

# Padeswood Cement Works Mill 5 Mold Flintshire

## Landscape and Visual Impact Assessment



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**Landscape  
Institute  
Registered  
Practice**

**DRaW (UK) Ltd**

Morwick Hall, Mortec Park, York Road, Leeds, LS15 4TA.


Web: [www.draw-ltd.com](http://www.draw-ltd.com)

Tel: 0113 8232871

Email: [info@draw-ltd.com](mailto:info@draw-ltd.com)



# DOCUMENT CONTROL

		<b>DRaW (UK) Ltd</b> Morwick Hall, Mortec Park, York Road, Leeds, LS15 4TA. Web: <a href="http://www.draw-ltd.com">www.draw-ltd.com</a> Tel: 0113 8232871 Email: <a href="mailto:info@draw-ltd.com">info@draw-ltd.com</a>	
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# Contents

<b>1</b>	<b>Introduction .....</b>	<b>4</b>
1.1	The Site.....	4
1.2	Scope of the Assessment.....	5
1.3	Assessment Methodology .....	5
1.4	Exclusions .....	6
1.5	Study Area .....	6
1.6	Desk Study.....	6
1.7	Field Study .....	7
1.8	Consultations .....	7
<b>2</b>	<b>The Proposed Development.....</b>	<b>7</b>
2.1	Landscape Planning Policy Context .....	10
	Planning Policy Wales, Welsh Assembly Government, Edition 9, November 2016.....	10
	Technical Advice Note 12: Design.....	11
	Unitary Development Plan for Flintshire .....	11
2.2	Landscape Designations .....	12
	National Parks .....	12
	Area of Outstanding Natural Beauty.....	13
	World Heritage Sites.....	13
	Scheduled Ancient Monuments.....	13
	Conservation Areas .....	13
	Listed Buildings.....	13
	Registered Parks and Gardens .....	13
	Green Belt /Green Barriers .....	13
	Country Parks and Visitor Attractions.....	14
	Recreational Routes and Public Rights of Way.....	14
<b>3</b>	<b>Landscape Context: Study Area.....</b>	<b>14</b>
	Land Use .....	14
	Settlement.....	14
	Landform.....	15
	Vegetation Cover .....	15
<b>4</b>	<b>Landscape Context: The Site .....</b>	<b>16</b>
4.1	Published Landscape Character Assessments.....	16
	Landscapes Working for Wales: A Landscape Strategy for Flintshire .....	16
4.2	LANDMAP Evaluation .....	17
	Summary of the LANDMAP Evaluation .....	20
4.3	Predicted Landscape Effects.....	20
4.4	Summary of Landscape Effects.....	21

<b>5 Visual Assessment</b>	<b>22</b>
5.1 Zone of Theoretical Visibility	22
5.2 Visibility of the Site	23
5.3 Visualisations	23
5.4 Viewpoint Assessment	24
5.5 Predicted Visual Effects	38
Views from Residential Receptors	38
Views from the Scheduled Ancient Monument	38
Views from Conservation Areas	39
Views from Listed Buildings	39
Views from Country Parks and Visitor Attractions	39
Recreational Routes	39
Views from Public Rights-of-Way	39
Visual Effects in Relation to the LANDMAP Evaluation	40
Visual Effects of the Construction Phase	41
5.6 Summary of Visual Effects	41
5.7 Mitigation Measures	42
5.8 Compliance with Planning Policy	43
5.9 Overall Summary	44

## Figures

Figure 1: Site Location	5
Figure 2: Padeswood Cement works with the Site Boundary and Development Footprint	8
Figure 3: Elevations of the Proposed Development	9
Figure 4: Visualisation of the proposals viewed from the footpath south of Bannel Dairy Farm	40
Figure 5: Approximate Area of Increased Visual Prominence	42

## Viewpoints

Viewpoint 1: A5118 North East of the Site (Refer to Photomontage Drawing 5A)	25
Viewpoint 2: Public Footpath Adjacent to Bannel Farm, North of the Site	26
Viewpoint 3: St John the Baptist's Church, Penymynydd (Junction of the A550 and the A5104)	27
Viewpoint 4: Public Footpath South of Bannel Dairy Farm, East of the Site	28
Viewpoint 5: Springfield, East of the Site (Refer to Photomontage Drawing 5B)	29
Viewpoint 6: A550, Penyffordd, West of the Site	30
Viewpoint 7: Wat's Dyke Way South of the Site (Refer to Photomontage Drawing 5C)	31
Viewpoint 8: Pen-yr-Allt, Padeswood Lake Road, South of the Site	32
Viewpoint 9: Padeswood and Buckley Golf Club, Padeswood Lake Road	33
Viewpoint 10: Public Footpath, along the Western Boundary of the Cement Works	34
Viewpoint 11: A5118 North West of the Site (Refer to Photomontage Drawing 5D)	35
Viewpoint 12: Hawthorne Cottage, Buckley, North of the Site	36
Viewpoint 13: Spon Green, Bannel Lane, Buckley	37

## Tables

Table 1: LANDMAP Evaluation of 'Aspect Areas' within which the Site is Located.....	18
Table 2: Predicted Magnitude of Landscape Effects .....	20
Table 3: Assessment of the Proposals in Relation to relevant Landscape Planning Policy.....	43

## Appendices

Appendix A: Landscape and Visual Assessment Methodology

Appendix B: LANDMAP (Landscape Characterisation)

Appendix C: Drawings:

- Drawing 01: Landscape/Planning Context
- Drawing 02: Topography
- Drawing 03: Landscape Character – LANDMAP overall evaluation
- Drawing 04: Zone of Theoretical Visibility – Existing & Proposed
- Drawing 5A: Photomontage A - A5118 North East of the Site
- Drawing 5B: Photomontage B – Springfield Cottage, East of the Site
- Drawing 5C: Photomontage C – Wat's Dyke Way, South of the Site
- Drawing 5D: Photomontage D – A5118 North West of the Site

# Padeswood Cement Works

## Mill 5

## Mold, Flintshire

### **Landscape and Visual Impact Assessment**

## 1 Introduction

This report has been prepared on behalf of Golder Associates by DRaW (UK) Ltd. The Landscape and Visual Impact Assessment (LVIA) relates to the installation of a vertical roller mill (VRM) for cement grinding and a cement export rail facility at the existing Padeswood Cement Works, Flintshire, Wales.

This chapter is to be read in conjunction with the following appendices.

- Appendix A Assessment Methodology
- Appendix B LANDMAP Evaluation
- Appendix C Drawings

### 1.1 The Site

Padeswood Cement Works (the 'Cement Works') is located south of the A5118, approximately 5.5 km to the east of Mold and 2 km southeast of Buckley.

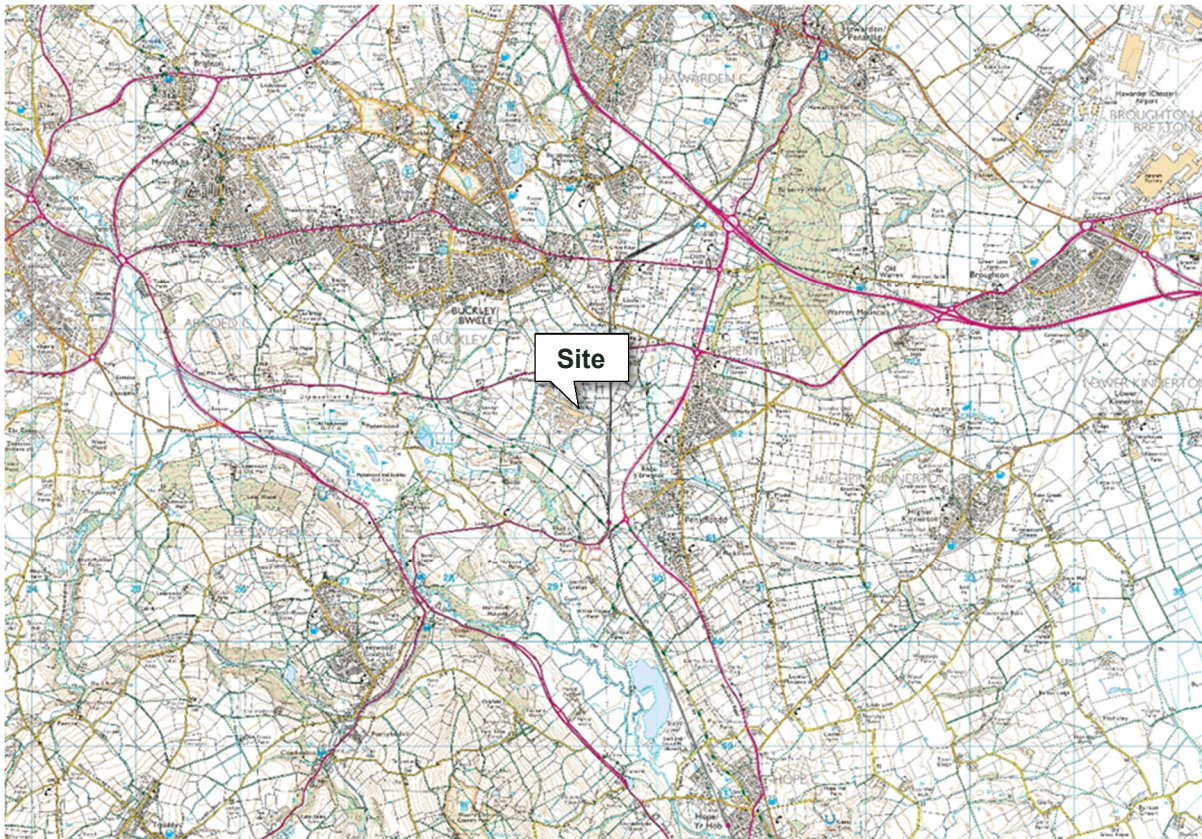
The planning application area (the 'Site') extends to approximately 3.1 hectares and is situated within the northeast part of the Cement Works, centred on OS grid reference NGR SJ 29230 62300.

The Cement Works is a major industrial complex covering in excess of 70.8 hectares, which has operated since the late 1940's.

The Site address is:  
Padeswood Cement Works,  
Chester Road,  
Padeswood,  
Mold,  
CH7 4HB.



Figure 1: Site Location



## 1.2 Scope of the Assessment

This assessment comprises:

- A description of the existing baseline conditions, including identification of key landscape characteristics, relevant planning designations /constraints and potential visual receptors which may be affected by the proposals;
- An assessment of the potential landscape effects resulting from the proposed development; and
- An assessment of the potential visual effects resulting from the proposed development.

## 1.3 Assessment Methodology

The landscape and visual impact assessment was undertaken in accordance with the scope set out in the Screening and Scoping Report prepared by Golder Associates in March 2017 (re:1773079.500/A.0) and issued to Flintshire County Council.

The methodology for carrying out this landscape and visual impact assessment is based upon:

- Guidelines for Landscape and Visual Impact Assessment, (GLVIA) produced by the Landscape Institute with the Institute of Environmental Management and Assessment (Third Edition, 2013); and
- 'LANDMAP' Online Landscape Evaluation (Natural Resources Wales).

The full methodologies are set out in Appendix A.

It should be noted that:

**Landscape Effects** relate to changes to the fabric, character and quality of the landscape. These could include direct impacts such as loss of woodland, individual trees, or effects on landscape character, and landscape/planning designations.

**Visual Effects** relate to specific changes in views and the effects of those changes on visual receptors (e.g. residents, users of public rights-of-way or recreational facilities). Changes to the visual setting of protected cultural heritage features are also considered (e.g. Scheduled Ancient Monuments, Listed Buildings or Conservation Areas).

## 1.4 Exclusions

Secondary visual effects generated by road vehicles, or trains entering and leaving the Site have not been considered in this assessment. Neither have the potential visual effects of plumes.

## 1.5 Study Area

The study area for the landscape and visual assessment extends 3 km from the Site boundary, although the effects on important landscape features/ designations further afield, including the Waun-Y-Llyn Country Park and the Leeswood Hall Conservation Area have been taken into consideration. The proposed development may be visible beyond 3 km although within the context of the existing Cement Works, which contains a number of prominent structures, it is unlikely that the development would give rise to significant landscape or visual events beyond this distance.

## 1.6 Desk Study

Information for the landscape and visual assessment was gathered from the following sources:

- Landscapes Working for Wales, A Landscape Strategy for Flintshire. Vol 1 The Landscape Strategy Policies and Proposals April, 1996;
- 'LANDMAP' Online Landscape Evaluation (Natural Resources Wales);
- Flintshire County Council Unitary Development Plan 2000-2015 (2011);
- Screening and Scoping Report prepared by Golder Associates in March 2017 (re:1773079.500/A.0);
- Ordnance Survey 1:25,000 scale site-centered digital raster map; and
- Aerial photography: Google Maps (<http://maps.google.co.uk/>).



## 1.7 Field Study

A field survey was undertaken on the 01 March 2017 to assess:

- The landscape characteristics;
- Views of the Site from the surrounding areas;
- The location and sensitivity of visual receptors; and
- The landscape and visual effects arising from the proposed development.

The survey was undertaken from roads, bridleways, tracks, footpaths and publicly accessible viewpoints within the 3 km study area.

## 1.8 Consultations

A combined EIA Screening /Scoping Report was submitted to Flintshire County Council in March 2017 (Refer Golder Report 1773079.500/A.0). The report set out the scope of the Landscape and Visual Impact Assessment, which included zone of theoretical visibility analysis and photomontages to illustrate the appearance of the proposed development for key locations.

## 2 The Proposed Development

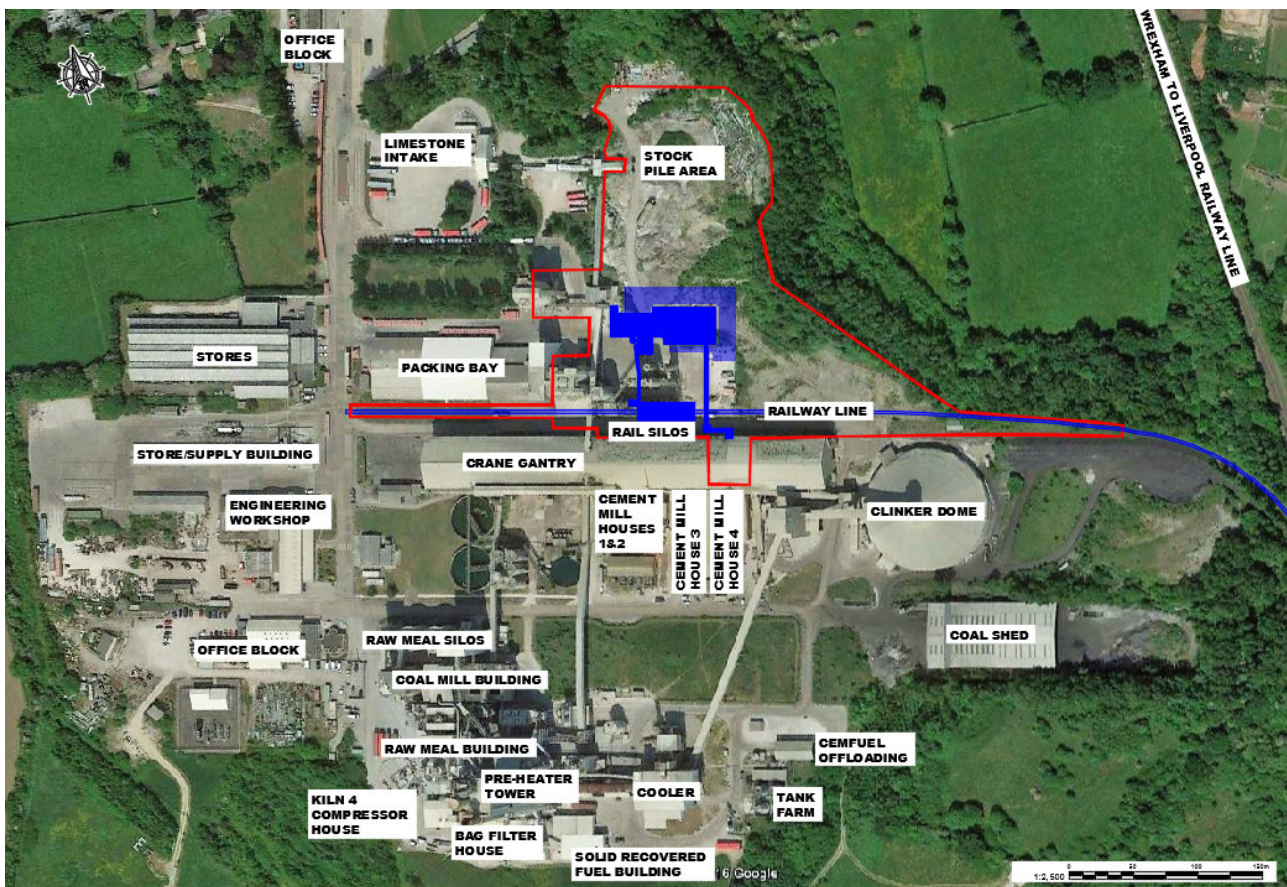
Details of the proposals are given in the planning application documents.

