Fix Update (Pages 239 - 242)

D3 DfT Consultation on options for a new Lower Thames Crossing (Pages 243 - 276)

EXEMPT ITEMS

(At the time of preparing the agenda there were no exempt items. During any such items which may arise the meeting is likely NOT to be open to the public)

Peter Sass
Head of Democratic Services
(01622) 694002

Tuesday, 11 June 2013

KENT COUNTY COUNCIL

ENVIRONMENT, HIGHWAYS AND WASTE CABINET COMMITTEE

MINUTES of a meeting of the Environment, Highways and Waste Cabinet Committee held in the Council Chamber, Sessions House, County Hall, Maidstone on Tuesday, 23 April 2013.

PRESENT: Mr D L Brazier (Chairman), Mr J R Bullock, MBE, Mr I S Chittenden, Mr M J Harrison, Mr B Hayton, Mrs J P Law, Mr R F Manning, Mr C P Smith and Mrs E M Tweed

ALSO PRESENT: Mr B J Sweetland

IN ATTENDANCE: Mr M Austerberry (Corporate Director, Environment and Enterprise), Mr J Burr (Director of Highways and Transportation), Mr P Crick (Director of Planning and Environment), Mr R Fitzgerald (Performance Manager), Mr D Hall (Future Highways Manager), Mr A Kamps (Principal Accountant), Mr S Palmer (Head of Highway Operations), Mr T Read (Head of Highway Transport), Mr D Shipton (Acting Head of Financial Strategy), Mr M Tant (Flood Risk Manager), Mrs C Valentine (Highway Manager), Mr R Wilkin (Waste Manager) and Mrs K Mannering (Democratic Services Officer)

UNRESTRICTED ITEMS

17. Minutes of the meeting held on 10 January 2013

(Item A4)

RESOLVED that the Minutes of the meeting held on 10 January 2013 are correctly recorded and that they be signed by the Chairman.

18. Local Flood Risk Management Strategy - Decision No.12/01945

(Item B1)

(1) The Local Flood Risk Management Strategy (The Local Strategy) is a requirement for Kent County Council in its new statutory capacity as Lead Local Flood Authority (LLFA). It sets out a strategy for managing local flood risk (defined as flooding from surface water, groundwater and ordinary watercourses) in the county. The Local Strategy sets objectives for the management of local flood risks and an action plan for KCC and other agencies in Kent to deliver those objectives. The paper provides an overview of the Local Strategy, drawing attention to specific sections of interest to the authority. A copy of the final draft Local Strategy is attached to the report.

(2) The Flood And Water Management Act 2010 made county and unitary authorities Lead Local Flood Authorities, with a role to work alongside the Environment Agency and other risk management authorities to manage the risks of flooding. The new role gives KCC a strategic overview role for local flooding (flooding from surface water, ordinary watercourses and groundwater). As Lead Local Flood Authority, KCC also has some flood risk management powers and duties.

(3) The Local Strategy must be consistent with the Environment Agency's National Strategy. The National Strategy sets out how all flood risks and coastal erosion should be managed in England. The Act sets out the minimum that a local strategy must contain and, in accordance with that, the Kent Local Flood Risk Management Strategy details:

- **The risk management authorities in the relevant area.**
- **The flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area.**
- **The objectives for managing local flood risk and the measures proposed to achieve those objectives.**
- **How and when the measures are expected to be implemented.**
- **The costs and benefits of those measures, and how they are to be paid for.**
- **The assessment of local flood risk for the purpose of the strategy.**
- **How and when the strategy is to be reviewed.**
- **How the strategy contributes to the achievement of wider environmental objectives.**

The local strategy aims to coordinate the work of KCC with the Environment Agency, local authorities, water companies, internal drainage boards and other partners to better understand flood risk in the county and provide effective solutions to protect the people and economy of Kent from flooding.

(4) The Local Strategy gives an overview of the flood risk in Kent, with signposts to more information, it outlines who else in the county has flood risk management functions and it sets out how KCC will exercise the new duties and powers given by the Act. It also applies a local flood risk policy to areas of the county to enable the LLFA to prioritise action. The policies were determined according to the complexity of local flood risk, and are described in the report.

(5) Where further investigations are required they will be undertaken through Surface Water Management Plans. The policies will be kept under review. Given the size and complexity of the local flood risks in Kent it is proposed that specific local actions and policies are identified and delivered through the aforementioned Surface Water Management Plans, not the Local Strategy.

(6) As a LLFA, an annual area based grant of £750,000 is received from Defra to undertake the new duties set out by the Act. The grant is in place for this financial year, and the next financial year, and will be used to fund KCC's actions identified in the Local Strategy. The current action plan for 2013/14 is achievable within the annual Defra grant.

(7) The Local Strategy has just completed its statutory public consultation. The comments received were generally supportive with a few welcome suggestions for

improvement. It is scheduled for the 24 May Cabinet meeting, and will be in place for three years, to be reviewed in 2016.

(8) The Committee requested that its appreciation of the document and Mr Tant's input, be recorded in the Minutes.

(9) RESOLVED that the submission of the Local Strategy to Cabinet in May 2013 for formal adoption, be supported.

19. North Farm Link Road (Longfield Road) Improvement, Tunbridge Wells
(Item B2)

(1) North Farm was the main commercial, shopping and strategic employment area within the Borough. Primary access was from the A21 along Longfield Road – a single carriageway link road that was built in the late 1970's. The expansion and popularity of North Farm had put Longfield Road under considerable pressure with considerable congestion and delays during peak periods and at weekends. Some 300 businesses were losing trade and future development opportunities were at risk. A scheme to improve Longfield Road to a dual carriageway standard together with improved junctions had been developed and had the support of the local business community

(2) Following a successful bid to the Department for Transport (DfT) for Local Pinch Point funding, under which the Transport Secretary had awarded £3.5m towards the overall cost of the scheme estimated at £5m, KCC was proceeding rapidly to negotiate with landowners to secure the necessary land. A condition of DfT funding was that the scheme must be completed by 31 March 2015 and hence there was considerable urgency to progress the scheme through the next stages to see if its delivery remained a viable, albeit challenging, proposition.

(3) The report included critical aspects of the scheme. Land owners would be required to dedicate or transfer land required for the scheme and to make no claims against KCC for any disruption that might result from construction of the scheme. Officers considered that binding commitments on land dedication and on the disruption issue must be secured by mid June.

(4) Some land was unregistered or in unknown ownership and while unhelpful it was not an unusual situation with major highway improvements. The procedural solution was to promote a Compulsory Purchase Order (CPO) limited to the areas of land. Assuming there were no objections, the Secretary of State would then be invited to confirm the CPO, thereby securing the land for the scheme.

(5) An environmental screening opinion was under consideration that would determine whether a planning application and an Environmental Impact Assessment would be required for the scheme.

(6) Scheme cost, construction procurement and construction period were key factors in affordability and target end date delivery and the aspects would be considered in detail in the coming months as the detailed design was progressed by Amey – our new engineering and transportation term consultant.

(7) During debate the following issues were raised and responded to by officers:-

- The lack of reference in the report to the master plan and the overall cost of the scheme
- Changes in ownership of sites and same use class
- Gathering developer contributions
- The need for a policy developed by the Cabinet Committee
- Local Pinch Point funding
- A21 – junction with roundabout – extra costs

(8) Mr Bullock recommended that -

(a) the Master Plan for the North Farm Estate jointly sponsored by KCC and TWBC be agreed for consultation purposes and implemented with funding obtained from all available sources including Developer contributions; and

(b) KCC enter into discussions with all Borough and District Councils but especially TWBC, to implement a new policy within their LDF Documents, that allowed Developer contributions to be attracted to infrastructure projects where commercial or retail premises floor space was either enlarged or sub-divided within the same Use Class, and that enlargement or sub-division would lead to an increase in vehicle movements which would have an impact on the surrounding roads and roads within the estate.

(9) RESOLVED that the Cabinet Member for Environment, Highways & Waste be recommended to:-

(a) approve the scheme for the improvement of Longfield Road, shown as an outline design on Drg B2500600/04 Rev0 for land charge disclosures and development control;

(b) give approval to progress the scheme for the improvement of Longfield Road, shown as an outline design on Drg B2500600/04 Rev0, including any ancillary works such as drainage and environmental mitigation, with the intention of submitting a planning application if required;

(c) give approval for Legal Services to take a dedication, transfer or by some other appropriate legal mechanism, to secure the land required to deliver the Longfield Road scheme, shown in outline on Drg B2500600/04 Rev0, including but not limited to, any ancillary works such as drainage and environmental mitigation;

(d) give authority for Legal Services to promote a Compulsory Purchase Order in respect of unregistered land or land in unknown ownership, and any other Orders deemed necessary, required to deliver the Longfield Road scheme, shown in outline on Drg B2500600/04 Rev0, including but not limited to, any ancillary works such as drainage and environmental mitigation;

(e) give authority for Legal Services to enter into a funding Agreement with Tunbridge Wells Borough Council;

(f) give authority for Legal Services or S151 Officer, as required, to formally accept the DfT Pinch Point funding offer when received and subject to being satisfied with the terms and conditions; and

(g) include the additional recommendations set out in paragraph (8) above.

20. Environment, Highways & Waste Forthcoming Executive Decisions - current entry
(Item B3)

RESOLVED that the current entry in the Forthcoming Executive Decisions for Environment, Highways and Waste be noted.

21. Enterprise & Environment Performance Dashboard
(Item C1)

(1) The Enterprise & Environment performance dashboard, set out in the Appendix to the report, included latest available results up to the end of February 2013 and, where available, an estimate for the end of March 2013 for the Key Performance Indicators (KPIs) and Activity Indicators included in the year's divisional business plans for the Enterprise & Environment Directorate.

(2) Mr Fitzgerald stated that overall performance was good, with all indicators showing as Green, on or ahead of target, for year to date, with only one Amber for the current month for Pothole repairs completed in 28 days, which was due to higher volumes.

(3) RESOLVED that the report be noted.

22. Enterprise & Environment Directorate (Environment, Highways & Waste Portfolio) Financial Monitoring 2012/13
(Item C2)

(1) Members were asked note the third quarter's full budget monitoring report for 2012/13 reported to Cabinet on 18 March 2013. There were no exceptional revenue changes since the writing of the quarter 3 report, and no capital movements.

(2) RESOLVED that the revenue and capital forecast variances from budget for 2012/13 for the Enterprise & Environment Directorate (Environment, Highways & Waste Portfolio) based on the third quarter's full monitoring to Cabinet, be noted.

23. Cabinet Member's and Corporate Director's Update (Oral report)
(Item D1)

(1) Mr Sweetland and Mr Austerberry gave verbal reports on the following issues:-

Planning & Environment – National Policy; Local Plans in Kent; Community Infrastructure Levy; Strategic Cases; and Making Kent homes affordably warm

Highways & Transportation – Chalara (Ash Dieback); Kent Lane Rental Scheme (KLRS) Update; Pothole Find & Fix Progress; ENCTS Renewals; Lorry Watch; MHF

Progress; SQPS/Hybrid Launch; North Farm Progress; Condition Services Contract; Coring and Materials Testing Contract; and Joint Highway Depot and Household Waste Facility – Sandwich

Waste Management – Joint Waste Projects in Kent; East Kent Joint Waste Project; Mid Kent Joint Waste Project; and West Kent

(2) RESOLVED that the updates be noted and copies circulated to Members of the Committee.

24. Future Highways Programme
(Item D2)

(Alex Gilbert and Will Warner, AMEY, were in attendance for this item)

(1) Members were updated on the major change programme carried out within the Highways and Transportation Division since 2010 entitled Future Highways. The programme was developed in response to a number of major challenges facing the Service, notably the need to transform business culture and deal with the impact of falls in government funding.

(2) The report described the key challenges facing the Service in 2010 and what had been done to tackle them head-on to create a modern, forward thinking Service that put customer care at its heart. The Future Highways Programme was now substantially completed, and its successes had enabled Highways and Transportation Service to substantially fulfil the Vision it published in 2010. The Vision was designed to focus on creating a top performing highway authority to become an intelligent Client through the re-procurement of key contracts and the delivery of a number of related internalisation projects, leading to the transfer of some functions back to KCC from Consultancy. . A major staff re-structuring was commenced together with a re-procurement of the Works Contract which ultimately led to Ringway being replaced with Enterprise in September 2011.

(3) The key challenge facing H&T was to ensure that despite a reduction of budget, community facing elements of the business and work programmes showed improvement and embraced the requirement to manage resource in a completely new way. The significant challenges were set out in the report. A dedicated programme team, clear governance and strong political and senior management support was vital for success in meeting the challenges.

(4) The Future Highways Programme included a review of the Term Maintenance and Consultancy contracts, aligning the service to the needs of the business, relocating services to where they were best placed and supporting the staff through training. Engagement and communication was paramount to ensure seamless change without disruption to service delivery. The Programme was divided into Phases and delivered the following activities:-

- Phase 1 delivered a new Term Maintenance Contract. Enterprise commenced the contract in September 2011 with a continuity of service from Ringway.
- Phase 2 delivered the mobilisation and embedding of the Enterprise contract into the business.

- Phase 3 had delivered, the internalisation of the Structures Team, Intelligent Traffic Systems, Crash Data Team and Arboriculture Service (Soft Landscape) – the teams and their ICT systems were moved from Jacobs' employment and place of work to H&T offices under Kent County Council Employment.
- Phase 4 delivered a new Technical and Environmental Services Contract which commenced in April 2013. It also included the demobilisation of Jacobs and the extraction of key systems.
  The mobilisation of Amey was also undertaken in phase 4 to ensure that the new Consultant was ready to commence work on 1 April 2013.
- Phase 5 delivered the assimilation of Transport Integration into H&T.

(5) The H&T/Enterprise partnership was designed ensuring that "every pound counts". The contract was procured as Enterprise offered the best balance of cost versus quality. Risk was allocated to those best placed to manage it and there was clear ownership of liability – KCC only paid once for any works done thereby driving "right first time" workmanship. Performance had improved across the business with regard to response times, budget management, programming of works and route optimisation; all were key areas where working better together with Enterprise was proving particularly successful. Relationships were already being successfully forged with Amey and early indications showed that the principles of the new contract were being embraced by both the business and consultant. The decision to internalise some services into the business had already shown economies were realised.

(6) The report set out evidence of H&T's level of success.

(7) Mr Gilbert of Amey updated Members on staff changes and office facilities.

(8) RESOLVED that the report be noted, now that the Future Highways Programme was substantially completed.

25. New Funding Streams
(Item D3)

(1) There had been significant changes to the funding arrangements for local government which impacted on both the day to day revenue budget and the capital programme. The report examined the changes and in particular identified opportunities for funding infrastructure developments and improvements. The changes must be considered in the overall fiscal context of a shrinking public sector as the Government sought to eliminate the budget deficit and reduce the size of the public sector within the overall economy by reducing public spending as a proportion of the Gross Domestic Product (GDP).

(2) The shift in emphasis from revenue to capital spending was extended in the Chancellor's Budget Statement on 20 March when he indicated that spending reductions would need to continue into 2017/18 to meet revised deficit reduction targets, and there would be a further switch of £15bn of spending from revenue to capital over the five year period from 2015. As yet there was no further detail on departmental allocations of the additional capital but it was indicative of the Government's shifting emphasis towards more capital infrastructure spending.

(3) New arrangements for the treatment of business rates were introduced in 2013/14. Previously all of the business rates collected by local authorities were pooled and redistributed by Formula Grant (which also included a small top-up from Revenue Support Grant -RSG). Under the new arrangements 50% were pooled (and redistributed as new RSG) and the remaining 50% retained locally. The report set out a number of features and consequences of the new arrangements which were important to bear in mind in considering infrastructure funding streams.

(4) Overall the new arrangements meant the County Council stood to gain very little from infrastructure developments which resulted in additional business rates, but could lose substantial sums from business rate reductions. The scope to increase Council Tax also looked likely to be constrained by tight referendum requirements (although the County Council would still benefit from the lion's share of any additional Council Tax from new housing developments).

(5) New Homes Bonus (NHB) grant would continue to be allocated as a separate funding stream based on new housing developments and bringing empty properties back into use. The grant was not ring-fenced i.e. it could be used for any purpose. New developments would attract funding for 6 years which meant the grant increasing in instalments between 2011/12 to 2016/17 could be anticipated, but thereafter increases would be determined on new developments being larger than the developments dropping out. However, after the initial injection of £250m in SR2010 the roll out was funded from top-slicing the RSG settlement. 80% of NHB was paid to district councils. The remaining 20% was paid to the County Council. Each year to date the county's share of NHB had amounted to an additional £1.4m to £1.5m and had been used to support the overall budget rather than a particular purpose.

(6) The Community Infrastructure Levy (CIL) had been introduced as an alternative way for new developments to contribute towards the cost of public infrastructure. CIL was designed to work alongside and improve upon existing arrangements to levy developer contributions under section 106 of the Town and Country Planning Act 1990. S106 contributions and CIL could not be raised to fund the same infrastructure requirements. The charging schedule should set out the types of infrastructure that wouldl be supported by CIL, S106 contributions could only be sought for specific sites which would trigger additional infrastructure needs over and above those set out in the CIL charging schedule.

(7) The County Council was working closely with district councils to ensure that the County Council's infrastructure requirements were included within the district councils CIL charging schedules, and contributions were passed across in a timely manner.

(8) Legislation was expected to be passed which would enable local authorities in England to be able to use Tax Increment Financing (TIF) as a future source of funding infrastructure development. Currently TIF could only be used by Scottish authorities. The localisation of business rates should make TIF viable. TIF enabled the local authority to borrow against the additional business rate yield which would be generated from infrastructure schemes. Currently local authorities were limited to borrowing within their existing overall revenue streams and had to make a prudent assessment of the minimum revenue provision (MRP) to offset against borrowing. Under TIF local authorities would be able to borrow against tax growth.

(9) The new local authority arrangements included a number of opportunities for funding major infrastructure developments. The new funding streams included:-

- Additional government grants out of the £15bn switch from revenue to capital announced in the March 2012 budget
- Scope to use New Homes Bonus from specific developments to support infrastructure development
- Scope to negotiate CIL with district councils
- Scope to use TIF powers

(10) RESOLVED that the report be noted.

26. Highways and Transportation Winter Service Review for 2012/13
(Item D4)

(1) Mrs C Valentine gave a presentation on the highways winter service which began on 12 October 2012 and ended on 26 April, and had been carried out in line with the Winter Service Policy 2012/13 approved by the Cabinet Committee on 20 September 2012. The winter had been particularly cold and prolonged with snow days in several months, the most severe occurring in January and March when snow emergencies were declared. The report set out the key elements of decision making in winter and the effectiveness of actions that were taken in relation to the snow emergencies. It also discussed lessons learnt and provided detail on current and future actions which contribute towards the continuing improvement of the winter service.

(2) The allocated budget for winter service for 2012/13 was £3,237,704. The cost of both winter emergencies was approximately £1,133,141 (final costs for March were still to be submitted).

(3) A detailed road weather forecast was provided by Meteogroup under a term contract arrangement. The forecasted nature and timings of weather events determined when the salting runs were carried out. When heavy snow fell, it quickly overcame the salt, and road surface temperatures dropped very quickly, meaning that the salt could not activate and prevent freezing. Ploughing was the only effective way to deal with more than a few millimetres of snow and all gritter lorries were fitted with ploughs when snow was expected.

(4) A countywide snow emergency was declared when significant snow fall (50mm or over) was expected across the county. All available resources were deployed; local winter plans were activated; and partnership work with the district councils was put into operation. The partnership work with districts that was formally adopted in 2010/11 had proved to be highly effective and had resulted in great improvement in the clearance of town centres during snow emergencies.

(5) Over the past few years a number of improvements had been made to the winter service which had resulted in a more effective and efficient service, including the provision of salt/sand bags to parish councils; new contracts with farmers; a formal partnership arrangement with district councils; and improved communications and messages for the public. For the coming winter further initiatives were being planned for the continuous improvement of the service, including:

- Snow treatments
- Route based forecasting
- Route optimisation
- Partnership working
- Communications
- Self-help

(6) Overall this season's winter service had been successful with many compliments received by members of the public and organisations and businesses. The two winter emergencies were managed well though it was acknowledged that difficulties did occur during the second one and steps were being taken to review that.

(7) RESOLVED that the report be noted, and the proposed initiatives for continuous improvement of the service, be endorsed.

ENVIRONMENT, HIGHWAYS AND WASTE CABINET COMMITTEE

MINUTES of a meeting of the Environment, Highways and Waste Cabinet Committee held in the Council Chamber, Sessions House, County Hall, Maidstone on Thursday, 23 May 2013.

PRESENT: Mr M Baldock, Mr M A C Balfour, Mr L Burgess, Mr C W Caller, Mr I S Chittenden, Dr M R Eddy, Mr M J Harrison, Mrs S V Hohler, Mr J M Ozog, Mr C Simkins, Mrs P A V Stockell and Mr M A Wickham

IN ATTENDANCE: Mr P Sass (Head of Democratic Services)

UNRESTRICTED ITEMS

1. Membership
(Item 1)

The Committee noted its Membership as set out above.

2. Election of Chairman
(Item 3)

Mr M J Harrison proposed and Mr M A Wickham seconded that Mrs P A V Stockell be elected Chairman.

Carried

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From: David Brazier, Cabinet Member – Transport & Environment

Mike Austerberry, Corporate Director – Enterprise & Environment

To: Environment, Highways & Waste Cabinet Committee – 19 June 2013

Decision No: 13/00031

Subject: North Farm Link Road (Longfield Road) Improvement, Tunbridge Wells

Classification: Unrestricted

Past Pathway of Paper: EHW Cabinet Committee, 23 April 2013

Future Pathway of Paper: For Cabinet Member Decision.

Electoral Division: Tunbridge Wells East and Tunbridge Wells North

Summary: Update on scheme development and discussions with landowners. Approval sought to the amended scheme plan and extended time period for landowners to formally commit to releasing their land for the scheme.

Recommendation(s): Subject to the views of this Committee, the Cabinet Member for Environment, Highways & Waste is recommended to:

i. approve the revised scheme for the improvement of Longfield Road, shown as an outline design on Drg 4300034/000/01 for land charge disclosures and development control in substitution for Drg No. B2500600/04 Rev0.

ii. give approval to continue to progress the scheme subject to all land required for the scheme being formally secured or committed by 31 July 2013.

iii. give approval for Legal Services to take a dedication, transfer or by some other appropriate legal mechanism to secure the land required to deliver the Longfield Road scheme, shown in outline Drg 4300034/000/01 including but not limited to any ancillary works such as drainage and environmental mitigation.

1. Introduction

1.1 Following the meeting of this Cabinet Committee on 23 April 2013, approval was granted to take the highway improvement scheme through to the next stages of development and authority was given to enter into land and funding agreements. (Item B2 and Decision 13/00031 refers). The scheme is shown diagrammatically on the plan attached.

2. Financial Implications

2.1 The formal Pinch Point funding offer of £3.5m has been received from the Department of Transport. The terms and conditions are typical of DfT grant funding and have been accepted on behalf of KCC by the S151 Officer.

2.2 KCC has committed to contribute up to £1.5m and Tunbridge Wells had indicated a willingness to underwrite £0.5m, and there are potential opportunities for S106 contributions.

2.3 The Pinch Point funding bid was predicated on an indicative overall scheme cost of £5m. With the benefit of survey information and commencement of initial detailed and the scheme amendments following discussions with landowners, the next stage will be to produce a detailed cost estimate. However, the changes to the design are considered neutral in terms of scheme cost. Initial responses from utility companies who have provided indicative estimates of diversions costs are also consistent with what was previously assumed.

2.4 The critical aspect of the scheme cost is not just the physical cost of the works but the costs associated with the buildability aspects and phasing of the works to accommodate utility diversions and to manage traffic. Longfield Road is heavily congested and it will be a careful balance of getting on with the works quickly and efficiently while seeking to avoid adverse impact upon the businesses and retail parks. Detailed discussions with utilities and buildability considerations are the next key stage of work to be undertaken and will inform the cost estimate.

3. Bold Steps for Kent and Policy Framework

3.1 Supports the objectives of supporting existing businesses, encouraging economic activity and job creation by improving accessibility by reducing traffic congestion and improving safety.

4. Planning

4.1 The Head of Planning has issued a Screening Opinion that in the view of KCC, as Planning Authority an Environmental Impact Assessment is not required and therefore a planning application is not required for the improvement scheme which is contiguous with the existing Longfield Road.

4.2 Some environmental surveys will still be required to ensure that appropriate mitigation measures are taken for any protected species that might be affected by the works and loss of habitat.

5. Land Aspects

5.1 Some small areas of land are formally in unknown ownership. These areas are within the overall corridor of the existing adopted public highway. On this basis, the intent is to publish Notices under S228 of the Highways Act 1980 declaring these areas of land to be adopted public highway.

5.2 In addition, 11 land owners are required to dedicate land required for the scheme. They would retain ownership but the land would become public highway on completion of the scheme. This is a quicker and less onerous process than making a transfer and will reduce legal costs.

5.3 Contact has been made with all landowners; where the support has been unequivocal and land take has no operational impact this has been carried out via

correspondence, and where there were concerns about the impact of land take or new access arrangements or about construction disruption, meetings have been held on site.

5.4 During these meetings, it became clear that however supportive landowners might be of the scheme, they were not in favour of losing parking spaces. To address their concerns, the scheme design has now been refined to avoid any loss of parking. This has been possible by employing minor relaxations of design standards. The scheme has also been amended over the rural section between Knights Park and A21 to avoid the requirement for the dedication of land from a particular landowner who was unlikely to be supportive at this time because of objections to the A21 Tonbridge – Pembury scheme.

5.5 This refinement of the design has enabled KCC to recently confirm to all landowners that, by releasing land required for the scheme, there will be no direct operational impact on their businesses.

5.6 The requirement for the scheme design to be refined has meant that achieving the full commitment to the release of land by all landowners by mid June has not been realised. However, the discussions with the landowners, leaseholders representatives and store managers to date have resulted in 5 verbally indicating full support. 5 have verbally given cautious support and this should be strengthened by the revised scheme that has avoided direct impact on operational land. 1 of these and 1 other are concerned about the impact of the construction period on their businesses and are keen to see the supporting traffic assessment on both the overall scheme benefits and to their individual access to their properties. See Appendix A for full summary.

5.7 Officers perceive that there is wide support in principle to the dedication of the land required and that by having refined the scheme design and avoided impact on operational land, together with the reassurance that can be given about traffic aspects, this support can be translated into firm commitments. Given that a planning application is not required, there is scope within the overall programme to continue to pursue the attainment of this firm commitment from the landowners and still deliver the scheme within the Pinch Point funding time constraints. Officers consider that an extension of the deadline to the end of July in order to secure the land would be appropriate.

5.8 Landowners have been asked to formalise their position in writing in time for this to be reported at the Committee meeting.

6. Conclusions

6.1 Considerable progress has been made since the April Committee meeting but the formal commitment of all landowners remains outstanding.

6.2 Planning consent is not required and unknown land ownerships should be resolved by Notices under the Highways Act 1980 rather than a more onerous and costly Compulsory Purchase Order procedure.

6.3 The scheme design has been refined to avoid impact on retail operational land and to avoid land that is unlikely to be secured.

6.4 Discussions are on-going with the landowners and an extension of the deadline, to the end of July, for them to formally enter into a Deed of Dedication for the land required for the scheme is recommended.

7. Recommendation(s)

Recommendation(s): The Environment Highways Cabinet Committee is asked to consider and endorse, or make recommendations to the Cabinet Member for Transport & Environment on the proposed decision to:

i. approve the revised scheme for the improvement of Longfield Road, shown as an outline design on Drg 4300034/000/01 for land charge disclosures and development control in substitution for Drg No. B2500600/04 Rev0.

ii. give approval to continue to progress the scheme subject to all land required for the scheme being formally secured or committed by 31 July 2013.

iii. give approval for Legal Services to take a dedication, transfer or by some other appropriate legal mechanism to secure the land required to deliver the Longfield Road scheme, shown in outline Drg 4300034/000/01 including but not limited to any ancillary works such as drainage and environmental mitigation.

8. Background Documents

None

9. Contact details

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Relevant Director:

John Burr, Director – Highways & Transportation
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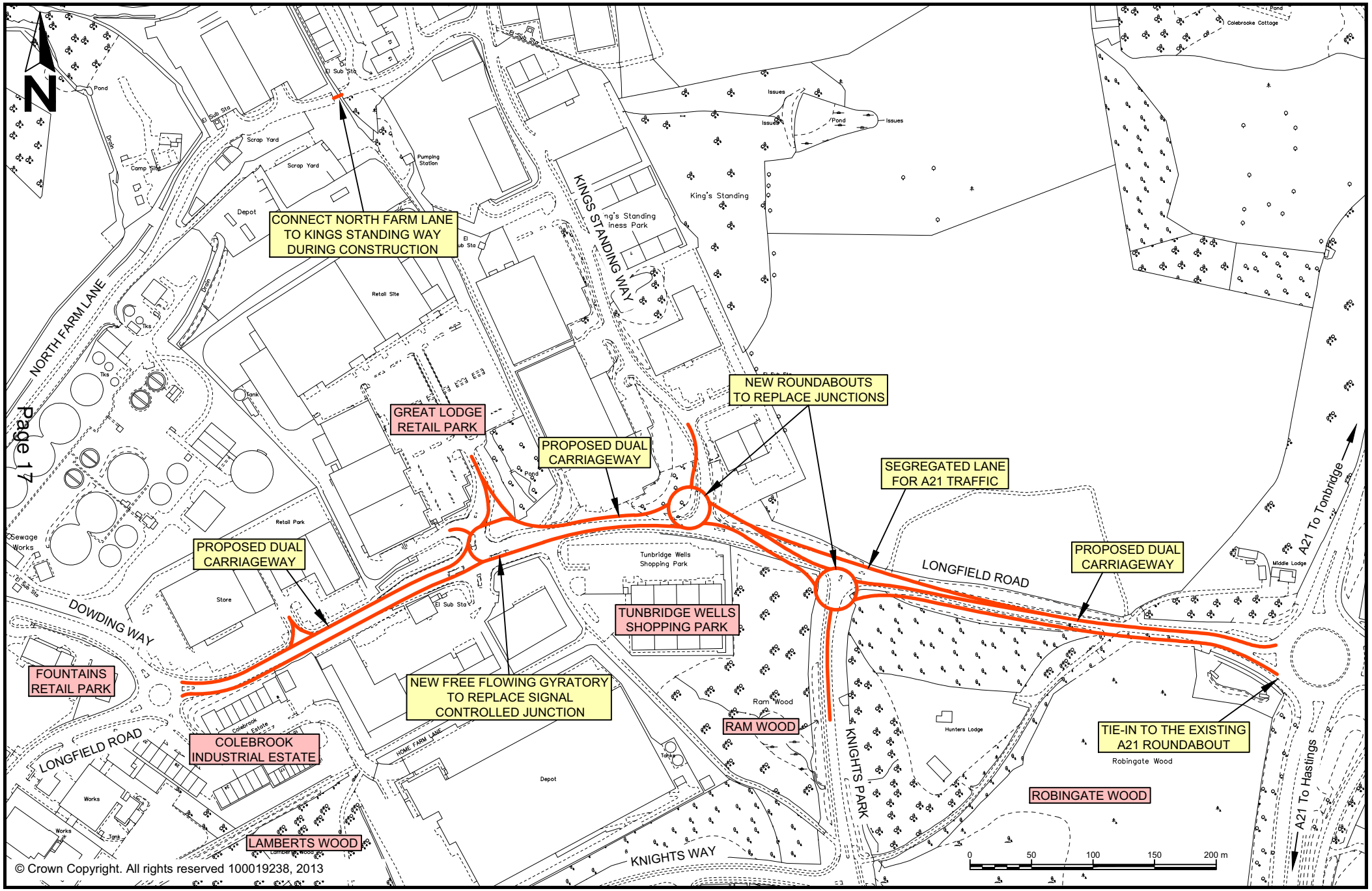
John.Burr@kent.gov.uk



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Appendix A

North Farm Link Road Improvement

Land Schedule & Commentary

This is a simplified schedule that generally identifies the land by business rather than the underlying freehold and leasehold ownerships.

South Side – A21 towards Dowding Way

Plot No's	Business/Retail Park	Commentary
25	Dft/HA	Support – part of existing highway and lagoon area but affected by A21 Tonbridge – Pembury scheme anyway
21, 23, 24	Dandara	Support – beneficial to their future development aspirations
15	Tunbridge Wells Shopping Park	Support can be implied from correspondence/contact
11, 12, 13, 14	Dandara, Big Yellow Storage and some unknown	S228 Notice proposed to formally confirm land is adopted public highway
9	Big Yellow storage	Support can be implied from correspondence/contact
5	BMW/Mini	Support can be implied from meeting and subsequent revised design to address issues raised
4	Tunbridge Wells Borough Council	Support can be presumed
3	Daejan	They suggest scheme is of little benefit to them and it has therefore been hard to engage in discussion. However, land appears to be highway anyway and so S228 Notice to formally confirm land is adopted public highway may be the way forward and avoid need for their involvement in Deed of Dedication.

North Side – A21 towards Dowding Way

John Farmer
10/06/2013
$ahmc1zs0

22	Sheridan Bowie	No longer required – scheme revised to avoid needing landtake
20	Carpetright	Support can be implied from meeting and subsequent revised design to address issues raised and in particular a much reduced landtake.
19	John Lewis	Support can be implied from meeting and confirmation that with small change in layout there will be no loss of car parking spaces.
16, 17,18	Croudace and unknown	S228 Notice proposed to formally confirm land is adopted public highway
7, 7A & 10	Great Lodge Retail Park	Contact made but they have reluctance to engage until they can be reassured about traffic benefits and particularly how access onto new gyratory junction will operate. Landtake for the scheme is minor however taking or having rights over a larger existing wooded watercourse area is key to providing for the storage and mitigation of the increased surface water discharge.
6, 6A	Hobbycraft, Magnet, former Comet.	Support can be implied from meeting and subsequent revised design that avoids any permanent loss of parking spaces.
2	Asda	Support can be implied from meeting and subsequent revised design that avoids any permanent loss of parking spaces. However they do want reassurance about the traffic aspects because of their concern about impact on supermarket trade.
1	Existing public highway	Therefore already available for scheme.

John Farmer
10/06/2013
$ahmc1zs0

KENT COUNTY COUNCIL – PROPOSED RECORD OF DECISION

DECISION TO BE TAKEN BY:	DECISION NO:
David Brazier **Cabinet Member – Transport & Environment**	13/00031

Unrestricted

Subject: North Farm Link Road (Longfield Road) Improvement, Tunbridge Wells

Decision:

As Cabinet Member for Transport & Environment, I agree to

i. the revised scheme for the improvement of Longfield Road, shown as an outline design on Drg No. 4300034/000/01 for land charge disclosures and development control in substitution for Drg No. B2500600/04 Rev0.

ii. continue to progress the scheme subject to all land required for the scheme being formally secured or committed by 31 July 2013.

iii. Legal Services taking a dedication, transfer or by some other appropriate legal mechanism to secure the land required to deliver the Longfield Road scheme, shown in outline on Drg No. 4300034/000/01 including but not limited to any ancillary works such as drainage and environmental mitigation.

Reason(s) for decision:

See Report to E, H & W Cabinet Committee meeting on 19/6/13

Cabinet Committee recommendations and other consultation:

Any alternatives considered:
Not applicable

Any interest declared when the decision was taken and any dispensation granted by the Proper Officer:

..... signed

..... date

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From: David Brazier – Cabinet Member, Transport & Environment

Paul Crick – Director, Planning & Environment

To: Environment, Highways & Waste Cabinet Committee – 19 June 2013

Decision No: 13/00046

Subject: Kent Farmsteads Guidance – guidance for landowners, developers and planners to assist in understanding the character of historic farmsteads

Classification: Unrestricted

Past Pathway of Paper: The Kent Farmsteads Guidance was previously discussed by the Environment, Highways & Waste Policy Overview & Scrutiny Committee in April 2011.

Future Pathway of Paper: Following the Cabinet Committee meeting on 19th June the Cabinet Member will be asked to take a formal decision on the endorsement of the Guidance by Kent County Council.

Electoral Division: All electoral divisions

Summary: The report explains the background to the Kent Farmsteads Guidance, summarises the Guidance, explains its purpose, and recommends that the committee endorses the Guidance and advocates adoption by Kent local planning authorities, as part of their local plan or as supplementary planning guidance.

Recommendation: The Cabinet Committee is asked to recommend to the Cabinet Member the formal endorsement of the Guidance by Kent County, in order to encourage its use by landowners, applicants and planners and to achieve the aim of promoting sustainable development. As the County Council is no longer able to adopt supplementary planning guidance, it is requested that the Council also recommends adoption of the Guidance by district planning authorities and Medway Council as supplementary planning guidance to their local plans.

1. Introduction

1.1 Traditional farm buildings are the most numerous type of building in the countryside, contributing to local distinctiveness and sense of place for visitors and local people alike, providing habitats for wildlife and offering a range of uses that benefit local economies and communities. Traditional farm buildings are largely redundant for modern agricultural purposes, and have been under the greatest threat, of both neglect and development, of all rural building types. Research conducted since 2006 by English Heritage and its partners shows how evidence can be developed which highlights the heritage and economic potential of traditional farmsteads in the context of their landscapes and communities, and the need for a locally adapted approach. The Kent Farmsteads Guidance provides landowners, planners and applicants with simple guidance for understanding the

key issues to inform sustainable development including conversion, new build and the provision or restoration of habitats.

2. Financial Implications

2.1 The decision will have no impact on Kent County Council capital and revenue budgets or spending plans.

3. Bold Steps for Kent and Policy Framework

3.1 The Guidance will help to achieve two of the ambitions in Bold Steps for Kent: *'To help the Kent economy grow'* and *'To put the citizen in control'*. This will be achieved by providing guidance which will help avoid delays in the planning process and assist sustainable development, and by making accessible information to help landowners or applicants prepare development proposals or management plans for their property.

It will also help to achieve the aims of the Kent Environment Strategy, particularly *Theme 3: Valuing our Natural, Historic and Living Environment*, by helping to find sustainable uses for historic farms.

4. The Report

History

4.1 The *National Planning Policy Framework* (NPPF) emphasises the delivery of sustainable development whilst stressing the importance of understanding local character and distinctiveness in determining planning applications, plan-making and decision-taking, as well as local economic and community circumstances; it notes the importance of landscape character assessment in helping to deliver this. Government has long sought to promote the use of redundant buildings to support rural economies, most recently within the *Growth and Infrastructure Bill* through the creation of Permitted Development rights to allow the change of use of agricultural buildings to other non-residential uses.

4.2 The Kent Farmsteads Guidance is subdivided into six parts summarised in Appendix 1. The accompanying Kent Downs AONB guidance document is part of the Kent Downs AONB suite of guidance supporting the AONB Management Plan. Guidance based on the approach developed in Kent, led by English Heritage in partnership with Kent County Council and the High Weald and Kent Downs AONBs, is now in preparation for Cornwall, Lincolnshire, Staffordshire, Shropshire, Wiltshire and Worcestershire.

Aim of the guidance

4.3 The Kent Farmsteads Guidance aims to inform and achieve the sustainable development of farmsteads, including their conservation and enhancement. It can also be used by those with an interest in the history and character of the county's landscape and historic buildings, and the character of individual places. Traditional farmstead groups and their buildings are assets which make a positive contribution to local character. Many are no longer in agricultural use but will continue, through a diversity of uses, to make an important contribution to the rural economy and communities.

4.4 It provides a framework for assessing and understanding the character of farmsteads in Kent. It is intended to speed up the planning process for proposals within historic farmsteads and to avoid wasted time and money through the submission of schemes which may be found unsuitable. In line with the NPPF it aims to facilitate sustainable development, indicating where development may be appropriate whilst retaining and enhancing the character of the environment.

4.5 There are no direct costs to KCC associated with endorsement of this Guidance and no direct risks. Endorsement of the guidance should have a beneficial effect for Kent's citizens in encouraging sustainable development.

Consultation and Communication

4.6 Initial consultation with stakeholders took place at a workshop in January 2010. Two linked draft documents, Kent Farmsteads Guidance and Kent Downs AONB Farmsteads Guidance, were produced, reflecting the comments of the consultees. The latter provides additional information on the specific character of localities within the AONB. Public and stakeholder consultation (including relevant KCC departments) took place on these documents between 29th March 2011 and 24th May 2011. A stakeholder workshop was also held on 29th May 2011. The Consultation Report (Kent Downs AONB Unit 2012) is available on the Kent Downs AONB website (see below). The Guidance documents were extensively redrafted and simplified following the consultation. They were also updated during 2012 to reference the new NPPF. The Guidance was adopted by the Kent Downs AONB Joint Advisory Committee in 2012. Now that the NPPF and Duty to Co-operate are fully in place it is appropriate to bring the Guidance to Cabinet Committee for endorsement.

4.7 It is intended to launch the Guidance jointly with Kent Downs AONB at a stakeholder event in late June or early July this year. A joint press release will be prepared and presentations will be made to key bodies including

Legal implications

4.8 There are no legal implications to be considered.

Risk and Business Continuity Management

4.9 There is a slight risk that the Guidance could be misinterpreted by some as promoting unsuitable development in the countryside.

Equality Impact Assessments

4.10 An Equality Impact Assessment has been carried out and is available on the Kent Downs AONB website (see below).

Sustainability implications

4.11 This proposal is entirely consistent with the sustainability objectives of environmental enhancement and building a sustainable economy. It will facilitate the reuse of historic buildings and will be promoted in a way which creates equal opportunity for all.

Alternatives and Options

4.12 No alternatives have been considered.

5. Conclusions

5.1 Traditional farm buildings are the most numerous type of building in the countryside, contributing to local distinctiveness and sense of place. Such buildings are largely redundant for modern agricultural purposes, and have been under the greatest threat, of both neglect and development, of all rural building types. Guidance has been developed which highlights the heritage and economic potential of all traditional farmsteads in the context of their landscapes and communities, and the need for a locally adapted approach.

5.2 The Kent Farmsteads Guidance provides landowners, planners and applicants with simple guidance for understanding the key issues to inform sustainable development. This is in line with the NPPF which emphasises the delivery of sustainable development whilst stressing the importance of understanding local character and distinctiveness in determining planning applications, in plan-making and in decision-taking.

5.3 The Guidance will help to achieve two of the ambitions in Bold Steps for Kent: *'To help the Kent economy grow'* and *'To put the citizen in control'*. It will also help to achieve the aims of the Kent Environment Strategy, particularly *Theme 3: Valuing our Natural, Historic and Living Environment*.

6. Recommendation

Recommendation

The Cabinet Committee is asked to recommend to the Cabinet Member the formal endorsement of the Guidance by Kent County, in order to encourage its use by landowners, applicants and planners and to achieve the aim of promoting sustainable development. As the County Council is no longer able to adopt supplementary planning guidance, it is requested that the Council also recommends adoption of the Guidance by district planning authorities and Medway Council as supplementary planning guidance to their local plans.

7. Background Documents

Kent Farmsteads Guidance, Kent Downs AONB Guidance Consultation Report Kent Downs AONB Unit 2012
http://www.kentdowns.org.uk/uploads/documents/fARMSTEADS_CONSULTATION_REPORT_final.pdf

Kent Farmsteads Guidance Equality Impact Assessment Kent Downs AONB Unit and Kent County Council 2010
http://www.kentdowns.org.uk/uploads/documents/Farmsteads_Equality_Assessment_May_2011.pdf

Kent Farmsteads Guidance English Heritage, Kent County Council and Kent Downs AONB Unit 2013
http://www.kentdowns.org.uk/publications/kent-downs-aonb-farmstead-guidance

Kent Downs AONB Guidance English Heritage, Kent Downs AONB Unit and Kent County Council 2012
http://www.kentdowns.org.uk/uploads/documents/Kent_Downs_AONB_Farmstead_Guidance.pdf

National Planning Policy Framework Department for Communities and Local Government 2012
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

8. Contact details

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Relevant Director:

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Appendix 1: Summary of the Kent Farmsteads Guidance

The Kent Farmsteads Guidance is subdivided into six parts, with an additional glossary of terms to aid the user. In addition summaries are being prepared for each local planning authority, outlining the key characteristics, significance and planning issues. The accompanying Kent Downs AONB guidance document, which links into the Kent Farmsteads Guidance framework, is part of the Kent Downs AONB suite of guidance supporting the AONB Management Plan. The Kent Farmsteads Guidance makes use of a Farmsteads Mapping project across Kent, which has identified those sites with heritage potential and placed them in their landscape context for the first time. Datasets from the project have been provided by English Heritage for incorporation in the Kent Historic Environment Record.

Part 1 Farmsteads Assessment Framework
This sets out the aims and purpose of the Kent Farmsteads Guidance and is divided into two sections:
1. a Site Assessment Framework which will help applicants identify the capacity for change and any issues at the pre-application stage in the planning process, and then move on to prepare the details of a scheme.
2. Farmsteads Summary Guidance which summarises the planning context and the key principles to inform the sustainable development of farmsteads – understanding their character, significance and sensitivity to change.

Part 2 Planning Context
This sets out the national and local policy context, and summarises recent research on farmsteads including for each of Kent's local authorities.

Part 3 Kent Farmsteads Character Statements
Fully-illustrated guidance on the character and significance of Kent farmsteads, for use in individual applications and detailed design work, for the preparation of area guidance and for those with an interest in the county's landscapes and historic buildings. The guidance is presented under the headings of: Historical Development, Landscape and Settlement, Farmstead and Building Types and Materials and Detail.

Part 4 Character Area Statements
These provide summaries, under the same headings and for the same purpose, for the North Kent Plain and Thames Estuary, North Kent Downs, Wealden Greensand, Low Weald, High Weald and Romney Marsh.

Part 5 Kent Farmsteads Design Guidance
This provides illustrated guidance on design and new build, based on the range of historic farmstead types. It is intended to help applicants who are then considering how to achieve successful design, including new-build where it is considered appropriate and fitted to local plan policy.

Part 6 Recording and Research Guidance
This summarises the main issues to consider when undertaking more detailed recording of a site, with a case study and research questions to guide the survey and assessment process.

Part 7 Glossary
This is a glossary of terms to aid the user.

Summaries
Summaries are being prepared by English Heritage for each local planning authority outlining the key characteristics, significance and planning issues.

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KENT FARMSTEADS GUIDANCE

PART 1

FARMSTEADS ASSESSMENT FRAMEWORK

High Weald

Kent Downs

CONTENTS OF PART 1 OF THE KENT FARMSTEADS GUIDANCE: FARMSTEADS ASSESSMENT FRAMEWORK

The Kent Farmstead Guidance is the result of collaboration between English Heritage, Kent County Council and the Kent Downs AONB. It also builds on pilot work developed by English Heritage and the High Weald AONB. It has been revised further following consultation with key stakeholders in Kent. The revision has also integrated the result of the Kent Farmsteads and Landscapes Project, which represents the completion of rapid mapping of farmsteads supported firstly by the High Weald Joint Advisory Committee and then by English Heritage. The text was prepared by Jeremy Lake of English Heritage, with contributions from Bob Edwards and James Webb of Forum Heritage Services (substantially to Parts 5 and 6), & publication layout by Diva Arts.

NOTE. THIS DOCUMENT IS AVAILABLE IN ALTERNATIVE FORMATS AND CAN BE EXPLAINED IN A RANGE OF LANGUAGES. PLEASE CALL KENT COUNTY COUNCIL'S REGENERATION & ECONOMY'S PROJECT SUPPORT TEAM ON 01622 221866 FOR DETAILS.

KEY PRINCIPLES

The key principles of the approach in this guidance are based on understanding:

1. The character of farmsteads, which results from their historic development and function as whole sites, including any routeways and spaces within and around them, and how they are linked to the surrounding landscape and settlement. A simple distinction can be made between traditional farmsteads and their buildings which make a significant contribution to local character and distinctiveness and those prefabricated and standardised industrial buildings which are often added to traditional farmsteads but do not themselves display any local variation in their architectural character or distribution.

2. Their significance, a factor that can be of critical importance in determining planning applications. Significant traditional farmsteads will make a fundamental contribution to local distinctiveness and a sense of place, through their varied forms, use of materials and the way that they relate to the surrounding landscape and settlement. Some sites or buldings will have special significance in a local or national context, which may require specialist help and will be useful in developing a scheme. This significance can be retained and enhanced through sympathetic change and development of the site in relationship to its setting. The absence of statutory designation does not imply lack of significance, as the great majority of farmstead buildings which contribute to landscape character will not fulfil the criteria for designation.

3. Their sensitivity to the different options for change (see table on next page), key factors being:

    - The type and density of settlement in the area, the amount of land cover provided by trees, hedgerows and woodland, and the provision of vehicular rights of way.
    - How buildings are arranged in relationship to each other and the areas of public and private space around them.
    - The scale and layout of individual buildings, the degree of natural light provided to them and any significant interior fabric or fittings.
    - Their structural condition and the robustness of fragility of the materials from which they are constructed.
    - Habitats for wildlife.

OPTIONS FOR CHANGE

Traditional farmsteads need a use. The alternative is eventual collapse and loss. All of the options in the table below present issues to consider when considering change for a whole area or an individual site. Proposed non-agricultural uses may require planning approval as will most proposals for farm diversification, depending on their impact on the site.

Option	Key Issues to Consider
Maintain – through investment and the use of traditional or non-traditional materials Conservation repair – as features in the landscape or as significant historic buildings, with minimal or no alteration	Small regular payments for maintenance are available through the Environmental Stewardship Entry Level Scheme which is open to all farmers and land managers. Funding for larger-scale repair projects are available under the Higher Level Scheme and for Grade I and II* listed buildings from English Heritage. Grants are generally focused on small numbers of exceptionally significant buildings whose sensitivity to change make them especially deserving of conservation for their historic or landscape value. See page 24 for guidance on grants and maintenance. The key issues to consider are: • The cost of continued maintenance and repair, particularly for farm businesses, sometimes linked to the need for minor adaptation. • The type of repair and its impact on the durability and integrity of historic fabric. • The sources and supply of traditional building materials onto the market.
Adapt – to new agricultural or non-agricultural uses as the best way of securing a future for the building New build – to support continued on-farm operations or to provide residential or non-agricultural business accommodation	Adaptation for non-agricultural use and new build will have an impact on the whole site and its landscape setting. The impact will vary, depending on the visual prominence of farmsteads in the landscape, the ease of access to them provided by the road network and their layout and scale. The functional form and simple, agricultural appearance of historic farm buildings is often unsuited to extension and over-fenestration. Adaptive reuse (including diversification projects) and new build for non-agricultural purposes have the potential to maintain or enhance the contribution that the farmstead makes to the landscape, its landscape setting and wildlife. Both will have an impact on the whole site, including: • Growth in traffic and effects on neighbours • Views into the site • Setting, boundaries and curtilage, through improvement of access, provision of car parking and gardens, development of prominent viewpoints and elevations • The impact on historic buildings, depending on their form and scale, of the demand for more natural light (new openings) and the sub-division or amalgamation of spaces • The loss of historic fabric or creation of new built elements • The displacement of uses to other buildings or parts of the site.
Collapse and loss – through continued dereliction or demolition and salvage	Dereliction and loss have for centuries followed functional redundancy. Isolated buildings, without access, in deteriorating condition or lacking the capacity to accept alternative uses, are those most at risk. While buildings identified as not meriting intervention or for demolition may occasionally be prominently sited, they will tend to be of low historic or architectural value. Key issues to consider: • The impact of any loss, particularly cumulative loss, on the character of the landscape and how it is appreciated. • The historic and architectural significance of the individual site or building.

USING THE KENT FARMSTEADS GUIDANCE

The Kent Farmsteads Guidance aims to inform and achieve the sustainable development of farmsteads, including their conservation and enhancement. It will help applicants, including agents and architects, and local authorities understand whole farmsteads in their landscape context, complementing the detailed guidance on the adaptation or conversion of individual buildings which have become redundant as a result of changing agricultural practice[1]. It uses the results of national research by English Heritage and also the mapping of the historic character and survival of farmsteads in Kent's landscape by English Heritage and the High Weald AONB Unit.

The guidance can also be used by those with an interest in the history and character of the county's landscape and historic buildings, and the character of individual places.

PART 1 THE FARMSTEADS ASSESSMENT FRAMEWORK

This is divided into two parts as set out below.

THE SITE ASSESSMENT FRAMEWORK

This has three stages which will help applicants identify the capacity for change, and other issues that can inform the earliest critical stage in the planning process and be taken forward when preparing a scheme.

THE FARMSTEADS SUMMARY GUIDANCE

This provides a summary for applicants and local authorities across Kent, of:

- The historic character of farmsteads, focusing on how to identify traditional farmsteads and their buildings, their landscape and settlement context and their function and layout.
- Their level of significance, from their contribution to local character to their special significance, which is important in determining planning applications.
- Their capacity for change at an area and site scale, based on their sensitivity to the different options for change.

SUPPORTING DOCUMENTS IN THE KENT FARMSTEADS GUIDANCE

PART 2 (PLANNING CONTEXT)
This sets out the national and local policy context for applicants and local authorities. It also summarises recent research on farmsteads including for each of Kent's districts.

PART 3 (KENT FARMSTEADS CHARACTER STATEMENT)
This fully-illustrated guidance will help users understand the character and significance of Kent farmsteads, presented under the headings of: Historical Development, Landscape and Settlement, Farmstead and Building Types and Materials and Detail.

PART 4 (CHARACTER AREA STATEMENTS)
These provide summaries, under the same headings, for the North Kent Plain and Thames Estuary, North Kent Downs, Wealden Greensand, Low Weald, High Weald and Romney Marsh.

PART 5 (KENT FARMSTEADS DESIGN GUIDANCE)
This will help applicants, including architects, who are considering how to achieve successful design, including new-build where it is considered appropriate and fitted to local plan policy.

PART 6 (GUIDANCE ON RECORDING AND RESEARCH)
This will help applicants and professional advisors to consider the most appropriate level for the recording of a site, either in suppport of an application or, once permission has been secured, to make a record during the implementation of a scheme.

PART 7 (GLOSSARY)
This is a glossary of terms to aid all users.

1 English Heritage's publication, ***The Conversion of Traditional Farm Buildings: A Guide to Good Practice,* 2006, contains detailed advice with examples** ⧄.

USING THE SITE ASSESSMENT FRAMEWORK

Use this framework to understand the whole site in its setting, and to scope and prepare an application for new development, change of use or listed building consent, and if necessary a Design and Access Statement and a Heritage Statement.

USE THE 3 KEY STAGES OF THE ASSESSMENT FRAMEWORK

1

SITE ASSESSMENT SUMMARY

A. Identify the site, access and services, and any designations including its wildlife (habitat and species) interest.

B. Identify the historic character of the whole farmstead and its landscape setting, and how it has changed.

C. Identify its level of significance, which is important in the planning process whether it is designated or not.

2

CAPACITY FOR CHANGE

This understanding will then help you identify any issues at the earliest critical stage in the planning process. Its sensitivity to differing proposals will determine what capacity there is for change and indicate the nature of change that will be most acceptable.

3

PREPARING A SCHEME

In preparing a scheme consider the likely impact on spaces, routeways, and relationships between buildings and the landscape that are key to the conservation/enhancement of character. Understand how elements of change e.g. parking, gardens, boundary treatments, affect character and consider opportunities for enhancement of features and views.

ADVANTAGES OF USING THE FRAMEWORK

There are clear advantages for applicants and their agents in using the Assessment Framework. It is important that all development proposals clearly set out how they comply with national and local planning policy. Applicants are advised to consult with their Local Planning Authority and seek professional support and advice at an early stage in the formulation of proposals for the development of a farmstead.

APPRAISING A SITE AT THE PRE-APPLICATION STAGE

This will help the applicant and local authority to:

- **Understand the character of the farmstead and its setting**, which results from its historic development and function.
- **Identify and assess its significance**, which is necessary for assessing and determining planning applications. Significance can be retained and enhanced through sympathetic change and development of the site in relationship to its setting.
- **Understand the likely sensitivity to the changes being considered**, and other issues that can inform pre-application discussion and be taken forward when preparing a scheme.

Early appraisal is key to identifying constraints and where there may be opportunities for future change which conserve, enhance or better reveal the distinctive character and significance of a farmstead in its setting. Initial discussions with the relevant local authority will indicate if planning permission and or other consents, such as listed building consent, will be required.

PREPARING AN APPLICATION

Most schemes for conversion and any new development (buildings, gardens, access and parking) are likely to have an impact on the farmstead as a whole and its landscape setting, which need to be considered and positively addressed throughout the planning and design process. The results of an early appraisal will help:

- **Save time and costs** in preparing an application for new development, change of use or listed building consent, and where necessary an accompanying Design and Access Statement and Heritage Statement. An application will have a much greater chance of success if obvious constraints, the capacity for change and other key issues are identified and considered at the pre-application stage, and if an applicant's case is well prepared and justified.
- **Inform discussions and negotiations** with other parties that may be affected by the proposals.
- **Identify the need for professional support and advice** including further survey.

DEVELOPING A SCHEME

The scheme can then use this understanding of the landscape, the farmstead and the buildings to achieve high quality design in the rural context, based on:

- **The extent of change**, which informs opportunities to retain and reveal the significance of historic buildings and spaces, reinstate lost features or develop other parts of the site.
- **The landscape context**, including boundaries and its potential for wildlife connected to its surrounding area.
- **The whole site**, including its overall form and scale, any designations and the way in which buildings face towards or away from historic and modern spaces, routeways and the surrounding area.
- **Architectural patterning**, especially the building styles, materials and details that are important to maintaining or enhancing the character of the farmstead in its landscape setting, including the siting and design of any new buildings.

STAGE 1 PREPARE A SITE ASSESSMENT SUMMARY

The aim of this stage is to present a basic understanding of the character and significance of the whole site, which can then be used and deepened as required later in the planning process. The examples on pages 11–13 show how it can be rapidly completed without specialist knowledge as short text accompanied by an outline plan, which can identify any sub-areas and be cross-referred to photographs.

A Identify the site and any designations

- The present and historic boundary.
- Ownership or tenancy.
- Use of the site and the area around it.
- The road network and its capacity, including sightlines from main entrances.
- Routeways, including Public Rights of Way.
- Key services such as water, sewage, electricity and telecommunications.
- Designations on and around the site (see checklist box on page 7).

B Identify the historic character

This is a critical first step in understanding the site's sensitivity to and potential for change. Site survey and then comparison with historic maps (see text box on page 8) will help identify the type and degree of change to the site and its surrounding area, including in some instances where buildings have been rebuilt or even collapsed upon earlier footprints.

1 Landscape Setting

- Site location and surrounding topography, including archaeological sites.
- Views (to and from the site) and how they have changed, for example as a result of either the removal or new development of buildings, routeways, working spaces and woodland.

2 The farmstead

- The scale and form of the whole site and its buildings.
- How the buildings group together and relate to each other, access routes and open or enclosed spaces within and around the site. These spaces include fields, gardens or working areas, and can be bounded by hedges, walls or fences.
- Whether the site can be subdivided into distinct areas, as a result of how they have functioned and changed.

3 The buildings

- Date and present use, distinguishing between traditional and modern buildings.

4 Scale, architectural treatment and use of materials.

- Individual historic buildings can be listed and cross-referred to a site plan, where more detail can also be noted such as:
  - Plan form and the number and size of openings (including blocked openings).
  - Evidence for lost floors and partitions or sub-division such as grain bins.
  - Exposed carpentry including roof trusses.
  - The presence of internal features, such as machinery, stalls, floor surfaces, historical graffiti and marks of lost features.
  - Condition.

C Identify significance

There are two levels of significance, the first being most important at this stage:

1 Significance as a traditional farmstead.
Whether these have been designated as heritage assets or not, they will have retained one or both of the following:

a. *Farm buildings with a locally distinctive architectural form and character, and use of building materials.* Traditional buildings date from the 19th century or earlier, and very few traditional buildings date from after 1900 (in most areas around 1880). Early 20th century (pre-1940) buildings can have significance if they have a strong architectural character (as traditional, designed or industrial buildings) or for their special significance.

b. *Their historic form as traditional farmsteads, where the historic farm buildings, houses and spaces relate to each other.* This has been mapped across the county.

2 Special significance. Special significance in a local or national context, which is not vital at this stage but will be useful in developing a scheme.

Further guidance on significance can be found in the Summary Guidance (see pages 18–19).

DESIGNATION CHECK LIST

Heritage assets

Heritage assets are defined as 'a building, monument, site, place or landscape identified as having a degree of significance meriting consideration in planning decisions because of its heritage interest'. Individual buildings and sites have different levels of significance, of importance in determining an application.

- Designated heritage assets comprise World Heritage Sites, Scheduled Monuments, Listed Buildings (Grades I, II*, II), Registered Parks and Gardens, Registered Battlefields and Conservation Areas.
- Undesignated heritage assets of archaeological interest and of national significance, which are also treated as designated assets.
- Undesignated heritage assets of local significance, which can be identified on 'Local Heritage Lists' that are often supported by local planning policy. The effect of an application on the significance of a local heritage asset is a material consideration in determining an application.

Details of all nationally protected heritage assets can be found on the National Heritage List for England at **http://www.english-heritage.org.uk/professional/protection/process/national-heritage-list-for-england/**. Guidance on the criteria and how to apply for designation, can be found on the English Heritage website at **http://www.english-heritage.org.uk/caring/listing/**.

Listed farmhouses and working buildings in Kent include a high proportion, by national standards, of pre-1550 buildings. Kent was last subject to systematic resurvey in the late 1970s, prior to the national resurvey of rural areas in the 1980s and the greater knowledge of rural buildings that has since developed. As a result, there is a large number of unlisted buildings of 18th century or earlier date which may fulfil national listing criteria and are subject to spot-listing applications.

Almost 50% of farmsteads in Kent – a high proportion by national standards – include at least one listed building, most of these (40% of all recorded farmsteads) being farmhouses and most of the working buildings being barns. Only 2% of farmsteads have listed working farm buildings but no listed farmhouse. Less than 1% of outfarms include a listed building.

Wildlife and habitats

- Sites of Special Scientific Interest (SSSI), which are areas of land notified under the Wildlife and Countryside Act 1981 as being of special nature conservation interest.
- Sites of Importance to Nature Conservation (SINC) are sites of non-statutory designation, usually assessed by the local authority or wildlife trust, which are recognised by local planning policies.
- *P*rotected species – certain species – bats, for example – are protected as European Protected Species. Expert advice will be required to ascertain whether a protected species is present within or adjacent to a farmstead site.
- Important hedgerows are protected from removal by the Hedgerows Regulations 1997 (http://www.**naturalengland.org.uk/ourwork/regulation/hedgeregs**).

Areas of Outstanding Natural Beauty

There are two Areas of Outstanding Natural Beauty (AONB), designated for their special qualities or character, which cover 32% of the area of Kent. These comprise the Kent Downs AONB, which extends into the London Borough of Bromley **http://www.kentdowns.org.uk** and the High Weald AONB, which is mostly in East Sussex **http://www.highweald.org**.

Section 85 of The CROW Act 2000 places on local authorities a requirement to produce an AONB Management Plan and a 'duty of regard' to conserve and enhance AONBs. Conserving and enhancing the qualities of such landscapes are a material consideration in considering planning applications within or adjacent to them.

Further information

For further information see Sources and chapters 7.3 and 8.1.8 of the Kent Downs Farm Diversification Toolkit at **http://www.kentdowns.org.uk**.

A full assessment methodology covering all these designations and suggesting action and mitigation is available in the Kent Downs Farm Diversification Toolkit at **http://www.kentdowns.org.uk**.

USING HISTORIC MAPS, THE HISTORIC ENVIRONMENT RECORD AND OTHER SOURCES

Shown below is an extract from the Ordnance Survey 2nd edition maps of around 1900. These provide a useful baseline for measuring subsequent change, because they were compiled after the last major phase in the development of traditional farmsteads. This understanding can then be deepened by using earlier and more recent maps. Most local libraries hold historic Ordnance Survey maps, and county record offices hold these and tithe maps which date from after 1836 (when the government decided to commute tithes into money payments) or estate surveys which may assist in dating some of the buildings. Some counties have made these available on-line. Historic Ordnance Survey maps can also be viewed at:

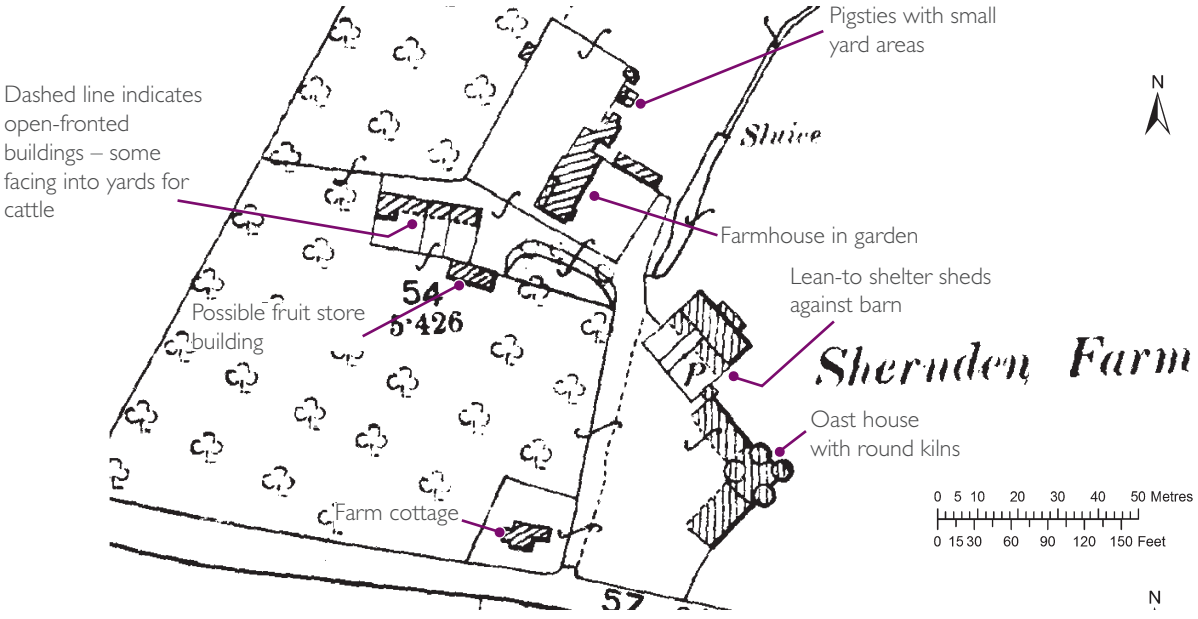
- www.old-maps.co.uk
- www.ordnancesurvey.co.uk/products/historical-map-data
- www.nationalarchives.gov.uk/records/research-guides/ordnance-survey

Websites such as Google Earth or Local Live are regularly used to provide an overview of a site and its immediate area.

The Kent Historic Environment Record **http://www.kent.gov.uk/HER** holds information on historic buildings, sites and areas. It is accessed through the KCC Heritage Conservation team (there may be a charge for this service). Contact the Kent Historic Environment Record, Kent County Council, Invicta House, County Hall, Maidstone, Kent. ME14 1XX. Tel: 01622 221541.

The Kent Landscape Information System provides detailed information including maps on the county's landscape and biodiversity.
See **http://www.kent.gov.uk/klis**

The Centre for Kentish Studies is the Headquarters for the Kent Archives Service. It holds manuscript and printed records for the county of Kent including tithe and estate maps. See **http://www.kent.gov.uk/ExploringKentsPast/** for the 2nd edition 25" Ordnance Survey maps. For Kent Archives see **http://www.kent.gov.uk/leisure_and_culture/archives_and_local_history.aspx**



Map based on OS 2nd edition 25" map © and database right Crown Copyright and Landmark Information Group Ltd (all rights reserved) Licence number 5000394 and TP00024 2011

STAGE 2 CAPACITY FOR CHANGE

The Site Assessment Summary provides the basis to consider the capacity for change and other issues at the pre-application stage and before presenting a scheme.

Capacity for change

Farmsteads and their settings have different sensitivities to the options for change, in particular adaptive reuse and new build, and how they impact upon:

- Neighbours affected by any increase in traffic and other activities.
- The whole site and its setting, through improvement and provision of access, parking areas, gardens and new buildings.
- Historic buildings, due to the demand for more natural light (new openings) and the sub-division or amalgamation of spaces.
- Building materials and fabric, depending on the robustness or fragility of the materials from which they are constructed.
- Other parts of the site through displacement of uses.

Planning policy

- Local plans developed by local authorities generally support the re-use of significant historic buildings, and include specific requirements and planning considerations, particularly in relation to residential additions, alterations and extensions, and issues such as over-looking, noise, loss of light and taking account of biodiversity.
- It may also be necessary to look at any relevant Neighbourhood Plans and other community plans such as Village Design Statement or Parish Plans.

Heritage consent and potential

- The effect of an application on the significance of a heritage asset, including its setting, is a material consideration in determining the application.
- Any pre-1948 working building or structures in the curtilage (the legal property boundary) of a listed building are considered to be listed and therefore covered by listed building legislation and consent requirements. Scheduled Monument Consent must be sought from English Heritage for any works affecting a Scheduled Monument.
- The pre-application stage may also highlight the need for further information through recording and in some cases a field evaluation of the archaeology of the site and its surroundings. For further details go to PART 6: GUIDANCE ON RECORDING AND RESEARCH.

Wildlife and habitat potential

- Consider the extent to which the site and its buildings are used or have the capacity to be used as roosting, nesting of feeding sites by wildlife including bats and other protected species.
- Expert advice can be required to ascertain whether a protected species is present within or adjacent to a farmstead site.
- Surveys for wildlife that may be impacted by the proposed development may be required. Seek advice from the local authority regarding the need for an ecological survey to establish the nature conservation interest of the site and its setting.
- Local planning authority permission is required before removing hedges that are at least 20 metres (66 feet) in length and more than 30 years old.

