

41.1 INTRODUCTION

41.1.1 The Compensation Site proposals comprise the development of 115 ha of farmland at Cherry Cobb Sands to create 100 ha of new intertidal habitat and provision of 38 ha of temporary wet grassland habitat at Old Little Humber Farm in compensation for the proposed development of the AMEP.

41.1.2 This chapter utilises information published by a wide variety of public sources and information gathered from a site visit on 10 January 2011 to determine the current landscape and visual qualities of the proposed Compensation Site as a baseline for a landscape and visual impact assessment. This chapter outlines the likely significant effects arising from the development proposals and identifies potential methods of mitigation.

41.2 LEGISLATION, POLICY AND GUIDANCE

Local Plan Policy

East Riding of Yorkshire Council – Holderness District Wide Local Plan 1999

41.2.1 The Compensation Site lies within the area of the East Riding of Yorkshire Council (ERYC). Accordingly their local planning policies are material considerations. The following comprises a brief summary.

41.2.2 The Local Plan provides a number of General Principle policies that are strategic in nature and outline broad requirements for new development. Policies G1 and G4 highlight the importance of landscape conservation and preservation of landscape value.

41.2.3 Policy G5 states that:
'(t)he Council will seek to protect the landscape of Holderness. Within areas identified as being of special landscape value, including heritage coast, development will only be permitted if it can be shown to have a beneficial or neutral effect on the landscape. Elsewhere, developers will be expected to minimise the impact of their development on the landscape by careful attention to siting, mass, design, natural features, choice of materials and new planting. Development which would significantly alter the natural contours of the land will not be permitted.'

- 41.2.4 Policy G6 states a presumption in favour of development if it is proven to conserve and enhance local landscape character and features and the nature conservation value of the site. This is reinforced in Policy G7 which identifies that the development will be assessed in consideration of surrounding landscape elements.
- 41.2.5 Env 1 relates to Agricultural Land Quality and states the following, *'The use of the best and most versatile agricultural land for any form of development not associated with agriculture or forestry will only be permitted if there is a strong need for development on the particular site which overrides the need to protect such land and complies with other relevant local plan policies. Where development is permitted on the best and most versatile land it should, as far as is reasonable, use the lowest grade of land suitable for the development.'*
- 41.2.6 Env 2 relates to trees and hedgerows and states the following, *'When considering proposals for new development the Council will expect existing healthy trees and hedgerows to be retained so far as such retention is reasonably practical and will require additional planting using, where appropriate, native species, as an integral part of the scheme or in the immediate locality.'*
- 41.2.7 Env 11 relates to the Humber Estuary and states the following, *'Proposals for development in the estuarine coastal area must accord with Env5 and the other nature conservation policies of this plan. The Council will require a comprehensive scheme to accompany significant estuary related proposals, including environmental measures to safeguard environmental features of importance.'*
- 41.2.8 Policy Env 18 stipulates that, where appropriate, the Council will promote through the control of development, public access including, wherever possible, access for less able bodied people to all areas of nature conservation interest except where such access would be detrimental to the nature conservation of a specific area.
- 41.2.9 Land adjacent to the south-eastern boundary of the proposed intertidal site at Cherry Cobb Sands is contained within a Conservation Area as defined by the Local Plan. Policy Env 24 states that all development likely to affect the setting of Conservation Areas will require particular consideration to be had to the preservation of landscape character and appearance of the area.
- 41.2.10 Under Policy Env 30 the proposed Compensation Site is considered to be within the open countryside and development will be permitted if it is in accordance with the Local Plan and proven that it,

- 'c. is of a scale and type that is in keeping with the character of the surrounding area;
- d. safeguards sites or features considered important for their landscape, amenity and historical value;
- e. protects sites of nature conservation importance;
- f. will not harm the landscape setting of settlements.'

41.3 ASSESSMENT METHODOLOGY AND CRITERIA

Overview

41.3.1 The assessment has been undertaken taking into account the Guidelines for Landscape and Visual Impact Assessment (Institute of Environmental Management and Assessment, 2nd edition 2002.)

41.3.2 The assessment methodology is presented below for the landscape and visual impact assessment. Whilst this assessment methodology follows best practice as outlined in the above guidance, the assessment also takes account of some limited definition of the height, size and positioning of proposed development.

Construction Phase

41.3.3 The methodology outlined for the operational phase set out below also applies to the construction phase.

Operational Phase

Study Area

41.3.4 The study area for the landscape assessment of the site at Cherry Cobb Sands has been defined following a review of mapping and contour data that have formed the baseline for a Zone of Theoretical Visibility studies (completed using Key Terra-Firma software). The results for Cherry Cobb Sands are illustrated on *Figure 41.1a* and *b* from viewpoints at Fair View/ Sands House and Sands Farm respectively. Two Zone of Visual Influence (ZVI) drawings have been produced to take into account embankment length and are centred opposite two residential receptors, representing the worst case scenario. The study area extends to areas marked on the figures as being outside of the Zone of Theoretical Visibility thereby ensuring robustness of research.

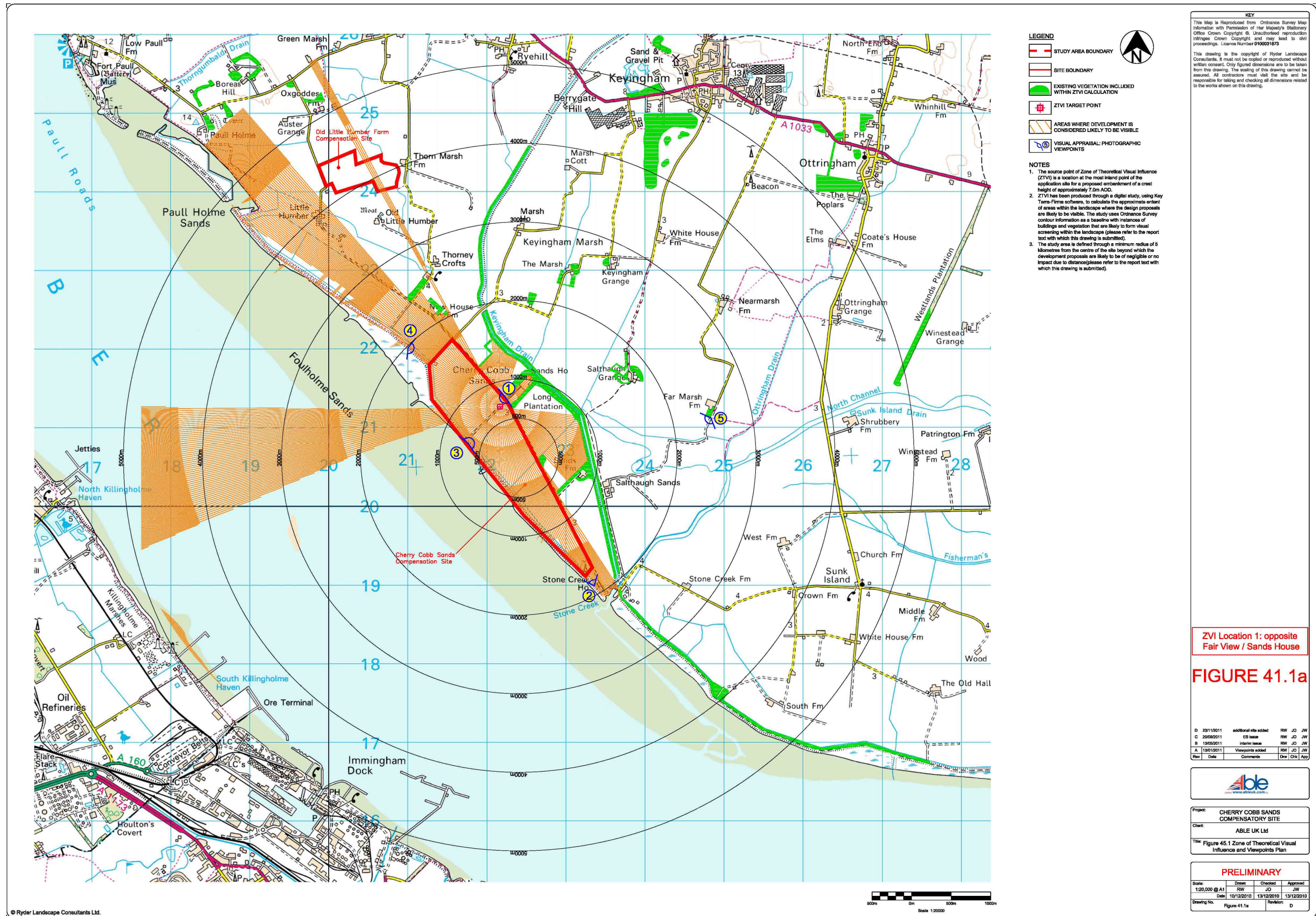


Figure 41.1a Zone of Theoretical Visual Influence and Viewpoints plan from a location opposite Fair View / Sands House

41.3.5 The key steps in the assessment methodology for the intertidal site at Cherry Cobb Sands are outlined as follows:

- A ZTV, also known as ZVI (Zone of Visual Influence), was defined for the proposal covering the study area as specified above.
- The landscapes within this area were analysed at a national and local level covering a distance ranging from 0 km to 10 km from the centre of the development site.
- Drawing upon existing studies on landscape character and the findings of the site visits, the sensitivity of each area to development of the type and scale proposed will be determined as part of the impact assessment study.
- Policy designations relevant to landscape and visual impacts were also identified.
- Viewpoints across the ZTV were selected as representative of the range of views and types of viewer likely to be affected by the Compensation Site in consultation with statutory consultees.
- Photomontage images of the development from various viewpoints are shown in *Annex 41.3*. These images are to be read at A1 paper size at a 40cm viewing distance.
- The sensitivity of each landscape and visual receptor has been assessed in this landscape and visual impact assessment.
- The magnitude of change in the landscape of each character area and in the visual amenity of viewpoints has been predicted.
- The level of significance of impact on each character area and viewpoint has been evaluated.