The proposed development briefly comprised:

- Site profiling to achieve required ground levels;
- Civil foundations, services and access roadways for Mill 5;
- Demolition of silos 11 and 12, the existing rail loading facility (including silos 7, 8, 9 and 10) and a small railway cabin;
- Construction of a new VRM together with ancillary development to feed clinker and other raw materials to the mill and feed the resulting cement to existing and proposed cement storage silos and rail loading facility;
- Erection of three new steel cement storage silos, each with a storage capacity of 1,000 tonnes, fitted with rail and road loading facilities; and
- Laying of new or realigned railway track to service the proposed rail loading facility.

Figure 2 shows the application boundary (red) and development footprint (blue) in relation to the existing Cement Works.

Figure 2: Padeswood Cement Works with the Site Boundary and Development Footprint

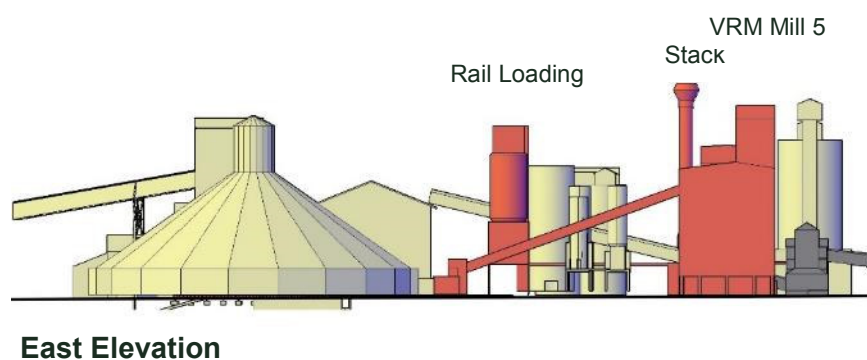
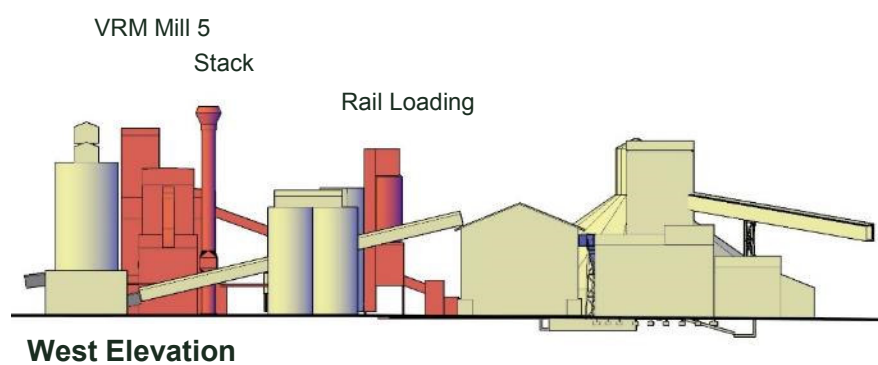


The key elements of the proposed development which could give rise to landscape or visual effects are:

- Vertical Roller Mill (Mill 5). Height: 41.8 m above ground level;
- Stack adjoining the VRM. Height: 47 m above ground level; and
- Rail Loading Facility. Height: 37.2 m above ground level.

These are shown (coloured red) on the elevations below (Figure 3).

**Figure 3: Elevations of the Proposed Development**



Elevations: 'Ensemble 01 Rev F Option Sicon pneum conv\_m

## 2.1 Landscape Planning Policy Context

The Site lies within the administrative area of Flintshire County Council, the ‘determining authority’.

The policies against which the application will be determined are contained within:

- Planning Policy Wales, Welsh Assembly Government, Edition 9, November 2016;
- Technical Advice Note 12: Design; and
- Flintshire County Council Unitary Development Plan 2000-2015 (2011).

Polices relevant to the landscape and visual impact assessment are listed below:

### Planning Policy Wales, Welsh Assembly Government, Edition 9, November 2016

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs). Chapters relating to landscape and visual effects include:

#### **Chapter 4 planning for Sustainability**

*‘4.9.1 Previously developed (or brownfield) land should, wherever possible, be used in preference to greenfield sites, particularly those of high agricultural or ecological value.’*

*‘4.11.9 The visual appearance of proposed development, its scale and its relationship to its surroundings and context are material planning considerations....’*

#### **Chapter 5: Conserving and Improving Natural Heritage and the Coast**

*‘5.2.9 Trees, woodlands and hedgerows are of great importance, both as wildlife habitats and in terms of their contribution to landscape character and beauty.....’*

*‘5.3.13 The LANDMAP information system .....describes and evaluates aspects of the landscape and provides the basis of a consistent Wales-wide approach to landscape assessment’.*

*‘5.5.1 Biodiversity and landscape considerations must be taken into account in determining individual applications and contributing to the implementation of specific projects. The effect of a development proposal on the wildlife or landscape of any area can be a material consideration.’*

#### **Chapter 13 Minimising and Managing Environmental Risks and Pollution**

*‘13.13.2 There is a need to balance the provision of lighting to enhance safety and security to help in the prevention of crime and to allow activities like sport and recreation to take place with the need to:*

- *protect the natural and historic environment including wildlife;*



- *retain dark skies where appropriate;*
- *prevent glare and respect the amenity of neighbouring land uses'*

## Technical Advice Note 12: Design

### Chapter 4: Delivering Good Design

*'4.8 Appraising "character" involves attention to ....landscape character, ...distinctive views (in and out of the site), skylines and vistas, prevailing uses ....'*

*'4.11 Appraisal of the landscape should focus on its quality in terms of geology and geomorphology, vegetation and habitats, visual and sensory quality and historic and cultural quality...' (DRaW Emphasis).*

## Unitary Development Plan for Flintshire

The relevant development plan policies are contained within the Flintshire County Council Unitary Development Plan 2000-2015 (2011):

### ■ **Policy STR 7 Natural Environment**

*'The natural environment of Flintshire will be safeguarded by:*

- a. protecting the open character and appearance of strategic green barriers around and between settlements;*
- b. protecting the character, appearance and features of the open countryside and the undeveloped coastline;*
- c. protecting and enhancing areas, features or corridors of nature conservation, biodiversity and landscape quality both in urban and rural areas, including urban greenspace.'*

### ■ **Policy L1 Landscape Character**

*'New development must be designed to maintain or enhance the character and appearance of the landscape.'*

### ■ **Policy D4 Landscaping**

*'New development will be permitted where:*

- a. a high standard scheme of hard and soft will be submitted as an integral part of a planning application'*

### ■ **TWH1 Tree and Woodland Protection**

*'Individual trees, groups of trees or woodlands that are protected either through a Tree Preservation Order, or by virtue of their location within a Conservation Area or by planning condition, will be safeguarded from wilful damage or destruction and from inappropriate proposals to lop, top, fell or uproot them.'*

Trees, groups of trees and woodlands that afford significant amenity to the surrounding area and are not already protected will, where appropriate, be made subject to Tree Preservation Orders especially if they are considered to be at risk.

Trees, groups of trees and woodlands that are situated on land likely to be developed and therefore likely to be at great risk, will be assessed and where appropriate, Tree Preservation Orders made to protect them whilst proposals for development are being considered.

■ **TWH2 Development Affecting Trees and Woodlands**

*'Development proposals will be permitted only where there is no significant loss of, or harm to, important trees and woodlands. Where the principle of development affecting trees or woodland is acceptable, the County Council will require that:*

- a. any tree, groups of trees or woodlands of value on or adjacent to the site are retained and that development is sympathetically incorporated around them;*
- b. the pre-planning assessment of the trees and the development complies with the British standard, Guide for Trees in Relation to Construction (BS 5837) 1991, and the County Council's Supplementary Planning Guidance about the Protection of Trees on Development Sites; and,*
- c. where the removal of trees is considered acceptable, suitable replacements that are appropriate to the character of the area shall be established elsewhere within the site.'*

■ **HE6 Scheduled Ancient Monuments and other Nationally Important Archaeological Sites**

*'Development that would remove, damage or obscure a Scheduled Ancient Monument or other nationally important archaeological site, or its setting, will not be permitted'. (DRaW Emphasis).*

■ **HE2 Development Affecting Listed Buildings and their Settings**

*'Any development affecting listed buildings or their settings, including internal or external alterations or change of use will be permitted only where: (DRaW Emphasis).*

- a. there is no adverse effect on the building's special architectural or historic character and appearance and the setting of a listed building;' (DRaW Emphasis).*

*Paragraph 9.26 of Policy HE2 goes on to say in relation to setting: 'The setting of a listed building may be limited to its immediate surroundings, but can include land some distance from it' (DRaW Emphasis).*

## 2.2 Landscape Designations

The Site itself is not subject to any landscape designations, although there are a number of designated/protected features within the 3 km study area, these are shown on Drawing 01: Landscape Context.

The following designations, which if present, within or near the site, may have a bearing on the landscape and visual impact assessment:

### National Parks

The proposed development is not within or near a National Park.



## Area of Outstanding Natural Beauty

There are no Areas of Outstanding Natural Beauty (AONB) within the study area.

## World Heritage Sites

There are no World Heritage Sites within the study area.

## Scheduled Ancient Monuments

Wat's Dyke, a 40-mile long earthwork (Scheduled Ancient Monument), passes approximately 350 m south of the Site at its closest point.

## Conservation Areas

There are no Conservation Areas within the study area. Leeswood Hall Conservation area lies just outside the 3km study area.

## Listed Buildings

There are a number of Listed Buildings within the study area these are shown on Drawing 01.

The closest Listed Buildings are:

- St John the Baptist's Church, a Grade II\* Listed Building situated in a churchyard on the north side of the A5104 at the North end of Penymynydd, a distance of approximately 1.3 km from the Site;
- The Old Parsonage, a Grade II Listed Building, immediately north of St John the Baptist's Church, Penymynydd, a distance of approximately 1.4 km from the Site; and
- Pen-yr-Allt Farmhouse and attached byre, a Grade II Listed Building situated approximately 1.4 km south-west of the site.

## Registered Parks and Gardens

There are no Registered Parks and Gardens within the study area.

## Green Belt /Green Barriers

The Site is not within Green Belt, but does lie just outside of a 'Green Barrier' to the south of Buckley, designated in the UDP (2000-2015). The Green Barrier performs a similar role to Green Belts in protecting key areas of open land and preventing the coalescence of settlements. The key difference is that Green Barriers are local, non-statutory designations and are usually less permanent than Green Belts, which are a national, statutory planning tool.

## Country Parks and Visitor Attractions

There are no Country Parks within the 3 km study area, although Waun-Y-Llyn Country Park, is located approximately 3.8 km to the south of the Site.

## Recreational Routes and Public Rights of Way

There is a fairly extensive network of footpaths in the study area. This includes a single strategic recreational route:

- Wat's Dyke Way Heritage Trail, a 61-mile long distance footpath running through the northern Welsh Marches from Maesbury in Shropshire, passing to the east of Oswestry and on to Basingwerk Abbey on the River Dee estuary in Flintshire (which passes 350 m to the south of the Cement Works at its closest point).

In addition, there are Public Rights-of-Way to the immediate northeast of the Site running parallel to the A5118, a footpath running along the western site boundary that links with Wat's Dyke and three further paths to the east of the site passing by Oak Tree Farm, heading towards Penyffordd. These are shown on Drawing 01.

## 3 Landscape Context: Study Area

### Land Use

The Site lies wholly within the existing Cement Works, a large industrial complex covering an area of 70.8 ha (Blue Line Boundary). The operational area, (which includes the Site), covers some 25.6 hectares.

The Cement Works are mostly surrounded by pastoral farmland with some arable production.

There are a number of main roads which pass through the study area:

- The A55 Trunk Road which cuts through the northeast part of the study area approximately 2 km from the Site;
- The A5118 immediately north of the Cement Works; and
- The A550 Trunk Road, which bypasses the towns of villages of Penymynydd and Penyffordd, lies approximately 2 km to the east.

The Liverpool to Wrexham railway line passes immediately east of the site and the remnants of a former disused rail line are located to the south of the Cement Works.

The 18 hole Padeswood and Buckley Golf Club lies approximately 1.3 km west of the Site and there is a golf driving range on the A5118 to the north west of the site.

### Settlement

There are three main settlements within the study area:

- The town of Buckley, occupies rising ground to the north of the Cement Works, affording residents distant views of the hills to the south, beyond the Works; and
- East of the Cement Works, beyond the A550 lie the neighbouring villages of Penymynydd and Penyffordd.

The Cement Works is located in a sparsely populated area away from the main settlements. There is a small cluster of properties on the A5118, around the site entrance, including a row of 'worker's houses' on Padeswood Drive. In addition, there is a second-hand car garage, and small number of dwellings including Padeswood Hall (vacant), a substantial 2-storey property to the immediate west of the site access road and main car park.

In addition, there are a number of isolated residential properties within 1 km of the Cement Works. These include:

- To the east, between the Cement Works and Penymynydd /Penyffordd: Ash Tree Farm, Oak Tree Farm, Bannel Dairy Farm and Springfield;
- To the north, between the Cement Works and Buckley: Smithy Farm, Padeswood Hall Farm, Bannel Farm and Brook Farm;
- To the south, between the Cement Works and the A5104: Dyke Farm, Well Farm, The Gables and Pen-yr-Allt; and
- To the west, between the Cement Works and Station Lane: Oak Tree Farm (2), Laburnum Cottage, Ty Gwyn and Padeswood Lodge.

## Landform

Generally, within the study area the gently undulating land rises to the north of the site and falls to the south east, draining into the River Alun via a series of minor tributaries, which are prone to flooding. The topography ranges from a high point of 150 m AOD north of Buckley to a low of 80 m AOD in the Afton Alun Valley. The Cement Works itself occupies a relatively flat area of land between 100-110 m AOD (Refer Drawing 02).

Rising land to the north of the Cement Works, is generally less undulating and more open than the land to the south which includes a number of moderately incised valleys.

To the south of the study area the terrain rises abruptly to higher ground around Leeswood, with the Berwyn Mountains further south rising above 500 m, forming an attractive backdrop to southerly views from much of the study area.