Potential for and impact of low-carbon development

This is an essential consideration for all planning applications and includes:

- The pattern and density of settlement.
- The potential for home-working.
- Accessibility, including distance and ease of access to services and public transport.
- Thermal efficiency and how this can be delivered without a harmful impact on the character and significance of historic buildings.
- The potential for micro-generation through building-integrated and free-standing technologies - ground-source or air-source heating, geo-thermal sources, solar and wind power.
- Potential for used (grey) water recycling and reed bed sewage disposal.
- The cost and availability of traditional building materials including locally sourced materials and the salvage of materials.

Economic issues

- Local employment pressures and opportunities (e.g. trends, nearby markets/employment centres, types of employment, skills).
- Market and rental values for various uses.
- Communications, including access to and bandwidth of broadband.

STAGE 3 CHECKLIST FOR PREPARING A SCHEME

Landscape setting

- Ensure safe access with clear sightlines. Intensification of an access or creation of a new access will require approval from the Highway Authority (as well as the local planning authority).
- Enhance significant views to and from the site, through considering the impact of any gardens, boundaries, access and parking.
- Ensure that the choice of planting and landscaping (trees, hedges, the restoration of ponds etc) fits with the local setting and enhances habitat for wildlife.

The farmstead

- Retain and enhance the visibility and character of spaces around and within the farmstead, this including the sense of space between buildings, and between working buildings and the farmhouse.
- Reinstate missing elements that may preserve or enhance the character and significance of the group. This does not mean replicating lost buildings but using an understanding of farmstead character to inform new design (see below).

The buildings

- Minimise alterations to prominent and significant external elevations, through careful attention to internal planning and how and where to introduce or borrow light. The size and detail of window design and materials has a major impact on overall appearance.
- Select paint colours that complement and do not conflict with the patina of walling and roofing, considering local estate colours where relevant.
- Repair historic fabric with suitable materials and techniques.
- Conserve open interiors with impressive proportions and long sight lines.
- Retain, where possible, historic features including door and window treatment, exposed roof trusses, floor structure, machinery, floor surfaces.

There is further detailed advice on the conversion and re-use of farm buildings in English Heritage's publication, *The Conversion of Traditional Farm Buildings: A Guide to Good Practice*. The local planning authority may also have detailed supplementary planning documents including design guidance.

New buildings and design

Different opportunities or constraints may be offered by the plan form and the level of change. New development might include the demolition of modern or insignificant buildings and the opening of spaces to better reveal the significance of heritage assets, enhancing the contribution that farmsteads make to surrounding settlement and landscape. Getting the design right is essential on such sensitive sites and will need to be informed by a detailed understanding of the landscape, the farmstead and its buildings.

Consider

- Whether the introduction of new build could secure the future of highly significant buildings or other traditional buildings within the group that have low potential for change.
- Use an understanding of the plan form of the farmstead, and how it has changed, to inform the siting of new buildings that are sensitive to and enhance the historic character of the site.
- The use of materials of appropriate quality which is essential in ensuring a successful scheme.
- Minimising fuel costs and reduce carbon emissions at source through careful consideration of site layout, building design and materials. South-facing frontages with the longest face within 30 degrees of south – ideally facing south-east – can often be achieved, as many historic farmsteads tended to face south to maximise the sun.

Kent Farmsteads Design Guidance

The Kent Farmsteads Design Guidance is intended to help applicants who are considering how to achieve successful design when preparing a scheme, including new-build where it is considered appropriate and fitted to local plan policy. It seeks to provide advice, good practice and general guidance for development in the rural context. It has been designed to guide the applicant through a series of ideas and concepts which will help produce a scheme which conserves, enhances or better reveals the distinctive character and significance of a farmstead in its setting.

Introduction

1. Landscape Context
2. Site Appraisal of the Farmstead
3. The Farmstead Group – Access and Boundaries
4. Design Suggestions for Plan Types
5. Buildings – Working with Scale
6. Buildings – Large Traditional Buildings
7. Buildings – Openings and Proportions

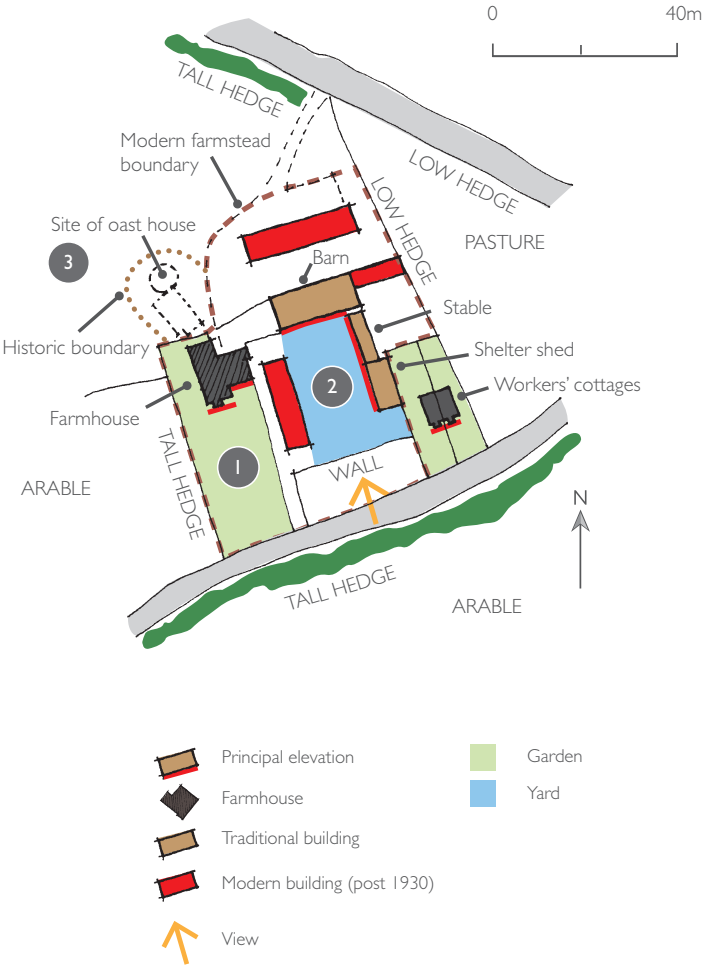
EXAMPLES OF SITE ASSESSMENT SUMMARIES

A plan can identify any distinct areas into which the farmstead can be subdivided, and be cross-referred to photographs and a list of the buildings on site. This will help keep the text short and focused. The report and plan can then be used and deepened as required later in the planning process.

EXAMPLE 1: A SMALL-SCALE COURTYARD FARMSTEAD

Summary

This is a loose courtyard farmstead with at its core a group of buildings set around a yard, which was extended with a new shed and separate access to the north in the late 20th century.



Site and management issues

1. Historic character

Setting

The hedgerows to the site boundary link to similar hedgerows and blocks of woodland in the surrounding landscape.

- There is a view into the yard from the lane with the barn being most prominent and the upper storey of the farmhouse clearly visible above the cow house.

The farmstead and its buildings

This is identified as a medium-scale loose courtyard plan with detached buildings set around a yard. The farmhouse is set to the west of the historic farmyard, which has detached buildings to three sides of a yard that is open to and faces south. The traditional barn, stable and shelter shed are typical for the area.

The whole site clearly divides into the following areas:

1. The mid-19th century house, which faces south towards the lane and into its own garden area.
2. The historic farmyard and buildings. This survives as a loose courtyard plan with traditional buildings to the north and east of the yard built of brick with slate roofs. To the west is a mid-20th century cow house built in industrial brick with a corrugated iron roof, on the footprint of an earlier building.
3. North of the yard. An oast house stood to the north of the farmhouse served by a separate entrance from the north, but this has been demolished. To its north is a modern working area, with industrial sheds and separate access from the A road to the north.

Significance

The core historic farmyard (Area 2) retains the overall form of a traditional courtyard farmstead, and the farmstead clearly forms part of the enclosed landscape within which it developed.

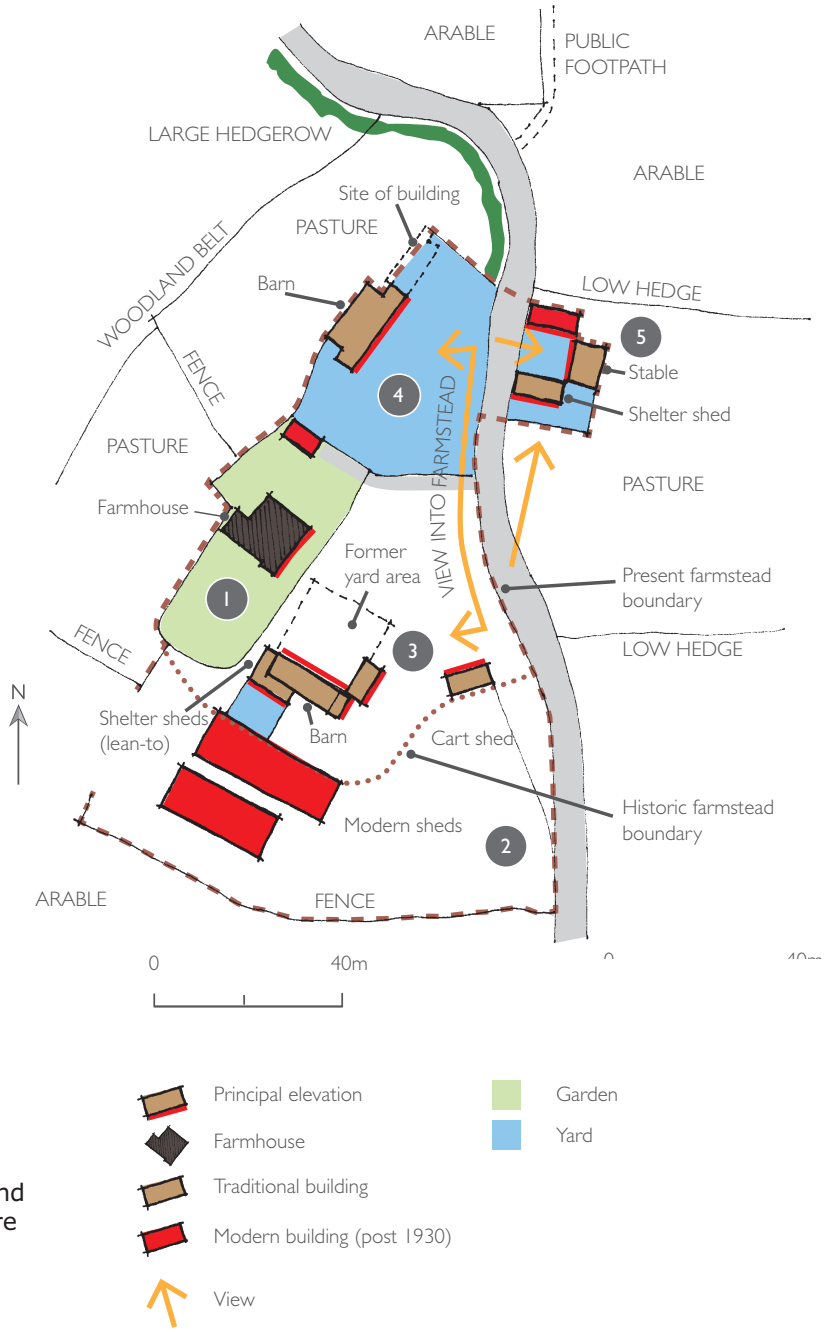
EXAMPLE 2: A MULTI-YARD FARMSTEAD

Summary

This is a large farmstead with several detached yard areas, which has developed around one of the many trackways in this area that connected woodlands and fields to scatters of dispersed farmsteads and dwellings. There has been little change to its historic landscape context, and more than 50% of its historic form as shown on the 2nd edition Ordnance Survey Map survives – which is above-average for this area. The Farmhouse and North Barn are listed Grade II.

Site and management issues

1. ***Site boundary, ownership and use.*** The present boundary is shown on the map, and takes in an additional area with modern sheds to the south. The farmstead is in single ownership and all the buildings are redundant for modern farming purposes.
2. ***Site access and services.*** The farmstead is 350m from a public B-class road and is accessed by a narrow track which also serves one other house 500m to the south. The track is a public bridleway. A public footpath heads north from this track.
3. ***Designations.*** The Farmhouse and North Barn are listed at Grade II. The trackway that passes through the farmstead becomes a sunken lane as it passes through the woodland to the north west. A further track carries the public footpath to the north east affording good views of the farmstead, particularly the eastern group.



Historic character

Setting

- The farmstead lies within a hollow with rising ground to the north, east and south, and flat land extending approx. ¾ of a mile to the west before it falls into a river valley.
- The landscape around the site has experienced little change other than the loss of some of the field boundaries marked on the 2nd edition Ordnance Survey map.
- The trackway that passes through the farmstead becomes a sunken land as it passes through the woodland to the north west. A further track carries the public footpath to the north east affording good views of the farmstead, particularly the eastern group.
- Post-and-wire fences form the present boundaries to the site, and these probably replaced traditional wooden fencing.
- There are limited glimpses of the farmstead in long-distance views from the west, due to a belt of woodland. This is designated as ancient woodland (http://magic.defra.gov.uk/). There is a strip of fields between this woodland, marked by a bank and ditch topped with old coppice stools, and the boundary of the farmstead.
- The large modern sheds for housing cattle are the dominant feature in views from the south closer to the farmstead.

The farmstead and its buildings

This is a large farmstead with several yard areas detached from one another. It is identified as a dispersed multi-yard plan. More than half of the buildings shown on the 2nd edition Ordnance Survey map survive. The main areas, where minor buildings have been lost, are in relationship to the barns in Areas 3 and 4 as set out below.

The farmstead sub-divides into five distinct areas as follows:

1. The farmhouse is a large 18th century red brick house, with a clay tile roof, that faces east towards the track and is set in an enclosed garden area bounded by a brick wall.
2. Modern metal sheet-clad steel-framed sheds to the south of Area 3, representing an extension beyond the earlier southern boundary of the farmstead. There is direct access to these buildings from the track.
3. A former yard area to the east of the house, cleared to form a formal approach to the house, is bounded to the south by a barn of stone rubble and brick. Shelter sheds attached to the barn face east and also south into a smaller yard. There is a cart shed to the east which is partially collapsed and in poor condition.
4. The north barn and yard. The north barn is listed at grade II. It is a weatherboarded timber-frame barn of 5-bays with an aisle to the west. It faces into a large yard area on its east side bounded by the track on the east, brick walls to the south and a fence to the north. The 2nd edition Ordnance Survey map shows an open-fronted shed to the north of the barn facing into the yard.
5. The east yard buildings. These are small-scale and comprise a stable with hayloft to the east, a shelter shed for cattle to the south and a mid-20th century cow house to the north, all of brick with plain clay tile roofs or modern sheeting.

Significance

1. As a traditional farmstead

- More than 50% of its historic form as shown on the 2nd edition Ordnance Survey map survives – which is above-average for this area.
- The farmstead has retained the landscape setting within which it developed, including one of the many trackways in this area that connected woodlands and fields with species-rich boundaries to scatters of dispersed farmsteads and dwellings and the designated ancient woodland to the west.

2 Special significance

- The dispersed multi-yard plan has been identified as a rare surviving plan type for this area, making its above-average survival of special significance.
- The listed barn and farmhouse are of 16th century date, adding considerably to the significance of the group.

Appendix with list of buildings

A brief description of each building and its present use can be listed in an appendix to the summary, and cross-referenced to a numbered site plan and photographs. For example:

North barn 17th century 5-bay aisled barn. Listed Grade II. Weatherboarded timber frame on a brick plinth. Hipped, tile roof. Large doors to central threshing bay with porch to the west side. The brick plinth has been partly rebuilt at the north-west corner with modern brick. Concrete floor. The framing of the barn is in good condition. The barn is used for storage.

South barn 5-bay barn built in sandstone rubble with brick to the corners and sides of the openings, half-hipped slate roof. Ventilation slits to walls. Threshing bay doors and small door in north elevation. Openings to upper parts of each gable. Earth floor. The barn is used for storage.

Cart shed Single-storey cart shed of three bays, open to the north. Brick walls to ends and rear. Gabled roof. Originally plain clay tile roof covering but now stripped. Roof timbers badly decayed. Brickwork poor, west gable has partly collapsed and wall badly cracked at south-east corner. The building has been abandoned and derelict for many years. It is overgrown with nettles and small elder tree growing inside.

SECTION 2 THE FARMSTEADS SUMMARY GUIDANCE

1 UNDERSTANDING FARMSTEAD CHARACTER

A farmstead is the place where the farmhouse and the working buildings of a farm are located, although some farms also have field barns or outfarms sited away from the main steading. Traditional farmsteads and their buildings make a significant contribution to local character and distinctiveness. They do this through variations in their scale, layout, buildings and materials, and the way that buildings of different dates and types relate to yards, other spaces and the surrounding landscape and settlement. Their present character has been shaped by their development as centres for the production of food from the surrounding farmland, as well as a mix of local traditions and national influences. Most were built in the 19th century, and with some local exceptions few were built after the 1870s.

Traditional farmsteads include:

- Buildings of 19th century or earlier date, whether using local traditions or styles or displaying national influences in their architecture or engineering.
- Locally distinctive buildings built up to 1940, designed by architects and engineers for estates and between the 1890s and 1930s for county councils.

Excluded from this definition are prefabricated and standardised industrial buildings which are often added to traditional farmsteads but do not themselves display any local variation in their architectural character. They fall into two categories:

- Pre-1950, including timber or metal-framed Dutch barns of the late 19th and early 20th centuries, silage towers, dairies with steel windows and roofs which conform to hygiene regulations and small-scale buildings for unloading goods by lorry (e.g. fruit and potato stores). These can have significance if they have a strong architectural character (as traditional, designed or industrial buildings) or for their special significance.
- Post-1950 sheds which conform to modern animal welfare regulations.

See page 1 of PART 3 (KENT FARMSTEADS CHARACTER STATEMENT) for more guidance and illustration on this.

The remainder of this section explains two themes are of fundamental importance to understanding the historic character of farmsteads:

1. The landscape and settlement context
2. Their function and layout.

This farmstead on the North Kent Plain was developed with industrial-scale buildings in the late 19th century – the oast for drying and storing hops at the bottom of the photograph and the covered yard for fattening cattle and conserving their manure. All the buildings use locally distinctive brick and tile, and are a significant part of the local scene. Photo © English Heritage NMR 27195 010

This group at Chislet in the North Kent Plain, now in residential use, has retained its large-scale layout of two courtyards and its distinctive farmstead buildings with a rare combination of a 17th century or earlier farmhouse and aisled barns, as well as a complete grouping of later barns and other outbuildings.
(© English Heritage NMR 26779 008)

1.1 Landscape and settlement context

Historic farmsteads and their buildings are an integral part of rural settlement and the landscape and how it has changed over centuries.

Rural settlement in Kent is dominated by isolated farmsteads and hamlets. Very few farmsteads worked the land from villages, which mostly developed as service centres rather than agricultural communities. Most farmsteads can be seen in relation to the fields around them as well as orchards, woodland and other features in the landscape. The size and shape of these fields and their boundaries provide clues to their age. Small, irregular fields with large species-rich hedgerows are typical of ancient enclosure and usually associated with small-scale farmsteads, although in many areas farms and their fields were enlarged and amalgamated in later centuries. Regular fields with thorn hedges represent enclosure or re-organisation of earlier field patterns in the 18th and 19th centuries, often relating to larger scale farmsteads.

Farmsteads in areas of ancient (a) and piecemeal (b) enclosure, which typify most of Kent's farmed landscape, often sit astride a road or public path. Some, especially in the Weald, are located at a junction of routeways which can give high levels of public access to the farmsteads (a). Some farmsteads, usually those within regular enclosure landscapes where the fields and routeways were substantially remodelled in the 18th and 19th centuries (c), may only have a single, private point of access. (Drawing © Bob Edwards)

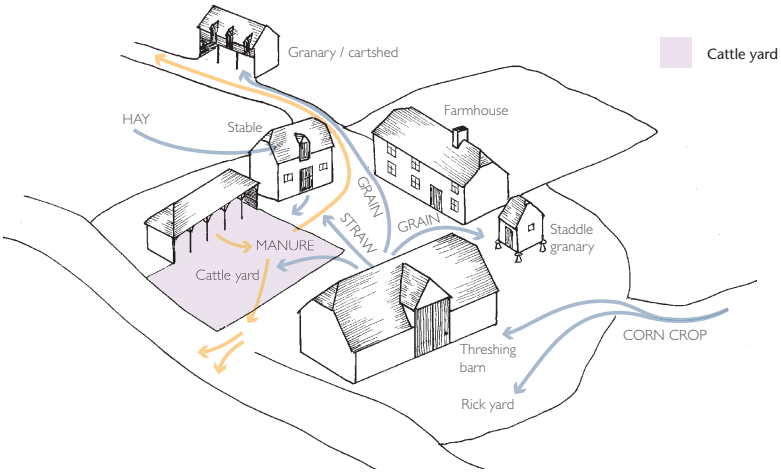
(d) The Weald has the highest densities of farmsteads, often small in scale, which are concentrated in areas of anciently-enclosed fields with irregular and wide species-rich hedgerows. This loose courtyard farmstead in the Low Weald has the working buildings built on two sides of the yard, with a detached barn.(© English Heritage NMR 27205 003)

(e) The largest farms and fields have for centuries developed across the arable vales and downs, as here around the medieval church at Nackington in the North Kent Downs. (© English Heritage NMR 27201 017)

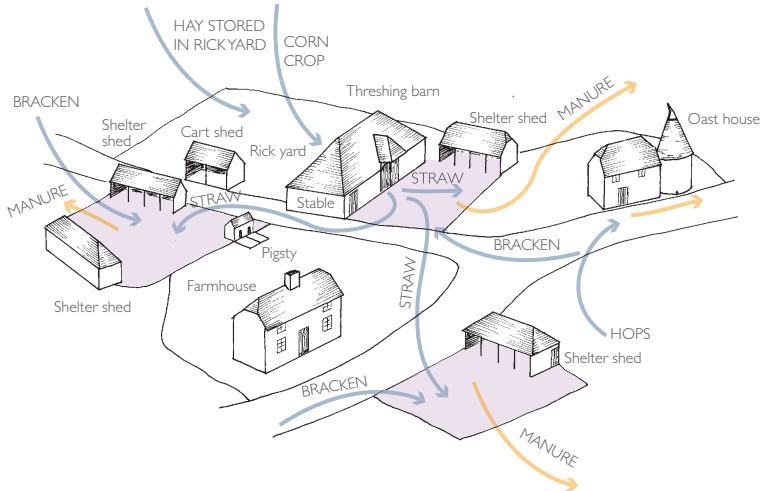
1.2 Farmstead function and layout

The layout or plan of the farmstead is key to understanding and describing its character. It is made up of buildings and spaces that served several key functions - to house the farming family and any workers, store and process the harvested corn crop, fruit and hops, shelter farm vehicles and implements, shelter farm animals, and keep their manure for returning to the fields around them. Most traditional working buildings date from the 19th century, although houses and barns are most likely to be older. These are illustrated in PART 3 (KENT FARMSTEADS CHARACTER STATEMENT), the most common being barns for storing and threshing the corn crop, stables for horses, cartsheds for carts and implements, shelter sheds and other housing for cattle and oasts for drying and storing hops. Open and enclosed spaces within and around the farmstead were used to stack crops and move animals and vehicles. They can range from spaces that are fully or partially enclosed by buildings to more open areas that serve to link the outer edges of the farmstead to its surrounding landscape. Orchards and small areas of woodland can shelter and screen the farmstead. Gardens can stand within or to one side of the farmstead and were historically developed as private areas with a distinct and separate character. They may be screened from the working areas of the farm by hedges or walls.

The range of plan types or layouts across Kent – illustrated on the following page and PART 3 (KENT FARMSTEADS CHARACTER STATEMENT - display differences in how these buildings and spaces are arranged. The most common broad type are courtyard plans, which have the working buildings and sometimes the farmhouse arranged around one or more yards. In contrast the buildings and yards of dispersed plans, comprising just over 25% of recorded sites, are scattered within the overall boundary of the farmstead. The Weald has a strong pattern of smaller courtyard farmsteads and dispersed-plan farmsteads. It also has a low but notable distribution of regular covered yards and some of the large-scale regular courtyard plans, especially in areas of former heathland improved for arable farming from the late eighteenth century. North of the Weald there are some dispersed and small-scale courtyard plans, but here the far higher concentration of the largest courtyard-plan farmsteads indicates the dominance of large-scale and arable-based farming enterprises, with local variations in the numbers of smaller farms.



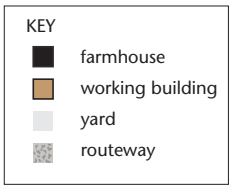
This drawing shows a loose courtyard plan with working buildings arranged around two sides of the yard. The harvested corn crop was brought into the barn for threshing. The threshed grain was then stored in granaries. In this example the seed corn is stored in a staddle granary (a feature of the downlands and arable vales of Kent) whilst grain for market is stored above a cartshed which typically faces onto a track. Straw from the threshed corn crop was then taken from the barn to be trodden down into manure in cattle yards and associated cattle housing and stabling. It was then returned to fertilise the fields. (© Bob Edwards and Chantal Freeman)

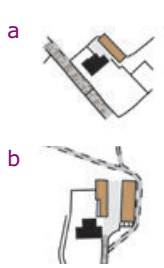


Dispersed plans are often located at nodal points in the network of lanes and tracks, meaning that many have high levels of public access. Dispersed multi-yard plans, as in this example, are concentrated in the Weald. They were often associated with the rearing and fattening of livestock, the various yards being used to separate stock of different age. Corn crops, often grown for fodder rather than market, were processed in the barn, the straw being supplemented by bracken for bedding and eventually being made into manure. Manure production was especially important on farms with hop gardens as hops need fertile soils. The oast house is a specialised processing building for hops which were rarely stored on the farm for long periods. (© Bob Edwards and Chantal Freeman)

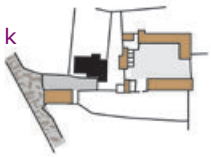
These drawings show the full range of farmstead plans which are encountered across Kent.

Courtyard plans (73.3% of all recorded farmsteads) have the working buildings arranged around one or more yards together with the farmhouse, which faces or is set gable end into the yard, or detached and set away from the working spaces of the farmstead.

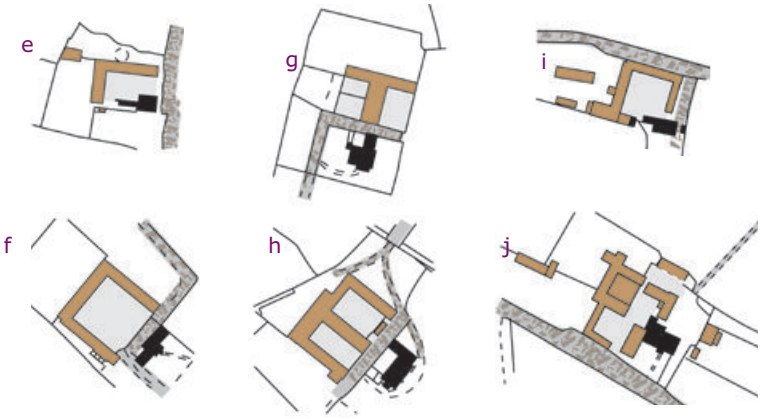




a-d) loose courtyard farmsteads (35%), the predominant plan type in south-east England, have buildings loosely arranged around one (a), two (b), three (c) or more rarely four (d) sides of a yard. The smallest (a—b) are concentrated in the Weald and the largest (c-d) in the North Downs, the North Kent Plain and along the edge of the Thames Estuary, and are most likely to be associated with rectilinear fields which suggest successive reorganisation of the landscapes around them.



k) L-plans with additional detached buildings to the third (7.7%) or fourth (2.8%) sides are generally medium to large in scale and have the same pattern of distribution as the regular multi-yard plans (j) along the foot of the downs in the Wealden Greensand, in the North Downs, North Kent Plain and Thames Estuary.



Regular courtyard plans consist of linked ranges formally arranged around one or more yards:

L-plans (e) are widespread (6.9%).

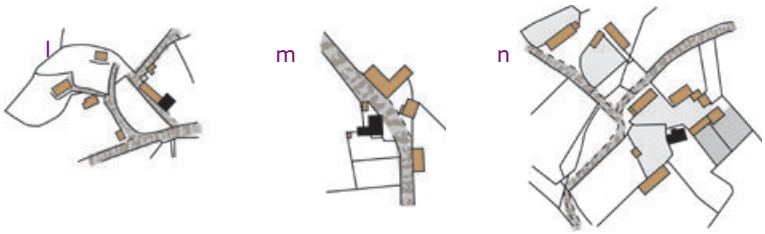
U-plans (f), are concentrated in the western part of the Weald (3.4%).

Larger-scale examples, (see g and h), built to F-, E-, T- and H-shaped plans, are rare in Kent (0.9%), and concentrated in areas of heathland and other land improved for intensive farming in the 19th century, especially in the Low Weald.

Full courtyard plans (i) which are more common (2.7%) but have a similar distribution.

Multi-yard plans (j) are the largest and often most high-status (13%).

Dispersed plans (24.9%) are concentrated in the Weald and especially in those landscapes of irregular and often small-scale fields, including those cleared from woodland and coastal marsh elsewhere in Kent. A distinguishing feature of all dispersed plans is the seemingly random arrangement of buildings within a single farmstead boundary, which is usually irregular in shape. They subdivide into:

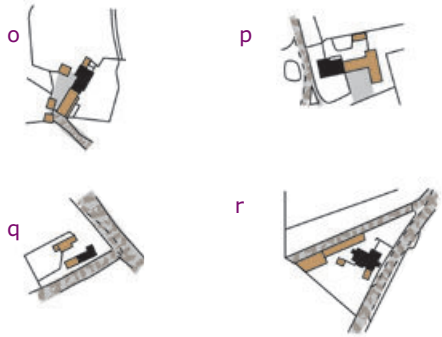


l) dispersed clusters (15.5%), where the working buildings are located within the boundary of the steading.

m) dispersed driftways (0.8%) which are grouped around routeways for moving livestock and are almost all concentrated in the Weald.

n) dispersed multi-yards (8.6%), which are often large-scale farmsteads containing two or more detached yards.

The other plan types (2%) are concentrated on small plots that developed within settlements and in areas of small-fields, especially within, or on the edges of, the small fragments of remaining heathland. They comprise:



linear farmsteads (o), where the house and working buildings are attached and in-line (0.9%) or (p) have been extended or planned with additional working buildings to make an L-shaped range (0.5%).

q) parallel plans where the working buildings are placed opposite and parallel to the house and attached working buildings with a narrow area between (0.1%).

(r) row plans, where the working buildings are attached in-line and are concentrated in the Weald (0.5%).

These plans are far more important, and sometimes dominant, in upland and upland fringe areas of England, and around lowland moss and heaths in the west of the country.

2 UNDERSTANDING SIGNIFICANCE

Significant farmsteads will have one or both of the following:

1. Significance as a traditional farmstead, which can be determined by a non-specialist.
2. Special significance in a local or national context, which may require specialist help and will be useful in developing a scheme.

This significance can be retained and enhanced through sympathetic change and development of the site in relationship to its setting. The absence of statutory designation does not imply lack of significance, as the great majority of farmstead buildings which contribute to landscape character will not fulfil the criteria for designation.

2.1 SIGNIFICANCE AS A TRADITIONAL FARMSTEAD

Locally significant traditional farmsteads, whether designated as heritage assets or not, make a positive contribution to local character and distinctiveness. They will have retained one or both of the following:

1. Farm buildings with a locally distinctive architectural form and character, and use of building materials.
2. Historic form as traditional farmsteads, where the historic farm buildings, houses and spaces relate to each other.

Traditional buildings will be of 19th century or earlier date, and very few date from after 1900 (in most areas around 1880). Early 20th century (pre-1940) buildings can have significance if they have a strong architectural character (as traditional, designed or industrial buildings) or for their special significance.

The heritage potential of traditional farmsteads, based on the survival of their historic form by using the Ordnance Survey 2nd edition maps of c. 1900, has been entered onto the Kent Historic Environment Record (HER). 72% of recorded farmsteads have retained some or all of their historic form, rated in terms of:

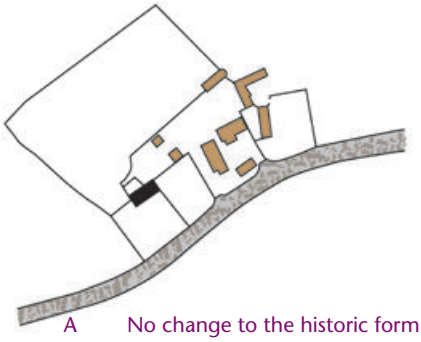
A. HIGH HERITAGE POTENTIAL. 47% of farmsteads have retained more than 50% of their historic form.

B. SOME HERITAGE POTENTIAL. 25% of farmsteads have retained some working buildings but with more than 50% loss of their historic form.

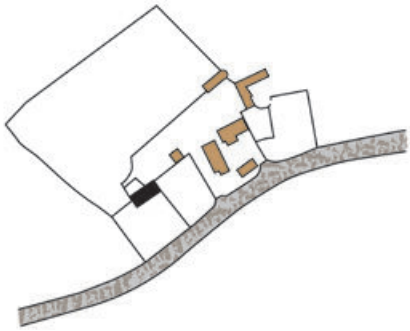
- 16% of farmsteads have lost all their working buildings but retain the farmhouse, which may be designated as a heritage asset or have some heritage potential. Buildings, or parts of them, may remain within the footprint of modern sheds. See (C) below.

Farmstead change

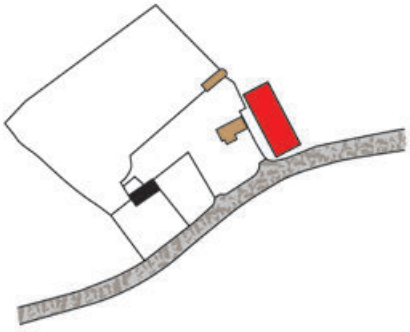
Understanding how a farmstead has changed is a critical first step in understanding its sensitivity to and potential for change. The drawings below show the different degrees of change that can be determined through comparing present sites to those shown on historic Ordnance Survey maps of around 1900 (see page 8 for use of historic maps).



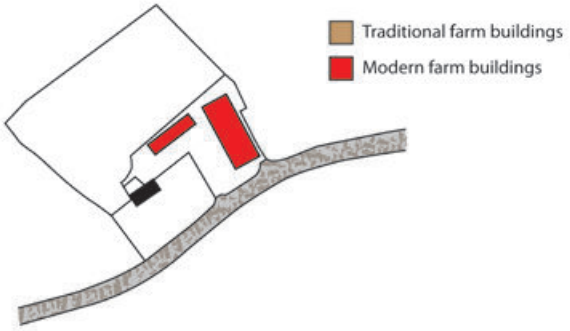
A No change to the historic form.



A Some change where more than 50% of the historic form survives.



B Significant change, where more than 50% of the historic form has been removed.



C Major change, where all the historic working buildings of the farmstead have been demolished and/or replaced by modern sheds, leaving only the farmhouse.

- 1% of farmsteads have lost all their buildings from the 2nd edition maps but usually remain in farming use and 11% of historic farmsteads have been completely lost from the landscape. These may still retain significant below-ground deposits which may be revealed through development.

Some areas are marked by high levels of survival, whereas in other areas traditional farmsteads with high levels of change will be relatively rare. The Weald has the highest levels of survival, within landscapes that have often retained patterns of fields and woodland inherited from the medieval period, whereas Romney Marsh, the North Kent Plain and the Thames Estuary have the highest degrees of alteration to farmstead layouts and their associated landscapes (for local variations see pages 20-21).

Outfarms and field barns have been subject to very high levels of loss, 82% of 1933 sites being lost from the landscape and just 14% surviving with more than 50% of their historic form.

2.2 Special significance

Some buildings or farmsteads have special significance when compared to farmsteads and their landscapes in other parts of England. This may be more difficult to determine and require specialist advice, but it will always be useful in deepening an understanding of significant sites and the development of schemes for them. The absence of statutory designation (see page 7) does not imply lack of special significance in this respect.

Special significance is summarised under the headings set out below, and there is further illustrated guidance in PART 3 (KENT FARMSTEADS CHARACTER STATEMENT).

Setting

- Substantially-intact small-scale farmsteads and smallholdings that are sited around areas of heath and other types of common land.
- Farmsteads within or next to the earthworks remaining from medieval and earlier settlements, cultivation and land use, which are concentrated away from the Weald and number fewer than 20 on Kent's Historic Environment Record.
- Farmsteads that have a clear visual and/or historic relationship to historic parks and gardens, which are concentrated in the Wealden Greensand and North Downs areas and number fewer than 100 on Kent's Historic Environment Record.

Farmstead groups

- Farmstead groups with a combination of 17th century or earlier listed farmhouses (24.5% of recorded sites) and working buildings (7.8%). Kent has a high proportion of the latter in a national context, which field survey of farmsteads across the county (see reference to Kent Farmsteads Survey on page 21) has only increased to 12%.
- Industrial groups of the late 19th century, which are built to regular courtyard plans (sometimes with covered yards) and display the use of industrial building techniques (concrete, cast and wrought-iron for columns, roofs and stalling) and tramways.
- Well-documented and notable farmsteads built to the designs of architects or engineers, which can post-date 1900.
- Well-preserved smallholdings of the 1890s-1930s, built by local authorities (see p. 1 of PART 3: KENT FARMSTEADS CHARACTER STATEMENT).

Buildings

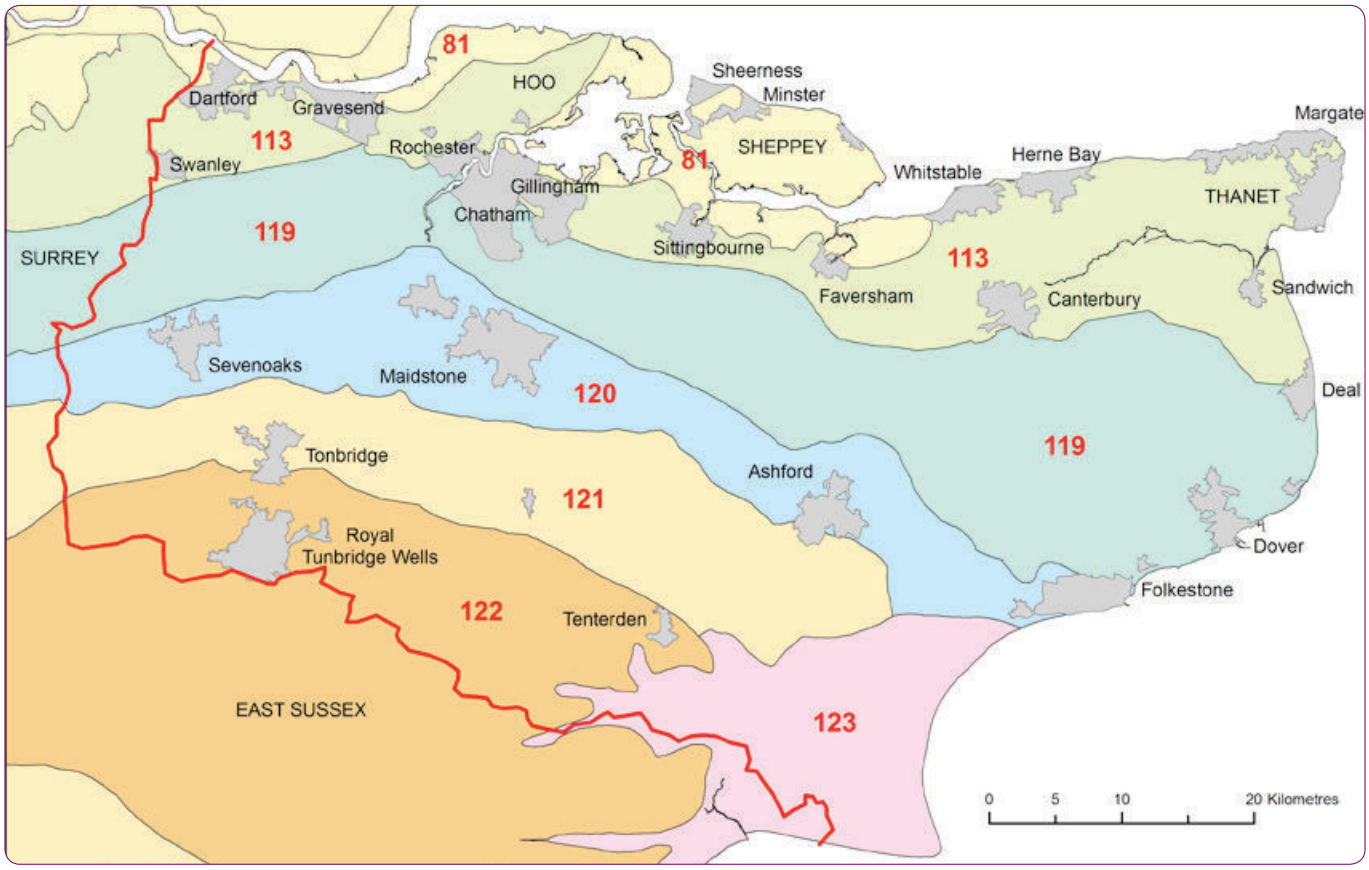
- Evidence for internal subdivision of barns into animal housing, concentrated in the Weald and found in other wood pasture and upland areas of England.
- Evidence for internal subdivision of barns into granaries and cartsheds/stables, which can be found away from the Weald especially in the North Kent Downs and North Kent Plain.
- Aisled barns, which comprise part of a major concentration of aisled barns in south-eastern England that extends into neighbouring parts of Europe.
- Groups of buildings relating to the hop industry – oasts (unconverted ones being very rare now), sometimes evidence for early kilns in other working buildings and hop pickers' huts.

Materials, fixtures and fittings

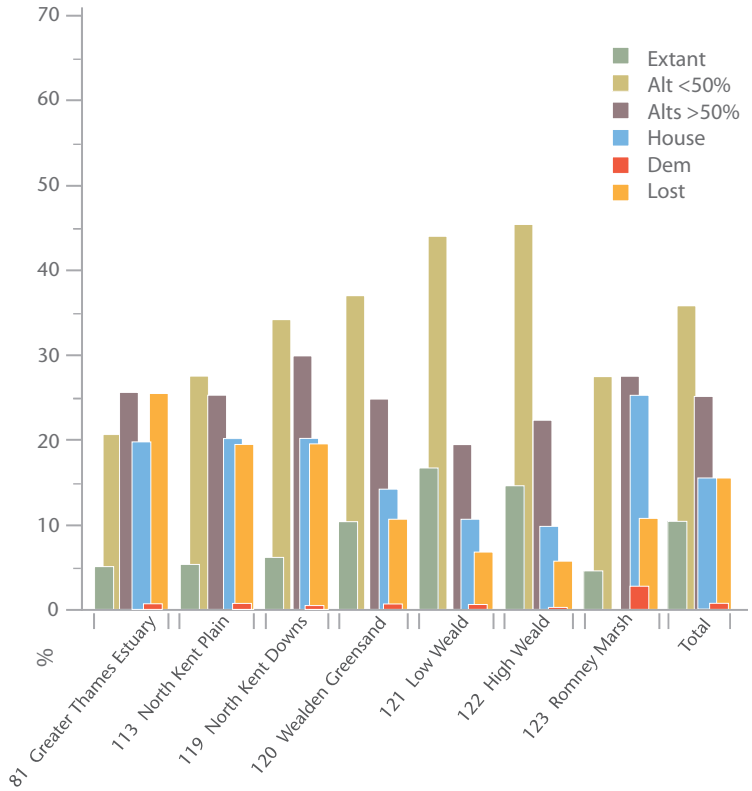
- Thatch, 18th century or earlier brick and 18th century or earlier overlapping weatherboarding and butted boarding.
- Stalls and other interior features (eg mangers, hay racks) in stables and cattle housing of proven 19th century or earlier date which are very rare in Kent.
- Evidence for wattle and daub infill to farm buildings.

2.3 Local variations

Local variations in the survival of traditional farmsteads are set out on this page, followed on the next page by a summary of special significance for National Character Areas in the county.



Kent, showing the county boundary in red and numbers of the **National Character Areas** (see page 21 for more details of these) that fall within the county, and which are set out in the bar chart below. This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright 2011, 100019238



This bar chart shows the level of change recorded since the Ordnance Survey mapping of c.1890-1900 for all of the National Character Areas that fall within Kent. EXTANT indicates farmstead layouts that appear to be unchanged since this date (10.4% for Kent), ALT those which have had some loss but retained more than 50% of their historic form (36.3% for Kent), ALTs those which have retained some buildings but retain less than 50% of their historic form (25% for Kent), HOUSE where only the farmhouse survives (16% for Kent), DEM where the house and all the historic buildings have been demolished but the farmstead site remains (1% for Kent) and LOST where no visible trace of the farmstead site remains (11% for Kent).

The Greater Thames Estuary

- Farmstead groups that retain some or all of their traditional buildings are very rare by national standards.
- There are some rare survivals of early multi-yard layouts fringing the coastal marshes, with shelter sheds and other buildings relating to the feeding of cattle and growing of corn on higher land.
- Shelter sheds, including some very rare examples of pre-19th century date, are a highly distinctive building type.

North Kent Plain

- Dispersed plans, once common in the area except in Thanet, now rarely survive with little change.
- There is a high concentration of pre-1750 farmstead buildings, including some highly significant examples of farmstead groups with large barns, stables and cartsheds typical of arable-based agriculture.
- Some manorial complexes, sometimes moated and accompanied by a church.

North Kent Downs

- Large-scale courtyard groups with ranges of buildings representative of arable-based agriculture are highly significant.
- Dispersed plan farmsteads that have been subject to low levels of change are rare and significant.
- Small-scale traditional farmsteads are very rare, but were a distinctive feature of this area in contrast to other southern English downlands.

Wealden Greensand

- Dispersed plan types, once common in the area, are rare.
- High density of 17th century and earlier timber-framed buildings although early working buildings in the Chart area are rare.

Low Weald and High Weald

- This area has the highest percentage of farmsteads with less than 50% change since c.1900 in the county.
- High density of 17th century and earlier timber-framed buildings.
- Many small loose courtyard plans survive with minimal change.
- Dispersed plan types are particularly characteristic of the Weald and sites with little change are particularly significant.
- The area, especially the High Weald, stands out in a national context for its very high densities of historic farmsteads dating from the medieval period and which were established within a landscape largely cleared from woodland.
- This combination of medieval farmsteads and landscapes is highly significant, and it is heightened by the high survival of pre-1750 timber-framed buildings.

Romney Marsh

- Few farmsteads have lost less than 50% of the buildings present in c.1900 and a quarter of historic farmsteads are now only represented by a farmhouse.
- Pre-1750 buildings, mainly threshing barns and farmhouses, are rare across the marshes.
- The few surviving lookers' huts for shepherds testify to the importance of sheep to Romney's economy.

The Kent Farmsteads and Landscapes Project has mapped the historic character of over 6500 farmsteads from the Ordnance Survey 2nd edition maps of c.1890–1900, which marks the final phase of traditional farmsteads development. Modern maps were then used to measure the degree of survival. The report and data has been deposited with Kent's Historic Environment Record (HER). The National Character Areas (NCAs) reflect long-recognised variations in Kent's landscape. They are a framework which combine a broad understanding of the historic and natural environment with physical landscape character (see http://www.naturalengland.org.uk/ourwork/landscape/englands/character/areas/default.aspx). The understanding of local variations in The Kent Farmsteads Guidance has also benefitted from consideration of the county's Landscape Character Assessment and Historic Landscape Characterisation. For further details of these refer to chapter 6 of the Kent Downs Farm Diversification Toolkit http://www.kentdowns.org.uk/Farm_Diversification_ Toolkit.htm

REFER TO PART 4 (CHARACTER AREA STATEMENTS) ⧄ FOR SUMMARIES OF LOCAL VARIATIONS THAT USE THE NATIONAL CHARACTER AREAS.

3 PRESENT AND FUTURE I SSUES

Structural changes in the farming industry have required farmers to construct new buildings that economise on labour and conform to animal welfare regulations. As a result of this, and the demand for living in the rural landscape, traditional farm buildings are largely redundant for modern agricultural purposes, and have been under the greatest threat of neglect on one hand, and development on the other, than any rural building type. *Constructing the Evidence Base* (2005) examined the drivers for change and the effectiveness of national and local policy. Residential use made up the great majority of conversions, despite planning policies that favour employment and business uses. Initial understanding of these drivers for change informed English Heritage's policy position, *Living Buildings in a Living Landscape*, in 2006. This recommended that the starting point for future policy and decision making must be to 'align an understanding of the characteristics of historic farmsteads with their potential for and sensitivity to change, at the building, farmstead and landscape level.' It also identified the need for an evidence base, including within county Historic Environment Records (HERs), to inform decision-making by all those involved in the reuse and development of historic farmsteads.

Evidence from the Historic Farm Buildings Photo Survey (summarised in the *Extending the Evidence Base* report, page 26) provided data for listed working buildings with visible structural failure and evidence of adaptive reuse by comparing 1980s with 1999-2006 photographs. It shows that listed farm buildings in Kent exhibit, by national standards, low rates of structural failure , except in Romney Marsh and the Thames Estuary, with rates of above 20%. The county has high rates of conversion of listed buildings to non-agricultural (primarily domestic) uses – over 40%, the national average being 34%.

English Heritage, and in Kent the High Weald AONB Unit, has recently been working to identify and map the distribution of historic farmsteads, and enhance the county Historic Environment Record (HER). *Farmsteads Mapping* rapidly identifies and describes the locations and characteristics of historic farmsteads from around 1900, their date as represented by listed buildings, the extent of change and how they relate to the landscape. This provides an evidence base for the development of planning policy, raising the profile of farmsteads as important elements of landscape character. Farmsteads that have experienced minimal change since the late 19th century – whether or not they include listed buildings - are the most likely to make a positive contribution to landscape character, and require appropriate management which considers this contribution when faced with changes that are managed through the planning system.

The contribution of historic farmsteads to local character can be retained and enhanced through a diversity of new uses. A 2007 report by Land Use Consultants for the High Weald AONB Joint Advisory Committee showed that lifestyle buyers are now 75% of the High Weald AONB's land managers. In the High Weald AONB **http://www.highweald.org**, and across the West Midlands **http://www.english-heritage.org.uk/wmidlandsfarmsteads** the results of Farmsteads Mapping has been used to reveal the current social and economic role of farmsteads. One of the most important facts revealed by this work is that the majority of farmsteads – over a third in many areas, and over 50% in the High Weald AONB – are now in residential use. The economic value of this residential use can be easily underestimated, however, bearing in mind that farmsteads in residential use are more often used for home-based entrepreneurial businesses than any other kind of dwelling. There is a distinction between the area around Crowborough and Tunbridge Wells, where the owners of historic farm properties are substantially involved as directors and participants in limited companies, and the south and east of the AONB where there is a higher level of engagement with smaller-scale enterprise.

Across Kent **http://www.kentruralnetwork.org.uk/the-kent-rural-evidence-base** there is a continuing pressure to live and work in rural areas:

- 29% of the population lives in rural areas – considerably above the national average of 19%
- 38.5% of Kent's businesses are rural, and an increasing amount are home-based (in the county as a whole home workers comprise 23% of the workforce)
- the proportion of small and micro-businesses, and the proportion of the workforce engaged in the knowledge-based economy, is also greater in rural than in urban areas
- 78% of farm businesses in Kent have diversified, as against 67% for the South East and 46% for England: diversification, which excludes residential conversion, mostly comprises the processing and retailing of produce, tourism and letting buildings for businesses.
- Consideration of the rural economy and the effect of high quality landscapes on attracting economic development and tourism could be investigated more thoroughly, perhaps through additional pieces of work.

Work in other counties on matching the addresses of mapped traditional farmsteads to a range of data, especially across the West Midlands (see the West Midlands Farmsteads and Landscapes Project at **http://www.english-heritage.org.uk/wmidlandsfarmsteads**), has shown that, whilst commercial use is difficult to achieve for historic farmsteads in residential use (which may involve the conversion of buildings) are more often used for home-based entrepreneurial businesses than any other kind of urban or rural property.

SOURCES OF INFORMATION AND ADVICE

Further information and advice about historic farm buildings and their settings can be found at **http://www.helm.org.uk/farmbuildings**, while readers interested in broader aspects of the historic rural environment are recommended to visit **http://www.helm.org.uk/ruraldevelopment**.

Natural England (previously Defra RDS)

Agri-environment funding via the Environmental Stewardship scheme has considerable potential value for traditional farm buildings, on two levels:

- the Entry Level Scheme (ELS) can provide small but regular payments for the maintenance of historic farm buildings
- the Higher Level Scheme (HLS) can provide larger payments for repair projects.

Applicants for HLS grants have access to a general guide to the repair of historic buildings. It explains which types of buildings and what restoration works are in principle eligible for grant aid. Successful entry to the HLS scheme may then allow grant aid to be offered for repairs that return an eligible building to sound condition (termed 'restoration' within the scheme). Contact Natural England for further advice and eligibility on the Environment Stewardship schemes (**http://www.naturalengland.org.uk**).

Local authority and English Heritage grants

Some local authorities may offer discretionary grants for the upkeep of historic farm buildings and it is common for such grant aid to be targeted at listed buildings. Of those authorities that provide grant aid at least half stipulate a restriction to listed buildings or for buildings in conservation areas, some of them also saying the building has to be on the authority's 'Building At Risk' register to be eligible.

The majority of authorities have very small budgets and historic farm buildings are only one of a number of building types eligible for funding.

If the farm building is listed Grade I or II* the work may be eligible for a grant from English Heritage as part of the Historic Buildings, Monuments and Designed Landscape grants scheme (**http://www.english-heritage.org.uk/grants**). The grant application is more likely to be successful if it meets national and regional priorities that are outlined in the application pack. The application must demonstrate that there is financial need for a grant and that the work will be undertaken within two years.

These and other sources of grant aid are described in detail in the Funds for Historic Buildings website (**http://www.ffhb.org.uk**).

Wildlife

National Trust 2001. *Wildlife and Buildings: Technical Guidance for Architects, Builders, Building Managers and Others*. London: National Trust (**http://www.nationaltrust.org.uk/main/w-wabman.pdf**)

English Heritage, National Trust and Natural England 2009. *Bats in Traditional Buildings*. London: English Heritage

Barn Owl Trust 1995. *Barn Owls on Site: A Guide for Developers and Planners*. Ashburton: Barn Owl Preservation Trust

Bat Conservation Trust (**http://www.bats.org.uk**)

Mitchell-Jones, A J 2004. *Bat Mitigation Guidelines*. Peterborough: English Nature

See **http://www.rspb.org.uk/wildlife/wildlifegarden/** for guidance on attracting wildlife to gardens

Legislation and Government guidance

Guide to the Principles of the Conservation of Historic Buildings, British Standard 7913 (1998). London: BSI

Planning (Listed Buildings and Conservation Areas) Act (1990). London: HMSO

The National Planning Policy Framework (2012). London: Department for Communities and Local Government

Town and Country Planning Act (1990). London: HMSO

English Heritage guidance

Research at a national level by English Heritage (**http://www.helm.org.uk/farmbuildings**) has examined the drivers for change and the effectiveness of policy at national and international levels. This has emphasised the need to develop an evidence base, and for future strategies and approaches towards the re-use of historic farmsteads and their buildings to be based upon an understanding of their sensitivity to and potential for change.

Most of the publications listed can be downloaded from the HELM website, English Heritage's online resource for owners, planners and everyone else involved with caring for the historic environment at a local level.
See **http://www.helm.org.uk/guidance**.

Clark, J, Darlington, J, and Fairclough, G 2004. *Using Historic Landscape Characterisation*

EH 2004. *Farming the Historic Landscape: Caring for Farm Buildings*

EH 2004. *Farming the Historic Landscape: An Introduction for Farm Advisers*

EH 2005. *Outstanding Beauty: Outstanding Heritage: AONBs and the Historic Environment*

EH 2006. *The Conversion of Traditional Farm Buildings: A Guide to Good Practice*

EH 2006. *Identifying and Sourcing Stone for Historic Building Repair*

EH 2006. *Understanding Historic Buildings: A Guide to Good Recording Practice*

EH 2008. *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment*

EH 2009. *Farm Buildings and Change on the Bolton Abbey Estate, North Yorkshire*

EH 2009. *Historic Farm Buildings: Extending the Evidence Base*

EH/Countryside Agency 2005. *Living Buildings in a Living Landscape: Finding a Future for Traditional Farm Buildings.*

EH/Countryside Agency 2006. *Historic Farmsteads: Preliminary Character Statement: South East*

EH 2011. *The Setting of Historic Assets*. English Heritage Guidance

EH 2011. *The Maintenance and Repair of Traditional Farm Buildings: A Guide to Good Practice*

Gaskell, P and Owen, S 2005. *Historic Farm Buildings: Constructing the Evidence Base* (EH/Countryside Agency/University of Gloucester)

History of farm buildings and settlement

Barnwell, P S and Giles C 1997. *English Farmsteads 1750–1914* Swindon: RCHME

Brigden, R 1986. *Victorian Farms* Ramsbury: Crowood Press

Brunskill, R W 2000. *Vernacular Architecture: An Illustrated Handbook*. London: Faber & Faber

Brunskill, R W 1982. *Traditional Farm Buildings of Britain*. London: Gollancz

Brunskill, R W 1999. *Traditional Farm Buildings of Britain and their Conservation* (3rd edn). London: Gollancz

Darley, G 1981. *The National Trust Book of the Farm*. London: Weidenfeld & Nicholson

Harris, R 1978. *Discovering Timber-framed Buildings*. Aylesbury: Shire Publications

Harvey, N 1980. *The Industrial Archaeology of Farming in England and Wales*. London: Batsford

Harvey, N 1984. *A History of Farm Buildings in England and Wales* (2nd edn). Newton Abbot: David and Charles

Lake, J 1989. *Historic Farm Buildings, An Introduction and Guide*. London: Blandford Press

Lake, J and Edwards, B 2006. 'Farmsteads and landscape: towards an integrated view', *Landscapes*, 7.1, 1–36

Lake, J and Edwards, B 2007. 'Buildings and place: farmsteads and the mapping of change', *Vernacular Architecture*, 37, 33–49.

Peters, J E C 1981. *Discovering Traditional Farm Buildings*. Aylesbury: Shire Publications

Roberts, B K and Wrathmell S 2002. *Region and Place: A Study of English Rural Settlement*. London: English Heritage

Taylor, C 1983. *Village and Farmstead: A History of Rural Settlement in England*. London: George Philip

Wade Martins, S 1991. *Historic Farm Buildings*. London: Batsford

Wade Martins, S 2002. *The English Model Farm*. Macclesfield: Windgather Press

Wade Martins, S 2004. *Farmers, Landlords and Landscapes: Rural Britain 1720–1870*. Macclesfield: Windgather Press

Farmsteads and Landscapes in Kent

Babtie Group and Kent County Council 2004. *Landscape Assessment of Kent*, Kent County Council, Maidstone

Croft, A, Munby J, & Ridley, M 2001. *Kent Historic Landscape Characterisation*, Final Report 3 vols. Kent County Council and English Heritage

Edwards, B, Lake, J and Banister, N 2012. *Farmsteads and Landscapes in Kent: A Report on the Mapping of Traditional Farmstead Character and Survival*. Report for English Heritage

Lawson, T & Killngray, D eds 2004. *An Historical Atlas of Kent*, Phillimore: Chichester

Martin, D & Martin, B 2006. *Farm Buildings of the Weald, 1450-1750*, Heritage Publications: Kings Lynn

Pearson, S 1994. *Medieval Houses of Kent. An Historical Analysis*, RCHME: London

Rigold, S 1966. 'Some Major Kentish Barns', *Archaeologia Cantiana* 81, 1-30

A survey of a selected number of Kent farmsteads was undertaken in 1994-5 by Jo Cox and John Thorpe of Keystone Consultancy. The records have been deposited with English Heritage's National Monuments Record and Kent's Historic Environment Record.

KENT FARMSTEADS GUIDANCE

PART 2
PLANNING CONTEXT

THIS COMPRISES PART 2 OF THE KENT FARMSTEADS GUIDANCE

The Kent Farmsteads Guidance aims to inform and achieve the sustainable development of farmsteads, including their conservation and enhancement. It can also be used by those with an interest in the history and character of the county's landscape and historic buildings, and the character of individual places. Traditional farmstead groups and their buildings are assets which make a positive contribution to local character. Many are no longer in agricultural use but will continue, through a diversity of uses, to make an important contribution to the rural economy and communities.

PART 1 FARMSTEADS ASSESSMENT FRAMEWORK

This sets out the aims and purpose of the Kent Farmsteads Guidance and is divided into two sections:

1. a **Site Assessment Framework** which will help applicants identify the capacity for change and any issues at the pre-application stage in the planning process, and then move on to prepare the details of a scheme.
2. **Farmsteads Summary Guidance** which summarises the planning context and the key principles to inform the sustainable development of farmsteads – understanding their character, significance and sensitivity to change.

PART 2 PLANNING CONTEXT

This sets sets out the national and local policy context, and summarises recent research on farmsteads.

PART 3 KENT FARMSTEADS CHARACTER STATEMENTS

Fully-illustrated guidance on the character and significance of Kent farmsteads, for use in individual applications and detailed design work, for the preparation of area guidance and for those with an interest in the countyx's landscapes and historic buildings. The guidance is presented under the headings of: Historical Development, Landscape and Settlement, Farmstead and Building Types and Materials and Detail.

PART 4 CHARACTER AREA STATEMENTS

These provide summaries, under the same headings and for the same purpose, for the North Kent Plain and Thames Estuary, North Kent Downs, Wealden Greensand, Low Weald, High Weald and Romney Marsh.

PART 5 KENT FARMSTEADS DESIGN GUIDANCE

This provides illustrated guidance on design and new build, based on the range of historic farmstead types. It is intended to help applicants who are then considering how to achieve successful design, including new-build where it is considered appropriate and fitted to local plan policy.

PART 6 RECORDING AND RESEARCH GUIDANCE

This summarises the main issues to consider when undertaking more detailed recording of a site, with a case study and research questions to guide the survey and assessment process.

PART 7 GLOSSARY

This is a glossary of terms to aid the user.

The Kent Farmstead Guidance is the result of collaboration between English Heritage, Kent County Council and the Kent Downs AONB. It also builds on pilot work developed by English Heritage and the High Weald AONB. It has been revised further following consultation with key stakeholders in Kent. The revision has also integrated the result of the Kent Farmsteads and Landscapes Project, which represents the completion of rapid mapping of farmsteads supported firstly by the High Weald Joint Advisory Committee and then by English Heritage. The text was prepared by Jeremy Lake of English Heritage, with contributions from Bob Edwards and James Webb of Forum Heritage Services (substantially to Parts 5 and 6), & publication layout by Diva Arts.

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1 NATIONAL PLANNING CONTEXT

The planning system is a process that aims to manage change within our urban and rural areas for the benefit of society as a whole. The constraints and opportunities for development in rural areas are set out in national and local planning policy. This guidance is set within the context of national legislation planning guidance and Local Planning Authorities' Local Development Plans.

Change within farmsteads is nothing new. Over the centuries, new types of steading and buildings have been developed, older farmsteads have been moved to new sites or abandoned and buildings have been adapted to different uses. Since the 1950s traditional farm buildings have become increasingly redundant, and farmers have required industrial-style sheds and large concreted working areas, often with new points of access, in order to minimise labour costs and meet animal welfare standards. In parallel, a growing demand for characterful rural housing has made historic farm buildings increasingly attractive targets for residential conversion. In coming years these trends are likely to accelerate further in response to the diversification of farm businesses, the growth of larger farming units and the complementary market for smaller hobby-farm units amongst dual-income households. The pace of change will vary from place to place, depending on patterns of redundancy and dereliction; farm income; the broader social and economic character of rural areas; the flow of traditional farm buildings into the property market; and the relative demands for economic and residential conversion. This demands an informed and flexible approach to the change of use of historic farmsteads, so that they can be retained as distinctive elements of the rural landscape.

English Heritage's policy statement (2006)[1] made recommendations for future policy and decision making:

- Promote positive means of managing change which align an understanding of the characteristics of historic farmsteads with their potential for and sensitivity to change, at the building, farmstead and landscape level.
- Avoid standard 'off-the-peg' solutions that do not take account of regional and local diversity and circumstances. There should be more emphasis on the quality of design, both traditional and contemporary, including appropriate detailing, materials and craftsmanship and the setting of buildings.

Such an approach is fundamental to the objectives of sustainable development in seeking to balance social, economic, environmental and cultural priorities. It accords with national planning policy and guidance which makes identification, protection and enhancement of the historic environment a strategic priority that should be included in Local Development Documents (LDDs). Such understanding can inform future change and inspire high quality new development that aims to conserve and enhance the character and distinctiveness of an area. It is significant in this context that Matthew Taylor's *Review of the Rural Economy and Affordable Housing* (2008[2]) recommended that consideration be given to 'how planning policy might allow additional small-scale business, workspace and residential developments (particularly affordable rural housing projects) to be delivered sustainably in rural areas' noting that 'the adaptive reuse of otherwise redundant historic buildings could and should play a significant role in delivering this.'

1 English Heritage/Countryside Agency 2006. *Living Buildings in a Living Landscape: Finding a Future for Traditional Farm Buildings*

2 Taylor, M 2009. *Living, Working Countryside. The Taylor Review of Rural Economy and Affordable Housing*. Department of Communities and Local Government. See also Department of Communities and Local Government, 2010. *Government Response to the Matthew Taylor Review. Updated Implementation Plan.*

THE NATIONAL PLANNING POLICY FRAMEWORK, 2012

http://www.communities.gov.uk/publications/planningandbuilding/nppf

The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. It states (paragraph 6) that 'The purpose of the planning system is to contribute to the achievement of sustainable development' and that the policies contained within it (in paragraphs 18-219) 'taken as whole, constitute the Government's view of what sustainable development in England means in practice for the planning system'. Economic, social and environmental improvement should be sought jointly and simultaneously (paragraph 8). Pursuing sustainable development, therefore, involves seeking improvements to the quailty of the historic environment (paragraph 9). The 12 key principles set out in paragraph 17 include to:

- take account of the different roles and character of different areas
- seek to secure high quality design
- recognise the intrinsic character and beauty of the countryside
- conserve heritage assets in a manner appropriate to their significance

Paragraphs 126-141 contain detailed policies for the historic environment, including heritage assets, including under paragraph 131:

- 'In determining planning applications, local planning authorities should take
- account of:
- the desirability of sustaining and enhancing the significance of heritage
- assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness.'(paragraph 131)
- 'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. '(paragraph 132)

Elsewhere the Policy Framework stresses the importance of understanding local character and distinctiveness in determining planning applications, in plan-making and in decision-taking, as well as local economic and community circumstances. Of particular relevance:

- Supporting a prosperous rural economy. 'Planning policies should support economic growth in rural areas in order to create jobs and prosperity by taking a positive approach to sustainable new development'. Plans should promote sustainable growth through conversion of existing buildings and well-designed new buildings, support rural diversification, tourism and leisure, and promote the retention and development of local services and community facilities (paragraph 28)
- Design Policies. Policies and decisions should aim to ensure that developments 'respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation' (paragraph 58)
- Meeting the challenge of climate change, flooding and coastal change. In determining planning applications, local authorities should expect new development to 'take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.' (paragraph 96)
- Conserving and enhancing the natural environment. '… opportunities to incorporate biodiversity in and around developments should be encouraged..' (paragraph 118)
- Plan Making: Using a Proportionate Evidence Base. 'Each local planning authority should ensure that the Local Plan is based on adequate, up-to-date and relevant evidence about the economic, social and environmental characteristics and prospects of the area.' (paragraph 158)
- Plan Making: Historic Environment (paragraphs 169-170) 'Local planning authorities should have up-to-date evidence about the historic environment in their area and use it to assess the

significance of heritage assets and the contribution they make to their environment. They should also use it to predict the likelihood that currently unidentified heritage assets, particularly sites of historic and archaeological interest, will be discovered in the future. Local planning authorities should either maintain or have access to a historic environment record.'

- 'Where appropriate, landscape character assessments should also be prepared, integrated with assessment of historic landscape character, and for areas where there are major expansion options assessments of landscape sensitivity'. (paragraph 170)

Key definitions used in the NPPF

Heritage asset: A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).

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

Historic environment record: Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.

OTHER RELEVANT POLICY AND GUIDANCE

CONSERVATION PRINCIPLES, ENGLISH HERITAGE, 2008

http://www.english-heritage.org.uk/professional/advice/conservation-principles

This offers an approach to making reasonable and transparent decisions about change to places, and the balancing of the protection of the historic environment with the economic and social needs of communities in all areas, based upon a clear understanding of their value. It states that (4.1) 'Change in the historic environment is inevitable, caused by natural processes, the wear and tear of use, and people's responses to social, economic and technological change' and that (4.2) 'Conservation is the process of managing change to a significant place in its setting in ways that will best sustain its heritage values, while recognising opportunities to reveal or reinforce those values for present and future generations.'

THE SETTING OF HISTORIC ASSETS. ENGLISH HERITAGE GUIDANCE, 2011

http://www.english-heritage.org.uk/publications/setting-heritage-assets/

This document sets out English Heritage guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes.

'Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes, pertaining to the heritage asset's surroundings. Each of these elements may make a positive or negative contribution to the significance of the asset, or be neutral. In some instances the contribution made by setting to the asset's significance may be negligible: in others it may make the greatest contribution to significance.'

THE EUROPEAN LANDSCAPE CONVENTION, COUNCIL OF EUROPE, 2000

http://www.coe.int/EuropeanLandscapeConvention

This came into force in England in 2007 and promotes a dynamic view of landscape as the framework for delivering place-making, spatial planning and agricultural policy – enshrined in its definition of landscape as 'An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.'

3 SUMMARY OF TRADITIONAL FARMSTEAD CHARACTER AND SURVIVAL IN KENT'S LOCAL AUTHORITIES

This section summarises the character and survival of farmsteads for each of the local authority districts in Kent, based on the mapping of farmsteads from the 2nd edition Ordnance Survey maps of around 1900 and modern maps.

