



# CRESTWOOD ENVIRONMENTAL LTD

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## Ferns Aggregates Ltd.

### Waste Recovery Plan

**Bespoke Environmental Permit Application for the Deposit of Inert Waste  
for Recovery**

**Wrotham Quarry, Wrotham, ME19 5DL**

**Report Reference: CE-WQ-1643-RP05-WRP-Final**

**Report Date: 18 November 2021**

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## CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>2</b>
1.1	BACKGROUND .....	2
1.2	PROPOSED BUTTRESSING WORKS AND APPROVED RESTORATION SCHEME.....	3
1.3	FINAL RESTORATION STAGE.....	4
1.4	BUTTRESSING MATERIAL.....	5
1.5	SITE DRAINAGE AND WATER MANAGEMENT .....	5
1.6	REGULATORY GUIDANCE .....	6
<b>2</b>	<b>FINANCIAL GAIN .....</b>	<b>6</b>
2.1	FINANCIAL GAIN BY USING NON-WASTE MATERIALS.....	6
2.2	FINANCIAL GAIN BY USING WASTE MATERIALS.....	9
<b>3</b>	<b>BENEFIT OF WORK.....</b>	<b>9</b>
3.1	SAFEGUARDING THE RESERVOIR, STABILISATION AND RESTORATION OF THE QUARRY FACES.....	9
<b>4</b>	<b>SUITABILITY OF WASTE.....</b>	<b>9</b>
4.1	WASTE ACCEPTANCE CRITERIA.....	9
<b>5</b>	<b>MINIMUM AMOUNT OF WASTE.....</b>	<b>13</b>
5.1	QUANTITY.....	13
<b>6</b>	<b>SUBSTITUTE FOR A NON-WASTE MATERIAL.....</b>	<b>13</b>
<b>7</b>	<b>APPROPRIATE STANDARDS OF WORK.....</b>	<b>13</b>
<b>8</b>	<b>CONCLUSION .....</b>	<b>14</b>

## Appendices

Appendix 1	Planning Permission (ref:TM/20/841)
Appendix 2	Restoration Plans, Cross-Sections and Stabilisation/Infilling Plans
Appendix 3	Site Boundary

## List of Tables

Table 1	Income and Costs of Using Waste and Non-Waste
Table 2	Permitted Wastes and Their Use on Site
Table 3	Inert Wastes that can be accepted without Testing
Table 4	Waste Acceptance Criteria Thresholds for Inert Wastes that Require Testing
Table 5	Additional Waste Acceptance Criteria Thresholds (organic parameters)



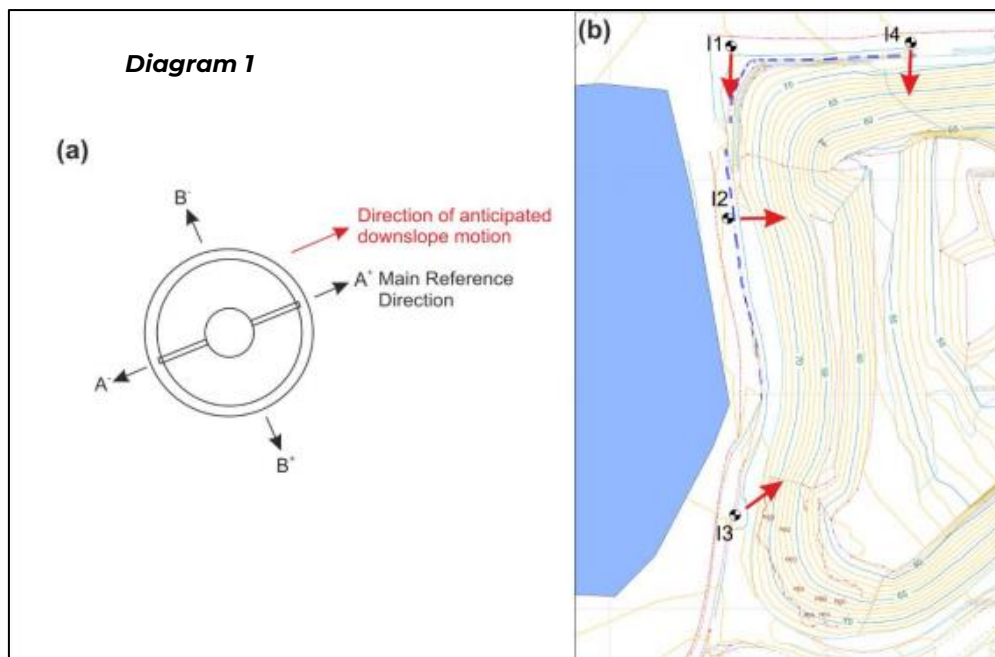
# 1 Introduction

## 1.1 Background

- 1.1.1 Crestwood Environmental Ltd has been commissioned by Ferns Aggregates Limited (**the Client**) to prepare a Waste Recovery Plan to support an application for a Bespoke Environmental Permit for the use of inert materials, predominantly arisings from construction and groundworks, for infilling and restoration purposes at Wrotham Quarry, Addington, Kent, ME19 5DL (**the Site**).
- 1.1.2 The Site has been a long-established quarry and has benefitted from various planning permissions since 1948 to permit the extraction of mineral, the infilling of the void and associated works. Details of the most recent planning permissions are provided below for reference.
- TM/07/2545, June 2009, Sand extraction in the main quarry area;
  - TM/74/1367/R(xxii), TM/80/315/R(iii) TM/78/1064/R(vi) and TM/87/1050/R(ii), June 2009, The continued use of the processing plant, access road and ancillary facilities;
  - TM/07/2091, May 2018, A Section 73 application to vary condition 2 of planning permission TM/07/2545 to allow the completion of extraction and restoration work not later than 21 July 2022; and
  - TM//14/40475, An extension to the existing quarry to extract silica sand, construction sand and to infill the void with inert waste to the north of Addington Road.
  - TM/20/841-The proposed buttressing of existing quarry slopes with indigenous inert material; the importation, storage and use of additional material to supplement the buttressing works; the continued use of a raised stocking area; and the provision of a revised restoration concept
- 1.1.3 Once mineral extraction was completed in the western area of the quarry, a c.27m high slope was left along the western aspect termed as the 'Western Slope' which extends above an adjacent reservoir to the west. Given that instability and subsequent failure of the slope was detected, it was repaired and monitored via geotechnical instrumentation (inclinometers).
- 1.1.4 Annual reporting ensued as of 2016 with no significant movements detected. However, the annual report of 2019 indicated substantial instability and identified movement in the north and western faces of the slope where only minor movements had occurred before.
- 1.1.5 Following the analysis of the data collated from the inclinometers, the report of 2019 notes seasonal variations in the north and north-western portions of the Western Slope, most probably as a consequence of variable water content throughout the cycle of seasons in addition to the local vegetation types that cause the swelling and shrinking of cohesive soils.
- 1.1.6 The report also states the following observations (the locations correspond to those on Diagram 1):
- *Location 11: slight movements at shallow depth to the south and east (downslope). In the last few months there has been movement towards the west in the magnitude of up to 20mm at the surface and 2mm at depth, this could be a precursor to further movement downslope;*
  - *Location 12: a very slight trend of movement east (downslope) at surface. In the last couple of months there has been movement at depth in the northerly direction (B-);*
  - *Location 13: slight movement at shallow depth to the north east and, at both shallow and at depth in the north west direction;*
  - *Location 14 there is significant and uncharacteristic, movement (~20mm) in the last year in the north and east direction at depth.*



\* Note the location numbers correspond with the excavation diagram showing the instrumentation in the Western Slope (refer to Diagram 1)



1.1.7 Additionally, the monitoring report notes:

- Due to this recent motion, QuarryDesign recommend that consideration should be given to the buttressing of the northern slopes below 14. An overall slope angle of shallower than 1v:3h is recommended, including adequate drainage or this slope should be closely monitored for large scale movement.

1.1.8 In order to safeguard the reservoir to the west and ensure stability of the Western Slope, recommendations were made within the annual monitoring report to reinforce the northern, north-western and western aspects of the slope. Subsequent monitoring has confirmed that small movements continue to be encountered at the slopes and that the buttressing works are still recommended.

1.1.9 As a requirement of Regulation 33 of the UK Quarries Regulations 1999, the quarry has also been subjected to regular Geotechnical Assessments which were produced in February 2017 and March 2019. Both Geotechnical Assessment's describe how the restored Western Slope is considered to represent a 'Significant Hazard' as defined by the Regulations.

1.1.10 The Geotechnical Assessment's recommend that the slopes are routinely inspected and monitored (as is currently ongoing) and that the faces should be buttressed to ensure long term stability.

## 1.2 Proposed Buttressing Works and Approved Restoration Scheme

1.2.1 A planning application was submitted on 31 March 2020 for the proposed buttressing of existing quarry slopes with indigenous inert material; the importation, storage and use of additional material to supplement the buttressing works; the continued use of a raised stocking area; and the provision of a revised restoration concept. Kent County Council Planning Authority granted planning permission for the proposal on 10 November 2020 with conditions imposed (reference: TM/20/841); one of which states that completion of the final profiles is to be within five years of the date of commencement or by 21 July 2027, whichever is earlier.



- 1.2.2 The planning permission states that works may commence subject to them being carried out in accordance with the approved drawings. The plans define the buttressing/restoration contours and the quantities of material required to achieve the necessary degree of buttressing and the approved restoration profile based on cross-sections through the Site.
- 1.2.3 The restoration plans, via landscape modelling, indicates that, in order to achieve the final contours using the least amount of material possible, 190,900m<sup>3</sup> (229,0500 tonnes) of infill material is required. Of this, 38,200m<sup>3</sup> (57,300 tonnes) will comprise indigenous clays and sands which will be supplemented by 152,700 m<sup>3</sup> (229,050 tonnes of imported material).
- 1.2.4 Based upon 20 tonne loads with 275 working days per annum, the works would attract a total of 9 loads (18 movements) at the site per day. This volume would therefore allow the traffic associated with the quarry to operate within the limit of 112 daily average HGV's loads (56 in and 56 out) as required by Condition 20 of planning permission reference TM/14/4075. As such, the volume will result in a negligible impact upon traffic and emissions.
- 1.2.5 A record shall be maintained by the site operator of the volume and tonnage of imported infill material and a copy of the record shall be made available to the Mineral Planning Authority on request.
- 1.2.6 To ensure the long-term stability of the Western Slope; that the reservoir is safeguarded and that the infilling works and restoration of the Site are conducted as approved, a report shall be submitted to the Mineral Planning Authority every 12 months from commencement of development during the interim phase and within 1 month of completion of the interim and final phases of restoration which includes (as appropriate) details of the following:
- The stability of the existing quarry faces (with reference to inclinometer readings and any anticipated ground movement in the quarry faces and adjoining land);
  - Progress with the buttressing works, including details of the nature and quantity of material has been imported to the site and used in the works and how much indigenous material has been used in the works in the preceding 12-month period and in total; and
  - The stability of the constructed slopes / landform including an assessment as to whether the buttressing works have been successful in providing long term stability to the quarry faces and adjoining land.
- 1.2.7 A raised stocking area shown on the Restoration Plan (refer to Appendix 2) which is permitted for the storage of sand, soils and overburden under planning permission TM/14/4075, can be used for the storage of materials associated with the scheme.
- 1.2.8 This area is located within the quarry void and will be used solely for the stockpiling of imported material prior to use in the buttressing work. Upon completion of the scheme, the stocking area will be retained for the dry storage of material from the working area across Trottiscliffe Lane to enable environmental management and improved working conditions.

### **1.3 Final Restoration Stage**

- 1.3.1 In view of the indigenous brown sand being a poor planting substrate, the approved planting scheme will leave the upper slopes to regenerate naturally with native grassland and patches of tree growth. In the lower areas, where the planting substrate may be improved with the imported materials and the better-quality indigenous soils, small woodland planting blocks can be provided.
- 1.3.2 A soakaway and area of wet, neutral grassland will be developed in the central part of the void. For completeness, a number of the previously approved restoration features for the site such as the footpath diversion to the north of the site and the creation of a new footpath along the southern boundary are proposed.
- 1.3.3 The buttressing/restoration scheme ultimately aims to achieve the following objectives:



- Provide long-term stability to the western and northern aspects of the Site`s slopes;
- Ensure the safeguarding of the adjacent reservoir to the east from landslides and contamination;
- Provide an additional natural area for walkers and visitors to appreciate;
- Adhere to the requirements of the planning permission to provide a detailed restoration and aftercare scheme;
- Enhance biodiversity and improve the landscape and visual aspects of the area, and
- Provide an alternative inert waste facility in Kent that would allow a significant reduction in the distance that waste is transported.

1.3.4 As aforementioned, an approved restoration plan supports the proposal. It details the landscape and ecological objectives of the restoration project to ensure the restored landform will assimilate with the environmental setting in terms of enhancing habitats and visual aspects of the area.