## Vegetation Cover

To the north of the Cement Works the landscape is reasonably open with comparatively little woodland cover, apart from Bilberry Wood around the junction of the A55 and the A550 to the north west of the site.

To the south of the Cement Works the landscape is characterised by hedgerows and hedgerow trees particularly oak, and ash, with woodland on the steeper valley slopes towards the River Alun and along Black Brook. Overall the impression of the land to the south is one of a well vegetated landscape, with some parkland characteristics, including frequent mature trees.

The Cement Works are bounded to the north east and east by a belt of mature woodland and by trees along the railway line embankment.

There is fairly extensive scattered woodland to the southwest and frequent mature hedgerows between the Cement Works and the A550.

The southwest, west and northwest boundaries are more open, although a substantial hedgerow along the Cement Works boundary provides some screening of the complex from the surrounding areas.

There is fairly extensive tree cover around the entrance to the Cement Works, including mature trees along the A5118 and to south of Padeswood Drive, which limits views into the Site from the north.

## 4 Landscape Context: The Site

The Site lies wholly within the existing Cement Works and extends to 3.1 ha, including the rail connection.

The proposed development is located within an existing area of hard standing, between the stockpile area to the north and the main plant area to the south. The planning application boundary is shown on Figure 2.

Immediately south of the proposed development there is a 230 m long, 26 m high Raw Materials Storage Hall which runs through the central part of the site, with a 42 m high conical shaped Clinker Store at the eastern end.

To the west is Silo 6 and the cement packing building.

South of the central building there are a number of larger structures, including the 109 m high Kiln 4 building, which dominates the Cement Works and the surrounding landscape. By contrast the proposed development (Mill 5) is a maximum of 41.8 m high and the stack adjacent to it is 47 m.

The Site is bounded to the north and east by a belt of mature woodland which provides a buffer between the Cement Works and the surrounding farmland.

Within the context of the Cement Works, which covers an extensive area and contains many large structures, plant and machinery the proposed development is considered to be a relatively minor development.

### 4.1 Published Landscape Character Assessments

#### Landscapes Working for Wales: A Landscape Strategy for Flintshire

The landscape within the study area has been previously assessed by Flintshire County Council who published: "Landscapes Working for Wales - A Landscape Strategy for Flintshire" of which "Volume 1 – The Landscape Strategy, Policies and Proposals" was published in April 1996. This document first subdivides Flintshire into 12 Landscape Character Areas (LCAs) and then goes on to identify a 'Vision' and specific 'Local Landscape Strategy Priorities' for each area.

The study area straddles two LCAs:

- LCA 4 – ‘*Eastern Lowland Plain*’, which is described as: ‘*A gently undulating pastoral lowland landscape under localised development and infrastructure pressure. Mostly on heavy clay and characterised by an abundance of hedgerow trees particularly oak, and ash, and an historic settlement pattern with a locally dominant estate influence.*’
- LCA 5 – ‘*Buckley Lowland Hills*’, within which the Site is located, is described as: ‘*Elevated, undulating hills of rich rolling pasture land divided by shallow, often dry valleys with a patchwork of mixed woodland and largely irregular field pattern supporting an overall abundance of mature hedgerow trees.*’ It also identifies a key characteristic as ‘*the industrial and urban areas around Buckley with degraded urban fringe*’.

The boundaries of the LCAs are shown on Drawing 03.

The Landscape Strategy provides a useful summary of the key landscape characteristics, although its relevance is somewhat diminished by age and has been now been largely superseded by LANDMAP as a means of identifying the character, sensitivity and importance of a landscape.

## 4.2 LANDMAP Evaluation

LANDMAP, managed by Natural Resources Wales, is a Welsh landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated. It is a tool to help sustainable decision-making and natural resource planning at a range of levels from local to national whilst ensuring transparency in decision-making.

It comprises five, nationally consistent, quality assured spatial datasets known as ‘Aspects’ or layers comprising:

- Visual and Sensory;
- Landscape Habitat;
- Geological Landscape;
- Historical Landscape; and
- Cultural Landscape.

These are sub-divided into geographical ‘Aspect Areas’, forming the equivalent of LCAs.

For each ‘Aspect Area’, important characteristics, qualities, management recommendations, conditions, trends and values are identified and evaluated in order to inform the sensitivity, value and importance of the landscape.

The ‘Overall Evaluation’ is expressed as:

- Outstanding – of International or National importance;
- High – of Regional or County importance;
- Moderate – of Local importance; and
- Low – of little or no importance.

According to the LANDMAP guidance all five Aspects should be considered to inform the overall character, value and importance of the landscape.

Aspect Areas within the 3 km study area are shown in Appendix B. This includes five colour coded maps (one for each Aspect) showing the relative value of the landscape within the study area.

Drawing 03 illustrates the overall evaluation of the landscape within the study area, by overlaying the individual Aspect Areas to identify the most and least sensitive parts of the study area.

The drawing indicates that the most sensitive parts of the study area are Bilberry Wood, located to the northeast of the study area, around the A55/A550 Junction. This area is classed as ‘outstanding’ in terms of the Cultural and Historical Landscape Character. The effects on this area will be a key consideration in determining the acceptability of the proposals.

The second most sensitive area is identified as the Afton Alun Valley between the Cement Works and the A541 to the south west of the study area, which includes the Wat’s Dyke Way Heritage Trail (Recreational Route and Scheduled Ancient Monument). The effects on this area will also be a consideration in the assessment of landscape and visual effects.

Table 1 below lists the Aspect Areas which are directly relevant to the Site (i.e. those Aspect Areas within which the Site is located):

**Table 1: LANDMAP Evaluation of ‘Aspect Areas’ within which the Site is Located**

Aspect /Aspect Area	Description and Recommendations	LANDMAP Overall Evaluation
<b>Geological Landscape FLNTGL752 Northrop-Buckley-Broughton</b>	<p><b>Description</b> Extensive boulder clay blanketed terrain; stepped down towards the sea in the north-west due to the influence of buried scarps of Carboniferous sandstone units, but forming a gentle more even slope in the south-east. Scattered outcrops of Carboniferous and Permian rocks (the latter in the south-east only) locally show through the glacial cover.</p> <p><b>Recommendations</b> Ensure that potential RIGS site is assessed and consequently safeguarded using Local Plan policies and constraint mapping and that other significant features of geological or geomorphological significance in the area (including former coal mine sites) are not lost/damaged due to development, etc.</p>	<p><b>Moderate</b> Overall area typical of widespread glacial deposit cover of the county, although locally important sites do exist (Kinnerton potential RIGS site)</p>
<b>Landscape Habitat FLNTLH038 Buckley mosaic</b>	<p><b>Description</b> This is a mosaic of pasture land and arable land, the field sizes are small to moderate and many fields have hedges. There are several areas of ribbon woodlands which add to the biodiversity of the area.</p> <p><b>Recommendations</b> Many of the hedges are not stockproof in their own right and would benefit by maintenance work and replanting of gaps with native species. Management of grasslands where there are native species present by reducing</p>	<p><b>Moderate</b> This area of pasture land, temporary grass leys for silage and some arable land has a few areas of locally significant woodland, several thicker hedges and therefore a moderate value.</p>



	agricultural inputs to allow more native species to regenerate will enhance the biodiversity.	
<b>Visual &amp; Sensory FLNTVS009</b>	<p><b>Description</b> Farmland Fringe - gently rolling lowland farmland with a mixture of small traditional fields, larger more improved fields and urban &amp; fringe uses including currently unused quarries &amp; golf courses. There is a large cement works in the southern part of the area. This has large structures, which are locally prominent, rising out of the predominantly rural landscape.</p> <p><b>Recommendations</b> Improve screening of cement works to at least reduce the visibility of low level infrastructure. Encourage hedgerow and tree management on farms to improve enclosure and biodiversity. Restore quarries if now redundant with recreational and biodiversity benefits if possible. Integrate hotel development on A55 into the landscape.</p>	<b>Moderate</b> (No summary provided)
<b>Historic Landscape FLNTHL636 Padeswood</b>	<p><b>Description</b> Area of predominantly irregular fieldscapes south of Buckley, probably representing piecemeal clearance and enclosure of farmland since at least the early medieval period onwards, between a height of 80-100 metres above sea level. Early settlement and land use suggested by Bronze Age burial mounds and possible ceremonial sites in the western part of the aspect area. Medieval high-status settlement indicated by dispersed earthen castle sites possibly marking early manorial centres. Wat's Dyke, an early medieval linear earthwork boundary, runs across the centre of the area. Dispersed 19th-century industrial remains including the sites of former coalmines, brickworks, lead mines, smelt mills and limekilns. Small 17th-century and later parks and gardens associated with Pentrehobyn and Leeswood Hall, two high-status halls on the western side of the aspect area. The central part of the area is visually dominated at the modern Padeswood cement works.</p> <p><b>Recommendations</b> None</p>	<b>Moderate</b> A mixed fieldscape with a diverse historical content but no single or overriding focus. It potential is slightly increased by the passage of Wat's Dyke and some post medieval gentry houses
<b>Cultural Landscape FLNTCL016 A55 corridor</b>	<p><b>Description</b> Rural. Infrastructure. Sense of Place. Leisure/Recreation</p> <p><b>Recommendations</b> Possible development of a "gateway" or portal to FCC and to Wales. Management of this landscape is important from the point of view of "presenting" Flintshire and to its development as an area that people might want to visit rather than pass through.</p>	<b>High</b> High for its landscape and cultural meaning and its potential to articulate Flintshire's cultural story. It can contribute significantly to perception of the area.

## Summary of the LANDMAP Evaluation

LANDMAP indicates that overall the landscape within which the site is located is of 'Moderate Value', and 'Local Importance' although the value of the Cultural Landscape was classed as High, due to its strategic location at the 'entrance to Wales'.

The key issues identified in the Aspect Area evaluations are:

- **Geological Landscape:** Highlighted the need to protect the Kinnerton potential RIGS site, although this is some distance from Padeswood Cement Works;
- **Landscape Habitat:** No specific issues relevant to the proposed development;
- **Visual and Sensory:** Padeswood Cement Works was described as '*locally prominent, rising out of the predominantly rural landscape*'. It made specific recommendations to 'improve screening of cement works to at least reduce the visibility of low level infrastructure' (DRaW emphasis);
- **Historic Landscape:** Wat's Dyke, an early medieval linear earthwork boundary (Scheduled Ancient Monument), which passes immediately south of the Cement Works; and
- **Cultural Landscape:** Identified the 'A55 corridor' as a potential gateway to Wales, 'presenting' Flintshire as a place to visit rather than pass through. The Site lies approximately 2.3 km distant.

## 4.3 Predicted Landscape Effects

The Site itself is located entirely within an existing large scale industrial complex, which has been operational for more than 60 years and which is physically separated from the surrounding landscape, by security fencing, woodland/plantation to the north, east and south and by mature hedgerows to the east. Consequently, the direct effects on the landscape are comparatively minor.

Table 2 below sets out the predicted magnitude of landscape effects, resulting from the proposed development. Visual effects are considered separately in Section 5.

**Table 2: Predicted Magnitude of Landscape Effects**

	Predicted Landscape Effect	Magnitude of Effect Year 1	Significance of Effect (Year 1)
Changes to the landform	The proposed development would be located on an area of existing development. There would be no modification of the landform (apart from below ground excavation for foundations).	No Change (Adverse)	None
Changes to the type and extent of vegetation cover	The proposals would be located within an area of previously disturbed ground and would not affect any of the adjacent trees or woodland. There may be localised cutting back of vegetation along the railway line, although this would be negligible and would not affect the	Negligible (Adverse)	Negligible

	Predicted Landscape Effect	Magnitude of Effect Year 1	Significance of Effect (Year 1)
	overall amount or diversity of vegetation compared to existing.		
Change in land use	The proposed development would be located within a heavily industrialised production facility. It would not introduce a new or alien land use and would not expand beyond the curtilage of the existing plant, which has been operational for more than 60 years. There would be no loss of agricultural land.	Negligible (Adverse)	Negligible
Effects on water courses/bodies.	No water courses or water bodies would be diverted or modified by the proposals.	No Change	None
Effects on notable Landscape features	The development would not affect any notable landscape features or landmarks.	No Change	None
Effect on established footpaths, public rights of way and access	There are no public rights of way within the application boundary or within the operational footprint of the Cement Works. The effects on nearby footpaths is considered in the visual assessment.	No Change (Adverse)	None
Cultural associations /historic setting	The development is located on previously developed brown field land and would not directly affect any historic/protected sites. (The effects on the setting of nearby historical/cultural sites is considered in the visual assessment.)	No Change	None
Changes to the character, pattern, colour and scale of the Landscape	Despite the size of the development it would be sited amongst existing taller structures and would not change the overall character or scale of the complex compared to existing. Mill 5 would be an off white colour with green flashings and the stack, conveyors and rail loading facilities would be painted a silver/gray colour to match the existing buildings. Overall the colours would be recessive and would not change the overall perception of the development as a whole.	Low (Adverse)	Minor

## 4.4 Summary of Landscape Effects

The landscape within the study area is reasonably attractive although it is fairly common place within the wider region. Its character is heavily influenced by the large-scale cement production facility which has been operational for many years and which is the dominant feature of the locality. LANDMAP indicates that overall the landscape within which the site is located is of 'Moderate Value' and 'Local Importance'.

The Padeswood Cement Works are physically separated from the surrounding landscape by security fencing, trees and hedgerows. The Cement Works are a place of employment, which are not publically accessible and there are no public rights-of-way through the facility. The

development would be located in the north east part of the Cement Works, on an area of previously disturbed brownfield land, currently occupied by hard standings and made ground adjacent to existing structures, which are comparable in size, or taller than the proposed structures. There would be minimal loss of vegetation and the development would not change the scale or industrial character of the existing facility. There would be no loss of agricultural land or any effects on watercourses.

In terms of the effects on the LANDMAP evaluation, the proposed development would not affect the Kinnerton potential RIGS site to the south east of the site and despite the intensification of industrial development within the existing Cement Works the changes would not change the character of the 'A55 corridor', or its potential as a gateway to Wales, with the aim of 'presenting' Flintshire as 'a place to visit rather than pass through'.

LANDMAP recommendations to '*Improve screening of cement works to reduce the visibility of low level infrastructure*' are considered in the visual assessment, along with the effects on the more sensitive Afton Alun Valley to the south, including Wat's Dyke, and the Bilberry Wood area to the north east.

Overall the magnitude of effects on the individual components which contribute to the character of the landscape are considered to be negligible.

No significant landscape effects were identified.

## 5 Visual Assessment

The visual assessment considers the effects on visual receptors, who currently have views towards the Cement Works and therefore may be affected by the proposed development. The assessment was made based on:

- Site observations made during a site visit undertaken in March 2017;
- Zone of Theoretical Visibility (ZTV) analysis; and
- Photorealistic visualisations of the proposed development (Photomontages).

### 5.1 Zone of Theoretical Visibility

To identify the area from which the proposed development may be visible, and to help calculate the number and location of visual receptors, a computer generated Zone of Theoretical Visibility (ZTV) was produced for the 3 km study area (Drawing 04). The proposed development was modelled in three dimensions and superimposed on to a digital surface terrain model of the site and its surroundings (OS Terrain 5, at 5 m resolution); enabling a three-dimensional plot of the 'visible areas' to be produced, taking into account screening afforded by landform and significant woodland blocks. It should be noted that the ZTV represents a 'worst-case scenario'; taking into account only major visual barriers in excess of 5 m high. In reality considerable additional screening at eye level is afforded by intervening hedgerows, existing buildings and other structures.