Introductory text summarises how each local authority relates to the National Character Areas (NCAs) that are introduced in PART 1 (HISTORIC FARMSTEADS CHARACTER AND ASSESSMENT FRAMEWORK). Part 4 (Character Area Statements) provides full descriptions for each of these NCAs.

Farmstead plan types notes any broad distinctions between the major plan types of courtyard and dispersed plan farmsteads which are introduced in pages 6-9 of PART 1 (HISTORIC FARMSTEADS CHARACTER AND ASSESMENT FRAMEWORK).

Recorded date notes the percentage of recorded farmsteads that:

- have a 17th century or earlier listed farmhouse (county average 24.5%)
- have one or more 17th century or earlier listed working buildings (county average 7.8%)

Survival notes the percentage of recorded farmsteads that:

- survive with more than 50% of their late 19th century form (county average 46.6%)
- have been lost from the landscape (county average 11.4%).

The loss of field barns and outfarms is also noted (county average 82%). For further details on survival see pages 10-12 of PART 1 (HISTORIC FARMSTEADS CHARACTER AND ASSESSMENT FRAMEWORK).

ASHFORD

Ashford cuts across six NCAs; the North Downs, Wealden Greensand and Low Weald with smaller areas within the High Weald and Romney Marsh. The northern end of the borough takes in a very small part of the North Kent Plain.

Farmstead plan types Courtyard plan farmsteads are predominant representing 64.1%, with dispersed plan types concentrated within the Wealden landscapes of the district and comprising 32.4% of the recorded total. Loose courtyard plans form 40.1% of recorded farmsteads with small–medium scale examples concentrated in the Low Weald and High Weald.

Recorded date 36.9% of recorded farmsteads have a 17th century or earlier listed farmhouse, a very high proportion by county standards. 7.4% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A high proportion (54.2%) of farmsteads survive with more than 50% of their late 19th century form. 14.1% of recorded farmsteads have been lost from the landscape. 80.1% of outfarms and field barns have been lost from the landscape.

CANTERBURY

Canterbury District is almost equally spread across the North Kent Plain and North Downs NCAs.

Farmstead plan types Courtyard plan farmsteads are predominant, representing 84.9%, with dispersed plan types comprising 14.0% of the recorded total. Medium to large-scale loose courtyard plans are the predominant plan type representing 41.8% of recorded farmsteads.

Recorded date 29.1% of recorded farmsteads have a 17th century or earlier listed farmhouse. 7.9% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A low proportion (35.9%) of farmsteads survive with more than 50% of their late 19th century form (county average 46.6%). 22.1% of recorded farmsteads have been lost from the landscape. 89.7% of outfarms and field barns have been lost from the landscape.

DARTFORD

Dartford is mostly within the North Kent Plain NCA with small areas extending into the Greater Thames Estuary to the north (mostly urban) and the North Downs in the south-east.

Farmstead plan types Courtyard plan farmsteads are predominant, representing 81.6%, with dispersed plan types comprising 16.3% of the recorded total. Loose courtyard plans formed 29.6% of recorded farmsteads, mainly medium scale types (buildings to two or three sides of the yard). Regular courtyard plans formed 38.8% of recorded farmsteads, predominantly regular multi-yard plans (28.6%).

Recorded date 18.4% of recorded farmsteads have a 17th century or earlier listed farmhouse. 2.0% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival An extremely low proportion (19.4%) of farmsteads survive with more than 50% of their late 19th century form. 23.5% of recorded farmsteads have been lost from the landscape. 97.3% of outfarms and field barns have been lost from the landscape.

DOVER

Approximately two thirds of Dover District lies within the North Downs with the northern third within the North Kent Plain NCA.

Farmstead plan types Courtyard plan farmsteads are predominant, representing 85.5%, with dispersed plan types comprising 13.3% of the recorded total. Loose courtyard plans are predominant, forming 36.2% of recorded sites.

Recorded date 27.1% of recorded farmsteads have a 17th century or earlier listed farmhouse. 9.5% of recorded farmsteads have one or more 17th century or earlier listed working buildings. Farmsteads with both a 17th century or earlier house and working are concentrated in the north-west of the district.

Survival A low proportion (38.5%) of farmsteads survive with more than 50% of their late 19th century form. 19.5% of recorded farmsteads have been lost from the landscape. A relatively high proportion (72.6%) of outfarms and field barns have been lost from the landscape.

GRAVESHAM

Gravesham lies primarily within the North Kent Plain and North Downs with a small part of the north of the district within the Greater Thames Estuary NCA. There are few farmsteads within the Greater Thames Estuary.

Farmstead plan types Courtyard plan farmsteads are predominant, representing 89.7%, with dispersed plan types comprising 10.3% of the recorded total. Medium-scale loose courtyard plans and regular multi-yards are predominant.

Recorded date 27.7% of recorded farmsteads have a 17th century or earlier listed farmhouse. 4.4% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A low proportion (32.4%) of farmsteads survive with more than 50% of their late 19th century form. Survival rates are higher within the North Downs than the North Kent Plain. 17.6% of recorded farmsteads have been lost from the landscape. 90.2% of outfarms and field barns have been lost from the landscape.

MAIDSTONE

Maidstone District is roughly equally divided between the North Downs, Wealden Greensand and Low Weald NCAs. A very small part of the district extends into the High Weald.

Farmstead plan types Courtyard plan farmsteads are predominant, representing 66.1%, with dispersed plan types being more significant than in other districts and comprising 30.6% of the recorded total. Loose courtyard plans (32.0%) are predominantly small–medium in scale with working buildings along up to 3 sides of the yard. Dispersed plans are highly characteristic of the Low Weald and High Weald.

Recorded date 43.4% of recorded farmsteads have a 17th century or earlier listed farmhouse. 8.8% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A high proportion (56.1%) of farmsteads survive with more than 50% of their late 19th century form. 10.9% of recorded farmsteads have been lost from the landscape. 76.8% of outfarms and field barns have been lost from the landscape.

MEDWAY

Medway lies within the Greater Thames Estuary, North Kent Plain and North Downs NCAs, the latter, southern part of the district mostly being urban.

Farmstead plan types Courtyard plan farmsteads are predominant, representing 85.0%, with Dispersed plan types comprising 12.5% of the recorded total. Medium scale loose courtyard plans (2 -3 sides) represented 31.2% of recorded farmsteads.

Recorded date 14.6% of recorded farmsteads have a 17th century or earlier listed farmhouse. 3.3% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A low proportion (27.9%) of farmsteads survive with more than 50% of their late 19th century form reflecting generally high levels of change within the Greater Thames Estuary and North Kent Plain NCAs. 16.3% of recorded farmsteads have been lost from the landscape. 92.0% of outfarms and field barns have been lost from the landscape.

SEVENOAKS

Sevenoaks cuts across five NCAs, the main areas being the North Downs, Wealden Greensand and Low Weald with smaller areas extending into the North Kent Plain to the north and the High Weald to the south.

Farmstead plan types Courtyard plan farmsteads are predominant representing 74.1% with dispersed plan types being more significant than in other districts and comprising 24.6% of the recorded total. Small–medium scale loose courtyard plans with working buildings on one or two sides of the yard and dispersed plan types are concentrated in the Wealden landscapes of the district. Regular U-plans are also a feature of the Wealden landscapes.

Recorded date 34.2% of recorded farmsteads have a 17th century or earlier listed farmhouse. 9.2% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A high proportion (53.2%) of farmsteads survive with more than 50% of their late 19th century form across the district but there has been a greater level of change in the northern part of the district (North Kent Plain and North Downs NCAs) than in the Wealden landscapes of the south of the district. 14.6% of recorded farmsteads have been lost from the landscape.86.2% of outfarms and field barns have been lost from the landscape.

SHEPWAY

Shepway primarily lies within the Romney Marsh and North Downs NCAs with a small area within the Wealden Greensand NCA.

Farmstead plan types Courtyard plan farmsteads are predominant representing 73.8% with dispersed plan types (which were a feature of Romney Marsh) being more significant than in other districts and comprising 25.0% of the recorded total. Medium scale loose courtyard plans with working buildings to two or three sides of the yard are characteristic.

Recorded date 19.6% of recorded farmsteads have a 17th century or earlier listed farmhouse. 2.4% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A low proportion (31.6%) of farmsteads survive with more than 50% of their late 19th century form. There has been a very high level of change within the Greater Thames Estuary and a high level of change within the North Kent Plain within the district. 24.0% of recorded farmsteads have been lost from the landscape. 91.9% of outfarms and field barns have been lost from the landscape.

SWALE

Swale consists of three NCAs; Greater Thames Estuary, North Kent Plain and the North Downs.

Farmstead plan types Courtyard plan farmsteads are predominant representing 85.4% with dispersed plan types comprising 12.6% of the recorded total. Loose courtyard plans formed 44.4% of recorded farmsteads, these being mostly those with working buildings to

two or three sides of the yard, the latter being concentrated within the North Downs. Dispersed cluster plans were common across the district but now survive in higher numbers in the North Downs compared to Romney Marsh.

Recorded date 38.5% of recorded farmsteads have a 17th century or earlier listed farmhouse. 9.6% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A low proportion (36.4%) of farmsteads survive with more than 50% of their late 19th century form. The level of change is higher in the Romney Marsh area than in the north of the district. 18.1% of recorded farmsteads have been lost from the landscape. 82.3% of outfarms and field barns have been lost from the landscape.

THANET

Thanet District lies entirely within the North Kent Plain NCA.

Farmstead plan types Courtyard plan farmsteads are predominant representing 95.9% with Dispersed plan types comprising 4.1% of the recorded total. Medium–large loose courtyard plans are common (2 – 4 sides) together with regular multi-yard plans. Dispersed plans are uncommon.

Recorded date 19.3% of recorded farmsteads have a 17th century or earlier listed farmhouse. 16.6% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A low proportion (35.2%) of farmsteads survive with more than 50% of their late 19th century form. 14.5% of recorded farmsteads have been lost from the landscape. 82.1% of outfarms and field barns have been lost from the landscape.

TONBRIDGE & MALLING

Tonbridge and Malling lies primarily within the Wealden Greensand and Low Weald NCAs with a small area extending into the North Downs and a very small section within the High Weald.

Farmstead plan types Courtyard plan farmsteads are predominant representing 75.4% with Dispersed plan types being more significant than in other districts and comprising 23.7% of the recorded total. Regular courtyard plan types are predominant (42.3% of recorded sites), 19.2% of these being multi-yard plans.

Recorded date 32.2% of recorded farmsteads have a 17th century or earlier listed farmhouse. 7.3% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival A high proportion (51.9%) of farmsteads survive with more than 50% of their late 19th century form. 11.5% of recorded farmsteads have been lost from the landscape. 86.0% of outfarms and field barns have been lost from the landscape.

TUNBRIDGE WELLS

Tunbridge Wells Borough lies almost entirely within the High Weald NCA with a small part of the northern edge of the Borough extending into the Low Weald and two very small areas of the Romney Marsh within the Borough to the south-east.

Farmstead plan types Courtyard plan farmsteads are predominant representing 51.2% with dispersed plan types being more significant than in any other districts and comprising 42.6% of the recorded total. Dispersed plan types formed 42.6% of recorded farmsteads and small-medium scale loose courtyard plans (1 and 2 sides) form 25.5% of recorded sites.

Recorded date 45.3% of recorded farmsteads have a 17th century or earlier listed farmhouse. 8.2% of recorded farmsteads have one or more 17th century or earlier listed working buildings.

Survival An exceptionally high proportion (60.7%) of farmsteads survive with more than 50% of their late 19th century form. 9.9% of recorded farmsteads have been lost from the landscape. 72.1% of outfarms and field barns have been lost from the landscape.

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KENT FARMSTEADS GUIDANCE

PART 3
KENT FARMSTEADS CHARACTER STATEMENTS


High Weald


North Kent Downs


Thames Estuary

CONTENTS OF PART 3 OF THE KENT FARMSTEADS GUIDANCE: KENT FARMSTEADS CHARACTER STATEMENTS

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SUMMARY OF HISTORIC FARMSTEADS IN KENT

1 HISTORICAL DEVELOPMENT

Farmsteads and their buildings reflect the development of agricultural regions and areas. In Kent the principal agricultural processes from the medieval period have been arable farming, especially in the Isle of Thanet and northern Kent, and cattle rearing and fattening, a feature of the Weald in particular and in combination with sheep in the coastal marshlands. Fruit growing and market gardening developed on an industrial scale from the mid 19th century. Market gardening, with nurseries, orchards and storehouses, developed around stations such as at Paddock Wood, and were concentrated along the fertile coastal margins of north Kent. The hop industry, which developed from the 16th century, reached its peak in 1878 when Kent produced 65% of national output. Hops were often grown in association with other fruits.

2 LANDSCAPE AND SETTLEMENT

Historic farmsteads and their buildings are an integral part of the rural landscape and how it has changed over centuries. Rural settlement in Kent is dominated by hamlets and isolated farmsteads that date from the medieval period, which is also the pattern found in large parts of eastern and western England. The Weald has the highest densities of farmsteads, often small in scale, which are concentrated in areas of anciently-enclosed fields with irregular and wide species-rich hedgerows. The largest farms and fields developed across the corn-producing vales and downs.

3 FARMSTEAD AND BUILDING TYPES

The basic forms of farmstead layout are courtyard plan farmsteads, which are focused around one or more yards and comprise 72% of recorded sites, dispersed plans which have scattered layouts and comprise 25% of recorded sites and the remaining 3%, where the working buildings are laid out in a row or are attached in-line to the farmhouse. The smallest-scale dispersed and courtyard plan farmsteads are concentrated in the Weald. They were a strong feature of the Romney Marsh area, but are now rare. The largest-scale courtyard-plan farmsteads are concentrated in the main corn-producing areas of the Wealden Greensand (intermixed with a high proportion of smaller-scale farmsteads), the North Downs, the North Kent Plain and the Thames Estuary.

Barns were built to store and process the harvested corn crop. Kent has a high proportion of medieval barns by national standards. Multi-functional barns for housing animals and their fodder were a feature of the Weald, and large barns – sometimes aisled and comprising two or even more to a farmstead – were a feature of the corn-producing areas.

Granaries and cart sheds are a particularly distinctive feature in corn-growing areas. Once threshed, grain needed to be stored away from damp and vermin. It would be sold off the farm or retained for animal feed.

The largest stables were built in corn-producing areas, where more horses were needed for ploughing and many other tasks.

Oasts in which hops were dried and stored are the most prominent buildings associated with the hop industry.

Yards, shelter sheds and cow houses for housing cattle are mostly of 19th century date, and may be found added to an earlier barn or detached and associated with individual yard areas.

Field barns and outfarms, the latter comprising buildings set around a yard, are mostly 19th century. Some barns on these sites, especially in the Weald, may be much earlier in date. A small number of late 18th or early 19th century outfarms survive on the downs, typically with a barn and flanking shelter sheds facing into yards.

4 MATERIALS AND DETAIL

Historic farmsteads also reflect the county's huge diversity in geology, and differences in building traditions and wealth, estate policy, access to transport links and the management of local timber and other resources. Hipped and half-hipped roofs are the historically dominant roof form, gabled roofs being more generally used from the 19th century. Timber-framing was typically used for medieval houses and barns with the barns and sometimes other buildings being clad in weatherboarding. Brick and flint was used from the 17th century for high-status barns and stables but it was not commonly used until around 1800. Stalls, grain bins and other features, including graffiti and ritual marks, are also found in farm buildings.

AIMS AND CONTENTS OF THE KENT FARMSTEADS GUIDANCE

The Kent Farmsteads Guidance aims to inform and achieve the sustainable development of farmsteads, including their conservation and enhancement. It can also be used by those with an interest in the history and character of the county's landscape and historic buildings, and the character of individual places. Traditional farmstead groups and their buildings are assets which make a positive contribution to local character. Many are no longer in agricultural use but will continue, through a diversity of uses, to make an important contribution to the rural economy and communities.

PART 1 FARMSTEADS ASSESSMENT FRAMEWORK

This sets out the aims and purpose of the Kent Farmsteads Guidance and is divided into two sections:

1. a **Site Assessment Framework** which will help applicants identify the capacity for change and any issues at the pre-application stage in the planning process, and then move on to prepare the details of a scheme.
2. a **Farmsteads Summary Guidance** which summarises the planning context and the key principles to inform the sustainable development of farmsteads – understanding their character, significance and sensitivity to change

PART 2 PLANNING CONTEXT

This sets out the national and local policy context, and summarises recent research on farmsteads including for each of Kent's local authorities.

PART 3 KENT FARMSTEADS CHARACTER STATEMENTS

Fully-illustrated guidance on the character and significance of Kent farmsteads, for use in individual applications and detailed design work, for the preparation of area guidance and for those with an interest in the county's landscapes and historic buildings. The guidance is presented under the headings of: Historical Development, Landscape and Settlement, Farmstead and Building Types and Materials and Detail.

PART 4 CHARACTER AREA STATEMENTS

These provide summaries, under the same headings and for the same purpose, for the North Kent Plain and Thames Estuary, North Kent Downs, Wealden Greensand, Low Weald, High Weald and Romney Marsh.

PART 5 KENT FARMSTEADS DESIGN GUIDANCE

This provides illustrated guidance on design and new build, based on the range of historic farmstead types. It is intended to help applicants who are then considering how to achieve successful design, including new-build where it is considered appropriate and fitted to local plan policy.

PART 6 RECORDING AND RESEARCH GUIDANCE

This summarises the main issues to consider when undertaking more detailed recording of a site, with a case study and research questions to guide the survey and assessment process.

PART 7 GLOSSARY

This is a glossary of terms to aid the user.

INTRODUCTION

A farmstead is the homestead of a farm. It is the place where the farmhouse and the working farm buildings are located, although some farms also have field barns or outfarms sited away from the main steading. This section sets out the character and significance of Kent's farmsteads, and explains how they and their buildings relate to the landscape and how they vary in terms of their type, scale, form and use of materials.

Site survey and the comparison of historic with modern Ordnance Survey maps enables changes relating to these key dates to be identified.

- *Pre-1900* All traditional farmstead buildings date from before around 1900, and most of them date from the 19th century. They display a strong degree of local variation in their architectural style, scale and form, which reflect both deep-rooted local traditions and national influences.
- *1900-1950* There was little new building due to the long farming depression that commenced in many areas in the 1870s. Traditional farmsteads and buildings dating from this period are rare and largely confined to upland areas of England. Most new buildings comprised Dutch barns, new forms of hygienic dairies and milking parlours, architectural showpieces built with non-agricultural wealth and County Council smallholdings which followed parliamentary acts passed in 1907 and 1908 and after the First World War. The Second World War witnessed a massive rise in productivity.
- *1950s to the present* Wide-span multi-purpose sheds in concrete, steel and asbestos, and their associated hardstandings for vehicles and moving stock, met increasing requirements for minimising labour, the environmental control of livestock and on-farm production, particularly of milk. They were either built on the site of the older farmstead or to one side, often with separate access.

This farmstead shows a clear division between the traditional farmyard to the left, with a converted barn and other working buildings facing into a yard, and the separately-accessed group of modern sheds across the road to the right. (© English Heritage NMR 27205 035)

This is one of a group of rare surviving inter-war smallholdings at Thong close to Gravesend, now included within the conservation area of the village. (© Kent County Council)

A typical mid 20th century shed, with a curved profile to the roof which resembles those used for iron-framed Dutch barns that date back to the late 19th century. (© English Heritage)

1 HISTORICAL DEVELOPMENT

NATIONAL BACKGROUND

Distinct agricultural regions have developed from the medieval period, mixing or specialising to differing degrees in the production of corn, livestock or dairy products. They have been influenced by patterns of landownership, communications, urban development and industry, as well as the nature and intensity of earlier land use. Agricultural productivity has long been sustained by new techniques in crop and animal husbandry, and the restructuring and enlargement of farm holdings. The period 1750-1880, and especially the capital-intensive 'High Farming' years of the 1840s - 70s, saw a particularly sharp increase in productivity, followed by a long but regionally varied depression that lasted until the Second World War.

In Kent the principal agricultural processes from the medieval period have been:

- Arable farming, especially in the Isle of *Thanet* and northern Kent (for export to London and also the mostly coastal breweries) and varying in extent and intensity elsewhere. The largest farms developed in arable farming areas.
- Cattle rearing and fattening, a feature of the Weald in particular and in combination with sheep in the coastal marshlands.
- Fruit growing and market gardening, which developed on an industrial scale from the mid 19th century. Market gardening, with nurseries, orchards and storehouses, developed around stations such as at Paddock Wood, and were concentrated along the fertile coastal margins of north Kent.
- The hop industry, which developed from the 16th century, reached its peak in 1878 (when Kent produced 65% of national output) and sharply declined from the 1970s. Hops were often grown in association with other fruits.

Across Kent farming has historically worked alongside, and sometimes in combination with, rural industries:

- The Wealden cloth industry which declined from the later 17th century, just as the urban textile industry was developing in towns to the east.
- The iron industry to the west of the Weald along the Sussex border, which peaked in the 16th/17th centuries and declined from the 18th century.
- Quarrying of stone, sands, clays and other forms of mineral extraction.
- The export of woodland produce, including vast amounts of wood fuel from the Weald.

LEFT Mid 19th century and (to the rear) a 16th century or earlier aisled barn in St. Nicholas at Wade, Thanet. Very few historic farm buildings remain in villages. (© English Heritage)

RIGHT A hamlet located on the edge of the Downs, in the Wealden Greensand, where the farmhouses and working buildings are prominent in views across the landscape. (© Bob Edwards)

Across Kent – as also in large parts of eastern and western England – rural settlement is dominated by hamlets and isolated farmsteads that date from the medieval period.

In landscapes such as The Weald, where there is a high density of dispersed farmsteads, it is impossible to separate settlement from countryside. There are some areas – the valleys of the North Downs, parts of east Kent (such as the Hoo Peninsula) and along the Hollingbourne and Postling Vale – where village-based farmsteads worked communally-managed open fields. These farmsteads have mostly disappeared, and the fields have all been enclosed over the centuries. Many villages result from post-medieval development as retail and transport centres, as industrial centres (eg Biddenden and Cranbrook, centres of the broad-cloth industry) and as a result of 19th century and later settlement expansion: from the mid-19th century this was matched by a decline in the intensity of their role as service centres for surrounding farms.

Farmsteads within and on the edge of settlements can be appreciated in relationship to other historic buildings and surrounding fields.

Other industries (for example, engineering, brickmaking (strong to the 1930s) and brewing in the north-east and along the coastal towns/Medway Valley, and the coalfields in east Kent) worked independently of farming, although the growth of large-scale brewing in the 18th/19th centuries stimulated arable farming.

Levels of population have historically varied across the county. Before 1550 the population was concentrated along the north coast, and by around 1700 London was already providing a focus of suburban growth in the north of the county. 18th and 19th century population increase, often linked to the growth of commercial agriculture, was most marked in parts of west Kent and around the expanding coastal towns, the inland resort of Tunbridge Wells, the naval dockyards of Chatham and Sheerness, the Thames estuary and the valleys of the Medway (improved to help export corn, hops and fruit, and later with light industry) and the light industries of the Cray and Darent. The second half of the 19th century saw further growth in these areas, with the railway network also speeding up the growth of residential development – intermixed with market gardening and horticulture – across the rural areas of west Kent as well as Sevenoaks and the London suburbs. Counter to this, population had already declined in some areas, especially in parts of central and east Kent including the Kent Downs and the eastern Weald.

2 LANDSCAPE AND SETTLEMENT

NATIONAL BACKGROUND

Farmsteads relate to patterns of settlement and development which extend into the medieval period and earlier. In areas of nucleated settlement, communities have worked the land from villages, and most or all isolated farmsteads were established after the enclosure of open fields or common land. At the other extreme are areas that have few or no villages and which have been dominated by scattered dwellings and farmsteads. Other areas may have a mix of settlement patterns.

The size and density in the landscape of farmsteads and the scale and form of fields results from the type of farming, ranging from the largest corn-producing farms to the smallest dairying or stock rearing farms.

Isolated farmsteads, including those in clusters and located in hamlets, can be:

- Sited among small-medium scale and irregular fields, which are often associated with ancient woodland and can date from land and woodland clearance in the medieval period. They have all been subject to different degrees of subsequent boundary removal and change, depending on developments in farm size and type. In Kent the smallest fields are concentrated in parts of the High and Low Weald.
- Sited amongst piecemeal patterns of enclosure, often with a mix of straight and pre-18th century wavy or irregular boundaries. This is the predominant fieldscape across most of Kent, and fields vary enormously in their scale due to their original layouts as well as 18th century and later boundary removal and straightening.
- More rarely sited amongst straight-sided regular patterns of enclosure, which can result from the enclosure of uncultivated land (heathland and parts of the eastern Kent Downs) and the reorganisation of earlier irregular fields.

Farmsteads in anciently-enclosed landscapes sit in relationship to ancient woodland and wide species-rich hedgerows. Views of buildings across landscapes are typically limited, the forms and materials of roofs being particularly prominent.
(© Janina Holubecki, High Weald AONB Unit)

The largest farms and fields are associated with the key corn-producing farms that developed around the edges of the eastern coastal marshlands, across the North Kent Plain and the arable vales and downs. To the left is a farmstead sited amongst regular and earlier enclosures in the eastern Kent Downs (© Bob Edwards) and to the right is a farmstead south of Aldington (see below) in the Wealden Greensand, where fields have been enlarged and reorganised over time (© English Heritage NMR 27202-020). Farmsteads in exposed locations are commonly protected by shelter belts and plantations.

Left: Varied forms and scales are typical of Kent farmsteads, as here in Thanet. (© English Heritage)

Right: Some farmsteads in Kent developed from medieval estate centres and include 16th century and earlier buildings, as in this former monastic grange at Aldington above Romney Marsh. (© English Heritage)

LEFT Roadside locations are common. (© English Heritage)

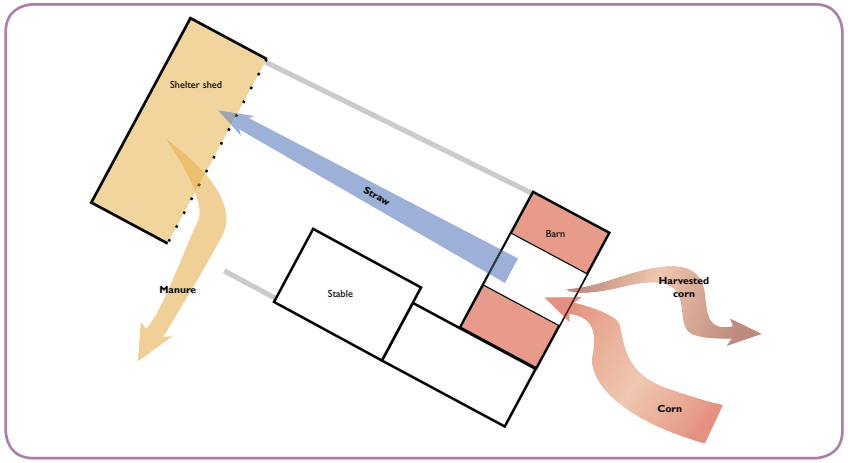
RIGHT Farmsteads also developed in relationship to greens and 'forstals' – in Kent the term given the area in front of a farmhouse to pen and sometimes to milk stock. (© English Heritage)

This group in the Low Weald has the house facing into a yard. To the rear of the house is a back kitchen, illustrated on p.33, and in front of the yard is a barn with a lean-to for cattle.(© English Heritage NMR 27205-005)

3 FARMSTEAD TYPES IN KENT

Farmhouses are commonly detached. Those on smaller farmsteads often face into the yard and those on larger farmsteads often face away from the farmyard into their own garden area. There may also be separate houses for farm workers. The smallest farmsteads are concentrated in the Weald and the coastal marshes of Kent, and the largest in corn-producing areas where large capital-based farms developed. The basic forms of farmstead layout, reflecting these differences, are:

- Courtyard plan farmsteads, which comprise 72% recorded sites, and have the working buildings and sometimes the farmhouse arranged in a loose or regular fashion around one or more yards.
- Dispersed plans, which comprise 25% of recorded sites, where the buildings and yards are scattered within the overall boundary of the farmstead and are often very exposed to public view. They are a highly distinctive element of Kent's rural landscape, and now remain as a particularly distinctive feature of the Weald.
- Other farmstead types, where the working buildings are laid out in a row or are attached to the farmhouse, which are rare in Kent.



This simple schematic drawing shows how the harvested crop was processed in the barn and the straw then mixed with manure to be returned to fertilise the land.
(© Chantal Freeman)

LEFT A distinctive feature of Kent – shared by other landscapes in eastern and western England – is the large-scale farmstead (often called a Court Lodge farm) sited next to the church, which often developed as a manorial or estate farm. This is the medieval barn and church at Lenham in the Vale of Holmesdale, Wealden Greensand. (© Kent County Council)

RIGHT A small-scale house and barn in the High Weald – a small-scale loose courtyard plan. From the medieval period to the later 18th century, documentary, map and field evidence shows that many farmsteads comprised no more than a house and barn. After this date – and only rarely before – other buildings were added to the group, either by adding aisles or lean-tos to the barns to house animals or building new cowsheds and other types of buildings. (© Bob Edwards)

How farmsteads worked

Farmsteads and buildings in Kent developed to serve the following functions up to the 20th century, which all required:

- Access to and the siting of the house and its garden;
- Different types and size of building and open space, and different flows of movement within and around working buildings;
- Access to routes and tracks;
- The subdivision and different use of spaces within and around the farmstead – cattle yards and areas for stacking corn, hay and timber, gardens, orchards, ponds, small field enclosures for milking or sorting livestock.

Housing

- In almost all cases the farmhouse is detached from the main group and faces into its own garden. In the 18th and 19th centuries houses could be rebuilt to face away from the group into their own driveways and gardens.
- Separate cottages for farm workers, and single-storey huts for seasonal workers in the hop industry, sited on larger farmsteads or dispersed in the landscape.

Crop storage and processing

- A barn for storing and processing the harvested corn crop over the winter months was the basic requirement of farms, and corn could also be stacked in yards adjacent to the barn. In all cases the grain was beaten (threshed) from the harvested corn crop on an open threshing floor.
- Grain was stored in a granary, either a detached building (found in the vales and chalk downs) or more rarely an end bay of the barn or the farmhouse.
- Oasts for drying hops and stores for storing fruit.

Horses and cattle

- Straw was taken from the barn to cattle yards and stables to be used as bedding for livestock. The resulting manure was then forked into carts and returned to fertilise the surrounding farmland.
- Yards for cattle, often bounded by open-fronted sheds and cowhouses, typically face south and east to capture sun and light, the openings being concentrated on the yard sides of the buildings.

General movement and storage

- Other yards – especially those with more direct access to routes and tracks – were also used to store hop poles and often farm vehicles and implements. These areas are typified by open-fronted cartsheds, and oast houses for processing and storing hops.
- Cartsheds, sometimes stables and other ancillary buildings can be located next to routeways.

Loose courtyard plans

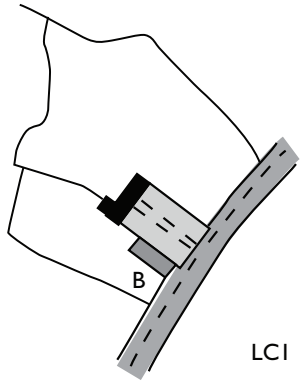
Loose courtyard plans have detached buildings facing one or more sides of a cattle yard with or without scatters of other farm buildings close by. They typically developed in piecemeal fashion and are the dominant farmstead plan type of south-east England. They display a wide variety in scale:

- The smallest examples (above right) with working buildings to one or two sides of the yard are concentrated in the High and Low Weald and often comprise only a house and barn (typically of medieval to 18th century date).
- Medium-large scale examples (below right) with buildings to three or four sides of the yard including large barns are concentrated in the arable vales and eastern downlands, the largest being found on manorial and estate farms and in the scarp bottoms of the Downs. The larger examples can have L-shaped ranges which comprise two attached barns or a barn with attached stable.

Typical features include:

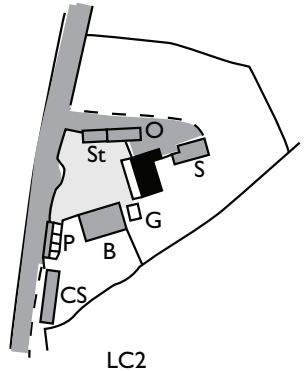
- Principal openings facing into the yard, external elevations having few openings;
- Some loose courtyards have a later cattle shed attached to an earlier barn which makes an l shape;
- Cartsheds, sometimes stables and other ancillary buildings can be placed away from the yard facing towards routes and tracks.

This range of plan types is shown across Kent in the tithe maps of the 1830s-40s, the distribution broadly matching that of the present day.

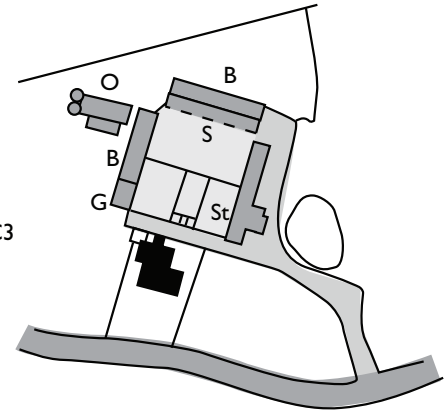


LC1

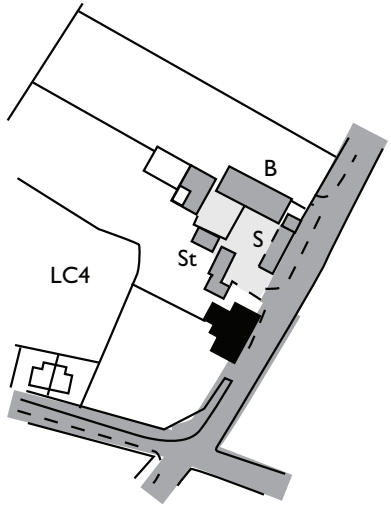
WORKING BUILDING TO ONE SIDE OF YARD



LC2



LC3



LC4

Key

B	barn	**S**	shelter shed for cattle
CS	cartshed	**St**	stable
G	granary	■	farmhouse
O	oast house		

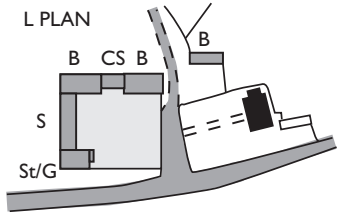
SEE DESIGN SUGGESTIONS FOR PLAN TYPES

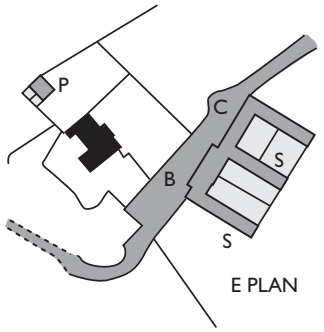
Regular courtyard plans

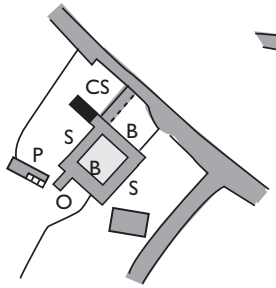
Regular courtyard plans consist of linked ranges, often the result of a single phase of building, set around one or more cattle yards. They are typically grouped together in a regular arrangement with straight internal walls and boundaries. They are mostly of later 19th century date and display greater consistency in the use of materials and constructional detail, often employing more non-local materials like Welsh slate, than other farmstead types. Very few examples other than L-shaped plans are shown on the tithe maps of the 1830s-40s. Apart from L-plans, Regular Courtyard Plans are rare in the High Weald.

Typical features are:

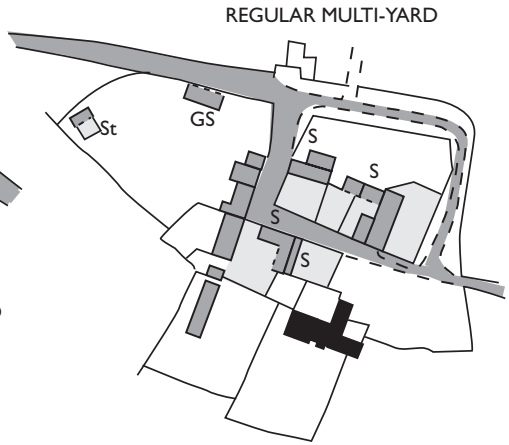
- L-shaped and U-shaped plans which usually include a barn or mixing house with attached cattle housing and stables, with or without additional buildings;
- Some high-status examples which can completely enclose all four sides of the yard and include pre-19th century buildings;
- The largest multi-yard and e-shaped plans are strongly concentrated in landscapes enclosed, re-planned or affected by farm amalgamation/boundary removal in the late 18th/19th centuries – especially the isle of grain, parts of the hoo peninsula, the north kent downs and the north kent plain;
- Few openings in the external elevations;
- The house is typically detached and faces away from the yard, often into its own garden.







FULL REGULAR COURTYARD



Key

B	barn
CS	cartshed
G	granary
O	oast house
P	pigsty
S	shelter shed for cattle
St	stable
■	farmhouse

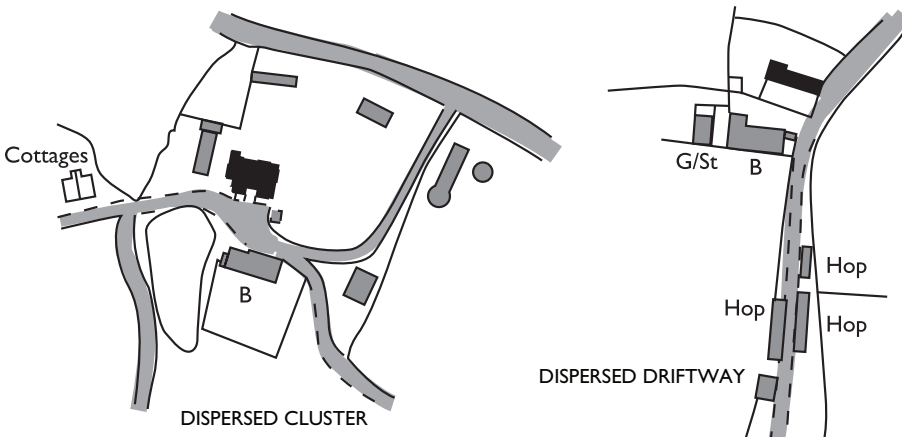
SEE DESIGN SUGGESTIONS FOR PLAN TYPES

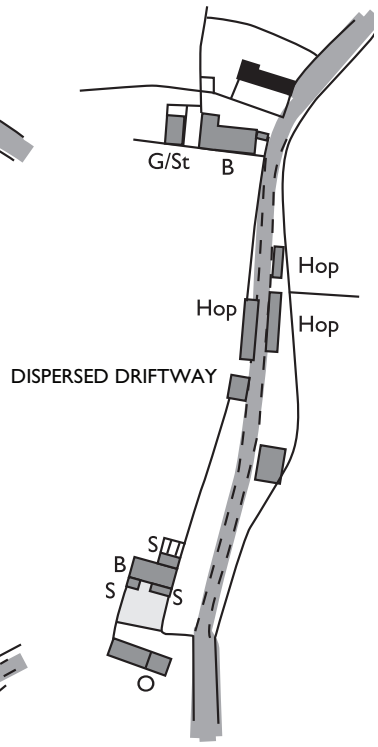
LEFT A house facing away from the main L-shaped farmstead group in the Kent Downs. (© Bob Edwards)

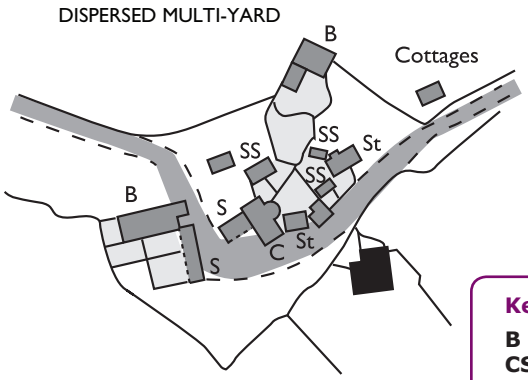
RIGHT A large downland group, comprising a loose courtyard arrangement with the barns and other buildings facing into a large yard. (© Bob Edwards)

LEFT Some farmsteads in the downs, as here in this roadside group with a 3-bay barn to the south east of Canterbury, remained relatively small in scale. (© English Heritage NMR 27201-026).

RIGHT A large-scale mid 19th century group in the Low Weald, with the house to one side and the distinctive form of the large barn. (© English Heritage)







Key

B	barn
CS	cartshed
G	granary
Hop	hop pickers' hut
O	oast house
S	shelter shed for cattle
St	stable
■	farmhouse

Dispersed plans

The key characteristic of dispersed plans is the evident lack of planning in their layout. Dispersed plans display an enormous variation in their scale ranging from small groups of a farmhouse and one or two buildings to very large groups with multiple yards. Dispersed plans are often bisected by route-ways and public footpaths giving a high level of public access to the farmstead.

There are three variants of dispersed plans:

- *Dispersed Clusters* are loosely-arranged groups of buildings, often with no defined yard area, set within an irregularly-bounded paddock.
- *Dispersed Multi-yard plans* consist of a number of defined yards and other buildings. The yards are typically detached from one another and may be of loose and/or regular courtyard types.
- *Dispersed Driftway* plans are arranged along wide driftways or tracks and may include one or more yards, short rows of linked buildings and free-standing buildings standing within the width of the track or facing on to it.

Dispersed plans are typically the products of piecemeal development, and are strongly associated with pastoral farming areas. They are an important characteristic of farmsteads in the Weald where they form a high proportion of historic farmsteads and appear as the basic form of farmstead in the 1830s-40s tithe maps. Dispersed plans, particularly Dispersed Cluster plans, are also found in other parts of the county although they tend to be smaller examples.

SEE DESIGN SUGGESTIONS FOR PLAN TYPES

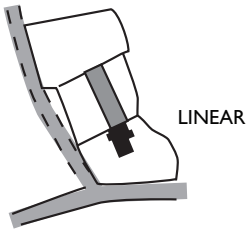
Other plan types

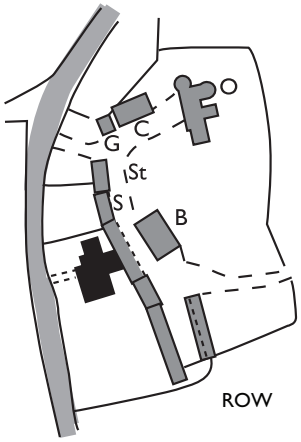
This group typically represents small farmsteads, making them difficult to identify from historic mapping. Linear farmsteads can be derived from medieval forms or be 18th or 19th century farmsteads, often associated with common-edge settlement or industrial activities such as quarrying or mining.

Key characteristics

- *Linear plans* have the farmhouse and a farm building, usually a barn, attached in-line.
- *Attached L-plans* have the house and working buildings attached to each other in an overall L-plan.
- *Parallel plans* have the farmhouse and an agricultural building lying parallel to each other with a small yard area between. Typically the agricultural building lies behind the farmhouse.
- *Linear* and *Attached L-plans* with unconverted agriculture buildings are very rare.

Linear and L-plans are most common in northern and western pastoral areas and extremely rare in south-east England and Kent, where they are concentrated on smaller common-edge and heathland farms. The few examples that survive typically have an attached farmhouse and barn of different phases.





Row Plans comprise long ranges of buildings, typically of various dates, and often with a series of separate yards. Some larger examples consist of two rows of buildings lying parallel to each other.

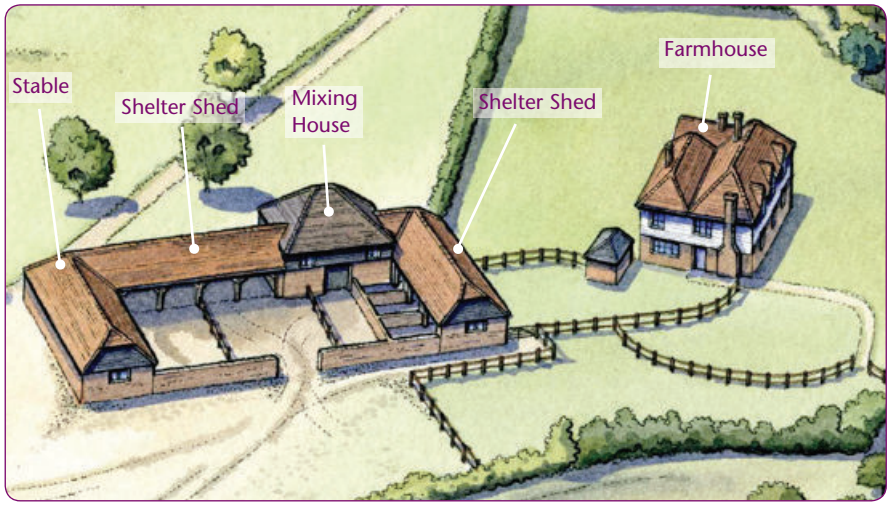
- *Row plans* may have a series of yards associated with the various buildings.
- Yards can face towards or away from main routes and tracks.

ABOVE A linear farmstead, with the house and working buildings attached in one range, is very unusual in Kent. (© Bob Edwards)

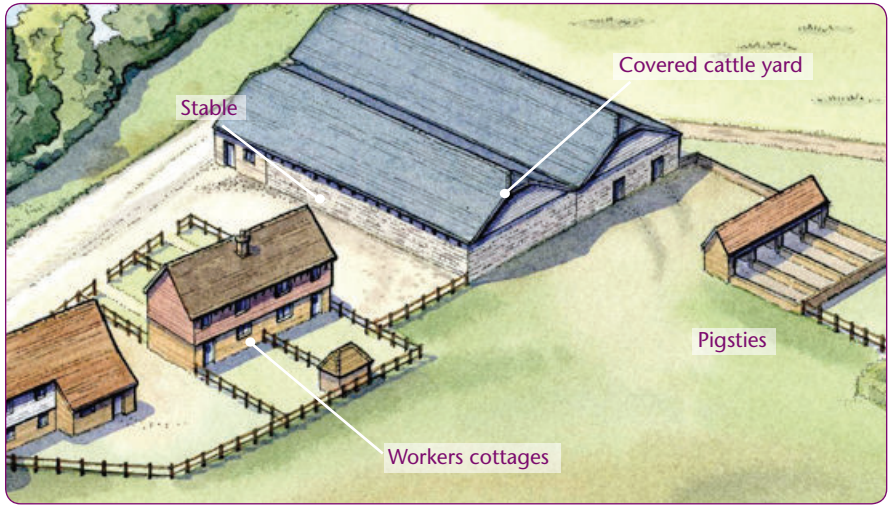
Key

B	barn	**S**	shelter shed for cattle
CS	cartshed	**St**	stable
G	granary	■	farmhouse
O	oast house		

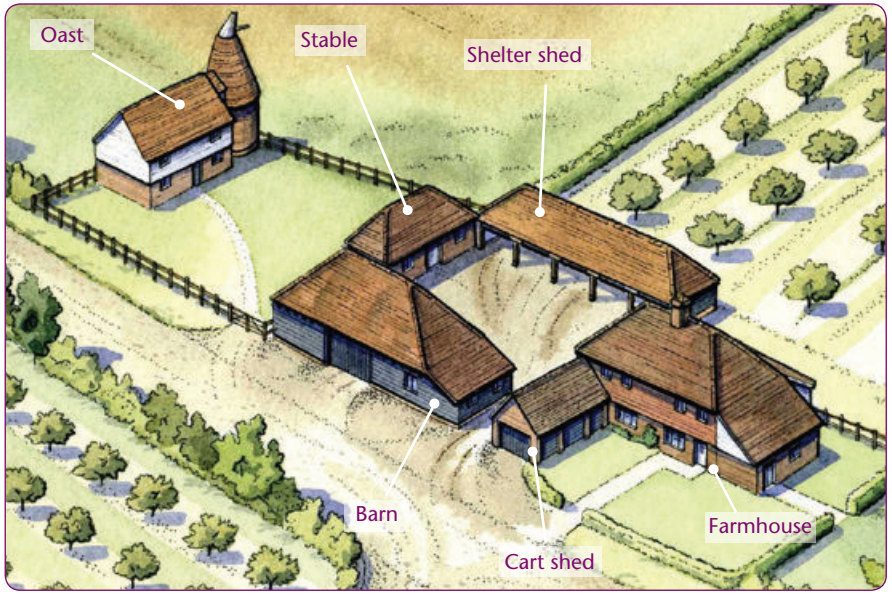
The drawings below show a selection of the key farmstead types across Kent, with the functions of the buildings indicated



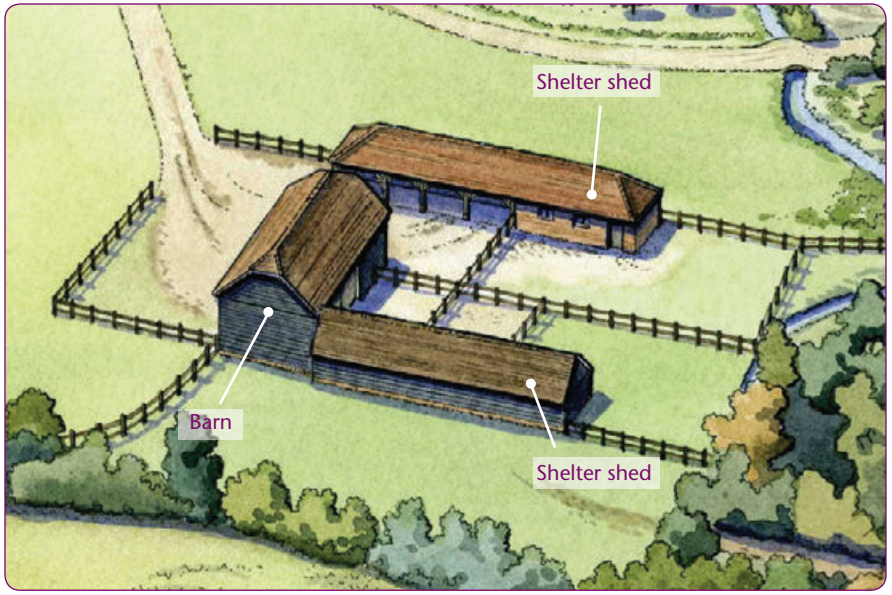
Regular Courtyard U Plan



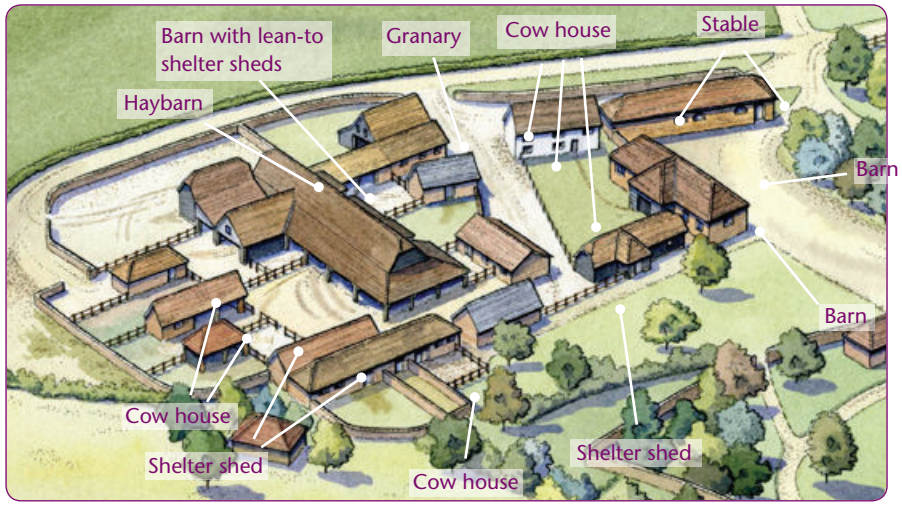
Regular Covered Yard – as used on some farmsteads from the 1860s



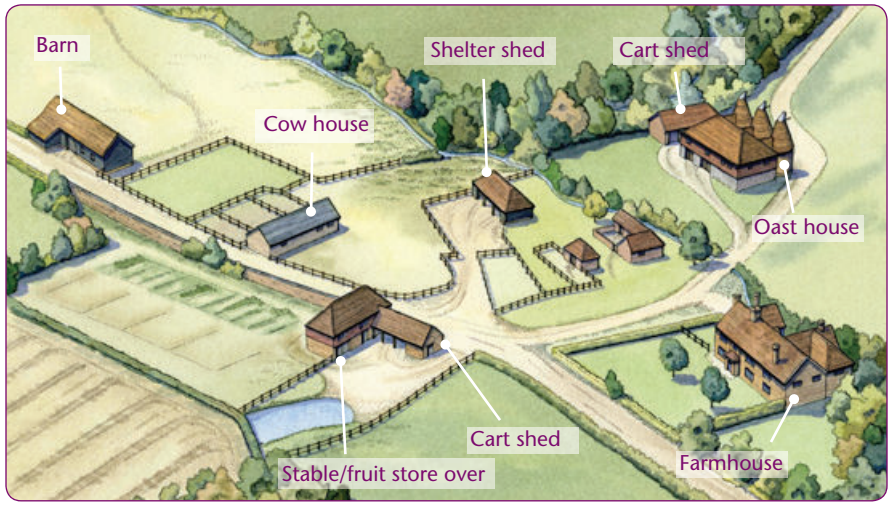
Loose courtyard with working buildings to 3 sides of the yard



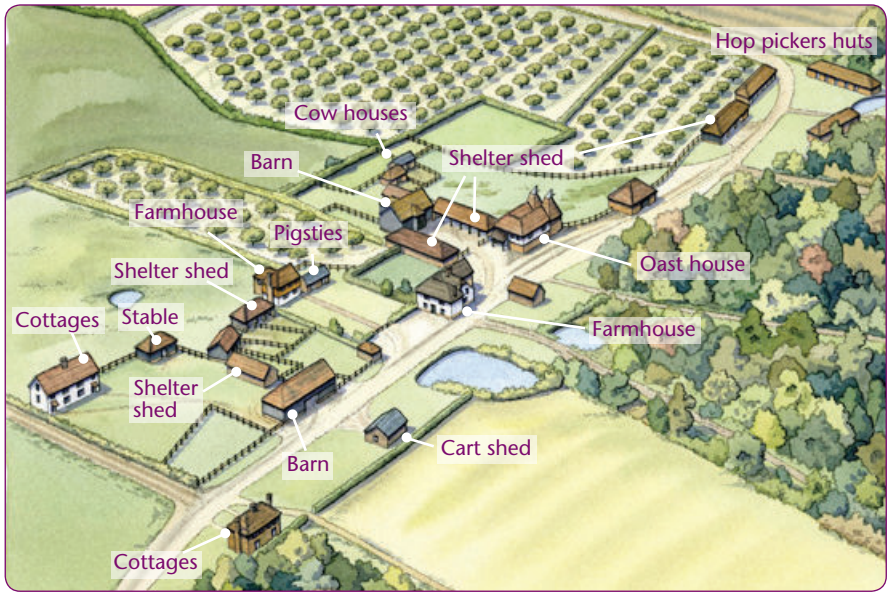
Loose courtyard with L-shaped barn and shelter shed, and additional shelter shed to third side of yard



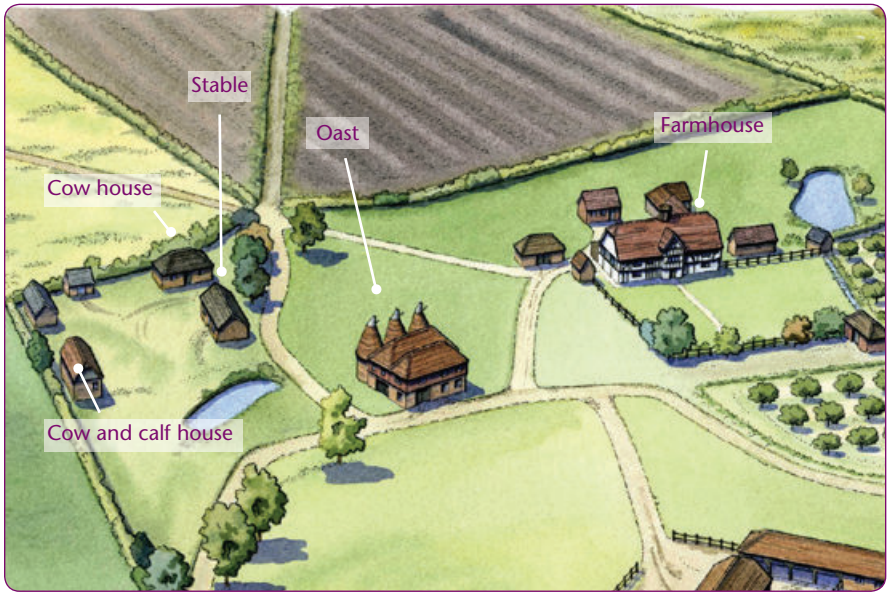
Regular Multi-yard



Dispersed Multi-yard



Dispersed Driftway



Dispersed Cluster

4 FARMSTEAD BUILDING TYPES IN KENT

INTRODUCTION

This section describes the principal farmstead building types and typical features that are likely to be encountered on a Kent farmstead. The rarity and significance of the buildings is also described. The most common traditional farm buildings on farmsteads are:

- Barns for threshing and processing the grain crop, including a high proportion by national standards of 17th century and earlier examples.
- Aisled barns concentrated in the vales and chalklands, multi-functional barns for housing animals and their fodder most commonly found in the Weald.
- Granaries, typically of 18th or 19th century date, concentrated in the vales and chalklands – as also are larger stables and cartsheds.
- Buildings associated with the hop industry, oasts being the most prominent.
- Yards, shelter sheds and cow houses for housing cattle are mostly of 19th century date, and may be found added to an earlier barn or detached and associated with individual yard areas.
- Oast houses and other buildings associated with the hop industry.
- Cartsheds which can usually be identified through their position in the farmstead, often facing away from the yard or onto a road or track.

Field barns and outfarms, the latter comprising buildings set around a yard, are mostly 19th century. Some barns on these sites, especially in the Weald, may be much earlier in date. A small number of late 18th or early 19th century outfarms survive on the downs, typically with barn and flanking shelter sheds facing into yards.

Barns

The barn was a building for the dry storage and processing of the harvested corn crop, and for housing straw after threshing before it was distributed as bedding for animals and trodden into manure to be returned to the fields. Barns in Kent are typically timber-framed with brick or stone plinths and hipped roofs. There are some stone-built barns and, from the 18th century, brick barns.

Typical features

- Barns are typically the largest and earliest working building on the farmstead.
- An area (the threshing floor) for beating by flail the grain from the crop and for winnowing the grain from the chaff in a cross draught.
- Doors on the side walls to the threshing floor, one door was usually smaller. Projecting porches a common feature.
- Many barns have outshuts for cattle added to the end or sides (or both), with separate entrances to the yard and no communication into the barn.
- 'Leaps' – a slot in each post flanking the entrance to take a horizontal board which retained the grain while threshing.
- Sometimes evidence – in the form of belt drives and holes for drive shafts – from earlier fixed or portable machinery.
- Ritual and tally marks close to the threshing floor and graffiti.
- Evidence for earlier (including medieval) reused timbers, and for holes (mortices) in the undersides of cross beams indicating former partitions and evidence for animal housing. Until the late 18th century, across the Weald – and, to a lesser extent, elsewhere – most barns housed animals (usually oxen and milk cows) as well as their fodder and the corn crop. After this date, barns were converted into corn storage and processing buildings, and livestock moved out into detached yards and buildings.

LEFT A late 18th century barn in the Greensand, with its distinctive central door to the threshing bay. The low-pitched and half-hipped roof is typical of this date (Wealden Greensand). (© Bob Edwards)

RIGHT Threshing floor and porch. Note the 'leap' – timber boarding which was slotted into grooves in the door frames. (© English Heritage)

LEFT Belt drives and shafting may remain attached to barns. These were linked to portable machines – used from the 1850s in Kent - that threshed grain and processed animal feed. These gave barns a new lease of life, just as hand threshing began to decline. (© Bob Edwards)

RIGHT Brick was used to block this wide door to a threshing floor. Many barns ceased to function for threshing grain by the later 19th century and were used to store the crop or house cattle. (© Bob Edwards)

LEFT The barn was usually sited prominently, as here next to this 15th century house in the Kent Downs. (© English Heritage)

RIGHT The roofs to some barns could be replaced with low-pitched tin roofs in the late 19th and 20th centuries. Internal inspection may show that the wall timbers may be considerably earlier.(© Bob Edwards)

Barns – aisled barns

In an aisled barn the width of the building was increased through the use of aisles – narrow extensions along one or more sides or ends of the barn. The roof is carried on beyond the line of the aisle posts so the height of the walls is reduced and the visual mass of the roof increased.

Rarity and significance

Aisled barns are most strongly concentrated in East Anglia and the South East. In Kent they are concentrated in the arable vales and the chalk downs, the largest in the corn-growing areas of east Kent. They include many high status medieval examples.

LEFT The medieval aisled barn at Lenham (Wealden Greensand). (© Kent Downs AONB)

RIGHT A large aisled barn in the North Kent Plain. (© Bob Edwards)

LEFT An aisled barn typical of the medium-scale barns of the Kent Downs. (© Kent Downs AONB)

Barns – area distinctions

- In the downs and vales large barns – including aisled barns – were built for storage and processing of the grain crop, and related to yards where straw and the manure from cattle was trodden down and redistributed to fertilise the fields.
- Increases in grain production and yields in the 18th and early 19th centuries often led to the construction of an additional barn and in many cases, the enlargement and adaptation of earlier barns.
- Some large barns in the arable areas have attached granaries and stables.
- Wealden barns retain evidence – either in partitions and floors or in evidence for lost partitions and floors – for being combination buildings in that before the 19th century they housed both animals (primarily cattle) and their fodder. Lean-to additions rather than aisles are more common in this area.

Rarity and significance

- Barns in Kent are mostly of 17th or 18th century date but there is a high concentration, by national standards, of earlier examples.
- Many pre-1750 examples remain unrecognised and unlisted.
- Unconverted examples are increasingly rare, due to post-1970s demolition and conversion.

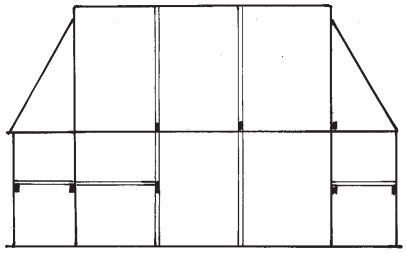
Small 3-bay barns, built on the smaller farms in the High Weald and around the coastal marshes, have rarely survived. These show a barn on the Hoo Peninsula (left) and one on the edge of Romney Marsh. (© Bob Edwards)

LEFT A barn facing into a cattle yard (High Weald).

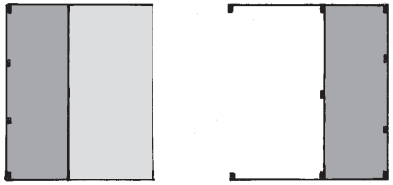
RIGHT Larger barns with lean-tos are typical of the Low Weald. (© English Heritage)

Wealden Greensand. (© Bob Edwards)

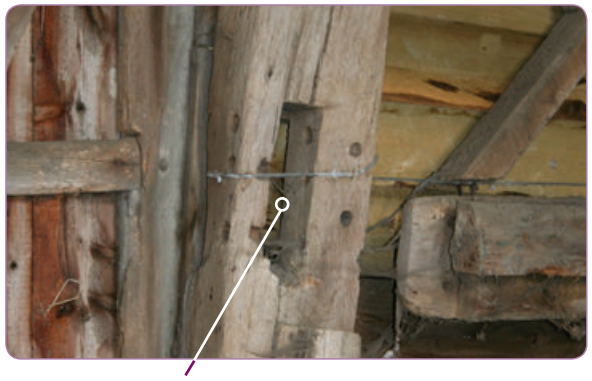
North Kent Downs, east of Wye. (© Bob Edwards)



Longitudinal section



Floor plan



Lost mortice in a wall post for former floor beam. (© Bob Edwards)

Many barns in the Weald show evidence for having been multi-functional buildings, in the form of holes and slots in beams for lost partitions and hayracks (see photograph to left).The drawing above shows floored bays in a barn in the Weald. These were common, and afforded cattle housing at ground floor level with haylofts above, either within the main body of the barn (light grey) or in additions to the barn (dark grey).

Drawing after Martin, D. & Martin, B. (2006) *Farm Buildings of the Weald, 1450-1750*, Heritage Publications: Kings Lynn.

Cart shed

Open-fronted buildings which often face away from the farmyard and may be found close to the stables and roadways, giving direct access to the fields. In many areas cart sheds are combined with first-floor granaries, accessed by external steps.

Typical features

- Open-fronted and sometimes open at each end, although one or two bays may be enclosed with doors for the storage of small implements;
- Evidence for hatches for dropping sacks of grain from granaries into carts, hoists for hauling grain, steps to granaries with internal grain bins and louvered windows.

Rarity and significance

- Pre-19th century examples – especially with historic grain bins and other features associated with granaries – are rare.
- The largest cartsheds are found on large corn-producing farms.

LEFT A cartshed in its typical roadside position. (© English Heritage)

CENTRE A large cartshed with a first-floor granary in the Kent Downs. (© Bob Edwards)

RIGHT Cartsheds were commonly integrated under the stowage areas of oasts – see Hop Industry section. (© English Heritage)

Cattle housing

Until the late 18th and 19th centuries cattle were either housed in multi-functional barns or held in yards with no shelter other than lean-tos in the lee of the barn. After this time cattle were housed in shelter sheds or enclosed cow houses. These are either added to earlier barns or detached and associated with individual yard areas in order to maximise the production of farmyard manure. In the Weald, the provision of separate cattle buildings and yards allowed the removal of the cattle stalls within multi-functional barns.

Any pre-19th century examples, including evidence for cattle housing in multi-functional barns, will be of great rarity.

LEFT Lean-to and cowhouse added to an earlier barn. (© Bob Edwards)

CENTRE Lean-to. (© High Weald AONB Unit)

RIGHT The distinctive low buildings to a cattle yard (© English Heritage)

Cattle housing – cowhouse

An enclosed building, or part of a multi-functional building, for stalling cattle (often dairy cattle). Cowhouses are not a common feature in Kent, but where used they are commonly single-storey and combined in a continuous range with stables.

Typical features

- Lower and wider doorways than stables.
- Windows and other features to assist ventilation dating from the mid-19th-early 20th Centuries (eg hit-and-miss ventilators, air ducts and ridge ventilators).
- Stalling and feeding arrangements. Cows were usually tethered in pairs with low partitions of wood, stone, slate and, in the 19th century, cast iron between them. Feeding arrangements can survive in the form of hayracks, water bowls and mangers for feed.

LEFT Very few cowhouse or shelter shed interiors of the 19th century or earlier have survived unaltered because hygiene regulations for the production of milk have resulted in new floors, windows and stall arrangements being inserted. (© High Weald AONB Unit)

RIGHT A cowhouse combined with stabling (Kent Downs). (© Bob Edwards)

Cattle housing – shelter shed

An open-fronted structure for cattle facing onto cattle yards. Cattle yards with shelter sheds were typical of mixed farming areas where cattle were housed on the steading as fatstock and for their manure.

Typical features

- Single-storey ranges. Shelter sheds can be detached buildings, attached gable on to a barn or built against the side of the barn.
- Common internal fittings were mangers and hayracks, and sometimes stalls.
- Doors in the gable ends near the back wall gave access to a feeding passage.

LEFT A small-scale shelter shed in the Weald. (© Janina Holubecki, High Weald AONB Unit)

RIGHT A large shelter shed on the edge of the marshland grazing in the Hoo Peninsula. (© English Heritage)

Dairy

SEE OTHER BUILDINGS AT END OF BUILDING TYPES SECTION

Dovecote

SEE OTHER BUILDINGS AT END OF BUILDING TYPES SECTION

Granary

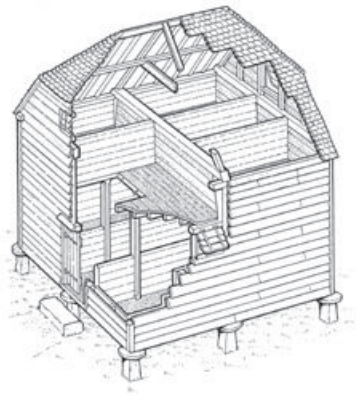
A building or room for storing grain after it has been threshed and winnowed in the barn, located in the farmhouse, an individual building, typically set on mushroom-shaped staddle stones or brick arches, or on the upper floor of a multi-functional building such as a barn or above a cart shed to secure it from theft, damp and rodents.

Typical features

- Ventilated openings – either louvers, shutters, sliding vents or grilles.
- Close-boarded or plastered and lime-washed walls internally, and a strong load-bearing floor construction with tight-fitting lapped boards to prevent loss of grain.
- Grain bins, or the slots in vertical timbers for horizontal planking used to make them.
- Steps at the gable end to the first floor granary, if located above the stable and/or cartshed, or at the end of a multi-functional range.

Rarity and significance

- Some very rare surviving evidence for granaries in the floored ends of barns in corn-producing areas.
- Free-standing granaries are rare in Kent, and are more common in East Anglia and in other corn-growing areas of southern England. Most examples are of late 18th or 19th century date, earlier examples – concentrated in the east of the county – being of great rarity.



LEFT A granary on staddle stones in the Kent Downs. (© English Heritage)

RIGHT A cut-away drawing showing the grain bins in a staddle granary. (© English Heritage)

Hop pickers' huts

SEE HOP INDUSTRY SECTION

Oast house

SEE HOP INDUSTRY SECTION

Outfarm

SEE OUTLYING BARNS AND COMPLEXES

Pigsty

A building for housing pigs. The main requirements for special accommodation were for farrowing, final fattening and accommodation of the boar. Large numbers of pigs were concentrated in dairying areas or market-gardening areas, and on larger farms where commercial fattening was practised.

Typical features

- Pigsties were typically built as single-storey structures comprising individual boxes, individually or in rows and with external feeding chutes.
- They were often built with their own individual yards.
- Some had upper floors with poultry houses.
- A small chimneystack could mark the position of a boiler house for boiling swill for pig feed.
- Sties were often placed near the kitchen or dairy as pigs were normally fed on kitchen scraps or whey (a by-product of dairying).

