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Waste Recovery Plan

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

Beam Quarry, Torrington, Devon, EX38 8JF

Report Reference: CE-BQ-1936-RP03-WRP-Final

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Produced by Crestwood Environmental Ltd.

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1 Introduction

1.1 Background

1.1.1 Crestwood Environmental Ltd has been commissioned by L J Developments 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 as well as soils and stones, for infilling and restoration purposes at Beam Quarry, Torrington, Devon, EX38 8JF (**the Site**).

1.1.2 The Site has operated as a working quarry since the 1930s and has benefitted from various planning permissions since the 1950s to permit the extraction of mineral, the infilling of inert waste material, recycling and to operate as a waste transfer station. Details of these planning permissions are provided below for reference.

- NJ/358, 09/05/1953, Working of minerals;
- NJ/982, 24/01/1963, Working of minerals;
- 01/40/0330/94, 26/04/1995, Extension of mineral workings, operation of a transfer station and disposal of imported and quarry wastes;
- 01/40/1321/98, 15/01/1999, Combines all three above permissions (superseded); and
- 1/0423/2014/CPZ, 05/09/2014, Determination of conditions in respect of old mineral permissions.

1.1.3 In accordance with the Environmental Act 1995, an updated set of planning conditions containing twenty-three conditions, was issued in September 2014 by Devon County Council (reference: 1/0423/2014/CPZ) which allow and control operational activities until 2055. The planning permission did not set any limits on the amount of mineral to be extracted nor on the quantities of inert infill or recycling rates.

1.1.4 Conditions within the planning permission concerning the waste recovery operation and the restoration and aftercare scheme for the Site stated:

Condition 16. Soils

"All soils stripped from the mineral site shall be stored separately so as to prevent them becoming mixed and shall be kept free from contamination and shall be used for covering and restoration work in accordance with a revised restoration and aftercare scheme described in Condition 17.

Reason: To ensure that suitable material is available to reinstate the mineral sites upon completion of operations."

Condition 17. Restoration and Aftercare Scheme

"*Within 5 years of the date of this decision or 12 months before cessation of winning and working of minerals (whichever the earliest), a revised scheme for the restoration and aftercare of the site to a mix of grassland, woodland and wetland habitats shall be submitted to the MPA for approval. The scheme shall specify the following:*

- *The proposed final slope/ bench profiles, landform and contours for the site, with all parts of the site to be restored following the cessation of mineral extraction.*
- *Timescales for implementation.*
- *Protection of geological features to maintain and enhance the County Geological Site.*
- *The arrangements for the proposed surface water drainage to include provision of wetland and pond areas.*
- *Landscaping details including:*

  - the location of planting to be undertaken; - the species to be planted;

- the size, types and number of each species to be planted;

- the method of planting and the spacing between plants; - seed mixes to be used; - the timescale of the planting;

- replacement of losses; - proposed means of rabbit/ stock proofing;

- details of any water features/ ponds.

- *Proposed details of the aftercare of the site setting out such steps as may be necessary to bring the land to the agreed uses.*

"The approved aftercare of the site shall be carried out for a maximum period of five years following the completion of the specified restoration scheme. The approved restoration and aftercare schemes shall be implemented on approval in accordance with the agreed timescales.

"Reason: To ensure appropriate restoration and aftercare and to secure against loss of amenity to the locality from unfinished works."

Condition 21. Earth Science Conservation

"The approved restoration scheme shall provide, where safe and practical, accessible exposures of the geological succession exposed in the permission area.

Reason: In the interests of amenity and earth science conservation."

1.1.5 In order to comply with these planning conditions in July 2019, a Pre-Application Advice Request was submitted to Devon County Council as mineral and waste planning authority seeking guidance on proposals for the restoration of the Site. In the response received from Devon in September 2019, the Council provided details of assessments required to accompany the restoration submission which included flood risk, ecology, landscape, highways and planning policy.

1.1.6 A detailed restoration submission was made in January 2021 which set out the details of soil storage, the restoration and aftercare of the site and the provision of safe access to geological exposures as required in the planning conditions.

1.1.7 The restoration details were approved in May 2021 (application number: 1/0140/2021/CPZ; ref: DCC/4223/2021) and conditional planning permission was granted by Devon County Council for the final extraction of stone and restoration of the quarry to be carried out.