For comparative purposes the ZTV for the existing Cement Works was also undertaken. This was based on the tallest site structure (Kiln 4) which is approximately 109 m tall.

Both ZTVs are presented on a 1:25,000 scale Ordnance Survey base map and the findings verified by site observations (Drawing 04).

## 5.2 Visibility of the Site

Drawing 04 indicates that Kiln 4, the tallest structure on site would be visible from approximately 69% of the study area, whereas the proposed development may be visible from approximately 36% of the 3.0 km study area. The visibility of the proposed development would be substantially constrained by the existing large structures immediately south and west of the Site. The main views of the proposed development would be from the rising land to the north and east, where there are fewer existing structures to screen the proposed development.

ZTV analysis indicates that all the locations from which the proposed development would be visible also have views of Kiln 4, or other existing structures within the Cement Works (i.e. the proposals would not introduce any new visual receptors, which do not already have views of the existing plant).

## 5.3 Visualisations

To assist with the assessment of visual effects computer generated photomontages of the proposed development have been produced in accordance with Landscape Institute Advice Note 01/11 '*Photography and photomontage in landscape and visual impact assessment*', March 2011. Photomontages A-D (Appendix C) illustrate the appearance of the development from four publically accessible locations shown at Drawing 04.

### Photomontage A: A5118 North East of the Site

Photomontage A (Drawing 5A) represents views experienced by drivers and pedestrians using the A5118 (mostly travelling in a westerly direction). The viewpoint is located approximately 750 m from the proposed development at:

- Easting: 329709
- Northing: 362823
- Elevation: 121 m

### Photomontage B: Springfield Cottage, East of the Site

Photomontage B: (Drawing 5B), represents views experienced by residents of Springfield and Oak Tree Farm. The viewpoint is located approximately 430 m from the proposed development at:

- Easting: 329719
- Northing: 362416
- Elevation: 119 m

## Photomontage C: Wat's Dyke Way, South of the Site.

Photomontage C (Drawing 5C) represents views experienced by walkers on Wat's Dyke Way (Recreational Route and Scheduled Ancient Monument). The viewpoint is located approximately 680 m from the proposed development at:

- Easting: 329060
- Northing: 361577
- Elevation: 102 m

## Photomontage D: A5118 North West of the Site

Photomontage D (Drawing 5D) represents views experienced by drivers and pedestrians using the A5118 (mostly travelling in an easterly direction). The viewpoint is located approximately 230 m from the proposed development at:

- Easting: 328538
- Northing: 362495
- Elevation: 114 m

## 5.4 Viewpoint Assessment

An assessment of visual effects was undertaken from 13 viewpoints, which were selected to represent typical views from key receptors at varying distances and orientations from the site.

The viewpoint locations are shown on Drawing 04.

From each viewpoint the following information is provided:

- A representative photograph, taken with a digital SLR camera (Canon EOS 6D);
- A description of the existing view;
- An assessment of the predicted visual effects; and
- The significance of those effects, in relation to the methodology (Appendix A).

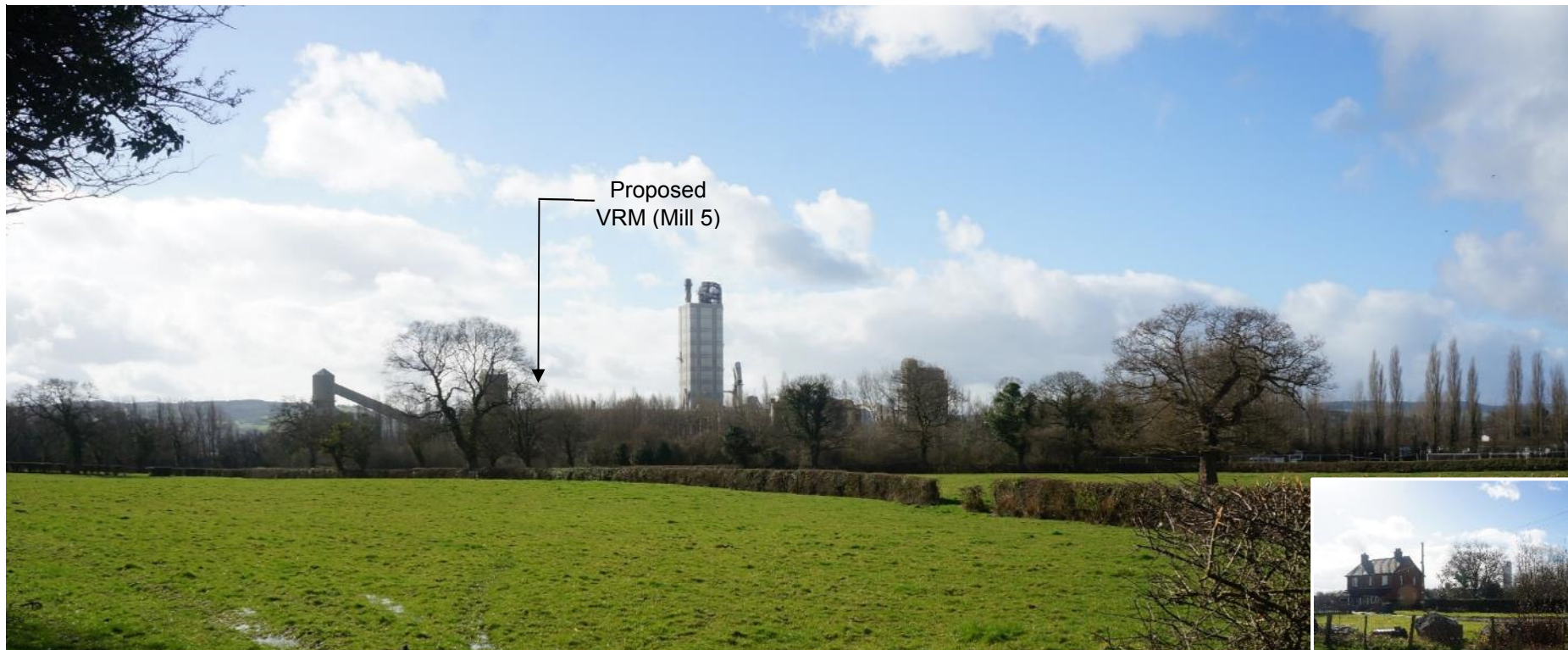


## Viewpoint 1: A5118 North East of the Site (Refer to Photomontage Drawing 5A)



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>725 m.</u> For photo locations refer Drawing 04	The photograph is looking southwest towards the Cement Works. It represents views experienced by drivers and pedestrians using the A5118 (mostly travelling in a westerly direction).		<b>Medium Sensitivity</b>
	<b>Value</b> Local road. The view is valued at a local level. The distant hills are attractive, although the Cement Works are a major detracting feature.	<b>Susceptibility</b> Travellers using local roads. Views are not the primary focus, although they do contribute to the setting of the route.	
<b>Magnitude of Effect</b>	The proposed mill and silos would be visible above the trees on the railway embankment (middle distance). They would cause some obstruction of the distant hills although in relation to the prominent Cement Works, the changes would not be immediately apparent to the casual observer.		<b>Negligible (Adverse)</b> (Photomontage 5A)
<b>Significance of Effect</b>	Medium Sensitivity x Negligible Magnitude = Negligible Significance		<b>Negligible</b>

## Viewpoint 2: Public Footpath Adjacent to Bannel Farm, North of the Site



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>470 m.</u> For photo locations refer Drawing 04	The photograph is looking south towards the Cement Works. It represents views experienced by residents of Bannel Farm and walkers using the footpath between the A5118 and Springfield.		<b>High Sensitivity</b>
	<b>Value</b> The viewing numbers are low. It is mostly frequented by local people. Major detracting features are present.	<b>Susceptibility</b> Residents at home and walkers on public rights-of-way, where awareness of views is likely to be high.	
<b>Magnitude of Effect</b>	The proposed mill would be visible above the trees in the middle distance. They would be visible on the skyline although in relation to the prominent Cement Works, the changes would not change the character of the southerly views, or adversely affect the setting of the house or path.		<b>Low (Adverse)</b>
<b>Significance of Effect</b>	High Sensitivity x Low Magnitude = Minor Significance		<b>Minor</b>



### Viewpoint 3: St John the Baptist's Church, Penymynydd (Junction of the A550 and the A5104)



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>1,250 m.</u> For photo locations refer Drawing 04	The photograph is looking south towards the Cement Works from St John the Baptist's Church (Grade II* Listed) at the junction of the A550 and the A5104. The existing Cement Works is visible.		<b>Medium Sensitivity</b>
<b>Magnitude of Effect</b>	<b>Value</b> It is a community destination, and a heritage asset (Grade II* Listed).	<b>Susceptibility</b> Place of worship where the surroundings are of secondary importance to worship.	
	The proposed development would be mostly screened behind vegetation within the church yard and adjacent to the A550 and the A5104 roundabout.		<b>Negligible (Adverse)</b>
<b>Significance of Effect</b>	Medium Sensitivity x Negligible Magnitude = Negligible Significance		<b>Negligible</b>

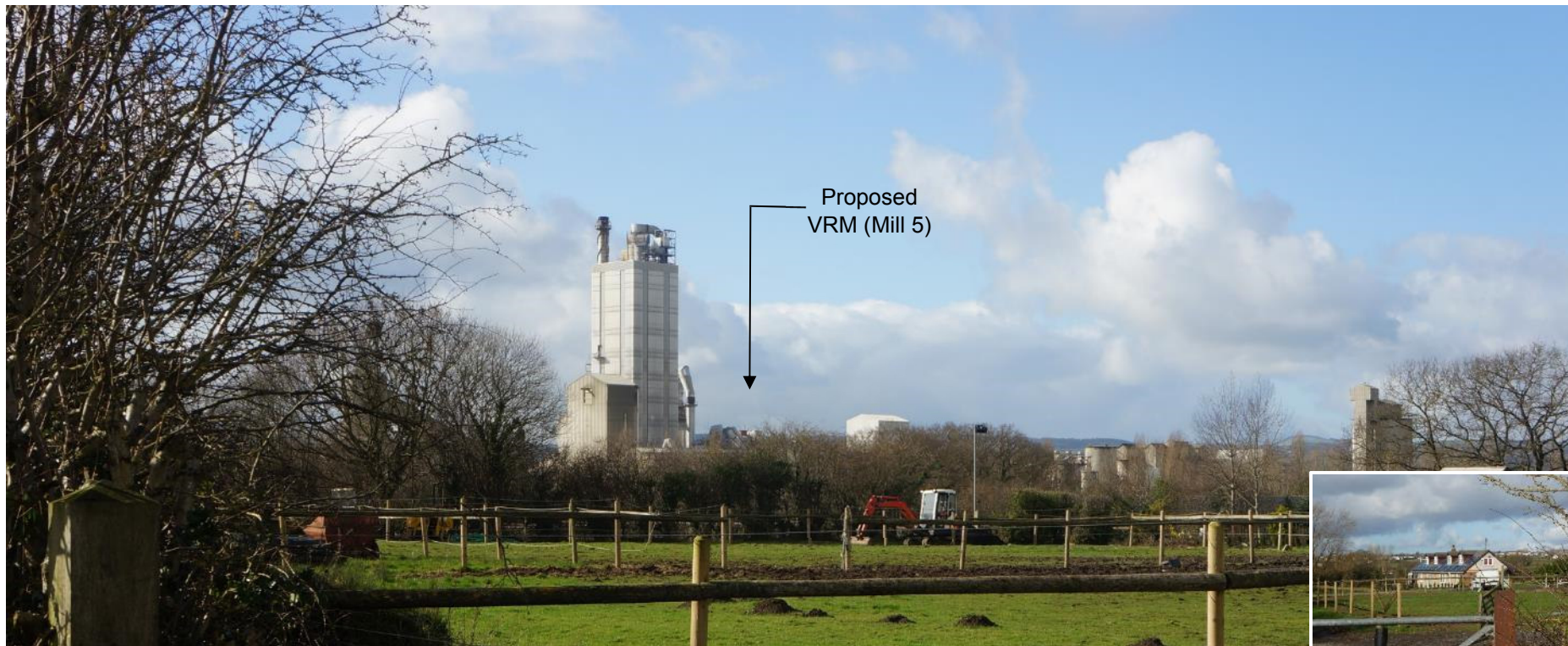
#### Viewpoint 4: Public Footpath South of Bannel Dairy Farm, East of the Site



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>700 m.</u> For photo locations refer Drawing 04	The photograph is looking west towards the Cement Works. It represents views experienced by walkers using the footpath between the A5118 and the A550, south of Bannel Dairy Farm.		<b>Medium Sensitivity</b>
	<b>Value</b> The visitor numbers are low. The path is mostly used by local people. The Cement Works are a major detracting feature on the skyline	<b>Susceptibility</b> Walkers on local footpath for which views are not the primary focus, although they do contribute to the setting of the route.	
<b>Magnitude of Effect</b>	The proposed Mill would be partially visible on the skyline, although in relation to Kiln 4 which dominates westerly views the changes would be negligible		<b>Low (Adverse)</b>
<b>Significance of Effect</b>	Medium Sensitivity x Low Magnitude = Minor Significance		<b>Minor</b>



## Viewpoint 5: Springfield, East of the Site (Refer to Photomontage Drawing 5B)



<b>Existing View /Sensitivity</b> Distance to proposed development: 430 m. For photo locations refer Drawing 04	The photograph is looking west towards the Cement Works. It represents views experienced by residents of Springfield and Oak Tree Farm.		<b>High Sensitivity</b>
<b>Magnitude of Effect</b>	<b>Value</b> Residential. The view is valued at a local level. Major detracting features are present.	<b>Susceptibility</b> The views contribute to the setting and visual amenity of the house	
<b>Significance of Effect</b>	High Sensitivity x Low Magnitude = Minor Significance		<b>Low/Medium (Adverse)</b> (Photomontage 5B)  <b>Moderate</b>



## Viewpoint 6: A550, Penyffordd, West of the Site



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>800 m.</u> For photo locations refer Drawing 04	The photograph is looking in a northwesterly direction towards the Cement Works. It represents views experienced by drivers and pedestrians using the A550 to the west of Penyffordd.		<b>Medium Sensitivity</b>
	<b>Value</b> Local road. The view is valued at a local level. The view is typical of the region. The existing Cement Works is a detracting feature.	<b>Susceptibility</b> Drivers using local roads. Views are not the primary focus, although they do contribute to the setting of the route.	
<b>Magnitude of Effect</b>	The proposed development would be theoretically visible, although substantial screening would be afforded by intervening vegetation, especially during the summer months. Changes would be negligible and would not affect the setting of the road.		<b>Low (Adverse)</b>
<b>Significance of Effect</b>	Medium Sensitivity x Negligible Magnitude = Negligible Significance		<b>Negligible</b>