(© Bob Edwards)

Rarity and significance

- Any pre-19th century examples are very rare.
- Significant if part of coherent farmstead groups.

Stable

A building, or part of a building, for housing horses and their harnessing and tackle. The largest stables are concentrated in corn-producing areas, where farms were larger and more horses were need for ploughing and many other tasks. Fewer horses were needed in cattle-rearing or dairying areas.

Typical features

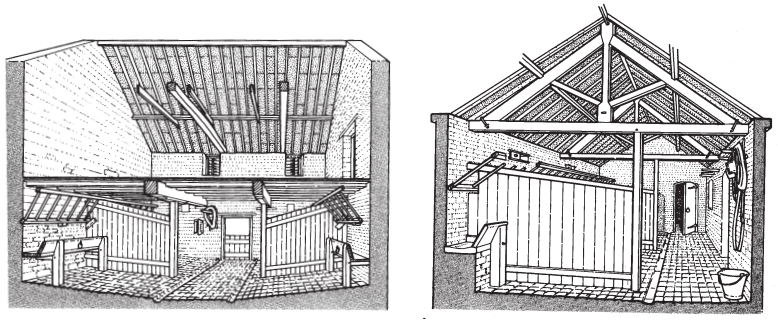
- Earlier stables are usually two-storey and well-lit buildings, with ground-floor windows, pitching openings and ventilation to the hay-loft. In Kent they are commonly timber-framed and weatherboarded, and brick examples date from the 18th century.
- Single-storey stables, commonly with cast-iron ridge vents, were built from the later 19th century.
- Stables can be distinguished from cow houses as they have tall and relatively narrow doors.
- Wooden or cast-iron (for high-status or late examples) stalls with access to manger and hayrack.
- Floors of earth, stone flags/cobbles and from the mid-19th century of engineering brick, sloping to a drainage channel.
- Pegs for harness and tack, sometimes in a separate harness room with fireplace.
- Sometimes chaff boxes for storing feed, and cubby-holes for lanterns, grooming brushes, medicines etc.

Rarity and significance

- After the barn, the stable is often the oldest building on the farmstead.
- A few stables dating to before 1700 have been identified in local surveys, while many more date from the 18th century. One of the reasons for this rise in number was the decline in the use of oxen.
- The largest stables were built on the larger corn-producing farms.

A small-scale stable in the Weald. (© Bob Edwards)

A stable in the Kent Downs. (© Bob Edwards)



Stable interiors. Single storey stables (as on right) are usually late 19th century.(© English Heritage)

Hop Industry – introduction

Beer brewed with hops became a popular drink in the 16th century. Before that it had been flavoured with herbs and spices. Beer was the main drink of the majority of the population as water was usually not fit for consumption, and tea and coffee had not become a national institution. Whilst hops were grown on a small scale in many parts of the country Herefordshire and Worcestershire and Kent and Sussex became the two major areas of production. Across Kent nearly every farm had its own hop garden but areas such as The Weald were more suited to growing hops. Today the few remaining commercial hop gardens in Kent occur in the Goudhurst and Lamberhurst area in the valley of the Teise.

The demise in hop-growing which has accelerated in the late 20th century has resulted in many hop gardens being grubbed out and as a consequence, the huts, cookhouses, oast-houses, tar tanks and other associated features have either been demolished, left to decay or as in the case of many oast-houses, converted to residential accommodation.

Farmsteads that retain a range of buildings associated with the hop industry (see below) are highly significant.

Hop industry – oast

A building in which hops are dried and stored. The drying of hops was a delicate process, requiring skill in managing the fire to maintain the correct temperatures. The dryers would often work round the clock, catching sleep in the oast.

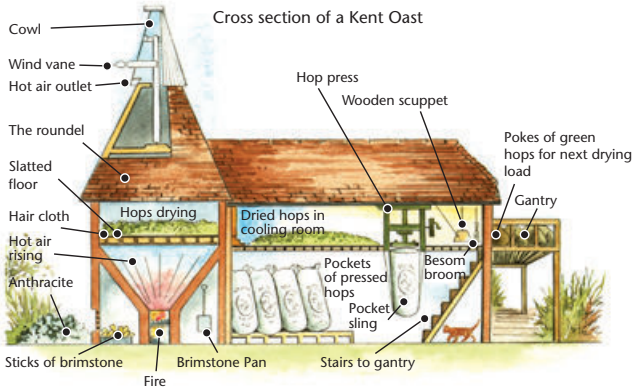
Typical features

- A square or circular kiln, with a cowl on the roof that would extract air though the slatted drying floor on which the hops were laid.
- an attached 'stowage' where the dried hops could cool on the upper floor before being pressed into suspended 'pockets'. The ground floor could be used for storage or was open-fronted and served as a cart shed.

Rarity and significance

- Early purpose-built oast, small buildings which included a kiln and rooms for the green and dried hops, are extremely rare.
- Evidence for early kilns may survive in some threshing barns.
- Surviving kilns are extremely rare.
- Early purpose-built oast houses, small buildings which included a kiln and rooms for the green and dried hops, are extremely rare.
- Only a small number of unconverted oast houses survive.

Hop industry – oasts



LEFT Schematic drawing showing the workings of an oast. (© National Trust)

RIGHT The stowage attached to the kilns may be part of an earlier timber-framed oast. (© Kent County Council)

LEFT Large-scale industrial kilns near Goudhurst. Square kilns were built for a time in the 19th century. (© Bob Edwards)

RIGHT This brick stowage has an internal timber-frame. (© Bob Edwards)

Hop industry – hop pickers' huts

These are found on the edge of farmsteads (left) or in the open countryside (right). (© Bob Edwards)

Before mechanised picking was introduced in the 1950s, the harvesting of hops was a very labour intensive business and around it grew the 19th and 20th century tradition of Londoners flocking to Kent, Surrey and Sussex in the autumn to pick hops and also soft fruits. Women and children commonly travelled independently of the men, who joined their families at the weekend.

Accommodation for these people was in the first instance rough canvas tents or converted animal sheds, but in the late 19th century moves were made to improve conditions, with purpose-built hop pickers' huts. These were usually sited away from the steading or at best on its fringe.

Typical features

- They are single-storey structures with rows of doors and windows to small rooms.
- Communal kitchens may be located at the end of the range or in detached buildings.

Rarity and significance

- Surviving groups of hop pickers' huts are rare.
- Hop pickers' huts associated with coherent farmstead groups with other hop industry structures (eg oast houses) are highly significant.

Hop industry – tar tanks

Tar Tanks can be found in the fields close to oasts. Creosote for preserving the ends of hop poles was not generally available until 1862 and did not become widely used until the late 19th century. To aid the penetration of the tar into the wood, it was heated in tanks and the poles held in the liquid supported by a wooden frame.

Outlying barns and complexes

Field barns and outfarms are:

- isolated threshing barns or
- groups of buildings set within the fields away from the main farmstead, typically in areas where farmsteads and fields were sited at a long distance from each other which saved on the labour needed to transport crops and manure to and from distant fields.

Some field barns and outfarms may be the remnants of former farmsteads where the house has been lost but the buildings retained as a result of farm amalgamation.

Rarity and significance

- Field barns and outfarms were once a common feature of the High Weald, particularly in the southern part of The Weald, east of Ashdown Forest. Most of these buildings have been lost from the landscape.
- Most probably date from the 19th century but it is possible that some barns with steep-pitched roofs are earlier.
- Few field barn or outfarm buildings are listed.

Field barn

A field barn in the High Weald. (© Bob Edwards)

Outfarm

Outfarms were typically built with shelter sheds for cattle flanking the threshing barn set around a yard. A cottage for a farmworker could also be sited nearby. (© Bob Edwards)

Other buildings – back kitchens and dairies

Detached building sited close to the house may have originated as dairies or – often in the 16th and 17th centuries – as detached kitchens for brewing, baking and other purposes. Doors will often be wide, and dairies (which may also be on the north side of the house) may include slate shelves and brick/stone floors to keep the interior cool. Surviving examples are of great rarity and significance.

(© Steve Podd, Farming and Wildlife Group)

Other buildings – dovecotes

Dovecotes were rarely built in Kent, compared to other parts of England. Doveholes let into the gables or under the eaves of buildings are a more common feature.

(© Janina Holubecki, High Weald AONB Unit)

5 MATERIALS AND DETAIL

NATIONAL BACKGROUND

Historic farmsteads reflect England's huge diversity in geology, and differences in building traditions and wealth, estate policy, access to transport links and the management of local timber and other resources. This has contributed to great contrasts and variety in traditional walling and roofing materials and forms of construction, which often survived much longer on working farm buildings than farmhouses. Buildings in stone and brick, roofed with tile or slate, increasingly replaced buildings in clay, timber and thatch from the later 18th century. Building materials such as softwood timber, brick, slate and iron could also be imported onto the farm via coastal and river ports, canals and rail. There also appeared in the 19th century a range of standard architectural detail, such as part-glazed and ventilated windows and the use of cast and wrought iron for columns and other detail.

Pre-fabricated construction in industrial materials made its way onto farms from the 1850s, but did not become dominant and widespread until after the 1950s.

- Hipped and half-hipped roofs are the historically dominant roof form, gabled roofs being more generally used from the 19th century.
- Tiles largely replaced straw thatch (and also broom and heather in The Weald and reed in coastal areas) from the late medieval period.
- Timber-framing was typically used for medieval houses and barns with the barns and sometimes other buildings being clad in weatherboarding.
- Farmhouses and cottages are more likely to be clad in painted weatherboard or plain clay tile.
- Weatherboarding is commonly overlapped.
- There are some very rare surviving examples of butted boarding, of pre-19th century date. These are found inside barns, on former external walls. Surviving examples are very rare survivals of a formerly common building tradition.
- Brick used from 17th century for high-status barns and stables but not commonly used until around 1800. Sandstone from Greensand used for walls and plinths.

Typical features

- Stalls and other interior features (eg mangers, hay racks) in stables and cattle housing of proven 19th century or earlier date.
- Doors (usually planked/ledged and braced, from c.1850 on horizontal sliding rails) with iron strap hinges and handles, and heavy frames.
- Windows, often of a standard type nationally, that are half-glazed, shuttered and/or with hit-and-miss ventilators.

Unusual features of historic interest, often difficult to spot, include:

- Tallies near threshing floors in barns for noting production of grain, and numbers to grain bins.
- *Ritual marks* for protecting produce or livestock, which are usually in the form of 'daisy wheels' or 'Mary marks', or graffiti recording names of workers, sales etc.
- *Graffiti* or *artwork*, such as soldiers' graffiti, which is tied in with significant cultural events or occupation.
- *Constructional marks* are those associated with the transport and prefabrication of structural carpentry and timber frames (eg shipping and carpenters' marks).

LEFT Sandstone rubble with small stones used for the mortar joints, a technique called galletting. (© Bob Edwards)

RIGHT Hipped roof and weatherboarding. (© Bob Edwards)

LEFT Doors and windows. (© Bob Edwards)

RIGHT Machine-sawn roof timbers, as used from the mid 19th century. (© English Heritage)

LEFT Corrugated iron, as used here on a High Weald barn, was used from the mid 19th century in Kent and saved many buildings from collapse. (© High Weald AONB Unit)

RIGHT Vertical timber boarding pegged into the cross-rails of an aisled medieval barn. This is a very rare surviving example of this type of boarding. (© English Heritage)

KENT FARMSTEADS GUIDANCE

PART 4
CHARACTER AREA STATEMENTS


Low Weald


Wealden Greensand


North Kent Plain

KENT DOWNS Area of Outstanding Natural Beauty

Kent County Council

KentDesign

ENGLISH HERITAGE

CONTENTS OF PART 4 OF THE KENT FARMSTEADS GUIDANCE: CHARACTER AREA STATEMENTS

The Kent Farmstead Guidance is the result of collaboration between English Heritage, Kent County Council and the Kent Downs AONB. It also builds on pilot work developed by English Heritage and the High Weald AONB. It has been revised further following consultation with key stakeholders in Kent. The revision has also integrated the result of the Kent Farmsteads and Landscapes Project, which represents the completion of rapid mapping of farmsteads supported firstly by the High Weald Joint Advisory Committee and then by English Heritage. The text was prepared by Jeremy Lake of English Heritage, with contributions from Bob Edwards and James Webb of Forum Heritage Services (substantially to Parts 5 and 6), & publication layout by Diva Arts.

NOTE. THIS DOCUMENT IS AVAILABLE IN ALTERNATIVE FORMATS AND CAN BE EXPLAINED IN A RANGE OF LANGUAGES. PLEASE CALL KENT COUNTY COUNCIL'S REGENERATION & ECONOMY'S PROJECT SUPPORT TEAM ON 01622 221866 FOR DETAILS.

AIMS AND CONTENTS OF THE KENT FARMSTEADS GUIDANCE

The Kent Farmsteads Guidance aims to inform and achieve the sustainable development of farmsteads, including their conservation and enhancement. It can also be used by those with an interest in the history and character of the county's landscape and historic buildings, and the character of individual places. Traditional farmstead groups and their buildings are assets which make a positive contribution to local character. Many are no longer in agricultural use but will continue, through a diversity of uses, to make an important contribution to the rural economy and communities.

PART 1 FARMSTEADS ASSESSMENT FRAMEWORK

This sets out the aims and purpose of the Kent Farmsteads Guidance and is divided into two sections:

1. a **Site Assessment Framework** which will help applicants identify the capacity for change and any issues at the pre-application stage in the planning process, and then move on to prepare the details of a scheme
2. a **Farmsteads Summary Guidance** which summarises the planning context and the key principles to inform the sustainable development of farmsteads – understanding their character, significance and sensitivity to change

PART 2 PLANNING CONTEXT

This sets sets out the national and local policy context, and summarises recent research on farmsteads including for each of Kent's local authorities.

PART 3 KENT FARMSTEADS CHARACTER STATEMENTS

Fully-illustrated guidance on the character and significance of Kent farmsteads, for use in individual applications and detailed design work, for the preparation of area guidance and for those with an interest in the county's landscapes and historic buildings. The guidance is presented under the headings of: Historical Development, Landscape and Settlement, Farmstead and Building Types and Materials and Detail.

PART 4 CHARACTER AREA STATEMENTS

These provide summaries, under the same headings and for the same purpose, for the North Kent Plain and Thames Estuary, North Kent Downs, Wealden Greensand, Low Weald, High Weald and Romney Marsh.

PART 5 KENT FARMSTEADS DESIGN GUIDANCE

This provides illustrated guidance on design and new build, based on the range of historic farmstead types. It is intended to help applicants who are then considering how to achieve successful design, including new-build where it is considered appropriate and fitted to local plan policy.

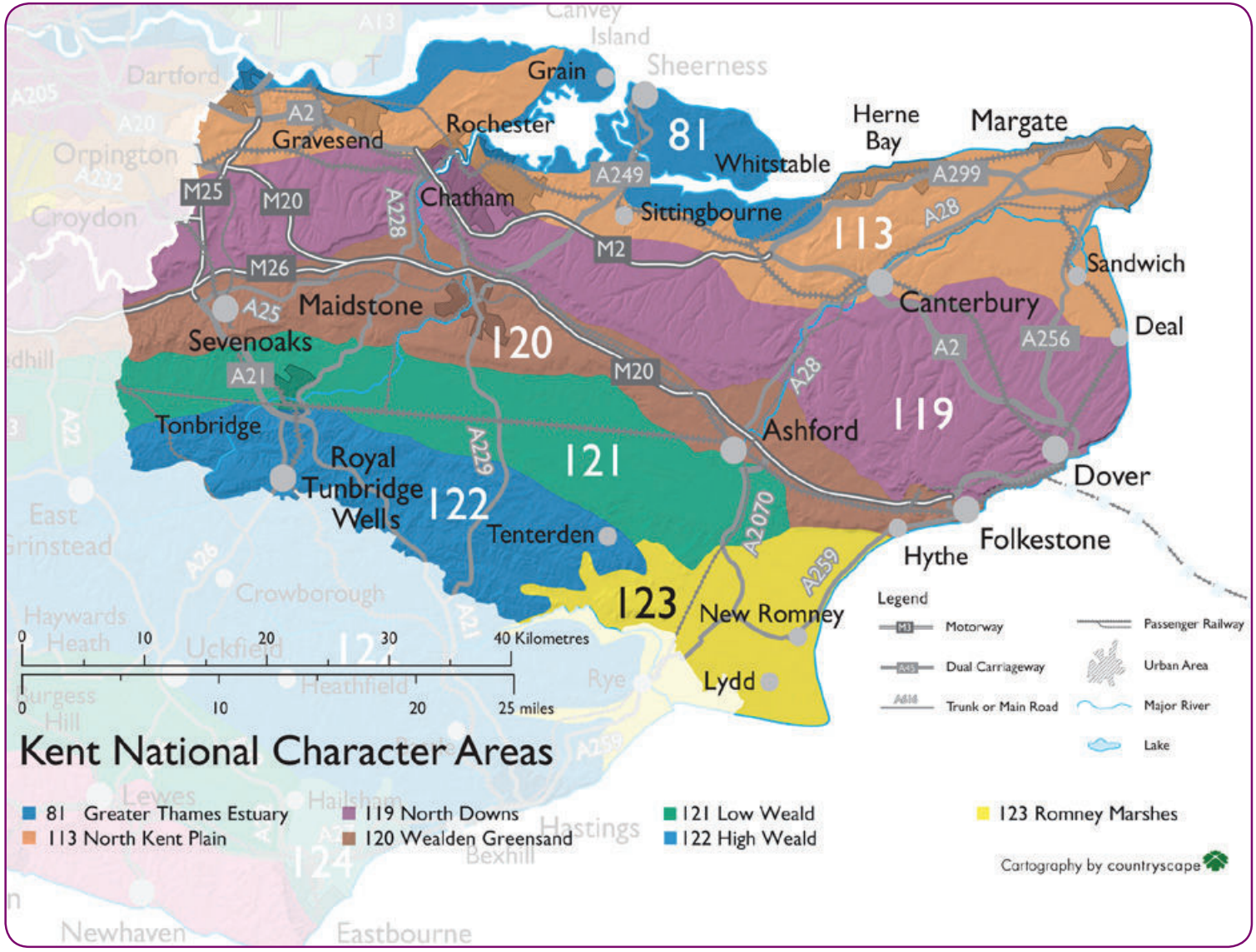
PART 6 RECORDING AND RESEARCH GUIDANCE

This summarises the main issues to consider when undertaking more detailed recording of a site, with a case study and research questions to guide the survey and assessment process.

PART 7 GLOSSARY

This is a glossary of terms to aid the user.

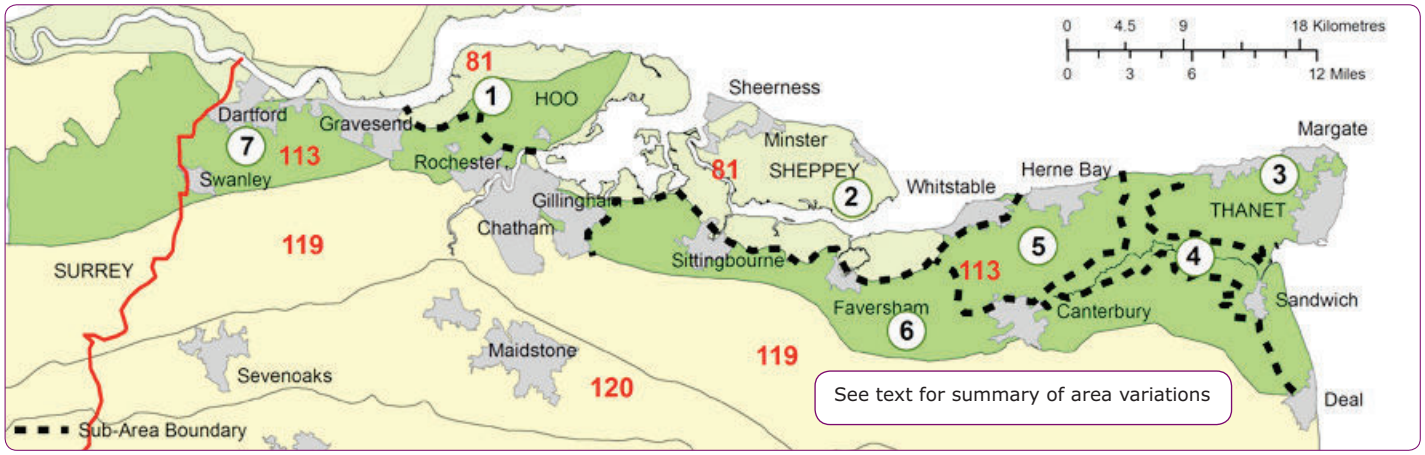
MAP AND INTRODUCTION



THE STATEMENTS HAVE BEEN ORGANISED UNDER THE FOLLOWING HEADINGS:

1 HISTORICAL DEVELOPMENT
2 LANDSCAPE AND SETTLEMENT
3 FARMSTEAD AND BUILDING TYPES
4 MATERIALS AND DETAIL
5 RARITY AND SIGNIFICANCE
6 AREA VARIATIONS

1 NORTH KENT PLAIN AND THAMES ESTUARY NCA 113 (NORTH KENT PLAIN) AND 81 (THAMES ESTUARY)



This area extends northwards from a narrow strip of land along the Thames Estuary to the chalk of the Kent Downs to the south and is divided by the three navigable rivers - the Darent, Medway and Stour. The sub-areas as indicated on the map are: 1) Hoo Peninsula, Northern Coast and Parkland, 2) Isle of Sheppey and Northern Coast and Marshland, 3) Thanet, 4) Wantsum and Lower Stour Marshes, 5) The Blean, 6) Northern Horticultural Belt and 7) The Western Area.

1 HISTORIC DEVELOPMENT

- The area has been an intensively utilised and exploited area from earliest times, and divided by the three navigable rivers of the Darent, Medway and Stour. The availability of water transport along the coast to London gave north Kent a distinct advantage over other fruit-growing areas such as mid-Kent. The Roman road of Watling Street also provided a direct link with London. The development of the railway network provided an even speedier way of moving goods to London.
- Corn production on the fertile brickearth soils of the North Kent Plain has been important since at least the Iron Age and, together with the development of brewing and malting from the 15th century, has been stimulated by the ease of access to the London market. The wealth of the church and collegiate holdings on the coastal marsh lands was derived from sheep and wool.
- Large parts were owned by the Church, and the cathedrals of Rochester and Canterbury continued to manage large estates after the Dissolution of the Monasteries in the 16th century.
- The area has large numbers of medieval houses and barns by national standards – concentrated in a band across the centre of the North Kent Plain. These testify to a class of prosperous farmers who developed on these estates from the 15th century. Fewer, larger arable-based farms developed to the east of the Stour, and elsewhere the diverse economy sustained the development of middling-scale farms.
- Strong linear field systems reflected in the patterns of routeways express ancient patterns of movement and tenure between the arable clayland and the salt marshes. The marshes were used for fattening sheep and cattle.
- Fruit growing was also a major element in the agriculture of the western part of the area in particular from the 13th century, increasing from the 17th century with the establishment of larger orchards to supply the London market and the supply of the naval dockyards.

- Settlement was sparse along the coast until after the expansion of the railway system in the mid-19th century, after which market gardening, seaside resorts and a diversity of industries (mostly chemical, extraction and power) expanded.

2 LANDSCAPE AND SETTLEMENT

The area had been largely cleared of woodland by the 11th century. Woodland is confined to small blocks and copses often on higher ground, and shelter belts of poplars protecting orchards and soft fruit. The only significant areas of woodland are confined to pockets of higher ground with acidic clay soils such as around Shorne, Chattenden and Blean. Within these woods are evidence of smaller medieval farmstead manors, with its associated fields: for example the deserted site of Randalls in Shorne Wood.

In the Thames Estuary:

- A low density of farmsteads scattered across the landscape, within a landscape that was sparsely settled until the development of coastal towns and industries from the late 19th century.
- Large high-status farmsteads, occasionally associated with moated sites, are intermixed with much smaller farmsteads which have been subject to much more change.
- In the low-lying coastal marshes there are some remains of sheep folds associated with routeways for moving stock to and from the marshes.

In the North Kent Plain:

- A medium density of farmsteads in the landscape, frequently prominently sited.
- Predominantly nucleated settlement in the east of the area.

3 FARMSTEAD AND BUILDING TYPES

Farmstead types

- Courtyard farmsteads are predominant, with buildings to two or three sides of the yard and large regular multi-yard farmsteads which relate to the importance of fattening cattle.
- Regular multi-yard plans developed across the area, including on farms with a mix of corn, hop and fruit production. Some farms around the coastal marshes of Hoo and Sheppey in particular developed with extensive farmsteads having many yards for fattening cattle. Largely absent from the Blean area.
- Other regular plan types, generally medium-scale L and U-plans, are uncommon except in areas of planned regular enclosure on or close to the coastal marshes; some, for example on the Hoo Peninsula and in the eastern part of the character area, result from a high level of rebuilding in the 19th century.
- Courtyard plans with an L-plan element and additional buildings are common across the North Kent Plain, especially in the eastern part of the area.
- Dispersed plan types, mainly cluster plans, were seen across the area, but many have been subject to change leaving few groups unaltered from the late 19th century.
- Outfarms and field barns were particularly common in the Northern Horticultural Belt but have been subject to high levels of loss. Small buildings were often associated with orchards.

Building types

- Aisled barns 18th century and earlier buildings mostly comprise large aisled or unaisled barns, ranging from three bays to eight bays or larger, often on manorial farmsteads.
- There are some rare surviving examples of small three-bay barns associated with the smaller farms that developed along the fringes of the marshland.
- The largest farmsteads developed with two or more aisled or unaisled barns.
- Granaries, either free-standing on staddle stones or above cart sheds and stables are distinctive features across the Plain.
- Oast houses and other buildings associated with the hop industry found on some farms.

- In the low-lying coastal marshes there are some remains of sheep folds associated with routeways for moving stock to and from the marshes.

4 MATERIALS AND DETAIL

- Timber-framing is the characteristic building material for medieval houses and barns which are weatherboarded.
- Brick predominantly used for farm buildings from the 18th century.
- Hipped plain clay tile roofs.
- Survival of straw thatch on some barns.

5 RARITY AND SIGNIFICANCE

- Farmstead groups with less than 50% change since c.1900 are rare by national standards – 33.2% in the North Kent Plain, 26.7% in the Thames Estuary, which with Romney Marsh place these areas in the lowest categories of survival.
- 18th century and earlier working farm buildings other than barns – especially those with stables, granaries and cartsheds typical of arable-based agriculture - are exceptionally rare.
- Some manorial complexes, sometimes moated and accompanied by a church.
- Small-scale pre-19th century loose courtyard groups of a house and barn are rare; surviving examples are likely to be found east of the Medway.
- Dispersed cluster plans, once common across the North Kent Plain except in Thanet, now rarely survive with little change.
- There are some rare survivals of early multi-yard layouts fringing the coastal marshes, with shelter sheds and other buildings relating to the feeding of cattle and growing of corn on higher land.
- There are some high-status sites with large houses and barns, and very rarely with other farm buildings.
- Small-scale barns and farmsteads comprise rare survivals of formerly common marshland-edge farmsteads.
- Shelter sheds, including some very rare examples of pre-19th century date, are a highly distinctive building type.

6 AREA VARIATIONS

1 Hoo Peninsula, Northern Coast and Parkland

- Comparatively few isolated farms are located within and along the edges of the marshes.
- The area within the Hoo was historically dominated by arable and fruit growing, with shelterbelts to isolated farmsteads as well as blocks of coppice woodland and areas of 19th and 20th century development linked to military sites, power generation and commuting.
- Most farmsteads are isolated and set within landscapes of medium-large scale irregular fields largely enclosed by the 18th century.

2 Isle of Sheppey and Northern Coast and Marshland

- Sheppey or 'sheep island' was always used for fattening sheep and managed by land owners inland.
- The area developed in a broadly similar way to The Hoo, but with a dominant pattern of regular fields resulting from 19th century enclosure and reorganisation.
- 19th and 20th century development linked to military and industrial sites (e.g. Sheerness).

3 Thanet

- Market gardening is a characteristic of Thanet, where the exposure to wind limits fruit growing, and in the area around Sandwich which is sometimes regarded as the home of market gardening, as it was brought to this area by Dutch émigrés.
- Settlement is much more strongly nucleated within a very open landscape, and large arable farms with 18/19th century houses developed in tandem with the enlargement of fields but retaining earlier irregular boundaries.
- Strong urban influence with Margate and Ramsgate within the area, and extensive areas of 19th and 20th century housing across the area.

4 Wantsum and Lower Stour Marshes

- The marshland areas were subject to reclamation by ecclesiastical estates in the 12th-13th centuries. Improved drainage from the 19th century has resulted in much of these areas being converted to arable, with a mix of regular and irregular medium-scale fields and farms.

North Kent Plain

5 The Blean (Forest of Blean and Former Blean Forest to its north)

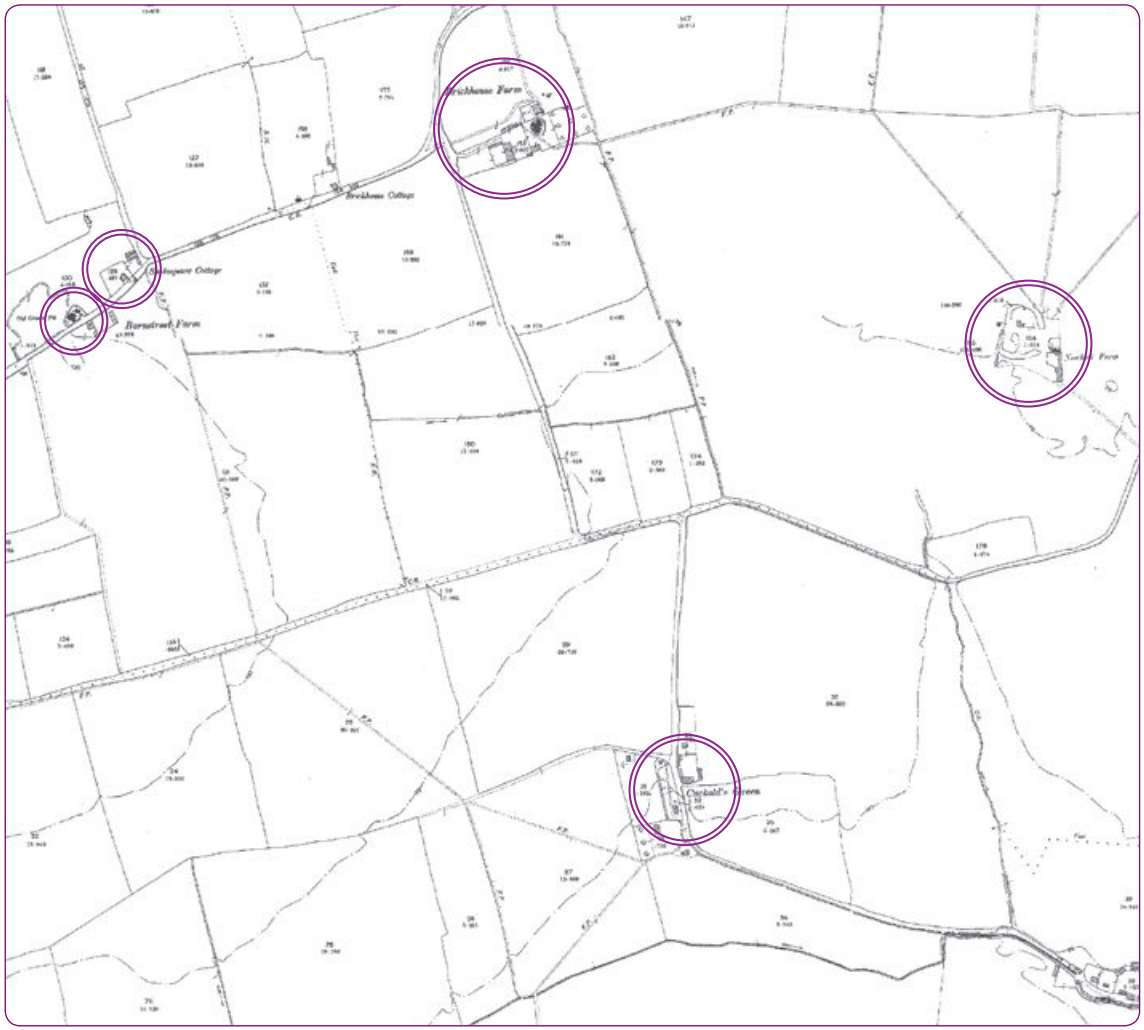
- A coppiced woodland landscape west and north of Canterbury of scattered dwellings amongst woodland and wooded heath, where smaller farms focused largely on dairying developed. Areas of small-scale encroachment and also of large fields and farms.
- To the north is an area of larger farms and fields resulting from the reorganisation of the landscape and more extensive removal of woodland from the 16th century.

6 Northern Horticultural Belt (Whitstable to Gillingham)

- Rich agricultural landscape of light soils either side of The Blean, running from Gillingham towards Thanet around Whitstable, where a mix of small and medium-large-scale farms developed within a wide variety of fields mostly with irregular boundaries that result from piecemeal enclosure and successive alteration. Some areas with very large fields and large-scale post-1950 farms.

7 The Western Area, including Rochester/Chatham Hinterland, Dartford/ Gravesham Conurbation, and North-Western Foothills of the Downs

- Historically a mix of small-scale market gardens mixed with medium to large scale farms. Irregular fields set within pockets of woodland and some coastal marshland.
- It has been subject since the 17th century to increasing urban influences from London, especially in the 19th and 20th centuries, and is now an area with a predominant urban/suburban character.



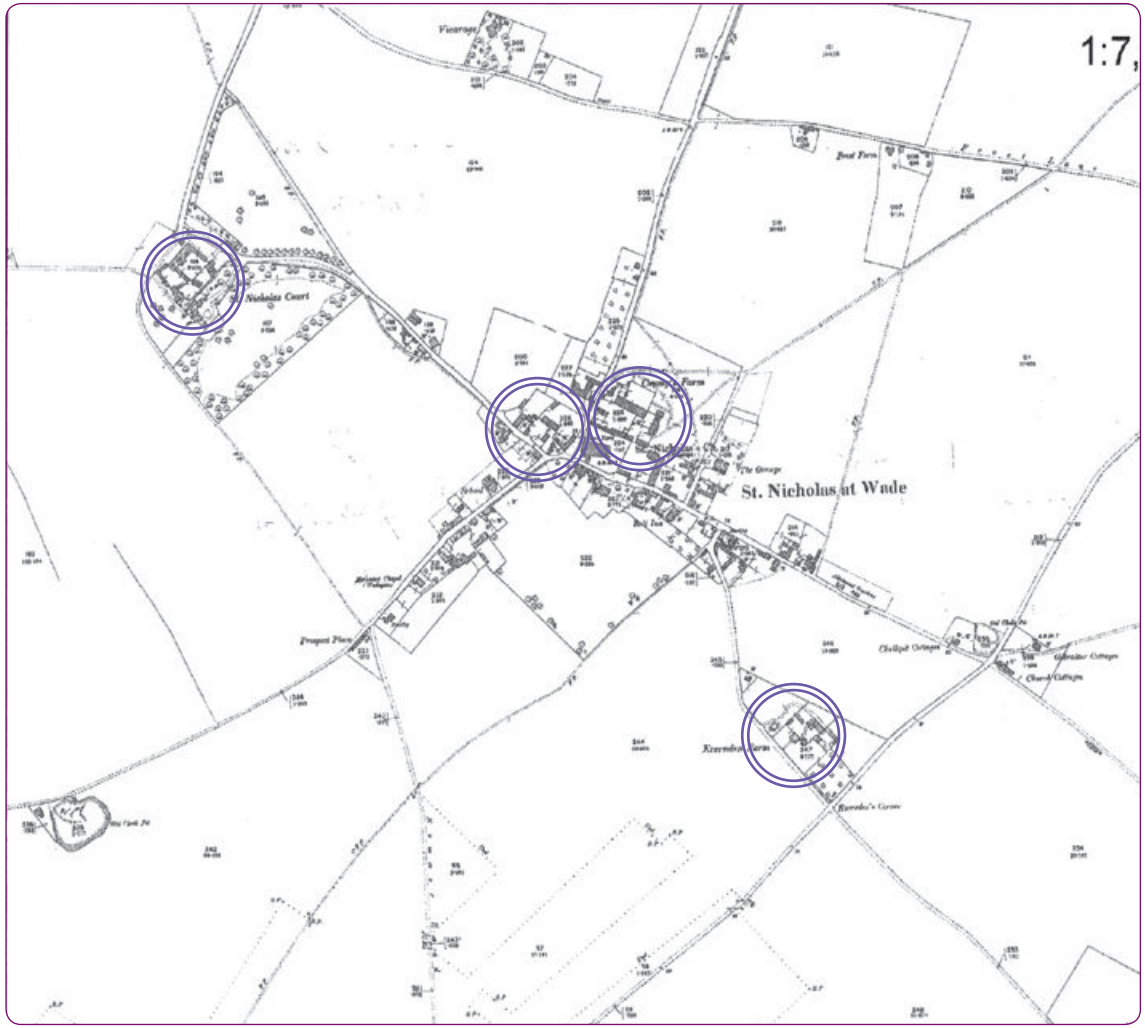
Farmstead

0 250 500 750 meters

0 0.25 0.5 miles

Hoo Peninsula

This low lying coastal area of the Hoo was a lightly settled landscape of predominantly dispersed small and medium sized farmsteads typically of loose courtyard form. These farmsteads are set within a landscape of generally medium and large scale fields largely created by the 18th century but which have since been subject to considerable boundary loss. This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 100019238. 2010



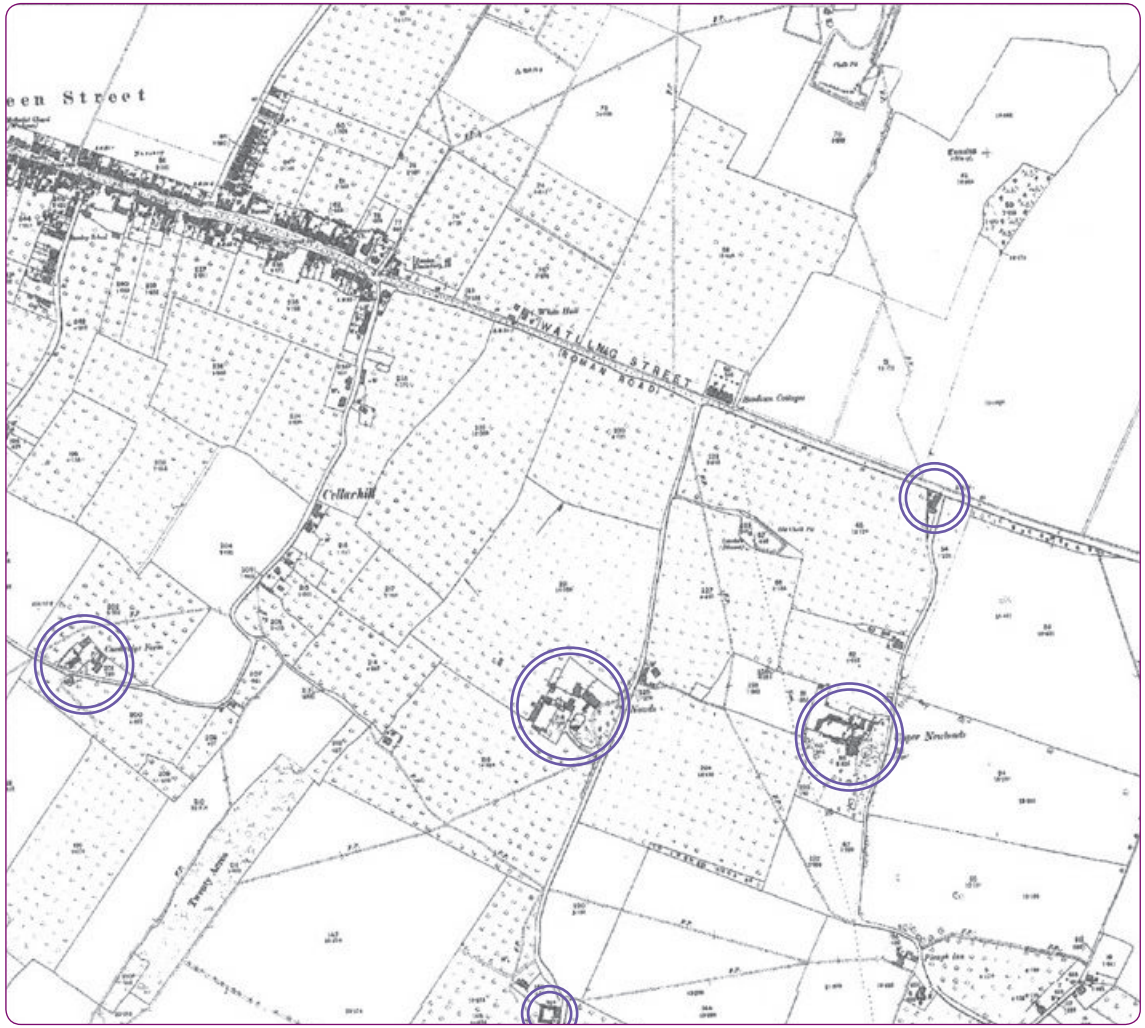
Farmstead

0 250 500 750 meters

0 0.25 0.5 miles

Thanet

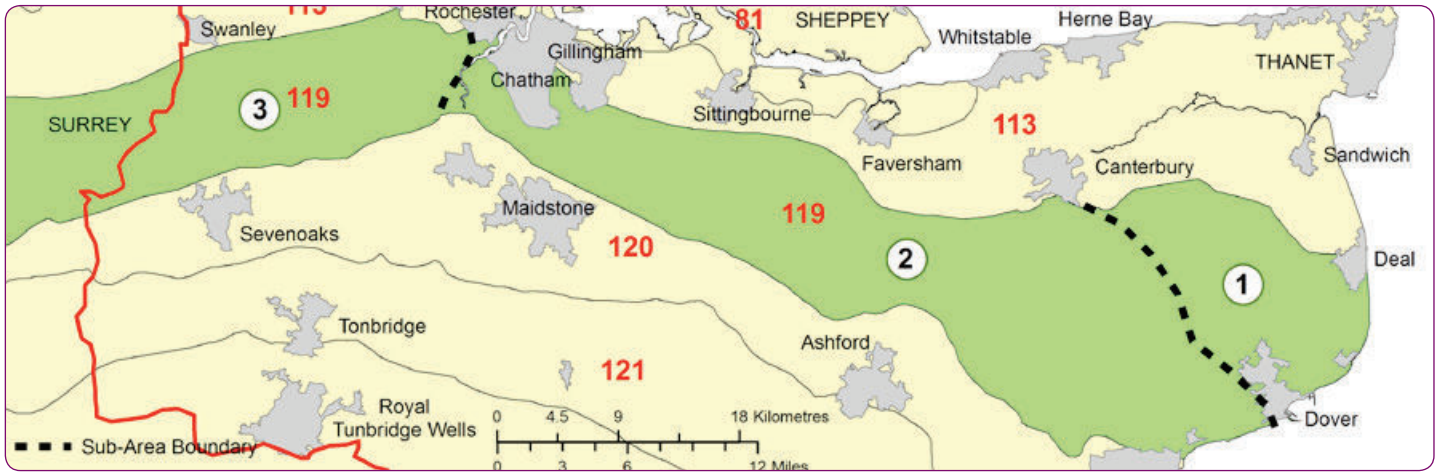
In the north-eastern part of the North Kent Plain settlement is strongly nucleated, with farmsteads within and on the edges of the settlements. Surrounding the settlements are generally large fields representing enclosure of the former open fields; these fields have often been subject to further removal of boundaries creating very large fields. Within the villages, or set slightly to one side, as here at St Nicholas at Wade, there was usually a large, high status farmstead with other medium sized farmsteads in the village. These farmsteads are typically of loose courtyard plan with larger farms having regular multi-yard plans and often will include one or more large barns of pre-1750 date.



Northern Horticultural Belt

In the central part of the North Kent Plain farmsteads specialising in fruit growing developed from the medieval period, utilising the Roman road and coastal shipping to get the produce to the London market. Settlement consists of a mixture of nucleated villages and isolated farmsteads and hamlets. Large areas of orchards, set within a framework of medium sized semi-regular fields, were served from medium and some small scale farmsteads, predominantly of loose courtyard form. This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 100019238. 2010

2 NORTH KENT DOWNS NCA 119 (NORTH KENT DOWNS)



The North Downs forms a chain of chalk hills extending from west Surrey into south London and across Kent, widening eastwards and terminating at the White Cliffs of Dover. The sub-areas as indicated on the map are: 1 East Kent Arable Belt/North Chalk Downs, 2 Clay-with-Flints – Central North Downs to Dover and 3 West Kent Downs.

1 HISTORICAL DEVELOPMENT

- The Kent Downs differ from most of the other chalk downlands in southern England; large areas of clay with flints supported woodland areas and made the land difficult to farm. Consequently, a smaller proportion of the higher downs were converted to arable than in most other downland areas – except in the richer East Kent Downs. Large extensive sheep walks are not a feature of the downs due to the clay and woods, and tend to occur in smaller pockets on the edge of the scarp and the scarp face.
- The pace of enclosure and ploughing up of the higher downland for arable farming increased in the late 18th to early 19th centuries when the Napoleonic Wars forced up wheat prices.
- Intensive arable cultivation continued until the late 1870s, when low wheat and wool prices forced some downland farmers to look to dairying, producing liquid milk for urban markets. Other farmers intensified wheat production, replacing sheep flocks with the new artificial fertilisers that were available which in turn allowed more downland to be ploughed up.
- Since 1940, this area has further developed into one of the most intensely-cultivated arable areas in England.

2 LANDSCAPE AND SETTLEMENT

- A predominantly dispersed settlement pattern of isolated farmsteads and hamlets, established by the 9th century and sometimes earlier, set in anciently-enclosed landscapes carved out of woodland and wood pasture.
- Settlement tends towards nucleation in the form of small villages to the east with hamlets common across the central and western parts of the area. There are a number of small forstals (place in front of a farmhouse to hold stock perhaps to be milked) which later became synonymous with greens. Hasted refers to the small hamlets around forstals or greens, which probably indicate the splitting of an original farm holding through gavelkind. In fact many such hamlets here and in the Weald could have evolved in this way through the extended families dividing up and aggregating land.
- Isolated Court and Manor Farms associated with a church may represent shrunken settlement sites.
- Low density of very large-scale isolated farmsteads in the landscape, resulting from the growth of large capital-based farms and also the removal of the area's many small-scale farmsteads from agriculture in the 19th and 20th centuries.
- Large farmsteads, often manorial, can be found in close proximity to a medieval church or chapel representing an early church/ manor relationship.
- Away from these settlement cores, some of which grew into trading settlements or villages, there are isolated farmsteads and hamlets, some with small chapels and churches linked to mother churches in the Holmesdale Valley or the river valleys such as the Stour and Medway.
- Within the pattern of dispersed farmsteads there are small nucleated villages; some on the higher parts of the area have 'Street' names usually indicative of the medieval development of secondary settlements.
- In the western part of the area, around and west of Sevenoaks, there is increased urban development.

3 FARMSTEAD AND BUILDING TYPES

Farmstead types

- Farmhouses are commonly detached and often face into their own garden area. Farmsteads with buildings attached to the house – in a linear plan or with a barn attached making an overall L-plan, are rare and possibly early survivals.
- Medium - large-scale courtyard farmsteads, mainly loose courtyard, are concentrated to the east and centre of the area, with large barns, stabling, granaries, cartsheds and cattle yards.
- Small L-plan steadings with a barn and a later cattle shed attached at right angles are also widespread.
- Large regular courtyard farmsteads also developed, especially on the highest parts of the downlands, geared to arable production.
- Dispersed cluster and, to a lesser extent, dispersed multi-yard farmsteads, concentrated in the east of the area.
- Regular multi-yard plans are found across the area but with a slightly higher density in the west.
- Larger regular courtyard plan farmsteads – comprising full courtyard plans, some E-plans and steadings with covered yards are rare.

Building types

- In the chalklands and vales large barns were built for storage and processing of the grain crop, and related to yards where straw and the manure from cattle was trodden down and redistributed to fertilise the fields.
- Increases in grain production and yields in the 18th and early 19th centuries often led to the construction of an additional barn and in many cases, the enlargement and adaptation of earlier barns.
- Barns, typically of five bays and including aisled barns, are mostly of 17th or 18th century date but with a high concentration by national standards of earlier examples. Barns dating from the 18th century or before tend to be fully aisled. This area has one of the major concentrations of aisled barns in the country.

- Barns were aisled or more commonly provided with a lean-to shed to at least one side resulting in low eaves-lines, emphasising the mass of the roof over walling.
- Mid-19th century barns built with brick and flint or brick are either unaisled or split-level combination barns.
- Granaries are typically of 18th or 19th century date, timber-framed and set on staddle stones. On larger farms the granary was often incorporated with the oast house or above a cart shed.
- Stables could be built within the end bays of barns or as detached structures. Stables mostly date from the late 18th or 19th centuries, earlier examples being very rare.
- Oast houses are concentrated in the central part of the area.
- A small number of late 18th or early 19th century outfarms survive on the downs, typically with barn and flanking shelter sheds facing into yards.
- Field barns are mostly 19th century but some may be much earlier in date.

4 MATERIALS AND DETAIL

- Hipped and half-hipped clay tile roofs are a strong feature, to typically large-scale houses, barns and oast houses, and smaller-scale cattle housing and other structures. Gabled roofs were more commonly used from the late 18th century.
- Timber-framing was typically used for houses and farm buildings. Its use for the latter continued in to the 19th century. Framed buildings were usually clad in weatherboard.
- Flint and brick was used for working farm buildings from the late 18th century, and earlier for houses.
- Some rare surviving examples of straw thatch.

5 RARITY AND SIGNIFICANCE

- 41.5% of farmstead groups have had less than 50% change since c.1900 – which makes substantially intact farmstead groups rare by national standards.
- Large-scale courtyard groups with ranges of buildings representative of arable-based agriculture are highly significant.
- Dispersed cluster and multi-yard plan farmsteads that have been subject to low levels of change are rare and significant.
- Farmsteads that retain unconverted oast houses, early to mid-20th century hop buildings and features such as hop-pickers huts are highly significant.
- Small-scale historic farmsteads are very rare survivals, as most were decoupled from agriculture in the 19th and 20th centuries.

6 AREA VARIATIONS

1 EAST KENT ARABLE BELT/NORTH CHALK DOWNS

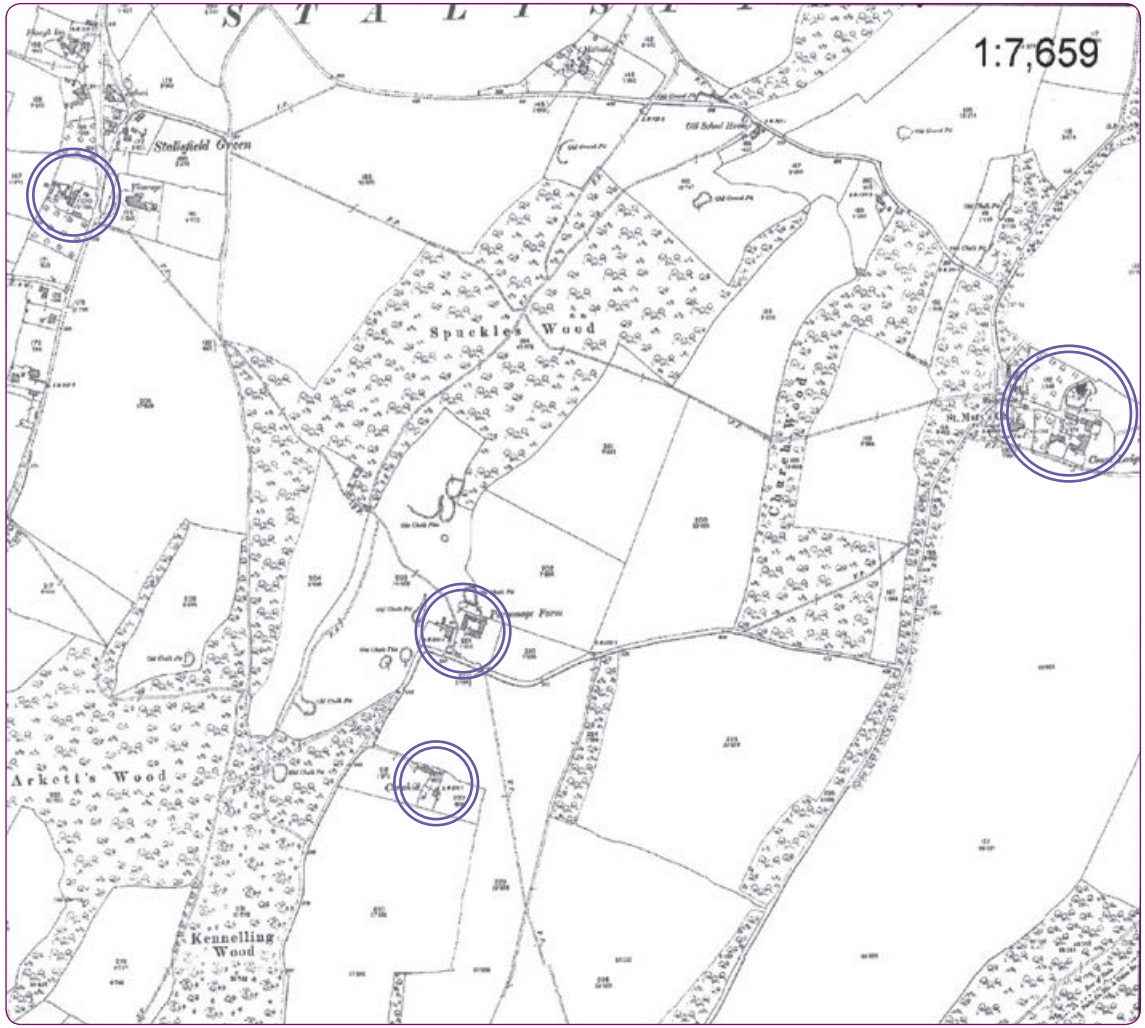
- The brickearth soils of the East Kent Downs, a triangular area between Dover, Deal and Canterbury with a higher concentration of larger estates, supported a major cereal growing economy. It had been largely stripped of its woodland by the 11th century.
- Large fields result from a piecemeal process of enclosure and reorganisation (especially in 19th and 20th centuries).
- A small number of large late 14th to early 16th century houses relate to the emergence of a wealthy class of rentier farmers on the church estates from the 15th century.
- This is an area with a higher concentration of larger estates with parks such as Bifrons, Goodnestone and Fredville, where there is evidence of 19th century farmstead improvements

2 CLAY-WITH-FLINTS – CENTRAL NORTH DOWNS TO DOVER

- This area was more difficult to farm, with more woodland, and farms were generally smaller in scale. Large-scale rentier farms developed in pockets of land – particularly the broad valleys and scarps – from the 15th century. There are more early buildings surviving to the west of the Stour, testifying to the prosperity of middling-scale farms extending in a north-south band down the centre of Kent.
- In the mid-19th century, and after 1950, large arable-based farms developed across this area together with field enlargement and reorganisation leaving a mix of regular and irregular boundaries.
- The area to the east retains more common, rough ground and downland, and was affected by extensive 19th and 20th century housing.
- The area to the west (south of Canterbury) and west of the Stour Valley has a higher incidence of woodland and less 19th and 20th century development.
- Orchards and hop gardens stretching towards the North Kent Plain.
- Stour Valley has woodland and historic estate centres.

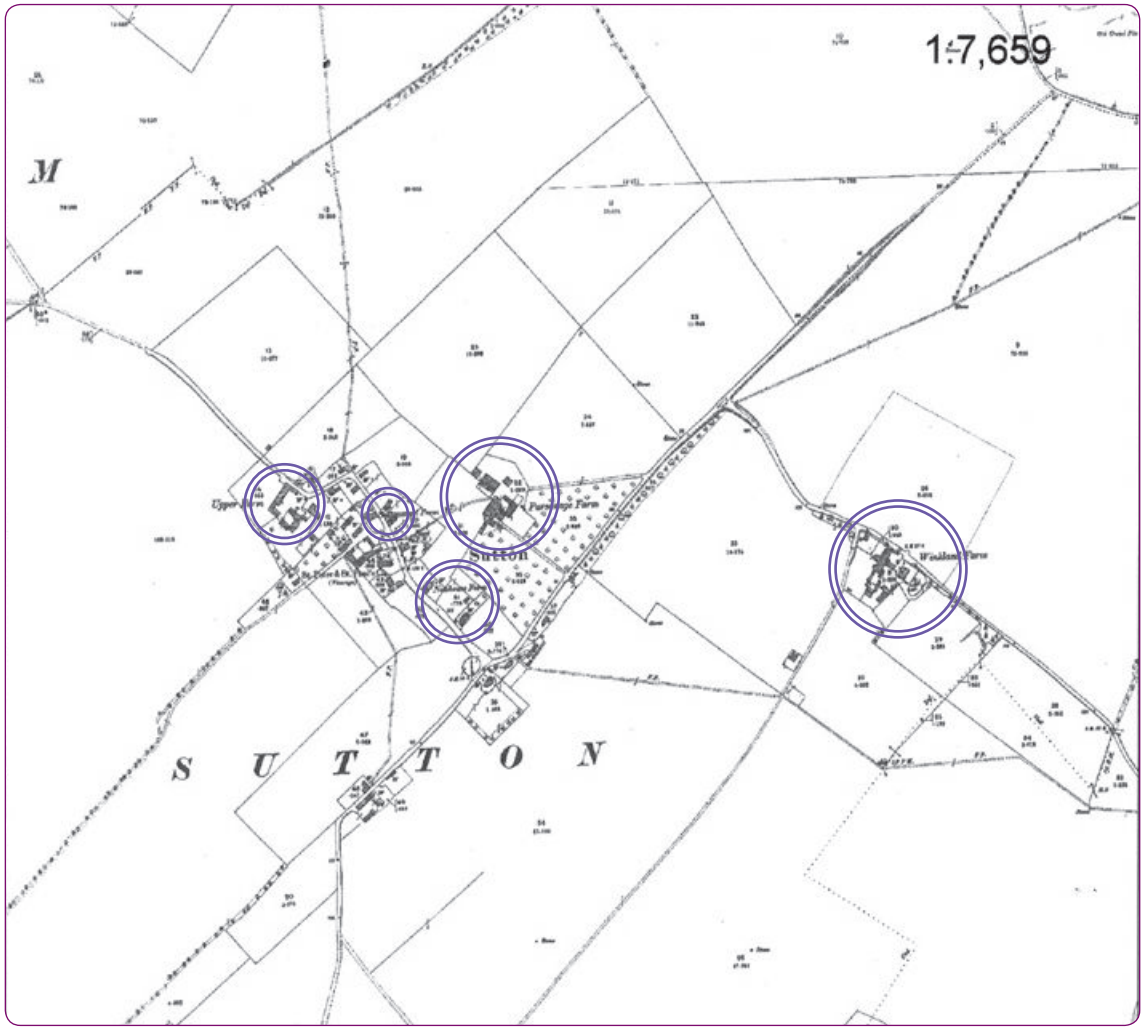
3 WEST KENT DOWNS

- A more urbanised area with much 19th and 20th century settlement, long subject to influences from London, accessed by the M25 and M20.
- Generally larger fields linked to large arable farming and market gardening, with pre-18th century wavy boundaries.
- Woodland mixed with some earlier enclosure along scarp and valley sides.



Central North Downs, Stalisfield Green

Within the Central Kent Downs dispersed settlement is predominant with high status, manorial farms often located alongside a church. Isolated farmsteads and hamlets often have 'green' or 'street' names indicating that they developed as secondary settlements in the medieval period. Fields are of medium to large scale intermixed with woodland with small fields typically found around the settlements. Farmsteads are generally of medium scale and typically of loose courtyard form with some regular courtyard plans, commonly L and U-plans. Smaller farmsteads are found within the hamlets.



Farmstead

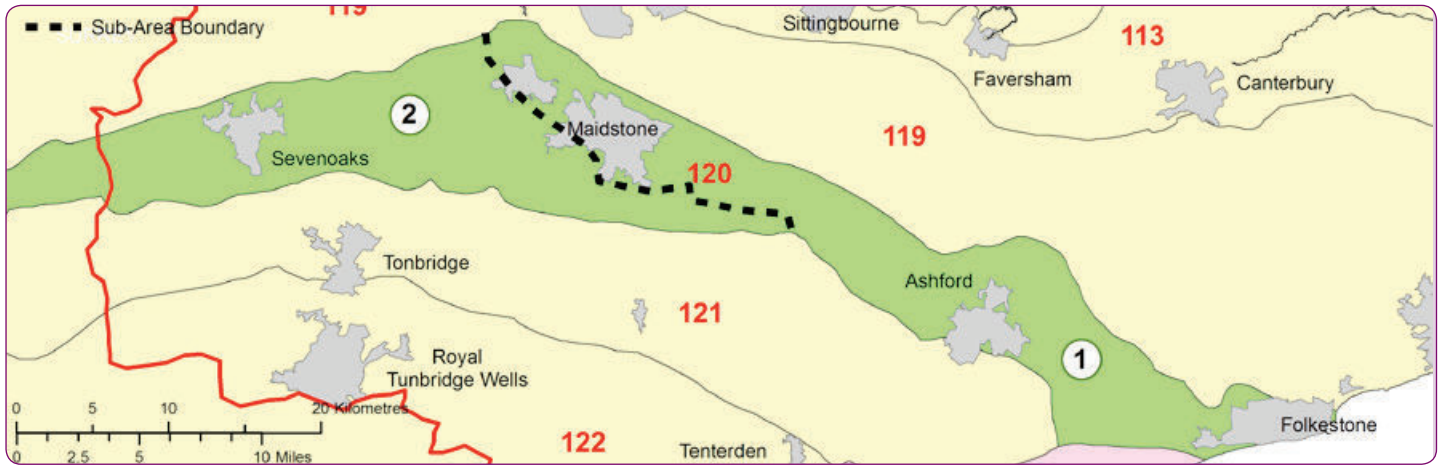
0 250 500 750 meters

0 0.25 0.5 miles

East Kent Downs, Sutton

In the East Kent Downs there is a higher degree of nucleated settlement with small villages intermixed with isolated farmsteads. In contrast to the central part of the character area, there was less woodland in this area and fields are generally large scale with smaller fields around settlements. Within this area farmsteads were of medium or large scale, often originating as loose courtyard plans although some developed into more regular plans with the addition of ranges to an earlier barn or the creation of additional yard areas creating regular multi-yard plans. This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 100019238. 2010

3 NCA 120 (WEALDEN GREENSAND)



The long curved belt of Wealden Greensand runs across Kent, parallel to the North Downs and through Surrey, south to the Hampshire Downs and curving back eastwards running parallel to the South Downs in West Sussex. The sub-areas as indicated on the map are: 1) Central Valley Area, 2) Greensand Horticultural Belt and Western Greensand and 3) Woodland (including on the Chart) and parks.

1 HISTORICAL DEVELOPMENT

- The variability of the soils, from fertile greensand to intractable clays, within relatively short distances made this an area of mixed farming but the balance can differ locally with elements such as dairying or hop growing having greater dominance in certain areas. Fruit growing was also important.
- The capital-intensive hop industry developed on an industrial scale by the 19th century in the eastern part of the area. The manure from cattle was important for fertilising hop gardens.
- The mixture of hops, fruit, dairying and poultry rearing and fattening insulated this area from the worst of the agricultural depression in the late 19th century.

2 LANDSCAPE AND SETTLEMENT

- The narrow greensand belt represents a 'buffer zone' between the clay landscapes of the Weald and the more arable based landscapes of North Kent.
- Many farmsteads retain pre-1750 buildings set within a landscape largely of medieval origin but subject to a much higher degree of boundary loss than the High and Low Weald.
- Isolated farmsteads, often occupying ancient sites (some moated), form the predominant settlement pattern intermixed with small villages, often with 'Street' or 'Green' names suggesting secondary settlement.
- These farmsteads are associated with a landscape of small and irregular fields, created by assarting from woodland in the medieval period, or medium-sized and more regular fields created between the 15th and 18th centuries by enclosure through agreement of former arable strips. The latter are more common in the valley of the Rother in the south-west and in the central and eastern parts of the area. Field enlargement and reorganisation is a strong feature of this area, particularly in relation to the establishment of orchards.

- A mix of farmsteads of different scales is a strong characteristic of this area, the larger steadings relating to landscapes that have experienced field enlargement and reorganisation as well as farmsteads at the foot of the chalk scarp of the North Downs which had access to the downs as well as the greensand. Larger farms within the Holmesdale vale are often located in areas of early settlement (Roman and Romano-British). The smallest farms developed around extensive tracts of woodland (such as Mereworth Woods, Oaken Woods west of Maidstone, Ightham Woods east of Sevenoaks, Kings Wood east of Maidstone) and fragments of common in the Chart Hills (meaning rough stone ground) such as at Hothfield, which were used all year in contrast to the seasonal dens in the Weald. There is some common-edge settlement with small paddocks and sometimes regular enclosure where smallholdings were common with commoners utilising the heath for grazing stock. Many farmsteads in the heathland areas were created during attempts to improve the heath in the 19th century.

3 FARMSTEAD AND BUILDING TYPES

Farmstead types

- As with much of south east England, loose courtyard plans, typically with two or three detached working farm buildings standing around a yard area are the most common plan form.
- Regular L-plan and U-plan ranges are a strong feature of the character area although these plan types are seen in fewer numbers in the eastern area within Kent. Some of these plans consist of a barn with a later cattle shed attached at right angles but many are 19th century re-buildings of farmsteads of pre-1700 origin that retain the old farmhouse.
- In the west of the area in particular, purpose-built covered yards were built in the late 19th century and the yard areas of a considerable number of farmsteads in the west of the area were covered over in the early 20th century.
- Dispersed plan farmsteads, particularly clusters and multi-yards, are found in the character area but they are not as prevalent as in the Low Weald or High Weald.
- Regular multi-yard plans are common, particularly in the western and central parts of the area. Regular L- plans, some of which are developments from earlier loose courtyard groups are found across the area whilst regular U-plans are concentrated in the west.

Building types

- Barns in the area are typically of five bays with occasional larger examples extending to eight or ten bays. Barns dating from the 18th century or before tend to be fully aisled, this area having one of the major concentrations of aisled barns in the country. Many of the barns of the area are 19th century in date and have an aisle to one side or are unaisled and typically have half-hipped roofs.
- Some barns are of pre-1550 date but mostly of 17th and 18th century date.
- Free-standing granaries are an uncommon building type in the area. Grain was probably stored in the farmhouse or in a loft in the barn or over a cartshed.
- Oast houses are a highly characteristic farm building type, especially in the central part of the area. Most examples date from the late 18th and 19th centuries although there are some examples of older oast houses built within earlier barns.
- Stables are found on many farms and are typically built of stone or brick. Most date from the 18th or 19th centuries, although occasionally timber-framed examples may survive.
- Buildings for cattle include open-fronted shelter sheds often found attached to a barn, or single storey enclosed cow houses. Most cattle buildings date from the 19th century.
- Outfarms and field barns were once a common feature of the landscape, particularly in the southern part of the area, but many have been lost from the landscape. Often outfarms consisted of a typical five-bay timber-framed barn with a shelter shed attached at right angles. The surviving field barns are an important remnant of a once widespread building type.

4 MATERIALS AND DETAIL

- Timber-framing was typically used for medieval houses and barns with the barns being clad in weatherboarding. Timber-framing continued in use for some farm buildings into the 19th century, often combined with local stone for the plinth and weatherboarding for the wall covering.
- The greensand stone available in the area changes in character across the area with, in the west, malmstone, a soft creamy coloured greensand being widely used and harder, darker greensand being used in the central and eastern parts of the character area. Ragstone is also used. The use of stone gives the buildings of the area a distinctive character.
- Galleting, the insertion of small pieces of dark carstone or flint in the mortar between the stonework, is characteristic.
- In areas adjacent to the chalk downs flint was used, typically combined with brick. Flint walling may also be galleted with small flakes of flint.
- Brick was typically used in combination with the local stone for quoins and for door and window openings.
- Many farmhouses are clad in painted weatherboard or plain clay tile.
- In the western part of the area there is some straw thatch but generally plain clay tile is the characteristic roofing material. Welsh slate is found on some 19th century buildings.

5 RARITY AND SIGNIFICANCE

- 48% of farmstead groups have had less than 50% change since c.1900 – which occupies a middle level in terms of survival between the Weald (where survival is highest) and the rest of the county.
- Dispersed plan types that have been subject to little change are rare.
- High density of 17th century and earlier timber-framed buildings although early working buildings in the Chart area are rare.
- Farmsteads that retain unconverted oast houses, early to mid-20th century hop buildings and features such as hop-pickers huts are highly significant.