Sensitive Receptors

41.3.6 The sensitive receptors considered in the assessment include a range of landscape resources and visual amenity. In regard to landscape, the receptors include landscape character, specifically the National and Local landscape character areas located within the study area and geographic scope for the ZTV. Other landscape resources include specific designated landscapes, parks and gardens and landscape conservation areas.

- 41.3.7 Visual receptors include residents of dwellings, recreational users, workers and those engaged in travel such as commuters. Impacts on viewers have been captured at viewpoint locations selected to represent a range of distances and directions from the Compensation Site.

Significance Criteria

Sensitivity of Landscape and Visual Receptors

- 41.3.8 The sensitivity of a landscape is judged based on the extent to which it can accept change of a particular type and scale without adverse effects on its character. Sensitivity varies according to the type of development proposed and the nature of the landscape: its individual elements, key characteristics (land use, pattern and scale of landscape, enclosure/openness), inherent quality, condition, presence of detracting elements (e.g. pylons), value and capacity to accommodate change, and any specific values such as designations that apply.
- 41.3.9 Each viewpoint was selected to represent a typical view from the immediate area which it represents. Viewpoint sensitivity depends on a number of factors including the context of the viewpoint, the current occupation (i.e. residents, recreational visitors, passers by, workers) and viewing opportunity of the groups of people being considered, and the number of people affected.
- 41.3.10 In this assessment methodology, sensitivity is described as low, moderate or high as defined and illustrated in *Table 41.1* and *Table 41.2*.

Magnitude of Change

- 41.3.11 The magnitude of change affecting landscape or visual receptors depends on the nature, scale and duration of the particular change that is envisaged in the landscape and the overall effect on a particular view. In a landscape, this will require consideration of the loss of or change in any important characteristic or feature of the landscape, the proportion of the landscape that is affected, and any change in the backdrop to, or outlook from, the landscape that affects its character.
- 41.3.12 The magnitude of change in views will depend on the scale of the development and the distance from the viewpoint, the angle of view occupied by the development, the extent of shielding by intervening features, the degree of obstruction of existing features, the degree of contrast with the existing view, and the frequency or duration of

visibility. Definitions of the magnitude of change are contained within *Table 41.1* and *Table 41.2*.

Significance of Impacts

- 41.3.13 No established, measurable technical thresholds of significance exist for landscape and visual impacts (Landscape Institute and IEMA, 2002). Significance is therefore determined by considering the sensitivity of the landscape or visual receptor and the magnitude of change expected as a result of the development. Professional judgement is applied on a case by case basis in order to identify broad levels of significance for each receptor. Each case is assessed on its own merits as factors unique to each circumstance need to be considered.
- 41.3.14 There are, however, general principles which can be used as a guide to this process and these are set out in *Table 41.1* and *Table 41.2*. Following these, the level of significance of impact is described as being not significant, minor, moderate, or major. This is, however, recognised as a continuum and where impacts lie on the borderline impacts may be described as minor to moderate for example.
- 41.3.15 Impacts which are graded as being major are usually those which concern immediate landscapes around a site and close views from sensitive visual receptors. Moderate levels of impact are also considered significant in EIA terms, but they are of progressively reducing importance. Impacts graded as minor still constitute effects which warrant being brought to the attention of the decision-maker. Impacts that are less than minor are considered to be not significant.
- 41.3.16 Impacts may also be described as being positive or negative. A positive impact arises where a proposed change brings about an enhancement in landscape character or visual amenity. A negative impact arises where the proposed change brings about deterioration in landscape character and visual amenity.

Cumulative Impact Assessment Methodology

- 41.3.17 The proposed development represents a minor engineering scheme to enable habitat creation in compensation for industrial development elsewhere. The scope of the cumulative assessment will consider other developments of a similar scale and type which are either present in the receiving landscape or have entered the planning process.

Table 41.1 Levels of Significance of Landscape Impacts

		Magnitude of Change in Landscape caused by Proposed Development			
		Imperceptible An imperceptible, barely or rarely perceptible change in landscape characteristics.	Small A small change in landscape characteristics over a wide area or a moderate change either over a restricted area or infrequently perceived	Medium A moderate change in landscape characteristics, frequent or continuous and over a wide area or a clearly evident change either over a restricted area or infrequently perceived.	Large A clearly evident and frequent/continuous change in landscape characteristics affecting an extensive area.
Sensitivity of Landscape	Low A landscape which is not valued for its scenic quality or where its character, existing land use, pattern and scale are tolerant of the type of change envisaged, and the landscape has capacity to accommodate change.	Not significant	Not significant	Minor	Minor to Moderate
	Medium A moderately valued landscape, perhaps a locally important landscape, or where its character, land use, pattern and scale may have the capacity to accommodate a degree of the type of change envisaged.	Not significant	Minor	Moderate	Moderate to Major
	High A landscape protected by a regional (structure plan) or national designation and/ or widely acknowledged for its quality and value; a landscape with distinctive character and low capacity to accommodate the type of change envisaged	Not significant	Minor to Moderate	Moderate to Major	Major

This table is a guide only. The descriptions of levels of magnitude and sensitivity are illustrative only. Each case is assessed on its own merits using professional judgement and experience, and there is no defined boundary between levels of impacts.

Table 41.2 Levels Significance of Visual Impacts

		Magnitude of Change in View caused by Proposed Development			
		Imperceptible Change which is barely visible, at very long distances, or visible for a very short duration, perhaps at an oblique angle, or which blends with the existing view.	Small Minor changes in views, at long distances, or visible for a short duration, perhaps at an oblique angle, or which blends to an extent with the existing view.	Medium Clearly perceptible changes in views at intermediate distances, resulting in either a distinct new element in a significant part of the view, or a more wide ranging, less concentrated change across a wider area.	Large Major changes in view at close distances, affecting a substantial part of the view, continuously visible for a long duration, or obstructing a substantial part or important elements of view.
Sensitivity of Viewpoint	Low Small numbers of visitors with interest in their surroundings. Viewers with a passing interest not specifically focussed on the landscape eg workers, commuters. The quality of the existing view, as likely to be perceived by the viewer, is assessed as being low	Not significant	Not significant	Minor	Minor to moderate
	Medium Small numbers of residents and moderate numbers of visitors with an interest in their environment. Larger numbers of recreational road users. The quality of the existing view, as likely to be perceived by the viewer, is assessed as being medium	Not significant	Minor	Moderate	Moderate to major
	High Larger numbers of viewers and/or those with proprietary interest and prolonged viewing opportunities such as residents and users of attractive and well-used recreational facilities. The quality of the existing view, as likely to be perceived by the viewer, is assessed as being high	Not significant	Minor to moderate	Moderate to major	Major

This table is a guide only. The descriptions of levels of magnitude and sensitivity are illustrative only. Each case is assessed on its own merits using professional judgement and experience, and there is no defined boundary between levels of impacts.

41.4 *CONSULTATION*

41.4.1 The Scoping Report prepared for the Project outlined in broad terms, the approach for the landscape and visual assessment. Following an initial site visit, a more detailed scope of work for the landscape and visual impact assessment was prepared and issued in a letter for comment to all of the local authorities within the defined study area on 27 October 2010. In addition, Natural England was consulted on the scope of the assessment.

41.4.2 *Annex 2.2* details the responses received directly from consultees in response to the Scoping Report and the PEIR.

41.5 *BASELINE*

Cherry Cobb Sands

41.5.1 The north-eastern boundary of the intertidal site at Cherry Cobb Sands is formed by Cherry Cobb Sands Road which is separated from the site by a drainage ditch aligned parallel to the road. Beyond the road to the north-east is a low-lying, level landscape of regular pattern with occasional residential and farmstead buildings. Landscape pattern is generally defined by the location of shelterbelt copses and hedgerows, drainage ditches and the scale of the fields.

41.5.2 To the east the site comes to a point where Cherry Cobb Sands Road finishes at Stone Creek and the Keyingham Drain. Beyond to the east are further areas of arable farmscape with few features except for occasional residences, farmsteads and low hedges.

41.5.3 The southern and south-western boundaries of the site are formed by the bottom of the existing flood embankment, beyond which are areas of intertidal habitat, forming the edge of the Humber Estuary. Occasional clumps of vegetation are located on the landward side of the embankment but these are sheltered in the lee of the bank from the sea winds.

41.5.4 The north-western boundary of the site is formed by an existing field boundary perpendicular to the flood embankment. The landscape beyond is much the same as that described above but with the conurbation of Kingston upon Hull visible in the distance on the skyline.