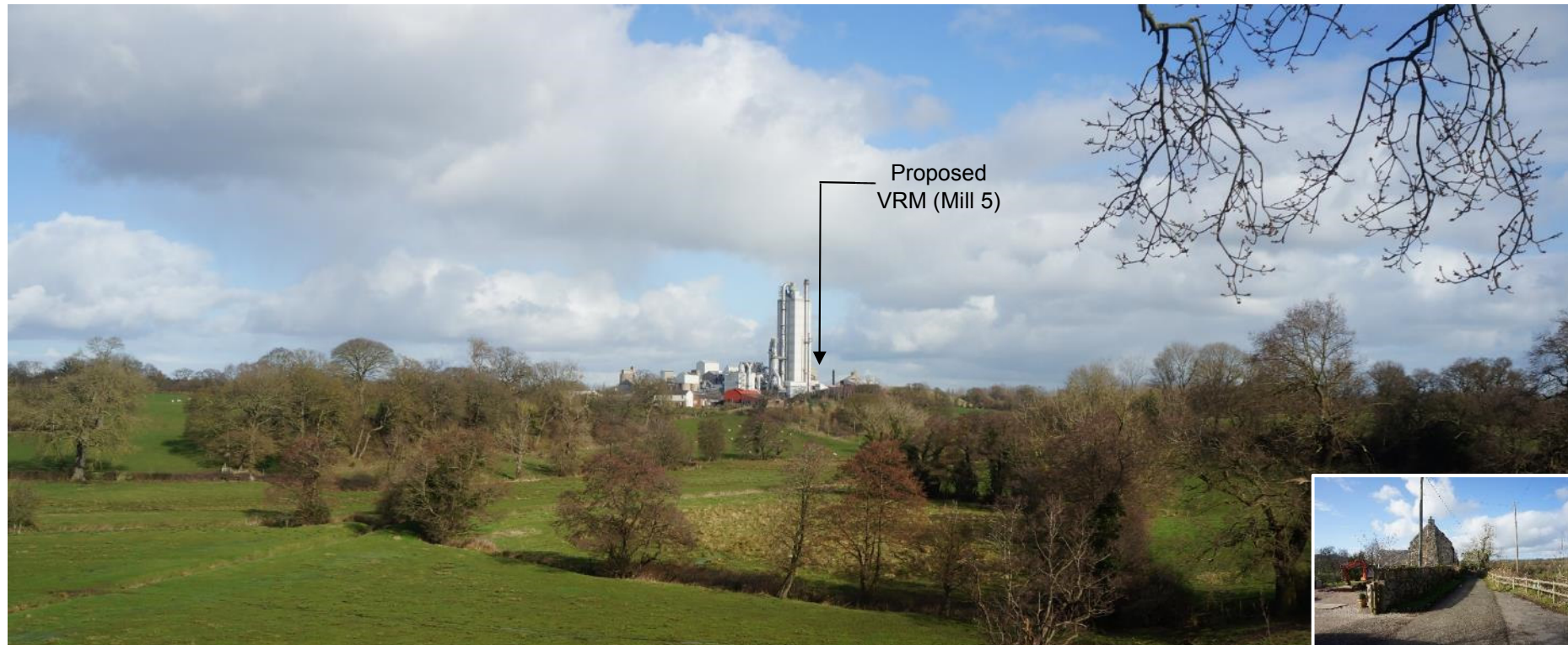


## Viewpoint 7: Wat's Dyke Way South of the Site (Refer to Photomontage Drawing 5C)



Existing View /Sensitivity Distance to proposed development: 680 m. For photo locations refer Drawing 04	The photograph is looking in a northerly direction towards the Cement Works. It represents views experienced by walkers on the Wat's Dyke Way Heritage Trail (Recreational Route).		High Sensitivity
	Value It is a visitor destination and heritage asset (Scheduled Ancient Monument). The surroundings make an important contribution to the experience.	Susceptibility Walkers on a publicised scenic route, where awareness of views is likely to be high.	
Magnitude of Effect	The top of the proposed mill would be visible on the skyline above the Crane Store, although within the context of existing Cement Works the changes in views would be negligible.		Negligible (Adverse) (Photomontage 5C)
Significance of Effect	High Sensitivity x Negligible Magnitude = Minor Significance		Minor

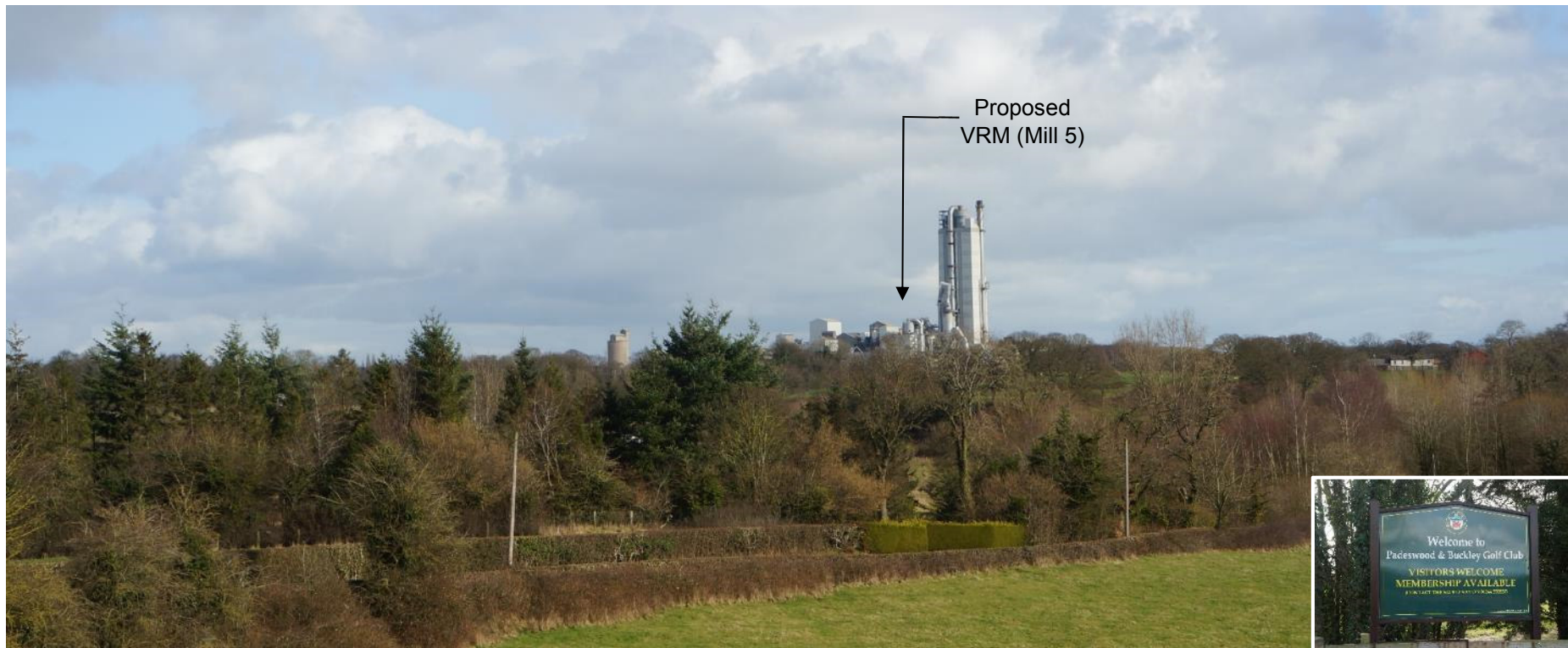
## Viewpoint 8: Pen-yr-Allt, Padeswood Lake Road, South of the Site.



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>1,340 m.</u> For photo locations refer Drawing 04	The photograph is looking north towards the Cement Works. It represents views experienced by residents at Pen-yr-Allt, and users on the Padeswood Lake Road, south of the Cement Works.		<b>High Sensitivity</b>
	<b>Value</b> The viewer numbers are low. It is mostly frequented by local people. Major detracting features are present.	<b>Susceptibility</b> Residents at home where views contribute to the setting or visual amenity of the houses, and travellers on a local road.	
<b>Magnitude of Effect</b>	The elevated views from the road and hamlet are attractive. The existing Cement Works are prominent on the skyline. The proposed development would be located behind the existing plant/infrastructure and would be barely perceptible.		<b>Negligible (Adverse)</b>
<b>Significance of Effect</b>	High Sensitivity x Negligible Magnitude = Minor Significance		<b>Minor</b>



## Viewpoint 9: Padeswood and Buckley Golf Club, Padeswood Lake Road



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>1,600 m.</u> For photo locations refer Drawing 04	The photograph represents views experienced by drivers and pedestrians using Padeswood Lake Road (local road) and golfers playing at the Padeswood and Buckley Golf Club.		<b>Medium Sensitivity</b>
	<b>Value</b> The view is valued at a local level. The golf course is a visitor destination.	<b>Susceptibility</b> Views are not the primary focus, although they contribute to the setting of the route/golf course.	
<b>Magnitude of Effect</b>	The easterly views from the road and golf course are attractive although the existing Cement Works are prominent on the skyline. The proposed development would be located behind the existing plant/infrastructure and would not be visible from the road or golf course.		<b>No Change</b>
<b>Significance of Effect</b>	Medium Sensitivity x No Change = No Significance		<b>None</b>

## Viewpoint 10: Public Footpath, along the Western Boundary of the Cement Works



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>40 m.</u> For photo locations refer Drawing 04	The photograph, represents views experienced by walkers using the public right-of-way immediately adjacent to the western boundary of the Cement Works.	<b>Medium Sensitivity</b>
	<b>Value</b> The viewing numbers are low. It is mostly frequented by local people. Major detracting features are present.	<b>Susceptibility</b> Walkers on public rights-of-way, where awareness of views is likely to be high.
<b>Magnitude of Effect</b>	From the majority of the path the Cement Works are obscured by a dense hedgerow. Views are possible from a short section of security fencing, although the proposed development would be largely screened behind the buildings/infrastructure at the western end of the complex.	<b>Negligible (Adverse)</b>
<b>Significance of Effect</b>	Medium Sensitivity x Negligible Magnitude = Negligible Significance	<b>Negligible</b>



## Viewpoint 11: A5118 North West of the Site (Refer to Photomontage Drawing 5D)



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>780 m.</u> For photo locations refer Drawing 04	The photograph is looking southwest towards the Cement Works. It represents views experienced by drivers and pedestrians using the A5118 (mostly travelling in an easterly direction).		<b>Medium Sensitivity</b>
	<b>Value</b> Local road. The view is valued at a local level. The Cement Works are a major detracting feature.	<b>Susceptibility</b> Travellers using local roads. Views are not the primary focus, although they contribute to the setting of the route.	
<b>Magnitude of Effect</b>	The proposals would be visible although as illustrated by photomontage 5D they would be substantially screened by existing infrastructure and the changes would be negligible.		<b>Low (Adverse)</b> (Photomontage 5D)
<b>Significance of Effect</b>	Medium Sensitivity x Low Magnitude = Minor Significance		<b>Minor</b>



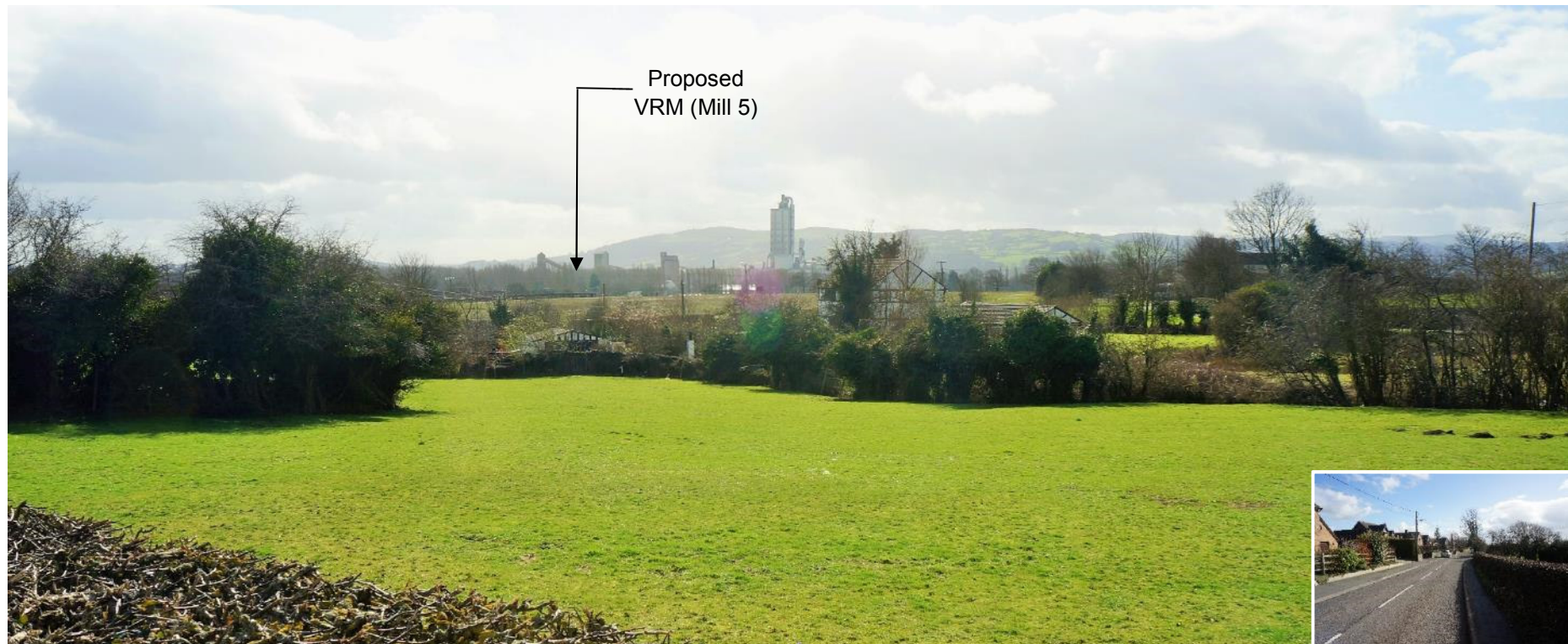
## Viewpoint 12: Hawthorne Cottage, Buckley, North of the Site



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>1,250 m.</u> For photo locations refer Drawing 04	The photograph is looking southeast towards the Cement Works. It represents views from houses on the southern edge of Buckley. Many properties are orientated towards the Cement Works.	<b>High Sensitivity</b>
	<b>Value</b> The view is valued at a local level. The hills are attractive, although the Cement Works are a major detracting feature in the middle distance.	<b>Susceptibility</b> Community where panoramic views contribute to the setting or visual amenity of the house or settlement.
<b>Magnitude of Effect</b>	The proposed development would be partially visible above the trees, although compared to the existing view, which is dominated by the Cement Works, the change would be minimal.	<b>Negligible (Adverse)</b>
<b>Significance of Effect</b>	High Sensitivity x Negligible Magnitude = Minor Significance	<b>Minor</b>



## Viewpoint 13: Spon Green, Bannel Lane, Buckley



<b>Existing View /Sensitivity</b> Distance to proposed development: <u>1,230 m.</u> For photo locations refer Drawing 04	The photograph is looking south towards the Cement Works. It represents views from houses at Spon Green, Bannel Lane, Buckley, which are orientated towards the Cement Works.		<b>High Sensitivity</b>
	<b>Value</b> The view is valued at a local level. The hills are attractive, although the Cement Works are a major detracting feature in the middle distance.	<b>Susceptibility</b> Community where panoramic views contribute to the setting or visual amenity of the house or settlement.	
<b>Magnitude of Effect</b>	The proposed Mill 5, silos and stack would be partially visible, although compared to the existing view, which is dominated by Kiln 4 and the Cement Works, the degree of change would be minimal.		<b>Negligible (Adverse)</b>
<b>Significance of Effect</b>	High Sensitivity x Negligible Magnitude = Minor Significance		<b>Minor</b>

## 5.5 Predicted Visual Effects

### Views from Residential Receptors

Due to the location of Site within the northeast part of the Padeswood Cement Works residential views would be mostly restricted to the north and west. Viewed from the southeast, south and southwest, the development would be substantially screened by the existing site infrastructure.