1.2 Proposed Restoration Scheme

1.2.1 it is proposed seeks to complete the extraction of the remaining mineral (32,520 m^3, which equates to 87,804 tonnes at a conversion rate of 2.7 t/m^3) and extend the inert infill area to create an access track in order to enable safe access to geological exposures. Based on cross-sections along the profile of the proposed landform, the minimum amount of infill, inclusive of soils and subsoils, would be 96,996 m^3 or 145,494 tonnes at a conversion rate of 1.5 t/m^3. Reference should be made to Appendix 2 for Phasing Scheme and Cross-Sections.

1.2.2 The proposed restoration scheme has been compiled in accordance with the guidance received from Devon County Council in response to the Pre-Application Advice Request. The restoration proposals were amended to reduce the amount of infill required, large-scale infilling of the quarry (requiring 200,000m^3 or 300,000 tonnes) was no longer proposed and instead sufficient infill just to create a suitable access track was proposed

1.2.3 Given that the new proposal seeks to create an access track with inert material, the quantities of infill needed are significantly less than those specified in the initial proposal. This satisfies the Environmental Agency's guidance https://www.gov.uk/guidance/waste-recovery-plans-and-permits in terms of using the least amount of material possible to achieve final profiles.

1.2.4 A Working and Restoration Proposal, compiled on behalf of L J Developments Limited, was submitted to Devon County Council in January 2021 to discharge the conditions (as outlined above) and was approved in May 2021 (Application No: 1/0140/2021/CPZ). A copy of the Planning Permission is included,as Appendix 1.

1.2.5 Additionally, a Phasing Scheme has been prepared by quarrying consultants, QuarryDesign which details the timescales and quantities of mineral extraction and inert infilling works to take place. It is anticipated that the scheme will be completed in ten years with the final restoration stage achieved within eleven years of commencement.

1.2.6 The phases of works comprise two-year intervals with extraction of the existing mineral and infilling works progressing concurrently. Based on the amount of remaining mineral (32,520 m^3 (87,804 tonnes)), the phasing scheme has calculated that the extraction aspect of the project will be completed by the end of year six.

1.2.7 An up-to-date topographic survey is available for the Site. QuarryDesign have used the topographic survey and the restoration scheme to show proposed section lines and cross-sections along the Site and to calculate the volume of material that will be required to complete the restoration work as outlined in Paragraph 1.2.1.

1.2.8 The proposed Environmental Permit boundary is shown on Drawing No. CE-BQ-1936-DW01.

1.3 Site Drainage and Water Management

1.3.1 The existing water management in the eastern half of the quarry involves the drainage of surface runoff towards a central sump from which excess water is discharged to the stream via buried pipes. In the western half of the quarry water is allowed to accumulate on the quarry floor until it reaches a height that permits overflow to the stream via a gap in the stream bank.

1.3.2 During infilling, ground profiles within the quarry void will be constantly changing. Until year seven, water management will be largely similar to the existing system, whereby runoff gravitates to the southern boundary of the quarry and is prevented from entering the stream by the remnant stream bank.

1.3.3 An exception is at the small gap in the stream bank towards the western end of the quarry where runoff can enter the stream. The existing surface water collection sumps / ponds at the gap in the stream bank and within the quarry floor towards the east will be augmented by construction of a new attenuation lagoon in the southeast corner of the quarry void.

1.3.4 This will have a base level of 18.5 mAOD and capacity of 3,000 m^3 and will serve as a water storage feature and as a silt-settlement facility. In year seven, infilled ground profiles will close the gap in the stream bank and direct all runoff from the quarry void to the new attenuation lagoon. The existing surface water collection ponds will be removed.

1.3.5 Discharges from the new attenuation lagoon into the stream will be constrained to greenfield rates by an overflow pipe or weir. Following completion of infilling, surface runoff from the restored quarry will continue to be attenuated by the new lagoon.

1.3.6 Once the restoration scheme is completed, the attenuation lagoon will remain and function to retain surface runoff albeit at a reduced capacity and de-silting / dredging operations will cease. In the final stages of the restoration programme, the lagoon will be deepened and its banks reprofiled to a shallower gradient. This will not only enhance visual amenity but will facilitate in biodiversity.

1.4 Regulatory Guidance

1.4.1 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.

1.4.2 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*."

1.4.3 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'.