Use, Landform and Scale

- 41.5.5 The land within the study area is predominantly under arable use within medium to large scale regular field patterns indicative of the land's reclamation history dating from the 1600s. Built developments are located within an irregular pattern with the field shapes being the defining element in the landscape. The landscape scale is large due to field size, the sense of openness and long unimpeded views.
- 41.5.6 With reference to *Figure 41.3*, the intertidal site at Cherry Cobb Sands is located on low-lying land adjacent to the intertidal zone close to the mouth of the Humber Estuary at an elevation of between 2 m and 3 mAOD. The major topographical feature of the landscape local to the Compensation Site is the sea defence embankment to the south and west of the site. This vegetated and grassed bank fluctuates between approximately 5.5 m and 6 mAOD in level.
- 41.5.7 The intertidal site at Cherry Cobb Sands is crossed by drainage dykes incised into the fields with a bed height of between 1.1 m and 0.75 mAOD.

Vegetation

- 41.5.8 *Figure 41.2* demonstrates that tree shelterbelts and hedgerows are located throughout the arable landscape to the north and east. These comprise Field Maple (*Acer campestre*), Hawthorn (*Crataegus* sp.), Birch (*Betula* sp.), Alder (*Alnus* sp.), Ash (*Fraxinus* sp.), Willow (*Salix* sp.) and Oak (*Quercus* sp.) with a varied field layer diversified according to its proximity to drainage dykes. The main shelterbelts in the landscape are the plantations surrounding Sands House, Sands Farm and other scattered farmsteads and the dense tree planting lining the banks of Keyingham Drain that runs east – west through the landscape to the north of the intertidal site at Cherry Cobb Sands.
- 41.5.9 Vegetation within the intertidal site at Cherry Cobb Sands is sparse comprising mainly hedgerow species on the landward slope of the existing flood embankment. Opposite the driveway entrance to Sands House is an avenue of native trees, approximately 750 m in length, joining Cherry Cobb Sands Road to the flood embankment. This comprises Alder (*Alnus* sp.) and Hawthorn (*Crataegus* sp.). This ornamental avenue is incongruous with the wider landscape character and planted shelterbelt, hedgerow or native vegetation groups. Other vegetation comprises scattered instances of self seeded native species aligning the drains across the landscape.

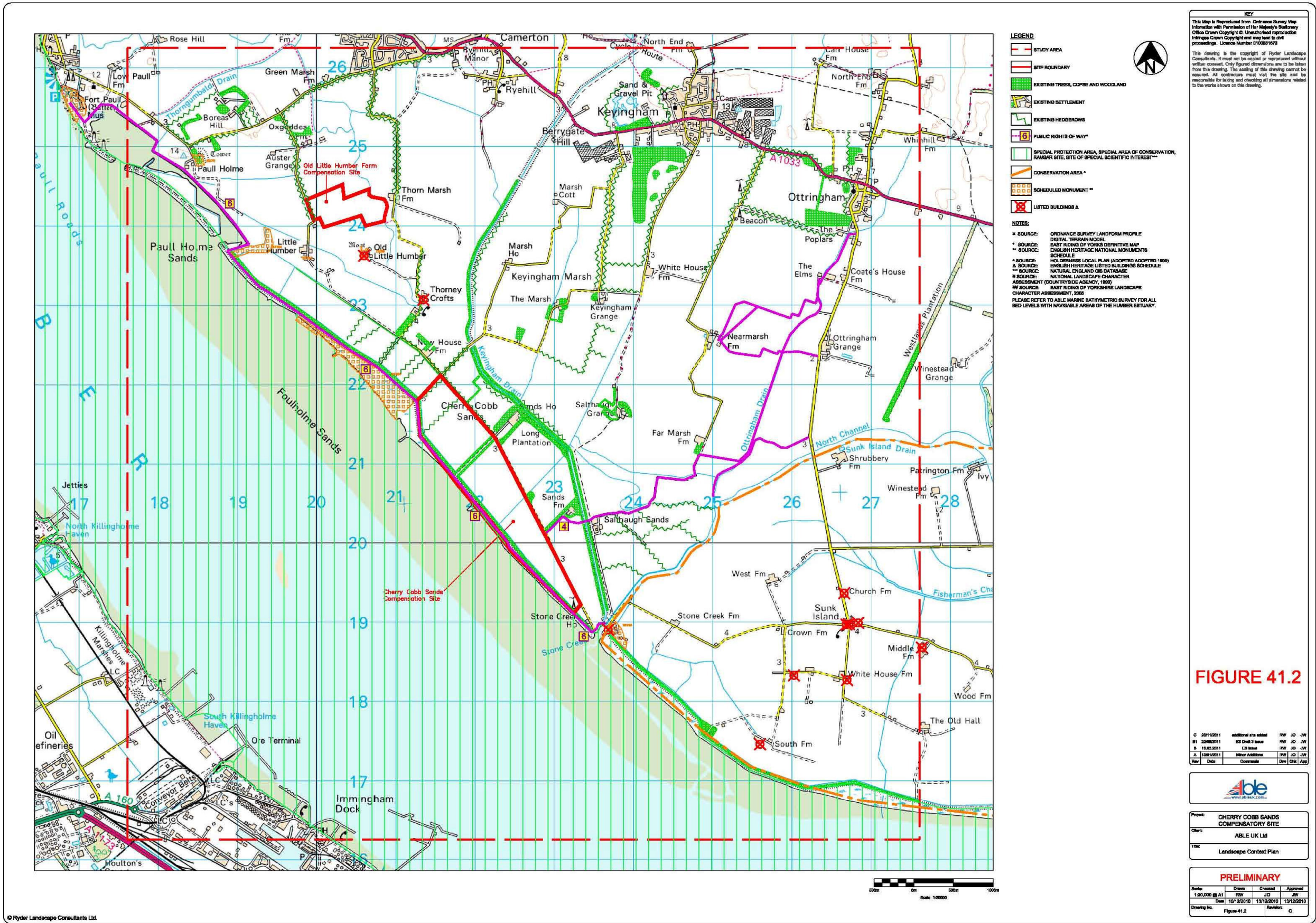


Figure 41.2 Landscape Context Plan

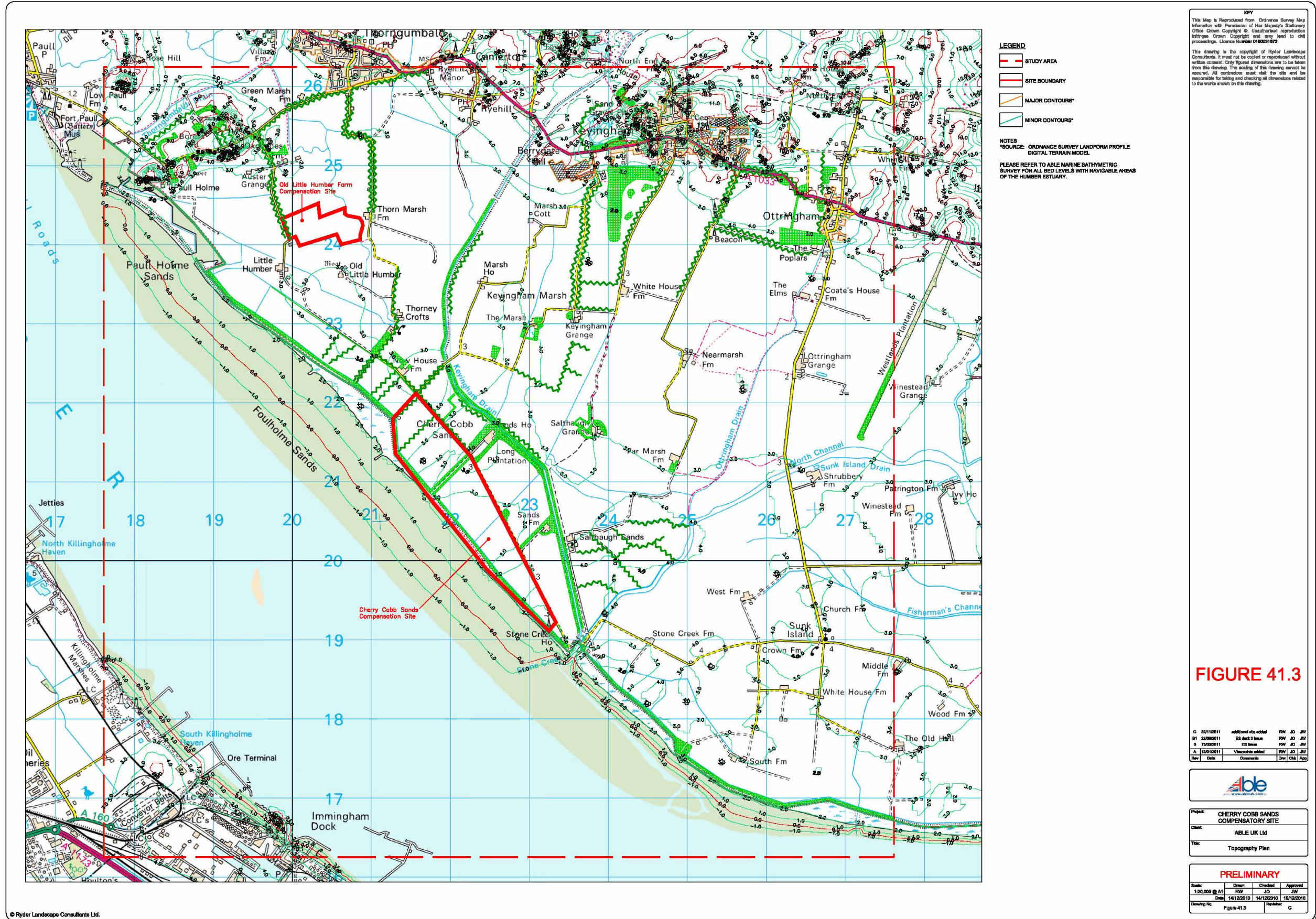


Figure 41.3 Topography Plan

Public Rights of Way

- 41.5.10 As identified in *Chapter 42* there are a number of public rights of way crossing the study area although only two pass within the vicinity of Cherry Cobb Sands, Paull Footpath No. 6 located on top of the flood embankment and Paull Footpath No. 4 located to the north-east of the site, as illustrated on *Figure 41.2*. Paull Footpath No. 4 is recognised by the Local Authority as receiving little or no use due to the removal of the footbridge crossing Keyingham Drain.