## **1.4 Buttressing Material**

1.4.1 Geotechnically suitable material is required in order to facilitate the buttressing of the Western Slope to a sufficient standard to ensure long-term stability. Material such as the indigenous Gault Formation with a high clay content would not provide such stability.

1.4.2 As such, it is necessary to import suitably integrally stable materials to provide long-term stability. The material will be sourced from local construction and groundwork arisings that may otherwise be diverted to landfill.

1.4.3 In order to achieve the approved final contours using the least amount of material possible, 190,900m<sup>3</sup> (286,350 tonnes) of infill material is required. Of this, 38,200m<sup>3</sup> (57,300 tonnes) will comprise indigenous clays and sands which will be supplemented by 152,700 m<sup>3</sup> (229,050 tonnes of imported material).

## **1.5 Site Drainage and Water Management**

1.5.1 Four boreholes were installed at the Site for the purposes of monitoring the baseline groundwater quality with a full suite of results expected early 2022. Due to the depth of the infill being greater than 2m, these boreholes will be utilised to monitor gas and, if required, water quality on completion of the works.

1.5.2 It is important to note that due to the presence of landfills in the vicinity that have resulted in gas migration, should post infill gas monitoring be a requirement, pre-development gas monitoring will be conducted so as to ensure gas detection is not incorrectly attributed to the buttressing work.

1.5.3 A Hydrology and Hydrogeological Impact Assessment has been prepared in order to identify any potential derogation of surface and ground waters from activities associated with the buttressing works/restoration of the Site. The findings of the assessment highlight that the buttressing work will impact no more than existing permitted quarry activities and that operations will take place entirely above the existing groundwater levels.

1.5.4 In order to safeguard the groundwater, the Code of Operating Practice specifies a set of procedures for the safeguarding of the unsaturated zone in the event of groundwater rebound due to cessation of abstraction at the Trosley sources. Therefore, the void volume open at any one time will be limited and basal 5m to be infilled with sand to maintain the integrity of the unsaturated zone, should groundwater levels rebound

1.5.5 Further mitigation measures to be adopted on the Site are:

- The implementation of the Fluids Handling Protocol; and
- All infilling will be carried out within the unsaturated zone, above the level of groundwater contained within the Folkestone Beds;



- 1.5.6 In view of the protection measures outlined above, the scheme will pose no direct impact on groundwater levels or regime and no additional mitigation measures are proposed.
- 1.5.7 In terms of surface water, given that there will be no discharges during the restoration phases of the scheme coupled with adhering to the Code of Operating Practice and the adoption of a Fluids Handling Protocol, robust protection against hydrocarbon spillages and leakages will be in place at the Site.
- 1.5.8 Furthermore, a basal and side liner comprising of, as a minimum, an attenuation rate of  $1 \times 10^{-7}$  m/sec at 1m thickness will also serve as a barrier to abate against any surface or groundwater contamination. It is anticipated that due to the nature of the inert waste, it is unlikely that leachate will be produced, therefore leachate mitigation is not proposed.

## 1.6 Regulatory Guidance

- 1.6.1 Regulatory guidance on Waste Recovery Plans is available at <https://www.gov.uk/guidance/waste-recovery-plans-and-permits#specific-obligations>. This Guidance states that where a Regulator has imposed a planning condition that requires a site to be restored in accordance with an approved plan, this can be used as evidence to demonstrate that the use of waste to comply with the legal requirement is a waste recovery activity.
- 1.6.2 The Guidance also refers to Section 1.4.5 of 'Guidelines on the interpretation of key provisions of Directive 2008/98/EC on waste' to understand the legal definition of waste recovery operations. Section 1.4.5 states "*The principal result of a recovery operation is 'waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.'*"
- 1.6.3 This Waste Recovery Plan has been prepared in accordance with Regulatory Guidance and 'Guidelines on the interpretation of key provisions of Directive 2008/98/EC on waste'.
- 1.6.4 The Waste Recovery Plan demonstrates that the use of inert materials to restore the Site in accordance with an approved scheme and restoration plan meets the obligation criteria of the Regulatory Guidance and provides evidence that the following principle criteria have been met:
- There would be a financial gain;
  - There is a clear benefit from the use of waste to restore the Site;
  - The recovered waste material is suitable for its intended use;
  - The minimum amount of waste will be used to achieve the intended benefit;
  - The waste will be used as a substitute for non-waste material; and
  - The work will be completed to an appropriate standard.

## 2 Financial Gain

### 2.1 Financial Gain By Using Non-Waste Materials

- 2.1.1 Regulatory guidance <https://www.gov.uk/guidance/waste-recovery-plans-and-permits> states that:

*"Your plan [Waste Recovery Plan] must show that if you couldn't use a waste material you would do work to get the same outcome using non-waste materials. You must include evidence of this in your plan.*

*"You could provide evidence to show that if you carried out the work with non-waste you would benefit from a net financial gain. Your waste recovery plan needs to include:*

- *your expected income and any capital gain*



- *all the costs of generating this income and any capital gain*
- *all the costs of carrying out the work with non-waste and any ongoing operating costs.*

*“This should show that it would be commercially worthwhile to use non waste. For example, it would show that using non waste produces a meaningful financial gain or is affordable and otherwise worthwhile.”*

2.1.2 Table 1 shows the income and costs of restoring the Site using both waste and non-waste. The figures used are explained in the Table’s footnotes.

Table 1 Income and costs of using waste and non-waste

INCOME AND COSTS OF USING WASTE AND NON-WASTE							
RESTORING PHASES 1 TO 10 TO INCLUDE RESTORATION WITH SOILS AND SUBSOILS WITH WASTE				RESTORING PHASES 1 TO 10 TO INCLUDE RESTORATION WITH SOILS AND SUBSOILS WITH NON- WASTE			
INCOME				INCOME			
Item	Fee per tonne	Total tonnage <sup>(1)</sup>	Total	Item	Fee per tonne	Total tonnage	Total
Gate fee from waste import	£5.00	229,050	£1,145,250	-	-	-	-
<b>Overall Income</b>			<b>£1,145,250</b>	<b>Overall Income</b>			
COST				COST			
Item	Cost per tonne	Total tonnage	Total	Item	Cost per tonne	Total tonnage	Total
Cost of processing the waste (including levelling & compaction)	£2.00	229,050	£458,100	Cost of importing unprocessed, virgin subsoils and soils	£10.00	229,050	£2,290,500
Cost of installing 4 No gas monitoring boreholes	-	-	£2,000 <sup>(2)</sup>	Cost of installing 4 No gas monitoring boreholes	-	-	-
Red diesel costs to level and compact the waste	-	-	£13,600 <sup>(3)</sup>	Red diesel costs to level and compact the non-waste	-	-	£13,600 <sup>(43)</sup>
Staff costs to complete work	-	-	£150,000 <sup>(4)</sup>	Staff Costs to complete work	-	-	£150,000 <sup>(4)</sup>
Laboratory testing costs	-	-	£11,500 <sup>(5)</sup>	Laboratory testing costs	-	-	-
Permitting costs	-	-	£ 12,194 <sup>(6)</sup>	Permitting costs	-	-	-
<b>Overall Cost</b>			<b>£642,394</b>	<b>Overall Cost</b>			<b>£2,454,100</b>
<b>OVERALL PROFIT</b>			<b>£502,856</b>	<b>OVERALL LOSS</b>			<b>- £2,454,100</b>
<p><sup>(1)</sup> Quantity of material required = 190,900m<sup>3</sup>, assume a density of 1.5 tonnes per m<sup>3</sup>, equates to 229,050 tonnes</p> <p><sup>(2)</sup> Area of Site = 1.8 hectares. Assume 4 shallow gas monitoring boreholes will be installed (2 per hectare) and monitored every month for methane, carbon dioxide, oxygen and atmospheric pressure.</p> <p><sup>(3)</sup> Red diesel costs = £0.68 per litre. Assume 60,000 litres of diesel used to complete site works = £13,600</p> <p><sup>(4)</sup> Based on estimated cost of staff completing the work (including Technically Competent Person and machine driver to level and compact materials).</p> <p><sup>(5)</sup> Assume WAC testing required every 5,000 tonnes of inert soil and subsoil = 46 samples for 229,050 tonnes. Lab costs are £250 per sample, equates to £11,500</p> <p><sup>(6)</sup> Assume EA application fee of £4,604 and annual subsistence fee of £2,530. Assume work complete and permit surrendered in ten years. Total fees to EA = £12,194.</p>							

2.1.3 Table 1 shows that restoring the Site with non-waste achieves a deficit of circa - £2,454,100.

## 2.2 Financial Gain By Using Waste Materials

2.2.1 Table 1 shows that the buttressing/restoring the Site with waste generates a profit of circa £502,856 and therefore is feasible. On contrast, using non-waste would result in a loss of some £2.5 million.

2.2.2 Table 1 demonstrates that the buttressing/restoration works are only financially viable when using waste rather than non-waste.

## 3 Benefit of Work

### 3.1 Safeguarding the Reservoir, Stabilisation and Restoration of the Quarry Faces

3.1.1 The completion of the of buttressing the Western Slope of the Site is required to accord with the planning permission for the same, as granted by Kent County Council Ref TM/20/841.

3.1.2 This requires the deposit and landscaping of a total of 190,900 m<sup>3</sup> of suitable inert materials sourced from construction and groundwork arisings and indigenous material to create long-term stability across the northern, north-western and western aspects of the quarry face.

3.1.3 A total of 38,200 m<sup>3</sup> of this material will be sourced from indigenous material. If not directly deposited, all materials, whether indigenous or imported, will be stored in the raised stocking area. The inert materials will be used in the final phase of buttressing and restoration following completion of the final levels for the purposes of covering the landform as a substrate for the planting of vegetation.

3.1.4 This is in accordance with the Kent Downs AONB Landscape Design Handbook including ash, beech, whitebeam and hazel. The slopes will be restored to neutral grassland, in a similar fashion to existing restored slopes.

3.1.5 Native grassland, trees and vegetation will be planted across the landform as part of the restoration project as detailed on the restoration plan which will visually enhance the local area, provide biodiversity and blend in with the adjoining landscape. Once restored, the landform will be sympathetic with the natural topography and vegetation species in the environ.

3.1.6 By following approved scheme, the buttressing of the Site satisfies conditions within the planning permission insofar as it ensures appropriate restoration and aftercare and secures against loss of amenity to the locality from unfinished works.

## 4 Suitability of Waste

### 4.1 Waste Acceptance Criteria

4.1.1 Only strictly inert materials will be used on the Site which will derive from construction and groundwork arising from projects undertaken by contractors solely in the Kent area.

4.1.2 The maximum total tonnage to be deposited to restore the Site will be 229,050 tonnes (152,700 m<sup>3</sup>).

4.1.3 The Environmental Permit application takes full cognisance of 'Guidance on Waste Recovery Plans and Permits' which is available at <https://www.gov.uk/guidance/waste-recovery-plans-and-permits#specific-obligations>.

4.1.4 Permitted wastes are shown in **Table 2** below.

**Table 2 Permitted Wastes**

PERMITTED WASTES	
EWC Code	Description
<b>01 01</b>	<b>Wastes from mineral excavation</b>
01 01 02	Wastes from mineral excavation
<b>01 04</b>	<b>Wastes from physical and chemical processing of non-metalliferous minerals</b>
01 04 08	Waste gravel and crushed rock other than those containing dangerous substances
01 04 09	Waste sand and clays
<b>10 13</b>	<b>Waste from the manufacture of cement, lime and plaster and articles and products made from them</b>
10 13 14	Waste concrete
<b>17 01</b>	<b>Concrete, bricks, tiles and ceramics</b>
17 01 01	Concrete
17 01 02	Bricks
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
<b>17 05</b>	<b>Soil, stones and dredging spoil</b>
17 05 04	Soils and stones
<b>19 12</b>	<b>Wastes from waste water treatment plants not otherwise specified</b>
19 12 09	Minerals (for example sand and stones)
19 12 12	Soil substitutes other than that containing dangerous substances
<b>20 02</b>	<b>Garden and parks wastes (including cemetery wastes)</b>
20 02 02	Soil and stones

4.1.5 Of the permitted waste types that are listed in **Table 2** above, under European Council Decision 2003/33/EC, certain waste codes do not require Waste Acceptance Criteria (WAC) testing, provided that they are inert and from a single source only (mixed loads from more than one site cannot be accepted without testing). Wastes may be accepted at the Site without testing provided they comply with the restrictions in Council Decision 2003/33/EC are shown in **Table 3**.

**Table 3 Inert wastes that can be accepted without testing**

EWC Code	Description	Restrictions
17 01 01	Concrete	C & D waste only (*)
17 01 02	Bricks	C & D waste only (*)
17 01 07	Mixtures of concrete, bricks, tiles and ceramics	Selected C&D waste only (*)
17 05 04	Soils and stones	Excluding topsoil, peat; excluding soil and stones from contaminated sites
20 02 02	Soil and stones	Only from garden and parks waste; excluding topsoil, peat
<p>(*) Selected construction and demolition waste (C &amp; D waste): with low contents of other types of materials (like metals, plastic, organics, wood, rubber, etc). The origin of the waste must be known.            No C &amp; D waste from constructions, polluted with inorganic or organic dangerous substances, e.g. because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances, etc., unless it is made clear that the demolished construction was not significantly polluted.            No C &amp; D waste from constructions, treated, covered or painted with materials, containing dangerous substances in significant amounts.</p>		

4.1.6 All other permitted wastes received at the Site will be subject to WAC testing in accordance with Council Decision (2003/33/EC), the requirements of which are incorporated into Schedule 10 of the Environmental Permitting (England and Wales) Regulations 2010.