1.4.4 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 ANS SUBSOILS WITH NON- WASTE**			
INCOME				**INCOME**			
Item	**Fee per tonne**	**Total tonnage [1]**	**Total**	**Item**	**Fee per tonne**	**Total tonnage**	**Total**
Gate fee from waste import	£5.00	145,494	£727,470	-	-	-	-
		Overall Income	**£727,470**			**Overall Income**	
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	145,494	£290,988	Cost of importing unprocessed, virgin subsoils and soils	£10.00	145,494	£1,454,940
Cost of installing 5 No gas monitoring boreholes	-	-	£2,500 [2]	Cost of installing 5 No gas monitoring boreholes	-	-	-
Red diesel costs to level and compact the waste	-	-	£40,800 [3]	Red diesel costs to level and compact the non-waste	-	-	£40,800 [3]
Staff costs to complete work	-	-	£400,000 [4]	Staff Costs to complete work	-	-	£400,000 [4]
Laboratory testing costs	-	-	£7,500 [5]	Laboratory testing costs	-	-	-
Permitting costs	-	-	£ 35,738[6]	Permitting costs	-	-	-
		Overall Cost	**£777,526**			**Overall Cost**	**£1,895,740**
		OVERALL PROFIT	**- £50,056 (loss)**			**OVERALL PROFIT**	**- £1,895,740 (loss)**

[1] Quantity of material required = 96,996m^3, assume a density of 1.5 tonnes per m^3, equates to 145,494tonnes
[2] Area of Site = 1.8 hectares. Assume 5 shallow gas monitoring boreholes will be installed (2 per hectare) and monitored every month for methane, carbon dioxide, oxygen and atmospheric pressure.
[3] Red diesel costs = £0.68 per litre. Assume 60,000 litres of diesel used to complete site works = £11,000
[4] Based on estimated cost of staff completing the work (including Technically Competent Person and machine driver to level and compact materials).
[5] Assume WAC testing required every 5,000 tonnes of inert soil and subsoil = 30 samples for 147,515 tonnes. Lab costs are £250 per sample, equates to £7,500
[6] Assume EA application fee of £10,438 and annual subsistence fee of £2,530. Assume work complete and permit surrendered in ten years. Total fees to EA = £30,000.

2.1.3 Table 1 shows that restoring the Site with non-waste achieves a deficit of circa - £1,895,740.

2.2 Financial Gain By Using Waste Materials

2.2.1 Table 1 shows that restoring the Site with waste also generates a deficit of circa - £50,056 albeit substantially less than the deficit generated by using non-waste.

2.2.2 Table 1 demonstrates that the restoration works are more financially viable using waste than non-waste.

3 Benefit of Work

3.1 Obligation to restore land

3.1.1 By extracting the remaining mineral reserve, the sterilisation of this commodity is avoided. The completion of the construction of the access track and the extension of the infill area to the west is dependent on meeting the obligations of the proposed and approved landscaping scheme.

3.1.2 This requires the extraction of 32,520m^3 of mineral in addition to the deposit and landscaping of 96,996 m^3 of inert waste, soils and subsoils sourced from construction and groundwork arisings to create an access track along the quarry face.

3.1.3 A total of 10,000 m^3 of soils and subsoils will be recovered from the inert material and stored separately in order to avoid the mixing of the two as well as to ensure the avoidance of contamination. They will be used in the final phase of restoration following completion of the final levels for the purposes of covering the landform and the quarry floor as a substrate for the planting of vegetation. This satisfies Condition 16 (Soils) of the planning permission (refer to Paragraph **Error! Reference source not found.**)

3.1.4 Native grassland and vegetation will be planted across the landform as part of the restoration project as detailed in the Landscape Management and Aftercare Scheme and shown on the Restoration Plan in Appendix 3, which will visually enhance the local area, provide biodiversity and to blend in with the immediate landscape. This satisfies Condition 17 of the planning permission (refer to Paragraph 1.2.5).

3.1.5 Plates 1 and 2 below show the Site in context with the wider landscape. Once restored, the landform will be sympathetic with the natural topography and vegetation species in the environ.

3.1.6 By following The Phasing Scheme, the Landscape Management and Aftercare Scheme and the Working and Restoration Proposals prepared on behalf of the client by QuarryDesign, David Jarvis Associates and L J Developments respectively, the restoration scheme also satisfy Condition 17 of the planning permission insofar as they ensure appropriate restoration and aftercare and secure against loss of amenity to the locality from unfinished works.