Historical structures

- 41.5.11 *PPS5* outlines the requirement for assessing the likely impact of development proposals on an historical feature and its setting.
- 41.5.12 As identified in *Chapter 40*, there are two scheduled monuments adjacent to the intertidal site at Cherry Cobb Sands boundary. To the north-west is SM 34704 and to the south-east is SM 32706, both recorded on the English Heritage National Monument database. While 34704 comprises structures constructed as decoys during World War II, 32706 comprises a heavy anti-aircraft gun site from the same period. The landscape setting of each of these monuments is no different from the landscape character as described below in being estuary-edge habitat.
- 41.5.13 Located some 500 m to the east of the Compensation Site is a Conservation Area containing a number of listed buildings protected under the considerations of the *Holderness District Wide Local Plan* designations as previously listed.
- 41.5.14 A number of photographs of the intertidal site at Cherry Cobb Sands were taken and these are included in *Annex 41.2*. These photographs serve to demonstrate the existing character and appearance of the site. The locations from which the photographs were taken are illustrated on *Figure 41.3* and their content described within later sections of this chapter.

Landscape Character

- 41.5.15 The baseline landscape character is outlined with reference to landscape character assessment data available at national and county level. An outline of the key characteristics as cited in the original landscape character data documents are presented in *Annex 41.1*. The landscape character areas are located with reference to *Figure 41.4*.

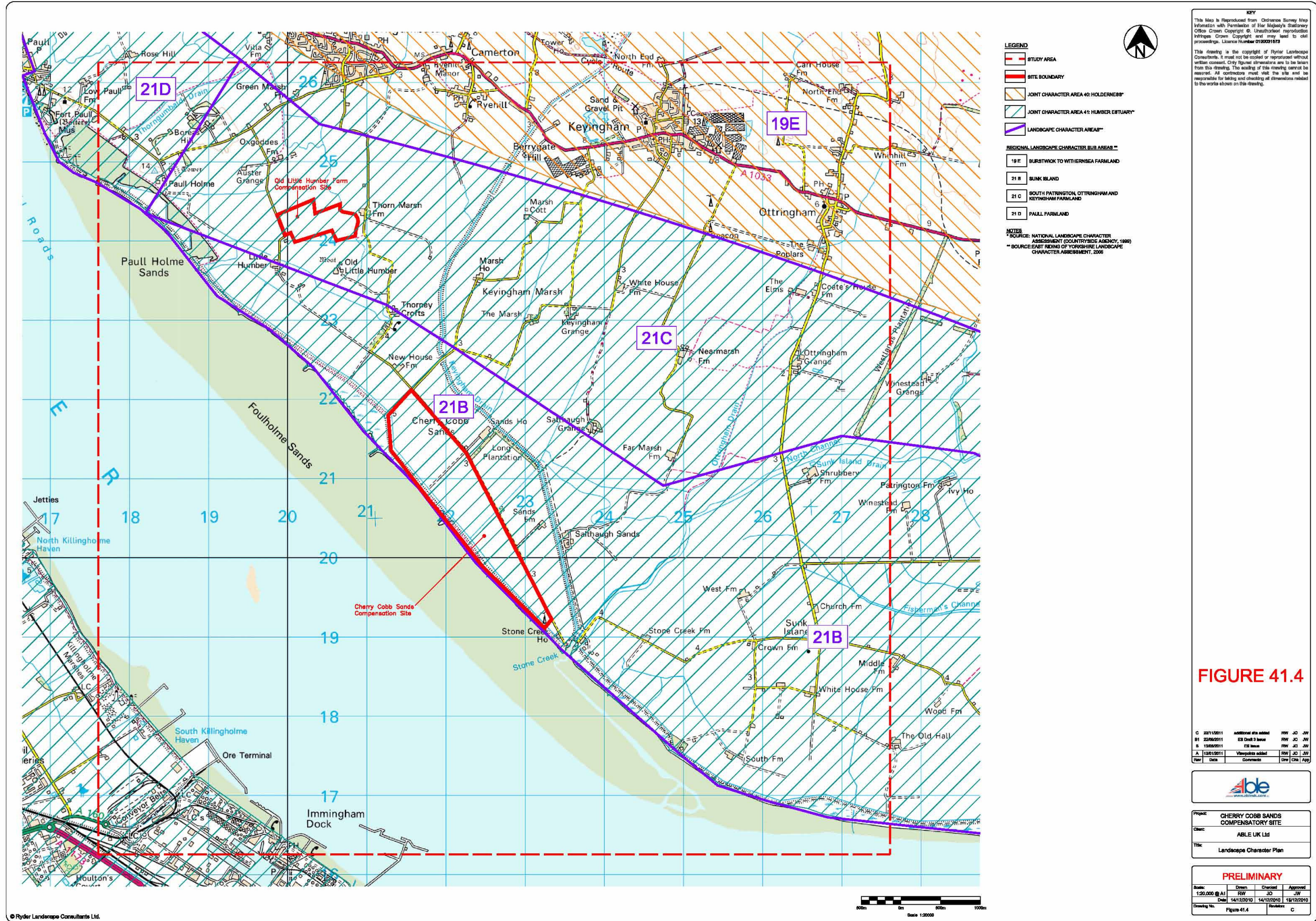


Figure 41.4 Landscape character plan

- 41.5.16 Following the results of the ZTV study it is considered pertinent to consider in detail the issues raised *East Riding of Yorkshire Landscape Character Assessment (ERYLCA)*. This includes qualitative judgements on the quality of landscape character for the land containing the Compensation Site as well as understanding the sensitivity, capacity, forces for change and strategy assessed.
- 41.5.17 The Quality of the Landscape Character for Character Area 21 is assessed as High due to the strength of defining elements including openness, sparseness of built development, large scales, flatness of the land and the extensiveness of views available.
- 41.5.18 The Forces for Change are identified as rising sea levels, farming pressures resulting in changes to the landscape character and renewable energy targets (specifically noted as wind farm developments).
- 41.5.19 Landscape Character Area 21 is considered to be highly sensitive to large scale built development and wind turbine construction that would diminish the openness of the region. It is considered that the reference to 'built development' deals specifically with the construction of buildings as a key element in the landscape character is the sparseness of buildings within the landscape.
- 41.5.20 It is further noted that the Character Area would be sensitive to changing land management practices although only with respect to potential impacts on the openness of the landscape.
- 41.5.21 The general strategies for Landscape Character Area 21 comprise the following:
- Conserve the historic nature of the landscape that exhibits evidence of land reclamation practices from the 1600s;
 - Maintain the openness of the landscape and minimise large scale tree planting to areas adjacent to buildings;
 - Land management regimes should respect the openness and large scale nature of the existing landscape and avoid field amalgamation;
 - Avoid development of buildings that would increase settlement density; and

- Vertical structures are to be avoided although small scale development should be accommodated if sited responsibly.

41.5.22 In review of the information contained above in relation to landscape planning and character and factoring in the form of proposed development, the landscape sensitivity of the intertidal site at Cherry Cobb Sands is assessed to be medium. In accordance with the adopted Landscape Character Assessment the sensitivity would be higher if the development comprises built structures or wind turbines. However, the form of development will comprise landscape features and elements that already exist on and adjacent to the site. This medium sensitivity will be used as baseline against which consideration of Impacts will be assessed in accordance with *Table 41.1*.

Compensation Site Zone of Theoretical Visibility

41.5.23 The ZTVs produced for the intertidal site at Cherry Cobb Sands shows the extent of theoretical visibility of the proposal within a 5 km radius study area from the centre of the site. This is presented in *Figure 41.1a* and *b*. The scale of the site is smaller (due to the low height, form, scale and bulk of the proposals) than that of the AMEP, which results in a more localised site assessment being considered appropriate for this smaller scale proposal. Two ZTVs were undertaken in recognition that two local residential receptors were likely to receive impacts. This was tested initially in response to the desk top studies and later tested on site through the Visual Appraisal.

Visual Appraisal

41.5.24 A visual appraisal was undertaken from the area surrounding the intertidal site at Cherry Cobb Sands in order to determine the extent of properties, public rights of way and open space, which currently obtain views towards the site. A series of Photographs (1-5 inclusive *Annex 41.2*), were taken from areas to which the public gain access, such as along roads and footpaths and within public open space areas. These photographs illustrate views into Cherry Cobb Sands from adjacent areas. The locations from which the photographs were taken are shown on *Figure 41.5*.