4.1.7 The leaching limit values, calculated at a liquid to solid ratio of 10 l/kg, shown in **Table 4** will be applied to those wastes received at the site that are subject to the requirements of WAC testing.

**Table 4 Waste Acceptance Criteria thresholds for inert wastes that require testing**

<b>Component</b>	<b>Symbol</b>	<b>L/S = 10l/kg mg/kg dry substance</b>
Arsenic	As	0.5
Barium	Ba	20
Cadmium	Cd	0.04
Total Chromium	Cr total	0.5
Copper	Cu	2
Mercury	Hg	0.01
Molybdenum	Mo	0.5
Nickel	Ni	0.4
Lead	Pb	0.5
Antimony	Sb	0.06
Selenium	Se	0.1
Zinc	Zn	4
Chloride	Cl-	800
Fluoride	F-	10
Sulphate (a)	SO <sub>4</sub> <sup>2-</sup>	1,000
Phenol index	PI	1
Dissolved Organic Carbon (b)	DOC	500
Total Dissolved Solids (c)	TDS	4,000

(a) This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of CO (the first eluate of a percolation test at L/S = 0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 l/kg under initial equilibrium conditions.

(b) If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.

(c) The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.

4.1.8 In addition, the limit values for organic parameters specified in **Table 5** will be applied to wastes received at the Site that requires WAC testing.

**Table 5 Additional Waste Acceptance Criteria thresholds (organic parameters) for inert wastes that require testing**

Parameter	Value mg/kg
Total Organic Carbon (TOC)(a)	30,000*
BTEX compounds (benzene, toluene, ethyl benzene & xylenes)	6
Polychlorinated biphenyls (PCBs) (7 congeners)	1
Mineral oil (C10 to C40)	500
PAHs (polycyclic aromatic hydrocarbons)	100
(a) In the case of soils, a higher limit value may be permitted by the Environment Agency, provided a Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH value of between 7.5 and 8.0.	

- 4.1.9 The conditions regarding the waste acceptance criteria are detailed in the Environmental Management System (ref CE-BQ-1963-RP04). However, to ensure thoroughness they have been repeated below.
- 4.1.10 The waste producer will be required to undertake WAC testing, as part of the basic characterisation procedures, on wastes that cannot be accepted without analysis. Such wastes will only be accepted at Ward Street where a copy of the analysis is submitted to the Operator for checking and the results are within the relevant limit values detailed in **Table 3** and **Table 4**.
- 4.1.11 Compliance testing of the key variables established during the Basic Characterisation will be carried out on each waste stream at regular intervals.
- 4.1.12 In addition to the requirement for WAC testing to demonstrate that permitted materials are strictly inert, additional pre-acceptance procedures will be used to ensure that only suitable waste types are accepted. Customers delivering waste will be required to provide the Operator, in advance, with all necessary information/documentation to satisfy the requirements of the Waste (England and Wales) Regulations 2011 and the Duty of Care. Information required will include specific details of the type of process producing the waste (source), the type of waste (according to the EWC), the quantity of waste, the form the waste takes (e.g. solid) and any special handling requirements needed. An assessment will be made to ensure that the waste is suitable for deposit at the Site and use in the waste recovery operations.
- 4.1.13 Only wastes which have been subject to the pre-acceptance procedures detailed above will be accepted at the Site.
- 4.1.14 A visual inspection of the contents of waste loads will be made by Site staff on deposit of the waste load.
- 4.1.15 Any discrepancies found, i.e. suspect, non-conforming and/or random loads, as a result of the checks detailed above will result in the vehicle being detained whilst some, or all, of the following supplementary management decisions are taken:
- Referral to the Site Manager;
  - Referral to the waste producer to confirm the nature of the waste load;
  - Referral to the Environment Agency;
  - Redirection of delivery vehicle off site, to a suitably authorised facility; and
  - If the waste has been discharged, removal of the waste to a secure quarantine area, prior to off-site removal either to the waste producer or suitably authorised facility.
- 4.1.16 Any waste materials dispatched off site to an authorised facility, will be removed in accordance with

the Duty of Care. A registered waste carrier will be used. A 'Record of Non-Conformance' will be made in accordance with Appendix 3.

- 4.1.17 Any instances of rejection of loads will be recorded in a Site log, which will be made available for inspection by authorised officers of the Environment Agency at any reasonable time.
- 4.1.18 Copies of Waste Transfer Notes, Season Tickets and all records required in accordance with the Environmental Permit will be kept either on Site or at a secure location off-Site. Where at all possible, records will be electronic.

## **5 Minimum Amount of Waste**

### **5.1 Quantity**

- 5.1.1 The activities shall not be carried out other than in accordance with the approved Waste Recovery Plan, and in any case no more than the permit's waste quantity limit shall be stored or used.
- 5.1.2 In order to achieve the objectives of the Planning Permission, the minimum quantity of material required based on the up-to-date topographic survey, has been calculated, which shows current Site levels, and 3D modelling to calculate the volume of material required to restore the Site to the agreed levels. Cross Sections are shown in the Restoration Plan in Appendix 2.
- 5.1.3 A total volume of 190,900 m<sup>3</sup> of material is needed to achieve the approved restoration profile which includes 38,200m<sup>3</sup> of indigenously sourced material. This amount adheres to the limits stipulated in the planning permission. It would not be possible to provide long-term suitable stability to the Western Slopes by using less material.

## **6 Substitute for a Non-Waste Material**

- 6.1.1 The European court has stated that the essential characteristic of 'a waste recovery operation is that its principal objective is that the waste serves a useful purpose in replacing other materials which would have had to be used for that purpose, thereby conserving natural resources.'
- 6.1.2 To restore the Site from non-waste material would entail the use of materials and virgin soils and subsoils excavated from a greenfield site or quarry specifically for that purpose. The use of primary materials would be less sustainable for restoring the Site than by the recovery of inert waste materials that would otherwise be diverted to landfill. Consequently, the proposed works will be carried out using suitable imported waste materials.
- 6.1.3 It is considered that the above use of waste is a recovery operation. Furthermore, In Tarmac Aggregates Limited versus the Secretary of State for Environment, Food and Rural Affairs and the Environment Agency<sup>1</sup>, the Court of Appeal ruled that where there is a legal obligation, by reason of a relevant planning condition, to carry out restoration work, then if waste materials are not to be used, virgin materials will be required.
- 6.1.4 Therefore, it is clear that the use of waste at the Site is replacing other materials that would otherwise have to be used. Additionally, the proposal reduces the amount of waste directed to landfill and aids in the 'Zero Waste to Landfill' waste management scheme.

## **7 Appropriate Standards of Work**

- 7.1.1 The buttressing and restoration works will be carried out in accordance with the Planning Permission.
- 7.1.2 Buttressing/ Restoration works will be subject to supervision by a technically competent manager with an appropriate WAMITAB Certificate. Only suitable inert materials, predominantly construction

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<sup>1</sup> EWCA, 2015. Tarmac Aggregates Limited, R (on the application of) v The Secretary of State for Environment, Food and Rural Affairs & Anor (2015), England and Wales Court of Appeal Civ 1149, 17 November 2015

and groundworks material will be used in the works, placed and compacted in accordance with the cross sections shown on the restoration plan in Appendix 2 to achieve the required restoration profile.

7.1.3 The Site will be surveyed to ensure the completed works comply with the approved plans.

## 8 Conclusion

8.1.1 The information provided in this Waste Recovery Plan demonstrates that the proposed activity complies with the requirements of the Waste Framework Directive and <https://www.gov.uk/guidance/waste-recovery-plans-and-permits>, and that the activity satisfies the recovery test.

8.1.2 The proposed waste types are suitable for the approved buttressing/restoration works as they do not present an unacceptable risk to human health or the environment as part of the proposed deposit. If required, ongoing testing and field trials will provide further evidence of the suitability of the proposed waste materials.

8.1.3 There are numerous very clear and significant benefits from the proposed works: particularly the buttressing of already unstable quarry slopes to ensure long-term stability which will protect the adjacent reservoir to the west; and the compliance with the approved landscaping scheme and create an attractive landscaped area for the benefit of the public and biodiversity by planting native species of woodland and grassland.

8.1.4 The minimum volume of material needed to achieve the key objectives of the scheme has been calculated and justified within this Waste Recovery Plan. The stability of the landform has been confirmed via a Stability Risk Assessment.

8.1.5 The use of waste as a replacement for virgin materials will conserve natural resources as well as reusing material which would otherwise be sent to landfill sites for disposal.

8.1.6 As demonstrated by the calculations shown in Table 1, the restoration scheme will also prove financially viable if suitable waste material is used as opposed to using non-waste materials.

## **Appendices**

Appendix 1 Planning Permission (ref: TM/20/841)

Appendix 2 Restoration Plan, Cross-Sections and Stabilisation/Infilling Plans



Ferns Group  
c/o Quarryplan Limited  
10 Saintfield Road  
Crossgar  
Downpatrick  
Co. Down  
Northern Ireland  
BT30 9HY

**Planning Applications Group**  
First Floor, Invicta House  
County Hall  
Maidstone  
Kent ME14 1XX  
Tel: 03000 411200

Website: [www.kent.gov.uk/planning](http://www.kent.gov.uk/planning)  
Email: [planning.applications@kent.gov.uk](mailto:planning.applications@kent.gov.uk)  
Direct Dial/Ext: 03000 413334  
Text Relay: 18001 03000 417171  
Ask For: Mr James Bickle  
Your Ref:  
Our Ref: TM/20/841  
Date: 10 November 2020

FAO: Quarryplan Limited

### **TOWN AND COUNTRY PLANNING ACT 1990**

Dear Sir/Madam

**APPLICATION: TM/20/841 (KCC/TM/0073/2020)**

**PROPOSAL:** The proposed buttressing of existing quarry slopes with indigenous inert material; the importation, storage and use of additional material to supplement the buttressing works; the continued use of a raised stocking area; and the provision of a revised restoration concept

**LOCATION:** Wrotham Quarry, Addington, West Malling, Kent ME19 5DL

The above mentioned planning application received for the formal observations of the County Council, as County Planning Authority has now received consideration.

I write to inform you that the County Planning Authority resolved that planning permission be Granted with Conditions as set out in the attached formal notification.

Please note the conditions imposed and any informatives as described.

Yours faithfully

Sharon Thompson  
Head of Planning Applications Group

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As part of the Council's commitment to equalities if you have any concerns or issues with regard to access to this information please contact us for assistance.



**Reference Code of  
Application: TM/20/841  
(KCC/TM/0073/2020)**

## **KENT COUNTY COUNCIL**

**TOWN AND COUNTRY PLANNING ACTS  
TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE)  
(ENGLAND) ORDER 2015**

### **NOTIFICATION OF GRANT OF PERMISSION TO DEVELOP LAND**

To: Ferns Group  
c/o Quarryplan Limited  
10 Saintfield Road  
Crossgar  
Downpatrick  
Co. Down  
Northern Ireland  
BT30 9HY

TAKE NOTICE that the KENT COUNTY COUNCIL, the County Planning Authority under the Town and Country Planning Act, HAS GRANTED PERMISSION for development of land situated at Wrotham Quarry, Addington, West Malling, Kent ME19 5DL and being the proposed buttressing of existing quarry slopes with indigenous inert material; the importation, storage and use of additional material to supplement the buttressing works; the continued use of a raised stocking area; and the provision of a revised restoration concept, referred to within the application for permission for development dated 28 February 2020, received on 31 March 2020, as amplified and amended by details referred to in the attached Schedule 1, SUBJECT TO THE FOLLOWING CONDITIONS:

#### Time Limits (Commencement and Duration)

1. The development to which this permission relates shall be begun not later than the expiration of 3 years beginning with the date of this permission. Written notification of the actual date of commencement shall be sent to the Mineral Planning Authority within 7 days of such commencement.

*Reason: To comply with Section 91 of the Town and Country Planning Act 1990 (as amended).*

2. All importation of waste shall cease and the infilling, associated stabilisation / remedial work and land forming set out in drawing WROTH032 Rev 0 titled "Interim Restoration Plan" dated November 2019 shall be completed within 5 years of the date of commencement or by the 21 July 2027 (whichever is the sooner).

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As part of the Council's commitment to equalities if you have any concerns or issues with regard to access to this information please contact us for assistance.