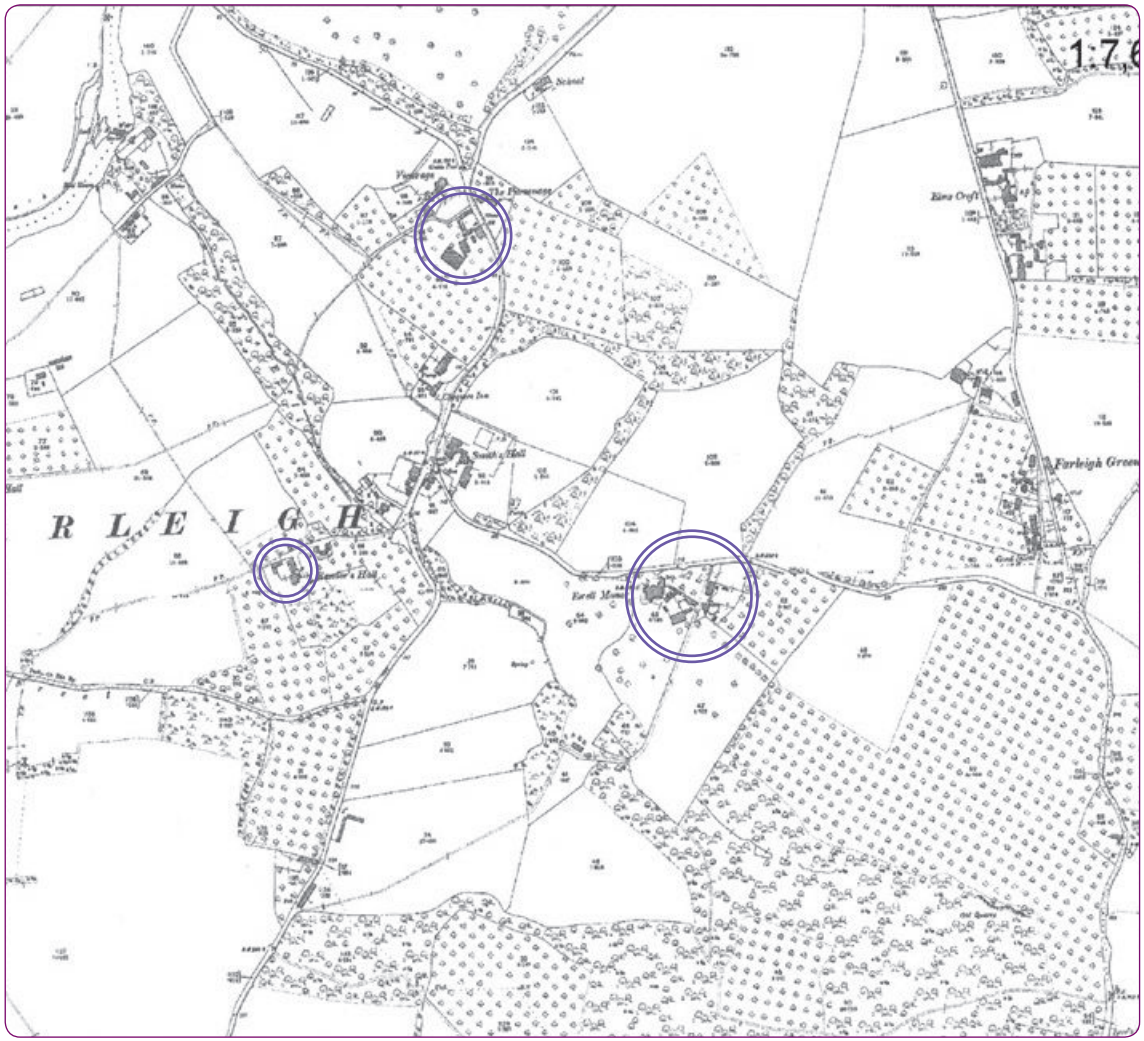
6 AREA VARIATIONS

1 Central Valley Area

- Larger farms, particularly at the foot of the scarp to the North Downs, had emerged by the 16th century away from the villages. Closer to the villages in the Vale of Holmesdale are large farms with 18th/19th century houses which developed in areas of more recent enclosure.

2 Greensand Horticultural Belt and Western Greensand

- An area of generally smaller fields and farms, many resulting from woodland clearance before the 14th century, which had easy access to London markets via the Medway and later by rail. Woodland (including on the Chart) and parks.
- An area of smaller farms around Sevenoaks, with a similar pattern of historical development, subject to suburban influences from the mid-19th century.



Farmstead

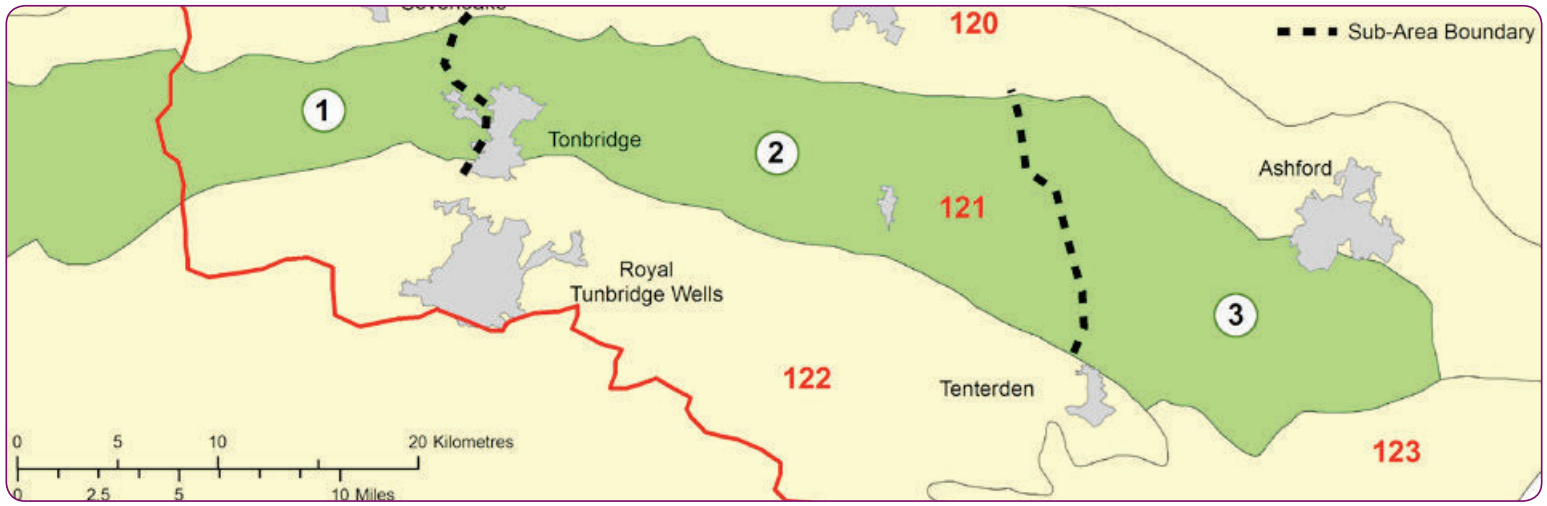
0 250 500 750 meters

0 0.25 0.5 miles

Farleigh

The Wealden Greensand character area is a landscape of predominantly dispersed settlement of isolated farmsteads and hamlets, the latter often having 'green' or 'street' names indicating that they are later, medieval development. Irregular fields tend to be small to medium in scale created through a gradual process of clearance of woodland in the medieval period. The wooded feeling of the landscape is enhanced by the numbers of orchards. The medium scale farmsteads in the area are commonly of loose courtyard form, some including an L-plan element.

4 NCA 121 (LOW WEALD)



The Low Weald is a low-lying clay vale encircling much of the High Weald. The sub-areas as indicated on the map are: 1) Western Weald west of Tonbridge, 2) Medway Basin and north Tonbridge and 3) Central Low Weald and Marling Weald

1 HISTORICAL DEVELOPMENT

- Agriculture on the heavy clay soils of the Low Weald was largely pastoral with the emphasis on fatstock with some dairying, but arable farming was also carried out. The extent of arable has fluctuated considerably over time – much arable was abandoned in the later 14th and 15th centuries.
- Mixed farming was found on the lighter soils on slightly higher ground, including arable and fruit growing on the better quality drift deposits of brick earths in Kent.
- Extensive arable – in contrast to the High Weald – was dominant in the 18th and 19th centuries, although the unworkable nature of the clay soils made this expensive in labour. The levels fell from the late 19th century with pastoral farming once again dominating.

2 LANDSCAPE AND SETTLEMENT

- High densities of isolated farmsteads, small hamlets and farmstead clusters set within an anciently-enclosed medieval landscape. The enlargement of farms and mixed agriculture has resulted in generally larger farmsteads and fields than in the High Weald.
- In the west of the area farmsteads tend to form loose clusters to a greater extent than in the west.
- There are some small villages, including linear groups along roadsides and others centred on greens or commons.
- Fields are generally small and irregular, largely created through assarting of woodland up to the 14th century, and are divided by a dense network of hedges and shaws that are often remnants of ancient woodland.
- Fields are slightly larger and more regular on the higher ground and areas of lighter soils including the better quality drift deposits of brick earths in Kent, where there is a lower density of farmsteads and of pre-1750 fabric/farmstead sites.

- The arrival of the railways in the mid-19th century made a significant impact on the agriculture of the Weald, opening up the London market for hops, fruit and poultry. Hop gardens and orchards, widespread on the northern side of the Low Weald, insulated this area from the worst of the late 19th century agricultural depression.

3 FARMSTEAD AND BUILDING TYPES

Much of the Low Weald, together with the High Weald is remarkable in a national context for the very high numbers of farmsteads that retain early, pre-1750 buildings. The north part of this character area in particular has a major concentration of pre-1550 barns. These farmsteads are set within a landscape of fields and woodland that largely took its present form in the medieval period. The close association of these early farmsteads and landscapes is highly significant.

Farmstead types

- Small loose courtyard plans with buildings to one or two sides of the yard are the most common plan form encountered in the Low Weald.
- Small L-plan steadings with a barn and a later cattle shed attached at right angles are also widespread. Loose courtyards with an L-plan element are mostly concentrated in the west of the area.
- Although not numerous, large-scale regular courtyard plan farmsteads (including full courtyard plans, E- F- and T-plans) are found in greater numbers in this area than in the other character areas of Kent.
- Dispersed plans are a characteristic of the Low Weald, particularly dispersed cluster and multi-yard plans There are also a limited number of dispersed driftway plans where buildings are ranged alongside a routeway leading to the farmstead.
- Regular multi-yard plans where there are a number of separate yards reflecting the careful management of stock are a characteristic of the Low Weald, particularly in the west part of the area.

Building types

- Medieval timber-framed houses, including Wealden houses, survive on a considerable number of farmsteads.
- Barns, typically of three-five bays, were often aisled to at least one side resulting in low eaves-lines, emphasising the mass of the roof over walling. The earlier barns of the character area tend to be unaisled. Many barns retain evidence for being combination buildings in that they housed both animals and crops.
- The concentration of pre-1550 barns in the north of the character area is a particularly significant feature. The majority of barns in the area date from the 17th and 18th centuries.
- Granaries, either free-standing buildings on staddle stones or forming part of combination buildings such as granary/cart sheds, are relatively uncommon. It is probable that grain was stored within the farmhouse or in a loft in the barn. A small number of granaries date from before 1700 but most are of 18th and 19th century date.
- The importance of cattle on Low Weald farms is reflected in its numerous shelter sheds and cow houses, which are mostly 19th century in date. These may be found added to an earlier barn or detached and associated with individual yard areas.
- Pigs were a key feature of the Weald farming economy and pigsties would have been common to most farmsteads. Small stone or brick-built pigsties, which are mostly 19th century in date, are becoming increasingly rare.
- Oast houses are a building type highly characteristic of the Low Weald, particularly on the northern side of the Weald which, together with the Wealden Greensand in Kent, has the highest density of oast houses including large, industrial scale examples. Most date from the late 18th and 19th century although there are some examples of older oast houses built within earlier barns.
- Field barns were once a common feature but most have been lost from the landscape. The surviving field barns are an important remnant of a once widespread building type.

Farmstead

0 250 500 750 meters

0 0.25 0.5 miles

Puttenden

The Low Weald is a landscape of predominantly dispersed settlement intermixed with small villages. Fields tend to be small to medium scale irregular or semi-regular in form with some areas of regular fields, associated with farms that were re-organised or amalgamated in the 18th or 19th century. Farmsteads are commonly small to medium in scale loose courtyard forms with some dispersed plan types. Where farmsteads are associated with re-planned fields they can be of regular plan forms including L and U-plans with occasional examples of larger regular plan types. This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 100019238. 2010

4 MATERIALS AND DETAIL

- Timber-framing was typically used for medieval houses and barns with the barns being clad in weatherboarding. Timber-framing continued in use for some farm buildings into the 19th century, often combined with local sandstones derived from the bordering areas of the High Weald or the Wealden Greensand for the plinth. Sandstone rubble was also used for building.
- Bricks made from the local clays contribute to the distinctive character of the Weald having been used for farm buildings from the 18th century.
- Many farmhouses are clad in painted weatherboard or plain clay tile.
- Hipped and half-hipped roofs are the historically dominant roof form, gabled roofs being more generally used from the 19th century. Locally made plain clay tiles are the characteristic roofing material with some limited use of Horsham stone slates. Straw thatch was once widespread, but now is now rare.

5 RARITY AND SIGNIFICANCE

- This area with the High Weald has the highest percentage of farmsteads (61.3%, lower than that in other counties) with less than 50% change since c.1900 in the county.
- Dispersed plan types, especially cluster and multi-yard plans, are significant to the character of this area.
- High density of 17th century and earlier timber-framed buildings.
- Farmsteads that retain unconverted oast houses, early to mid-20th century hop buildings and features such as hop-pickers huts are highly significant.

6 AREA VARIATIONS

1 Western Weald west of Tonbridge

- Larger farms, fields and estates that in the 18th and 19th centuries changed the earlier underlying pattern of smaller farms and assarted fields.

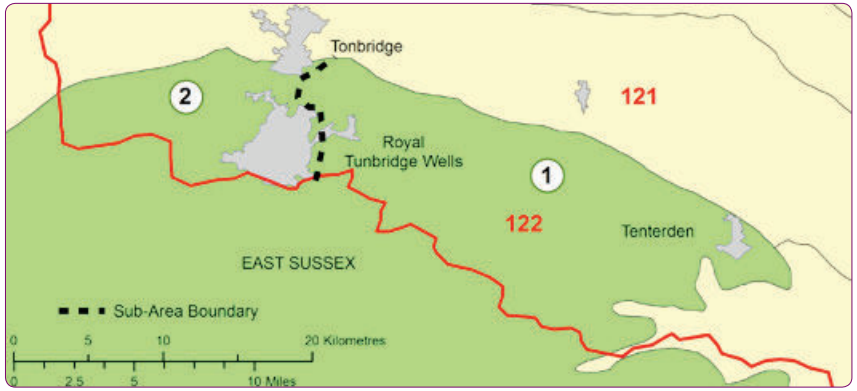
2 Medway Basin and north Tonbridge

- An area of 19th and 20th century domestic and industrial development with an underlying pattern of irregular fields and medium-scale farms, larger-scale to the north.

3 Central Low Weald and Marling Weald

- Irregular fields (including many marl pits that fertilised the clay soils) and medium-scale farms.

5 NCA 122 (HIGH WEALD)



The High Weald is at the core of the Wealden anticline comprising a central area of sandstone dissected by numerous rivers, and surrounded by the Low Weald and, to the east, Romney Marsh. Area variations as indicated on the map are: *1) The Eastern High Weald and 2) The Western Weald west of Tonbridge and Tunbridge Wells.*

1 HISTORIC BACKGROUND

- Quarrying and iron have been an important part of the High Weald economy from the Iron Age, and were especially important in the 14th-18th centuries. The iron industry and associated industries such as coppicing and charcoal burning was particularly important in the 15th – 17th centuries, and financed the building of large houses and parks.
- By the late 13th century the Wealden landscape comprised a scattering of gentry properties intermingled with a mass of small peasant holdings. These holdings grew in size from the 14th century, but into the 18th and 19th centuries most holdings remained under 50 acres (small by national standards) and holdings of over 150 acres were uncommon.
- Cattle rearing and fattening was the major contributor to agriculture in the High Weald from at least the 14th century to the 19th century, corn often being grown for cattle feed. Pig fattening and poultry production were also important, and the capital-intensive hop industry developed on an industrial scale by the 19th century. The manure from cattle was important for fertilising hop plantations.
- The importance of corn as a cash crop varied over time; the acreage under corn increased from the 1790s to the 1870s, and then declined.
- The arrival of the railways in the mid 19th century opened up the London market for hops, fruit and poultry, products which insulated this area from the worst of the late 19th century agricultural depression. This greater access influenced the design of new housing development, which was much inspired by the patterns of Wealden architecture that became evident in the Domestic Revival style in the late 19th/early 20th century.

2 LANDSCAPE AND SETTLEMENT

- Settlement in the High Weald is predominantly dispersed with many scattered farmsteads set within small, irregular fields carved out of woodland.
- Farmsteads are often connected by networks of lanes and paths, many surviving as public rights of way that often pass through or close by the historic farmsteads. This character mostly results from the establishment, prior to the 14th century, of farmsteads from earlier seasonal camps associated with summer/

autumn pastures (called 'dens') used for foraging pigs from the communities around the Weald in the Saxon period.

- Farmsteads typically have smaller enclosures in their vicinity, which historically included orchards or sometimes cob nut plantations.
- Woodland exploitation in the form of charcoal production for the iron industry and the export of timber/fuel to London was followed in the 18th/19th centuries by replanting in Sweet Chestnut and other species for the supply of hop poles to the hopyards.
- Woodland clearance and small farm size also resulted in the characteristic pattern of small, irregular fields. The woods were used for production of food (cob nuts plantations, for example) and the supply of fuel for households and for the iron industry.
- Larger fields in some areas, resulting from amalgamation of holdings from 14th century, especially along the edges of flood plains and within many of the landscape parks of the area. These can be associated with much larger farmsteads.
- The relatively few nucleated villages (e.g. Goudhurst) and small towns are usually sited alongside the main routes through the Weald that follow the lines of the ridges. Many of these settlements developed as trading centres within the earlier pattern of dispersed farmsteads.

Key variations on this key theme of ancient enclosure and high densities of farmsteads in the High Weald are:

- Smaller fields and historic farmsteads become more dominant to the east, and in the Wealden Horticultural Pocket, where hop farming developed on an industrial scale in the 19th century (e.g. around Goudhurst), with a high proportion of orchards and woodland.
- Areas of 18th and 19th century enclosure, especially in the west of the area, which is associated with the reclamation of heath and a lower density of farmsteads in the landscape.

3 FARMSTEAD AND BUILDING TYPES

The High Weald has a high density, by national standards, of pre-1550 and pre-1750 buildings, which is also shared by other anciently-enclosed and dispersed settlement landscapes of south east England.

- From the medieval period to the later 18th century, many Wealden farms comprised no more than a house and barn. These buildings could be set close to one another or the barn could stand in a near-by close.
- Small-scale loose courtyard plans, typically with one or two detached working farm buildings standing around a yard area, are the most common plan form in this area.
- Dispersed plans are a major characteristic of High Weald farmsteads. Such plans include clusters of buildings with little or no evidence for planning in their arrangement and dispersed driftway plans where buildings are ranged alongside a wide route-way leading into the farmstead.
- Many farmsteads have dispersed multi-yard plans where there are a number of dispersed separate yards reflecting the careful management of stock.
- Larger regular courtyard plan farmsteads are mainly found in the western part of the High Weald where estates developed farmsteads in the 19th century, creating full courtyard plans and steadings with covered yards.

Key building types are:

- Separate housing for extended family members and farm workers often placed close to farmsteads and sometimes within them.
- Small-medium scale barns, typically of 3 – 5 bays. The earlier barns of the area, dating from the 15th and 16th centuries tend to be unaisled.
- Barns were often extended and later barns were aisled to one side, sometimes two.
- Barns often retain evidence for internal subdivision for livestock.

These partitions were typically removed when the interiors of barns were opened up for crop storage and new cattle housing built in the late 18th and 19th centuries. This evidence is highly significant in a national context, and is only matched for timber-framed barns and cattle housing in the Welsh borders and the claylands of East Anglia.

- Cattle housing, mostly single storey shelter sheds which are either attached to a barn or detached and facing into individual yards.
- Oast houses are a highly characteristic building type, but not as numerous as in the Low Weald. Most date from the late 18th and 19th century although there are some examples of older oast houses built within earlier barns.
- Hop pickers' huts, which rarely survive on farmsteads.
- Some outfarms and field barns, including some rare surviving examples of 18th century and earlier date.

4 MATERIALS AND DETAIL

- Timber-framing was typically used for medieval houses and barns with the barns and sometimes other buildings being clad in weatherboarding. The upper storey of farmhouses and cottages are more likely to be clad in painted weatherboard or plain clay tile.
- Weatherboarding is commonly overlapped. There are some very rare surviving examples of butted boarding of pre-19th century date. These are found inside barns, on former external walls.
- Local sandstones were also used for building in the west of the area. Sandstone is also capable of being split into slates used for roofing (Horsham slates).
- Brick from the local clays was commonly used for plinths to timber-framed buildings but was not widely used alone for agricultural buildings until the 19th century.
- Many farmhouses are clad in painted weatherboard or plain clay tile.
- Hipped and half-hipped plain tile roofs are the historically dominant roof form, gabled roofs being more generally used from the 19th century.
- Tiles largely replaced straw thatch (and also broom, heather and reed) from the late medieval period and now thatch is rarely seen in the High Weald.

5 RARITY AND SIGNIFICANCE

- This area with the Low Weald has the highest percentage of farmsteads (60.6%, but lower than that in other counties) with less than 50% change since c.1900 in the county.
- Many small loose courtyard plans survive with minimal change.
- Dispersed plan types are particularly characteristic of the Weald and sites with little change are particularly significant.
- The area stands out in a national context for its very high densities of historic farmsteads dating from the medieval period and which were established with a landscape largely cleared from the woodland that had developed by the late Saxon period.
- This combination of medieval farmsteads and landscapes is highly significant, and it is heightened by the high survival of pre-1750 timber-framed buildings.These include rare examples of the pre-1550 period and significant evidence for multi-functional combination barns that housed the cattle that were an important part of the Wealden economy.

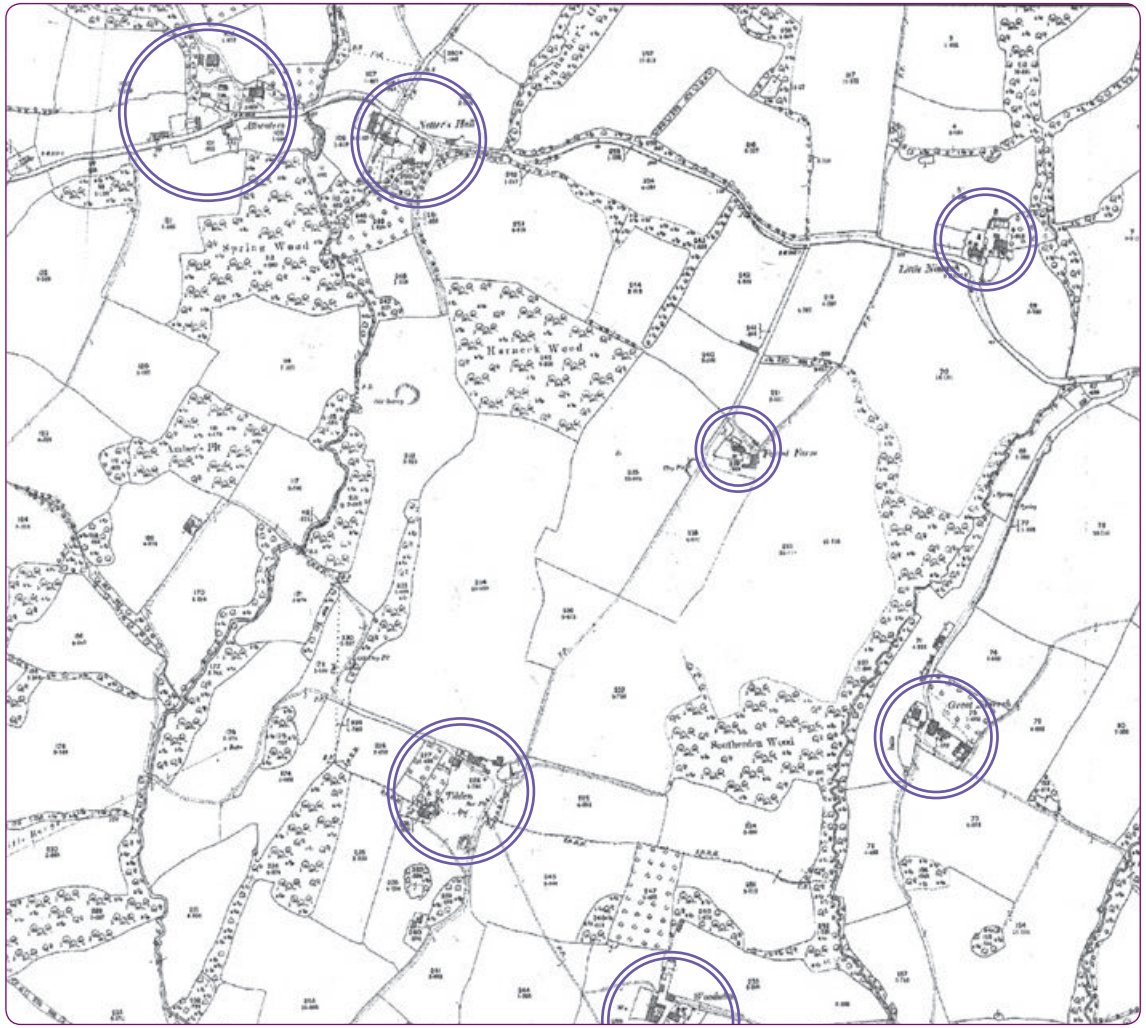
6 AREA VARIATIONS

1 The Eastern High Weald

- Smaller fields and historic farmsteads become more dominant to the east, and in the Wealden Horticultural Pocket, where hop farming developed on an industrial scale in the 19th century (eg around Goudhurst), with a high proportion of orchards and woodland.

2 The Western Weald west of Tonbridge and Tunbridge Wells

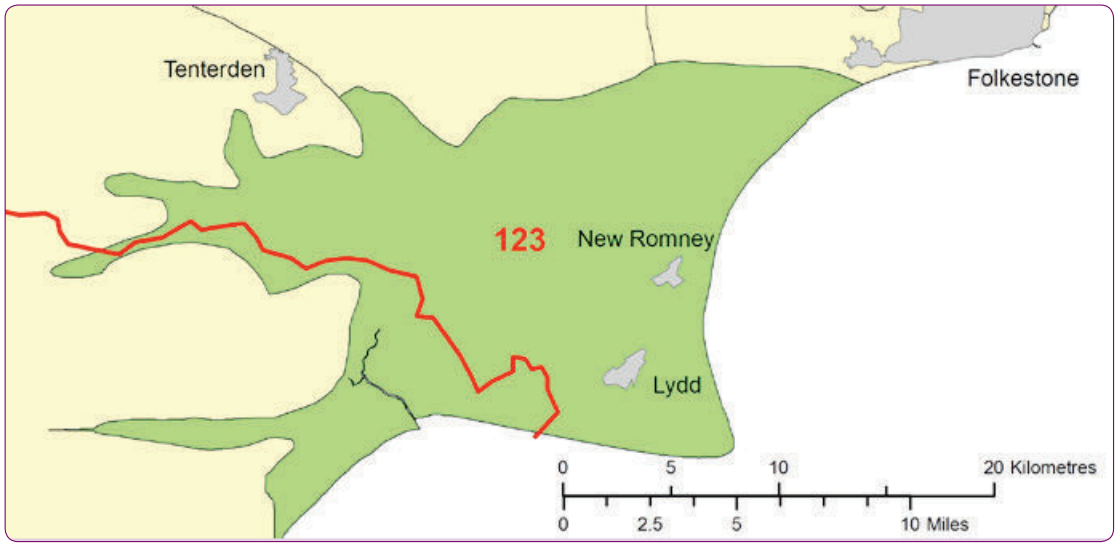
- Larger farms, fields and estates that in the 18th and 19th centuries changed the earlier underlying pattern of smaller farms, heathland and fields enclosed from woodland.



Attwaters

The High Weald is characterised by small scale irregular fields created through assarting (clearance) of woodland in the medieval period associated with numerous isolated small scale farmsteads linking by a network of lanes and tracks that developed in the Saxon period. Whilst small loose courtyard farmsteads are predominant, a process of amalgamation of farms, underway by the 16th century, led to the development of larger farmsteads including dispersed multi-yard and driftway plans. Some more regular plan groups developed in the 19th century, often re-organising a previously dispersed plan by adding ranges to an earlier barn to create L- and U-plan yards. This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 100019238. 2010

6 NCA 123 (ROMNEY MARSH)



1 HISTORIC DEVELOPMENT

- Until the 1st century AD the area was a shallow bay with settlement upon its numerous small islands, and the Marshes were created by the natural deposition of sediment from rivers such as the Rother behind shingle barriers thrown up by longshore drift and the reclamation of the area for agricultural use.
- Reclamation from the 8th century was driven by individual farmers from settlements on higher ground and alongside roads.
- Estates based outside the area exploited its resources, and in the 12th/13th centuries local abbeys drove much of the reclamation of Romney Marshes for agriculture. The Saxon royal manor of Wye, for example, had its sheep dairy farms in Denge Marsh on the Romney Marsh.
- Rye developed as a port serving the Weald through which local produce could be exported to London. Flooding in the 13th and 14th centuries, and French attacks, resulted in the shrinkage and abandonment of some settlements in the marshes, leaving some abandoned moated sites and churches, and created a greater emphasis on grazing. The principal later phases of reclamation and flood defences occurred in the 16th, 19th and mid-20th centuries.
- The flat, open areas provided rich grazing land, particularly for sheep, and it was considered that there were more sheep per acre on the Romney Marshes than anywhere else in England. Cattle, brought in from surrounding areas, were also fattened on the marshes.
- Further drainage works from the mid 19th century and especially the 1950s facilitated the widespread conversion to arable on the productive loam soils, although stock grazing persists in some areas of the marsh.

2 LANDSCAPE AND SETTLEMENT

- Flat, low lying landscape of reclaimed coastal marsh, with higher ground extending into the area from the west.
- Low densities of farmsteads, mainly isolated but some within small village and hamlets, particularly on the slightly higher ground of the south-west of the area. Shepherding was the main occupation of communities and there were few if any landed families, the area being relatively poor.
- The irregular, small and medium-sized fields of Romney Marsh are almost entirely bounded by drainage ditches rather than hedges and there are very few trees. Shelter belts of willows are planted around many farmsteads.
- Rectangular fields are the result of more organised reclamation or the re-organisation of drainage.
- Low-lying levels have large farmsteads on raised ground.
- Some nucleated settlement on the higher land with steep valleys to the north of the area bordering the Weald, including on the Isle of Oxney and the raised area around Appledore surrounding Shirley, where there is more tree cover and orchards.

3 FARMSTEAD AND BUILDING TYPES

Farmstead types

- Small to medium scale farmsteads; mainly loose courtyard plans but some regular L- and U-plans of 19th century date.
- Dispersed cluster and dispersed multi-yard plans found mainly in the south-west part of the area off the marshland.
- Low survival of pre-1750 farmstead buildings, mainly threshing barns and farmhouses.

Building types

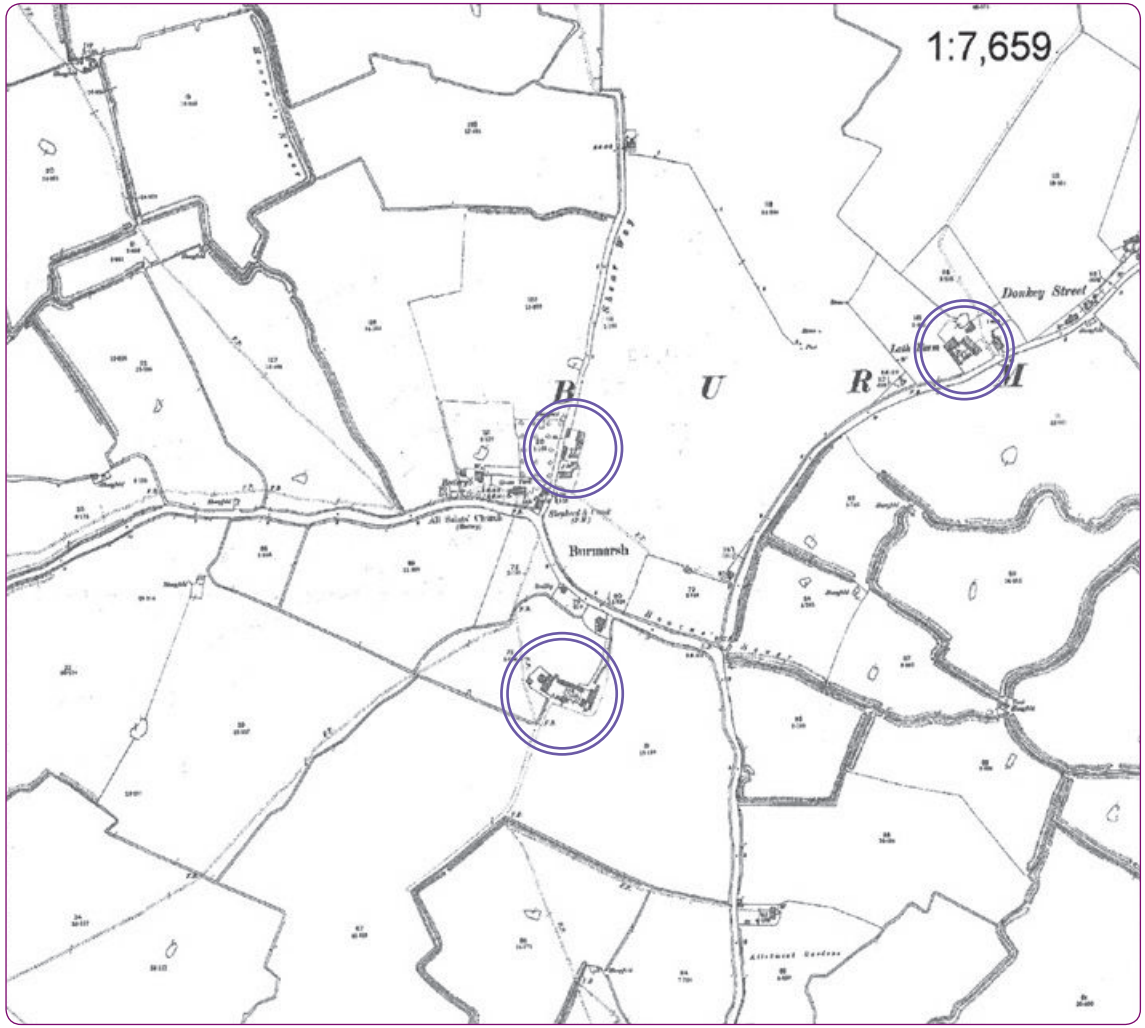
- Small number of timber-framed threshing barns.
- Buildings for cattle of 19th century and 20th century date.
- Lookers' huts for sheep are a highly distinctive feature, and many sheepfolds are marked on historic Ordnance Survey maps.

4 MATERIALS AND DETAIL

- There are some timber-framed buildings of medieval date with exposed framing, but typically the framing is either clad in white-painted weatherboarding or is tile hung.
- Brick is the predominant walling material across the area.
- Roofs are commonly plain clay tile. Hipped roofs seen on buildings of medieval date.
- Reed thatch was probably a common roofing material but is now very rare. There are more thatched properties in East Sussex along the valleys of the Brede and Rother.

5 RARITY AND SIGNIFICANCE

- 32.4% of farmstead groups have less than 50% change since c.1900 are rare by national standards – which with the Thames Estuary places these areas in the lowest categories of survival. A quarter of historic farmsteads are now only represented by a farmhouse.
- Pre-1750 farmstead buildings, mainly threshing barns and farmhouses, are rare across the marshes.
- Surviving field barns, sheep folds and 'lookers' huts' for shepherds are an important remnant of a once widespread building type.



Farmstead

0 250 500 750 meters

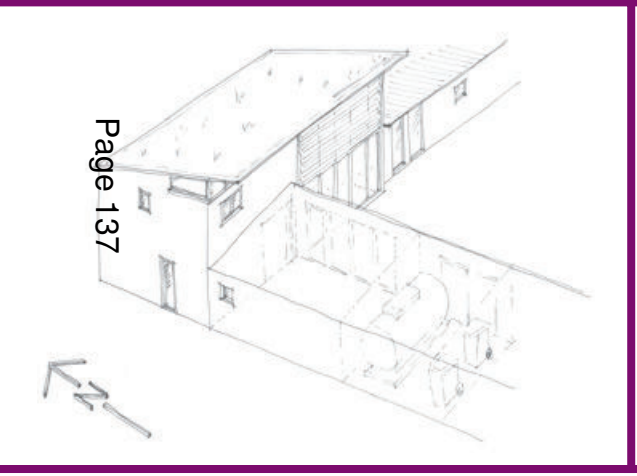
0 0.25 0.5 miles

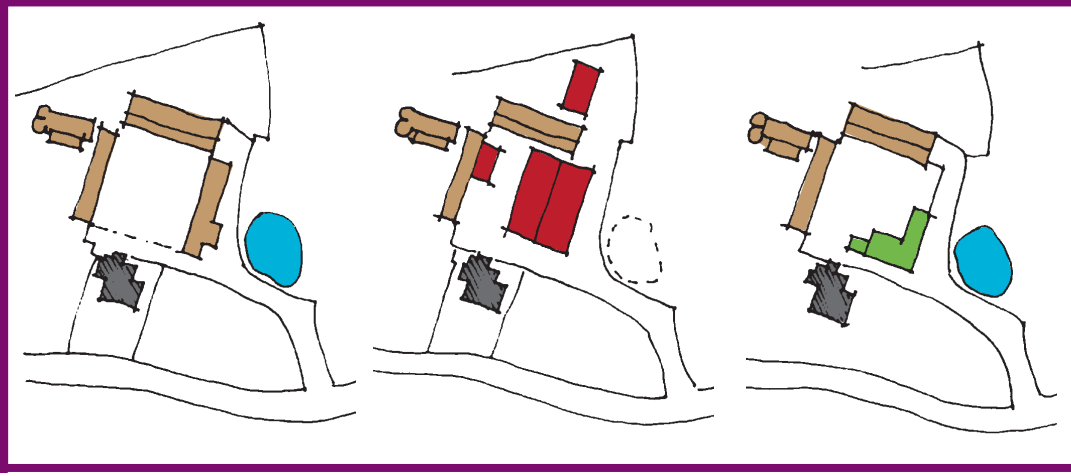
Burmarsh

Romney Marsh is a flat, low-lying reclaimed landscape that was sparsely populated from the medieval period. Small villages and isolated farmsteads developed on areas of marginally higher land but much of the marsh was managed from farmsteads located on higher ground that fringes the area which largely falls within the High Weald NCA. The irregular fields of the marsh are typically small to medium in scale and are defined by drainage ditches with few trees or hedges in the landscape except where trees were planted to create wind breaks for farmsteads. Farmsteads were predominantly small to medium in scale and of loose courtyard form but many historic farmsteads have been replaced with modern sheds.

KENT FARMSTEADS GUIDANCE

PART 5
KENT FARMSTEADS DESIGN GUIDANCE





CONTENTS OF PART 5 OF THE KENT FARMSTEADS GUIDANCE: KENT FARMSTEADS DESIGN GUIDANCE

The Kent Farmstead Guidance is the result of collaboration between English Heritage, Kent County Council and the Kent Downs AONB. It also builds on pilot work developed by English Heritage and the High Weald AONB. It has been revised further following consultation with key stakeholders in Kent. The revision has also integrated the result of the Kent Farmsteads and Landscapes Project, which represents the completion of rapid mapping of farmsteads supported firstly by the High Weald Joint Advisory Committee and then by English Heritage. The text was prepared by Jeremy Lake of English Heritage, with contributions from Bob Edwards and James Webb of Forum Heritage Services (substantially to Parts 5 and 6), & publication layout by Diva Arts.

NOTE. THIS DOCUMENT IS AVAILABLE IN ALTERNATIVE FORMATS AND CAN BE EXPLAINED IN A RANGE OF LANGUAGES. PLEASE CALL KENT COUNTY COUNCIL'S REGENERATION & ECONOMY'S PROJECT SUPPORT TEAM ON 01622 221866 FOR DETAILS.

AIMS AND CONTENTS OF THE KENT FARMSTEADS GUIDANCE

The purpose of this guidance is to help achieve the sustainable development of farmsteads, and their conservation and enhancement. It can also be used by those with an interest in the history and character of the county's landscape and historic buildings, and the character of individual places.

PART 1 FARMSTEADS ASSESSMENT FRAMEWORK

This sets out the aims and purpose of the Kent Farmsteads Guidance and is divided into two sections:

1. a **Site Assessment Framework** which will help applicants identify the capacity for change and any issues at the pre-application stage in the planning process, and then move on to prepare the details of a scheme.

2. a **Farmsteads Summary Guidance** which summarises the planning context and the key principles to inform the sustainable development of farmsteads – understanding their character, significance and sensitivity to change

PART 2 PLANNING CONTEXT

This sets sets out the national and local policy context, and summarises recent research on farmsteads including for each of Kent's local authorities.

PART 3 KENT FARMSTEADS CHARACTER STATEMENTS

Fully-illustrated guidance on the character and significance of Kent farmsteads, for use in individual applications and detailed design work, for the preparation of area guidance and for those with an interest in the county's landscapes and historic buildings. The guidance is presented under the headings of: Historical Development, Landscape and Settlement, Farmstead and Building Types and Materials and Detail.

PART 4 CHARACTER AREA STATEMENTS

These provide summaries, under the same headings and for the same purpose, for the North Kent Plain and Thames Estuary, North Kent Downs, Wealden Greensand, Low Weald, High Weald and Romney Marsh.

PART 5 KENT FARMSTEADS DESIGN GUIDANCE

This provides illustrated guidance on design and new build, based on the range of historic farmstead types. It is intended to help applicants who are then considering how to achieve successful design, including new-build where it is considered appropriate and fitted to local plan policy.

PART 6 RECORDING AND RESEARCH GUIDANCE

This summarises the main issues to consider when undertaking more detailed recording of a site, with a case study and research questions to guide the survey and assessment process.

PART 7 GLOSSARY

This is a glossary of terms to aid the user.

INTRODUCTION

Detailed understanding of the landscape, the farmstead and the buildings are essential to achieving successful design in the rural context. This design guidance is intended to help applicants who have undertaken the Assessment Framework. It will help in pre-application discussion and in drawing up an application, and will identify and inform opportunities for new buildings and design as well as the enhancement of the character of the landscape and the site.

The importance of good design is underpinned in the principle aims of putting good design at the heart of planning (National Planning Policy Framework, paragraphs 58-64).This has been reinforced in the historic environment by the work of English Heritage in their *Buildings in Context* toolkit. There is further detailed advice on the conversion and re-use of farm buildings in their publication, *The Conversion of Traditional Farm Buildings: A Guide to Good Practice*. This section seeks to provide advice, good practice and general guidance for development in the rural context. The guidance is based on case studies and established best practice seen elsewhere as well as in Kent.

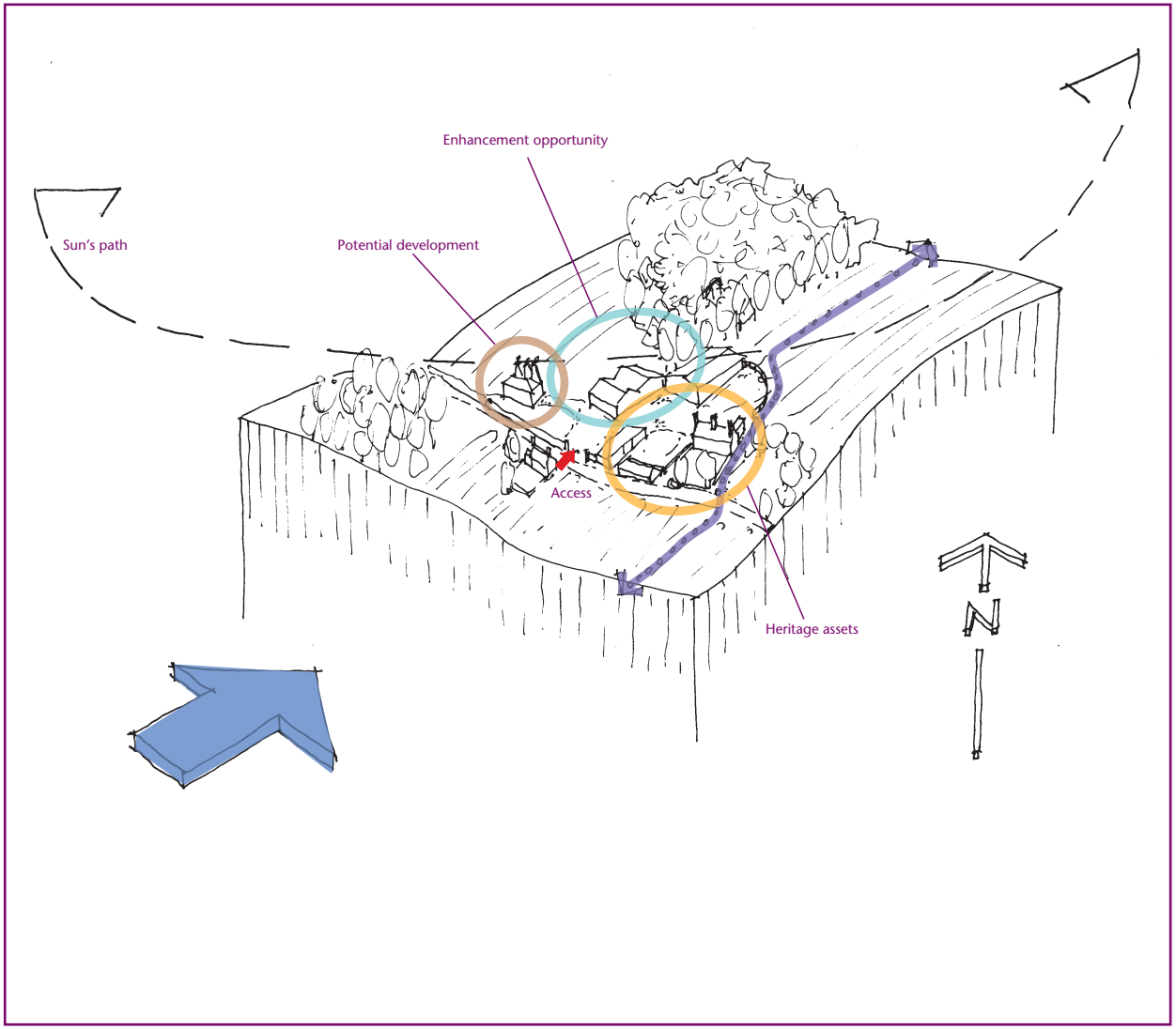
References are made to plan form, layout, degrees of enclosure, scale and massing, form of buildings, orientation and detailed design, including form of openings. The following pages present design suggestions using a selection of the plan types commonly encountered in Kent, informed by an understanding of how the historic character of the traditional farmstead layout (as identified in Ordnance Survey maps of around 1900) has changed. It should be noted that while these examples are based on Kent farmsteads they are not planning briefs or definitive design solutions. They are designed to guide the applicant through a series of ideas and concepts which will hopefully produce a scheme which responds positively to its local setting and distinctiveness.

The National Planning Policy Framework states that good design is 'a key aspect of sustainable development' and indivisible from good planning (paragraph 56). Developments should 'establish a strong sense of place' and 'respond to local char-acter and history, and reflect the identity of local surroundings and materials.' (paragraph 58). New buildings (ancillary buildings and dwellings):

- Must conform with planning policy and guidance, the quality of design being fundamental to any special justification for isolated new houses as outlined in paragraph 55 of the National Planning Policy Framework.
- May be considered as enabling development to help significant buildings that are highly sensitive to adaptive reuse, to be conserved and reused. [1]

1 Enabling development is development that would be unacceptable in planning terms but for the fact that it would bring public benefits sufficient to justify it being carried out, and which could not otherwise be achieved. English Heritage has produced guidance on this at **http://www.english-heritage.org.uk/publications/enabling-development-and-the-conservation-of-significant-places**

1 LANDSCAPE CONTEXT

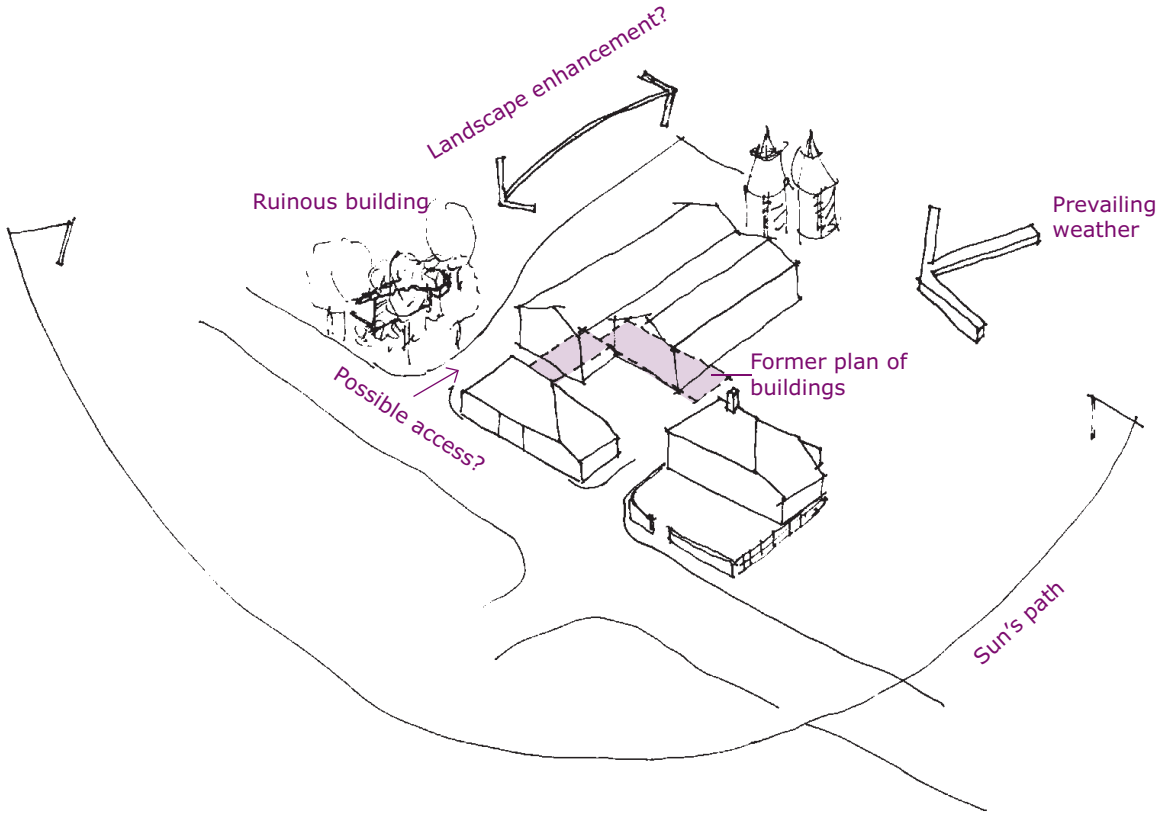


Once familiarised with the relevant character area relating to your site, the following should form the basis for decision making and design solutions.

- Factors such as orientation (which buildings face in what direction and receive the most/least sunlight), prevailing weather, particularly wind direction and existing rights of way – footpaths and driftways.
- Modern underused or redundant farm buildings may provide opportunities for significant enhancement of the site overall, particularly in views to the site from the open countryside.
- Heritage assets and their setting should be very carefully considered. There may be opportunities for conversion and/or extension.

The following pages set out in more detail the opportunities for intervention in the case of traditional farmsteads in the Kent countryside.

2 THE FARMSTEAD GROUP – SITE APPRAISAL



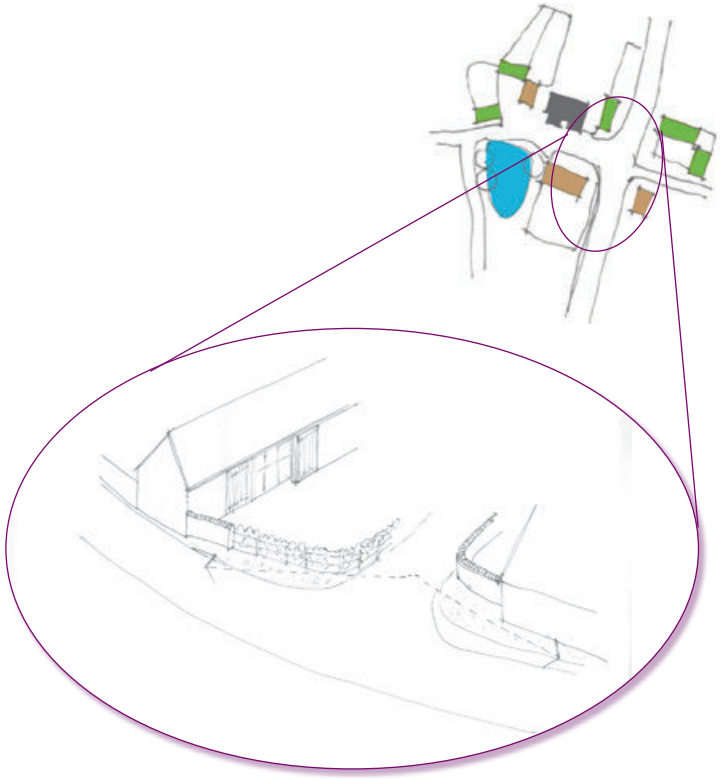
A detailed site appraisal should carefully consider all the assets on the site and the opportunities for change on a site. The planning of new/replacement buildings should be based on a sound understanding of the context.

The site appraisal should consider:

- The maximizing of orientation to take advantage of natural resources (for example the sun's energy)
- Existing and potential access (for existing, proposed and retained uses)
- Potential for enhancement to landscaping
- Opportunities to re-instate or replace ruinous or missing buildings
- The potential removal of unsightly modern buildings
- Opportunities to improve the setting of established heritage assets

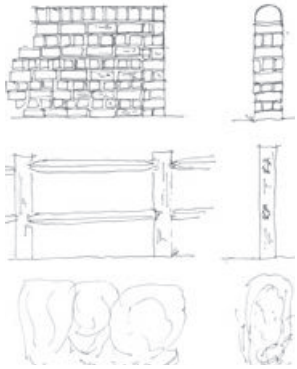
In undertaking the site appraisal the designer must have regard to the original farmstead type and its scale (see Part 3, Farmstead Types for guidance ⧄).

3 THE FARMSTEAD GROUP – ACCESS AND BOUNDARIES



Key

- Traditional farm building
- Modern farm buildings / residential buildings
- Farm house
- Potential new / replacement buildings
- Ponds (historic)
- Lost ponds
- Disused / overgrown ponds



Boundary treatments
The type, scale and materials of boundary treatments are crucial elements in the design of new buildings and interventions into traditional farmsteads. These can range from hard; brick and stone through to soft; hedge boundaries. Care needs to be taken with hedge boundaries to choose plants which are indigenous into the area. For more detailed guidance on this matter, the Kent Downs AONB Unit can offer advice and more information can be found on their website; www kentdowns.org.uk. In general terms the designer is advised to note local species of hedges and trees in the locality, particularly to established farmsteads and use these species in any new development.

Access is a very important factor when considering any intervention to historic farmsteads. Intensification of an access or creation of a new access will require approval from the Highway Authority (as well as the local planning authority). One of the key aspects of design is to (where possible) build sight lines into any proposed development in terms of the access arrangements. These will vary depending upon the classification of the road and the intended use of the access. Designers should consider very carefully the interface with the roadside and the materials used. In this case a fence hedge behind will control the growth of the hedge and ensure open sightlines are maintained. There are grass verges to either side of the entrance. The highway authority will require these to be maintained.

4 DESIGN SUGGESTIONS FOR PLAN TYPES

The table shows how the different scales and forms of farmsteads present different sensitivities to new build. The illustrations on the following pages take selected examples of the different historic farmstead types and suggest how the options for change can be informed by an understanding of their historic character as determined from site survey and the use of historic Ordnance Survey maps.

Sensitivity	Issues	Small loose courtyard (1 or 2 sides)	Larger loose courtyard (3 or 4 sides)	Small/Med regular plans (L and U)	Large regular courtyard	Regular multi-yard plans	Dispersed cluster plans	Dispersed multi-yard & Driftway plans
Measure of sensitivity of the issue in relation to the plan type as existing	LANDSCAPE							
	Enclosure	H	M/H	M	L	M	H	H/M
	Orientation	H	M	H	M/H	M	L/M	L
	Access	H	H	H	H	M	M/H	L/M
Measure of the sensitivity of proposed changes in relation to the plan type	FARMSTEAD – PROPOSED							
	Parking	H	M	H	L/M	L	H	L/M
	Ancillary buildings	H	H	H	M	L/M	M	L/M
	Public and private space	M/H	M/H	M/H	M	M	M/H	L/M
	Boundaries	H	H	M/H	M/H	L/M	H	L
	Use of materials	H	H	H	H	H	H	H

Sensitivity to new build is measured as:

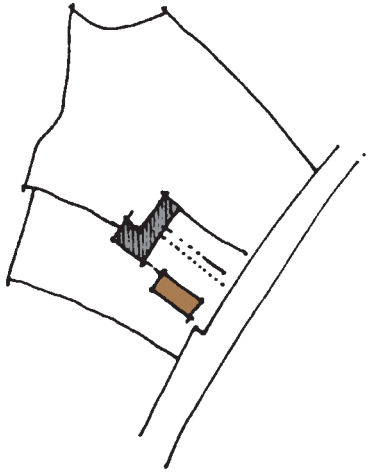
High (H) – this issue is likely to be highly sensitive to change in this plan type and needs very careful consideration and may be a significant constraint to development/further development within this plan type;

Medium (M) – this issue is potentially significant but is probably negotiable subject to detailed design;

Low (L) – this issue is unlikely to be significant in this plan type and will not pose a significant threat to development subject to mitigation and detailed design.

4 DESIGN SUGGESTIONS FOR PLAN TYPES

4.1 Loose Courtyard with building to one side of the yard



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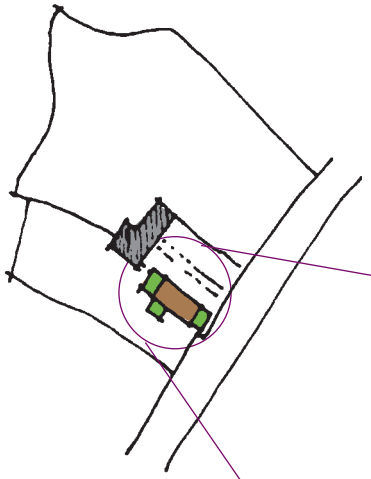
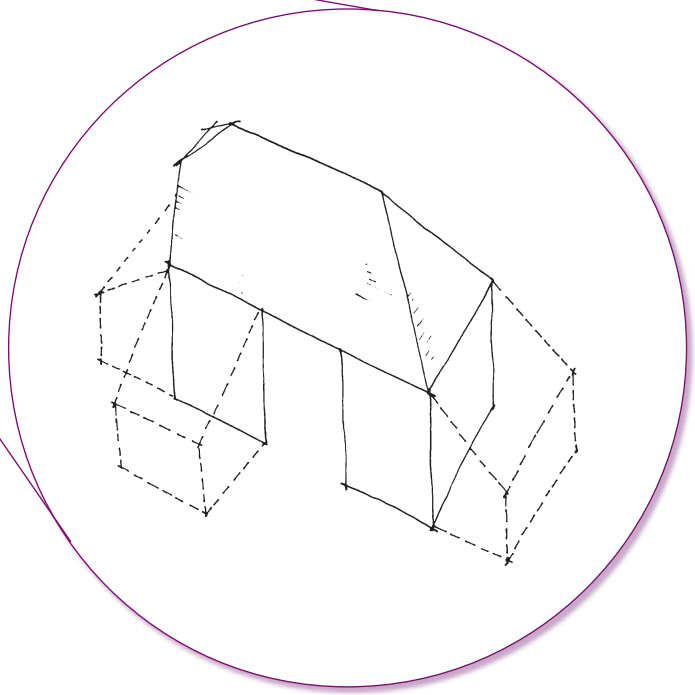


Future options

Some shelter sheds (as shown in the photograph) can run the entire length of a barn side.



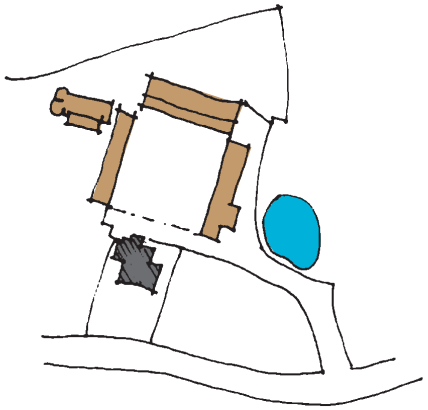
The loose courtyard plan in it simplest form may be comprised of a single barn in relation to the farmhouse, forming an informal courtyard space. In this instance there may be only very limited opportunity for intervention as new buildings may change the scale and/or visual relationship of the established building pattern.

In the example shown, there may be scope for some introduction of shelter shed structures (though probably no more than one in any given example) which may help the designer resolve some of the challenges of building conversion. These structures may contain service areas (plant, toilets, storage) which often require compartmentalization of the original plan form. Alternatively these additions can act as garden sheds, wood sheds and stores, limiting the requirement for externalized structures which could domesticate a rural site.

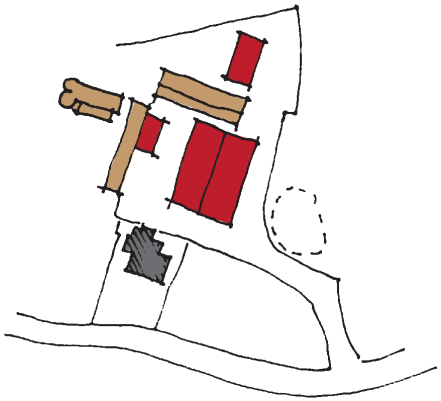
See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Types in Kent for guidance on the key farmstead types ⧄

4 DESIGN SUGGESTIONS FOR PLAN TYPES

4.2 Loose courtyard with working buildings to three sides of the yard



Historic character (from 19th century OS Map)



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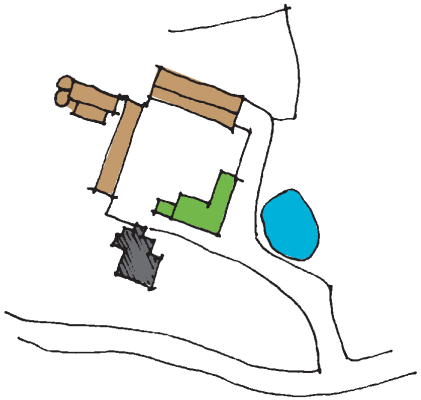
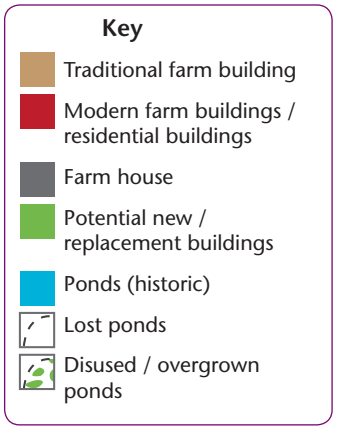


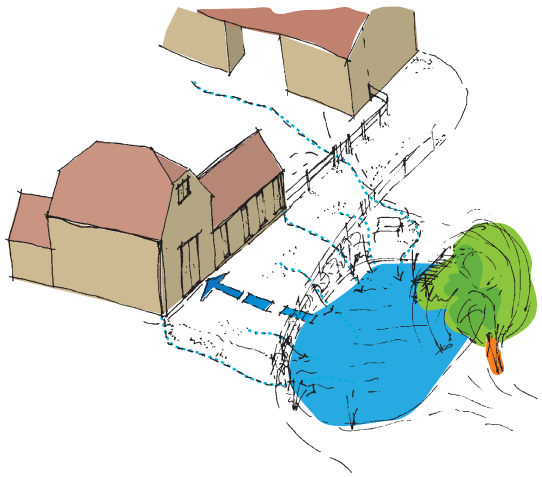
Future options



A key characteristic of the loose courtyard is that the buildings are not linked but separate from each other and arranged to form the courtyard but not fully enclosed (as found in the L and U plan types). There may well be (as in this case) further buildings detached and in some cases some distance from the main courtyard space.

The sketch proposal shown includes the re-instatement of a pond. Ponds were once a common feature of the Kent farmsteads. Many have been filled in or are overgrown and unmanaged. Water resources and the management of water when considering new buildings in the countryside should be one of the key design principles for the designer.

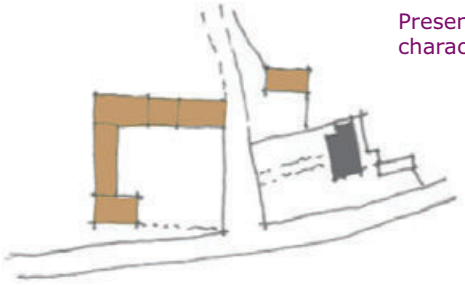
See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Types in Kent for guidance on the key farmstead types



A reinstated pond can provide a balance pond for storm water and run-off collected through the application of sustainable urban drainage systems (SUDS) from large areas of hardstanding (such as courtyards used for parking). Water can be re-used within the buildings (grey-water recycling). They also provide important wildlife habitats and visual interest.

4 DESIGN SUGGESTIONS FOR PLAN TYPES

4.3 L plan



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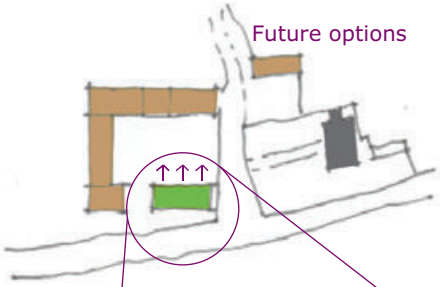
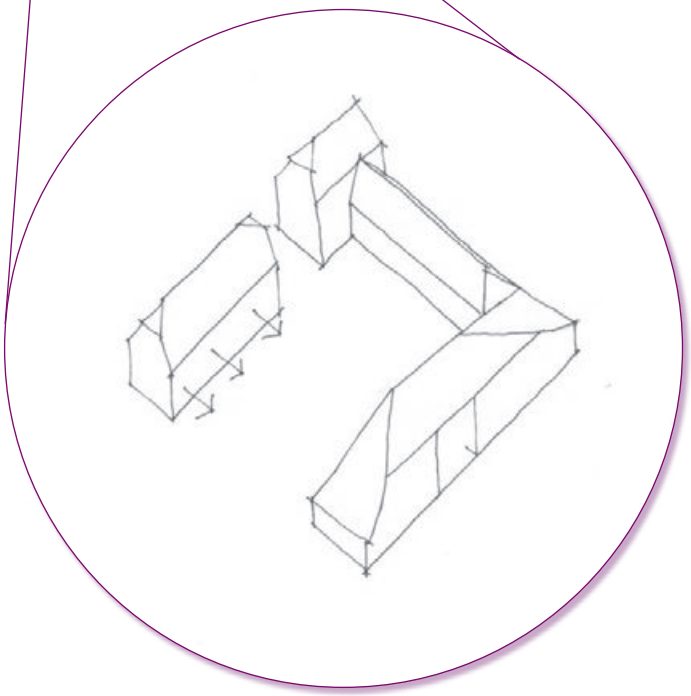


Future options

The L plan is a well-defined plan type and is highly sensitive to change. However, it is possible to introduce buildings which do not diminish or change the original form of the farmstead plan.

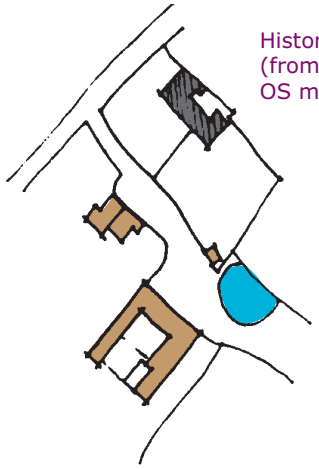
In the example shown, the key principle is that of providing openings facing in towards the courtyard and minimising openings facing out.



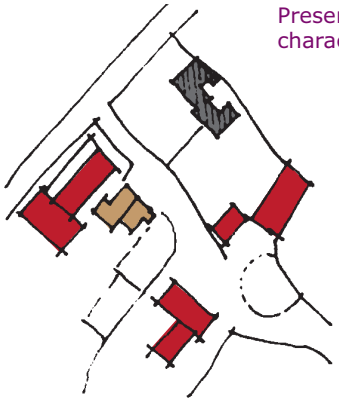
See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Types in Kent for guidance on the key farmstead types

4 DESIGN SUGGESTIONS FOR PLAN TYPES

4.4 U plan



Historic character (from 19th century OS map)



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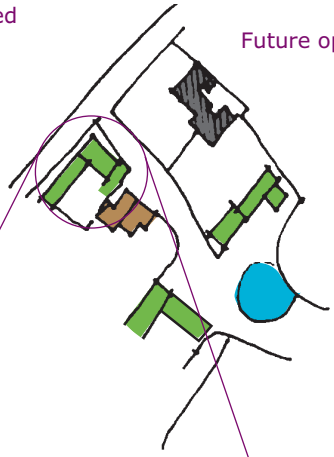


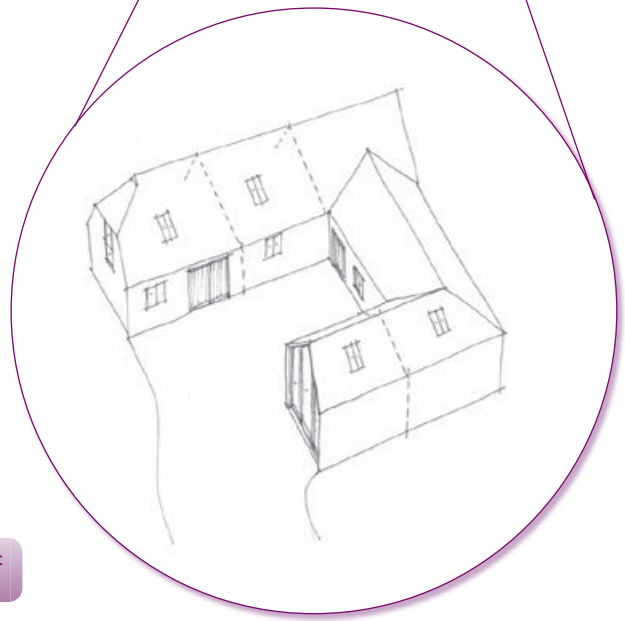
Future options

Key

- Traditional farm building
- Modern farm buildings / residential buildings
- Farm house
- Potential new / replacement buildings
- Ponds (historic)
- Lost ponds
- Disused / overgrown ponds

The U plan is a formal and well-defined plan form. The buildings are linked to form a U around a centrally placed courtyard.