Due to screening afforded by intervening buildings and vegetation the proposed development would be substantially screened from the main settlements within the study area, including Mold, Penymynydd, Penyffordd and Buckley, although properties on the edge of these settlements, which are orientated towards the Cement Works would have theoretical views of the proposed development, particularly properties on the southern edge of Buckley which are elevated above the Works and which are afforded long distance views to the south.

From Buckley, the proposed development would be viewed against a backdrop of the existing infrastructure including the 109 m high Kiln 4, which is the focal point of the southern views. Within the context of the existing Cement Works the proposed development would be negligible.

Properties most adversely affected by the proposed development are those located within the northeast quadrant of the Cement Works within 1 km of the Site boundary. Primarily Ash Tree Farm, Oak Tree Farm, Bannel Dairy Farm and Springfield. These isolated dwellings are orientated towards the Site and would have comparatively close proximity views of the proposed development. From these properties the proposed Mill 5, the rail loading facility, and the stack would be fairly prominent on the skyline and would occupy a reasonably large proportion of the view, although the lower parts of the infrastructure would be screened by the woodland/plantation around the periphery of the Cement Works. Whilst this would soften views of the proposed development and would assist with its visual integration, it would not reduce the prominence of the new infrastructure.

Photomontage Drawing 5B indicates that the proposals would not change the industrial character of the view compared to existing, although it would occupy a larger proportion of the skyline.

The isolated properties to the northeast would be most affected by the proposals. Residents from other properties within the study area are predicted to experience lower levels of change, due to the prominence of the existing infrastructure within the Cement Works.

### Views from the Scheduled Ancient Monument

The views from and the setting of Wat's Dyke Scheduled Ancient Monument, a 40-mile long earthwork, are currently dominated by the Cement Works, particularly Kiln 4, which lies 350 m to the north at its closest point. Viewed from the monument the proposed development would be almost entirely screened by the existing infrastructure at the southern end of the Cement Works and consequently the negligible changes would not affect the character, or setting of the Scheduled Ancient Monument. The changes to the views, which are illustrated in photomontage Drawing 5C, would not be significant.

## Views from Conservation Areas

Due to distance and orientation, changes to the views from the Leeswood Hall Conservation Area, which lies approximately 3 km south of the Site, would not be apparent to the casual observer.

## Views from Listed Buildings

The proposals would not affect the setting of any Listed Building within the study area, including the closest, St John the Baptist's Church (Grade II\*) and the adjacent parsonage (Grade II) at the junction of the A550 and the A5104. The existing Cement Works are already visible from the church and parsonage. Due to a combination of distance and screening afforded by intervening vegetation, the proposed development would be largely indiscernible to the casual observer. The effects on the Listed Buildings further afield, including Pen-yr-Allt Farmhouse and attached byre, would be negligible (Refer Viewpoint 3).

## Views from Country Parks and Visitor Attractions

The development would not be visible from the Waun-Y-Llyn Country Park, located approximately 3.8 km to the south of the Site.

## Recreational Routes

The only notable recreational route within the study area is the Wat's Dyke Way Heritage Trail, which passes 350 m south of the site at its closest point. The views from and the setting of this route is currently dominated by the Cement Works, particularly Kiln 4. Viewed from the footpath, the proposed development would be almost entirely screened by the existing infrastructure at the southern end of the Cement Works and consequently the negligible changes would not affect the character, or setting of Wat's Dyke Way compared to existing. The changes to the views are illustrated in Photomontage 5C.

## Views from Public Rights-of-Way

Due to proximity the proposals would, where gaps in the vegetation allow, be prominent from the existing public rights-of-way to the north west of the Site (within a triangle of land bounded by the A5118, A550 and the railway line east of the Cement Works). These views are represented by the visualisation in Figure 4 below, which illustrates the proposed development from the footpath south of Bannel Dairy Farm.



**Figure 4: Visualisation of the proposals viewed from the footpath south of Bannel Dairy Farm**



The westerly views from these paths would appear more ‘built-up’ than the existing views, although the character of the views, which are already dominated by the Cement Works, particularly Kiln 4, would be similar to the existing. Based on the methodology provided in Appendix A, the magnitude of visual effect on the ‘medium sensitivity’ footpath users in this area would be ‘Low’, which would not be significant.

## Visual Effects in Relation to the LANDMAP Evaluation

LANDMAP identifies the most sensitive parts of the study area as Bilberry Wood, to the northeast of the study area, around the A55/A550 junction and the Afton Alun Valley between the Cement Works and the A541 to the south west of the study area, which includes the Wat’s Dyke Way Heritage Trail (Recreational Route and Scheduled Ancient Monument).

In relation to the Bilberry Wood area it is unlikely, due to the distance and the screening afforded by intervening vegetation, that the proposed development would be visible. Therefore, the proposed development would not affect the character of the area and would not affect the potential of the area *‘as a gateway to Wales, presenting’ Flintshire as a place to visit rather than pass through’*.

In relation to the effects on the Afton Alun Valley the existing Cement Works, particularly Kiln 4, are very prominent and form the focus of views from the south and south west (Refer Viewpoints 7, 8 and 9). The proposed development would be substantially screened by the existing infrastructure on the southern edge of the Cement Works and consequently the effects on the Afton Alun Valley would be negligible.

The Site is located within the Visual and Sensory Aspect Area FLNTVS009 with specific recommendations to *‘Improve screening of cement works to at least reduce the visibility of low level infrastructure’*.

It is considered that the proposed development will not reduce the visibility of the Cement Works, although nor will it prevent future long term aspirations to increase screening around the complex.

However, it is considered that due to the size and scale of both the existing and proposed structures within the Cement Works additional screening measures (i.e. planting) around the periphery of the complex would make very little difference to the prominence of the complex from the surrounding area.

## Visual Effects of the Construction Phase

It is expected that construction of the proposed Mill 5, rail loading facility and associated infrastructure will commence in 2017 with completion expected by 2019. It is predicted that during the 2 year construction period, views from the receptors identified above would be subjected to the greatest level of visual effect. Views could include mobile cranes on the skyline, brightly coloured construction vehicles with flashing lights, along with increased traffic movements, which will increase the prominence of the Cement Works, although this would be a temporary situation, limited to the construction phase and is unlikely to be a notable effect.

## 5.6 Summary of Visual Effects

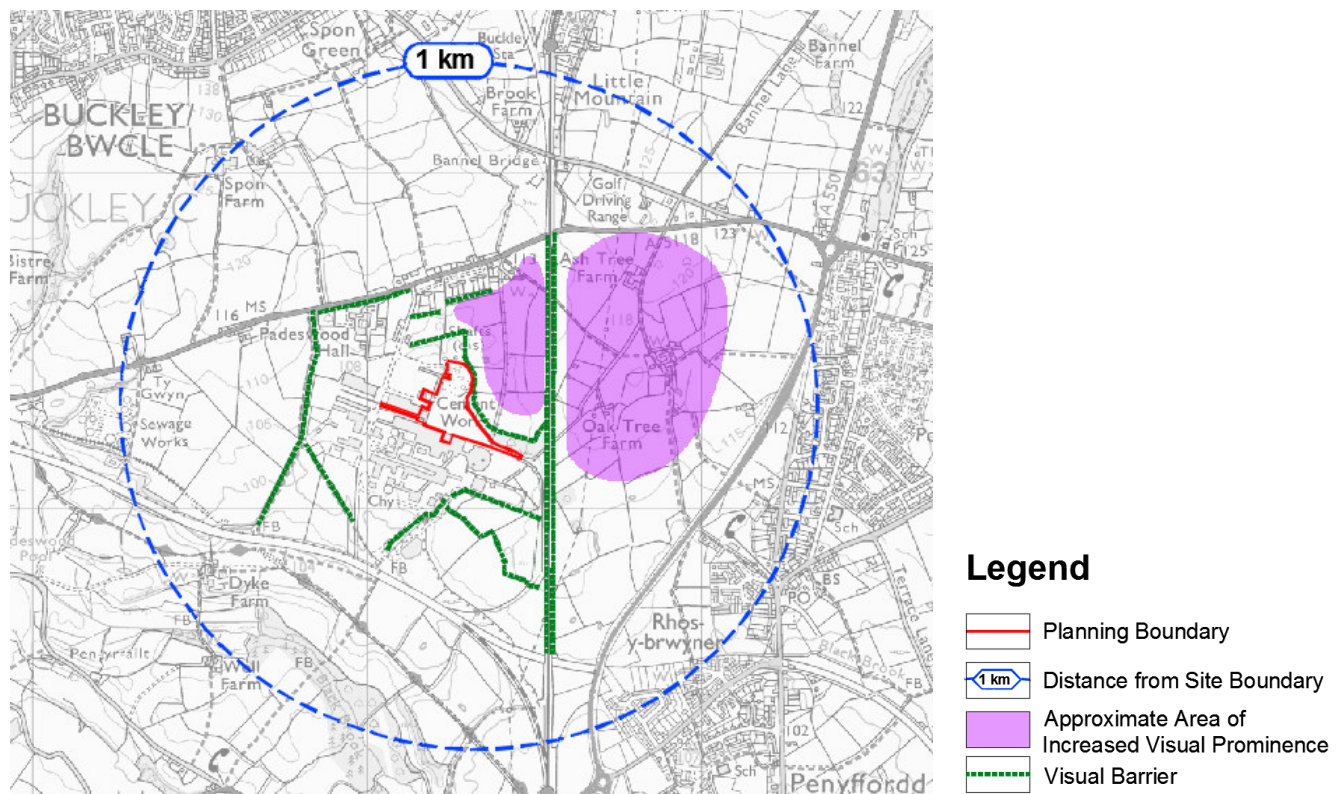
In isolation, the proposed development, comprising the VRM (Mill 5) (41.8 m high), the stack adjoining the VRM (47 m) and the rail loading facility (37.2 m) would be very prominent. However, within the context of the existing Cement Works, which comprises several larger structures, including Kiln 4 (109 m) the changes to the appearance of the complex would be comparatively minor.

The existing Cement Works is visually dominant and is an established component of the local views. The proposed development would be located in the northeast part of the Works and would be partially screened by existing infrastructure, particularly to the south and west. Further low-level screening is provided by woodland to the northwest and southwest boundaries.

The visual assessment, informed by computer generated visualisations and ZTV analysis, indicates that the effects of the proposed development in relation to the existing infrastructure would, from most locations, be very minor. Changes to the character and composition of views compared to existing would be 'Negligible' to 'Low'.

It is predicted that the development would appear slightly more prominent from a localised area to the northeast of the Site i.e. within 1 km of the Cement Works (Refer Figure 5).

**Figure 5: Approximate Area of Increased Visual Prominence**



From this area, the individual components of the development would, due to their proximity, appear larger and would occupy more of the skyline to the southwest than the existing situation. The additional built-form would increase the prominence and industrial character of the existing complex. These effects would be localised and would affect a small number of isolated properties, namely Ash Tree Farm, Oak Tree Farm, Bannell Dairy Farm and Springfield, which are orientated towards the Cement Works.

It is predicted that the increased level of visual effect (Low/Moderate) experienced by these residents would not be significant.

Overall, no significant visual effects have been identified.

## 5.7 Mitigation Measures

Due to the size and scale of the existing plant and the proposed development the opportunities for effective landscape or visual mitigation are very limited. There is little space for additional tree planting within the operational area, or around its perimeter, which is already heavily vegetated. It is unlikely that additional perimeter planting would enhance the existing levels of screening already provided by the woodland. Furthermore the new trees would not grow large enough to screen proposed structures, when viewed from the neighbouring visual receptors.

The colour of the proposed development has been given careful consideration to minimise its potential prominence and aid its assimilation with the surrounding landscape. It is proposed that the cladding on Mill 5 will be an 'off-white' colour, with the remaining infrastructure painted



silver/grey. This would reflect the existing structures within the Cement Works and is likely to visually unify the development as a whole. These colours are also likely to be more recessive than dark hues when viewed against a cloudy sky.

External lighting would be provided within and around the proposed development. To minimise potential glare at night and to minimise light pollution generally, the luminaries will be fully cowled to direct the light downwards away from the surrounding countryside and nearby settlements.

Due to the comparatively minor landscape and visual effects predicted no other mitigation measures are proposed.

## 5.8 Compliance with Planning Policy

The proposed development has been assessed in relation to the planning policies relevant to landscape and visual effects contained within Planning Policy Wales, Technical Advice Note 12 and the Flintshire County Council Unitary Development Plan.

These are summarised in Table 3 below:

**Table 3: Assessment of the Proposed Development in Relation to relevant Landscape Planning Policy**

Policy	Landscape and Visual Effects	Compliant with Policy
<b>Planning Policy Wales, Welsh Assembly Government, Edition 9, November 2016</b>		
<b>Chapter 4</b> Planning for Sustainability 4.9.1	The development is located on previously disturbed 'Brownfield' land and would not affect the surrounding 'Greenfield'.	<b>Yes</b>
4.11.9	The visual appearance of the proposed development, its scale and its relationship to its surroundings and its context would change very little compared to the existing Cement Works.	<b>Yes</b>
<b>Chapter 5</b> Conserving and Improving Natural Heritage and the Coast 5.2.9	The proposed development would have minimal effect on trees, woodlands and hedgerows. No ancient or semi-natural woodlands would be affected.	<b>Yes</b>
5.3.13	The LANDMAP has been used to identify important resources.	<b>Yes</b>
5.5.1	There would be minimal effect on biodiversity or the landscape.	<b>Yes</b> (Refer Ecology Report)
<b>Chapter 13</b> Minimising and Managing Environmental Risks and Pollution 13.13.2	The existing Cement Works are already illuminated for safety and security reasons. The proposed external lighting has been designed to minimise effects on wildlife, prevent glare, and respect the amenity of neighbouring receptors.	<b>Yes</b>
<b>Technical Advice Note 12: Design</b>		
<b>Chapter 4:</b> Delivering Good Design 4.8	An assessment of landscape character, the skyline, vistas and views has been undertaken. This concluded that within the context of the existing complex they would not change the character of the area.	<b>Yes</b>

Policy	Landscape and Visual Effects	Compliant with Policy
4.11	The development would be located within an operational plant. There would be minimal change on views or sensory quality compared to the existing baseline situation.	Yes
<b>Unitary Development Plan for Flintshire</b>		
<b>Policy STR 7</b> Natural Environment	The Cement Works are not within a Green Barrier. The proposals would not change the open character or appearance of the strategic Green Barrier to the north of the study area, or the character, appearance and features of the open countryside, or the landscape quality compared to existing.	Yes
<b>Policy L1</b> Landscape Character	The proposals will maintain the character and appearance of the landscape.	Yes
<b>Policy D4</b> Landscaping	Planting proposals are not relevant to the proposals (Refer Mitigation).	Not Applicable
<b>TWH1</b> Tree and Woodland Protection	No protected trees would be affected by the proposals.	Yes
<b>TWH2</b> Development Affecting Trees and Woodlands	The proposals would not result in a significant loss of trees or woodlands.	Yes

## 5.9 Overall Summary

A landscape and visual impact assessment, based on computer generated visualisations of the proposed development has been undertaken by a chartered landscape architect in accordance with current best practice guidance, taking account of the findings of LANDMAP (Landscape characterisation, Natural Resources Wales).