*Reason: To ensure that no long-term prejudice occurs to the AONB and Green Belt, to provide for the interim restoration of the quarry and in the interests of local amenity.*

3. The final restoration of the site shall be completed in accordance with drawing number WROTH033 Rev A titled "Final Restoration Plan" dated June 2020 and WROTH035 Rev A titled "Planting & Aftercare Plan" dated June 2020 with such modifications as may be approved pursuant to the conditions below by 31 December 2035 or such date as may be permitted extending the life of planning permission TM/14/4075.

*Reason: To ensure that no long-term prejudice occurs to the AONB and Green Belt, to provide for the completion of development and in the interests of local amenity whilst ensuring consistency with the restoration requirements of planning permission TM/14/4075 or any amendment thereto.*

#### Working Programme

4. The development hereby permitted shall be carried out strictly in accordance with the details set out in drawings:
  - WROTH032 Rev 0 titled "Interim Restoration Plan" dated November 2019;
  - WROTH033 Rev A titled "Final Restoration Plan" dated June 2020;
  - WROTH034 Rev A titled "Final Restoration Plan – Indicative Cross Sections" dated June 2020; and
  - WROTH035 Rev A titled "Planting & Aftercare Plan" dated June 2020.

No variations or omissions shall take place without the prior approval in writing of the Mineral Planning Authority or as otherwise approved pursuant to the conditions below.

*Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the approved plans and details.*

5. The volume of inert fill material imported to site shall not exceed 152,700m<sup>3</sup> or that necessary to achieve the permitted remediation, whichever is the lesser volume.

*Reason: In order to ensure that working and restoration is carried out in accordance with the approved plans.*

6. A record shall be maintained by the site operator of the volume and tonnage of imported fill material and a copy of the record shall be made available to the Mineral Planning Authority on request.

*Reason: In order to assist the Mineral Planning Authority in monitoring progress on site and to ensure that the working and restoration is carried out in accordance with the approved plans.*

7. Only inert infill material shall be imported to the site for use in the development hereby permitted.

*Reason: Other waste materials may be unsuitable for the stated purpose and could raise environmental and pollution issues that would need to be considered afresh.*



8. A report shall be submitted to the Mineral Planning Authority every 12 months from commencement of development during the interim phase and within 1 month of completion of the interim and final phases of restoration which includes (as appropriate) details of the following:

- The stability of the existing quarry faces (with reference to inclinometer readings and any anticipated ground movement in the quarry faces and adjoining land);
- Progress with the buttressing works (including details of the nature and quantity of material has been imported to the site and used in the works and how much indigenous material has been used in the works in the preceding 12 month period and in total); and
- The stability of the constructed slopes / landform (including an assessment as to whether the buttressing works have been successful in providing long term stability to the quarry faces and adjoining land).

*Reason: To ensure long term stability of the western slope, reservoir and the infill works and the proper restoration of the site.*

9. Imported inert infill material shall only be used to restore the area outline in red on drawing WROTH032 Rev 0 titled "Interim Restoration Plan" dated November 2019 and shall either be deposited directly into that area or the Raised Stocking Area shown in light blue on the same drawing (i.e. the area referenced as the "existing raised pad to be retained for operational purposes"). With the exception of the extension permitted north of Addington Lane under permission reference TM/14/4075, imported waste shall not be deposited, stored or otherwise used elsewhere at Wrotham Quarry.

*Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the approved plans and details.*

10. The Raised Stocking Area shown on drawing WROTH032 Rev 0 titled "Interim Restoration Plan" dated November 2019 shall only be used for the storage of materials associated with the development hereby permitted and for the storage of sand, soils and overburden provided for by planning permission TM/14/4075.

*Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the approved plans and details.*

11. On implementation of this permission, the Raised Stocking Area shown in blue on drawing WROTH032 Rev 0 titled "Interim Restoration Plan" dated November 2019 shall replace the "Proposed Stocking Area" shown on drawing number A74r/164 titled "Site Summary Plan" (dated September 2014) permitted under planning permission TM/14/4075.

*Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the approved plans and details.*

12. A copy of this permission and the approved plans and other details (including any details or variations approved pursuant thereto) shall be available in the operator's site office and shall be made known to any person(s) given responsibility for the management or control of waste activities on site.

*Reason: To ensure that the management and staff responsible for the day to day operation of the development are fully acquainted with the approved schemes and conditions controlling activities on site.*

### Water Protection and Pollution

13. Unless otherwise approved beforehand in writing by the Mineral Planning Authority, all operations at the site shall comply with the recommendations of the Hydrological & Hydrogeological Impact Assessment (Ref. QPL.FERNS.WROTHAM.H&HIA20.02) dated 25 March 2020 and the details approved by the Mineral Planning Authority on 3 May 2018 pursuant to condition (26) of planning permission TM/17/2091 [i.e. the “Code of Operating Practice” contained in Appendix 13/2 of the Planning Application and Environmental Statement for a Proposed Northern Extension dated June 2007 as supplemented by SLR Consulting Ltd’s response to Environment Agency concerns titled “Hanson Aggregates – Wrotham Quarry, Kent Northern Extension – Environmental Monitoring and Risk Management” attached to the email from Deirdre McDonald of SLR Consulting Ltd to Jennifer Wilson of the Environment Agency dated 17 March 2008].

*Reason: To protect groundwater and public water supplies.*

### Restriction of Permitted Development Rights

14. Notwithstanding the provisions of Schedule 2 of the Town and Country Planning (General Permitted Development) (England) Order 2015 (or any Order amending, replacing or re-enacting that Order), no fixed plant or machinery, buildings, or structures and erections shall be erected, extended, installed, rearranged, replaced, repaired or altered at the site / quarry complex without the prior written approval of the Mineral Planning Authority.

*Reason: To protect the visual amenities of the area and minimise impact on the AONB and Green Belt.*

### Hours of Operation

15. With the exception of essential maintenance work, operations at Wrotham Quarry shall only take place between 07:00 and 18:00 hours Mondays to Fridays and between 07:00 and 13:00 hours on Saturdays. No operations shall take place on Saturday afternoons after 13:00 hours, on Sundays or on Bank or Public Holidays.

*Reason: To protect the amenities of local residents.*

16. The operator shall notify the Mineral Planning Authority in advance of any planned essential maintenance works. If the need for unforeseen essential works is required, the operator shall notify the Mineral Planning Authority as soon as possible after the works have taken place. In either case, the operator shall provide details of the nature of the works and the likely / actual time and duration of the works.

*Reason: To assist in monitoring the hours of operation and in the interests of maintaining an appropriate level of community engagement.*

### Highways and Access

17. Heavy Goods Vehicles (HGVs) and other commercial vehicles shall only enter or leave Wrotham Quarry via the existing haul road and site access on Ford Lane. Appropriate visibility splays at the Ford Lane access shall be maintained free of obstruction at all times.

*Reason: In the interests of highway safety.*

18. No more than a combined daily average of 112 HGVs (56 in and 56 out) associated with all operations at Wrotham Quarry shall enter or leave the site access on Ford Lane in any one week.

*Reason: In the interests of highway safety and amenity.*

19. A record shall be maintained by the site operator of all HGV movements referred to in condition (20) both to and from Wrotham Quarry. Such records shall contain the date of each movement, be maintained for a period of 3 years and a copy shall be made available to the Mineral Planning Authority on request.

*Reason: In order to assist the Mineral Planning Authority in monitoring the number of HGVs entering and leaving the site.*

20. The former access onto Addington Lane shall only be used by cars, vans and light commercial vehicles and in emergencies and measures shall be implemented to restrict its use for these purposes.

*Reason: In the interests of highway safety and safeguarding the local environment.*

21. The surfacing of the site access shall be maintained in a good state of repair and kept clean and free of mud and other debris at all times until completion of site restoration and aftercare.

*Reason: In the interests of highway safety and safeguarding the local environment.*

22. Measures shall be taken to ensure that vehicles leaving the site do not deposit mud or other material on the public highway including, if necessary, the provision of wheel and chassis cleaning equipment.

*Reason: In the interests of highway safety and safeguarding the local environment.*

23. All loaded, open backed lorries entering or leaving the site shall be sheeted.

*Reason: In the interests of highway safety and safeguarding the local environment.*

#### Noise, Dust and Air Quality

24. Noise from activities at the application site, including both fixed plant and mobile machinery, shall not exceed 55dB  $L_{Aeq,1hr, free field}$  as measured at any noise sensitive property and the operator shall take measures including the insulation of fixed plant and the effective noise suppression of vehicles and mobile machinery to ensure that these levels are not exceeded.

*Reason: To ensure minimum disturbance from operations and avoidance of nuisance to the local community.*

25. No plant or machinery shall be operated on site unless fitted and operated with effective noise suppression equipment.

*Reason: To ensure minimum disturbance from operations and avoidance of nuisance to the local community.*

26. No tonal reversing alarms shall be used on site.

*Reason: To ensure minimum disturbance from operations and avoidance of nuisance to the local community.*

27. Measures shall be taken to minimise and control the emission of dust or other particulates arising from activities at the site. These shall include the mitigation measures set out in the Section 5 and Table 1.5 of the “Dust Risk Assessment” prepared by Quarry Plan dated June 2020.

*Reason: To safeguard the local environment and the amenities of the local community.*

#### Nature Conservation

28. The development shall be carried out in accordance with the impact avoidance and ecological mitigation measures set out in paragraph 3.6 of the “Ecology Report” prepared by Applied Ecology Ltd dated 27 March 2020 (Reference: AEL1326 Version 3), unless otherwise agreed beforehand in writing by the Mineral Planning Authority.

*Reason: To safeguard nature conservation interests.*

#### Landscape, restoration and aftercare

29. Within 6 months of the date of commencement of the development, a detailed scheme of landscaping and maintenance for the interim restoration phase of the development shall be submitted for the written approval of the Mineral Planning Authority. The scheme, which shall accord with the principles set out within drawings WROTH032 Rev 0 titled “Interim Restoration Plan” dated November 2019 and WROTH035 Rev A titled “Planting & Aftercare Plan” dated June 2020, shall include:
- a. An increase in the extent of the planting proposed at the interim stage to maximize the area of the quarry restored at this stage, including the delivery of more of the planting proposed in Blocks B3, B4, B5 and H1 shown on drawing WROTH035 Rev A titled “Planting & Aftercare Plan” dated June 2020;
  - b. Measures to be taken (including soil depths, chemical analysis and application) to ensure that the topsoil and subsoil used in the upper layers of the restored landform provide the correct conditions to ensure that the proposed neutral grassland is successfully established; and
  - c. A program of implementation and maintenance for both new and existing planting.

The approved scheme shall be implemented as approved in the first available planting season or as otherwise agreed in writing by the Mineral Planning Authority.

*Reason: To ensure that no long-term prejudice occurs to the AONB and Green Belt, to provide for the completion of operations and in the interests of local amenity.*

30. All trees and shrubs to be retained or planted in accordance with drawings WROTH032 Rev 0 titled “Interim Restoration Plan” dated November 2019, WROTH033 Rev A titled “Final Restoration Plan” dated June 2020 and WROTH035 Rev A titled “Planting & Aftercare Plan” dated June 2020, or as otherwise approved pursuant to the conditions above, which die, are removed or become seriously damaged or diseased at any time during the development and aftercare period shall be replaced in the next planting season with others of similar size and species, unless otherwise agreed in writing by the Mineral Planning Authority.

*Reason: To ensure that no long-term prejudice occurs to the AONB and Green Belt and in the interests of local amenity.*

31. Within 6 months of the date of commencement of the development, an updated habitat establishment and management plan shall be submitted for the written approval of the Mineral Planning Authority. The management plan, which shall be in accordance with the principles set out in drawing WROTH035 Rev A titled "Planting & Aftercare Plan" dated June 2020 and generally consistent with those in the extant management plan and monitoring programme approved pursuant to condition (32) of planning permission TM/07/2545, shall include the following:

Establishment phase

- Details of habitats to be established on site;
- Overview of how the habitats are to be established;
- Detailed methodology to establish habitats on site;
- Management to establish habitats on site; and
- Details of monitoring.

Long term management

- Aims and objectives of the management plan;
- Overview of habitat management;
- Timetable for implementation and maintenance of the interim management plan;
- Timetable to implementation and maintenance of the final management plan, including a period not less than 10 years from the completion of the final restoration and planting as detailed on the above-mentioned drawings;
- Details of ongoing monitoring; and
- Dates of management plan reviews.

The plan shall be implemented as approved, unless otherwise agreed in writing by the Mineral Planning Authority.

*Reason: To safeguard nature conservation interests.*

32. Within 6 months of the date of commencement of the development, a 10-year aftercare programme for the interim and final phases of the restoration work shall be submitted for the written approval of the Mineral Planning Authority. The programme, which shall be in accordance with the principles set out on drawing WROTH035 Rev A titled "Planting & Aftercare Plan" dated June 2020, and generally consistent with those in the extant aftercare scheme approved pursuant to condition (44) of planning permission TM/07/2545, shall be implemented as approved, unless otherwise agreed in writing by the Mineral Planning Authority.