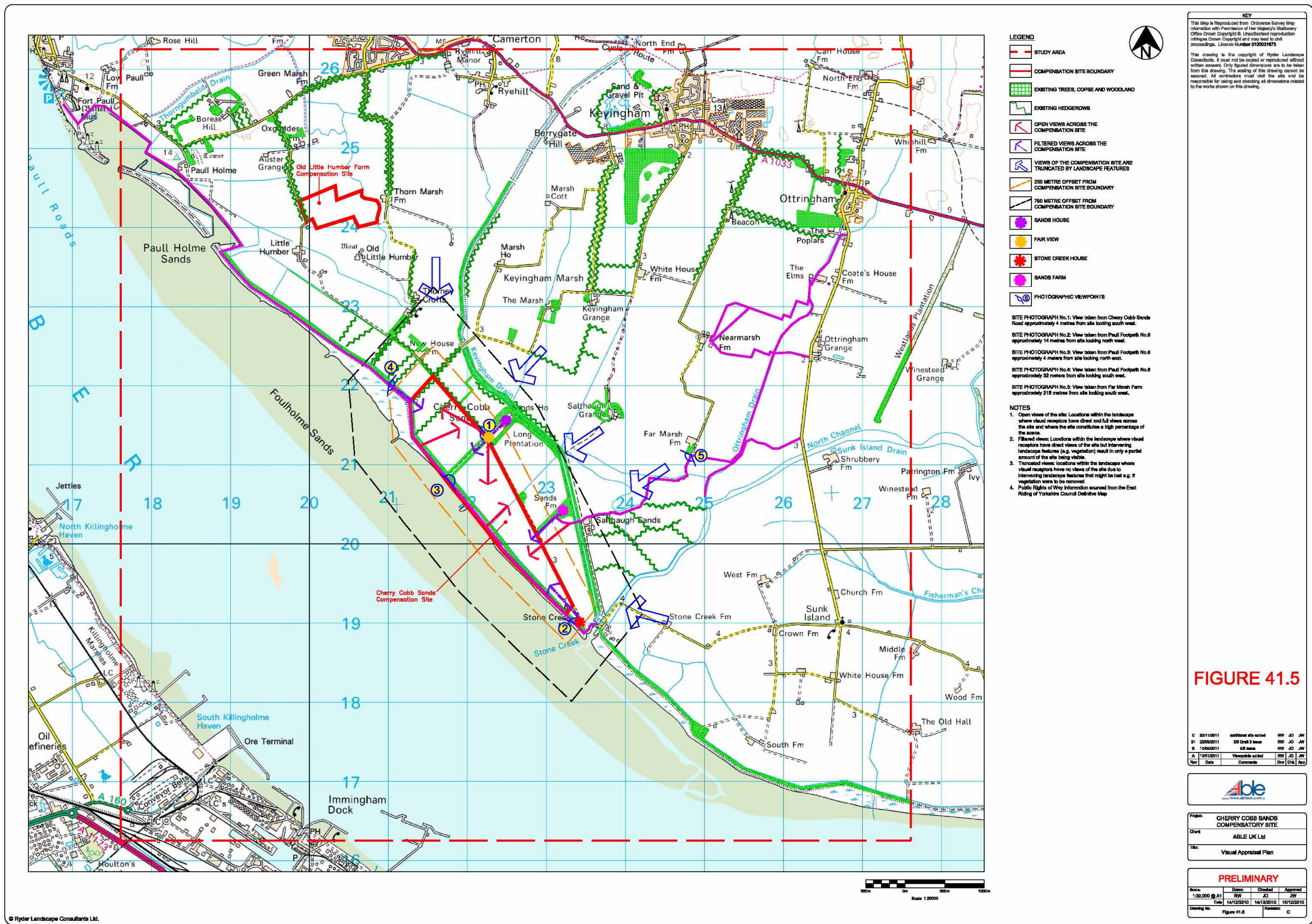


Figure 41.5 Visual appraisal plan

- 41.5.25 A summary of the visual appraisal is illustrated by use of arrow symbols on *Figure 41.5*. This drawing demonstrates the features that control views towards the intertidal site at Cherry Cobb Sands from adjacent areas. *Figure 41.5* also illustrates the landscape buildings, structures and planting in the surrounding landscape that act as visual barriers. These partially screen views towards Cherry Cobb Sands, particularly from adjacent properties. *Figure 41.5* illustrates where open and partial views into and across the site are obtained and the areas and properties which are likely to obtain views towards the site have been identified.
- 41.5.26 The figures illustrate that no visual interconnection exists between any of the historical structures in the surrounding landscape and the development proposals.
- 41.5.27 The following thresholds have been determined in defining viewpoint proximity to the intertidal site at Cherry Cobb Sands:
- Near Distance Views: any location within 250 m of the Compensation Site boundary
 - Middle Distance Views: any location within 750 m of the Compensation Site boundary
 - Long Distance Views: any location further than 750 m from the Compensation Site boundary.

Near Distance Views

- 41.5.28 Near distance views are obtained into the intertidal site at Cherry Cobb Sands from a limited number of roads, public rights of way and residential properties immediately surrounding the site, including Sands House, Fair View, Sands Farm and Stone Creek House. Although access was not gained at the time of survey it is considered that for all of these residential properties, except Fair View, open views across the Site are available only from rooms on the upper floor of the properties. These rooms would typically receive secondary levels of use in comparison to ground floor living rooms and kitchen areas. Views of the site from the ground floor rooms receive only partial views with intervening vegetation screening large areas of the site. It is considered views of the Humber Estuary across the site are obtained only from a limited number of upper storey viewpoints at these residences. In each instance the existing embankment creates a false, featureless horizon that creates a sense of 'big skies'.

- 41.5.29 Site Photograph No.1 illustrates the extent of view across the intertidal site at Cherry Cobb Sands from the lower storey entrance to Fair View. Open views across fields to the south-west and west are obtained but views of the Humber Estuary are curtailed by the existing embankment. To the centre of the photograph an avenue of trees is visible resulting in only partial views being available of the southern regions of the site from this location. To the left of the photo a shelterbelt encompasses Sands House and limits views across wider areas of the Site from this receptor.
- 41.5.30 Partial views across the intertidal site at Cherry Cobb Sands to the existing embankment are obtained from Cherry Cobb Sands Road only where the road abuts the site boundary. The partial nature of the views is due to the extent of intervening vegetation. Only partial views are obtained from Paull Footpath No.4, also due to vegetation.
- 41.5.31 With reference to Site Photograph No. 2 Paull Footpath No.6 receives open views across most of the site due to the path's elevated position on the existing embankment. North-south views are partially foreshortened by the scattered existing vegetation delineating the field boundaries within the intertidal site at Cherry Cobb Sands although this is sparse in the southern areas. Looking north along the Footpath the existing marshes and the site are easily visible within the same panorama exhibiting common characteristics of flatness, openness, sparseness of features and lack of detail. To the right half of the photo the horizon line is formed by the dense shelterbelts that surround Sand House and align Keyingham Drain and form a wider sense of visual enclosure to this region of Landscape Character Area 21B.
- 41.5.32 Site Photograph No. 3 is also taken from Paull Footpath 6 at the end of the avenue of trees looking towards Sands House. It illustrates that the southern regions of the intertidal site at Cherry Cobb Sands are largely devoid of field boundary vegetation whereas the northern areas include a greater degree of hedgerow retention. Looking south the fields appear amalgamated as the drainage ditches that form the boundaries are not discernable. To the right half of the photograph the shelterbelts are visible, forming a wider sense of enclosure to the site and screening long distance views from the north and east.

Middle Distance Views

- 41.5.33 Site Photograph No. 4 is taken from a position further north on Paull Footpath 6 and illustrates the success of the hedgerows in maintaining the historic field pattern compared to the south of the intertidal site at

Cherry Cobb Sands. The photograph is taken from a location adjacent to the Scheduled Monument of the World War II decoy structures and illustrates that the site does not form a visible part of the setting to the Monument. It further illustrates the wider extent of shoreline and intertidal habitat that is existing to the north of the site adjacent to sections of Paull Footpath 6 that will not be realigned.

- 41.5.34 The photo also illustrates the shelterbelt vegetation in the wider landscape that screens views of the northern region of the intertidal site at Cherry Cobb Sands from viewpoints in the wider landscape to the north and east.

Long Distance Views

- 41.5.35 A number of long distance viewpoints were researched and Site Photograph No. 5 represents a general illustration typical of these viewpoints. The photograph illustrates that no discernable views of the site are obtained from long distance due to intervening vegetation alongside Keyingham Drain and the proliferation of localised shelterbelts around residential and farm buildings.

Summary Visual Appraisal

- 41.5.36 The Visual Appraisal demonstrates that the intertidal site at Cherry Cobb Sands is a discrete parcel of land within the wider landscape. This is due to the extent of shelterbelt vegetation within a flat landscape that curtails or filters views towards the site. Open views across the site are limited to receptors on Paull Footpath 6 due to its elevated position within a flat landscape.
- 41.5.37 Residential receptors include Fair View, Sands House, Sands House Farm and Stone Creek House. Of these it is considered that only Fair View receives views of the proposed development from lower storeys. The other properties receive partial, and in some cases oblique, views of the proposed development from the less often used upper storeys. The Visual Appraisal demonstrates that from all visual receptors the proposed development would be viewed within a panorama that contains expanses of open, flat farmland as a continuance of the 21B landscape character area.
- 41.5.38 The Visual Appraisal also demonstrates that the fields in the southern region of the intertidal site at Cherry Cobb Sands have visually amalgamated whereas the fields in the northern region remain in their historic pattern through conservation of hedgerows.