The proposed plan shows the introduction of a U plan towards the roadside rather than re-instatement of the original position. This has created enclosure to the roadside and the site. Avoid having a repetition of the traditional plan form on the site (in other words more than one U shaped range of buildings). The inset sketch shows the suggested scale and distribution of openings within bays (dotted) out.

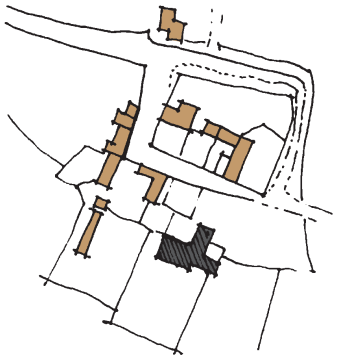


Please note, as a general rule the U plan will face (have its open end) south and so openings – particularly at the gable – ends should take advantage of the passive energy potential of the sun. In the case of photovoltaics and solar panels these should be arranged on the inner facing sides of the roofslopes (preferably those facing south and south-east).

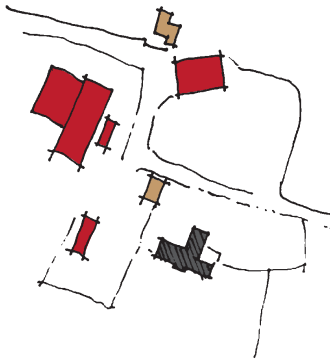
See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Types in Kent for guidance on the key farmstead types

4 DESIGN SUGGESTIONS FOR PLAN TYPES

4.5 Regular multi-yard



Historic character (from late 19th century OS Map)



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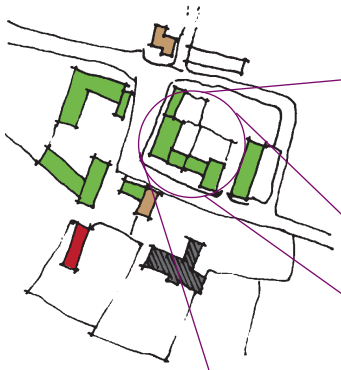
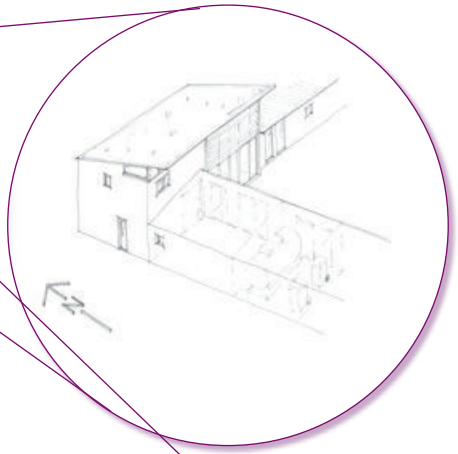
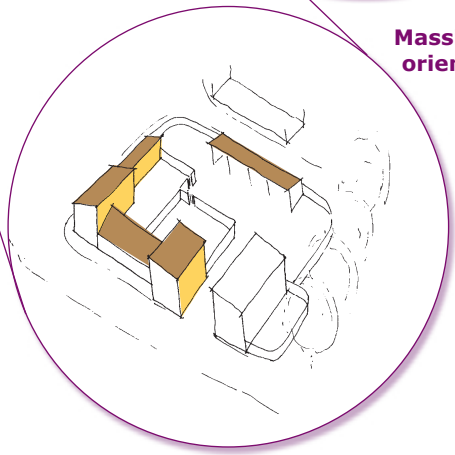


Future options

Design



Massing and orientation



The regular multi-yard can often include a complex series of grouped buildings; attached and detached from each other and formed around a series of yards which are in turn separated by some form of boundary treatment; post and rail or brick or stone wall (approximately 1.2 metres in height). Getting the massing and grouping of buildings right will be the key to working within this plan type. There is however more scope for variation and use of modern forms (monopitch for example) rather than traditional forms in this plan type as the sequence and grouping of buildings enables an architectural identity and coherence to be achieved – something that is more difficult (but not impossible) to obtain with single building interventions.

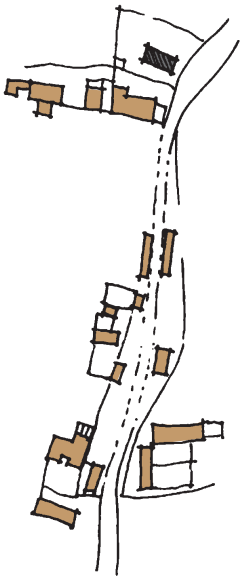
Key

- Traditional farm building
- Modern farm buildings / residential buildings
- Farm house
- Potential new / replacement buildings
- Ponds (historic)
- Lost ponds
- Disused / overgrown ponds

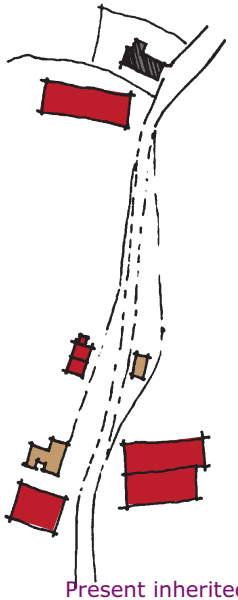
The example shows how to exploit the orientation of the built form, with large windows facing south but regulated by a series of movable louvers to control the level of light and penetration into the building. This can be done electronically when linked to a internal climate management system.

See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Types in Kent for guidance on the key farmstead types

4.6 Dispersed multi-yard with driftway



Historic character (from 19th century OS map)



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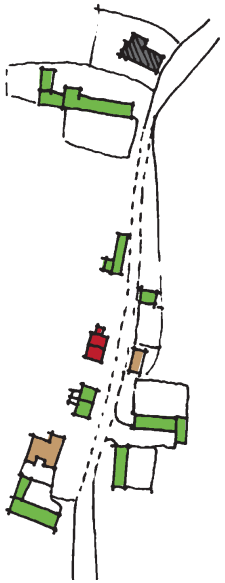


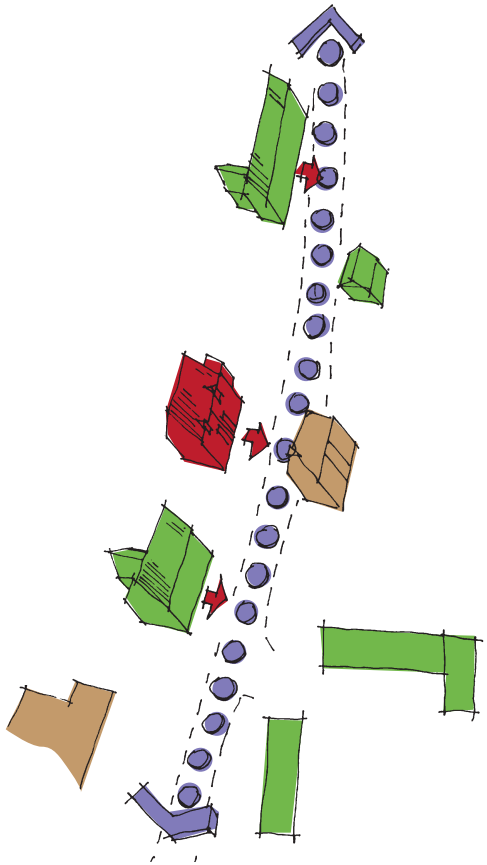
Future options

There is generally an informality to the distribution of buildings in this plan type. This can be difficult to replicate with new buildings. A feature of the plan is multiple spaces enclosed by boundaries (the multi-yards) – be this brick or stone walls or post and rail fences. In this respect the closing off of a space for a garden - providing the correct boundary treatment is chosen - is not out of character within this plan type.

See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Types in Kent for guidance on the key farmstead types

Key

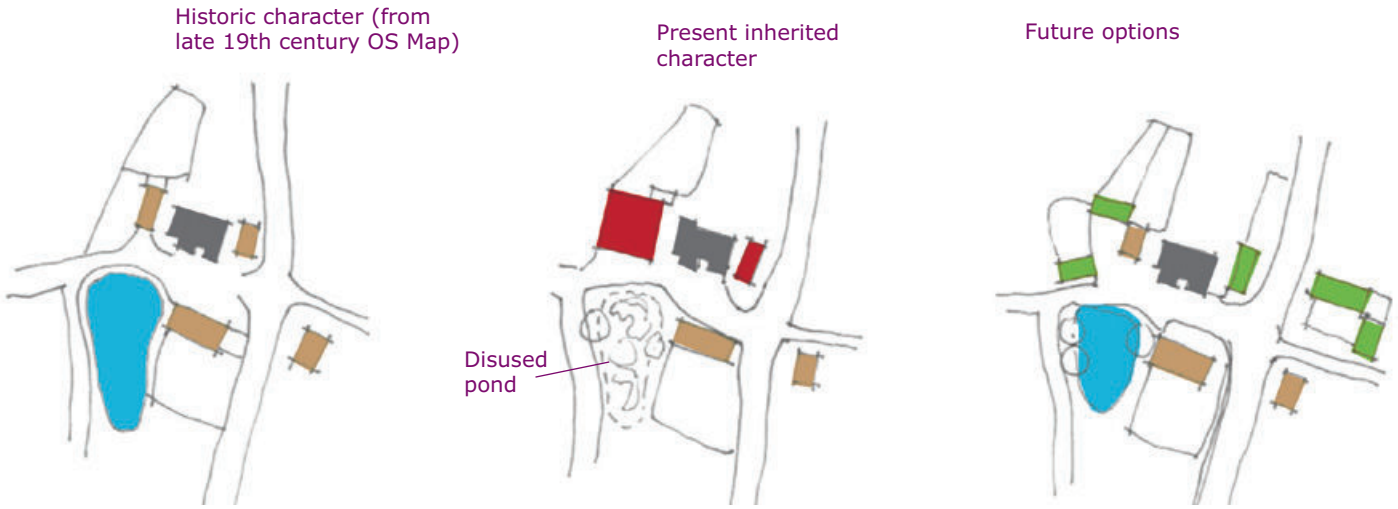
- Traditional farm building
- Modern farm buildings / residential buildings
- Farm house
- Potential new / replacement buildings
- Ponds (historic)
- Lost ponds
- Disused / overgrown ponds



The driftway (shown as purple) is a key feature within the Kent landscape and should remain a principal element of any proposals for change. Buildings should respect and reinforce the line of any historic drift-way.

4 DESIGN SUGGESTIONS FOR PLAN TYPES

4.7 Dispersed cluster



There is a definite informality to the grouping of buildings that comprise the dispersed cluster plan type. Care needs to be taken not to formalise groups or intensify areas of development.

This worked example includes the reinstatement and landscaping of a pond.

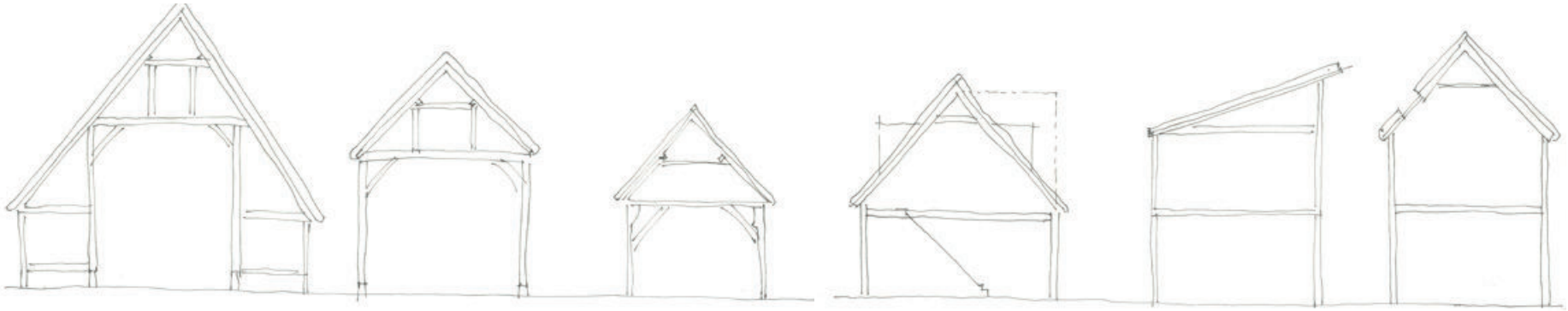
Key

- Traditional farm building
- Modern farm buildings / residential buildings
- Farm house
- Potential new / replacement buildings
- Ponds (historic)
- Lost ponds
- Disused / overgrown ponds

See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Types in Kent for guidance on the key farmstead types

5 BUILDINGS – WORKING WITH SCALE

Historic → **Modern**



one & a half storey | mono-pitch | two storey

Traditionally scaled buildings:

Aisled Barn

- Large massing
- Eaves swept low which diminishes impact
- Large expanse of roof
- Limited opportunity for openings at upper levels
- Should in most cases be the dominant building on a farmstead (other than the farmhouse)

Barn

- A clearly defined long axis
- Eaves level reflective of a modest two storey residential building
- Eaves sometimes swept low with shelter sheds (see page 7)
- Some opportunity for varied openings
- Is often one of the most dominant buildings in most farmsteads

Cattle House

- Long, low and narrow building
- Single storey, low eaves
- Simplicity to form
- Very limited scope for new openings (other than glazing of open sides)
- A modest building in the farmstead group

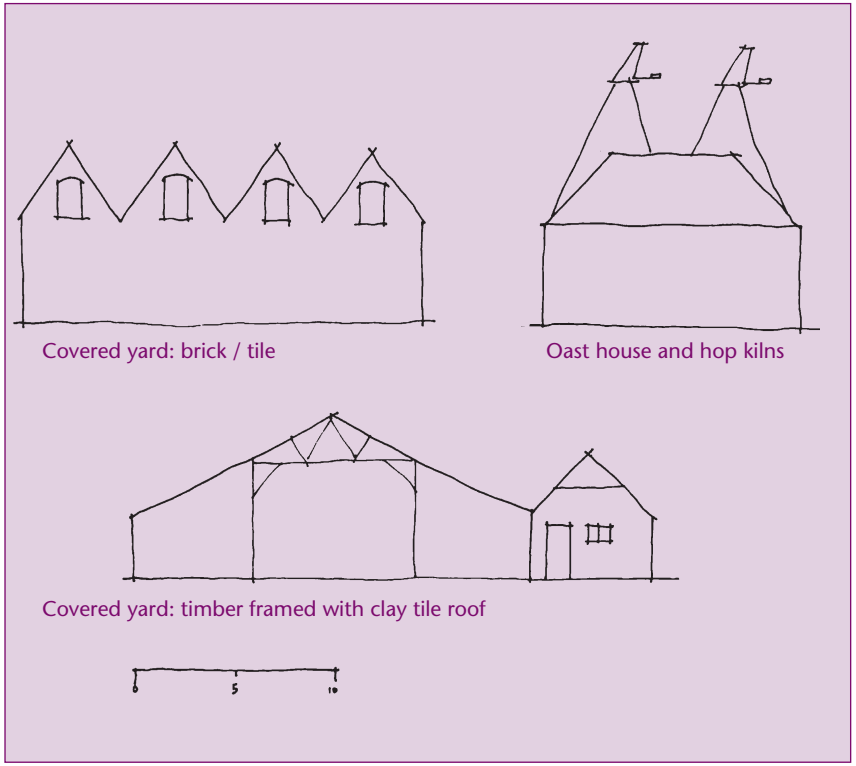
Proposed new buildings

When proposing new buildings within the farmstead, designers should consider;

- The appropriate scale of the proposed uses, for example small offices, workshops, storage spaces or industrial units?
- The hierarchy of buildings within the farmstead; how dominant are the new buildings going to be in the group?
- The roof form and massing of the buildings, particularly the relationship of length to depth of building – this is (along with the use of locally distinctive materials) often the defining element of a traditional farmstead.
- The orientation of proposed buildings to maximize the efficiency of openings to allow light into the proposed built form.

See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Building Types in Kent for guidance on the key building types

6 BUILDINGS – LARGE TRADITIONAL BUILDINGS IN THE COUNTRYSIDE



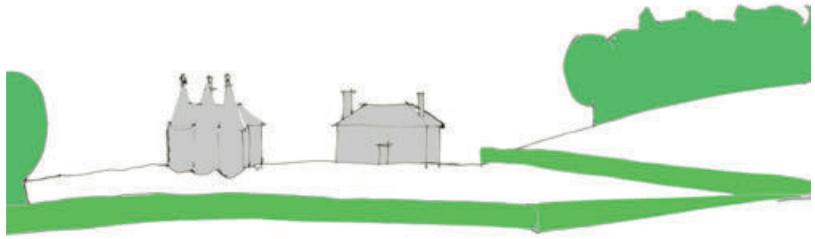
Traditional agricultural buildings in Kent were, in some cases, comparable with the large portal frame buildings seen today. Covered yards are a relatively rare surviving building type but examples do survive in parts of the Low Weald.

When proposing new buildings in the countryside, particularly industrial-type buildings, great care has to be taken to deal with the massing of these structures and their potential impact on the landscape setting of the farmstead.

It should be noted that the traditional farmstead comprised buildings of substantial footprint and form and they produced a distinctive profile largely due to the materials available – timber and clay or slate roof coverings. These dictated the span of the roof structure, although some covered yards are very large and incorporate complex scissor trusses to accommodate the loads imposed by traditional roofing materials.

The designer should carefully consider the form of large proposed buildings within the farmstead context and landscape setting. Design cues can be taken from the distinct and highly contextual (to Kent) oast house form and to a lesser extent the covered yard.

Where proposed buildings will have a significant impact on the views towards a farmstead group, particularly where the group is in a prominent location (as shown in the illustration) great care should be taken in dealing with the massing, profile and material use within this scale of building.



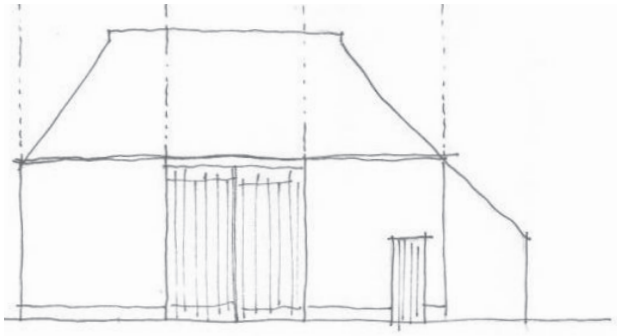
See Part 3, Kent Farmsteads Character Statements: 4 Farmstead Building Types in Kent for guidance on the key building types

7 BUILDINGS – OPENINGS AND PROPORTIONS

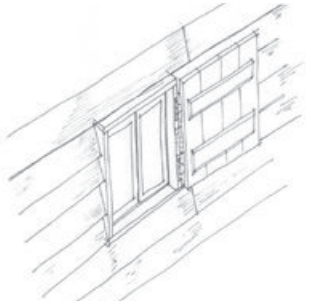
In traditional farm buildings, the proportions and scale, former function and positioning of openings is a crucial and defining element of the agricultural character of these building types. New buildings or openings should respond positively to the distribution, scale and proportions of existing established openings in the existing (or lost) farmstead.

The division of bays (shown as dotted lines on the sketches to the right) should be the starting point for the scale and proportions of openings. Please note as a general rule, there is rarely more than one opening (be this a door – single or double, window or ventilation slit) per bay per floor. Often this will only be one opening per bay.

In the example, the new building has responded to the hierarchy of window openings in a traditional three bay barn by focusing openings into the central bay which traditionally was where the large central threshing doors were located. Otherwise, the design has minimised the number of openings within each bay to reflect the character of traditional farm buildings in Kent.



The bay division and proportions of a traditional barn…



The inset sketch illustrates how new openings (in existing or proposed buildings) might be handled. The key principles are:

- Create a depth to the opening
- Frame the opening
- Keep the glazing and opening lights simple
- Casement to be flush with the frame
- Consider the provision of closable shutter – this could be hinged or sliding (alterative materials may be considered appropriate particularly in an industrial building)

Example of a non-domestic opening in a traditional farm building

…should be used to inform the proportions and scale of proposed new buildings. The sketch shows a new building which reflects the bay divisions and opening distribution seen in traditional buildings on the farmstead

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7 Buildings – Openings and Proportions

The use of bay proportions in new build proposals

The width of the proposed bay in any new build should reflect that of the traditional farm buildings of the region and be proportionate to the size (and use of the proposed building). The illustration shows an example of the use of varied bay widths for elements of a proposed 'L' plan range of residential or office or live-work units (please note this is indicative to reflect the use of bays rather than a definitive or suggested design solution)

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KENT FARMSTEADS GUIDANCE

PART 6
RECORDING & RESEARCH GUIDANCE

KENT DOWNS Area of Outstanding Natural Beauty

Kent County Council

KentDesign

ENGLISH HERITAGE

CONTENTS OF PART 6 OF THE KENT FARMSTEADS GUIDANCE: RECORDING AND RESEARCH GUIDANCE

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AIMS AND CONTENTS OF THE KENT FARMSTEADS GUIDANCE

The Kent Farmsteads Guidance aims to inform and achieve the sustainable development of farmsteads, including their conservation and enhancement. It can also be used by those with an interest in the history and character of the county's landscape and historic buildings, and the character of individual places. Traditional farmstead groups and their buildings are assets which make a positive contribution to local character. Many are no longer in agricultural use but will continue, through a diversity of uses, to make an important contribution to the rural economy and communities.

PART 1 HISTORIC FARMSTEADS CHARACTER AND ASSESSMENT FRAMEWORK

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RECORDING AND RESEARCH GUIDANCE

1 INTRODUCING RECORDING

Understanding the character and significance of a farmstead and its buildings is essential in developing proposals and making appropriate decisions about its future management. This will be required:

1 in support of a planning application and to inform the development of a scheme, once an initial assessment and discussion with the planning authority has identified potential for change within a farmstead.

and/or

2 once permission has been secured, to make a record before and during the implementation of the scheme. The local planning authority may attach recording conditions to a planning or listed building consent to ensure that a record of a farmstead or building is made that will be publicly available or for archaeological recording associated with ground works on the site.

Recording should be proportionate to the known or potential importance of the heritage asset. English Heritage's *Understanding historic buildings: policy and guidance for local authorities* sets out the position on the investigation and recording of historic buildings within the English planning framework. The National Planning Policy Framework sets out the policy framework for recording:

> Paragraph 128. 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. 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.
>
> Paragraph 141. Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible.[1]However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

The results of any recording exercise should be submitted to and made publicly available through the Kent Historic Environment Record (HER).

1 A footnote adds 'Copies of evidence should be deposited with the relevant Historic Environment Record, and any archives with a local museum or other public depository.'

2 THE LEVELS OF RECORDING

Understanding Historic Buildings: a guide to good recording practice (2006) describes the various approaches to and levels of recording buildings.

Level 1 is equivalent to the **Site Assessment Framework** in Part 1 of the Kent Farmsteads Guidance, which can be carried out by owners or their agents. It is essentially a basic appraisal, supplemented by the minimum of information (a plan, photographs and text) needed to identify the present historic character of a site, and the location, age and type of any historic buildings. A Level 1 survey will provide an important foundation for discussion with the planning authority and assist in the development of proposals.

Level 2 is a more detailed descriptive record which briefly describes the farmstead and its buildings, decribes their development using historic maps and the buildings themselves, identifies their historic use and any features of interest and makes an assessment of significance. Pre-application survey for sites with designated heritage assets will usually be at this level (see case study at the end of this section), although on sites that are shown to be of potentially greater significance more detailed levels of recording as Levels 3 or 4 may be required. Both the exterior and the interior of buildings will be viewed, described, and photographed.

Level 3 is an analytical record, and will comprise an introductory description followed by a systematic account of any buildings' origins, development, and use. The record will include an account of the evidence on which the analysis has been based. It will also include all drawn and photographic records that may be required to illustrate the building's appearance and structure and to support an historical analysis.

Level 4 provides a comprehensive analytical record and is appropriate for buildings considered to be of the greatest (actual or potential) importance. The record will draw on the full range of available resources and discuss the building's significance in terms of architectural, social, regional, or economic history. The range of drawings may also be greater than at other levels.

Building recording at Level 3 or 4 will involve more detailed historical research using estate, tithe and historic Ordnance Survey maps and possibly documentary sources. On site, the survey will involve the production of a photographic archive using monochrome film as well as digital images to create a record of the building before change and may also involve some recording during building works as features are uncovered. When associated with a planning application the planning drawings will usually suffice as a basis although they should be checked for accuracy. These drawings may need to be amended to add constructional or archaeological information about the building. These may include straight joints in masonry, blocked and inserted openings which can relate to changes in use often involving the re-planning of the interior, changes in masonry technique, brick bonding or the type of brick or features such as void mortices in timber elements indicating where timbers have been removed (or indicating that the timber is re-used for another building). Additional drawings may be required to show particular features or aspects of the building.

3 BELOW-GROUND ARCHAEOLOGICAL INVESTIGATION

Occasionally, where a site is of known medieval origin or where other important archaeological remains are suspected, the applicant may be required to undertake an archaeological assessment or field evaluation prior to making their planning application.

Depending upon the significance of the site, below-ground archaeological investigation may be required. This will range from a watching brief where an archaeologist observes the ground works and is given the opportunity to record features of archaeological interest to area excavation prior to building works starting.

4 RESEARCH QUESTIONS

The report produced for the Kent Farmsteads and Landscapes Project (see sources listed in PART 1 (HISTORIC FARMSTEADS CHARACTER AND ASSESSMENT FRAMEWORK) has a series of research questions to guide those researching the development of farmsteads, landscapes and settlements in Kent and undertaking more detailed levels of recording. Of particular importance are:

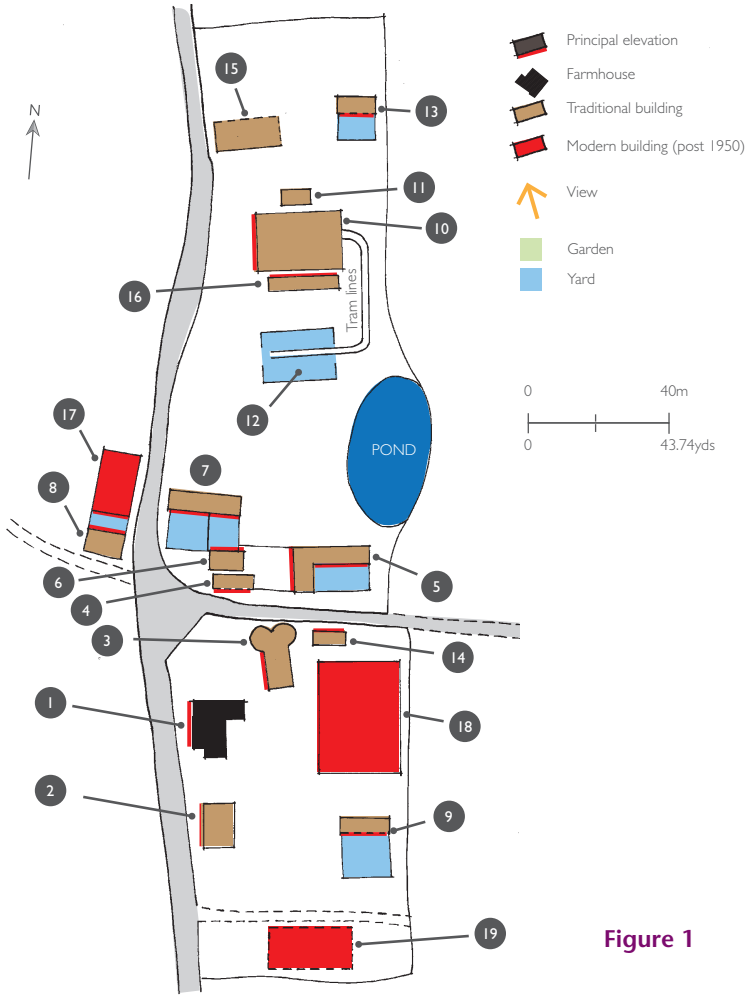
- The density and location of farmsteads and the date of their buildings relates to patterns of settlement and landscape character. Kent has a particularly complex historic landscape with a very high density – by national standards – of dispersed settlement.
- The recorded date of farmstead buildings can supplement the information relating to the development of farmsteads and landscapes provided by place names and documents. In the case of fieldscapes created through a gradual or piecemeal process of enclosure, particularly where they are poorly documented and where the chronologies are difficult to establish, the recorded date of buildings can provide the earliest indication of the establishment of a farmstead close to or within enclosed fields. In areas of planned or regular enclosure, early recorded buildings may relate to earlier phases of development of the landscape that have been over-written through survey-planned enclosure.
- The dating of buildings in combination with an understanding of the plan form of farmsteads provides an indication of how farmsteads have developed. Continuity or revolutions in farming practice either swept away or made use of the existing building stock. Across most of the county farmsteads did not begin to develop into their present-day forms until after the 1790s, and especially in the High Farming years of the 1840s to 1870s, when agricultural productivity was boosted by good manure from livestock increasingly wintered in yards or buildings. This is reflected in 1) the low numbers of recorded working buildings other than barns, 2) the redevelopment of dispersed plan farmsteads as courtyard-plan farmsteads across large areas of Kent over the 19th century, as revealed by the comparison of tithe maps of the 1840s and 2nd Edition Ordnance Survey maps of c.1905, 3) the growth of large farms in some areas (such as the North Kent Downs) and the persistence of small farms in others (the High Weald, in contrast to most parts of the Low Weald) and 4) the development of large and high-status farmsteads from the medieval period.
- The location and orientation of the farmhouse may reflect the status of the owner or tenant of the farm, if for example it faces away from the working buildings into its own driveway or garden, with a prospect over a landscape in their ownership or tenancy. Some houses were remodelled and reorientated in order to face away from working buildings. To what extent are houses earlier than, contemporary with or later than their associated farm buildings? How is reflected in their siting – as detached houses that face away from the working farm, as houses that are attached to their working buildings or those sited gable-end or side-on to the yard?
- Moated sites and shrunken settlements have high potential to reveal important material that will have been lost elsewhere through intensive cultivation and settlement, and that can be interpreted in relationship to standing fabric and farmstead form/ type.
- What is the dating evidence for the development of multi-functional buildings, and what functions do they include?
- What dating evidence is there for the development of cattle housing? How much pre-dates the late 18th century?
- What evidence is there for the development of farmstead buildings on larger holdings, and did these in any way provide a model for others to follow?
- What is the chronology for the establishment of field barns and outfarms?

5 EXAMPLE OF LEVEL 2 SURVEY OF A WHOLE SITE: WOODHURST FARM

LOCATION & LANDSCAPE SETTING

The farm is accessed along a trackway, which also leads to another property off the B2598, the farmstead being some 800m from the road. The trackway that runs through the farmstead is a public footpath and two further paths converge on the farmstead from the east and west making it a nodal point in the footpath network, giving a high level of public access.

Although the farmstead lies on the top of a spur, the land falling away to east and west, hedges and trees screen most of the site from the east. The farmstead, and the oast in particular, is visible in views from the west from a public footpath that runs almost parallel with the track through Woodhurst Farm.



1	Farmhouse
2	Threshing barn
3	Oast house
4	Cart shed
5	L-range of cattle sheds
6	Stable/cow house
7	Animal shed
8	Cow house
9	Shelter shed to south of farmstead
10-12	Dairy unit
13	Animal shed
14	Workshop/office
15	Dutch barn
16	Calf Pens
17-19	Modern buildings

Figure 1

DESCRIPTION OF HISTORIC CHARACTER

For plan and buildings see Figure 1

Plan form of the farmstead

The earliest map consulted showing the site, the 1st Edition 25" OS map of 1873 shows a dispersed group of buildings set mainly along the east side of the track. This group was reorganised by 1897 (2nd Ed 25" OS map) and the buildings shown on this map largely survive today and can be classified as a 'regular multi-yard' plan. Regular multi-yard plans consist of a number of yards, primarily cattle yards, usually accompanied by cow houses or shelter sheds. Whilst multiple yards are a common feature of farmsteads in the High Weald, they are more typically dispersed; set away from each other rather than neatly grouped together as is the case at Woodhurst Farm which is a plan type that is more common in the southern part of the Low Weald.

Buildings (Figure 1)

The following examples of building descriptions are prefaced by numbers which indicate their location on Figure 1.

2 Threshing barn

Barn. A three-bay timber-framed building with projecting porch to the central bay on the yard elevation. Gabled tile roof weatherboarded walls to most of the building but the northern bay has brickwork to lower half of walls. The framing is mostly of 17th century date but the roof structure appears to have been re-built – the thin queen struts suggest a later, possibly 19th century date. Within the northern bay the upper walls retain evidence of being plastered and there is plasterwork to the roof slope of the barn and inserted 'ceilings' to create a pyramidal roof void over this bay. This structure, together with the replacement of the lower parts of the walls in this bay in brickwork suggests that the northern bay of the barn has been adapted to serve as kiln for drying hops. The barn also contains some interesting examples of graffiti with names, dates and initials carved into timbers and boarding on the south side of the threshing bay including several early 19th century examples.

3 Oast house

A late 19th century oast (built between 1873 and 1897) with two roundels to its northern end and a stowage of brick to the ground floor and tile hung timber-framing above. The building is largely intact although the kilns have been removed and the cones of the two roundels have been modified with a new section of roofing joining the cones. This alteration may be responsible for the cracking that is visible in the walls of the roundels, outward movement of the roundels being restrained by tie bars and vertical steel beams to the outside of the roundels. The upper floor of the stowage area has been sub-divided to create a number of rooms and has been used as a residential unit in the past. The original stairs have been removed and replaced by a simple set of open stairs. By 1949 the oast had been converted to provide stores within the kilns, garages and stores within the lower part of the stowage and a granary above.

4 Cart shed

Immediately north of the oast house is a south-facing 4-bay single-storey cartshed (built between 1873 and 1897). Weatherboarded timber-framed walls, plain clay hipped roof. The posts and braces of the front elevation are of 19th century date but the studwork walls are of modern construction.

10-12 Dairy unit

A large wide-span shed (described as being 'new' in sale particulars of 1937), designed as a milking parlour (10) with an engine room to the north (11) and a midden to the south (12). The sale particulars of 1937 described the group as:

> 'Pale buff brick walls in stretcher bond, with a corrugated sheet roof. Series of tubular metal vents along ridge. Opening in centre of west gable with blocked doorways to either side. Sliding doors to wide openings in south elevation. Steel trusses and metal pole 'purlins' carrying the sheeting of the roof. Concrete floor with concrete feed troughs along the sides and remains of tubular stall partitions. Along the centre of the building there are rails for the tramway that carried manure from the dairy to the midden (12) to the south which has low brick walls with openings in the ends.'

KENT FARMSTEADS GUIDANCE

PART 7
GLOSSARY

THIS COMPRISES PART 7 OF THE KENT FARMSTEADS GUIDANCE

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Aisled barn A barn in which a central space is separated from side aisles by posts and braces.

Assart/assarting The removal of trees to extend or create farmland and settlement, usually reflecting land grants and tenancy arrangements in the medieval period. The result is small-scale and irregular fields.

Arable Land cultivated for the growth of crops.

Barn A building for the storage and processing of grain crops and for housing straw, farm equipment and occasionally livestock and their fodder.

Bay From the medieval period, the unit of reference in timber-framed and mass-walled buildings became the bay, the distance between principal roof trusses. These bays could also mark out different areas of storage within barns and other buildings.

Boiling House A building, or part of a building, for the boiling and preparation of animal feed, usually attached to pigsties.

Bronze Age Period of human history from (in NW Europe) approximately 2000–900 BC

Calf house A building, or part of a building, for housing calves. Resembles a cow house or loose box, usually to a smaller scale.

Cart shed A building for housing and protecting from the weather, carts, waggons and farm implements, often open-fronted.

Cattle housing A structure providing secure housing for cattle. See covered yard, cow house, hemmel, linhay, loose box, ox house, fodder and root store, shelter shed.

Cattle yard A yard for cattle that has access to working buildings, usually cow houses, shelter sheds and barns.

Chaff house An area within a building (usually the barn or stable) for storing husks from the grain crop (chaff), after it has been threshed and winnowed in the barn, for use as animal feed.

Cheese room A room for storing cheese, in a loft above the dairy or in the attic of the farmhouse.

Churn stand A stand for milk churns, often built at the farm gate to save the milk cart or lorry from having to come to the farmstead.

Cider house A building, or part of a building, for the milling and pressing of cider apples to produce cider (or pears for perry) and for storing the drink in barrels.

Combed wheat reed A method of thatching in which all the stems of the straw are not bruised or crushed as with longstraw, and where the straw is laid in the same direction with the butts (or ends) down. The finished roof thus resembles reed thatch rather than longstraw.

Combination Barn A threshing barn that also houses farm animals and also granaries, carts and other functions.

Coping Usually flat stones but sometimes bricks laid on the top of a wall to prevent water getting into the core of the wall: for example, on the top of a gable wall of a building where the roofing material abuts the gable wall rather than covers it.

Courtyard plan A farmstead where the working buildings are arranged around a yard. See loose courtyard plan and regular courtyard plan.

Covered yard A covered yard for the shelter of cattle that is attached to a building. They were first used on planned and model farms of the 1850s to 1870s. They became increasingly common from the 1880s when former open yards were roofed over with timber or metal-framed superstructures.

Cow house A building in which cattle are normally tethered in stalls.

Croft An enclosed piece of land adjoining a house.

Dairy A detached building, or more often a room within the farmhouse, used for the cool storage of milk and its manufacture into butter and/or cheese.

Daub A mixture of clay and straw applied to the wattle infill of timber-framing to make a wall.

Deer park A large park for keeping deer. In the medieval period the prime purpose was for hunting and as a display of status.

Demesne farm A manorial farm managed directly as opposed to land within the manor farmed by tenants.

Dispersed plan A farmstead where the buildings and yards are loosely arranged, with no focal yard.

Dispersed cluster plan A dispersed farmstead where the farm buildings and farmhouse are loosely grouped within the boundary of the farmstead.

Dispersed driftway plan A dispersed farmstead where buildings and yards (regular or loose courtyard in their form) are sited alongside a routeway.

Dispersed multi-yard plan A dispersed farmstead where buildings are arranged around two or more scattered yards, which can be loose or regular in their form.

Dispersed settlement Settlement that consists of scattered, isolated farmsteads and small hamlets. These can be high in density, especially

in areas with small farms, or low in density as in landscapes historically farmed from villages. Most isolated farms are associated with the breakdown of communal farming and the resiting of farmsteads amongst newly enclosed fields.

Dovecote A building or part of a building, usually placed at a height above the ground, used to house doves and pigeons with openings and provision inside for roosting and breeding.

Downland The higher land of the chalk areas of the country. These areas typically had a poor, thin soil and were the preserve of sheep which grazed on the extensive, unenclosed areas. This form of management suppressed the growth of scrub and allowed a rich flora to establish.

Dutch Barn An iron-framed, open-fronted building for the shelter of hay or corn. They typically date from the late 19th to the mid-20th centuries.

Enclosure Enclosed land. Enclosure of land may have occurred at an early date – possibly medieval and in a few rare cases as far back as the prehistoric period. In other areas open fields or common land were enclosed either by agreement or, in the 18th and 19th centuries, by act of parliament.

Fallow land Land left uncultivated, allowing it to rest. In a 3-field open field system one field was left fallow by rotation each year.

Farmhouse The main dwelling house of a farm, it can be either separate from or attached to the working buildings. The house can either share the main elevation with the working buildings or may face in a different direction, commonly into a garden area.

Farmstead The homestead of a farm where the farmhouse and some or all of the farm buildings are located.

Field barn An isolated barn, cow house or shelter shed with a hayloft. Typically found in areas where farmsteads and fields were sited at a long distance from each other.

Fold yard A term frequently used for a cattle yard.

Forge Iron-working forges served the blacksmithing needs of farming and rural communities, and were also built on large estate farms.

Fowl house See poultry housing

Goose house A structure providing secure housing for geese.

Granary A building, or first-floor room in a building, for the dry and secure storage of grain after it has been threshed and winnowed.

Grange An outlying farm or estate, usually belonging to a medieval religious order or feudal lord. Specifically related to core buildings and structures associated with monastic land holding. Use specific term where known.

Half-hipped roof A roof in which the gable wall rises above the height of the eaves but does not extend to the apex.

Hay barn An open-fronted building for the dry and well-ventilated storage of hay.

Hay loft Storage for hay above cart shed, cattle housing or stables.

Hemmel A small roofed shelter for cattle without tethering point or stalls, but with a small yard attached. Mostly found in north-east England.

Hen house A structure providing secure housing for hens. See poultry housing.

Hipped roof A roof with slopes at the gable ends of equal or similar length to the side slopes. The gable walls do not rise up to the apex but are of similar height to the side walls. The top ends of the rafters that do not extend to the ridge are carried on a hip rafter.

Hop kiln In the West Midlands a building in which hops are dried and stored. Known as an oast or oast house in south east England.

Hop pickers' hut Building for the accommodation for temporary workers employed in the 19th and 20th centuries to pick hops.

Horse engine house A round or polygonal building containing a horse engine used for powering threshing and other machinery; typically found projecting from barns.

Irregular enclosure Patterns of fields of variable size and form, lacking any form of overall planning and generally reflecting a piecemeal or erratic process of creation. May date from the prehistoric to the post-medieval periods, but are invariably pre-18th century. They are often associated with dispersed settlement, commons and greens.

Iron Age Period of human social development crudely defined by the use of iron tools and weapons between about 1000 BC and the beginning of the Roman Conquest of Britain in AD 43.

Horse yard A yard for horses that is attached to a stable range.

Kiln A furnace or oven for burning, baking or drying. See corn-drying kiln, hop kiln, maltings.

Kitchen A detached building sited close to the house that may have

originated as a dairy or – often in the 16th and 17th centuries – as a detached kitchen for brewing, baking and other purposes.

L-plan (house attached) A farmstead where the farmhouse and working buildings are attached and in-line. They can comprise the extension of linear plan farmsteads.

Lean-to A building, usually a later addition, which is constructed against the side of a larger building. Lean-tos typically have a mono-pitch roof. See Outshot.

Linear plan A farmstead where the house and working buildings are attached and in-line.

Longstraw thatch Term used to describe a thatching method where the ears and butts of the straw are mixed. The stems of the straw are bruised and crushed and the result is a generally looser coat than combed wheat reed or water reed. The appearance of the roof is quite different from combed wheat reed and water reed, with a much thicker covering of straw.

Loose box A separate compartment, with its own door, for fattening cattle and sometimes housing bulls.

Loose courtyard plan A farmstead where mostly detached buildings have developed around four sides of an open cattle yard.

Malthouse A low-ceilinged building for the malting of barley before brewing, specifically for the germination of the crop on malting floors and then drying in a kiln.

Meadow A field maintained for providing grass for grazing and for making hay.

Medieval Broadly speaking the period from the emergence of the English settlements in the 7th century through to the Dissolution and Reformation in the early 16th century. It is more commonly used to define the period following the Norman Conquest. The term early medieval is often used to cover the period of Norse, Danish and Anglo-Saxon settlements from the 7th century to the Norman Conquest.

Mesolithic 'The Middle Stone Age' A period of human development which saw the spread of hunter-gather communities across north west Europe after the end of the glaciation (c 8000–4000 BC).

Midstrey Term used in southern England and East Anglia for the projecting porch to a barn.

Mill A building for the milling of corn to flour.

Mud and stud A type of earth walling that uses an inner core of timber stud walling. It is found in parts of Lincolnshire, Nottinghamshire and Leicestershire. Many examples of this walling technique may survive behind later brick skins.

Mixing house A building, usually part of another building and located close to the cattle yard, where grain, cake and roots for animals would be prepared for animal feed.

Neolithic 'The New Stone Age' The period of human societal development characterised by the introduction of agriculture and use of stone tools, spanning the period 4000–2000 BC.

Nucleated settlement Settlement pattern consisting mainly of villages with relatively few isolated farmsteads or hamlets. Large, nucleated, villages are concentrated in a central band running from Northumberland southwards to Somerset and Dorset.

Open-field system A system in which farmland was held in common with the strips of individual farmers intermixed across several fields, in origin varying in date from the 9th century or even earlier to as late as the 17th century (in northern Northumberland). Open-field systems rarely had hedges between strips or fields. Over time the strips were usually consolidated and eventually enclosed. Enclosure of open fields results in characteristic field patterns where the boundaries form an elongated reversed 'S'.

Oast or oast house In south-east England a building in which hops are dried and stored. In the West Midlands they are known as hop kilns.

Outfarm A complex of buildings set within the fields away from the main farmstead, usually including a barn for corn and/or hay and cattle housing set around a yard.

Outshot A building or lean-to, usually a later addition, which is constructed against the side of a larger building.

Ox house A building, or part of a building, for housing draught oxen.

Pantiles Clay roofing tiles with a wavy profile. They originated in Holland and became popular along the north-east coast. Also made in Somerset.

Pastoral farming Farming system based predominantly on the rearing or fattening of stock. Pastoral areas are usually predominantly grassland but in some areas arable cultivation was also important, providing fodder crops for the animals as well as corn crops for domestic use.

Parallel Plan A farmstead, often of linear plan, where the working

buildings are placed opposite and parallel to the house and attached working buildings with a relatively narrow space between.

Piecemeal enclosure The enclosure of areas of land field by field, possibly through assarting, as opposed to the wholesale enclosure of large tracts of land and the creation of large field systems.

Piggery A structure providing secure housing for pigs.

Pigsty An enclosure for pigs that includes a covered pen and yard.

Portal-framed shed Mass-produced iron-framed shed usually clad in metal sheeting.

Poultry housing Structure providing secure housing for poultry.

Quoin The stones or brickwork set at the corner of a building. In areas of poor-quality local building stone the quoins would be made out of bricks or a better-quality stone that could be worked square.

Rams' pens Cubicles for housing rams, resembling pigsties with their own yard but slightly larger.

Regular Courtyard plans A farmstead where mostly interlinked buildings are set around an open yard.

Regular enclosure Rigorous rectilinear field system introduced over previously unenclosed land or to supersede earlier irregular enclosures. Mainly associated with the period of agricultural improvements from 1650, and especially from 1750.

Rick yard A yard, usually sited close to the barn, in which the harvested corn crops could be stored in ricks or stacks to await threshing. The ricks would be built on raised platforms to protect the grain from rodents and thatched to protect from rain. Also known in northern England as a stack yard.

Ridge and furrow Long, parallel ridges of soil separated by linear depressions, caused by repeated ploughing using a heavy plough. They were characteristic of open field systems, and mostly survive in central England.

Root store or root house Room or clamp for storing root crops.

Row plan A farmstead where the main working buildings are attached in-line and form a long row often facing a series of yards.

Shelter shed Open-fronted structures for cattle facing onto cattle yards.

Silage clamp An airtight container for the storage of freshly cut grass and its conversion into silage.

Silage tower A tower for the airtight storage of freshly cut grass and its conversion into silage.

Smallholding The smallest scale of farmstead, associated with subsistence farming combined with by-employment in industry. Smallholdings are usually found grouped together around areas of common land.

Stable A building, or part of a building, for housing horses or working oxen, storing and maintaining their tackle and sometimes housing farm workers.

Staddle stone Staddle stones usually comprise two stones: an upright column that is capped by a circular stone of larger diameter, typically with a rounded top, together forming a mushroom shape. Staddle stones prevented rodents climbing up into granaries, ricks and staddle barns.

Stall A standing for a cow or horse within a byre or stable. Stalls are usually divided by wooden or stone partitions to prevent animals biting and kicking each other.

Tar Tank A vessel used to hold the hot tar that was used to preserve hop poles from rot in advance of the invention of Creosote.

Threshing barn A barn usually containing a single, central threshing floor and bays for storing the threshed corn.

Tithe A barn used for the storage of tithes. The tithe was the payment of a tenth of crops and produce paid to the Rector of the church for his maintenance. Payment in kind was generally changed to a cash payment in the mid-19th century although this occurred earlier in some parishes.

Watermeadow A valley-floor meadow that was subject to controlled flooding using a system of drains and sluices to encourage early grass growth, providing spring food for sheep. The flooding brought nutrients onto the land, improving hay crops.

Wattle An interwoven panel usually made from hazel used to infill timber framing. Wattle could be covered in daub or left uncovered if more ventilation was required.

Well house A building over well housing machinery for raising the water.

Wheel house See horse engine

Workers' house A house for farm workers and their families.

Yard An area enabling general movement and access to the farmhouse and working buildings and for livestock, the storage of harvested crops, timber and other products.

KENT COUNTY COUNCIL – PROPOSED RECORD OF DECISION

DECISION TO BE TAKEN BY:	DECISION NO:
David Brazier, Cabinet Member – Transport & Environment	13/00046

For publication

Subject: Formal endorsement of the Kent Farmsteads Guidance

Decision:

As Cabinet Member for Transport & Environment, I agree to the formal endorsement of the Kent Farmsteads Guidance by Kent County Council.

Reason(s) for decision:

Government has long sought to promote the use of redundant buildings to support rural economies, most recently within the Growth and Infrastructure Bill, through the creation of Permitted Development rights to allow the change of use of agricultural buildings to other non-residential uses, and through the National Planning Policy Framework which emphasises the delivery of sustainable development whilst stressing the importance of understanding local character and distinctiveness. The Kent Farmsteads Guidance aims to inform and achieve the sustainable development of farmsteads, including their conservation and enhancement. The formal endorsement of the Guidance by Kent County Council will encourage its use by landowners, applicants and planners and achieve the aim of promoting sustainable development.

Cabinet Committee recommendations and other consultation:
To be entered after the meeting and considered by the Cabinet Member when taking the decision.

Any alternatives considered:

N/A

Any interest declared when the decision was taken and any dispensation granted by the Proper Officer:

.....
signed

.....
date

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From: David Brazier, Cabinet Member - Transport & Environment

Mike Austerberry, Corporate Director - Enterprise & Environment

To: Environment, Highways & Waste Cabinet Committee – 19 June 2013

Decision No: 13/00047

Subject: Variation of Traveller pitch allocations policy for Coldharbour Gypsy & Traveller site, Aylesford

Classification: Unrestricted

Past Pathway of Paper: The Countywide Pitch Allocations Policy was agreed by the Environment, Highways and Waste Cabinet Committee in July 2012. This is a proposed variation to that policy.

Future Pathway of Paper: For Cabinet Member Decision.

Electoral Division: Those living in any Member division may be affected, but in very small numbers.

Summary: This report explains why the local circumstances mean that the allocation policy for pitches on the new Coldharbour Gypsy & Traveller site should be different from the standard KCC Traveller pitch allocations policy agreed in 2012. It highlights the factors considered, the risks of challenge, and the equality implications of the proposed varied policy.

Recommendation(s): The Cabinet Committee is asked to make recommendations to the Cabinet Member for Transport & Environment on the proposed decision to vary the KCC Traveller pitch allocations policy for Coldharbour site, Aylesford as attached at appendix A.

1. Introduction

1.1 This is a report which proposes that the allocation of seventeen of the new pitches on the twenty-six pitch new site at Coldharbour should be allocated on a different basis to the standard allocation policy agreed by KCC last year.

1.2 Nine families already live on the site, and will remain living there.

1.3 The justification for varying the standard policy is the agreement, from when the new site was first proposed, that the new pitches were primarily to meet local need, coupled with the particular local needs which exist, including from those who have established sites, without prior consent, on Green Belt land and other areas of high planning constraint.

1.4. The proposed variation will not prevent any other waiting-list applicants being given reasonable preference for consideration, based on the needs for accommodation which they have. It will, however, give greater priority to those with a local connection.

1.5. As with any such cases, care needs to be taken that both the policy variation, and decisions made under it, comply with the various legal duties and requirements placed on one or both of the councils who are promoting this site and this proposed variation.

2. Financial Implications

2.1 There are no different financial implications for this decision, compared with the use of the standard allocation policy. In both cases, there are some risks of legal challenge, potentially by applicants unsuccessful in their applications for pitches on the new site.

3. Bold Steps for Kent and Policy Framework

3.1 This proposed decision puts the citizen in control, by meeting local accommodation needs appropriately.

It also helps to tackle disadvantage.

3.2 There is no specific plan or strategy within the Council's Policy Framework on this subject.

4. The Report

4.1 Relevant History

1. The pitch allocation policy for Gypsy & Traveller sites owned and managed by KCC's Gypsy and Traveller Unit was agreed by decision number 12/01920.
2. It introduced a points system for all applicants, with 20 points being awarded to applicants with a "Local Connection" to the Borough or District where the site is located that they are applying for. Applicants can apply for any one or more of the sites owned and managed. Their points may be different for different sites.
3. Other points awardable for such matters as homelessness, numbers of children, health and education issues, can, however, exceed the numbers of points for local connection.
4. During the debate at Cabinet Committee on 4 July 2012, as recorded on the webcast, the Head of the Gypsy & Traveller Unit told the Committee that the allocation policy for the Coldharbour new site pitches "may be varied from the standard policy".
5. The reason for this is that, as part of the agreement with Tonbridge & Malling Borough Council, first established in 2007, the new site has always been "primarily to meet local needs", needs as originally evidenced from a Gypsy and Traveller Accommodation Assessment jointly commissioned by four borough councils, including TMBC, and published in 2007.
6. A further Gypsy and Traveller Accommodation Assessment was commissioned by the Borough Council in 2012, and indicates higher future needs for accommodation than the 2007 study. A report on it is attached as Appendix E to this report.

7. Tonbridge & Malling Borough has approximately eight unauthorised developments established on sites with high levels of planning constraint. All are within the Green Belt. Some other applicants on the waiting-list are currently in unsatisfactory or overcrowded accommodation.
8. Over 80% of the Borough, by land area, is Green Belt land, all the current developments that are either unauthorised because they do not have planning permission, or have temporary planning permissions that are due to expire shortly, are within the Green Belt.. Appendix E to this item details the planning background.
9. Those planning applicants and appellants submit that they have no choice but to buy land and develop, without planning consent, in such locations, to meet their accommodation needs.
10. In addition, there appear to be enough families on the current waiting-list, with genuine local connection to TMBC's area, to fill all the 17 pitches which will become available, in addition to those 9 being occupied by families already living on the site.

4.2 Consultations

1. Detailed consultation was carried out in Spring 2012 on the proposed countywide allocation policy.
2. The outcome of this consultation not only informed the process leading up to the adoption of the standard allocation policy, but it and subsequent representations have informed these current proposals for variation for these particular new pitches and their allocation.

4.3 Any legal implications of the suggested action

1. As a result of the proposed variation of the previous policy, detailed legal advice was obtained about the way in which this could be done, and the justification that would be needed.
2. That advice said that extra weighting could be given to applicants on the waiting-list, if there were credible reasons for doing so.

4.4 Any equalities implications of the suggested action

1. In addition, an Equalities Impact Assessment was conducted, to test the proposed variation of the policy against the equality considerations.
2. The Equalities Impact Assessment Screening Grid is Appendix C to this item.

4.5 Options considered and dismissed – including maintaining the status quo

1. A series of options have been considered over the past year or so.
2. The status quo would mean that all applicants were considered solely on the numbers of points they received.
3. As the waiting-list, following consultation in Spring 2012, has no geographical limits on it, this would mean that allocations would be made solely on the basis of the numbers of points, and offers would be made to a wide range of applicants from within and outside Kent.
4. The implications for Tonbridge & Malling would be that this new site, supported over the last five years by both local authorities primarily to meet local need, would meet only a small proportion of that local need, and that most of the local need would remain unmet by it.

5. In addition, unauthorised development within Green Belt would be relatively unaffected by the provision of this site.
6. A second option would be simply to favour those with local connection, regardless of other factors, changing the points award of 20 points so that those with local connection automatically had offers made to them.
7. This, however, could be unfair to those with high needs who might live in adjacent boroughs, and be entitled to "reasonable preference" in being considered for a new pitch on the site.
8. A third option is to give a priority to those with local connection, but not to the exclusion of all others.
9. The fourth option, reflected in the Local Lettings Plan, included as Appendix D, gives "first consideration" to applicants with a local connection, but then considers those on the general waiting-list, and then those who have made a special case, based on exceptional circumstances, to be included on the list.
10. This is recommended as the most proportionate option of the four considered. It gives "reasonable preference" to everyone on the waiting-list for the new pitches, while giving first consideration to those with local connection, reflecting the agreed aims of the site since it was first proposed five years ago. The Local Lettings Plan gives first preference to those on Green Belt land whose planning consent has expired, or who have no planning consent, and, in either case, can show accommodation need.

4.5 Any implications for the council's property portfolio of the suggested action

1. There are no implications for the council's property portfolio of the suggested action.

4.6 Who is likely to inherit the main delegations via the Officer Scheme of Delegation – eg does a contract need signing who is likely to do it?

The Officer Scheme of Delegation is being updated so that it covers decisions on pitch allocations, as well as other matters.

5. Conclusions

I conclude that there is adequate justification, based on the particular planning circumstances within Tonbridge & Malling, and the history of the development of the site, for there to be a variation to the standard pitch allocation policy for the new Coldharbour pitches, and that the variation proposed is the most proportionate option available.

6. Recommendation

Recommendation:

The Cabinet Committee is asked to make recommendations to the Cabinet Member for Transport & Environment on the proposed decision to vary the Traveller pitch allocations policy for Coldharbour site, Aylesford as attached at appendix A.

7. Background Documents

APPENDIX A: Proposed Record of Decision 13/00047

APPENDIX B: Allocations Policy agreed under Decision 12/01920

APPENDIX C**:** Equalities Impact Assessment Screening Grid

APPENDIX D: Local Lettings Plan

APPENDIX E: “A Revised Gypsy And Traveller Accommodation Assessment For Tonbridge and Malling” – Paper To Tonbridge & Malling Borough Council’s Planning And Transportation Advisory Board Of 4 June 2013

8. Contact details

Report Author:

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Relevant Director:

Paul Crick, Director of Planning & Environment
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KENT COUNTY COUNCIL – PROPOSED RECORD OF DECISION

DECISION TO BE TAKEN BY:	DECISION NO:
David Brazier, Cabinet Member for Transport & Environment	13/00047

For publication or exempt – please state: For Publication

Subject: Variation of Traveller pitch allocations policy for Coldharbour site, Aylesford

Decision:

As Cabinet Member for Environment and Transport, I agree to the proposed variation of the standard countywide pitch allocation policy for the pitches on the Coldharbour site in Aylesford.

Reason(s) for decision: There needs to be a variation of the Traveller standard pitch allocation policy for the remaining pitches on the new Coldharbour site, because it has always been a redevelopment primarily to meet local need, the local need in the area is higher now than when the new site was first embarked on, and the proposed decision takes account of all the equality and legal factors, to ensure "reasonable preference" for all those on the waiting-list, and the need to balance local connections with other needs of those on the list.

Cabinet Committee recommendations and other consultation:
To be entered after the meeting and considered by the Cabinet Member when taking the decision.

Any alternatives considered: Four different options have been considered in partnership with Tonbridge & Malling Borough Council, and the option proposed is recommended as the most proportionate one.

Any interest declared when the decision was taken and any dispensation granted by the Proper Officer: [TO BE ADDED, IF THEY ARISE]

..... signed

..... date

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KENT COUNTY COUNCIL - RECORD OF DECISION

DECISION TAKEN BY BRYAN SWEETLAND	DECISION NO. 12/01920

If decision is likely to disclose exempt information please specify the relevant paragraph(s) of Part 1 of Schedule 12A of the Local Government Act 1972

Subject: Gypsy and Traveller Pitch Allocation Policy

Decision: To agree the new Allocation Policy, as detailed in Agenda Item B3 of EHW Cabinet Committee on 4 July 2012

Any Interest Declared when the Decision was Taken

Reason(s) for decision, including alternatives considered and any additional information Background Documents:

- **Allocation policy first agreed in 1997, and needs to be revised and updated**
- **New policy along similar lines to allocations for social housing**
- **New policy much more transparent than current one**
- **Detailed and wide-ranging consultation this spring helped shape the proposed new policy**

signed [signature] date: 24 July 2012

FOR LEGAL AND DEMOCRATIC SERVICES USE ONLY

Decision Referred to Cabinet Scrutiny			
YES		NO	

Cabinet Scrutiny Decision to Refer Back for Reconsideration			
YES		NO	

Reconsideration Record Sheet Issued			
YES		NO	

Reconsideration of Decision Published

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APPENDIX C

KENT COUNTY COUNCIL

EQUALITY IMPACT ASSESSMENT

Please read the EqIA GUIDANCE and the EqIA flow chart available on KNet.

Directorate:
EE PE

Name of policy, procedure, project or service
Variation to the Gypsy and Traveller Pitch Allocation Policy for Coldharbour Gypsy & Traveller Site, Aylesford, Tonbridge & Malling.

What is being assessed?
Impact of proposed variation to the Allocations Policy

Responsible Owner/ Senior Officer
Bill Forrester

Date of Initial Screening
5th June 2013

Screening Grid

Characteristic	Could this policy, procedure, project or service affect this group less favourably than others in Kent? YES/NO If yes how?	Assessment of potential impact HIGH/MEDIUM LOW/NONE UNKNOWN		Provide details: a) Is internal action required? If yes what? b) Is further assessment required? If yes, why?	Could this policy, procedure, project or service promote equal opportunities for this group? YES/NO - Explain how good practice can promote equal opportunities
		Positive	Negative		
Age	Yes, the variation (LLP) could have an effect on this protected characteristic as it is suggested that those with most need that are not resident on an unauthorised site or without local connection may be disadvantaged. Whilst applicants must be aged 18 or over, the policy supports those aged 60+ who may also have substantial or moderate medical conditions and these applications are assessed case by case. Special considerations are also given to families with school age children.	none	low	a) Each case will be judged on its merits which will include applicants who are under 18 years and have young children or are pregnant b) Evidence will need to be verified in order to confirm that priority need and vulnerable persons are identified	No – However best practice will ensure that all applications are investigated and points awarded to promote independence and equality however those on unauthorised sites will take overall priority. Currently there are less than 20 unauthorised sites in the borough.
Disability	Yes, the variation (LLP) could have an effect on this protected characteristic as it is suggested that those with most need that are not resident on an unauthorised site or without local connection may be disadvantaged. The allocations policy supports those with disabilities, applicants with a registered or recognised	none	low	a) Each case will be judged on its merits. b) Evidence will need to be verified in order to confirm that priority need and vulnerable persons are identified. Any applicant who declares any type of disability without evidence will be sign posted to the appropriate agencies in order that reasonable adjustments can be made.	No – However identification and referrals to appropriate services will promote independence and equality

	disability will have their case assessed fully.			a) as cases of exceptional need will be judged on their own merits, men with exceptional health or other needs will be fairly considered. b) No further assessment is required at present, but the policy will be reviewed six months after the new pitches are available, and annually thereafter.	
Gender	The variation to the policy could impact more on men than women, but only because children get points within the points system, and children may be more likely to be living with their mother, if with only one parent. But the impact is low and overall it is a proportionate means to achieve a legitimate objective of advancing stability for children through access to site accommodation.	none	low		
Gender reassignment	There can be strong feelings on this issue amongst many close-knit communities, including those in Traveller communities. But this issue would not stop a pitch offer being made. The benefits of diversity apply to all communities, and the management of stereotypical approaches would be a separate issue from the decision about allocation.	none	low	a) there is currently no question on this on the application form, but consideration will be given to this. b) If information like this is provided, further assessment can be carried out.	
Race	Although some may argue that English Gypsies and Irish Travellers cannot live on the same site, there are sites where they clearly co-exist peacefully. The policy variation will make no distinction on grounds of race. Members of either of the two main racial groups, if they meet the criteria for selection, will be	n/a	n/a	a) It is important to ensure equal access to sites for members of both main communities (and others), b) The review of the Local Lettings Plan can review the actual impact that has occurred, and recommend any corrective action required.	Positive Policy on this could certainly promote more equal opportunities, and wider awareness. Just the fact of different races living successfully on the same site will send out a powerful message.

	offered pitches. The policy does not include any requirements which are less able to be met by members of either group, although there are more English Gypsies than Irish Travellers within the Borough, as far as is known.				
Religion or belief	The policy variation should have little or no impact on the likelihood for pitch offers of those with different religions or beliefs. We cannot foresee this characteristic making any difference, while we respect it.	none	low	No further internal action or further assessment is required at this stage, but review in future will be essential.	Positive Policy on this could certainly promote more equal opportunities, and wider awareness.
Sexual orientation	As with gender reassignment, there can be strong views within Traveller communities on this issue. But it would have no foreseeable impact on the selection process, and any issues would be managed separately.	none	low	No further internal action or further assessment is required at this stage, but review in future will be essential.	Positive Policy on this could certainly promote more equal opportunities, and wider awareness.
Pregnancy and maternity	The policy variation could have an effect on pregnant women or new mothers, if they are not resident on an unauthorised site and without local connection. Where an applicant or their partner is pregnant, however, the points system reflects it, and any exceptional cases of those from other areas can be considered on a case by case basis. Due to Children Act duties, we believe that the overall policy is a proportionate	none	low	No further internal action or further assessment is required at this stage, but review in future will be essential. a) Given the high infant mortality rate for this community access to healthcare will be given as high priority. b) Communication with the applicant will ensure all aspects are considered.	No – however due to the transitory nature of the community access to healthcare is a priority.

	means to achieve the objective.				
Marriage and Civil Partnerships	No-one will be disadvantaged or gain advantage either from being married or in a civil partnership, or not being. However, the applicant and any family's overall circumstances will broadly dictate their initial priority. Local connection and especially the need to vacate a private site or encampment will, however, have a considerable bearing on allocation decisions.	none	low	No further internal action or further assessment is required at this stage, but review in future will be essential.	yes

APPENDIX D

Local Lettings Plan - Coldharbour Site Aylesford

Aims of the Local Lettings Plan

This Local Lettings Plan (LLP) is designed to work alongside and in conjunction with Kent County Council's (KCC) Allocation Policy, for the provision of pitches on the Coldharbour site which takes account of Tonbridge & Malling's Gypsy and Traveller accommodation needs, through initial and future lets. The LLP is to be the determining influence to ensure that the Coldharbour site, as far as reasonably practicable, serves this purpose.

There are a limited number of pitches, and it is not possible to provide a pitch for everyone who applies.

Eligibility criteria to apply for a Pitch

All applicants must already be eligible for and placed upon Kent County Council's Gypsy & Traveller Unit Plot Waiting List. The purpose of the lettings plan for the Coldharbour site is to enable the site to meet the identified need for Gypsy & Traveller accommodation within Tonbridge & Malling as set out in the GTAA 2012 (or subsequent review of that document) and helps to address the issues arising from unauthorised developments. As a proportionate means to meeting the identified needs, this LLP gives first consideration to those who are able to evidence both a local connection to and accommodation need within Tonbridge & Malling, as defined below.

Local Connection Definition

An applicant fulfilling **one or more** of the following criteria is defined as having a local connection to Tonbridge & Malling:

i) An applicant who currently lives within the borough of Tonbridge & Malling, and has done so continuously for at least 12 months;
ii) An applicant who has close family that have lived in the borough of Tonbridge & Malling for at least the past three years consecutively. Close family members are either: mother, father, sibling, or grandparent of the applicant;

Accommodation Need Definition

An applicant fulfilling both the following criteria is defined as having an accommodation need in Tonbridge & Malling:

i) Essential need in accordance with the Points Rating Criteria in the KCC Gypsy and Traveller Sites Pitch Allocation Policy set out in the Plot Waiting List Application Form.

ii) An applicant who is currently living on an unauthorised site (or a private site where the planning consent has expired or is due to expire within one month of a pitch becoming available for re-letting) where the waiting list applicant is the planning applicant and has exhausted the planning process; this reflects the profile of need set out in the GTAA.

Allocation Process

Allocations will be made in accordance with the following sequence:

A) First consideration will be given to those applicants with evidenced accommodation need in, and local connection to, Tonbridge & Malling.

B) Where there are no suitable applicants that meet the criteria in A) KCC's County wide Allocation Policy will apply.

Notwithstanding the above, allocations may be made to people whom KCC and TMBC consider to be qualifying persons, on a case by case basis because of exceptional circumstances.

Local Lettings Plan Review

This Local Lettings Plan will be reviewed by Kent County Council and Tonbridge & Malling Borough Council after an initial period of six months from the site being fully opened and thereafter on an annual basis. The review may include the consideration of:

- Whether the LLP is fulfilling the stated aims and objectives.
- Turnover of vacancies
- Failed tenancies and the reasons why
- Households accessing/needing support services
- Crime or anti-social behaviour and any impact this may be having locally
- General tenant satisfaction

KCC and TMBC may consider other relevant issues from time to time as necessary when reviewing this Local Lettings Plan.

APPENDIX E

TONBRIDGE & MALLING BOROUGH COUNCIL

PLANNING and TRANSPORTATION ADVISORY BOARD

04 June 2013

Report of the Director of Planning, Housing and Environmental Health

Part 1- Public

Matters for Recommendation to Cabinet - Non-Key Decision (Decision may be taken by the Cabinet Member)

1 A REVISED GYPSY AND TRAVELLER ACCOMMODATION ASSESSMENT FOR TONBRIDGE AND MALLING

This report summarises the results of the revised Gypsy and Traveller Accommodation Assessment (GTAA) and sets out a proposal for responding to future needs through the Local Plan process.

1.1 Introduction and Background

1.1.1 The Housing Act in 2004 placed a duty on Local Authorities to produce accommodation needs assessment for Gypsies and Travellers and in 2005/6 DCA Research completed a first GTAA for Tonbridge and Malling jointly with Tunbridge Wells, Ashford and Maidstone. This assessment is now out of date.

1.1.2 In March last year the Government published the National Planning Policy Framework (NPPF) and also a separate document entitled 'Planning Policy for Traveller Sites' (PPTS). It is anticipated that the PPTS will be incorporated into the NPPF at some point in the future. For the time being they are to be read in conjunction with each other.