*Reason: To ensure the effective after-use of the site and so that no long-term prejudice occurs to the AONB and Green Belt.*

Town and Country Planning (Development Management Procedure) (England) Order 2015

Where necessary the planning authority has engaged with the applicant to address and resolve issues arising during the processing and determination of this planning application, in order to deliver sustainable development, to ensure that the details of the proposed development are acceptable and that any potential impacts can be satisfactorily mitigated.

Summary of policies in the Development Plan relevant to the decision to grant planning permission:

This application has been determined in accordance with the Town and Country Planning Acts, and in the context of the Government's current planning policy guidance and the relevant Circulars, including the National Planning Policy Framework (NPPF) and associated planning practice guidance, together with the relevant Development Plan policies, including the following:

- **Kent Minerals and Waste Local Plan 2013-30 (as amended by the Early Partial Review) (September 2020)** – Policies CSM1, CSW1, CSW2, CSW11, DM1, DM2, DM3, DM4, DM5, DM10, DM11, DM12, DM13, DM14, DM16, DM18, DM19 and DM20.
- **Tonbridge and Malling Borough Council LDF Core Strategy (September 2007)** – Policies CP1, CP2, CP3, CP7, CP8, CP9, CP14, CP24 and CP25.
- **Tonbridge and Malling LDF Managing Development and the Environment DPD (April 2010)** – CC3, NE1, NE2, NE3, NE4, SQ1, SQ2, SQ4, SQ5, SQ6, SQ8 and DC6.

The summary of reasons for granting permission is as follows:

The County Council is of the opinion that the proposed development gives rise to no material harm, is in accordance with the development plan and that there are no material considerations that indicate that the decision should be made otherwise. The County Council also considers that any harm as a result of the proposed development would reasonably be mitigated by the imposition of the attached conditions.


Informatives

In addition, please be advised of the following informatives:

1. Please note the expiry date on your decision notice, along with all other conditions imposed. You are advised any conditions which require you to submit further details to the Mineral Planning Authority for approval may need to be formally discharged. It is the applicant's responsibility to ensure that such details are submitted. The County Council may consider it appropriate to carry out consultations and other procedures prior to giving a formal decision on these matters and it is unlikely that this will take less than 4 weeks. The above information should be considered when programming the implementation of the permission. Any development that takes place in breach of such conditions is likely to be regarded as unlawful and may ultimately result in the permission becoming incapable of being legally implemented. It is therefore strongly recommended that the required details be submitted to this Authority in good time so that they can be considered and approved at the appropriate time.
2. You are advised that planning permission TM/07/2545 (dated 8 June 2009) was issued following the completion of a legal agreement under Section 106 of the Town and Country Planning Act 1990 (dated 5 June 2009). The legal agreement secured (amongst other things): HGV signs on the A20 / Ford Lane; a new public footpath around the western end of the existing quarry north of the M20 linking footpaths MR184 and MR168; and the provision of a 10-year aftercare programme. You are further advised that the obligations set out in the legal agreement remain in full force and effect.

3. You are advised that the Mineral Planning Authority will expect the reports referred to in condition (8) to be accompanied by copies of the reports the operator is required to prepare pursuant to the Quarries Regulations 1999 and under the Environmental Permitting (England and Wales) Regulations 2016.

Dated this Tenth day of November 2020



(Signed).....  
Head of Planning Applications Group

KENT COUNTY COUNCIL  
PLANNING APPLICATIONS GROUP  
FIRST FLOOR  
INVICTA HOUSE  
COUNTY HALL  
MAIDSTONE  
KENT ME14 1XX

## Schedule 1

Schedule of Documents permitted under Planning Permission: TM/20/841

<b>Drawings / Number / Title:</b>
<ul style="list-style-type: none"><li>• Drawing 001 A titled "Site Location Plan" dated 2 March 2020</li></ul>
<b>Document Title / Description / Reference</b>
<ul style="list-style-type: none"><li>• Covering Letter from Quarry Plan dated 31 March 2020 (Reference: CST/Fern/Wrotham/FullApp/CoverLetter)</li><li>• Application for Planning Permission dated 28 February 2020</li><li>• Supporting Statement prepared by Quarry Plan dated March 2020</li><li>• Ecological Report (Version 3.0) prepared by Applied Ecology Ltd dated 27 March 2020</li><li>• Flood Risk Assessment (Reference QPL.FERNS.WROTHAM.FRA20.02) prepared by BCL Hydro dated 27 March 2020</li><li>• Hydrological &amp; Hydrogeological Impact Assessment (Reference QPL.FERNS.WROTHAM.H&amp;HIA20.02) ) prepared by BCL Hydro dated 25 March 2020</li><li>• Landscape and Visual Appraisal (Addendum to LVIA submitted in relation to planning permission ref. TM/07/2545) (Reference DB/Issue Version) prepared by DB Landscape Consultancy Ltd. dated 12 February 2020</li><li>• Noise Assessment Report (Reference 4981) prepared by WBM Acoustic Consultants dated 7 February 2020</li><li>• Western Slope Monitoring Summary (Reference 00484-200221/GEW/r0) prepared by Quarry Design Ltd. dated 21 February 2020</li></ul>
<b>As amended and/or amplified by:</b>
<ul style="list-style-type: none"><li>• Letter from Quarry Plan dated 2 July 2020 (Reference: CST/Fern/Wrotham/FILetter)</li><li>• Dust Risk Assessment prepared by Quarry Plan dated June 2020</li><li>• Wrotham Quarry Regulation 33 Northern Extension Report (Reference 140720.v01) prepared by GWP Consultants dated 8 August 2014</li></ul>



- Regulation 33 Geotechnical Assessment Summary Management Report (Reference 00484-181120/GEW/r0) prepared by Quarry Design dated November 2018
- Drawing WROTH032 Rev 0 titled "Interim Restoration Plan" dated November 2019
- Drawing WROTH033 Rev A titled "Main Quarry Area Final Restoration Plan" dated June 2020
- Drawing WROTH034 Rev A titled "Main Quarry Final Restoration Plan Indicative Cross Sections" dated June 2020
- Drawing WROTH035 Rev A titled "Main Quarry Area Planting & Aftercare Plan" dated June 2020
- Drawing WROTH028 Rev 0 titled "Main Quarry – Interim Restoration Landform and Indicative Cross Sections" dated June 2019
- Drawing WROTH029 Rev 0 titled "Main Quarry – Interim Restoration Landform: Fill Depths Required" dated June 2019
- Letter from Quarry Plan dated 11 August 2020 (Reference CST/Fern/Wrotham/FullApp/VolumeClarification)

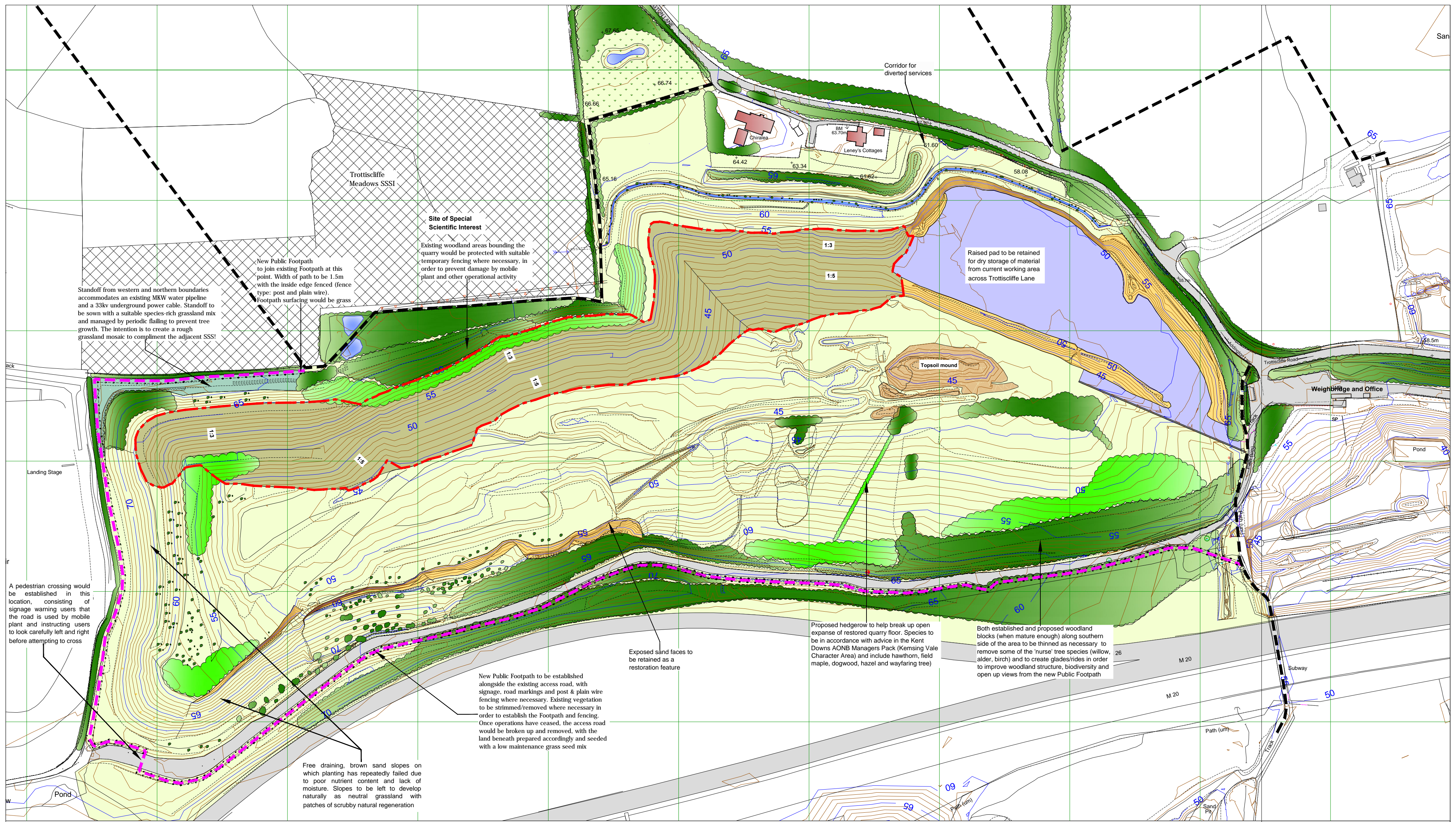
## TOWN AND COUNTRY PLANNING ACT 1990

### NOTIFICATION TO BE SENT TO AN APPLICANT WHEN A LOCAL PLANNING AUTHORITY REFUSE PLANNING PERMISSION OR GRANT IT SUBJECT TO CONDITIONS

#### Appeals to the Secretary of State

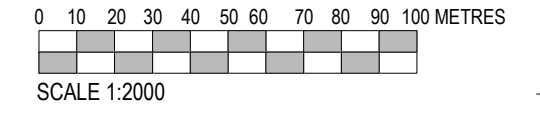
- If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- If you want to appeal against your local planning authority's decision then you must do so within 6 months of the date of this notice.
- If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate ([inquiryappeals@planninginspectorate.gov.uk](mailto:inquiryappeals@planninginspectorate.gov.uk)) at least 10 days before submitting the appeal. Further details are on GOV.UK.
- Appeals can be made online at: <https://www.gov.uk/planning-inspectorate>. If you are unable to access the online appeal form, please contact the Planning Inspectorate to obtain a paper copy of the appeal form on tel: 0303 444 5000.
- The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.