The assessment did not find any significant landscape or visual effects. This is due to:

- The proposed development would be located within the existing Cement Works, which has been operational for many years and has become an established feature of the area;
- The value of the landscape within the study area, (within which the Cement Works is located) is considered to be of Moderate Value and of Local Importance;
- The proposed development would be located on an existing area of hard-standing or made ground which would be physically divorced from the surrounding landscape by perimeter fencing and woodland planting;
- By utilising previously disturbed 'brownfield land' there would be minimal effect on the topography, vegetation or landscape features;

- The existing Cement Works contain a number of buildings/structures which are larger and more prominent than the proposed development. The existing Kiln 4 is 109 m high, whereas the tallest proposed structure, the stack adjoining Mill 5, would be 47 m high;
- The existing infrastructure within the Cement Works would provide substantial screening of the proposed development, particularly from the more sensitive Afton Alun Valley to the south and the Wat's Dyke Way recreational route; and
- The proposed development would not affect the setting of any designated cultural features, including the Grade II\* Listed St Johns the Baptist Church to the northeast, or Wat's Dyke Scheduled Ancient Monument to the south.

Overall within the context of an existing industrial complex the minimal landscape and visual effects are unlikely to be a key factor in the determination of the planning application for the proposed development.

# Appendix A

## Appendix A Landscape and Visual Impact Assessment Methodology

# Landscape and Visual Assessment

## Methodology

### Assessing Landscape Effects

The Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013) states:

*“An assessment of landscape effects that deals with the effects of change and the development on the landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character.”*

#### Evaluating landscape Sensitivity

Landscape Sensitivity has been defined using ‘LANDMAP’ (Online Landscape Evaluation (Natural Resources Wales)).

#### Evaluating the magnitude of landscape effects

Criterion used to categorise landscape effects are listed in Table A2 -Magnitude of Landscape Effect.

**Table A2 - Magnitude of Landscape Effect**

Magnitude of landscape effects	Key determining criteria
High	<p><b>Size and/or scale:</b> the extent and relative proportion of the existing landscape element(s) to be lost would be large and/or the lost landscape element(s) make a key contribution to landscape character and/or value. Introduction of new landscape elements that would be likely to be perceived to be a dominant landscape characteristic. Large scale alteration to the aesthetic and perceptual characteristics of the landscape.</p> <p><b>Geographical extent:</b> effects would be discernible across a large majority or the entirety of the landscape designation or character area.</p> <p><b>Duration and reversibility of effects:</b> effects of the introduction of new landscape features would be long-term i.e. will last for over 15 years or will be permanent. Loss of landscape features that are irreplaceable or can only be replaced in the long-term.</p>
Medium	<p><b>Size and/or scale:</b> the extent and relative proportion of the existing landscape element(s) to be lost would be moderate and/or any lost landscape elements make a moderate contribution to landscape character and/or value. Introduction of new landscape elements that would be likely to be perceived to be a prominent landscape characteristic. Moderate scale alteration to the aesthetic and perceptual characteristics of the landscape.</p> <p><b>Geographical extent:</b> effects would be discernible across a moderate proportion of the landscape designation or character area.</p>

	<b>Duration and reversibility of effects:</b> effects of the introduction of new landscape features would be medium-term i.e. will last for between 5 and 15 years. Loss of landscape elements that can be fully replaced within the same time period.
<b>Low</b>	<p><b>Size and/or scale:</b> the extent and relative proportion of the existing landscape element(s) to be lost would be minor and/or any lost landscape elements make only a minor contribution to landscape character and/or value. Introduction of new landscape elements that would be likely to be perceived to be a small-scale landscape characteristic. Small scale alteration to the aesthetic and perceptual characteristics of the landscape.</p> <p><b>Geographical extent:</b> effects would be discernible across a small proportion of the landscape designation or character area and/or restricted to the close vicinity of the development site.</p> <p><b>Duration and reversibility of effects:</b> effects of the introduction of new landscape features would be short-term i.e. will last for between 1 and 5 years. Loss of landscape elements that can be fully replaced within the same time period.</p>
<b>Negligible</b>	<p><b>Size and/or scale:</b> the extent and relative proportion of the existing landscape element(s) to be lost would be barely perceptible and/or any lost landscape elements make a minimal or no contribution to landscape character and/or value. Introduction of new landscape elements that will be likely to be imperceptible. Minimal alteration to the aesthetic and perceptual characteristics of the landscape.</p> <p><b>Geographical extent:</b> effects would only be discernible within the development site or immediately alongside it.</p> <p><b>Duration and reversibility of effects:</b> effects of the introduction of new landscape elements would last for less than a year. Any loss of landscape elements can be fully replaced immediately.</p>

## Assessing Visual Effects

GLVIA3 defines a visual impact assessment as follows:

*“An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. .... assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements”.*

### Evaluating visual sensitivity

Criterion used to categorise visual sensitivity (combination of value and susceptibility), are listed in Table A3 -Visual Sensitivity.

**Table A3 - Visual Sensitivity**

Visual receptor sensitivity	Factors Influencing value of a view	Factors Influencing visual susceptibility
<b>High</b>	<p>The view is <b>valued at a national or regional level.</b></p> <p>The view is of high scenic quality, (often protected by planning designations).</p>	Communities or residents at home, where views contribute to the setting or visual amenity of the house or settlement.



	It is a visitor destination, or heritage asset, where views of the surrounding are an important contributor to the experience. There are references to the view in literature or art, or the view appears in guidebooks or on tourist maps. It is a strategic location or viewpoint which attracts large number of viewers.	Travellers on public rights-of-way, or recognised scenic routes, where awareness of views is likely to be high. People who are engaged in outdoor recreation, whose attention or interest is likely to be focussed on the landscape, or on particular views.
<b>Medium</b>	The view is <b>valued at a local level</b> .  The visitor numbers are low. It is mostly frequented by local people. The view is not published and is common place in the region. There are some detractive features in the views.	Travellers on road, rail, or other transport routes (including local paths) for which views are not the primary focus, although they do contribute to the setting of the route.
<b>Low</b>	The view is <b>not valued</b> , or is of limited local value. The view is of low aesthetic quality and may detract from the surroundings.  It is not a publically accessible location.	People engaged in activity which does not involve or depend upon appreciation of views of the surrounding landscape. People at their place of work, whose attention may be focussed on their work or activity, not on their surroundings, and where the setting is not important to the quality of life.

## Evaluating the magnitude of visual effect

Criterion used to categorise the magnitude visual effect, are listed in Table A4 –Magnitude of Visual Effect.

**Table A4 - Magnitude of Visual Effect**

<b>Magnitude of visual effect</b>	<b>Key determining criteria</b>
<b>High</b>	A major change or obstruction of a view that may be directly visible, appearing as a dominant or prominent feature and/or appearing in the foreground.
<b>Medium</b>	A moderate change or partial view of a new element within the view that may be readily noticed, seen in front of the receptor directly or obliquely visible including glimpsed, partly screened or intermittent views, appearing as a noticeable feature in the middle ground.
<b>Low</b>	A low level of change, affecting a small part of the view that may be obliquely viewed or partly screened and or appearing in the background landscape – this may include views that change rapidly from fast-moving road vehicles or trains.
<b>Negligible</b>	A small or intermittent change to the view that may be obliquely viewed and mostly screened and/or appearing in the distant background or viewed at high speed over short periods and capable of being missed by the casual observer.

# Judging the significance of landscape and visual effects

The level of landscape or visual significance is determined by correlating the sensitivity of the receptor (high, medium to low) with the magnitude of effect (high to negligible). The evaluation is based on professional opinion using Table A5 as a guide.

**Table A5 –Significance of landscape and visual effects.**

		Sensitivity of Receptor (Susceptibility & Value)		
		High	Medium	Low
Magnitude of Effect (Size and scale/ duration/ reversibility)	High	Major		
	Medium		Moderate	
	Low			Minor
	Negligible			Negligible

## Significant Effects in terms of the EIA Regulations

In terms of the EIA Regulations, a 'Major' or 'Major/Moderate' level of significance (Table A5) is considered to be a 'Significant Effect'.

# Appendix B

Appendix B LANDMAP Evaluation

## Landscape Character Valuation of the Study Area (ref LANDMAP)

Aspect	Aspect Area Identifier	Overall Evaluation Score	Individual Evaluation Criteria & Score								
			1	2	3	4	5	6	7	8	9
Geological	FLNTGL246	High	H	H	H	M	L				
	FLNTGL752	Medium	M	M	M	M	M				
	FLNTGL881	Medium	M	M	L	L	L				
	FLNTGL352	High	H	H	M	M	M				
Landscape Habitats	FLNTLH038	Medium	M	M	M	N/A	N/A	M	M	M	
	FLNTLH004	Medium	M	L	M	N/A	M	L	M	M	
	FLNTLH034	High	H	H	M	N/A	N/A	H	H	H	
	FLNTLH014	Low	L	M	M	N/A	N/A	L	M	H	
Visual and Sensory	FLNTVS009	Medium	M	M	M	L					
	FLNTVS034	Medium	M	M	M	L					
	FLNTVS032	Medium	M	M	M	L					
	FLNTVS012	Medium	M	M	M	M					
	FLNTVS013	Medium	L	L	L	M					
Historical Landscapes	FLNTHL636	Medium	M	H	M	N/A	N/A				
	FLNTHL555	Low	H	L	L	N/A	N/A				
	FLNTHL846	Medium	M	O	H	N/A	N/A				
	FLNTHL349	Medium	M	H	H	N/A	N/A				
Cultural	FLNTCL016	High	H	H	H	N/A	O	N/A	M	H	H
	FLNTCL019	Medium	M	M	M	M	M	N/A	M	M	N/A
	FLNTCL028	Medium	N/A	N/A	L	M	N/A	N/A	H	N/A	M
	FLNTCL021	High	N/A	H	H	M	M	N/A	M	H	M
	FLNTCL027	High	H	H	H	N/A	O	N/A	H	H	M

## Key to LANDMAP Evaluation Criteria

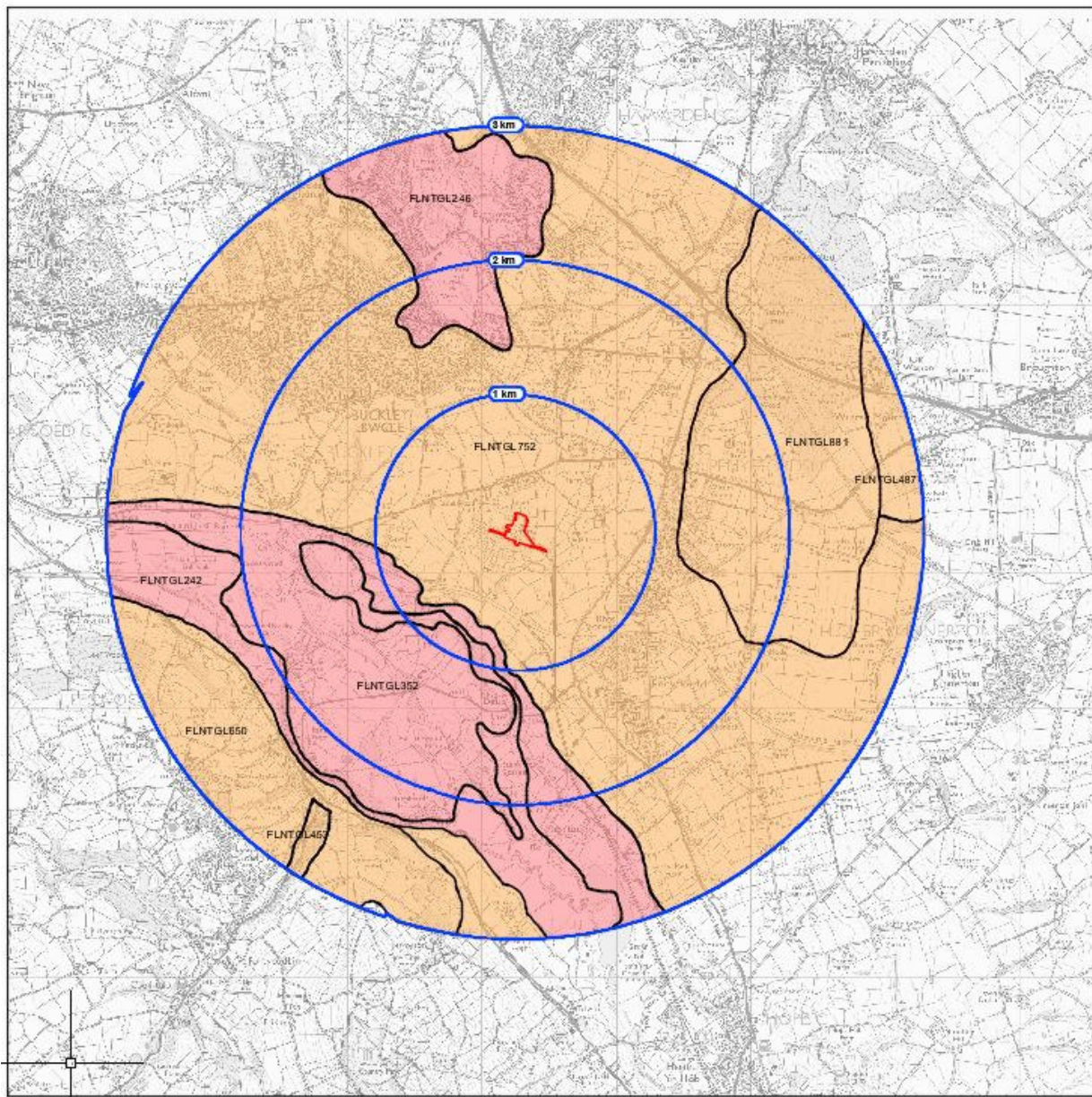
Geological Landscape	Landscape Habitats	Visual and Sensory	Historic Landscape	Cultural Landscape
1. Research Value 2. Educational value 2. Historical Value 4. Rarity/uniqueness 5. Classic example	1. Priority habitats 2. Significance 3. Opportunity 4. Expansion rates 5. Sensitivity 6. Connectivity/cohesion 7. Habitat evaluation 8. Importance for key species	1. Scenic quality 2. Integrity 3. Character 4. Rarity	1. Integrity 2. Potential 3. Rarity 4. Survival 5. Condition	1. Recognition /transparency 2. Period 3. Rarity 4. Documentation 5. Group value 6. Survival 7. Vulnerability 8. Diversity 9. Potential

Each of the evaluation scores in table 1 are colour coded as follows:



Purple - Outstanding  
 Red - High  
 Orange - Moderate  
 Yellow - Low  
 White – Unassessed (N/A)