1.1.3 Policy A of the PPTS, entitled 'Using an Evidence Base to Plan Positively and Manage Development' notes that in assembling evidence to support their planning approach, Local Planning Authorities should pay particular attention to early and effective community engagement, including discussing Traveller's accommodation needs with Travellers themselves, their representative bodies and local support groups. Local Planning Authorities should work collaboratively with neighbouring authorities and use a robust evidence base to establish accommodation needs to inform local plans and make planning decisions.

1.1.4 In September 2012 Salford Housing and Urban Studies Unit, part of Salford University, were commissioned jointly by the Council together with Ashford and

Gravesham Councils to prepare new GTAAs for each of the authorities using an established methodology already used to update GTAAs in Sevenoaks and Maidstone earlier in 2012. Since commissioning last autumn, most of the Kent Districts have since decided to use Salford for this task ensuring a consistent approach across the County.

1.1.5 Surveys with the Gypsy and Traveller community located in Tonbridge and Malling were carried out in October 2012 and a first draft report received before Christmas. Following discussions with the consultants it was decided to separate out the Gypsy and Traveller needs into a Part One report and the Travelling Show People needs into a Part Two report as the former was becoming an urgent piece of evidence in a number of ongoing appeals. This report concerns the final Part One report, which was received in May. It is anticipated that the Part Two report concerning Travelling Show People will also be finalised shortly.

1.2 Summary of Key Findings

1.2.1 An Executive Summary of the Assessment can be found at **[Annex 1]** to this report.

1.2.2 The assessment was informed by a review of the results of the previous GTAA and published data sources including the biannual caravan count, 2011 Census and local authority information. The survey of 56 Gypsy, Traveller and Travelling Show People households carried out in October 2012 represents an estimated 55% of the total population of 102 households living in the borough, which is considered to be a representative sample and statistically sound for the purposes of this assessment.

1.2.3 The consultants concluded that the resident population comprises at least 380 individuals or 102 households distributed across the following accommodation types:

1.2.4 24 households living on two socially rented (public) sites (Coldharbour and Windmill Lane, both managed by Kent County Council).

1.2.5 5 households on four privately owned sites, two with permanent planning permission (Rear of the Harrow Public House, Hadlow and Orchard Place, Offham) and two with temporary permissions (Rear of Methodist Church, Offham (to 7.7.13) and Sunny Meadow/Paddock Leybourne (to 22.8.14)).

1.2.6 7 households on two sites, formally unauthorised, but deemed to be lawful or tolerated (Hoath Wood and Church Lane East Peckham).

1.2.7 10 households on seven unauthorised developments (these sites were subject to appeals or enforcement action at the time of the survey. Five cases are still under consideration (The Horseshoes, Sandy Lane Offham; The Hollies, Askew Bridge, Platt; Malling Meadows, Teston Road, West Malling; Land west of Branbridges Road, East Peckham).

1.2.8 Two appeals at Well Street and Old Orchard were allowed in March this year. These households are now privately owned sites with planning permission and this has to be taken into consideration when looking at the bottom line.

1.2.9 52 households in bricks and mortar. These are gypsy and traveller households living in houses in the borough.

1.2.10 There are also 3 Travelling Showpeople households located at Constitution Hill, Snodland (privately owned, with planning permission) and one unconfirmed unauthorised encampment, also a Travelling Showperson household.

1.2.11 The average household size is four, although this varies across accommodation types. There are strong local connections across the whole population, although this varies within the families living on the unauthorised developments, with the exception of Hoath Wood. The local population is predominantly Romany Gypsy (80%), with smaller numbers of Irish Travellers and Travelling Show People.

1.2.12 The survey showed that the local population is quite static with those who do tending only to travel for one to two weeks a year.

1.2.13 The need assessment for the period to 2012-2028 is summarised in Table (i) of the appended Executive Summary (There is a more detailed breakdown in Table 9.1 of the full report). The need is expressed in terms of pitches needed. It is worth noting that a pitch generally equates to a single family unit or household, which may represent more than one caravan – this can lead to some confusion when comparing figures from the caravan count and needs assessments.

1.2.14 The need for the first five year period (2012-2017) is for 22 new pitches.

1.2.15 The assessment has assumed all of the new capacity at Coldharbour Lane (18 additional pitches during 2013) is available to meet the needs in Tonbridge and Malling, leaving a net need of four pitches. This assumption may have to be qualified by the allocations policy adopted by KCC and the comments in the recent appeal Inspector's reports, which will be addressed below.

1.2.16 The two allowed appeals reduce this figure by a further three pitches leaving a pitch need of one for the period to 2017.

1.2.17 The need for the remaining years to 2028 is 17 pitches. This means the total net need for additional pitches in Tonbridge and Malling between 2012-28 is 18, taking into consideration the recent appeal decisions and assuming all of the Coldharbour pitches are made available.

1.2.18 The consultants recommend revisiting the assessment in approximately five years.

1.3 Implications of Recent Appeal Decisions

1.3.1 The two allowed appeals at Well Street, East Malling and Old Orchard, Rochester Road, Aylesford in March were accompanied by Inspector's reports which made similar points in reaching their decisions.

1.3.2 The Council's case was based on the fact that the sites were an inappropriate use and contrary to planning policy and also that new provision for approved pitches is being made available at the Coldharbour Lane site. Neither of the sites are located in the Metropolitan Green Belt.

1.3.3 Although both Inspectors attributed some weight to personal circumstances that would have made moving to the Coldharbour site difficult for the appellants, the main reason for allowing the appeals was that the extra pitches at an expanded Coldharbour could not be guaranteed for families living in the Borough, pending the final allocations policy agreed by KCC, and in any case only offering one public site was not, in the Inspector's opinions, sufficient in terms of meeting the Government's new Traveller policy, which requires a range of options and more choice. **In that context**, the Council could not demonstrate an adequate five year supply of pitches.

1.3.4 The implications of these decisions are that in planning to meet future need the Council will have to consider identifying sites that are suitable for future private pitches in addition to the public pitches already being developed at Coldharbour. In the shorter term, there are also implications for the ongoing appeals, if the Council cannot rely on the additional capacity at Coldharbour in contributing towards future supply.

1.4 Planning to Meet Future Needs

1.4.1 The level of need is relatively low in Tonbridge and Malling compared to neighbouring authorities. For example, Sevenoaks District and Maidstone Borough have a significantly higher unmet need of 40 and 105 pitches respectively for the first 5 year period of their GTAAs (2011-16).

1.4.2 This and the fact the Council is embarking on a new Local Plan that is anticipated to be adopted by 2015 points towards planning for any new need arising through the Local Plan process, rather than as a separate Development Plan Document.

1.4.3 The Local Plan process will involve objectively assessing needs for a wide range of uses over the plan period, for new homes, employment sites, infrastructure, leisure and town centre uses as well as accommodation needs for Gypsies and Travellers. In doing so it will be essential to engage with and consult local communities. It will also be necessary to work collaboratively with neighbouring authorities in accordance with the Duty to Cooperate.

1.4.4 As previously noted, most of the Kent Districts are in the process of updating their GTAAs. Each District is exploring ways of meeting local needs internally, but there

may a need to discuss a more strategic approach in due course. This may be more pertinent with regard to meeting the future needs of Travelling Show People due to the nature of their businesses and the propensity to travel. There is currently little enthusiasm for the latter among the Kent authorities, although there are indications that authorities in Surrey and Greater London may be more interested in such a study.

1.5 Concluding Remarks

1.5.1 The revised GTAA for Tonbridge and Malling (Part One) has been finalised and updates and replaces the DCA study of 2005/6. It provides a robust and relevant piece of evidence for the ongoing and future appeals and the basis for planning for future provision of pitches through the Local Plan.

1.5.2 The levels of need for the next five years and over the study period up to 2028 are relatively modest compared to neighbouring authorities. The level of need is influenced by the allocation of pitches and contribution of the additional capacity at Coldharbour Lane expected to be made available during 2013. Planning for future capacity will also have to take into account the new PPTS requirement, introduced by Government, for there to be a choice of public and private sites.

1.6 Legal Implications

1.6.1 The Housing Act 2004 places a duty on Local Housing Authorities to prepare GTAAs. This is reinforced in the NPPF and PPTS for Local Planning Authorities.

1.7 Financial and Value for Money Considerations

1.7.1 The joint commissioning of Salford University is expected to deliver a cost saving the final details of which will be known when the Part 2 report is finalised.

1.8 Risk Assessment

1.8.1 Failure to demonstrate an up to date GTAA and a five year supply of deliverable sites can result in planning appeals being upheld.

1.9 Equality Impact Assessment

1.9.1 See 'Screening for equality impacts' table at end of report

1.10 Policy Considerations

1.10.1 The results of the GTAA will provide the evidence base for revised policies for meeting the needs of Gypsies and Travellers and Travelling Show People in the new Local Plan.

1.11 Recommendations

1.11.1 That Members note the finalisation of the revised Part One Gypsy and Traveller Accommodation Assessment and the key findings summarised in this report; and

1.11.2 Recommend Cabinet agree the proposed way forward set out in Section 1.4 to plan to meet the objectively assessed needs for future accommodation to 2028 via the Local Plan process.

The Director of Planning Housing and Environmental Health confirms that the proposals contained in the recommendation(s), if approved, will fall within the Council's Budget and policy Framework.

Background papers:

Gypsy, Traveller and Travelling Showpeople Accommodation Assessment: Tonbridge and Malling Part 1: Gypsy and Traveller Assessment (Salford University April 2013)

contact: Ian Bailey
Planning Policy Manager
Lindsay Pearson
Chief Planning Officer

Steve Humphrey
Director of Planning, Housing and Environmental Health

Screening for equality impacts:		
Question	**Answer**	**Explanation of impacts**
a. Does the decision being made or recommended through this paper have potential to cause adverse impact or discriminate against different groups in the community?	No	The revised GTAA seeks to address the future accommodation needs of a hard to reach group.
b. Does the decision being made or recommended through this paper make a positive contribution to promoting equality?	Yes	The outputs of the GTAA will be used to positively plan for future needs through the Local Plan.
c. What steps are you taking to mitigate, reduce, avoid or minimise the impacts identified above?		

In submitting this report, the Chief Officer doing so is confirming that they have given due regard to the equality impacts of the decision being considered, as noted in the table above.

Annex 1: Executive Summary Gypsy, Traveller and Travelling Show People Accommodation Assessment: Tonbridge & Malling (Part One: Gypsies and Travellers) Salford University - April 2013

Executive summary

The study

1. The Housing Act 2004 placed a duty upon local authorities to produce assessments of accommodation need for Gypsies and Travellers. In 2005/2006, DCA Research completed the *Ashford, Maidstone, Tonbridge and Malling and Tunbridge Wells Gypsy and Traveller Accommodation Assessment* for Tonbridge and Malling Borough Council as part of a wider assessment for West Kent. This assessment provided an overview of the accommodation and related needs and experiences of the Gypsy, Traveller and Travelling Showpeople population across Tonbridge and Malling.

2. In October 2012 Tonbridge and Malling Borough Council commissioned the Salford Housing & Urban Studies Unit (SHUSU) at the University of Salford to produce an updated Gypsy, Traveller and Travelling Showpeople Accommodation Assessment. The primary purpose of this assessment was to provide up to date information and data regarding the needs and requirements of the Gypsy, Traveller and Travelling Showpeople communities. This report presents the projection of pitch requirements for the period 2012 – 2028.

3. The assessment was undertaken by conducting a review of the following data sources:

    - Previous assessments of need and information submitted through the previous regional planning process;
    - The policy and guidance context;
    - Census 2011 data
    - The bi-annual Caravan Count;
    - Information from the local authority with regards to pitch provision and supply;
    - Information from key stakeholders; and
    - A survey of fifty-six Gypsy, Traveller and Travelling Showpeople households.

4. From the estimation of a base population of 102 households in Tonbridge and Malling, we consulted with 56 resident households; 55% of the estimated resident Gypsy and Traveller community across Tonbridge and Malling. We believe that the sample is as representative as can be reasonably expected given the relatively hidden nature of the population and the timescale available for the consultation period. The fieldwork took place during a two week period in the middle of October 2012. The base date used in this assessment is 26th October 2012.

Local accommodation provision

5. There is no one source of information about the size of the Gypsy, Traveller and Travelling Showpeople population across Tonbridge and Malling. Our best estimate in relation to the resident population is that there are at least 380 individuals or 102 households in Tonbridge and Malling. The population was found across the following accommodation types:

- There are **two socially rented sites** across the study area. These sites currently accommodate 24 households
- There are **two private sites with permanent planning permission and two private sites with temporary planning permission** across the study area. These sites currently accommodate five households.
- There are two sites, formally unauthorised, deemed to be **lawful** or tolerated which accommodate an estimated **seven households**.
- There are **seven unauthorised developments** across the study area. These sites currently accommodate ten households
- It is estimated that there are at least 52 **households living in bricks and mortar accommodation** in Tonbridge and Malling.
- There is one Travelling Showpeople Site in Tonbridge and Malling with a total of **three households.**
- At the time of the survey one Travelling Showpeople household was interviewed by phone claiming to be living on unauthorised encampments in the form of lorry parks, retail parks and car parks in the borough. The council are unable to verify the exact location of this family at the time of the survey.

Characteristics of local Gypsies and Travellers

6. The survey of Gypsies and Travellers identified some of the important characteristics of the local population.

- Although the average household size over the whole sample is four, this varied between different accommodation types; for example, the average household size for those in bricks and mortar was 4.5, compared to 3.2 on unauthorised development sites, 3.7 on the council run sites, 3.2 on the private developments with planning permission and 3.3 on the Travelling Showpeople Yard.
- The majority of Gypsies and Travellers on all site types have strong and longstanding local connections. This is particularly true of those living in bricks and mortar, on the council sites, the authorised private sites and the Travelling Showpeople site. Those on unauthorised developments on private land and unauthorised encampments had variable levels of local connection, with some having permanent bases elsewhere. Conversely, those living on Hoath Wood have strong local connections and live a relatively settled lifestyle.
- The local population is largely Romany Gypsies (80%), with a smaller number of Travelling Showmen and Irish Travellers. Interestingly, a number of respondents living in bricks and mortar accommodation were Travelling Showpeople.
- The local population are likely not to travel or only travel for one to two weeks per year.

Accommodation need and supply

7. There are no signs that the growth in the Gypsy and Traveller population will slow significantly. Research from the Equalities and Human Rights Commission (EHRC) has indicated that around 6,000 additional pitches for Gypsies and Travellers are immediately required to meet the current shortage of accommodation within England.[1]

8. This study has taken a thorough assessment of the need arising from all accommodation types present at the time of the survey. As such this assessment of need should be regarded as a reasonable and robust assessment of need upon which to base planning decisions going forward. Total net need for Gypsies and Traveller pitches are presented in Table (i) below. Pitches developed after 26th October 2012 contributes to meeting these requirements.

Table (i): Summary of Net Gypsy and Traveller and Travelling Showpeople accommodation need (2012 - 2028)

	Gypsy and Traveller Accommodation Need Total (No. of pitches)
Current authorised/lawful residential provision (pitches)	36
Residential need 2012 - 2017 (pitches)	**4**
Residential need 2017 –2022 (pitches)	7
Residential need 2022 –2027 (pitches)	8
Residential need 2027 –2028 (pitches)	2
Residential need 2012/13 –2027/28 (pitches)	**21**

9. It is recommended that this assessment of accommodation need is repeated in due course (circa five years) to ensure it remains as accurate as possible.

10. Numerical transit requirements have not been provided, although an indication of how provision for short-stay households could be made is detailed in the main report.

11. It is recommended that the authority supports the commissioning of a cross-boundary assessment of the accommodation needs of Travelling Showpeople. This will allow the authorities across the South East to plan and identify need arising in certain boroughs which could be more sustainably met in others.

[1] http://www.equalityhumanrights.com/uploaded_files/13assessing_local_housing_authorities_progress.pdf. Assessing local housing authorities' progress in meeting the accommodation needs of Gypsy and Traveller communities in England.

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From: David Brazier, Cabinet Member – Transport & Environment

Mike Austerberry, Corporate Director – Enterprise & Environment

To: Environment, Highways and Waste Cabinet Committee – 19 June 2013

Decision No:

Subject: Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term in line with 'Bold Steps for Aviation'

Classification: Unrestricted

Past Pathway of Paper: Cabinet Member for Environment, Highways and Waste - approval of the approach for submissions to the Airports Commission.

Future Pathway of Paper: Cabinet Member for Transport and Environment for decision at Cabinet on 15 July 2013 to approve Kent County Council's submission to the Airports Commission.

Electoral Division: Countywide

Summary:

Cabinet Committee is asked to consider and make recommendations to the Cabinet Member for Transport and Environment on the proposed content of Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term, prior to further discussion at Cabinet on 15 July 2013. The content of the proposed submission is in line with Kent County Council's discussion document 'Bold Steps for Aviation' and includes proposals for expansion of some existing airports, better utilisation of regional airports, improved accessibility to airports by rail and reform of Air Passenger Duty; as an alternative to a new hub airport in the Thames Estuary, which is strongly opposed.

Recommendation(s):

The Environment, Highways and Waste Cabinet Committee is asked to consider and make recommendations to the Cabinet Member for Transport and Environment on the proposed content of Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term, prior to further discussion at Cabinet on 15 July 2013.

1. Introduction

1.1 This report sets out an overview of the proposed content of Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term.

1.2 Kent County Council's submission to the Airports Commission will be considered at Cabinet on 15 July 2013 and submitted to the Airports Commission by 19 July 2013 deadline.

1.3 The submission will meet the technical requirements of the Airports Commission's Guidance Documents and will be in line with the principles of Kent County Council's discussion document 'Bold Steps for Aviation' (May 2012 with revisions July 2012).

1.4 Cabinet Committee is asked to consider the principles of the proposed submission to the Airports Commission for providing additional airport capacity in the longer term as outlined in this report; and make recommendations to the Cabinet Member for Transport and Environment on the proposed content of this submission, prior to further discussion at Cabinet on 15 July 2013.

2. Financial Implications

2.1 N/A

3. Bold Steps for Kent and Policy Framework

3.1 The proposed submission links with the 'Bold Steps for Kent' theme of helping the Kent economy to grow. 'Bold Steps for Transport' in 'Bold Steps for Kent: progress to date and next steps' (December 2012) states that we will explore options to deliver radical transport solutions for East Kent to support vital regeneration through robustly opposing the proposals for a new hub airport in the Thames Estuary by producing 'Bold Steps for Aviation'. This clearly sets out the position that maximising use of existing regional airport capacity, such as Manston (Kent's International) Airport; along with some airport expansion will cater for the UK's growing demand for aviation.

4. Background and Previous Submissions to the Airports Commission

4.1 The Airports Commission chaired by Sir Howard Davies will report to Government on short and medium term options for how to make the best use of existing airport capacity in an interim report in December 2013. The interim report will also short list feasible options for long term solutions, if a need for additional airport capacity has been identified. These long term solutions will then be investigated further in 2014, with a final report and recommendation due by the summer of 2015. All non-viable long term options will be discarded from further consideration by the interim report in December 2013. The purpose of this report is to assist in shaping Kent County Council's submission to the Airports Commission on potential long term options.

4.2 The Airports Commission has published two guidance documents for submitting proposals for additional airport capacity (see section 8 'Background Documents'). The sift criteria for long term capacity options were produced from responses invited up to 15 March 2013 and Kent County Council provided technical comments at officer level by the Director of Planning and Environment to help inform these criteria in line with 'Bold Steps for Aviation'. Submissions to the Airports Commission must follow the technical criteria outlined in these guidance documents.

4.3 The Airports Commission also released a series of discussion papers and invited comments from stakeholders and interested parties to establish

whether there is a need for additional airport capacity; and the nature, scale and timing of that need. These include 'Aviation Demand Forecasting' (February 2013); 'Aviation Connectivity and the Economy' (March 2013); 'Aviation and Climate Change' (April 2013); and 'Airport Operational Models' (May 2013). Kent County Council through the Director of Planning and Environment has responded to each of these discussion papers with technical input in line with 'Bold Steps for Aviation'.

4.4 At the same time, the Airports Commission invited proposals for making the best use of **existing airport capacity** in the short and medium terms (next five to ten years) by 17 May 2013. Kent County Council responded through the Director of Planning and Environment with approval from the Cabinet Member for Transport and Environment with a submission that was in line with 'Bold Steps for Aviation'. It included recommending to the Airports Commission the following measures:

- correcting the UK's competitive disadvantage in regards to Air Passenger Duty (APD);
- allowing mixed mode operations at Heathrow Airport;
- reforming the existing slot allocation mechanism used at Heathrow;
- maximising runway capacity at Gatwick Airport;
- utilising existing spare capacity at Stansted and Luton airports;
- utilising spare capacity available at airports outside the South East, i.e. Birmingham Airport;
- facilitating growth at regional airports, including Southend, and Manston and Lydd airports in Kent;
- improving accessibility by rail to airports where there is spare capacity to accommodate air passenger growth;
- and conducting a full assessment of other financial and regulatory mechanisms to re-distribute air traffic to airports with spare capacity, including differential APD at un-congested airports.

5. Current Airports Commission Call for Proposals for Additional Airport Capacity in the Longer Term

5.1 The Airports Commission is currently inviting proposals for providing **additional airport capacity** in the longer term by 19 July 2013. Submissions need to follow the technical requirements specified in the two Airports Commission Guidance Documents.

5.2 It is proposed that in order to oppose the likely proposals for a new hub airport in the Thames Estuary, Kent County Council submits a proposal in line with 'Bold Steps for Aviation' for an alternative solution to a new airport in the Thames Estuary which includes the following:

- A second runway at Gatwick to be delivered soon after the 2019 planning agreement ends. Gatwick is approaching its capacity limit for a single runway airport (it is the busiest single runway airport in the world) and additional runway and terminal facilities in the 2020s will allow the airport to grow and compete as a hub airport with Heathrow and therefore provide increased long haul connectivity for the UK.
- A second runway at Stansted to be delivered when the need arises, most likely in the 2030s when all London airports (with their current capacity) are forecast to be full.
- Consideration of a second runway at Birmingham Airport if the need arises, as a way of relieving demand on the London airports, which may

become significant with the airport accessible from London within 38 minutes when High Speed 2 (HS2) opens in 2026.

- Better utilisation of regional airport capacity in the South East at Southend, Manston and Lydd airports in Kent, for point to point flights, complementing the main London airports that provide hub operations.
- Improved rail connectivity to airports to create an integrated air-rail transport system that facilitates sustainable surface access to the growing airports and provides the potential for better integration of the London/South East multi-airport system.
- Long term commitment to keep UK airports competitive with European airports in terms of Air Passenger Duty (APD) which currently has a negative impact on the UK's global connectivity and is therefore damaging UK business and tourism; especially to long haul and emerging economies as the UK loses out to its European competitors.

5.3 The submission is intended to be high level looking at the merits of a strategic approach to airport capacity. It is anticipated that individual airport operators will comprehensively assess all the factors outlined in the Airports Commission's Guidance Documents 01 and 02 for any proposed capacity increases at their individual airport sites. It is proposed that Kent County Council's submission presents a strategic solution to the problem as an alternative to proposals for a new hub airport in the Thames Estuary. Nevertheless, a certain level of technical understanding is required for submissions to the Airports Commission and this is currently being worked on by the Transport Strategy Delivery Team within Planning and Environment in time for the 19 July 2013 submission deadline.

5.4 Cabinet Committee is therefore asked to consider and make recommendations to the Cabinet Member for Transport and Environment on the proposed content of Kent County Council's submission to the Airports Commission. The Airports Commission is specifically requesting proposals for providing additional airport capacity in the longer term. The suggested outline content of Kent County Council's submission is described in paragraph 5.2 above.

5.5 Following completion of the technical submissions to the Airports Commission, a revised and updated 'Bold Steps for Aviation' discussion document will be produced which summarises Kent County Council's position in the aviation debate. This will be brought to Cabinet Committee at a later date.

6. Conclusions

6.1 Cabinet Committee is asked to consider and make recommendations to the Cabinet Member for Transport and Environment on the proposed content of Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term prior to further discussion at Cabinet on 15 July 2013. The content of the proposed submission is in line with Kent County Council's discussion document 'Bold Steps for Aviation' and includes proposals for expansion of some existing airports, better utilisation of regional airports and improved accessibility to airports by rail; as an alternative to a new hub airport in the Thames Estuary, which is strongly opposed. Specific proposals are outlined in paragraph 5.2 above.

7. Recommendation(s)

Recommendation(s):

The Environment, Highways and Waste Cabinet Committee is asked to consider and make recommendations to the Cabinet Member for Transport and Environment on the proposed content of Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term, prior to further discussion at Cabinet on 15 July 2013.

8. Background Documents

Bold Steps for Aviation, Discussion Document, Kent County Council, May 2012 with revisions July 2012
https://shareweb.kent.gov.uk/Documents/News/Bold%20Steps%20for%20Aviation%20May%202012.pdf

Guidance Document 01: Submitting evidence and proposals to the Airports Commission, Airports Commission, February 2013
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/70285/submitting-evidence-airports-commission.pdf

Guidance Document 02: Long Term Capacity Options: Sift Criteria, Airports Commission, May 2013
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193867/sift-criteria.pdf

9. Contact details

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From: David Brazier, Cabinet Member – Transport & Environment

Mike Austerberry, Corporate Director – Enterprise & Environment

To: Environment, Highways & Waste Cabinet Committee – 19 June 2013

Decision No: 13/00049

Subject: Westwood Relief Strategy - widening of Poorhole Lane and associated junction improvements

Classification: Unrestricted

Past Pathway of Paper: N/A

Future Pathway of Paper: For Cabinet Member Decision.

Electoral Division: Broadstairs & St Moses Montefiore, Margate & Cliftonville, Birchington & Villages, Ramsgate

Summary: Approval to take the highway improvement scheme through the next stages of development including authority to enter into land and funding agreements.

Recommendation(s): Subject to the views of this Committee, the Cabinet Member for Transport & Environment be recommended to:

i. approve the scheme for the improvement of Poorhole Lane and associated junctions shown as an outline design together with land acquisition requirements on Drg No. A3/KHS/PL/BID/106 Rev0 for land charge disclosures and development control.

ii. give approval to progress the scheme for the improvement of Poorhole Lane and associated junctions shown as an outline design on Drg No. A3/KHS/PL/BID/106 Rev0 including any ancillary works such as drainage and environmental mitigation.

iii. give approval for Legal Services to complete the acquisition of the land required to deliver the scheme for the improvement of Poorhole Lane and associated junctions shown indicatively on Drg No. A3/KHS/PL/BID/106 Rev0 including but not limited to any ancillary works such as drainage and environmental mitigation on terms to be agreed by the Director of Property and Infrastructure Support.

iv. give authority for the S151 Officer to formally accept the DfT Pinch Point funding offer when received and subject to being satisfied with the terms and conditions.

1. Introduction

1.1 Kent County Council (KCC) and Thanet District Council (TDC) have been working together to improve the local economic condition by developing employment opportunities for Thanet's residents. The growth of Westwood Town Centre with the Westwood Cross Retail Development and Canterbury Christ Church University Campus has helped the local economy and created a significant number of jobs for local people.

1.2 These developments, however, have led to severe congestion at peak times during weekdays and Saturdays at the Westwood Roundabout as the intersection point of roads between Ramsgate, Broadstairs and Margate and at the heart of Westwood Town Centre.

1.3 The Westwood Roundabout is significantly over capacity and this is leading to extremely long delays and unreliable journey times. As a result, traffic is experiencing severe delays on the A256 Westwood Road and the local community and businesses have raised considerable concerns about the impact of this severe congestion on their quality of life and business. In addition, the Thanet Loop (a well used circular bus service, operating in two directions every 7/8 minutes and linking the main Thanet settlements) has been severely disrupted with unreliable journey times and indeed one operator has withdrawn a route service.

1.4 KCC and TDC would like to see Westwood and Thanet continue to grow to increase employment opportunities and reduce the levels of deprivation. There are major development sites that are being held back because of the traffic conditions until there is a sustainable solution and indeed were a significant consideration in the bid that secured the funding.

1.5 KCC and TDC have developed a congestion relief strategy for Westwood and Thanet area and the proposed scheme for the improvement of Poorhole Lane is an important element of Phase 1 of that strategy. See the strategy plan and the scheme for the improvement of Poorhole Lane and associated junctions, shown as an outline design together with land acquisition requirements, on Drg No. A3/KHS/PL/BID/106 Rev0 attached.

1.6 Following a successful bid to the Department for Transport (DfT) for Local Pinch Point funding, the Transport Secretary has awarded £1.562m towards the overall cost of the scheme. S106 contributions have been secured for the remainder of the estimated scheme cost of £2.242m. KCC must proceed rapidly to conclude negotiations with landowners to secure the necessary land and progress the scheme design.

1.7 A condition of DfT funding is that the scheme must be completed by 31 March 2015 and hence there is considerable urgency to progress the scheme through the next stages to see if its delivery remains a viable albeit challenging proposition.

2. Financial Implications

2.1 Scheme development costs can be covered initially by the Major Schemes Preliminary Design budget allocation until the 2013/14 tranche of Pinch Point funding is received.

3. Bold Steps for Kent and Policy Framework

3.1 Supports the objectives of supporting existing businesses, encouraging economic activity and job creation by improving accessibility by reducing traffic congestion and improving safety.

4. Critical Aspects

4.1 Narrow strips of frontage land need to be acquired. Discussions with landowners have indicated an in principle willingness to sell the land to KCC by voluntary negotiation. This very welcome support for the scheme needs to be

confirmed by the completion of negotiations on purchase price and the formal transfer of the land to KCC.

4.2 The land is generally wooded scrub and an environmental screening report may be required to allow the Head of Planning Applications to give a screening opinion to confirm that an Environmental Impact Assessment is not required and that the scheme does not require planning permission and can delivered as Permitted Development.

4.3 A detailed topographical survey needs to be commissioned together with associated environmental, drainage and geotechnical surveys to allow the detailed design to be developed.

4.4 Margate Road and Westwood Road are likely to be key utility corridors and identifying the impacts of the proposed roundabout junctions and any required diversions or protection measures will be important aspects of scheme cost and programme.

4.5 Scheme cost, construction procurement and construction period are key factors in affordability and target end date delivery and these aspects will be considered in detail in the coming months as the detailed design is progressed by Amey – our new engineering and transportation term consultant. However, the scheme is a relatively straightforward improvement but any difficulty in securing the land or a need for planning permission could put pressure on the ability to deliver the scheme by the 31 March 2015 deadline and hence the need to make urgent progress on these initial critical aspects.

5. Conclusions

5.1 The approval of Pinch Point funding is a welcome acknowledgement of the efforts being made by KCC and TDC to implement the traffic relief strategy for Westwood. The funding deadline is challenging and it is therefore important that KCC makes urgent progress on securing the land and developing the detailed design.

6. Recommendation(s)

Recommendation(s):

Subject to the views of this Committee, the Cabinet Member for Transport & Environment be recommended to:

i. approve the scheme for the improvement of Poorhole Lane and associated junctions shown as an outline design together with land acquisition requirements on Drg No. A3/KHS/PL/BID/106 Rev0 for land charge disclosures and development control.

ii. give approval to progress the scheme for the improvement of Poorhole Lane and associated junctions shown as an outline design on Drg No. A3/KHS/PL/BID/106 Rev0 including any ancillary works such as drainage and environmental mitigation.

iii. give approval for Legal Services to complete the acquisition of the land required to deliver the scheme for the improvement of Poorhole Lane and associated junctions shown indicatively on Drg No. A3/KHS/PL/BID/106 Rev0 including but not limited to any ancillary works such as drainage and environmental mitigation on terms to be agreed by the Director of Property and Infrastructure Support.

iv. give authority for the S151 Officer to formally accept the DfT Pinch Point funding offer when received and subject to being satisfied with the terms and conditions.

7. Background Documents

Local Pinch Point Funding Application – February 2013
www.kent.gov.uk/transportfunding

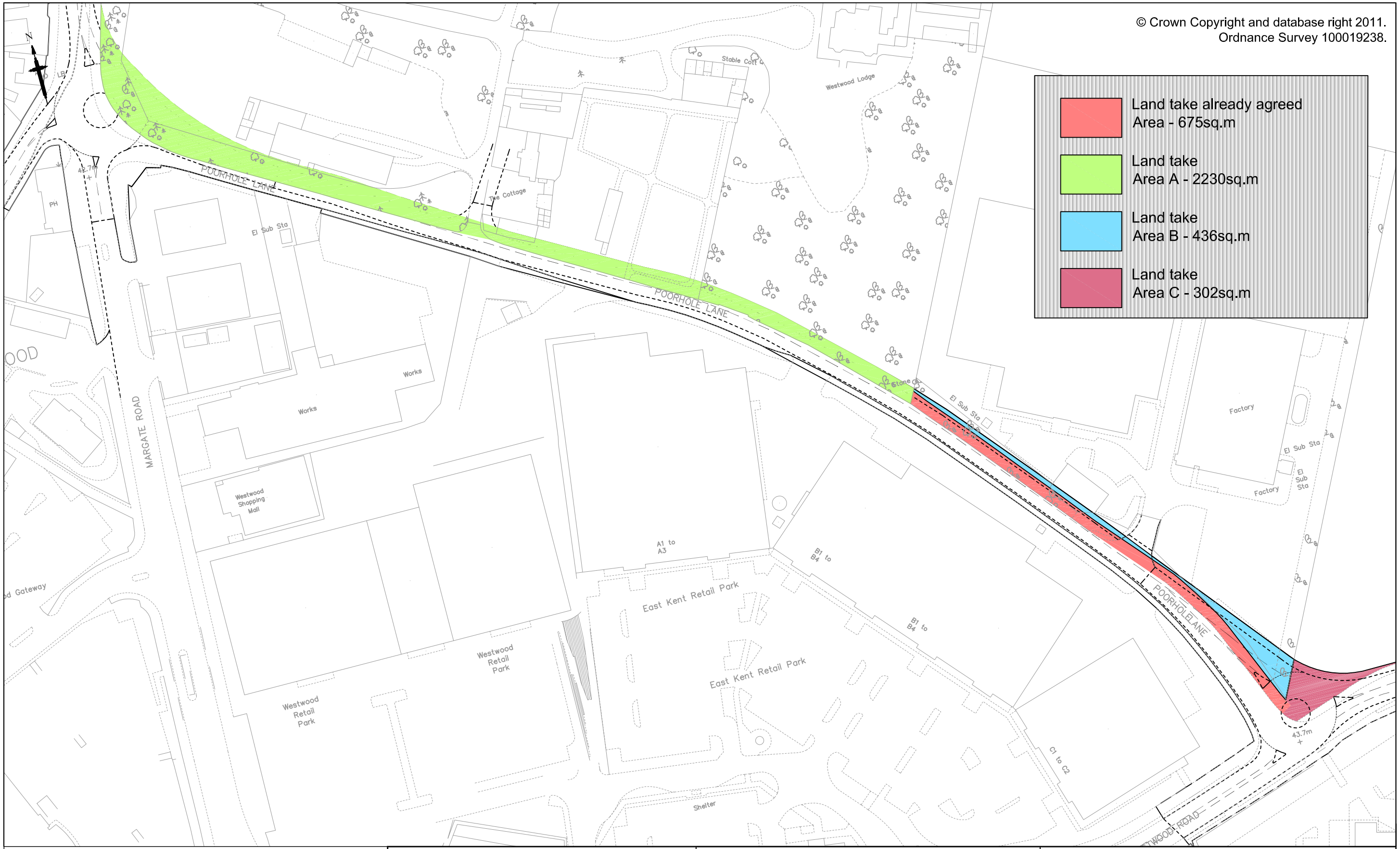
8. Contact details

Report Author:

Mary Gillett – Major Projects Planning Manager
mary.gillett@kent.gov.uk
01233 614084

Relevant Director:

John Burr, Director – Highways & Transportation
John.Burr@kent.gov.uk
01622 694192



Rev	Revision Date	Purpose of revision	Drawn	Check'd	App'd
0	DD/MM/YY				

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

Kent County Council
Ashford Highway Depot
Henwood Industrial Estate
Ashford TN24 8AD
Tel: 08458 247 800

Project: Pinch Point Bid
Poorhole Lane

Drawing title: Land Requirements

Drawing status: BID

Scale: 1:1250 at A3 | Do not scale

Drawing number: A3/KHS/PL/BID/106

Rev: 0

S:\KHS - Ashford\Transportation and Development\General\S.106\S106 Agreement Documents\Thanet\Poorhole\Land take.dwg

A3

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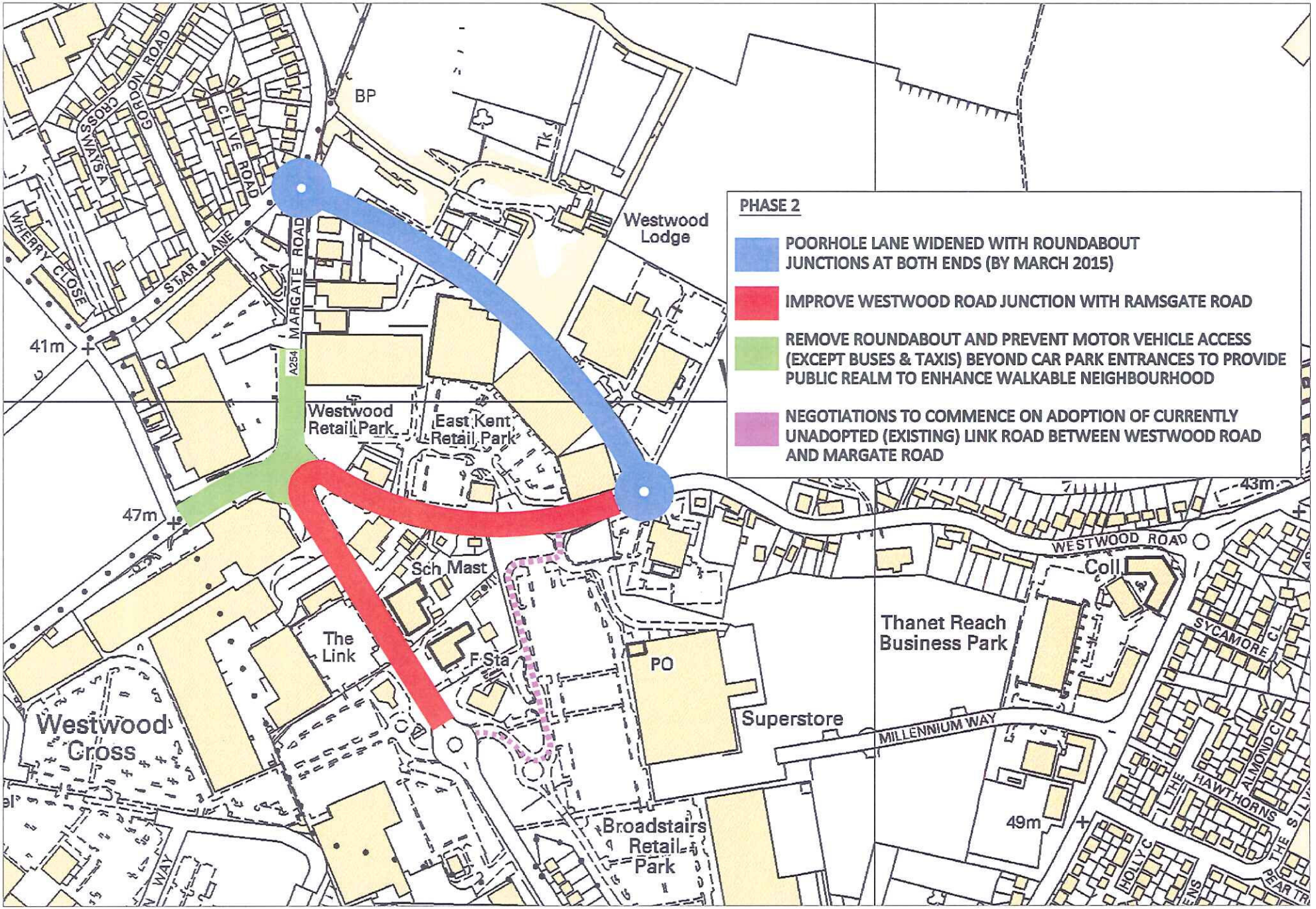
PHASE 2
POORHOLE LANE WIDENED WITH ROUNDABOUT JUNCTIONS AT BOTH ENDS (BY MARCH 2015)
IMPROVE WESTWOOD ROAD JUNCTION WITH RAMSGATE ROAD
REMOVE ROUNDABOUT AND PREVENT MOTOR VEHICLE ACCESS (EXCEPT BUSES & TAXIS) BEYOND CAR PARK ENTRANCES TO PROVIDE PUBLIC REALM TO ENHANCE WALKABLE NEIGHBOURHOOD
NEGOTIATIONS TO COMMENCE ON ADOPTION OF CURRENTLY UNADOPTED (EXISTING) LINK ROAD BETWEEN WESTWOOD ROAD AND MARGATE ROAD
BP
Tk
Westwood Lodge
MARGATE ROAD
A254
CLIVE ROAD
GORDON ROAD
CROSSWAYS A
WHERRY CLOSE
STAR LANE
41m
47m
43m
Westwood Retail Park
East Kent Retail Park
Sch Mast
The Link
F Sta
PO
Superstore
Thanet Reach Business Park
WESTWOOD ROAD
MILLENNIUM WAY
Coll
SYCAMORE CL
ALMOND CL
THE HAWTHORNS
49m
Westwood Cross
Broadstairs Retail Park

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KENT COUNTY COUNCIL – PROPOSED RECORD OF DECISION

DECISION TO BE TAKEN BY:	DECISION NO:
David Brazier **Cabinet Member – Transport & Environment**	13/00049

Unrestricted

Subject: Westwood Relief Strategy – Poorhole Lane Improvement

Decision:

As Cabinet Member for Transport & Environment, I agree to

i. approve the scheme for the improvement of Poorhole Lane and associated junctions shown as an outline design together with land acquisition requirements on Drg No. A3/KHS/PL/BID/106 Rev0 for land charge disclosures and development control.

ii. give approval to progress the scheme for the improvement of Poorhole Lane and associated junctions shown as an outline design on Drg No. A3/KHS/PL/BID/106 Rev0 including any ancillary works such as drainage and environmental mitigation.

iii. give approval for Legal Services to complete the acquisition of the land required to deliver the scheme for the improvement of Poorhole Lane and associated junctions shown indicatively on Drg No. A3/KHS/PL/BID/106 Rev0 including but not limited to any ancillary works such as drainage and environmental mitigation on terms to be agreed by the Director of Property and Infrastructure Support.

iv. give authority for the S151 Officer to formally accept the DfT Pinch Point funding offer when received and subject to being satisfied with the terms and conditions.

Reason(s) for decision:

See Report to Environment, Highways & Waste Cabinet Committee meeting on 19/6/13

Cabinet Committee recommendations and other consultation:

Any alternatives considered:
Not applicable

Any interest declared when the decision was taken and any dispensation granted by the Proper Officer:

..... signed

..... date

FORTHCOMING EXECUTIVE DECISIONS

3 June 2013 - 31 December 2013

This edition of the list of Forthcoming Executive Decisions supersedes ALL previous Editions

Published by Democratic Services

This list of Forthcoming Executive Decisions publicises all known decisions which Kent County Council intends to take over the next six months. It gives information on the projects that will be coming forward and who will be involved with them. Key decisions are marked clearly as such within the list.

Please use the contact details given to let us know your views.

LIST OF FORTHCOMING EXECUTIVE DECISIONS

Every two weeks the list of Forthcoming Executive Decisions is updated where there are additions, deletions or amendments to be made. Although Kent County Council aims to include all known decisions, statute requires that all Key decisions must be publicised in this way.

A "Key Decision" is an Executive-side Decision which is likely to:

(a) result in the council incurring expenditure which is, or the making of savings which are, significant having regard to the council's budget for the service or function to which the decision relates; or

(b) be significant in terms of its effects on communities living or working in an area comprising two or more electoral divisions in the area of the local authority.

Key Decisions can only be taken by the Cabinet, the Leader or an individual Cabinet Member.

Decisions which should be regarded as Key Decisions because they are likely to have a significant effect either in financial terms or on the Council's services to the community include:

(a) Decisions about expenditure or savings over £1,000,000 which are not provided for within the approved budget or Medium Term Financial Plan

(b) Adoption of major new policies not already included in the Policy Framework (Constitution Appendix 3) or changes to established policies

(c) Approval of management and business plans

(d) Decisions that involve significant service developments, significant service reductions, or significant changes in the way that services are delivered, whether County-wide or in a particular locality. For example, closure of a school, approval of a major project (such as a highway scheme) or programme of works, major changes in the eligibility criteria for provision of a service, major changes in the fees charged for a service, or proposals that would result in a service currently provided in-house being outsourced.

(e) Decisions where the consequences are likely to result in compulsory redundancies or major changes in the terms and conditions of employment of a significant number of employees in any of the Council's functions.

Preparation of the list helps the Council to programme its work and ensures compliance with the 'Local Authorities (Executive Arrangements) (Meetings and Access to Information) (England) regulations 2012.

The list outlines the consultation that is proposed in respect of future decisions and who members of the public and the Council should contact to make comments on any particular item. Anyone is entitled to obtain copies of the documents that will be relied upon when a decision is taken, unless those documents are 'Exempt' within the meaning of the relevant sections of the Local Government Act 1972 (as amended).

Reports related to decisions will be published on the Council's web site at www.kent.gov.uk at least five days before the decision it is due to be taken. Once the decision has been taken, a copy of the Record of Decision will also be published on the Council's website. Paper copies will be made available by contacting Louise Whitaker (telephone 01622 694433 or email louise.whitaker@kent.gov.uk).

The Kent County Council Cabinet Members are:	
Mr Paul Carter	Leader and Cabinet Member for Business Strategy, Audit and Transformation
Mr John Simmonds	Deputy Leader & Cabinet Member for Finance and Procurement
Mr David Brazier	Cabinet Member for Transport and Environment
Mr Gary Cooke	Cabinet Member fro Corporate and Democratic Services
Mr M Dance	Cabinet Member for Economic Development
Mr Graham Gibbens	Cabinet Member for Adult Social Care & Public Health
Mr Roger Gough	Cabinet Member for Business Strategy, Performance & Health Reform
Mr Mike Hill	Cabinet Member for Communities, Customer Services & Improvement
Mr Bryan Sweetland	Cabinet Member for Commercial & Traded Services
Mrs Jenny Whittle	Cabinet Member for Specialist Children's Services

All Members can be contacted by writing to Kent County Council, Sessions House, County Hall, Maidstone, Kent, ME14 1XQ or by email via the Council's website.

FORTHCOMING EXECUTIVE DECISIONS LIST SUMMARY – E&E
Summary of all forthcoming executive decisions in date order

Date	Subject Matter	Decision Maker	Key Decision
Cabinet Member – June 2013			
Not before June 2013	Kent Farmsteads Guidance (13/00046)	Cabinet Member for Transport & Environment	No
Not before June 2013	Variation of pitch allocations policy for Coldharbour site, Aylesford (13/00047)	Cabinet Member for Transport & Environment	No
Not before June 2013	Westwood Relief Strategy - widening of Poorhole Lane and associated junction improvements (13/00049)	Cabinet Member for Transport & Environment	No
Not before June 2013	North Farm Link Road (Longfield Road) Improvement, Tunbridge Wells (13/00031)	Cabinet Member for Transport & Environment	No
Cabinet – 17 June 2013			
17 June 2013	Kent Local Flood Risk Management Strategy (12/01945)	Cabinet	Yes
Cabinet Member – July 2013			
Not before June 2013	Canterbury City Council Local Plan (Reg 18) Consultation - 12/01994	Cabinet Member for Transport & Environment	No
Not before September 2013	Thanet District Council Local Plan (Reg 18) Consultation (12/01992)	Cabinet Member for Transport & Environment	No
Cabinet – July 2013			
Not before July 2013	Kent County Council's submission to the Airports Commission on proposals for providing additional airport capacity in the longer term in line with 'Bold Steps for Aviation'	Cabinet	Yes
Not before July 2013	Third Lower Thames Crossing – DfT Consultation Response	Cabinet	Yes
Cabinet Member not before September			
Not before September 2013	Swale Borough Council (Reg 19) pre-submission application (12/01993)	Cabinet Member for Transport & Environment	No
Not before September 2013	Kent Minerals and Waste Development Framework (MWDF) Core Strategy at Pre-Submission (Draft Plan) Stage - 12/01879	Cabinet Member for Transport & Environment	Yes
Not before September 2013	A20 Corridor Statutory Quality Bus Partnership Scheme - 12/01924	Cabinet Member for Transport & Environment	No

Cabinet Member – not before November			
Not before November 2013	Maidstone Borough Council Core Strategy Submission (regulation 27) Consultation (12/01828)	Cabinet Member for Transport & Environment	No
Cabinet Member – dates to be confirmed			
Various 2013	Local Transport Strategies - Various	Cabinet Member for Transport & Environment	Yes
Not before June 2013	Joint Transportation Boards - Agreement and Governance	Cabinet Member for Transport & Environment	No
Autumn 2013	Growth without Gridlock update	Cabinet Member for Transport & Environment	No

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From: David Brazier, Cabinet Member for Transport and Environment
Mike Austerberry, Corporate Director for Enterprise and Environment

To: Environment, Highways and Waste Cabinet Committee – 19 June

Subject: Enterprise and Environment 2012/13 end of year Business Plan outturn monitoring and Directorate Dashboard

Classification: Unrestricted

Summary:
The Business Plan outturn monitoring provides highlights of the achievements against Business Plan priorities and actions during the financial year and the Directorate Dashboard shows progress made against targets set for Key Performance Indicators alongside movements for Activity Indicators.

Recommendation(s):
The Environment, Highways and Waste Cabinet Committee is asked to consider and NOTE the report.

1. Introduction

1.1 One of the roles of the Cabinet Committees is to review the performance of the services which come under the remit of the Committee.

1.2 The Business Plan monitoring and Directorate Dashboard are provided to assist the Committee in its role in relation to reviewing performance.

1.3 Divisional Business Plan monitoring is reported to the Cabinet Committee twice a year and the current report is for the end of the financial year 2012/13.

1.4 Performance Dashboards are regularly reported to Cabinet Committee throughout the year and the current report includes data up to the end of March 2013.

2. Business plan outturn monitoring

2.1 A full monitoring exercise of priorities and actions included in Divisional Business Plans was conducted at the end of the financial year, with the aim of identifying achievements and also where actions were not completed.

2.2 A summary report of the findings of the Business Plan outturn monitoring for the Enterprise and Environment Directorate is attached in Appendix 1.

2.3 The monitoring report is by Division and provides a RAG (Red/Amber/Green) rating for each Priority contained in the Business Plans, which is based on the level of completion of the detailed actions for the priority.

2.4 The report also provides summary highlights of achievements for each Division and any significant issues arising.

2.5 A priority has been given a Green status where all actions relating to the priority which were due in the year were substantially completed.

2.6 An Amber status is given where good progress was made in relation to the Priority but where not all actions were completed within the year. Outstanding actions which are still considered important have been carried forward into the next financial year.

2.7 There are no priorities with a Red status and this would imply limited progress or action in relation to the Priority.

3. Directorate Dashboard

3.1 The Enterprise and Environment Directorate Dashboard, attached in Appendix 2, includes end of year results for the Key Performance and Activity Indicators included in the 2012/13 Business Plan.

3.2 Each Key Performance Indicator is shown with a Red/Amber/Green (RAG) status, based on progress to the Target set.

3.3 A Direction of Travel (DOT) is also provided for Key Performance Indicator to show whether performance has improved or not against the previous year result.

3.4 Activity Indicators are also provided but are not shown with a RAG status. Activity Indicators usually represent demand for services, and are provided as context information for the Performance Indicators.

3.5 The Dashboard includes brief commentary where relevant for particular variances from Target.

4. Recommendation(s)

Recommendation(s): The Environment, Highways and Waste Cabinet Committee is asked to consider and NOTE the report.

5. Background Documents

5.1 Enterprise and Environment Divisional Business Plans 2012/13
http://www.kent.gov.uk/your_council/council_spending/financial_publications/business_plans_2012-13.aspx

6. Contact details

Report Author: Richard Fitzgerald, Performance Manager
01622 221985, richard.fitzgerald@kent.gov.uk

Division	**Highways & Transportation**
Director	**John Burr**

Priority	**Progress**
1) Improve customer experience and satisfaction with highway services	GREEN
2) Deliver key improvement projects	AMBER
3) Driving further improvements in our contract with Enterprise	GREEN
4) Deliver better services through improved arrangements with Consultants	GREEN

Key Achievements:

Highways and Transportation set out 53 new projects to be delivered in 2012/13. Delivery was completed on 49 of these and there were 4 where work was started and more needs to be done. Some key achievements from the 49 projects completed are:

- In December 2012, the Department for Transport gave approval for Kent to become the first County in the country to operate a Lane Rental scheme. The scheme will start in May this year and will help minimise the disruption caused by road works on the most critical parts of the County's road network
- East Kent Access Phase 2 opened in May 2012.
- Effectively managed the traffic demand from the London 2012 Olympics events held in Kent.
- Procured a new technical and environmental services contract which was awarded to Amey and commenced in April 2013, replacing Jacobs.
- Brought some key services back in-house, such as Soft Landscaping, Structures and Intelligent Transport Systems to deliver efficiencies and a strong client role.
- Over 600 buses in Kent now equipped with a Smart Ticket Machine and Smartcards are being issued.
- A Freight Action Plan has been completed following discussion with key stakeholders and a public consultation. The first community based Lorry Watch scheme took place in November in Leeds and Langley villages to the east of Maidstone.
- A Village Caretaker pilot scheme has been developed and is currently up and running in the Ashford area led by Wittersham Parish Council.
- The Highway Management Centre opening hours have been increased to 06.00-22.00 Monday to Friday and 09.00-17.00 Saturdays to help manage real time traffic incidents and provide information and response in emergency situations.

In addition whilst delivering our 'business as usual' we:

- Delivered a successful winter service during one of the coldest and longest winters on record.

Division	**Highways & Transportation**
Director	**John Burr**

- Reacted quickly with the Find & Fix programme to repairs potholes after the winter damage whilst keeping the repair time for potholes reported by customers below our 28 day published standard.
- Automatically issued over 200,000 ENCTS Concessionary Bus Passes thereby saving applicants time in reapplying and KCC £200,000 in costs of writing to all potential applicants.
- Issued over 27,500 Kent Freedom Passes which contribute to tackling congestion, freeing up school choice and removing costs as a barrier to young people travelling.
- Won the Prince Michael of Kent Road Safety Award for the Driving Business Safely initiative supporting and promoting road safety with Kent businesses
- Launched a new web site enabling clients to self book on National Speed Awareness courses provided by Kent County Council and delivery of over 30,000 courses during the year to improve road safety in Kent.
- Delivered Member Highway Fund projects to the value of £3.1million involving over 700 schemes and improvements.
- Started the community engagement work to support the Streetlight Energy Saving project and improved streetlight repair times to achieve above our 90% standard for repairs completed within 28 days.
- Delivered £23 million resurfacing on 650 roads and pavements across the County.
- Improved the web fault reporting tool on the KCC website to allow customers to check if a fault has already been reported, report a fault on a map and track the progress of work.
- Recovered £600,000 from insurance companies where drivers have damaged our asset to re-invest in the business and ensure that our maintenance budget is focussed on true 'wear and tear'.
- Worked closely with Enterprise, our maintenance contractor to improve key services such as streetlighting, drainage, winter service and pothole repairs.

Issues:

The 4 projects where work has started but not yet completed are:

- Due to new Insurance legislation being delayed, the review of our processes to ensure any changes to legislation have a positive impact on customer claims handling will now be completed in 2013/14.
- Planning consent has not yet been achieved for the Gravesend Transport Quarter and a revised Planning Application is being prepared.
- The timing of the Project Design and Programme for the Gravesend Transport Quarter has been revised to the new Planning Application date.
- Progress has been made in driving better value from the £70 million investment in transport including the review of Supported Bus Routes and this work will continue into the 2013/14 financial year.

Division	**Waste Management**
Head of Service	**Roger Wilkin**

Priority	**Progress**
1) Working with the waste collection authorities to drive efficiencies in the service	GREEN
2) Improving the HWRC network provision	GREEN
3) Work with SE7 Waste Project to reduce waste collection and maximise waste as a resource	AMBER
4) Delivery of contracts, projects and operations	AMBER

Key Achievements:

- **Waste Volumes:** The amount of municipal waste tonnage managed for 2012/13 was 688,000 tonnes and this was a reduction of 28,000 tonnes on the previous year. This reduction was mostly due to the policy changes implemented at the household waste recycling centres in October 2012.
- **Diversion from Landfill:** The percentage of Kent's waste being diverted away from landfill, to either recycling or conversion to energy increased to 79% this year. A further stepped change will be delivered in 2013/14 when residual waste from Canterbury City Council is diverted away from landfill and used to create energy at the Allington Waste to Energy Plant.
- **Household Waste Recycling Centre (HWRC) Review:** Following the decision to change operating policies at the HWRCs, an implementation plan was delivered to support customer engagement and to ensure smooth operation at the sites. Increased customer service capacity was created to respond to a temporary lift in complaints, compliments and enquiries. Additional fly tipping deterrent campaigns in targeted areas have been delivered to reinforce existing messages established through the Clean Kent campaign. The amount of waste managed at the HWRC's for the year was 25,000 tonnes less than the previous year but the percentage recycled and composted increased slightly.
- **Improving the HWRC Network:** Following on from the review of HWRCs, additional investment has been provided for waste infrastructure projects through the capital programme. Several site searches have been initiated in order to identify new or replacement sites. At the same time work is underway to ensure that if compulsory purchase should become necessary, the business case can be fully demonstrated. Construction work has been completed at Herne Bay HWRC to enlarge and improve the site and the site re-opened in March 2013. The redevelopment of the Ashford HWRC has commenced to provide a new waste transfer station and HWRC, and is due to open towards the end of the first quarter in 2013/14.
- **East Kent Joint Waste Contract:** The contractor's performance has improved through effective management of the contract from all partners involved. On-going support is provided to all partners through a mixture of direct support from KCC and via the East Kent Project Steering Group. Plans for implementation and mobilisation of new recycling services for Canterbury

Division	**Waste Management**
Head of Service	**Roger Wilkin**

and Thanet have been reviewed and new services will commence in June 2013 October 2013 respectively.

- **Mid Kent Joint Waste Project:** The new joint waste collection contract serving the Mid Kent Boroughs' was awarded in October 2012, as planned, and mobilisation of the new recycling services will commence from July 2013 for Ashford, from August 2013 for Maidstone and from December 2013 for Swale. The procurement of this joint contract was led by Maidstone Borough Council with support from KCC.
- **West Kent Waste Project:** Service review opportunities for Gravesham have been completed as planned and following the successful award of funding under DCLG's Support for Weekly Waste Collections, new recycling and waste services will be implemented during 2013. Service review options for Sevenoaks and Dartford will continue to be explored during 2013/14 through a West Kent sub-group of the Kent Waste Partnership. Dartford Borough Council was successful with their bid for funding from DCLG's Support for Weekly Waste Collections.
- **South East 7 (SE7):** The secondment of WRAP Market Economist as a resource to the Project Team has provided the project with an essential overview for future market demand. A material flow analysis to assess supply of materials (household waste) has been developed and approved by all partners and an initial market analysis has been completed to ascertain which commercial and industrial waste streams could be captured for the benefit of all the partners. An overview of current waste infrastructure and contracts across the SE7 region has been completed. Delivery Plan options were presented to the SE7 Leaders in March 2013.

Issues:

- Procurement of new contract for waste transfer for the Canterbury area has been delayed due to a legal challenge following the initial award process during 2012. The procurement process is set to re-commence during early in 2013/14 and interim arrangements have been put in place.
- Site improvements and repairs at Tovil HWRC were deferred to avoid another temporary closure in the year and work will commence in summer 2013.
- The contract award for processing various recyclable materials collected from the Mid-Kent Joint Waste Collection Contract has been deferred until April 2014 to enable opportunities with SE7 Partners to be explored. Interim arrangements have been put in place.
- Agreement on the SE7 programme delivery plan has been delayed and will now be taken at the June 2013 SE7 Leaders meeting.
- Procurement of new or replacement contracts for the operation and management of the HWRC's/Transfer Stations network has been deferred following a review of the Waste procurement strategy. A revised Procurement Plan has been developed and new contracts will now commence in February 2014. Interim arrangements have been put in place.

Division	**Planning & Environment**
Director	**Paul Crick**

Priority	**Progress**
1) Delivering Growth without Gridlock	GREEN
2) Delivering Kent Environment Strategy Themes 1 and 2	AMBER
3) Preparation and submission of the Minerals & Waste Development Framework	AMBER
4) Statutory lead on Flood risk management	GREEN
5) Facilitating sustainable development via development management and influencing planning policy	GREEN
6) Delivering Theme 3 of Kent Environment Strategy	AMBER
7) Gypsy & Traveller site management and development	GREEN

Key Achievements:

- **Funding for transport infrastructure:** We have continued to press Government on hypothecation of HGV road user charging and developed a business case for a fuel loyalty card.
- **Local Transport Body:** The first meeting of the Local Transport Body was held in January 2013 and draft Terms of Reference and governance arrangements are in place.
- **Third Thames Crossing:** Economic and environmental assessments were completed and will be used as part of KCC's response to the Department for Transport's Corridor Option consultation.
- **Operation Stack:** Meetings were held with the Planning Inspectorate. THE priority has been to progress lower cost options, including solutions to overnight lorry parking.
- **A21 dualling:** Influenced the Highways Agency to commit to funding the A21 Public Inquiry, commencing in May 2013, and progress the scheme development.
- **Rail:** Worked with Network Rail to secure government funding to improve the railway line between Ashford and Ramsgate, responded to the DfT rail franchise consultation including preparing the South East Local Enterprise Partnership response, and secured incremental enhancements to the rail network by influencing Southeastern.
- **Green Deal:** Established the Kent and Medway Green Deal Partnership with the potential to bring in £80m for retrofitting green technologies to households in Kent. Pilot areas were agreed with training carried out for small and medium enterprises to benefit from this programme. Brought in £100,000 from DECC for Green Deal Pioneers with 5 show homes retrofitted, 150 free assessments offered and energy champions recruited.
- **Minerals and Waste Local Plan:** A series of successful stakeholder meetings were held to consult on the minerals and waste sites identified.

Division	**Planning & Environment**
Director	**Paul Crick**

- **Flooding:** The Local Flood Risk Management Strategy was drafted and widely consulted on, and is now due for formal adoption by KCC's Cabinet in late May 2013. Surface water management plans were completed for nine areas to provide a better understanding of local flooding issues we need to manage and to help prioritise further work.
- **Sandwich flood defence works:** Planning permission was granted in January 2013 and construction of the flood defence scheme began in March 2013.
- **Community Infrastructure Levy:** Prepared the KCC response to the published consultations for the preliminary draft charging schedules for Dartford, Dover and Sevenoaks. A zero CIL charge for KCC's community uses, waste and minerals have been promoted. Meetings have been held with 11 of Kent's 12 District/Borough councils to discuss and agree KCC's infrastructure priorities.
- **Planning Applications:** Supported the delivery of a wide range of community projects, including academy schools for Sevenoaks, Dartford, Sheppey and Maidstone, new primary schools at Benenden and Ashford, a gypsy and traveller site at Aylesford and the completion of a number of road schemes (Rushenden Relief Road, Sheppey, Victoria Way, Ashford, Sittingbourne Northern Relief Road and East Kent Access Phase 2). Decisions have also been taken to enable the Waste Capital Programme to be delivered.
- **Kent Local Nature Partnership:** Received Government recognition in June 2012 for this partnership which aims to deliver social and economic benefits through the appropriate management, conservation and enhancement of Kent's natural assets.
- **ARCH (Assessing Regional Habitat Change) project:** This three-year project was completed and has pulled together a comprehensive set of data about Kent's landscape and habitats and was recognised for a national award by the British Cartographic Society.
- **Coldharbour Gypsy and Traveller site:** Funding for a further eight pitches was secured, increasing the number of new pitches to 26. Construction began on site in May 2012 and is due for completion in late August 2013.

Issues:

- The Minerals and Waste core strategy has been delayed due to additional legislative requirements and will now be submitted to the Secretary of State in 2014
- Progress has been hampered in developing and implementing an agreed KCC standard for energy and water efficiency measures for capital projects. This will be achieved during 2013/14.
- The joint KCC/English Heritage bid for Heritage Lottery Funding for the Archaeological Resource Centre was unsuccessful, but work has continued on developing a series of options for this much-needed facility.

Enterprise & Environment Performance Dashboard

Outturn Monitoring 2012/13

Produced by Business Intelligence, Business Strategy

Publication Date: 3 June 2013

Kent County Council
kent.gov.uk

Guidance Notes

RAG RATINGS

GREEN	Performance has met or exceeded the Target
AMBER	Performance is at acceptable levels but below the Target
RED	Performance is below the Floor Standard

Targets and Floor Standards are set out in Divisional Business Plans.

DOT (Direction of Travel)

⇧	Performance has improved compared to the previous financial year
⇩	Performance has fallen since the previous financial year
⇔	Performance is unchanged compared to previous financial year

Highways and Transportation

Director: John Burr

Indicator Description	Outturn 2012/13	RAG	DOT	Year end Target	Floor Standard	Previous year
Average number of calendar days to repair a pothole	13.4	GREEN	⇧	28	35	20
Percentage of routine enquiries reported by the public, completed within 28 calendar days	95%	GREEN	⇧	90%	80%	90%
Customer satisfaction with routine service delivery (100 call back survey)	73%	AMBER	⇩	75%	60%	80%
Percentage of emergency incidents attended to within 2 hours	98%	GREEN	⇩	98%	95%	99%
Percentage of potholes due to be repaired in the month, completed within 28 calendar days	94%	GREEN	⇧	90%	80%	89%
Percentage of streetlights repaired in 28 calendar days (KCC Control)	90%	GREEN	⇧	90%	80%	84%
Percentage of streetlights on (working)	99%	GREEN	⇧	98%	90%	98%
Percentage of salting routes completed on time	100%	GREEN	⇧	99%	95%	99%
Percentage of total Enterprise workforce engaged as an apprentice	2.3%	AMBER	⇩	3%	2%	3%
Percentage of traffic signals working as planned	98.5%	GREEN	⇔	98%	95%	98.5%
Percentage of material diverted from landfill (average of hard material, green, soft excavation, metal covers and gully arising etc)	93%	GREEN	⇧	90%	80%	91%
Percentage of complaints responded to in 20 working days	96%	GREEN	⇧	90%	80%	91%
Percentage of letters responded to in 20 working days	96%	GREEN	⇧	90%	80%	91%

Highway Tracker Survey

Performance Indicator	Outturn 2012/13	RAG	DOT	Year end Target	Floor Standard	Previous year
Percentage of residents satisfied with the condition of roads	35%	RED	⇩	>51%	41%	51%
Percentage of residents satisfied with the condition of pavements	44%	AMBER	⇩	>51%	41%	51%
Percentage of residents satisfied with streetlighting	56%	AMBER	⇩	>64%	54%	64%
Percentage of County Members satisfied with the condition of roads	43%	RED	⇩	>55%	45%	55%
Percentage of County Members satisfied with the condition of pavements	18%	RED	⇩	>41%	31%	41%
Percentage of County Members satisfied with streetlighting	68%	AMBER	⇩	>76%	66%	76%
Percentage of Parish/Town Councils satisfied with the condition of roads	20%	GREEN	⇧	>13%	3%	13%
Percentage of Parish/Town Councils satisfied with the condition of pavements	23%	GREEN	⇧	>0%	0%	0%
Percentage of Parish/Town Councils satisfied with streetlighting	49%	GREEN	⇧	>47%	37%	47%

Activity Indicators

Indicator Description	Outturn 2012/13	Previous Year
Number of pothole repairs completed	14,032	11,645
Number of routine enquiries reported by the public which have reached completion due date (28 calendar days after initial enquiry)	40,389	61,248
Number of streetlight repairs which have reached completion due date (28 calendar days after initial enquiry) (KCC Control)	33,182	33,893
Number of streetlights	126,302	126,056

Waste Management

Head of Service: Roger Wilkin

Indicator Description	Outturn 2012/13	RAG	DOT	Year end Target	Floor Standard	Previous year
Percentage of municipal waste not taken to landfill (waste recycled, composted or converted to energy)	79.2%	GREEN	⇧	75.4%	72.8%	78.1%
Percentage of municipal waste recycled or composted	44.3%	AMBER	⇩	44.4%	42.9%	45.2%
Percentage of municipal waste converted to energy	35.0%	GREEN	⇧	30.9%	29.8%	32.9%
Percentage of waste recycled and composted at Household Waste Recycling Centres (HWRC)	72.0%	GREEN	⇧	70.0%	68.1%	71.8%
Kg's of residual household waste per household	598	GREEN	⇧	608	615	614

Activity Indicators

Indicator Description	Outturn 2012/13	Business Plan forecast	Previous year
Total Municipal waste tonnage collected	687,978	694,200	716,351
Municipal waste tonnage collected by district councils	522,011	526,000	525,013
HWRC waste tonnage collected	165,966	168,000	191,338
Waste Growth (% change from last year)	-4%	-3.1%	-2.7%

Planning & Environment

Director: Paul Crick

Indicator Description	Outturn 2012/13	RAG	DOT	Year end Target	Floor Standard	Previous year
Kent Environment Strategy: Development of the Green Economy						
Total number of businesses assisted to improve their performance (12 hours support) – cumulative figure	556	AMBER	⇧	600	500	250
Total number of additional firms involved in business networks – cumulative figure	1,114	GREEN	⇧	1,000	900	800
Total number of SMEs reducing energy, waste or water usage by 10% - cumulative figure	97	AMBER	⇩	100	New indicator	
Number of businesses achieving independent environmental accreditation (STEM Blue or higher) – cumulative	470	AMBER	⇧	500	400	220
Kent Environment Strategy: Public sector resource efficiency						
% reduction in carbon emissions from business travel across the KCC corporate estate	Available June 13	N/A	N/A	-2.6%	-2.6%	
Kent Environment Strategy: Valuing and protecting our natural and historic environment						
% of requests for ecological advice responded to deadline	93%	AMBER	N/A	95%	90%	NEW
Responding to requests for archaeological, historic buildings and historic landscape planning advice to time and appropriate standard	85.2%	AMBER	⇧	85%	80%	82%
% of Historic Environment Record searches completed within 7 working days	99%	GREEN	⇧	85%	80%	90%

Indicator Description	Outturn 2012/13	RAG	DOT	Year end Target	Floor Standard	Previous year
Planning Applications						
% of mineral and waste planning applications excluding those involving environmental impact assessment determined within 13 weeks ***	47%	RED	⇧	70%	55%	34.2%
% of mineral and waste planning applications including those involving environmental impact assessment determined within 16 weeks	59%	AMBER	⇩	70%	55%	65%
% of applications for the Council's own development proposals determined within 13 weeks	80%	GREEN	⇧	75%	70%	75%
Divisional						
% of Division's gross budget raised through income generation/external funding/grants	43.1%	AMBER	⇩	45%	40%	45.6%

Planning Applications

*** Members have always insisted that planning application decisions are taken in a timely manner, balancing the need for swift decisions with quality and a negotiated resolution of objections. These types of major developments tend to take longer because of the complexity of the issues, and the inevitable wider interest in them and levels of objection from consultees and neighbouring residents. In such circumstances, planning officers devote the extra time to negotiating around the problems and objections in order to bring about sustainable development.