41.5.39 In determining likely significant visual effects, in accordance with the Guidelines on Landscape and Visual Impact Assessment (2nd Ed. LI/ IEMA, 2002) all residential visual receptors will be classified as High sensitivity. In addition, visual receptors on Paull Footpath 6, as the only public right of way within the visual envelope of the site, are also classified as High sensitivity as the footpath is used for the purpose of enjoying the landscape and obtaining views across the Humber Estuary.

Old Little Humber Farm

41.5.40 The land within Old Little Humber Farm is under arable use within medium scale field patterns. The landscape scale is large due to the field size the sense of openness and long views. The topography of the site is flat and low lying, as shown in *Figure 41.3*, and the site is crossed by a series of drainage dykes.

41.5.41 As noted in *Chapter 35*, the arable fields at Old Little Humber Farm are intersected by a series of species poor or defunct hedgerows, although beyond that the vegetation in the site is sparse. *Figure 41.6* below provides photographs of the site landform and vegetation. As shown in *Figure 41.2* the east and west boundaries of the site are bordered by hedgerows along Newlands Lane and Thorn Marsh Road.

41.5.42 There are no public rights of way intersecting Old Little Humber Farm or within close proximity. There is a scheduled monument and listed building to the south of the site at Old Little Humber, further details of which are provided in *Chapter 40*.

41.5.43 The landscape character of Old Little Humber Farm falls within Landscape Character Area 21 (described above for Cherry Cobb Sands).



Figure 41.6 Photographs of Old Little Humber Farm

41.5.44 In review of the information contained above in relation to landscape planning and character and factoring in the form of proposed development at Old Little Humber Farm (being of limited extent), the landscape sensitivity of the site is assessed to be low.

41.6 IMPACTS - GENERIC

Cherry Cobb Sands

41.6.1 In summary, the following considerations comprise the likely impacts arising from the intertidal site at Cherry Cobb Sands as described earlier in this Environmental Statement.

Construction Phase

41.6.2 The following construction phase elements have the potential to have an impact on landscape and visual amenity:

- Impact 1: Presence and operation of construction machinery for earthworks including embankment, habitat area construction and breach of existing flood embankment.
- Impact 2: Presence and operation of Contractor's compound(s) and storage areas.
- Impact 3: Presence and operation of soil treatment areas.
- Impact 4: Loss of approximately 1000 m (two rows of 500 m) of semi-mature tree avenue.

Impact 1: Presence of construction machinery

41.6.3 During the construction period the operation of machinery will be an intrusive new element in the landscape and evident in existing views for localised visual receptors. The machinery shall comprise large excavators, bulldozers, delivery lorries, tractors, rotovators and dump trucks.

41.6.4 There will also be two 45 tonne silos on site at Cherry Cobb Sands to store the lime. These will be on site for approximately six months and are likely to move around the site as the lime is required. No other tall machinery is likely to be used.

- 41.6.5 **Landscape character effects:** the presence of machinery on the proposals sites is likely to create a temporary change in landscape character from an arable landscape to 'construction site'. However, this is mitigated by the existing heavily farmed nature of the landscape which experiences a high volume of large scale farm vehicles that, from medium to long distances, will appear identical to construction traffic.
- 41.6.6 With reference to the relevant policies of the adopted Local Plan, no landscape planning effects are considered to arise from this impact. The magnitude of landscape effects has been assessed as being small and adverse. In accordance with *Table 41.1* above the significance of landscape effect has been assessed prior to mitigation as being minor, adverse but short-term.
- 41.6.7 **Visual effects:** the visual impact will be the greatest for the residents at Fair View at a distance of some 220 m from the proposed embankment alignment and users of Paull Footpath 6, at varying distances down to a minimum of 10 metres, who will receive open views of construction operations. Sands House and Sands Farm will receive open views over the construction operations from their upper floors. The existing native tree and hedge planting aligning the boundaries of these residential properties will provide some screening of views. It is considered that the landscape will exhibit a greater degree of movement from the construction vehicles although this will be short-term as the proposed embankment will progressively screen the movements as construction progresses for all receptors apart from Paull Footpath 6. The openness of the landscape and the backdrop of the existing embankment will render the localised activities of the machinery a minor change in an expansive view. The visual qualities of the construction operations for the three proposed bird hides will differ little from that of the embankment. The magnitude of visual effect has been assessed as being medium and adverse. According to *Table 41.2* the resulting significance of visual effect has been assessed prior to mitigation as being moderate, adverse but short-term.

Impact 2: Presence and operation of Contractor's compound

- 41.6.8 The construction compound will comprise lit, single storey, temporary accommodation which will include welfare facilities for construction workers, and for the storage and stockpiling of construction materials. The compound is proposed to be located to the north of the proposed development adjacent to Cherry Cobb Sands Road.

- 41.6.9 **Landscape character effects:** the presence of temporary buildings and storage areas on the intertidal site at Cherry Cobb Sands is likely to create a change in its landscape character from an arable landscape to 'construction site'. However, this is mitigated by the existing heavily farmed nature of the landscape which includes a number of agricultural outbuildings.
- 41.6.10 With reference to the relevant policies of the adopted Local Plan, no landscape planning effects are considered to arise from this impact although note is made of the potential for lighting impacts with reference to Natural England consultation responses. The magnitude of landscape effects has been assessed as being small and adverse. In accordance with *Table 41.1* above the significance of landscape effect has been assessed prior to mitigation as being minor, adverse but short-term.
- 41.6.11 **Visual effects:** due to the level landform the compound will be evident in existing views for localised visual residential and footpath receptors which shall result in a temporary loss of visual amenity greatest during working hours. Security lights will increase the magnitude of the effect for residential receptors through introducing a new light source into a previously unlit area. However, the compound is proposed to be located in reasonably close proximity to existing built developments and farm outbuildings which should aid its assimilation into the wider landscape panorama and light fittings will be selected to minimise light throw and spill through use of down-lighters only. The magnitude of visual effect has been assessed as being medium and adverse. According to *Table 41.2* the resulting significance of visual effect has been assessed prior to mitigation as being moderate to major, adverse but short-term.

Impact 3: Presence and operation of soil treatment areas

- 41.6.12 The soil treatment areas will comprise zones adjacent to the proposed development where lime will be added to the soils used in construction of the proposed embankment. The treatment areas will comprise long linear mounds of soils.
- 41.6.13 **Landscape character effects:** the presence of the treatment areas on the intertidal site at Cherry Cobb Sands is likely to create a change in its landscape character from an arable landscape to 'construction site'. The mounds will be long and low, to prevent soil slumping, and so will appear not unlike agricultural operations. With reference to the relevant policies of the adopted Local Plan, no landscape planning

effects are considered to arise from this impact. The magnitude of landscape effects has been assessed as being small and adverse. The resulting significance of landscape effect has been assessed prior to mitigation as being minor, adverse but short-term.

- 41.6.14 **Visual effects:** due to the level landform the mounds will be evident in existing views for localised visual receptors, mainly users on Paull Footpath 6, which will result in a temporary loss of visual amenity. However, the extent of visibility, and thus number of receptors, will be low and the treatment area small within the wider extent of open views across the landscape. The mounds will also not be incongruous with the rest of the construction operations. The magnitude of visual effects has been assessed as being small and adverse. The resulting significance of visual effect has been assessed prior to mitigation as being minor to moderate, adverse but short-term.

Impact 4: Loss of approximately 1 000m of mature tree avenue.

- 41.6.15 Due to its location underneath the proposed route of the flood defence embankment, within an area to be inundated with salt water and to facilitate development approximately 1000m (comprising two rows of 500 m) of an existing tree avenue will be removed. This represents the total length of the existing tree avenue.
- 41.6.16 **Landscape character effects:** the avenue is not considered to be a key element within the localised landscape character, indeed it is considered incongruous with the local character. Although the ERYLCA identifies particular belts of vegetation as giving identity to an otherwise featureless landscape this avenue is not one identified by name or location.
- 41.6.17 Although the development proposals include for the removal of landscape features, tree rows, and change of land use, the loss of these features will not adversely impact landscape character and therefore be in accordance with the landscape planning policies of the Holderness District adopted local plan. Further, the proposals are in accordance with Policy Env 11 and 30. As a result the magnitude of landscape effects has been assessed as being medium and beneficial. Further, the likely significance of landscape effect has been assessed prior to mitigation as being moderate, beneficial and permanent.
- 41.6.18 **Visual effects:** the proposals will remove a visually incongruous element from the landscape for all receptors as current they form a dead-end avenue. Therefore, the magnitude of visual effects has been

assessed as being small and beneficial. As a result the likely significance of visual effect has been assessed prior to mitigation as being minor to moderate, beneficial and permanent.

Operational Phase

41.6.19 The following operational phase elements have the potential to have an impact on landscape and visual amenity:

- Impact 5: Presence of 7.5 m AOD (approximately 5 m in height above existing ground level) flood embankment creating a change in views for residential properties.
- Impact 6: Presence of 7.5 m AOD (approximately 5 m in height above existing ground level) flood embankment creating changed views for users of the public footpath and road network and creating a closer proximity of public footpath to residences through PRow realignment.
- Impact 7: Change of arable land to estuarine habitat.

Impact 5: Presence of flood defence embankment impacting on residences

41.6.20 The proposed flood defence embankment shall match the existing embankment in topographical height and appearance although it shall be in greater proximity to visual receptors.