KEY	
	APPLICATION BOUNDARY
	INTERIM RESTORATION CONTOURS (@ 1m INTERVALS)
	EXISTING WOODLAND AND HEDGEROWS
	PROPOSED TREE/SHRUB PLANTING
	EXISTING SCRUBBY VEGETATION NATURALLY REGENERATED ON BROWN SAND SLOPES
	EXISTING NEUTRAL GRASSLAND
	PROPOSED NEUTRAL GRASSLAND
	SPECIES RICH GRASSLAND
	EXISTING RAISED PAD TO BE RETAINED FOR OPERATIONAL PURPOSES
	ADJACENT SITE OF SPECIAL SCIENTIFIC INTEREST
	EXISTING PUBLIC FOOTPATH
	PROPOSED NEW FOOTPATH ROUTE INCLUDING POST & PLAIN WIRE FENCING
	BOUNDARY OF AREA SUBJECT TO PROPOSED BUTTRESS STABILISATION WORKS

Received - 2 July 2020  
 Planning Applications Group



Client **FERNIS**

Site **WROTHAM QUARRY**

Project **SITE RESTORATION**

Drawing Title **MAIN QUARRY AREA - INTERIM RESTORATION PLAN**

Date **NOVEMBER 2019** Drawing No. **WROTH032**

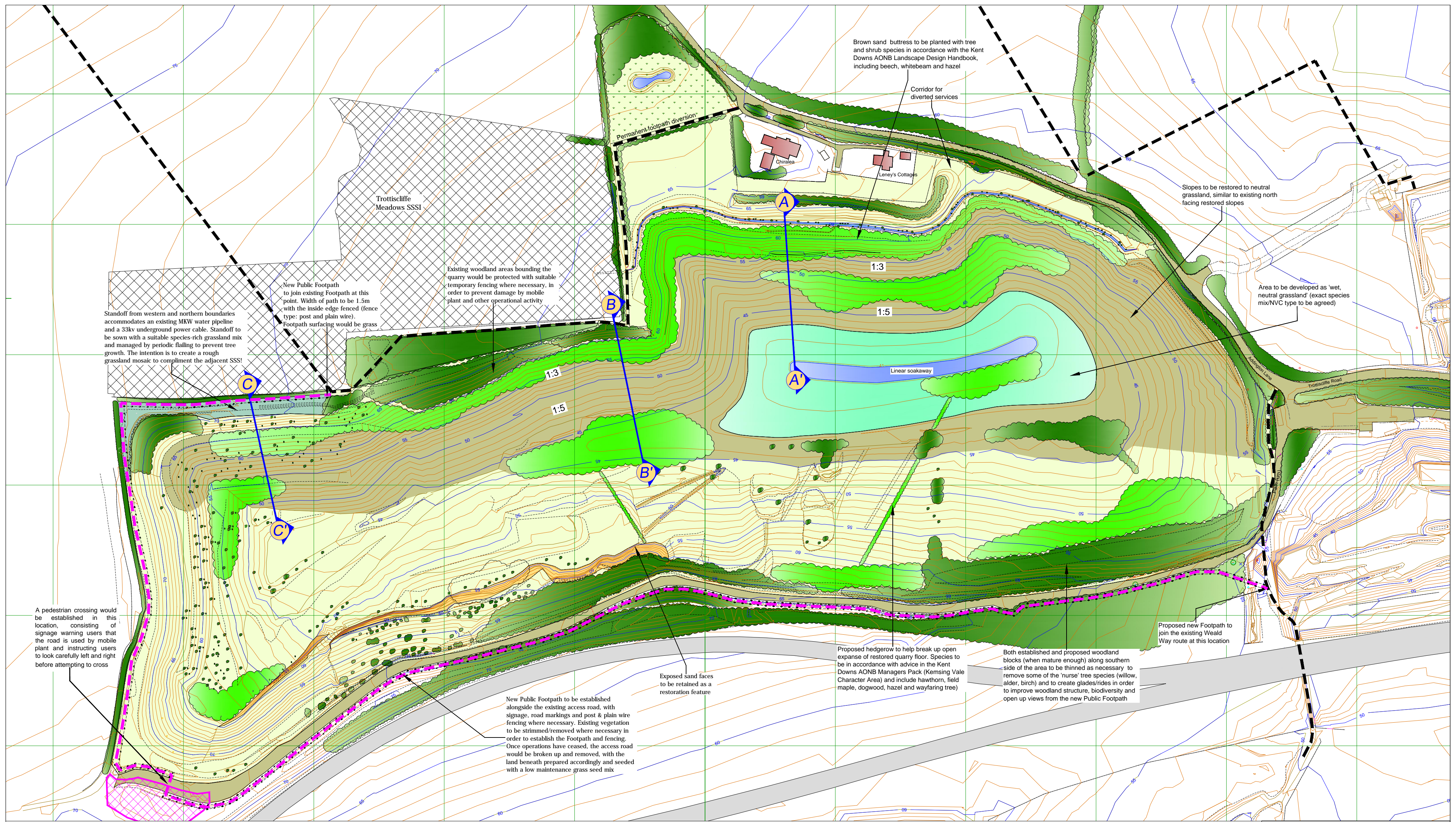
Scale **1:2,000 @ A2** Revision **0**

File Ref **1911\_020\_001\_WROTH032**

29 DALE LODGE ROAD  
 SUNNINGDALE  
 BERKSHIRE  
 SL5 0LY  
 T: 01344 624 709  
 M: 07736 083 383  
 david@dblc.co.uk  
 www.dblc.co.uk

**DB Landscape Consultancy**





Standoff from western and northern boundaries accommodates an existing MKW water pipeline and a 33kv underground power cable. Standoff to be sown with a suitable species-rich grassland mix and managed by periodic flailing to prevent tree growth. The intention is to create a rough grassland mosaic to compliment the adjacent SSSI!

New Public Footpath to join existing Footpath at this point. Width of path to be 1.5m with the inside edge fenced (fence type: post and plain wire). Footpath surfacing would be grass

Existing woodland areas bounding the quarry would be protected with suitable temporary fencing where necessary, in order to prevent damage by mobile plant and other operational activity

Brown sand buttress to be planted with tree and shrub species in accordance with the Kent Downs AONB Landscape Design Handbook, including beech, whitebeam and hazel

Slopes to be restored to neutral grassland, similar to existing north facing restored slopes

Area to be developed as 'wet, neutral grassland' (exact species mix/NVC type to be agreed)

A pedestrian crossing would be established in this location, consisting of signage warning users that the road is used by mobile plant and instructing users to look carefully left and right before attempting to cross

New Public Footpath to be established alongside the existing access road, with signage, road markings and post & plain wire fencing where necessary. Existing vegetation to be trimmed/removed where necessary in order to establish the Footpath and fencing. Once operations have ceased, the access road would be broken up and removed, with the land beneath prepared accordingly and seeded with a low maintenance grass seed mix

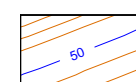



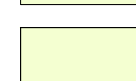


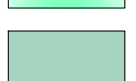


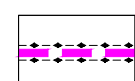


Exposed sand faces to be retained as a restoration feature

Proposed hedgerow to help break up open expanse of restored quarry floor. Species to be in accordance with advice in the Kent Downs AONB Managers Pack (Kemsing Vale Character Area) and include hawthorn, field maple, dogwood, hazel and wayfaring tree

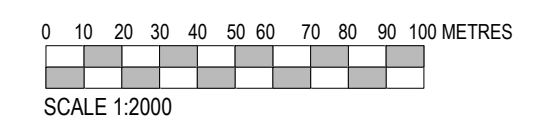
Both established and proposed woodland blocks (when mature enough) along southern side of the area to be thinned as necessary to remove some of the 'nurse' tree species (willow, alder, birch) and to create glades/rides in order to improve woodland structure, biodiversity and open up views from the new Public Footpath

Proposed new Footpath to join the existing Weald Way route at this location

**KEY**

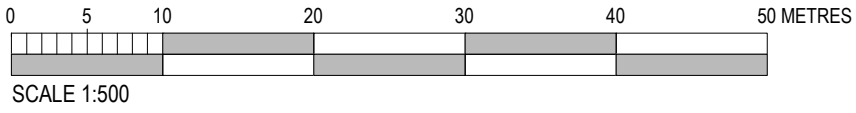
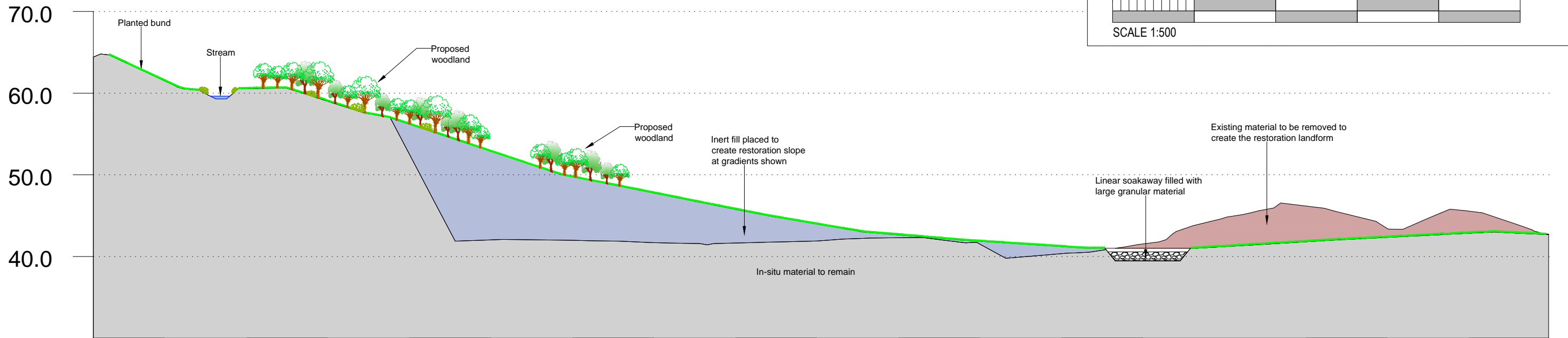
-  INTERIM RESTORATION CONTOURS (@ 1m INTERVALS)
-  EXISTING WOODLAND AND HEDGEROWS
-  PROPOSED TREE/SHRUB PLANTING
-  EXISTING SCRUBBY VEGETATION NATURALLY REGENERATED ON BROWN SAND SLOPES
-  EXISTING NEUTRAL GRASSLAND
-  PROPOSED NEUTRAL GRASSLAND
-  PROPOSED WET NEUTRAL GRASSLAND
-  EXISTING SPECIES RICH GRASSLAND
-  ADJACENT SITE OF SPECIAL SCIENTIFIC INTEREST
-  EXISTING PUBLIC FOOTPATH
-  PROPOSED NEW FOOTPATH ROUTE INCLUDING POST & PLAIN WIRE FENCING
-  BOUNDARY OF AREA SUBJECT TO PROPOSED BUTTRESS STABILISATION WORKS
-  CROSS SECTIONS A-A', B-B' & C-C' (Refer to Drawing No. WROTH034)

Received - 2 July 2020  
Planning Applications Group

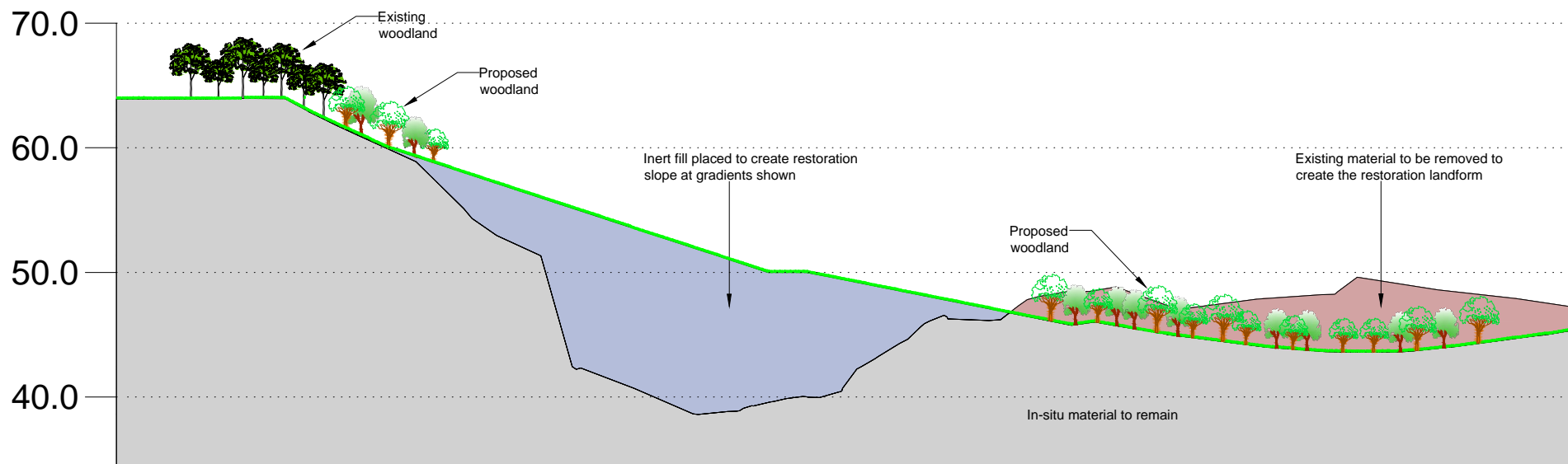


Client			
Site	WROTHAM QUARRY		
Project	SITE RESTORATION		
Drawing Title	MAIN QUARRY AREA - FINAL RESTORATION PLAN		
Date	JUNE 2020	Drawing No.	WROTH033Rev.A
Scale	1:2,000 @ A2		
File Ref	2006_020.001_WROTH033Rev.A	Revision	A
29 DALE LODGE ROAD SUNNINGDALE BERKSHIRE SL5 0LW T: 01344 624 709 M: 07736 083 383 david@dblc.co.uk www.dblc.co.uk			
			