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From: David Brazier, Cabinet Member – Transport & Environment
John Burr – Director of Highways & Transportation

To: Environment, Highways & Waste Cabinet Committee

Date: 19 June 2013

Subject: Pothole Find and Fix Update

Classification: Unrestricted

Summary:

This report provides an update on the progress with the Find and Fix programme, which is tackling the pothole damage caused by the severe winter weather.

Recommendation:

Members are asked to note the contents of this report.

1. Introduction

Potholes form when water gets into cracks in the road then freezes, making the crack bigger and creating a hole. When cars then drive over it, the hole gets bigger and deeper.

Following one of the wettest years and coldest winters recorded, an increase in potholes was inevitable. Highways and Transportation therefore prepared for a pothole blitz by developing an in-house process with the term contractor to run a find and fix programme with support from local sub-contractors.

Local Highway Operations teams identify priority areas and our contractor Enterprise carries out the works with the flexibility to repair all that is required in the road and adjacent roads while they are there i.e. “find and fix”.

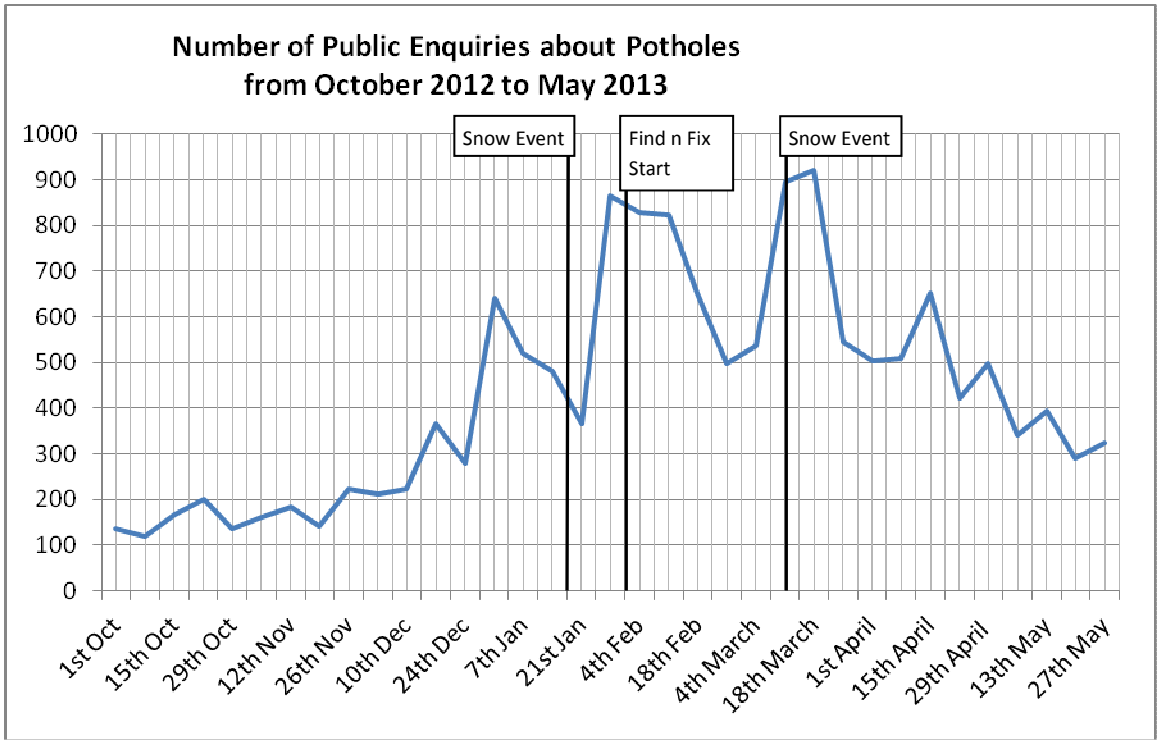
2. Progress

The programme of works is ongoing and Enterprise has almost doubled the number of crews out fixing the County’s roads with an additional 30 local sub-contractors dedicated to the Find and Fix programme.

At the time of drafting this report, a total of 1823 find and fix jobs had been ordered and 1041 of these had been completed. In most cases, one job equals one road and it is estimated that more than 20,000 potholes have been fixed across the county since the programme began.

We record the number of public enquiries received each week relating to potholes and this is a good county-wide indicator of state of pothole damage. Although pothole enquiry numbers have been high this year, there are 50% fewer than in 2010/11. This indicates that the Council's investment in previous Find and Fix programmes followed by carefully prioritised resurfacing and surface treatment programmes has paid off. As well as the Find and Fix work, this year will include another round of resurfacing and surface treatment schemes to further protect our network from future winter damage.

The graph below compares pothole enquiry levels over the last two years. It shows that enquiry numbers peaked after the second heavy snowfall in March and are now falling to more normal levels. This demonstrates that the Find and Fix programme has been successful. Consequently, the number of new jobs being identified is reducing significantly but the additional resources will be retained until all jobs are finished, which is expected to be by the end of July.



3. Quality Repairs

We always aim to complete a first-time permanent repair by saw-cutting a small section of the road around the hole, clearing out the old material, sealing the sides and filling it with new hot tarmac, which is rolled and compacted to provide a strong level and water-tight finish as it cools. If a road has lots of potholes we may need to complete a larger "patch" in the same way or resurface the whole section of road with specialist machinery to provide a satisfactory long-lasting repair.

With so much more work being carried out at the moment, we have increased supervision resource to help maintain quality control.

The time and care needed to carry out a quality permanent repair often means we need to close a lane or the whole road and this takes time to plan. For emergency potholes, we therefore sometimes need to make an instant repair by quickly filling the hole without all the preparations described above. We do this to make the road safe straightaway and then schedule in a full permanent repair to be carried out as soon as possible after.

4. Bold Steps for Kent and Policy Framework

Maintaining a safe and reliable highway network is vital to provide access to KCC services for all and to support a healthy economy.

5. Financial implications

(1) An additional £1.2M of funding was provided and spent on the pothole Find and Fix programme at the end of last financial year.
(2) A further £1.2M has been spent on the programme this financial year against a current total estimated spend for 2013/14 of £3M.

6. Recommendations

Members are asked to note the contents of this report.

Contact details

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From: David Brazier, Cabinet Member – Transport and Environment

Paul Crick, Director – Planning & Environment

Ann Carruthers, Transport Strategy Delivery Manager

To: Environment, Highways & Waste Cabinet Committee

Date: 19 June 2013

Subject: DfT Consultation on options for a new Lower Thames Crossing

Classification: Unrestricted

Summary: This report summarises details of the Department for Transport's (DfT) current consultation on the corridor options for a new Lower Thames Crossing and presents evidence on the benefits and impacts of each option.

Recommendation(s): The Cabinet Committee is asked to receive and note the content of this report and appendices which summarise the current Department for Transport consultation on corridor options for a new Lower Thames Crossing.

1. Introduction

1.1 On 21 May 2013, the Department for Transport (DfT) launched a consultation on the need for, and options for, a third Lower Thames Crossing. The consultation closes on 16 July 2013. In arriving at the decision that a new crossing option is required and the three corridor options, the DfT has drawn on a considerable number of studies that have been undertaken over the last few years as well as seeking advice from a Stakeholder Advisory Panel. KCC has been represented at director level on this Stakeholder Advisory Panel and has fully engaged throughout the early scheme feasibility stage with the prime objective of seeking the delivery of this project at the earliest opportunity. This paper summarises the considerable evidence issued as part of the consultation. The County Council's Cabinet will be discussing a response to the DfT's consultation at their meeting on 15 July 2013.

2. Financial Implications

2.1 This report and any resulting decisions will have no impact on the Council's capital and revenue budgets and spending plans as this project will be promoted by Government with a public, private or public/private

partnership funding model. The public sector funding would come from Government as this project is recognised as a nationally significant one.

3. Bold Steps for Kent and Policy Framework

3.1 A decision to support a particular corridor option will fully support the Council's Medium Term Plan (Bold Steps for Kent) and will directly contribute to two of the three overarching objectives: growing Kent's economy and tackling disadvantage.

3.2 A decision to support a particular corridor option will also contribute to a key objective of Growth without Gridlock, the Council's 20 year transport delivery plan, as well as to the Local Transport Plan 2011-16, Kent's statutory transport plan.

4. The need for a new crossing

4.1 The existing Dartford-Thurrock crossing is the only river crossing to the east of London. It has provided a vital north-south connection since the west tunnel opened in 1963 and is a key link for journeys to and from Europe, within London and the south east and to/from the rest of the UK. It is also located in the Thames Gateway area where major redevelopment is planned on a nationally significant scale.

4.2 Government is clear that the existing Dartford – Thurrock Crossing is over capacity. It is also clear that even after the introduction of free-flow tolling in October 2014, traffic volumes and delays will continue to increase both at the crossing and its approaches, and that the cost to the UK economy in terms of reduced productivity and constrained growth will be exacerbated. Section 2 of the annex to this report sets out the evidence supporting this position and can be summarised as:

- The existing crossing is over capacity and this will only get worse as traffic continues to grow
- Delays and journey times will continue to increase over the crossing
- Network resilience and the impact of incidents causing severe delay are likely to worsen
- the increasing cost of congestion to business will mean productivity declines and economic growth is stifled
- The considerable growth agenda for the Thames Gateway will not be realised
- Air quality issues and the resultant negative impact on health will continue to rise for those living in close proximity to the existing crossing and its approaches.

4.3 All of these would still occur, even once free-flow charging is introduced.

5. The crossing options

5.1 The DfT therefore launched a consultation on three potential corridor options with one of the options having a suggested variation. These are illustrated in Appendix A. In summary these options are:

- Option A: This option would provide additional long-term capacity at Dartford through the delivery of a new crossing while retaining all existing infrastructure (bridge and tunnels). This offers the shortest crossing route among the options and links the M25 J31 and M25 J1, and therefore directly ties in with the strategic road network.

- Option B: This option would provide a new crossing in the vicinity of the Swanscombe peninsula. It would connect the A2 to the south in the vicinity of Dartford, to the A1089 to the north in the vicinity of Tilbury Docks.

- Option C: This option comprises the provision of a new crossing to the east of Gravesend and Thurrock. It would need to link the M25 with the M2 and thus form a major new piece of infrastructure in the strategic road network. It would potentially provide a direct route for longer distance movements using the north-east section of the M25 and the M2 as well as providing some relief to the existing crossing.

- Option C variant: Option C with an additional link to the M20 for long distance traffic, which has been assumed would take the form of widening the A229 linking the M2 and M20.

5.2 Each option will provide two lanes for traffic in each direction and could be one of three structure types: bridge, immersed tunnel or bored tunnel. An immersed tunnel involves excavating a trench on the riverbed and dropping a tube structure into it. A bored tunnel is literally a circular tunnel bored at depth below the riverbed without removing the ground above it.

6. Option assessment

6.1 The following assessment presents an overview of the benefits and impacts likely to arise from each of the corridor options. Considerably more detail is presented in Appendix B of this report which considers the likely effects in relation to:

a) contribution to the national economy
b) congestion, resilience and strategic road network
c) contribution to reducing greenhouse gas emissions
d) impacts on environmentally sensitive areas and quality of life
e) costs and value for money.

6.2 Overall, each option is deemed feasible to build and connect into the existing road network. In addition, Government have clarified that for

option B they will ensure it would not preclude the proposed Paramount Park Resort from proceeding. Each option is likely to offer benefits in excess of the costs and each option is likely to deliver the following, albeit to varying extents:

- Increase traffic levels crossing the lower Thames;
- Reduce congestion and improve journey times on the existing crossing;
- Provide large benefits to business users;
- Increase the population experiencing noise; and,
- Lead to some relocation of jobs eastwards from London.

6.3 Table 8 of Appendix B (pages 22-24) is an extract from the DfT consultation report and considers the likely impacts across each of the corridor options. It provides a summary across a wide range of indicators of how each option performs.

6.4 The table below provides a comparison of the cost and value for money of each option. All monetary values are expressed in 2010 prices and values. The range of values presented for each location option reflects the differences between the costs and benefits of the three engineering solutions.

6.5 It can be seen that the bridge structure for Option A (BCR of 2.4) and each structure possibility for Option C potentially offer the greatest value for money. However, as the DfT consultation acknowledges, if Option A is pursued, it is highly likely that significant improvements would be needed at J30 and J2 of the M25. In this case, the cost of option A could reasonably be increased by £0.5-1 billion meaning its cost benefit assessment figure will be reduced.

Comparison of costs and value for money				
	Option A	**Option B**	**Option C**	**Option C$_{variant}$**
Estimated capital cost range	£1.2bn – £1.6bn	£1.8bn – £2.2bn	£3.1bn – £3.2bn	£4.9bn – £5.0bn
Indicative BCR without wider impacts	1.0 – 1.8	0.5 – 0.8	1.2 – 1.3	1.2
Indicative BCR with wider impacts	1.4 – 2.4	1.1 – 1.7	1.9 – 2.0	1.7

7. Conclusions

7.1 The relative merits and disbenefits of each corridor option can be summarised as set out in Table 3 below.

Table 3	**Relative Merit**	**Relative Disbenefit**
Option A	• Performs best in alleviating congestion on existing crossing • Modest reduction in greenhouse	• Does not improve connectivity of strategic road network • Stimulates limited economic

	gas emissions • Least overall impact on natural environment of all options reviewed	growth • May impact on planned developments in Dartford and Thurrock • Potential for greater congestion around M25 Junctions 30 and 2
Option B	• Alleviates congestion at existing crossing, although to lesser extend than Option A • Improves connectivity and therefore supports economic activity in the local area	• Adds delay to A2, and A13 east of Basildon • Forecast increase in greenhouse gas emissions • May impact development sites north of A2 in Swanscombe Peninsula • Crosses area of nationally important heritage and archaeologicial value
Option C	• Alleviates congestion at existing crossing although to lesser extent than Option A • Greatest journey time savings of all options for new crossing • Greatest economic benefit of all options • Large decrease in greenhouse gas emissions	• Passes through Green Belt land • Greatest impacts on environmentally sensitive areas, passing through Kent Downs AONB, ancient woodland and the Thames Marshes Ramsar site.

7.2 From the above assessment it can be seen that while Option A is more likely to relieve congestion on the existing crossing and cause the least environmental impact, it does little in terms of network resilience hence continued misery for users of the crossing, misses a vital opportunity to create a new strategic route and would result in the least economic growth. In addition, it is likely that significant additional network improvements (M25 J30 and J2) would be required with this option which have not been costed or considered in the cost benefit assessment.

7.3 Option B provides better connectivity between the north and south elements of the Thames Gateway but again misses a vital opportunity to create a new strategic link, is likely to have large adverse environmental impact and is shown to offer a lower cost benefit ratio and hence poorer value for money.

7.4 Option C, while the most expensive option and likely to cause the largest adverse environmental impact, will provide the greatest economic growth along with a new strategic transport route and the greatest reduction in greenhouse gas emissions.

8. Recommendations

Recommendation(s): The Cabinet Committee is asked to receive and note the content of this report and appendices which summarise the current Department for Transport consultation on corridor options for a new Lower Thames Crossing.

9. Background Documents

9.1 Review of lower Thames Crossing Options: Final Report, Department for Transport/Aecom April 2013
https://www.gov.uk/government/consultations/options-for-a-new-lower-thames-crossing

9.2 Third Thames Crossing Regeneration Impact Assessment, URS, May 2012 and Addendum Report December 2012
** This report is currently not available online although copies can be made available by contacting the author of this report (Ann Carruthers)*

9.3 Review of Environmental Impacts of Lower Thames Crossing Options, Mouchel, November 2012
** This report is currently not available online although copies can be made available by contacting the author of this report (Ann Carruthers)*

9.4 The Dartford River Crossing study into capacity requirements. Parsons Brinckerhoff on behalf of the Department for Transport (2009)
http://webarchive.nationalarchives.gov.uk/+/http://www.dft.gov.uk/about/strategy/capacityrequirements/dartfordrivercrossing/

9.5 Growth without Gridlock, A transport delivery plan for Kent, KCC, December 2010
http://www.kent.gov.uk/roads_and_transport/highway_improvements/our_transport_vision/local_transport_plan.aspx

9.6 Local Transport Plan for Kent 2011-16, KCC, April 2011
http://www.kent.gov.uk/roads_and_transport/highway_improvements/our_transport_vision/local_transport_plan.aspx

10. Contact details

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Figure 5.1 Location options for a new Lower Thames crossing

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Appendix B

Third Lower Thames Crossing – Department for Transport Consultation
Kent County Council – Option Consideration

Outline:

1. Background/Introduction

2. The need for a new crossing

    2.1 Traffic volumes and congestion
    2.2 Incidents, resilience and journey time reliability
    2.3 Forecast traffic growth and freight growth
    2.4 Cost of congestion and impact on business
    2.5 The growth agenda
    2.6 Air quality and health impacts

3 Assessment of corridor options

    3.1 The corridor options
    3.2 Evidence base
    3.3 Contribution to national economy
    3.4 Congestion, resilience and strategic road network
    3.5 Contribution to reducing greenhouse gas emissions
    3.6 Impacts on environmentally sensitive areas and quality of life
    3.7 Costs and value for money

4 Funding

5 Summary and conclusions

2. The need for a new crossing

The current Dartford to Thurrock crossing is one of Europe's most heavily used crossings and provides a key link on the M25, the UK's most important orbital motorway. It performs a vital function as the only crossing point east of London for strategic and international traffic between the main Channel crossings and areas north of the Thames including to the Midlands and on to Scotland. It is also the point of connection between the strategic growth areas of North Kent and South Essex making up the Thames Gateway. In effect, it is one of the country's most important strategic connections. It is also one of Britain's worst bottlenecks which is currently stifling much needed national and regional economic growth.

The Government has confirmed that short term to medium term measures will be implemented to make best use of existing capacity. These measures are the introduction of charge suspension during severe congestion as well as the technology to enable free flow tolling. An increase in toll prices to help manage demand as well as fund infrastructure is also part of this package. The evidence is clear however, that these measures will provide minimal short term relief and that the case for a new crossing is still absolutely urgent. This case is outlined below with the majority of the evidence presented below being sourced from the Department for Transport's current consultation reports[1].

2.1 Traffic volumes and congestion

The existing Dartford crossing has a design capacity of 135,000 vehicles per day but currently experiences travel volumes in excess of 160,000 vehicles per day a least once a week[2] and regular flows of 140,000 vehicles per day[3]. This situation is confirmed by the Dartford free-flow charging project which found that the crossing operated above its design capacity on 257 days during 2010[4]. The daily average flow for 2011/12 was 138,760 vehicles with over 50 million vehicles carried annually. DfT analysis has concluded that the section of network that includes the Dartford Crossing, experiences the third highest levels of delays nationwide[1] and this is despite total flows over the crossing having reduced slightly in recent years[5]. Separate studies[1, 2] have concluded that the current road based infrastructure lacks resilience and is not able to cope with current traffic volumes for the majority of the day.

Peak flows are around 5,500PCUs in each direction occurring at around 1700 – 1800 however there are significantly reduced levels of service on the crossing (characterised as vehicles using the crossing which experience more than 9 minutes of additional delays) once flow exceeds 3,000 vehicles per

[1] Review of lower Thames Crossing Options: Final Report, Department of Transport/Aecom, April 2013

[2] The Dartford River Crossing study into capacity requirements. Parsons Brinckerhoff on behalf of the Department for Transport (2009)

[3] http://www.highways.gov.uk/our-roads/area-teams/area-5/the-dartford-thurrock-river-crossing/traffic-flow/

[4] Highways Agency HATRIS data

[5] Kent Travel Report (2012)

hour. This level of service and associated delay is experienced by almost half of users in either direction throughout the day with flows above 4,000 vehicles per hour from 0600 to 1900 each weekday.[2] This demonstrates that even for the inter-peak period (0900 to 1500) congestion is a continual problem.

2.2 Incidents, resilience and journey time reliability

The traffic volumes, proximity of junctions on the approach to the crossing and the lack of an alternative route all lead to a higher level of incidents and extremely low levels of network resilience. The existing crossing, toll plazas and approaches to the crossing have twice the national average injury accident rate for a route of this type[2]. When an accident or incident occurs this lack of network resilience results in even greater levels of delay and its associated cost.

This lack of capacity and resilience results in delays, longer journey times and reduced journey time reliability. The Highways Agency data on journey time reliability shows that between October 2011 and September 2012, the Dartford Crossing was the least reliable section of the strategic road network[6]. These factor increase costs for individuals and business, reducing productivity and ultimately weakens UK economic performance. These capacity and resilience issues will worsen as a result of forecast traffic growth, detailed below.

2.3 Forecast traffic growth and freight growth

Data over recent years has shown the there have been declines in traffic volumes on the Dartford Crossing since a peak figure of just over 148,000 vehicles in 2005. While this decline has been marginal, traffic volumes are still such that the crossing is operating over capacity.

Using DfT National Road Traffic Survey data, the table below shows how the average daily flow across the motorway and major road 'A' class network has changed over a number of years.

Table 1[7]

Year	Traffic volumes on UK motorway network	% change from 1993	Traffic volumes on all 'A' class road network	% change from 1993
1993	58.2		11.3	
1994	59.8	2.7%	11.6	2.7%
1995	61.9	6.4%	11.8	4.4%
1996	64.8	11.3%	12.1	7.1%
1997	66.6	14.4%	12.3	8.8%
1998	68.7	18.0%	12.4	9.7%
1999	69.7	19.8%	12.5	10.6%
2000	69.6	19.6%	12.4	9.7%
2001	71.6	23.0%	12.6	11.5%
2002	73.0	25.4%	12.8	13.3%
2003	73.3	25.9%	13.0	15.0%
2004	74.9	28.7%	13.1	15.9%
2005	75.6	30.0%	13.1	15.9%

[6] http://data.gov.uk/dataset/journey-reliability-highways-agency-network
[7] DfT National Road Traffic Survey

2006	76.6	31.6%	13.3	17.7%
2007	77.4	33.0%	13.2	16.8%
2008	76.9	32.1%	13.0	15.0%
2009	76.5	31.4%	13.0	15.0%
2010	75.6	30.0%	12.9	14.2%
2011	76.3	31.1%	12.9	14.2%
Average annual growth		1.72%		0.79%

From this it can be seen traffic volumes on the motorway network have increased by 31% over the 18 year period and by 14% for the major 'A' class road network. Taking the average across both these road types gives an annual growth figure of 1.26%. The DfT's Lower Thames Crossing traffic model forecasts that overall traffic flows will increase from 2009 to 2041 by around 30% across the policy area[1]. The 2009 DfT study estimated that there would be a 38% increase in traffic volume by 2031 using the Dartford Crossing.[2] For LGV traffic the 2009 DfT study forecast this will rise by 88% between 2010 and 2035 with the equivalent figure for HGVs being 43%.[8]

These figures for the Dartford Crossing and LGV/HGV traffic represent a higher annual growth figure than the general motorway and major 'A' class road network statistics. In recognition however, that growth has slowed in the last few years during the recession, applying a growth figure of 1% per annum into the future would seem reasonable and indeed is likely to represent a conservative estimate.

On this basis, the daily average flow on the Dartford Crossing is likely to be just over 153,000 vehicles in ten years time and just under 170,000 vehicles per day in 20 years. Given the design capacity of the crossing (135,000 vehicles), it is absolutely clear that the existing crossing has outlived its design life and has no capacity to cope with even the smallest levels of traffic growth. This also crystallises the point that free-flow tolling and the improved flow that this will facilitate, can only ever be a short term "sticking plaster".

In 2010, UK ports handled 95% of all goods in and out of the UK. This means freight to and from our main ports will make up a key component of traffic on the strategic network serving those ports and that a high quality, congestion free strategic network to the major ports is vital to the effective functioning of the UK economy. The 2009 DfT study established that over 30% of HGV journeys using the crossing are travelling particularly long distances to and from the Port of Dover[2].

Dover is the UK's busiest port for roll-on, roll-off (ro-ro) freight with 87% of UK ro-ro traffic entering and leaving the country via Dover, and Felixstowe is the UK's top container port handling 2 million containers per annum.[9] The Dartford Crossing is currently a significant bottleneck on the main route to

[8] Road Transport Forecast 2011 DfThttp://assets.dft.gov.uk/publications/road-transport-forecasts-2011/road-transport-forecasts-2011-results.pdf
[9] Department for Transport, UK Port Freight Statistics, Statistical Release September 2012

Dover from anywhere north of London and, similarly for freight movements between the South East and Felixstowe.

This situation will be compounded by the conclusions of work carried out by MDS Modal on behalf of the DfT which was updated in 2007[10]. This forecast that there would be the following increase in demand by 2030 over a 2005 base of:

- 182% in containers (from 7m to 200m teu[11])
- 101% in ro-ro traffic (from 85m to 175m tonnes)

While these figures were derived during pre-recession years and there has been a subsequent downturn in demand, the Government has expressed the view that the long term effect will be to delay by a number of years but not ultimately reduce the eventual levels of demand for port capacity. In reality what this will mean, is increasing levels of freight needing to use the Dartford Crossing. Without a new crossing, congestion levels and resulting delays will increasingly escalate costs for business and so reducing productivity and ultimately economic performance.

2.4 Cost of congestion and impact on business

A very broad assumption of the cost of current congestion on the Dartford Crossing has been calculated using Webtag values for time and vehicle occupancy. Based on the fact that between 6am and 7pm flow rates on the crossing are in excess of 4,000 vehicles per hour and at that level, average delays are 9 minutes per vehicle. Applying Webtag values this gives an annual cost of £39.4 million. This broad calculation reinforces the figure of £40 million estimated in the Dartford River Crossing Study report.[12]

A recent survey[13] of the freight industry on their experiences and views of the impacts the existing Crossing has on their operations was carried out by the South East Local Enterprise Partnership on behalf of the local transport authorities. This survey was conducted via the Road Haulage Association, Freight Transport Association and Chambers of Commerce. Key results are summarised below.

- 30% of respondents used the crossing 50 or more times per week
- 91.5% experienced congestion with just under half experiencing it more than 3 times a week
- 95.3% said they lose time due to congestion.
- 81% said they incur additional costs from congestion.
- 26% estimated they lost 3 or more hours per vehicle per week due to congestion at the Crossing.

[10] Department for Transport, National Policy Statement for Ports, January 2012
[11] Teu = twenty foot equivalent container unit
[12] Dartford River Crossing Study Report, Department for Transport April 2009
[13] Freight Sector Survey – Consultation Findings Technical Note, Atkins, 3 May 2013

- 77.5% build in additional time to account for delays, but then 62.7% state that it is then wasted time if delays do not occur, hence unproductive time for the business.
- 15% stated they do not do business with companies on different sides of the river because of congestion at the Crossing.
- If congestion was to reduce, 27.9% perceived that they would have operational efficiencies and more reliable deliveries, 21.3% would have reduced costs in terms of fuel and staff costs with 23% reducing costs in general.
- 31.3% said they route deliveries to avoid the Dartford Crossing (the majority, 68.8%, do not avoid the crossing resulting in further freight traffic adding to congestion at the Crossing).
- 88.5% thought that a new Lower Thames Crossing would help provide a solution.
- 94% perceived that there would be reduced congestion as a result of a new Lower Thames Crossing and 87% viewed that there would be improved journey time reliability.
- In terms of the perceived operational business improvements as a result of a new Lower Thames Crossing, 89% stated journey time reliability, 85% time savings, 76% reduced operating costs and 73% improved productivity.
- The majority (53.2%) said they would be prepared to pay the same toll as the existing Dartford Crossing for a new Lower Thames Crossing. With a further 20.8% saying that the price they would be prepared to pay depends on the location of the new crossing.

From this survey, it is evident that there is a clear view from the freight sector that the existing Dartford Crossing costs their business in terms of lost time due to congestion and unreliable journey times, ultimately impacting on their overall productivity. Similarly, there is a clear view from the majority of respondents that a new crossing would reduce congestion and improve journey time reliability. Over half said they would be willing to pay toll levels equivalent to the existing crossing tolls to see these benefits.

This survey confirmed from the business perspective, the fact that the current crossing contributes to poor connectivity between the Kent and Essex parts of the Thames Gateway. 15% of survey respondents stated they will not do business with companies on the opposite side of the Thames because of congestion on the Dartford Crossing: clear evidence of stifled growth potential. This issue will similarly affect private individual in such choices as where to work, shop and socialise limiting options and ultimately impacting quality of life and wellbeing.

2.4 The growth agenda

The Thames Gateway is one of the largest growth areas in the country with 160,000 houses and 225,000 jobs planned for delivery by 2026 reflecting the fact that it was designated by the previous Government as a national priority for urban regeneration. The economic strategy for the Thames Gateway development priorities aimed to deliver £12 billion of GVA to the UK economy

by 2012[14] which clear demonstrates the scale of growth this area is capable of delivering. There is a considerable challenge in ensuring this growth can be accommodated in a sustainable way and that congestion and poor accessibility do not operate to stifle the massive potential the area can deliver for economic growth.

Key developments to note are the London Gateway facility currently under construction by Dubai Ports representing a £2 billion investment. This will compound the South East's position as the gateway for a significant proportion of UK trade when it opens in the 4th quarter of 2013. This facility will be the UK's biggest deep-sea container port capable of handling 3.5 million teu and will house Europe's largest planned logistics park offering 860,000sqm of accommodation, primarily for the distribution sector. It will create 12,000 direct jobs. While a significant proportion (30%) of the containerised units is planned to be transferred to rail, London Gateway will still generate substantial amounts of road traffic for which high quality, congestion free road connections will be essential if the facility is to fulfil its potential role in boosting the UK economy.

The Swanscombe Peninsula on the south side of the Thames is the location for the proposed Paramount Park development. If consented, this theme park will include a water park, event space, cinemas, theatres, hotels and ancilliary housing and is claimed will be the third largest theme park in the world. It will potentially create 27,000 jobs and London Resort Company Holdings, the scheme promoters anticipate opening in 2019. Efficient and easy access by both road and public transport will be vital if such a development is to be successful.

In September 2012 KCC organised an "Action for Growth" Infrastructure Summit involving representatives of the construction and development sectors, central and local government including senior representatives of UKTI, the Local Enterprise Partnership and the investment sector.

A number of key requirements were identified across several topic areas for implementation if the UK is to make real progress in delivering growth over the short to medium term on a scale that will be sufficient to boost the country's economy. The requirements were:

- *cutting costs and reducing the burden of compliance*
- *streamlining procurement*
- *cutting planning delays*
- *kick-starting growth locally by identifying new growth*
- *Utility companies should no longer be able to hold developments to ransom*
- *enabling greater private infrastructure investment*

[14] Thames Gateway Economic Development Investment Plan (East of England Development Agency, London Development Agency and South East of England Development Agency)

Within the remit to kick start local growth, there was clear recognition that early commitment from the Government to deliver a new lower Thames Crossing was vital. The immediate action arising from this was for a corridor that enabled a new strategic route to be developed along the North American design/build/finance/operate model. It is evident from the outcomes of this summit that it is not just the business sector who recognises the urgent need for a new crossing, but the wider economic benefits such a project could deliver are well recognised by the construction, development, financial and investment sectors as well.

The huge levels of planned and anticipated growth in the Thames Gateway, even during times of economic recession, demonstrate that development pressure is spreading eastwards from the capital. To make this work and ensure it comes to fruition good connections north and south of the river are essential. The existing crossing simply does not have the capacity to deliver on this even after the introduction of short and medium term measures.

2.6 Air quality and health impacts

The sustained high levels of traffic flow on a daily basis through the year and the consequential delays at both the existing crossing and its approaches, have an adverse impact particularly in terms of vehicle emissions. Air Quality Management Areas have been declared for Dartford which includes the M25 J1a-1b and the A282 and at locations adjacent to the A282 and M25 in Thurrock. It is likely the existing crossing will be a significant contributory factor in the designation of these AQMAs as the principle issue in both cases is the emissions from traffic on the approach to the crossing rather than on the crossing itself.

These high levels of emissions and exceedences of specific pollutants as denoted by the AQMAs, will have an impact on health. This will be particularly so for Dartford and Thurrock residents who live in close proximity to the approaches to the existing crossing. To some extent this is borne out by the fact that Darford, along with Gravesham, Medway, Swale, Thanet, Dover and Shepway has higher lung cancer rates than other districts in Kent and the South East[15].

Transport related air pollution increases the risk of mortality, particularly from cardio-pulmonary causes. It also affects health in a number of other ways, including: non-allergic respiratory disease; allergic illness and symptoms (such as asthma); cardiovascular morbidity; cancer; pregnancy; birth outcomes; and male fertility. The Figure 1 and 2 below both demonstrate how Dartford has higher instances of respiratory diseases and asthma, both of which can be acerbated by poor air quality.

[15] Cancer Inequalities in the South East Region: the Burden of Cancer, NHS, Sept 2006

Figure 1 Hospital Emergency Admission rates for Asthma - Dartford[16]

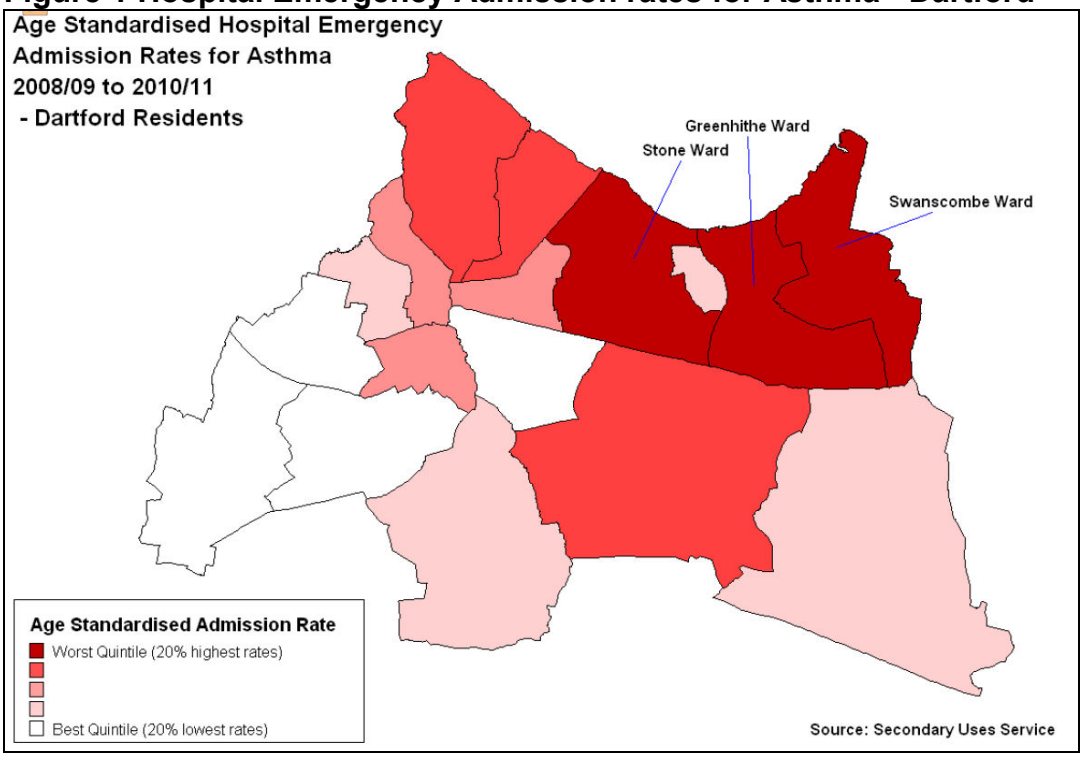
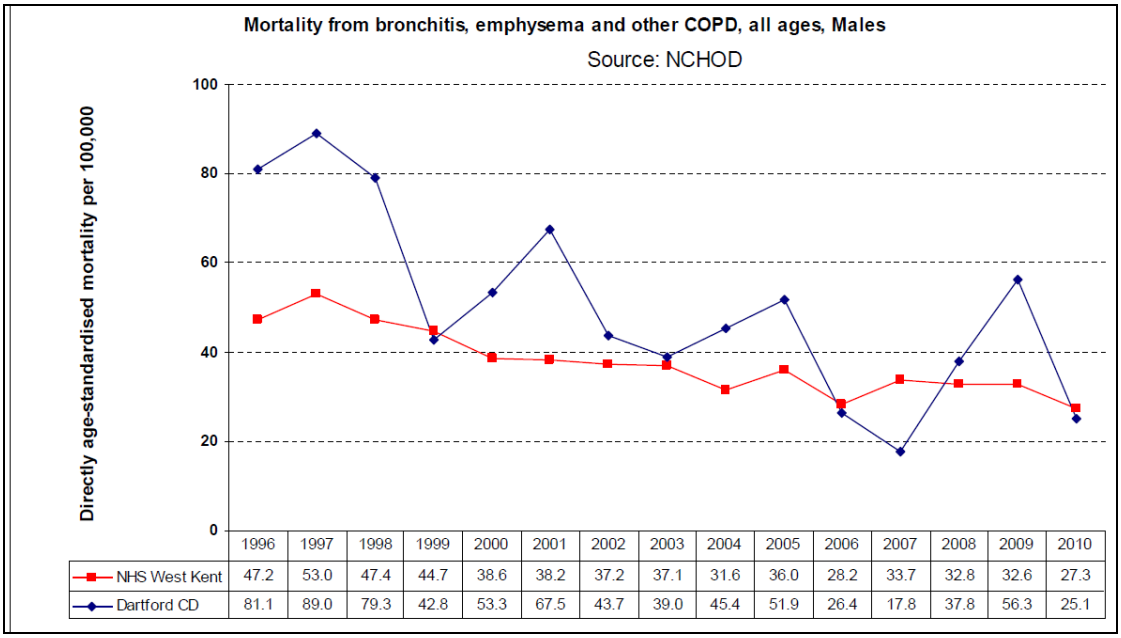


Figure 2 Male mortality from respiratory diseases Dartford and West Kent[16]



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
NHS West Kent	47.2	53.0	47.4	44.7	38.6	38.2	37.2	37.1	31.6	36.0	28.2	33.7	32.8	32.6	27.3
Dartford CD	81.1	89.0	79.3	42.8	53.3	67.5	43.7	39.0	45.4	51.9	26.4	17.8	37.8	56.3	25.1

[16] Health and Social Care Mapping Kent and Medway Public Health Observatory

Summary of case for new crossing
The evidence presented above makes it abundantly clear that the need to significantly enhance Thames crossing provision in the Lower Thames area, both as a catalyst for and facilitator of growth in the Thames Gateway and the wider South East is urgent. Government has been clear, that even with free-flow charging in place, the existing crossing will be over capacity and continue to experience severe delays with extremely poor network resilience[17].

3. Assessment of corridor options

3.1 The corridor options

The corridor options being assessed as potential location for a Third Lower Thames Crossing are shown in Appendix A and described below.

- Option A:This option would provide additional long-term capacity at Dartford through the delivery of a new crossing while retaining all existing infrastructure (bridge and tunnels). This offers the shortest crossing route among the options and links the M25 J31 and M25 J1, and therefore directly ties in with the strategic road network.

- Option B: This option would provide a new crossing in the vicinity of the Swanscombe peninsula. It would connect the A2 to the south in the vicinity of Dartford, to the A1089 to the north in the vicinity of Tilbury Docks.

- Option C: This option comprises the provision of a new crossing to the east of Gravesend and Thurrock. It would need to link the M25 with the M2 and thus form a major new piece of infrastructure in the strategic road network. It would potentially provide a direct route for longer distance movements using the north-east section of the M25 and the M2 as well as providing some relief to the existing crossing.

- Option $C_{variant}$: Option C with an additional link to the M20 for long distance traffic, which has been assumed would take the form of widening the A229 linking the M2 and M20.

For each option three types of structure are considered namely, a bridge, an immersed tunnel and a bored tunnel. An immersed tunnel is a shallow depth tunnel submerged in a trench in the riverbed, while a bored tunnel requires the construction of a circular tunnel at depth, without removing the ground above. Each option will provide 2 lanes in each direction and it is anticipated construction could take place in the 2020-25 period with a year of opening of 2025.

[17] Stephen Hammond at his launch of the Lower Thames Crossing Consultation, Westminster, 20 May 2013.

3.2 Evidence Base

In order to allow informed decision making on which option should be progressed, the Department for Transport has issued detailed evidence evaluating the benefits and impacts of each option. The following assessment draws largely from that DfT evidence[1]. Government has been clear that each option will result in the following, albeit to varying extents:

- Benefits that exceed the costs;
- Increased traffic levels crossing the lower Thames;
- Reduced congestion on existing crossing;
- Large benefits to business users
- Improved journey times using the existing crossing
- Increase population experiencing noise: and,
- Some relocation of jobs eastwards from London into Thames Gateway.

In order to inform it's own decision making, KCC jointly commissioned with Essex County Council and Thurrock Council two studies during 2012 to provide an evidence base in relation to the three crossing options. The first of these studies, the KCC Regeneration Study 2012, assessed the likely regeneration impact a new Lower Thames Crossing would have[18]. This study considered how each of the three crossing options could:

- unlock or bring forward the development of key sites to provide employment opportunities and delivery of homes.
- Impact on the scale, timing and type of development
- Impact on the net additional economic impact of each option.

The second study, the KCC Environmental Study 2012, assessed the environmental impact of the crossing options following the implementation of mitigation[19]. The main aspect of this work identified the potential environmental impacts that would affect the ecology and biodiversity (impact on European designated sites, SSSI, LNR, LWS, RSPB reserve, UKBAP Habitats and notable/protected fauna), cultural heritage, landscape, flooding, noise and air quality factors identified as relevant to each crossing option. The process involved identifying the environmental impacts and the feasibility of potential mitigation and then assessing the residual impacts after the implementation of this mitigation. As with the regeneration study, account is taken of the Option B routing towards the east of the Eastern Quarry site.

3.3 Contribution to national economy

3.3.1 Regeneration

The KCC regeneration study shows that Option A offers the least potential in terms of delivery of new homes and jobs therefore representing a significant

[18] Third Thames Crossing Regeneration Impact Assessment, URS, May 2012 and Addendum Report December 2012

[19] Review of Environmental Impacts of Lower Thames Crossing Options, Mouchel, November 2012

missed opportunity for Thames Gateway, as well as national economic growth. Option B offers significantly more potential for the delivery of new homes and jobs than Option A and marginally more than for Option C and represents the biggest opportunity to boost economic growth. These figures are given in Table 2 below.

Table 2 KCC Regeneration Study Assessment of each Option[18]

Impact	Option A		Option B		Option C	
	2012-2021	2012-2031	2012-2021	2012-2031	2012-2021	2012-2031
Additional Jobs	21,700	22,931	33,150	35,807	30,083	32,334
Additional Homes	10,613	15,580	16,641	32,813	14,892	28,320

This finding that Option C offers the greatest potential for economic growth is confirmed by an earlier study KCC commissioned in 2010. This earlier study by KPMG carried out a high level assessment of the wider economic and regeneration impacts of a new Lower Thames crossing and concluded that a crossing from Chadwell in Essex to east of Gravesend would provide major economic benefits for the local area contributing £12.7 billion to local GVA (£334 million a year)[20].

3.3.2 User Benefits

Benefits to users can be captured through traffic modelling work and reflects the time savings for users as well as other costs incurred or saved and equates this to financial savings. As can be seen from Table 3 below, savings are substantially higher for business users which reflects the fact that financial costs and hence operational costs for HGVs are significant compared to cars. This evidence demonstrates that Option C variant and Option C offer considerably more user benefits than options A or B, with Option C variant offering over 3 times the benefit of Option A.

Table 3 Comparison of Options broken down by user types[1] (present value over 60 years, £m 2010 prices)

Impact Assessed	Option A	Option B	Option C	Option C variant
Business users	700	1,200	2,200	2,900
Consumer users	200	-300	-100	200

A practical example of this is the potential cost savings route choice could realise for strategic traffic. An analysis of the cost savings for trips between the south of Kent (Dover) to the J7 on the M11 which are likely to form the basis of a significant proportion of traffic from north of the Thames to Europe. Table 4 below shows that for this particular trip savings of just over £158,000 can be made per day in terms of car and OGV2 vehicle running costs based on current traffic volumes if they used option C. This would equate to just under a £40 million saving annually. Additional costs of just under £57,000

[20] The lower Thames Crossing – KPMG Regeneration and Funding Report, August 2010

would be accrued if this traffic switched to option B giving an annual cost of just over £14 million.

Table 4 Vehicle operating cost comparison of switching route to Option B and C

	Option A	Option B	Option C
Trip distance (miles)	87.3	88.6	83.7
Costs/Savings for Cars of switching routes			
Cost per car journey[21]	£42.91	£43.66	£40.60
Change from Option A for car		+£0.75	-£2.31
Cost assuming 50% of car traffic switches from existing crossing		+£52,031.63 per day	- £144,241.02 per day
Cost/Savings for OGV2 of switching routes			
Cost per OGV2 journey [22]	£47.69	£48.40	£45.72
Change from Option A for OGV2		+£0.71	-£1.97
Assuming 10% HGVs on existing crossing and half switches from existing crossing		+£4,925.98per day	- £13,667.86 per day

3.3.3 Wider Economic Benefits

Connectivity of the strategic road network will also be a significant potential contributor to economic growth. This confirms the evidence that Option C variant and Option C will generate substantially greater wider economic benefits than either A or B. The majority of these benefits accrue from agglomeration benefit from connecting businesses on either side of the Thames. Agglomeration effects arise where businesses become better connected and benefit from that proximity through improved labour market matching and sharing of best practice. Option A produces relatively little wider economic benefit with Option B marginally more.

Summary of Contribution to National Economy

Overall from the facts above it can be seen that Option B offers the greatest potential for delivering new jobs and houses and Option C only marginally less. Option A performs poorly on this front. For both user benefits in terms of cost savings, and wider economic benefits generated Option C and C variant offer the greatest return.

[21] Applying average value across car prices up to £32,000 with annual mileage up to 15,000. RAC data 2011 http://www.theaa.com/motoring_advice/running_costs/petrol2011.pdf

[22] Assuming a rate of 54.63 pence per kilometre for a OGV2 (3 to 5 axle articulated vehicles)

3.4 Congestion, resilience and impacts on strategic road network

Modelling work carried out for the DfT is the basis on which the performance of each of the new crossings is assessed[1].

3.4.1 Congestion on existing crossing

This modelling work forecasts that option A will provide most congestion relief to the existing crossing, but it could add delay to the A13. Option C provides next greatest relief with Option B providing least congestion relief to the existing crossing.

3.4.2 Congestion on surrounding road network

On the surrounding road network, congestion around Dartford is significantly reduced by all options, however while Option C variant is forecast to significantly improve congestion near Tonbridge and Malling, it would also see increased congestion in Medway, particularly on the section of M2 feeding into the A229. Options A and B will increase congestion notably in Thurrock, Basildon, Brentwood and Rochford and in Kent, all crossing options will increase average congestion delays for journeys in Sevenoaks and Swale. With Option A it is likely the impact of incidents at or on the approach to the new and existing crossings will have considerable and concentrated impact on the local road networks north and south of the river as traffic looks for alternative routes to bypass queuing and access the crossing as near to the bridge/tunnel itself.

3.4.3 Congestion on new crossings

For Option A it is forecast that there would be some congestion and hence delay on the northbound section, and similarly Option C would see some delay on the northbound side. Option B is forecast to operate at close to free-flow conditions.

3.4.4 Network resilience and journey times

Assessment of journey times and working on the assumption that route users will choose the shortest journey time, modelling shows that Option B will be expected to attract only relatively local trips while Option C would be expected to attract longer and strategic movements. Movements to and from destinations to the east of the M25 (Maidstone – Harlow, Dover - Birmingham, Dover to Cambridge) are likely to re-route via Option C as in effect they would travel a shorter distance. Movements with neither end east of the M25 (Brighton to Cambridge, Sevenoaks to Harlow) would be likely to use the existing crossing. They would, however benefit from congestion relief at the existing crossing.

In terms of network resilience therefore, Option A will not perform well. By connecting into the existing road network in close proximity to the existing crossing means the “bottleneck” phenomenon will prevail and increasing volumes of traffic will concentrate on the same congested parts of the

network. This means pressure will continue to grow on the A2, M25 north and south of the river, and other routes such as the A13, and perhaps more significantly, the junctions on these roads.

At present this vital economic corridor is subject to the catastrophic disruption to movement caused by single incidents on or near the existing Dartford Crossing as well as persistent congestion. A new crossing in close proximity to the existing one, will singularly fail to address this issue with the daily misery will continue for thousands of motorists, costs to business continually racking up and a missed opportunity to deliver truly significant growth in the Thames Gateway and across the wider UK economy.

Similarly, given that Option B is likely to only attract local based trips meaning more strategic trips will still route to the existing crossing, this option will offer fewer benefits than Option C and represent a missed opportunity to create a new north-south strategic route to the east of London.

Option C would also therefore, in part, help deliver on KCC's objective of achieving bifurcation of strategic traffic through the county. This would take pressure off the M20 increasing network resilience and would provide a vital first stage of an improved A2/M2 corridor across the county.

It is work noting that Option A or B proposals do not include for improvements at J30/31 on the M25. J30 is where the A13 meets the M25 and it is likely that if either of these options were taken forward, this junction and J2 of the M25 would need to be substantially upgraded. It is likely the cost for these improvements could reasonably be in the vicinity of £0.5-£1 billion. Option C would avoid the need for this additional work.

3.4.5 Accidents

The traffic modelling carried out on behalf of the DfT[1] shows that options B, C and C variant lead to much larger increases in traffic within the modelled areas, and therefore the forecast number of accidents increases by more than twice the amount for option A.

Summary of congestion, resilience and impacts on strategic road network

Option A will provide most congestion relief to the existing crossing, but it could add delay to the A13. While Dartford will experience significant congestion relief from all options, Swale and Sevenoaks are likely to experience more congestion from all options. Option B is likely to only attract local based trips while Option A focuses all traffic on the same approaches to the crossing meaning Option C and C variant are the only options that offer an opportunity to create a new strategic north-south route as well as increased network resilience. In terms of accidents, options B, C and C variant are all forecast to see large increases in accidents due to the large increase in traffic each option will bring about.

3.5 Contribution to reducing greenhouse gas emissions

Option A is forecast to produce a small benefit in terms of reduction in greenhouse gas which is due to the reduction in emission from decreased congestion. Options C and C variant however are forecast to produce considerable reductions in greenhouse gas emission as a result of a decrease in the distance travelled of 4.9% (Option C) and 8.0% (Option C variant) in 2025[1]. This reduced distance is accrued by the proportion of trips between East Kent, for instance Dover, and areas to the north of the Thames. In effect, strategic traffic making medium to longer distance trips. Option B is forecast to produce an increase in greenhouse gas emissions due to a marginal increase in distance travelled with this option in place.

Summary of contribution to reducing greenhouse gas emissions

Options C and C variant produce large benefits through significantly shortened journeys as well as a reduction in delay. Options A and B have relatively little forecast greenhouse gas impact with option A being slightly positive and option B slightly negative.

3.6 Impacts on environmentally sensitive areas and quality of life

3.6.1 Noise and air quality

In relation to noise Option A will have least impact with relatively few additional people affected by noise than are currently affected by the existing crossing. A greater impact is forecast for each of the remaining options as more people will be exposed to noise from a new transport corridor but with no real distinction between the three options in terms of the level of that impact.

In relation to air quality the results paint a similar picture as for noise. For Option A in the future year (2025) a greater number of areas will see an improvement in air quality than a deterioration. For the remaining three options, in the future year, they will each experience more areas seeing a deterioration in air quality than an improvement, with no significant difference in performance for these three options. Table 5 below summarises this position and identifies where air quality will be affected in existing Air Quality Management Areas (AQMAs).

Table 5 Forecast impacts of the options on air quality in 2025[1]

Option	Percentage of zones where air quality would:			Areas where air Quality at AQMAs may deteriorate
	Deteriorate	No Change	Improve	
Option A	29%	13%	58%	Those adjacent to existing crossing in Dartford and Thurrock

Option B	49%	13%	38%	Those adjacent to A226 and Bean Interchange
Option C	50%	6%	44%	Those adjacent to A2
Option C variant	65%	7%	28%	Those adjacent to A2

3.6.2 Landscape and Townscape

In terms of landscape and townscape, for Option A it is considered that there would be a neutral to slight adverse impact. A bridge structure at this location would fit well with the existing linear structure including its scale and there are fewer sensitive receptors with regard to landscape compared to other proposed routes due to the 'commercial' nature of the developed area. Option B is anticipated to have a moderate adverse impact on landscape and townscape. A crossing at this location would introduce an entirely new transport corridor with either a bridge and elevated road infrastructure or the approach to major tunnel infrastructure which would be out of scale with the local townscape character and impacting on locally valued townscape features.

Option C and C variant would be judged to have a moderate to large adverse impact on landscape. The introduction of a new transport corridor with its associated infrastructure will introduce significant change to the landscape and have a considerable impact for the length of this corridor. In addition, this option will impact on locally and nationally valued landscape features including the Kent Downs AONB, Cobham Hall Registered Historic Park and Garden, listed buildings, conservation areas, cultural heritage, ancient woodlands, Shorne Country Park and surviving Thames marshland. This level of impact could be reduced if the structure was one of the tunnel options rather than a bridge, in which case the level of impact would be considered to be moderate adverse.

The Kent Downs AONB unit believe option A would have the least impact from the perspective of the AONB. Option C will not only have a have a direct major impact on the landscape, heritage and air quality assets of the AONB but also on its cultural cohesion, essentially through the C variant improvements to the A229. Additional traffic pressure on the A229 as a result of Option B even without C variant in place, would similarly have a negative impact on the AONB.

The work commissioned by KCC[19], concluded that option A would be likely to have very little landscape impact, however for Options B and C, this was likely to be significant with the risk that it was unlikely mitigation would be feasible.

3.6.3 Heritage

In relation to heritage, option A is assessed as having a moderate adverse impact. While this option will not impact on the setting of designated sites, it is likely that the setting of some undesignated sites could be affected. There may also be an impact on a limited number of known cultural heritage sites.

The assessment for Option B carried out by KCC[19] concluded that there are a number of environmental issues both north and south of the Thames. The greatest impacts however relate to the Swanscombe Peninsula and while the routing of this option to the eastern side of the Peninsula lessens the impact on landscape, noise, air quality and designations associated with the Swanscombe Heritage Park, it increases the impact on heritage factors within the Ebbsfleet Valley.

These factors include the presence of buried archaeological remains, particularly Scheduled Palaeolithic, Neolithic and Romano-British sites, including the Scheduled Roman settlement and religious focus of Vagniacis. It also affects undesignated but nationally important (which the National Planning Policy Framework (NPPF) advises should be treated as if they were scheduled) Palaeolithic remains within the valley.

The assessment overall considered worse case scenarios, and in this instance, if mitigation included tunnelling under important sites in the Ebbsfleet Valley, it is likely the identified impacts would be reduced. Overall, it is considered by the DfT that this option will have a large adverse impact in terms of heritage; KCC Heritage Conservation considers that the impact has been underestimated by not considering nationally important but undesignated sites (contrary to NPPF policy), and if the impact on the Palaeolithic and Roman sites could not be mitigated through tunnelling the impact would probably be very large adverse.

KCC Heritage Conservation also consider that earth heritage has not been properly assessed for Option B - the SSSI for Pleistocene geology and Palaeolithic archaeology in the Ebbsfleet Valley has not been included in the assessment.

For option C and C variant, the likely impact on heritage is considered to be large adverse. Option C variant could affect two Scheduled Monuments of Neolithic date (the internationally important megalithic sites of Kits Coty House and Little Kits Coty). It should be possible to avoid this impact by staying within or to the east of the existing corridor of the A229; there would however still be an adverse impact on the setting of the Scheduled sites.

Option C itself does not directly affect any Scheduled sites in Kent but does affect undesignated sites in Shorne Country Park and the important Shornemead Rifle Range. There could also be a significant impact on the setting of the Grade II Registered Cobham Park. Shorne Country Park is KCC's flagship country park with over 400,000 visitors per annum. It had a new visitor centre built in 2006 and impact on this location along with those of Randall Wood or Brewers Wood will require liaison with the Heritage Lottery Fund with whom KCC currently have up to 80 year agreements in place to maintain land.

3.6.6 Biodiversity and water environment

A large adverse impact is anticipated for options A and B in relation to biodiversity primarily due to impact on the recommended Marine Conservation Zone[23]. The construction of a bored tunnel as opposed to a bridge or immersed tunnel however would reduce this level of impact to slight adverse for option A and moderate adverse for option B. For option C and C variant the same principle applies in that a bored tunnel will reduce likely impact on biodiversity however, overall the assessment for option C and C variant is one of very large adverse impact.

This is due not only to impact on the recommended Marine Conservation Zone, but also to impacts on the Thames Estuary Special Protection Area and Special Area of Conservation/Ramsar, which are designated at an EU level. In order to derogate from the requirements of legislation, the development would not only have to demonstrate over-riding public interest but also that no other alternative was available and compensatory habitat could be provided for. In addition, option C also impacts on various Sites of Special Scientific Interests and ancient woodland - the NPPF suggested that development should not take place where it adversely impacts or destroys these.

In terms of water environment, for all options the main significant impact would be due to changes to the form and processes of the River Thames as a result of a new river crossing. In each case an immersed tunnel option would be likely to have the greatest adverse impacts. Overall, for each option the impact is assessed as moderate to large adverse.

Summary of impacts on environmentally sensitive areas and quality of life

a) Noise and Air Quality
For both noise and air quality Option A will see slight benefits with the remaining 3 options all experiencing a similar level of disbenefits

b) landscape and townscape impacts
For landscape and townscape impacts, the principle is the further east, then the greater the adverse impact. Option A is judged to have a neutral to slight adverse impact, option B a moderate adverse impact and option C and C variant a moderate to large adverse impact, although a tunnel structure for C and C variant could potentially reduce this impact to moderate.

c) heritage impacts
For heritage, Option A offers least impact being assessed as having a moderate adverse impact. All other crossing options have been assessed as having a large adverse impact, however KCC Heritage team consider that Option B has been underestimated and would probably be very large adverse.

d) biodiversity and water environment impacts

[23] The Thames Estuary was one of 127 sites recommended to Government as possible Marine Conservation Zones. The Government has proposed to designate 31 sites. The Thames Estuary is not included in this list, however further designations are anticipated in tranche 2.

For biodiversity the greatest impact will be from option C and C variant and while a bored tunnel option will lessen these impacts, they will still be considerable. Options A and B will have a lesser scale impact although still considered large, however a bored tunnel option could also reduce this.

For impact on water environment, the assessment is the same for each option, with the avoidance of using an immersed tunnel potentially reducing the level of impact.

The KCC environmental impact study[19] concluded that Option A would be likely to have considerably less environmental impact than the other options, with options B and C having environmental factors that would require extensive mitigation at considerable cost and include some factors for which direct mitigation would not be possible and that would require route-realignment as a result. Some mitigation may be possible for Option B with a tunnel type structure, however more detailed work would be required to establish if this would be sufficient to mitigate the likely impacts. Of all three options, C is likely to have the greatest environmental impact with 14 out of the 18 environmental impacts considered being assessed as being significant or above.

3.7 Costs and value for money

An estimated capital cost has been produced for each of the corridor options. As would be expected, Option A is the least cost option ranging from £1.1bn - £1.9bn depending on the type of structure. For Option B this range is from £1.6bn - £2.5bn and for Option C, £2.8bn - £3.8bn. Again, as would be expected Option C variant is the most expensive ranging from £4.4bn -£5.9bn. The costs in Table 6 below represent the 'most likely' cost for each option.

Table 6 Estimated Capital Cost for Each Option[1]

Option	Capital Cost (£m)*
A – Bridge	1,245
A – Immersed Tunnel	1,601
A – Bored Tunnel	1,571
B – Bridge	1,780
B – Immersed Tunnel	2,016
B – Bored Tunnel	2,174
C – Bridge	3,239
C – Immersed Tunnel	3,092
C – Bored Tunnel	3,155
$C_{variant}$ – Bridge	5,007
$C_{variant}$ – Immersed Tunnel	4,860
$C_{variant}$ – Bored Tunnel	4,922

* A lower and upper cost for each option has been produced. This cost represents the 'most likely' cost

In terms of value for money, government is clear that this will form a key consideration in its decision about whether a proposal should go ahead and is generally assessed by the benefit to cost ratio (BCR) for a scheme. This figure shows the amount of return expected for each £1 of investment, for example a BCR of 1:1.5 would mean that for ever £1 invested we would expect to see a return of £1.50. Table 7 provides the BCR for each option. The range of figures reflects the BCR depending on whether a bridge or tunnel option.

Table 7 Benefit to Cost Assessment for each option[1]

	Option A	Option B	Option C	Option C variant
Indicative BCR without wider impacts	1.0 - 1.8	0.5 – 0.8	1.2 – 1.3	1.2
Indicative BCR with wider impacts	1.4 – 2.4	1.1 – 1.7	1.9 – 2.0	1.7

It can be seen that the bridge structure for Option A (BCR of 2.4) and each structure possibility for Option C potentially offer the greatest value for money. However, as the DfT consultation acknowledges, if Option A is pursued, it is highly likely that significant improvements would be needed at J30 and J2 of the M25. In this case, the cost of option A could reasonably be increased by £0.5-1 billion meaning its cost benefit assessment figure will be reduced.

4. Funding

KCC has carried out its own investigations on how a third Lower Thames crossing could be funded. A key part of this work involved direct discussions with the North American investment sector. From these discussions it is clear that there is considerable interest from blue chip investors to be involved in projects of this nature. Projects such as this which involve tolling, offer the right mix of long term cash flow and contract security to make them an attractive investment, even in times of global economic recession.

Our discussions revealed that subject to a number of key criteria, it is highly likely that private sector investors in a third Lower Thames Crossing would be forthcoming. These criteria included:

- The creation of a Special Purpose Vehicle (SPV) to deliver the project
- A longer term concession, such as up to 50 years;
- The tolling regime for the existing crossing must be included in the concession to ensure the tolls cover the full financing of the scheme;
- A minimum revenue guarantee for Government would be preferred, and;
- A clear commitment from UK Government to backing the project with a senior Minister acting as project champion.

With clear commitment from Government to some key criteria, it is KCC's view that a third Lower Thames Crossing can be delivered without recourse to the public purse, even if the most expensive corridor option was chosen.

5. Summary and conclusions

Table 8 below provides a summary of the case for each of the crossing options. This summary is from the DfT's assessment of the options and is extracted from their consultation document. From this table it can be seen that options A and B tend to perform better on congestion relief, environmental factors and cost while options C and C variant perform better in terms of regeneration, wider economic impacts, network resilience, strategic routes, greenhouse gas reduction and value for money. Option C and C variant would also have the potentially considerable challenge under EU regulations of overcoming the test of demonstrating there are no reasonable alternatives given the potential environmental impacts of this corridor.

Key to Table 8	
□	Very positive impact
□□	Positive impact
-	No discernible impact
□	Negative impact
□	Very negative impact

Table 8 Summary of relative merits of option corridors

Table8 Summary guide to the relative merits of the location options				
(Based on assessment of forecast impacts over 60 years, except where year is otherwise indicated)				
	Option A	**Option B**	**Options C and $C_{variant}$**	**Location of information**
	Impact	**Impact**	**Impact**	
Contribution to the national economy				
Time saved to business users	£700m □	£1,100m □	£1,900m–£2,600m □□	Tables 4.4–4.7, Final Review Report
Wider economic benefits	£250m □	£600m □	£1,200m–£1,500m □□	
Improved connectivity (by 2025)	500 jobs relocated to the Thames Gateway area □	2,100 jobs relocated to the Thames Gateway area □□	3,000–3,200 jobs relocated to the Thames Gateway area □□	
Journey times using new crossing	New crossing would be located next to existing crossing, so see commentary below	Shortened between some towns in Essex and Kent if new crossing used □	Many journeys shortened when new crossing is used, both within the south east and nationally □□	Table 4.2, Final Review Report
Congestion and resilience of the crossing and the strategic road network				
Conditions at existing crossing (2041)	Operates at 75% capacity or less than capacity, which should result in uncongested conditions □□	Operates at around 90% capacity, occasional queues □	Operates at around 90% capacity, occasional queues □	Table 4.4, Final Review Report

Journey times using existing crossing (2041)	7 minutes shorter in evening peak □□	5 minutes shorter in evening peak □□	5 minutes shorter in evening peak □□	Section 4.4, Central Forecasts and Sensitivity Tests Report
Queues at existing crossing (2041)	Shorter queues in northbound direction in the evening peak □	Shorter queues in northbound direction in the evening peak □	Shorter queues in northbound direction in the evening peak □	

Table 8 Summary guide to the relative merits of the location options				
(Based on assessment of forecast impacts over 60 years, except where year is otherwise indicated)				
	Option A	**Option B**	**Options C and $C_{variant}$**	**Location of information**
	Impact	**Impact**	**Impact**	
Resilience on other parts of the strategic road network	Delays on A13 eastbound are worsened □□ Delays on A229 northbound are slightly worsened □ Potential for additional congestion around M25 junctions 30 and 2 □	Delays on A13 eastbound are worsened east of Basildon □ Delays on A229 northbound are slightly worsened □ Adds pressure to A2 □	Delays on A13 eastbound are slightly improved □ Delays on A229 are worsened in both directions by Option C □□ Delays on A229 are improved in both directions by Option $C_{variant}$ □□	Figures 4.7–4.8, Final Review Report and section 8.5, Final Review Report
Number of accidents	Accidents are forecast to increase across the area due to the increase in total traffic predicted due to the provision of a new crossing			
	Increases by 26,000 over 60 years □	Increases by 58,000 over 60 years □●□	Increases by 60,000–62,000 over 60 years □●□	Tables 4.4–4.7, Final Review Report
Contribute to reducing greenhouse gas emissions				
Greenhouse gas emissions over 60 year period	Reductions of 693,000 tonnes □	Increased emissions of 1,300,000 tonnes □	Reduction of 6–8 million tonnes due to many journeys being shortened □□	Tables 4.4–4.7, Final Review Report
Avoid unacceptable impacts on environmentally sensitive areas and improve quality of life				
Impact on landscape/ townscape and heritage	Least adverse impacts of the location options □	Moderate to large adverse impacts, including proximity to housing south of Grays □□	Largest adverse impact of the location options, including significant impacts on land designated as Green Belt north and south of the Thames □□	Table 4.8, Final Review Report

Table8 Summary guide to the relative merits of the location options				
(Based on assessment of forecast impacts over 60 years, except where year is otherwise indicated)				
	Option A	**Option B**	**Options C and $C_{variant}$**	**Location of information**
	Impact	**Impact**	**Impact**	

Habitats and biodiversity	Slight to large adverse impacts □	Moderate to large adverse impacts □	Very large adverse impacts □□	Table 4.8, Final Review Report
Numbers of people affected by noise (by 2015)	Smallest net increase of the location options of 245 people □	Middling net increase of the location options of 1,857 people □□	Largest net increase of the location options of 1,769-1,932 people □□	Tables 4.4–4.7, Final Review Report
Impacts on air quality (2025)	Improvements in local air quality for a greater proportion of zones (road links) than deterioration. Air quality may deteriorate at Dartford and Thurrock AQMAs.	Improvements in local air quality for a greater proportion of zones (road links) than deterioration. Air quality may deteriorate at AQMAs adjacent to A226 and Bean Interchange.	Improvements in local air quality for a slightly greater proportion of zones (road links) than deterioration. Air quality may deteriorate at AQMAs adjacent to the A2.	Table 4.12, Final Review Report
Avoid unacceptable impacts on committed development				
Impacts on committed development	Possible impacts on a number of planned developments within Dartford and Thurrock □	Impacts on development sites within Ebbsfleet Valley development area □□	As most of the area is designated as Green Belt, there is limited development in the area —	Chapters 5–8, Design and Costing Report

Table 8 Summary guide to the relative merits of the location options

(Based on assessment of forecast impacts over 60 years, except where year is otherwise indicated)

	Option A	**Option B**	**Options C and $C_{variant}$**	**Location of information**
	Impact	**Impact**	**Impact**	
Distributional impacts on different income groups				
Time saving benefits/ disbenefits	Benefits associated with longer journeys favour people in higher income groups	Disbenefits associated with short trips more adversely affect middle & higher income groups	Disbenefits associated with short trips more adversely affect middle and higher income groups	Tables 4.4–4.7, Final Review Report, column headed 'Social and distributional impact', row 'Social, Commuting and other users'
Noise	Large adverse impact on lowest income group □	No particular bias in adverse impacts towards higher or lower income groups —	Option C has a large adverse impact on lower income groups, and a beneficial impact on higher income groups. Option $C_{variant}$ also adversely impacts higher income groups. □□	
Air quality	Positive impacts on all income groups, but highest income groups benefit the most □□	Positive impact on lowest income group but adverse impact on other income groups □□	Positive impact on lowest income group but adverse impact on other income groups □□	Tables A1.20-A1.23, Appendices to the Final Review