41.6.21 **Landscape character effects:** these effects are considered not significant due to the proposed embankment not representing the addition of a new or incongruous landscape character element. Whilst the embankment will be bare soil in the first year of operation it is considered that the banks will cover over quickly with vegetation. The three bird hides are considered to be very small structural additions to the landscape in keeping with the current, wider agricultural character of scattered out buildings.

41.6.22 As the proposed development proposes includes only landscape features that currently exist in the local landscape character there are no effects on landscape planning policy. As a result the magnitude of landscape effects has been assessed as being imperceptible. Further, the likely significance of landscape effect has been assessed prior to mitigation as being insignificant.

- 41.6.23 **Visual effects:** the proposed embankment will foreshorten views of the agricultural landscape for residents at Fair View, Sands House, Sands Farm and Stone Creek House. The proposals will not introduce any unfamiliar forms or shapes into the view due to the presence of the precedential existing embankment. In addition, agricultural land will remain visible in the immediate foreground for receptors at Sands Farm and Stone Creek House.
- 41.6.24 Views from Sands House will likely be only received from upper storeys where the visual focus will be over the embankment and across the proposed intertidal habitat zone out to the Estuary through the proposed breach of existing defences. Therefore, the embankment will have limited effects on foreshortening views that will now be of an intertidal zone rather than a monochromatic agricultural landscape. This is considered to be a beneficial change to the view due to the likely increased biodiversity and avian activity and removal of agricultural machines. Views will be received at a distance of some 420 m resulting in minimal inter-visibility between the proposed route of Paull Footpath 6 and Sands House.
- 41.6.25 Fair View will receive a large magnitude of change in views due to the proximity of the proposed embankment foreshortening views and reducing the visible openness of the landscape in views from the ground storey. Whilst the effect is considered to be moderate, adverse on this individual residence the visual appraisal demonstrates that only partial views of the landscape to the south were obtained due to the double row of trees that screen views of the south of the site. Large magnitude of effects will also be experienced by the realignment of Paull Footpath 6 to the landward toe of the embankment, much closer to Fair View than currently experienced.
- 41.6.26 Views of the bird hides will be received by the receptors listed above but primarily only from upper storeys except at Fair View. However, Fair View will likely only receive small, oblique views of the bird hides adjacent to Cherry Cobb Sands Road. The bird hides will only offer views towards into the intertidal zone. Whilst visual impact on receptors is potentially increased due the elevated position of the hides on top of the embankment this is considered to have no bearing on the extent of visibility in this instance. This is because views are only obtained from upper storeys resulting in the hides being on or slightly below eye level when standing in first floor residential storeys. Views of the bird hides from locations within the wider landscape will be

truncated by the shelterbelt and hedgerow vegetation located with reference to *Figure 41.2*.

- 41.6.27 The foreshortening of views, reduction of landscape openness and the forcing of a greater degree of proximity between residences and Paull Footpath 6 (for Fair View and Sands House only) by the proposed embankment render the development as being of medium and adverse effect. However, of the properties identified only Fair View will likely receive views of the embankment from ground storey rooms with most upper story views from other properties being partial or oblique.

Impact 6: Presence of flood defence embankment impacting on other receptors

- 41.6.28 The proposed flood defence embankment will be around 1.0 to 1.5 m higher than the existing embankment but will match its appearance although it will be in greater proximity to visual receptors. The realignment of 18% of Paull Footpath 6, at a location furthest from Kingston upon Hull, will be to the landward toe of the embankment. This will curtail views from the proposed footpath of the intertidal site at Cherry Cobb Sands and the Humber Estuary although open views of the Estuary are obtained along the remaining 80% of the footpath closer to Kingston upon Hull. The location of the embankment adjacent to Cherry Cobb Sands Road shall also foreshorten views for road users. The footpath is located to the toe of the embankment as opposed to the crest, to curtail impacts on bird species from the movement of footpath users when walking as well as preventing possible ingress by dogs.
- 41.6.29 **Landscape character effects:** these effects are considered not significant due to the proposed embankment not representing the addition of a new or incongruous landscape character element. Whilst the embankment will be bare soil in the first year of operation it is considered that the banks will cover over quickly with vegetation.
- 41.6.30 The development proposals create a greater degree of proximity for Paull Footpath 6 users to Cherry Cobb Sands Road and residential properties at Fair View and Sands House. However, the impact of this greater proximity is offset by the existing Paull Footpath 6 route being heavily influenced by its location on top of an obviously man-made bund, its proximity to the heavily humanised arable landscape and its character encompassing numerous residences and roads. The bird hides will appear in character with a landscape populated with isolated farmsteads and outbuildings.

- 41.6.31 As the proposed development proposals include only landscape features that currently exist in the local landscape there are no effects on landscape planning policy. The footpath access to the bird hides shall be designed for inclusive access in accordance with Policy Env 18.
- 41.6.32 In view of the above the magnitude of landscape effects has been assessed as being imperceptible. Further, the likely significance of landscape effect has been assessed prior to mitigation as being not significant.
- 41.6.33 **Visual effects:** the proposed embankment will foreshorten views of the agricultural landscape for users of the Cherry Cobb Sands Road looking southwards although these receptors are considered to be of low sensitivity. Views north shall remain unaffected.
- 41.6.34 The visual amenity of users on Paull Footpath 6 shall be adversely affected through the loss, along the realigned sections only (totalling 18% of the total path length furthest from Kingston upon Hull), of views towards and across the Humber Estuary and the existing marshes on the Estuary's north bank. As Paull Footpath 6 is a 'dead end' that does not link settlements it is considered that it will have only a limited number of visitors but that these visitors will be using the footpath due to their interest in their surrounding environment. The proposed development includes three bird-hides which will offer sheltered and beneficial visual access for bird watching and walkers to the intertidal zone although views of the Humber Estuary will appear more distant.
- 41.6.35 As the proposed development affects only 18% of the total footpath length and the remaining 82% experiences wider views over intertidal vegetation than does that section to be realigned (see Site Photograph No. 4), the magnitude of visual effects has been assessed to be small and adverse. The resulting significance of visual effect has been assessed prior to mitigation as being minor to moderate, adverse and permanent.

Impact 7: Change of Cherry Cobb Sands area to estuarine habitat

- 41.6.36 The proposed development will create a change in landscape character for the intertidal site at Cherry Cobb Sands area from arable agriculture of historical significance (direct land reclamation and field pattern from the 1600s) to intertidal habitat.

- 41.6.37 **Landscape character effects:** the proposed development constitutes an area of 100 ha of intertidal habitat creation which represents a 2.7% of Character Area 21B in the ERYLCA. The intertidal site at Cherry Cobb Sands is located within the western geographic protrusion of 21B and is visually enclosed by surrounding vegetation. This results in the site being located on land which is discrete and does not form the core of the 21B character area type or mass. It is considered that these factors lessen the sensitivity of the site area to landscape character change. It is further noted that the site is outside of the boundaries of the nearby Conservation Area which is located further to the south.
- 41.6.38 The proposals are also considered to retain the ERYLCA listed positive landscape features that constitute the unique landscape character of this area.
- 41.6.39 The development proposals shall adversely affect the unique character of Character Area 21B through introducing a differing management regime and creating field amalgamation, actions to avoid under the ERYLCA. However, the changes will take place within an area not considered core to the definition of 21B character type. In addition, as demonstrated in the Visual Appraisal, the southern region of the intertidal site at Cherry Cobb Sands has already been largely amalgamated into the appearance of a single field.
- 41.6.40 The site contains no notable landscape features not found in proliferation within wider areas of the landscape. This includes field boundary definition which the Visual Appraisal demonstrates (within the intertidal site at Cherry Cobb Sands) as having largely eroded, resulting in the apparent amalgamation of fields. This results in a weaker existing character than is found elsewhere in 21B. The development proposals also have character precedent, within 21B, in the marshes located to the south of the existing embankment.
- 41.6.41 Although the development proposals will result in the loss of agricultural land it is not considered to be of the higher grades thus rendering the proposals in accordance with Local Plan Policy Env 1. The only vegetation being lost to development is that of the incongruous double tree lines opposite Fair View that bisect the site. As this feature is a monoculture and not a key landscape character feature the development proposals accord to the requirements of the Env policies of the adopted Local Plan.

- 41.6.42 The character of the intertidal site at Cherry Cobb Sands, in isolation, will be beneficially affected through its remaking as a more environmentally responsive and responsible landscape character capable of maintaining protection for the wider landscape from rising sea levels. Therefore, the magnitude of landscape effect has been assessed as being medium and beneficial. As a result the significance of landscape effects has been assessed prior to mitigation as being moderate, beneficial and permanent.
- 41.6.43 **Visual effects:** the proposed development shall create a change in visual amenity for the intertidal site at Cherry Cobb Sands by creating a region different in land cover and management regime to the dominant arable landscape that surrounds it. Level land heavily under human influence of arable agriculture will revert to a state similar to the tracts of Humber Estuary coastline adjacent to areas to the south of the existing embankment i.e. of a more 'natural' intertidal state. As noted above, the loss of historic visual character is considered acceptable as the site represents only a small percentage of the wider cultural area and is not within the Conservation Site located further to the south.
- 41.6.44 The creation of a proposed embankment will foreshorten views from a small number of residences. However, it is considered these residential views are obtained mostly from upper storey rooms. Due to the nature of usage of most residential upper storeys it is considered that this lessens the degree of sensitivity of these views. In addition, receptors viewing the intertidal site at Cherry Cobb Sands from the upper storeys will obtain views over the proposed embankment. Therefore, the embankment will have limited effects on foreshortening views that will now be of an intertidal zone with views of the Humber Estuary beyond through the existing embankment breach rather than a monochromatic agricultural landscape. This is considered to be a beneficial change to the view due to the likely increased biodiversity and avian activity, removal of agricultural machines and the restoration of estuary views that have been curtailed since the construction of the current embankment.
- 41.6.45 Although the visual effects of the embankment are adverse they have been assessed previously. Instead, the magnitude of visual effects arising solely from the change from agriculture to intertidal habitat has been assessed as being small and beneficial. As a result, the likely significance of visual effects has been assessed prior to mitigation as being minor to moderate, beneficial and permanent.