## GEOLOGICAL



### Legend

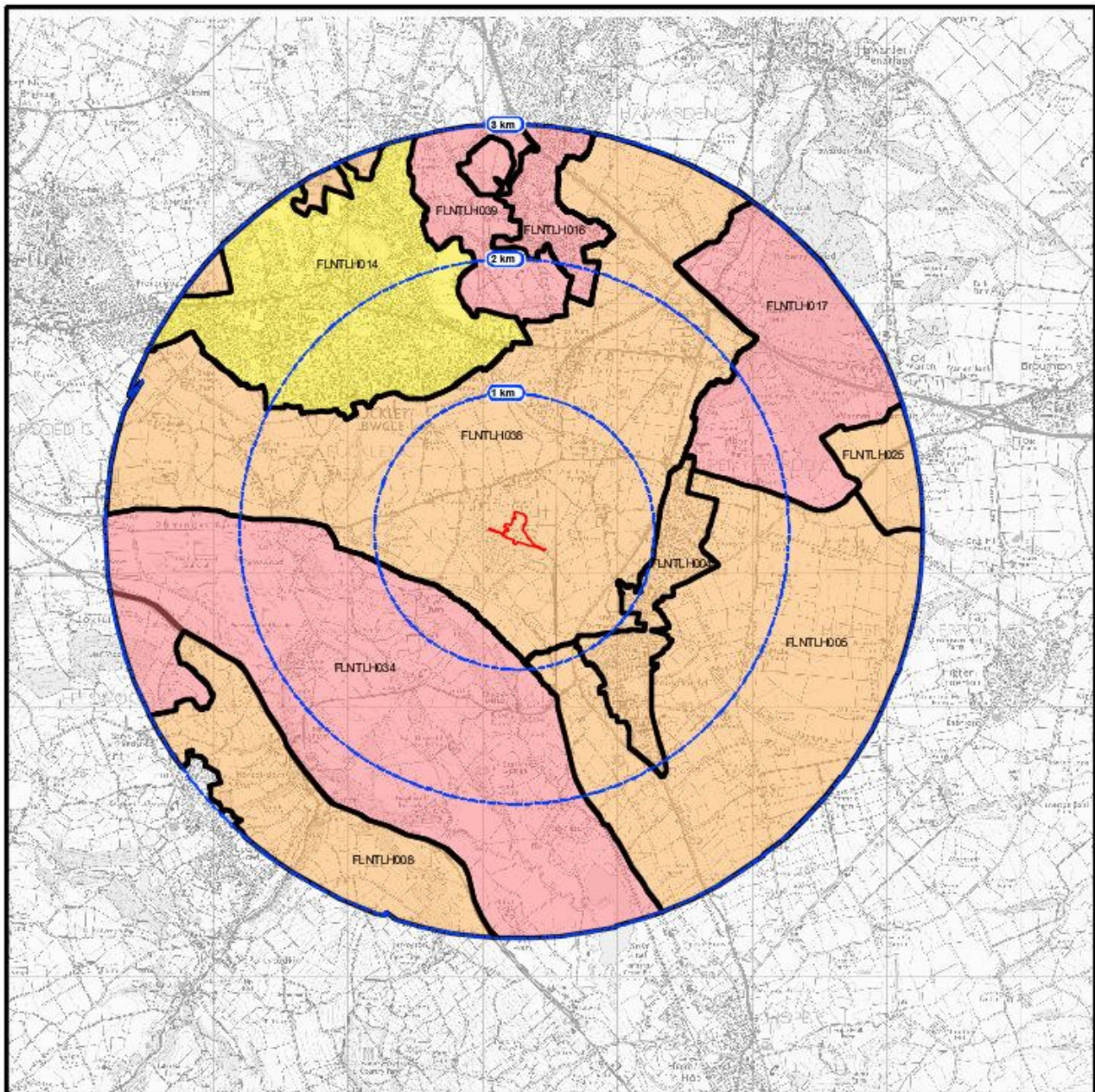
-  Planning Boundary
-  Distance from Site Boundary

### LANDMAP Overall Scores



-  Low
-  Moderate
-  High
-  Outstanding







## LANDSCAPE HABITATS



### Legend

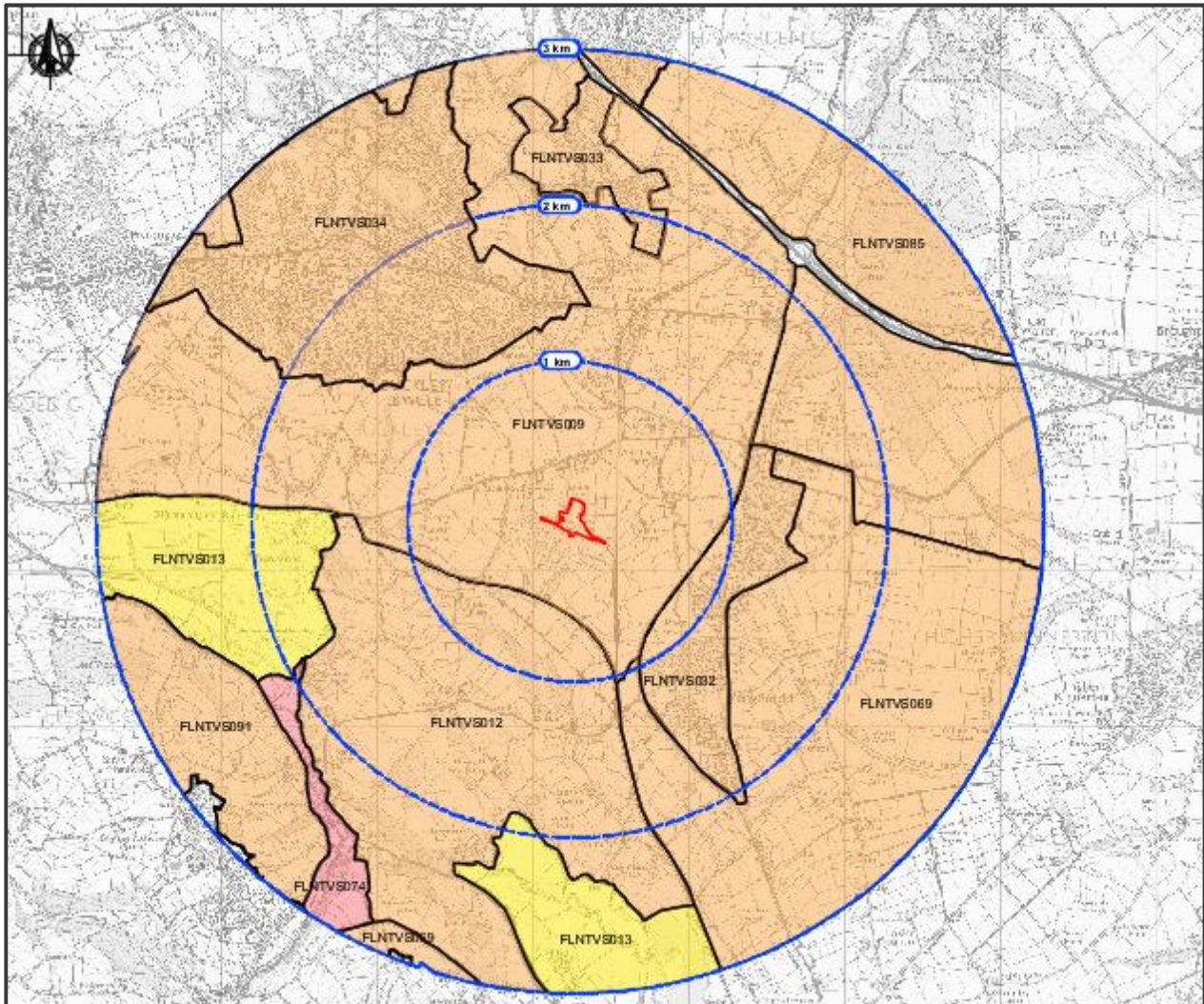
-  Planning Boundary
-  3 km Distance from Site Boundary

### LANDMAP Overall Scores



-  Low
-  Moderate
-  High
-  Outstanding






## VISUAL AND SENSORY



### Legend

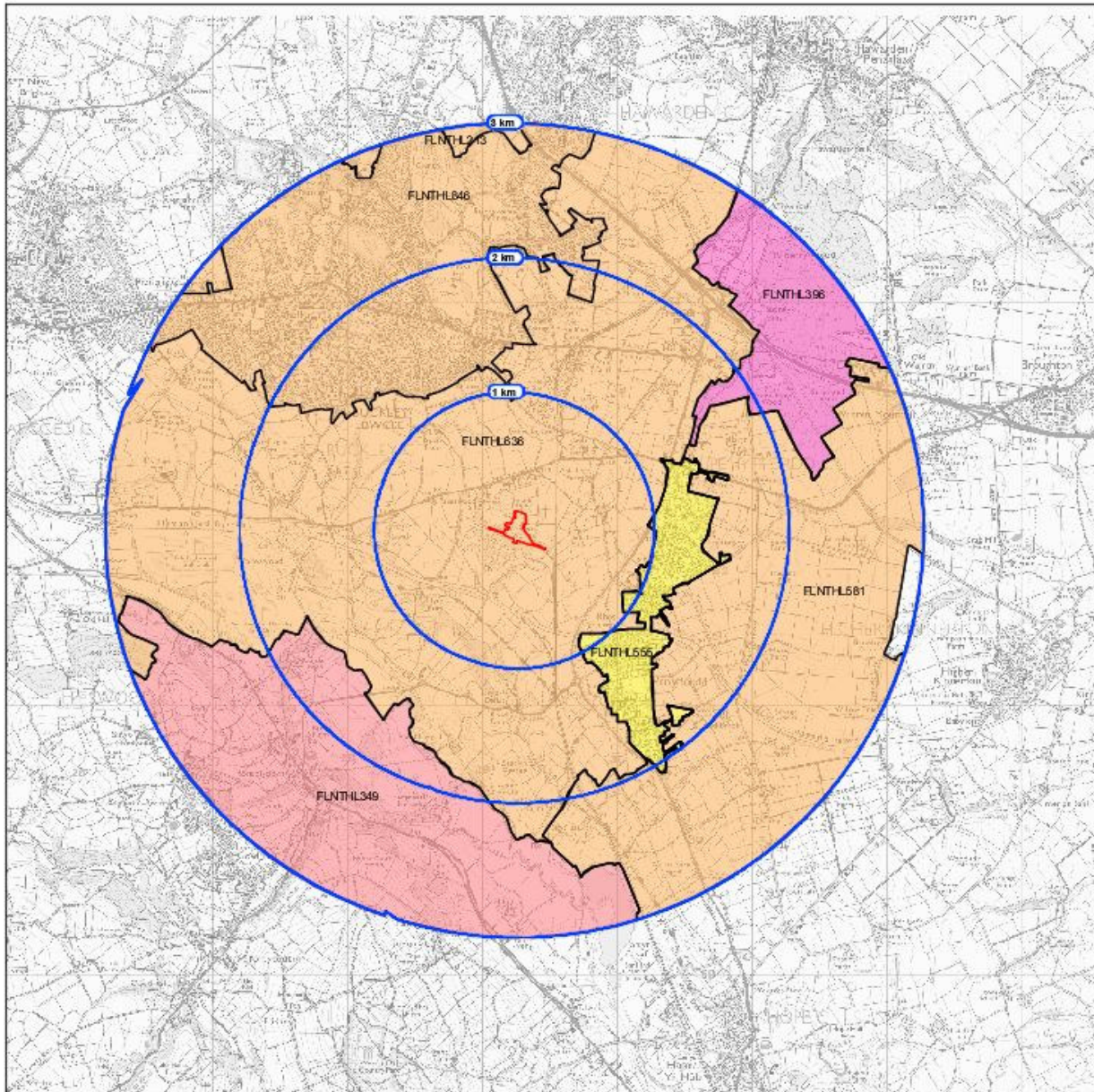
-  Planning Boundary
-  Distance from Site Boundary

### LANDMAP Overall Scores



-  Low
-  Moderate
-  High
-  Outstanding



## HISTORICAL



### Legend

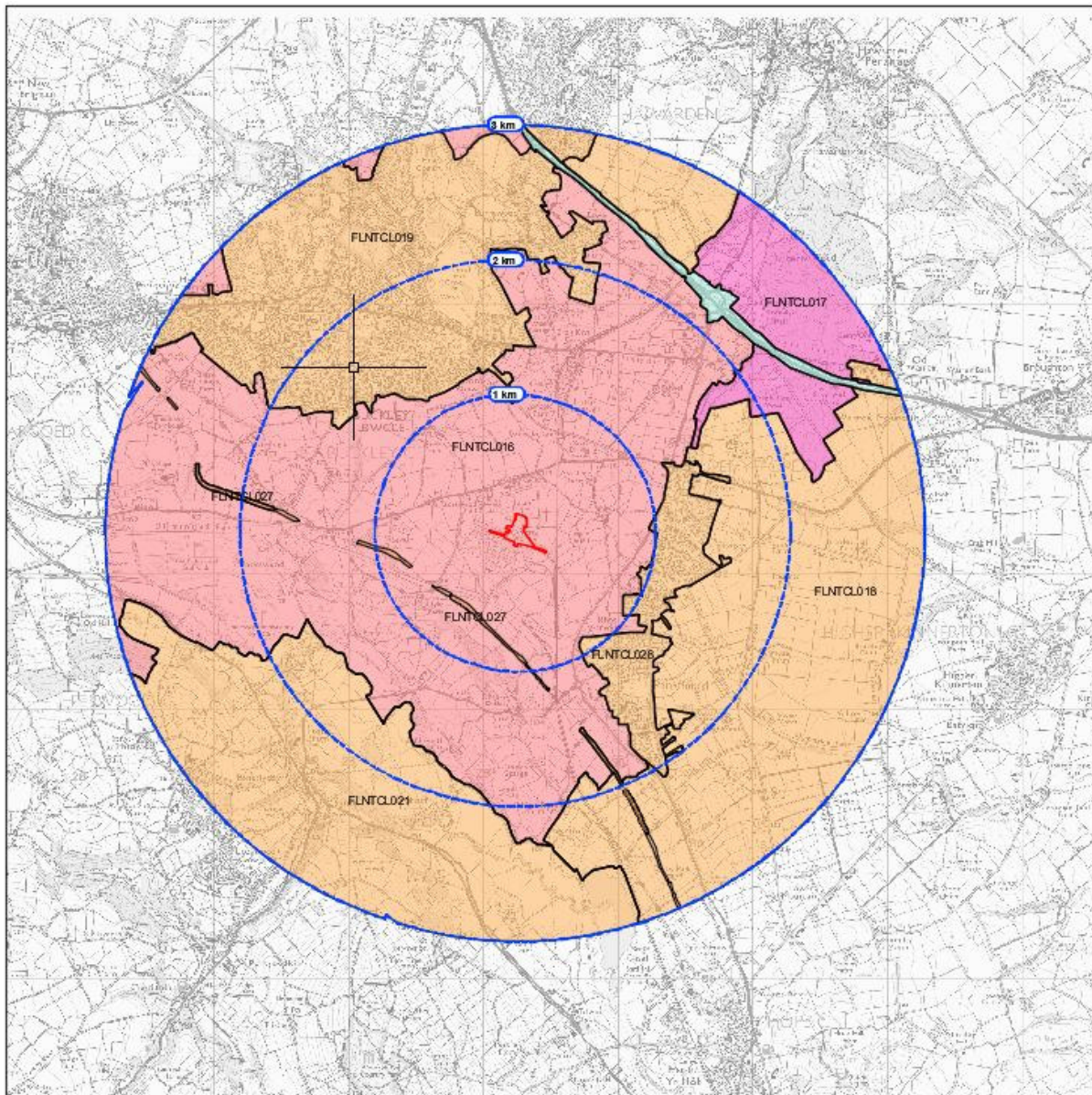
-  Planning Boundary
-  3 km Distance from Site Boundary

### LANDMAP Overall Scores



-  Low
-  Moderate
-  High
-  Outstanding







## CULTURAL



### Legend

-  Planning Boundary
-  3 km Distance from Site Boundary

### LANDMAP Overall Scores

-  Low
-  Moderate
-  High
-  Outstanding

# Appendix C

## Appendix C Drawings

Drawing 01: Landscape/Planning Context

Drawing 02: Topography

Drawing 03: Landscape Character – LANDMAP Overall Evaluation

Drawing 04: Zone of Theoretical Visibility – Existing & Proposed

Drawing 5A: Photomontage A - A5118 North East of the Site

Drawing 5B: Photomontage B – Springfield Cottage, East of the Site

Drawing 5C: Photomontage C – Wat's Dyke Way, South of the Site

Drawing 5D: Photomontage D – A5118 North West of the Site

DRaW (UK) Ltd

Telephone: 0113 8232872

Email: [info@draw-ltd.com](mailto:info@draw-ltd.com)

Morwick Hall, Mortec Park, York Road, Leeds, LS15 4TA

Company Registered in England No.08525679

VAT No.19689