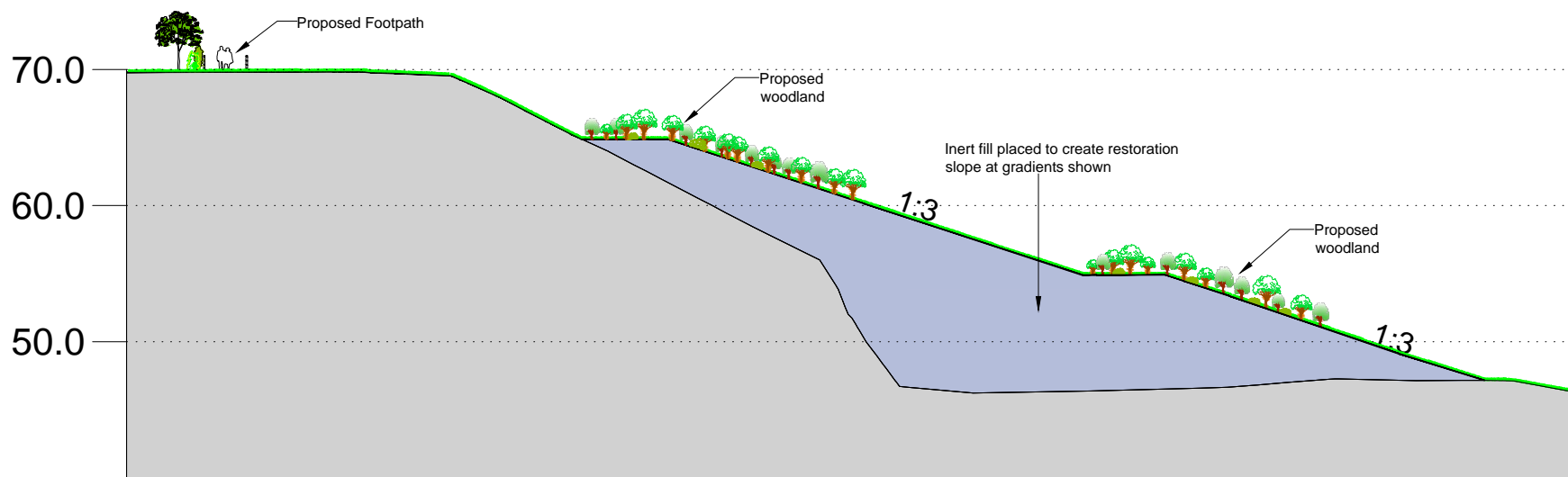




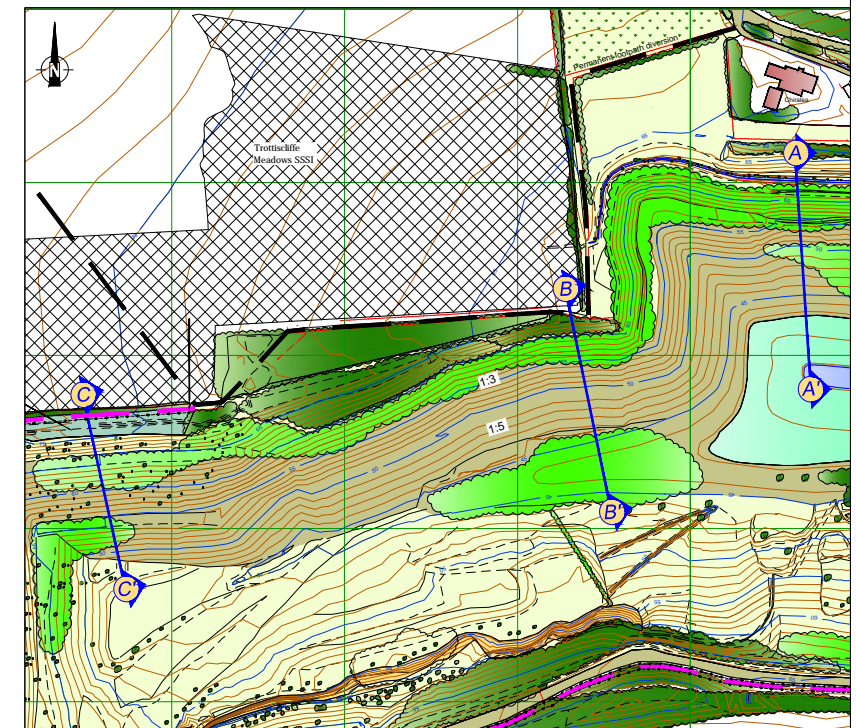
**Section A - A**



**Section B - B**







**Section C - C**



**Section Location Plan**

**KEY**

-  AREAS TO BE FILLED WITH RESTORATION MATERIAL AND SOIL TO ACHIEVE RESTORATION LEVELS
-  EXISTING LAND TO BE REMOVED TO ACHIEVE RESTORATION LEVELS
-  EXISTING WOODLAND VEGETATION
-  PROPOSED WOODLAND VEGETATION

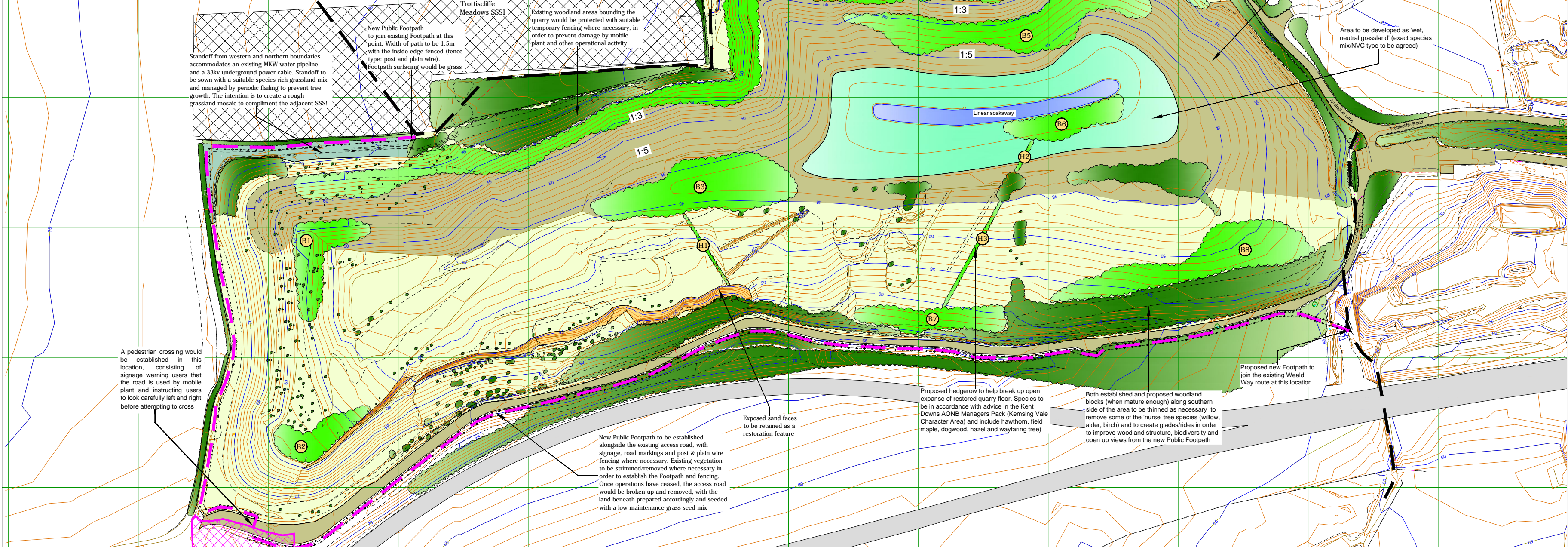
Received - 2 July 2020  
Planning Applications Group

Client		
Site	WROTHAM QUARRY	
Project	SITE RESTORATION	
Drawing Title	MAIN QUARRY - FINAL RESTORATION PLAN - INDICATIVE CROSS SECTIONS	
Date	JUNE 2020	Drawing No. WROTH034Rev.A
Scale	1:500 @ A3	
Dwg Ref	2006_020.001_WROTH034Rev.A	Revision   A
29 DALE LODGE ROAD SUNNINGDALE BERKSHIRE SL5 0LY T: 01344 624 709 M: 07736 083 383 david@dblc.co.uk www.dblc.co.uk		
		



Block/Hedge		B1	B2	B3	B4	B5	B6	B7	B8	H1	H2	H3			
Area m <sup>2</sup> /Length m		2150	1400	4950	1.4ha	5500	1600	1900	4600	66m	28m	93m			
Total no. of plants		350	225	800	2300	880	260	300	740	330	140	465			
Species	Common Name	Size/cm	Protection & support										Total		
<b>Primary Tree Species</b>															
<i>Acer Camestres</i>	Field Maple	60-80"	60cm Tubex Shelter/90cm stake	35	20	75	200	75	25	75	25	5	40	600	
<i>Fagus sylvatica</i>	Common Beech	60-80"	60cm Tubex Shelter/90cm stake	25	15	50	300	60	15	25	50			540	
<i>Quercus robur</i>	Oak	60-80"	60cm Tubex Shelter/90cm stake	25	20	75	200	75	25	65	5		25	540	
<b>Secondary Tree Species</b>															
<i>Carpinus betula</i>	Hornbeam	40-60"	60cm Tubex Shelter/90cm stake	25	15	50	150	60	20	25	50			395	
<i>Crataegus monogyna</i>	Hawthorn	40-60"	60cm Spiral Guard/90cm cane	35	25	75	200	90	25	25	50	130	65	895	
<i>Prunus avium</i>	Wild Cherry	40-60"	60cm Tubex Shelter/90cm stake	35	20	75	175	50	25	25	50			455	
<i>Prunus spinosa</i>	Blackthorn	40-60"	60cm Spiral Guard/90cm cane	25	20	50	200	75	25	35	75	130	65	875	
<i>Sorbus aria</i>	Whitebeam	40-60"	60cm Tubex Shelter/90cm stake	25	15	50	125	60	15	25	50			365	
<i>Taxus baccata</i>	Yew	40-60"	60cm Tubex Shelter/90cm stake	10		25	50	25		25				135	
<b>Understorey Shrubs</b>															
<i>Cornus sanguinea</i>	Dogwood	40-60"	60cm Tubex Shelter/90cm stake	25	20	75	175	75	25	25	75			495	
<i>Corylus avellana</i>	Hazel	40-60"	60cm Tubex Shelter/90cm stake	35	25	75	200	100	25	25	75	25	5	615	
<i>Ilex aquifolium</i>	Holly	2 litre pot**	60cm Netlon ring/90cm stake	25	15	75	190	75	20	25	50	15		615	
<i>Viburnum lantana</i>	Wayfaring Tree	40-60"	60cm Tubex Shelter/90cm stake	25	15	50	135	60	15	15	50			365	
<b>Total</b>				<b>350</b>	<b>225</b>	<b>800</b>	<b>2300</b>	<b>880</b>	<b>260</b>	<b>300</b>	<b>740</b>	<b>330</b>	<b>140</b>	<b>465</b>	<b>6790</b>

\* Bare root stock  
\*\* Container grown stock  
Stock would be of local provenance where possible

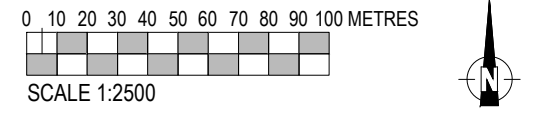


**KEY**

- INTERIM RESTORATION CONTOURS (@ 1m INTERVALS)
- EXISTING WOODLAND AND HEDGEROWS
- PROPOSED TREE/SHRUB PLANTING
- PROPOSED HEDGEROW PLANTING
- EXISTING SCRUBBY VEGETATION NATURALLY REGENERATED ON BROWN SAND SLOPES
- EXISTING NEUTRAL GRASSLAND
- PROPOSED NEUTRAL GRASSLAND
- PROPOSED WET NEUTRAL GRASSLAND
- EXISTING SPECIES RICH GRASSLAND
- ADJACENT SITE OF SPECIAL SCIENTIFIC INTEREST
- EXISTING PUBLIC FOOTPATH
- PROPOSED NEW FOOTPATH ROUTE INCLUDING POST & PLAIN WIRE FENCING
- AREA TO WHICH REPTILES FROM N. EXTENSION WERE RELOCATED TO

NOTE: THIS DRAWING IS BASED ON THE FINAL RESTORATION PLAN (DRAWING NO. WROTH033)

Received - 2 July 2020  
Planning Applications Group



**Typical Annual Planting Maintenance Programme**

Time of Year	No. of Visits	Operations to be Carried Out as Necessary
Late April to early June	1	1) Glyphosate spot spray (woodland blocks) or band spray (hedge) 2) Selective noxious weed spray within block (if necessary) 3) Re-firm and re-adjust spirals/guards and supports. Pull grass growing inside spirals/guards
Mid August to mid October	1 (Provisional, if Necessary)	1) Glyphosate spot spray (woodland blocks) or band spray (hedge) 2) Selective noxious weed spray within block (if necessary)
November to March	1	1) Replacement of planting failures 2) Re-firm and re-adjust spirals/guards and supports. Pull grass growing inside spirals/guards 3) Stock fencing checked and repaired

**RESTORATION AIMS**  
The general aim of the restoration scheme is to create a restored site which, following an appropriate aftercare period and woodland maturation, will appear naturalistic in the landscape and will be in character with the wider Kent Downs AONB. To achieve this, proposals have been designed with reference to the Kent Downs AONB Design Manual and advice by Kent County Council in relation to grassland types, tree and hedgerow species, plant spacing/pattern and various other restoration details.