Old Little Humber Farm

Construction Phase

- 41.6.46 During the construction phase, the main impact upon landscape and visual amenity would be from the presence and operation of construction machinery for earthworks to create wet grassland, should they be required. There will be no construction compounds present on site, although welfare facilities will be provided for construction workers.
- 41.6.47 The impact upon landscape character from the presence of machinery will be mitigated by the existing farmed nature of the site. The construction traffic will, from medium to long distances, appear identical to large scale farm vehicles that currently operate on the site. The magnitude of landscape effects has been assessed as being small and adverse. In accordance with *Table 41.1* above the significance of landscape effect has been assessed prior to mitigation as being minor, adverse but short-term.
- 41.6.48 Visual effects will be experienced by residents of properties on Newlands Lane and Thorn Marsh Road. Nevertheless, the site is largely screened from the roads by boundary hedgerows, so the magnitude of visual effects has been assessed as being small and adverse. In accordance with *Table 41.1* above the significance of landscape effect has been assessed prior to mitigation as being minor, adverse but short-term.

Operation Phase

- 41.6.49 During the operation phase the change in land use at Old Little Humber Farm from arable to pasture farmland comprising wet grassland is assessed as having only a small magnitude of effect upon landscape character and visual amenity. As discussed in Chapter 28, groundworks will cause the topography to undulate by only up to 0.5m. The resulting impacts are assessed as being not significant.

41.7 CUMULATIVE IMPACTS

- 41.7.1 There are no other projects known at this time which will result in cumulative impacts upon landscape and visual amenity at Cherry Cobb Sands.

- 41.7.2 An onshore cable for an offshore wind farm will be laid around 1km from Cherry Cobb Sands and through the proposed wet grassland at Old Little Humber Farm. Nevertheless the works are unlikely to take place at the same time as those at the Compensation Site and would result only in short term landscape impacts during construction.
- 41.7.3 A similar managed realignment site is proposed by the Environment Agency at Donna Nook in East Lindsey on the south bank of the Humber. This will have similar impacts on views from nearby residences and footpaths to those assessed at the Compensation Site. It is, however, 30 km from the Compensation Site and therefore will not cause cumulative impacts upon landscape or visual amenity.
- 41.7.4 The change in landscape appearance on the south bank of the estuary as a result of the AMEP is assessed in *Chapter 20*. The assessment finds it will be largely assimilated into the industrial backdrop in the views experienced from Cherry Cobb sands area. Nevertheless, wind turbines will be constructed and stood upright at the AMEP; the appearance of the blades on the effective horizon line would be different from the tall rigs and cranes at Immingham. Applying the methodology, this would therefore result in combined not significant landscape effects and minor, adverse visual effect.

*Cherry Cobb Sands - Construction Phase**Impact 1: Presence and operation of construction machinery*

- 41.8.1 For all views of the intertidal site at Cherry Cobb Sands it is considered that no new beneficial mitigation creation is feasible for construction operations. This is due to either the proximity of the receptor, the short-term nature of the construction or the lack of screen vegetation at the site boundaries that could be augmented or improved. Planting to screen construction works is considered unfeasible due to the expected short duration of the works. However construction of the new embankment will provide screening for further works within the intertidal area .

Impact 2: Presence and operation of Contractor's compound(s)

- 41.8.2 Whilst views of the compound are hard to mitigate for the same reasons as Impact 1 the following measures shall be employed to minimise effects on receptors:

- The effects on adjacent residential properties will be minimised works will be restricted to daytime working only. Therefore there will be no need for lighting at the site compound other than security lighting.
- A minimum offset distance between the construction compound and residential properties will be maintained to minimise effects further.
- Wherever possible, the Contractor will be required to use only single storey structures.
- Use of the compound buildings as screens for construction activity and vehicular parking from receptors to the north of the intertidal site at Cherry Cobb Sands.
- There will be no permanent security lighting during operation of the site.
- Site traffic delivering to site should be strictly limited to working hours.

- Construction traffic should focus on the phased completion of sections of the embankment as a priority to reduce the sprawl of traffic across the site and achieve a form of visual screening for the wider excavation works.

Impact 3: Presence and operation of soil treatment areas

- 41.8.3 The likely effects on receptors will be minimised through appropriate siting of the mounds maintaining a minimum offset distance (to the agreement of the Local Planning Authority) between the proposed treatment area and residential properties. If possible the treatment areas shall be located in the lee of the construction compound to use the proposed compound buildings as screening.

Impact 4: Loss of approximately 750 m of mature tree avenue

- 41.8.4 No mitigation is required as removal of the mature tree avenue is considered to be a beneficial impact as it will result in the removal of a visually incongruous element from the landscape.

Cherry Cobb Sands - Operational Phase

- 41.8.5 No mitigation is considered feasible for any of the landscape character impacts.

Impact 5: Presence of flood defence embankment impacting on residences

- 41.8.6 The alignment of the proposed embankment has been defined through utilising a minimum offset between it and adjacent residential receptors so that views of the open, agricultural and intertidal landscape can be obtained from most locations. The alignment is orientated to respond to the man-made nature of the landscape to best assimilate the scheme into the wider setting. With reference to Fair View, oblique views of the wider landscape will be retained to the northwest due to the angling of the embankment inland. This angle also creates a minimum offset of 220 m of non-developed area in front of Fair View which will lessen the magnitude of effect and retain the landscape at current topography relating to those areas to the north-west. Views over the embankment across the intertidal habitat will be obtained from upper storeys of all residential receptors due to design restriction of the embankment height. In addition, the realigned Paull Footpath 6 will be located to the toe of the embankment (approximately 220 m from Fair View) to minimise intervisibility between the footpath and the residential receptors.

41.8.7 With reference to the consultation responses the proposed embankment has been set back 300 m from the nearest site boundary to Stone Creek House to afford views of existing farmland for the residents of Stone Creek House and the adjacent camp site.

41.8.8 The proposed bird hides will be constructed from timber with appropriate roofing materials for their location adjacent to caustic salt water atmospheres. The colour of the bird hide structures shall be a muted green with brown. These colours are visually recessive and will blend well with the surrounding landscape.

Impact 6: Presence of flood defence embankment impacting on other receptors

41.8.9 No mitigation is considered feasible for impacts on the users of Paull Footpath 6 or Cherry Cobb Sands Road. In response to moving footpath users further from the Humber Estuary three bird watching hides at separate locations on the embankment crest are proposed to be included along the realigned length of Paull Footpath 6 to afford sheltered views for pedestrians across the Compensation Site towards the estuary. Materials and colours of the bird hides are to be detailed with reference to the previous paragraph.

41.8.10 The toe of the new embankment will be set approximately 20 m from the edge of Cherry Cobb Sands Road, and the slope will be at a gradient of 1:3, which will soften the feeling of enclosure for those using Cherry Cobb Sands Road.

Impact 7: Change of Compensation Site to estuarine habitat.

41.8.11 No mitigation is required for this impact, as the change in habitat type will make the site look much like the coastal habitat that currently aligns the northern banks of the Humber Estuary.

Old Little Humber Farm

41.8.12 For all views of Old Little Humber Farm it is considered that no new beneficial mitigation creation is feasible for construction operations. Planting to screen construction works is considered unfeasible due to the expected short duration of the works.

41.8.13 No mitigation is required for the change in land use from arable to pasture (wet grassland) farmland, as the change in habitat type will not make a discernable detrimental impact upon the landscape character and visual amenity of the area.

41.9 *RESIDUAL IMPACTS*

- 41.9.1 With proposed mitigation measures in place the majority of operational impacts are judged to have a minor or not significant impact on landscape character and visual amenity.
- 41.9.2 Negative residual operational landscape impacts resulting from the intertidal site at Cherry Cobb Sands are likely from the foreshortening of residential views by the embankment. However the creation of a minimum offset of 300 m from Stone Creek House boundary and in the case of Fair View approximately 220 m from building to embankment toe will lessen the magnitude of impact of receptors of High sensitivity. For receptors at Fair View the residual landscape effects will be moderate adverse. For all other residences, including Stone Creek House, the residual impacts will be minor.
- 41.9.3 Negative residual operational landscape impacts are likely from the loss of open views of the Humber Estuary from Paull Footpath 6. As there are few mitigation measures that will offset this, impacts will remain the same as those assessed above. However, the creation of the bird hides will offer closer, sheltered viewing locations for observing wildlife in the intertidal zone which will lessen the adverse visual effects for Impact 6 from moderate-major to minor-moderate. The location of a hide opposite the proposed breach location will retain views across the Humber for footpath users.
- 41.9.4 During construction works some minor or moderate, adverse residual landscape affects will remain. Whilst these are unavoidable, all such adverse impacts will be temporary and short term in nature.