3.1.7 The initial restoration proposal involved the infilling of the entire void space of the quarry. By doing so, this would not discharge Condition 26 of the planning permission dated 17 May 2021 (Application Number: 1/0140/2021) concerning earth science conservation.

3.1.8 The revised proposal to extend the infill area to the west so as to construct an access track not only reduces the amount of inert material required but also allows safe access to the geological exposures at the Site which are defined as a Devon County Geological Site as well as being defined as a Regionally Important Geological and Geomorphological Site (RIGS) due to the presence of interesting strata such as sharp anticlines and synclines, turbidite sandstones and pencil shales. The proposal therefore satisfies Condition 26 of the planning permission (refer to Paragraph 1.2.5).

3.1.9 Plates 3, 4 and 5 show the geological features of interest that will be preserved and enhanced once the access track aspect of restoration proposal is complete.

Plate 1 The Site in context with the immediate and wider landscape

Plate 2 An aerial view of the Site looking West

Plate 3 The western edge of the Site with geological exposures

Plate 4

Plate 5

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 solely by L J Developments Ltd in the local North Devon area.

4.1.2 The maximum total tonnage to be deposited to restore the Site will be 145,494 tonnes (96,996 m^3).

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**
01 01	**Wastes from mineral excavation**
01 01 02	Wastes from mineral excavation
01 04	**Wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	Waste gravel and crushed rock other than those containing dangerous substances
01 04 09	Waste sand and clays
10 12	**Wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 13	**Waste from the manufacture of cement, lime and plaster and articles and products made from them**
10 13 14	Waste concrete
17 01	**Concrete, bricks, tiles and ceramics**
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
17 05	**Soil, stones and dredging spoil**
17 05 04	Soils and stones
19 12	**Wastes from waste water treatment plants not otherwise specified**
19 12 09	Minerals (for example sand and stones)
19 12 12	Soil substitutes other than that containing dangerous substances
20 02	**Garden and parks wastes (including cemetery wastes)**
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
(*) Selected construction and demolition waste (C & 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 & 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 & D waste from constructions, treated, covered or painted with materials, containing dangerous substances in significant amounts.		

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

Component	***Symbol***	***L/S = 10l/kg***
		mg/kg dry substance
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)	SO42-	1,000
Phenol index	PI	1
Dissolved Organic Carbon (b)	DO	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 C0 (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 the Site 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 and the approved landscaping profile, QuarryDesign has calculated the minimum quantity of material required based on the up-to-date topographic survey, 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 thePhasing Scheme, Appendix 2.

5.1.3 A total volume of 96,996 m^3 of material is needed to achieve the approved restoration profile which is substantially less than the amount stipulated in the initial proposal which received a Pre-Application Advice response from Devon County Council. It would not be possible to provide an access to the site of geological interest 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[1], 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 Site restoration works will be carried out in accordance with the Planning Permission and approved restoration scheme.

[1] 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

7.1.2 Restoration works will be subject to supervision by a technically competent manager with an appropriate WAMITAB Certificate. Only suitable inert materials, predominantly construction and groundworks material which contain soils and subsoils will be used in the works, placed and compacted in accordance with the cross sections shown in the Phasing Scheme 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 proposed and approved 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 approved restoration scheme, including compliance with the approved landscaping scheme to enable the construction of an access track to enable access to important geological features and to create an attractive landscaped area for the benefit of the public and biodiversity by planting native species of woodland and grassland.

8.1.4 By retaining and modifying the attenuation lagoon, this feature will serve as an important visual amenity to facilitate in terrestrial and aquatic biodiversity.

8.1.5 The extraction of the remaining mineral resource will protect against the unnecessary sterilisation of a valuable mineral reserve.

8.1.6 The minimum volume of material needed to achieve the key objectives of the scheme has been calculated and justified within this Waste Recovery Plan.

8.1.7 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.