**Cultivation and Grass Seeding**  
Following replacement of soil by excavator and dump truck to approved depths using the 'loose tipped' method in accordance with 'Sheet 4: Soil Replacement with Excavators and Dump Trucks' of MAFF's (now DEFRA) 'Good Practice Guide for Handling Soils', the land would be suitably cultivated to create a fine, firm seedbed. If necessary, replaced soil would be tested for pH and N,P,K and Mg levels to determine its physical properties and inform the final choice of grass seed (provisional mix as set out below). The advice of Kent Wildlife Trust would be sought at the time regarding possible local sources of suitable grass seed.

**Proposed Neutral Grassland**  
It is envisaged that these areas would be seeded with the following Basic General Purpose Meadow Mixture (Mix EM1 from Emorsgate Seeds) which is suitable for a wide range of soil types. Sowing rate 5g/sq.m (20kg/acre):

- Main Grasses (80%):
- 28% Crested Dogstail
  - 24% Slender Creeping Red Fescue
  - 16% Smooth Stalked Meadow Grass
  - 8% Common Bent
  - 4% Smaller Cat's Tail

- Wild Flower Component (20%):
- 3% each of Wild Carrot, Lady's Bedstraw, 2.5% each of Musk Mallow, Salad Burnet, Common Knapweed, 2% each of Oxeye Daisy, Red Campion, 1.2% Common Sorrel, 1% Ribwort Plantain, 0.3% Selfheal.

**Proposed Wet Neutral Grassland**  
It is envisaged that this lower lying area around the linear soakaway would be seasonally inundated and/or wet/damp although it may well dry out entirely during periods of low rainfall. The grassland would need to be resilient to these types of seasonal fluctuations. A suitable

mix would be the following meadow grass mixture for wet soils (Mix EG8 from Emorsgate Seeds). Sowing rate 5g/sq.m (20kg/acre):

- 40% Slender Creeping Red Fescue
- 30% Crested Dogstail
- 12.5% Common Bent
- 3.75% each of Meadow Foxtail, Sweet Vernal Grass, Quaking Grass and Meadow Barley
- 2.5% Tufted Hair Grass

**Hedgerow Planting (H1 - H3)**  
Hedgerow planting preparation will consist of herbicide application (eg. glyphosate) along the planting strip, if necessary, followed by rotovation to create a suitably cultivated route. Hedgerow will be planted with native species of local provenance if possible in accordance with the Schedule of Plant Material. Plants will be notch planted at 5 plants per metre in double staggered rows, with 50cm between rows and 30cm between plants in each row. Species other than hawthorn or blackthorn will be randomly spaced in groups of 3 - 5 throughout the hedgerow.

**Woodland Block Planting (B1 - B9)**  
Woodland blocks will be planted with species in accordance with the Schedule of Plant Material. The planting would comprise native species (of local origin where possible) containing primary/secondary tree species and shrubby understorey/woodland edge species in order to establish a range of vegetation types and sizes throughout the planting blocks. Plants would be planted at centres of between 2.0m and 3.0m (i.e. to give an average of 2.5m centres) and randomly located as opposed to adhering to a strict planting grid, which can look unnatural. Plants would be planted in random groups of 3 - 7 and the outer edge of each block would consist mainly of more shrubby species to encourage a gradual variation from a shrubby woodland edge through to the main woodland block.

**Plant Protection**  
All planting stock will be protected in accordance with the Schedule of Plant Material. All 60cm spiral guards will be supported by 90cm x 12/14lbs bamboo canes. All 60cm Tubex shelters and Netlon rings will be supported by 90cm x 32mm x 32mm treated softwood or cleft chestnut stake. No deer are thought to be present on site currently, but if evidence suggests otherwise, the 60cm Tubex shelters will be replaced with 1.2m shelters as necessary. If grassland is to be managed by periodic grazing, the addition of stockproof g.

fencing around young woodland and hedgerows will be necessary, as well as other animal husbandry infrastructure such as drinking facilities. Broadleaf root dip (or equivalent) to be used on all planting stock prior to planting.

**AFTERCARE**  
The restored grassland and planting areas will be subject to a 10 year aftercare scheme, the details of which will be agreed with KCC as necessary. However, the following broad aftercare operations are likely to be required.

It is very likely that weeds would appear during the first year following sowing and these need to be cut regularly (min height 50mm and not if ground nesting birds present) and removed to prevent them from competing with the developing wildflower species. Perennials are unlikely to flower during the first season but annuals may flower so should be left to set seed if possible, until approximately late July/early August, when another cut would be appropriate. Grazing is usually not appropriate during the first establishment year, while the sward is developing.

The following years would see faster growing perennials appear with slower growing species developing later, providing more species diversity. It is usual to have one main late summer/early autumn hay cut, but this can sometimes be staggered for different areas at different times, from late June to the end of August. In between the main hay cut (if taken) low density, selective grazing is the best way to manage the emerging sward as it benefits sward structure and development.

The mowing regime and timings (if used), stock type/numbers and grazing frequency would all be discussed on a regular basis between the operator, grazier and KCC as necessary, with the management regime tweaked when required in response to the success of the developing grassland areas.

Note: a useful guidance document of relevance to the intended type of grassland creation is the Forest Research BPG note 17: Lowland Neutral Grassland - Creation and Management in Land Regeneration. The document is available at the following webpage: <https://www.forestresearch.gov.uk/tools-and-resources/urban-regeneration-and-greenspace-partnership/urban-regeneration-and-greenspace-partnership-resources/best-practice-guidance/>

Grassland areas that do not contain wildflowers (i.e. the wet neutral grassland area) can be selectively sprayed in necessary to control of noxious or other undesirable broadleaved weeds. This herbicide can be used as a last resort and by knapsack application using selective herbicides such as MCPA, Grazon 90 or 2, 4-D at the manufacturers recommended rate, ideally in early/mid spring. If weed growth persists, a further application would be carried out later in the growing season, if necessary. No fertilisers are to be applied to any areas at any time.

**Woodlands and Hedgerows** - Woodland blocks and hedgerows will be kept weed free by the application of glyphosate herbicide (e.g. Roundup) at least twice every year, in early spring and early/mid summer, for at least the first three seasons, with review thereafter. Hedgerows will be strip sprayed along their length and within planting blocks all grass and weeds in min. 0.8m diameter around each tree will be spot sprayed. Tall and noxious weeds within planting areas will be controlled by selective spraying or strimming if necessary (although strimming can encourage more vigorous weed growth). All chemical applications will be in accordance with guidelines as set out in the Pesticide Control Act 1996. Woodland along southern side of the site to be thinned as necessary (selected nurse tree species removed) to create glades/rides in order to improve woodland structure, benefit biodiversity and open up views for users of the new Public Footpath.

Plants, guards and canes which become loose, over-tight or broken will be re-firmed and adjusted on an annual basis. All planting/seeding failures would be replaced on an annual basis, during the first five years of aftercare, to ensure at least 100% stocking. All replacements will use plants of the same species or other such species as may be agreed with KCC. For aftercare years five - ten, stocking density would be annually monitored and kept to minimum 85%. All natural regeneration of desirable species arising within planting areas will be accepted. In aftercare years five - ten thinning requirements would be assessed and operations undertaken as necessary to remove nurse species and create scalloped edges to planting compartments to let in light. Refer to the Typical Annual Planting Maintenance Programme table beneath the Key for timings of operations summarised above.

**Annual Aftercare Meetings and Report Preparation**  
The Operator will submit reports for the previous 12 months and proposals for the subsequent 12 months to the KCC. This information would be submitted prior to each annual aftercare inspection/site meeting, to be arranged preferably in early to mid spring, at the request of KCC.

Client: **FERNIS**

Site: **WROTHAM QUARRY**

Project: **SITE RESTORATION**

Drawing Title: **MAIN QUARRY AREA - PLANTING AND AFTERCARE PLAN**

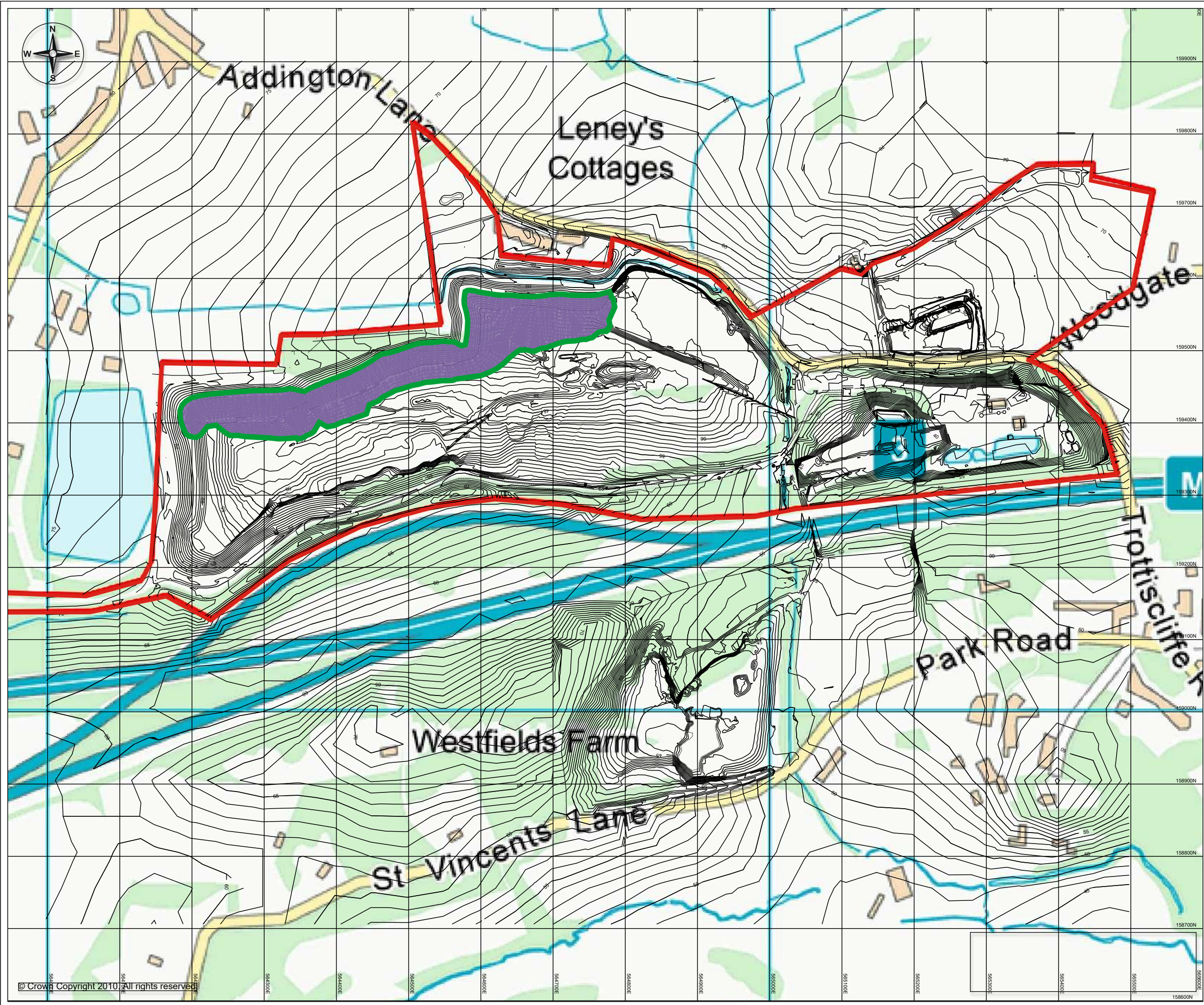
Date: **JUNE 2020** Drawing No. **WROTH035Rev.A**

Scale: **1:2,500 @ A2**

File Ref: **2006\_020.001\_WROTH035Rev.A** Revision: **A**

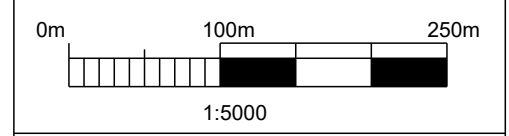
28 DALE LODGE ROAD  
SUNNINGDALE  
BERKSHIRE  
SL5 6LY  
T: 01344 624 709  
M: 07736 083 383  
david@dblc.co.uk  
www.dblc.co.uk





**Legend:**

- Wrotham Quarry Boundary
- Site boundary



Consultant:  
**Crestwood Environmental Ltd**  
 1 & 2 Nightingale Place  
 Pendeford Business Park  
 Wolverhampton  
 West Midlands  
 WV9 5HF  
 Tel: 01902 229563  
[info@crestwoodenvironmental.co.uk](mailto:info@crestwoodenvironmental.co.uk)  
<http://www.crestwoodenvironmental.co.uk/>



Client:  
**Quarryplan (GB) Ltd**

Site:  
**Wotham Quarry**

Drawing Title:  
**Site and OS Base Overlay**

Date: 19 Nov 2021	Scale: 1:5000 @ A3	Paper Size: A3 (420x297 mm)
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Drawn By: IS/ AF	Checked By: SB	Status: Final	Final Revision: -
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CAD Ref: CE-WQ1643 - DW01 - FINAL - v1.0	Drawing No. / Client Ref: <b>Figure 1</b>
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