Appendices

Appendix 1 Planning Permission (ref DCC/4223/2021)

Torridge District Council
Application Number: 1/0140/2021/CPZ
Devon County Council Ref. DCC/4223/2021
(Please quote these references in correspondence)

COUNTY OF DEVON

TOWN AND COUNTRY PLANNING ACT 1990
THE TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015
TOWN AND COUNTRY PLANNING (APPLICATIONS) REGULATIONS 1988
TOWN AND COUNTRY PLANNING GENERAL REGULATIONS 1992

GRANT OF CONDITIONAL PLANNING PERMISSION

To: **Mr Steve Lamb, Quarryplan (GB) Ltd, 12A The Borough Mall, Wedmore, Somerset, BS28 4EB**

Agent for: **L J Developments Ltd, Mr Leon Adams, Rolle Road, Torrington, Devon, EX38 8AU**

Devon County Council hereby **grants planning permission** to carry out the development described in the application received on **8 February 2021**, and the plans, drawings and supporting documents attached thereto numbered and titled:

2889-4-1-DR 0001 S4P1 (Site Location Plan); 2889-4-1-DR-0002 S4P1 (Context Plan); 00464-200723-05 Rev 1 (Aerial View); 00464-200723-01 Rev 1 (Topographical Survey); 2889-4-4-4-DR-0001-S5 Rev P3 (Proposed Restoration Management Areas); and 00464/200528/01A (Location of Transfer Station).

BEAM QUARRY – PHASING SCHEME – REVISION 3 (Job Reference 00464/20052) and associated plans 200528/01 (Phasing Plan Years 1 and 2), 200528/02 (Phasing Plan Years 3 and 4), 200528/03 (Phasing Plan Years 5 and 6), 200528/04 (Phasing Plan Years 7 and 8), 200528/05 (Phasing Plan Years 9 and 10), 200528/06r1 (Phasing Plan Restoration - Subsoils and Topsoils); 200528/07r1 (Phasing Plan Section Locations), 200528/08r1 (Phasing Scheme Section 1), 200528/09r1 (Phasing Scheme Section 2), 200528/10r1 (Phasing Scheme Section 3), 200528/11r1 (Phasing Scheme Section 4), 200528/12r1 (Phasing Scheme Section 5) and 200528/13r1 (Phasing Scheme Section 6), 200528/14r1 (Phasing Scheme Section 7).

LANDSCAPE MANAGEMENT AND AFTERCARE SCHEME (DJA Reference 2889-4-5-LM-0001-LEMP P3 - Dated 22/03/2021) and associated restoration proposals, Planting Schedules, and associated plans 2889-4-4-4-DR-0001-S5 P3 (PROPOSED RESTORATION MANAGEMENT AREAS), 2889-4-4-4 DR-0002-P2 (PROPOSED ATTENUATION LAGOON RESTORATION AND CROSS SECTIONS), 200528/06/r3 (Phasing Plan Restoration), 200528/06a/r0 (Phasing Plan Restoration Phasing)

ECOLOGICAL MANAGEMENT PLAN V.2 Dated January 2021 and proposed ecological due-diligence safeguarding strategy and biosecurity and mitigation strategies.

FLOOD RISK ASSESSMENT REPORT (Report Reference: 2908/FRA V F2 Dated 15 January 2021) and proposed mitigation measures.

SCHEME FOR SURFACE WATER DISPOSAL AND SOIL STORAGE (Ref: Review of Old Mineral Permissions, Beam Quarry, 15 January 1995, Application 01/40/1321/98) dated 25 May 2001 and approved by the Mineral Planning Authority on 18 October 2005.

FLOOD RISK ASSESSMENT REPORT (Report Reference: 2908/FRA V F2 Dated 15 January 2021) and proposed mitigation measures.

brief particulars of which are as follows:

Section 73 application to vary Conditions 1 and 5 of permission 1/0423/2014/CPZ to enable continued extraction of quarried stone and the restoration of the quarry through the importation and deposit of inert waste materials at Beam Quarry, Torrington, Devon, EX38 8JF

subject to the conditions set out in the attached sheets

Andy Hill

on behalf of the Head of Planning, Transportation and Environment

Date: 17 May 2021

NOTE

This is not a decision under the Building Regulations

Failure to adhere to the details of the approved plans or to comply with the above conditions constitutes a contravention of the Town and Country Planning Act 1990, in respect of which enforcement action may be taken.

DN May 2005

Continued overleaf

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.

- Appeals must be made using a form which you can get from the Secretary of State at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN (Tel: 0303 444 5000) or online at https://acp.planninginspectorate.gov.uk.

- 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.

PURCHASE NOTICES

If either the Local Planning Authority or the First Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he/she can neither put the land to a reasonably beneficial use in its existing state nor can he/she render that land capable of a reasonably beneficial use by carrying out of any development which has been or would be permitted.

In these circumstances, the owner may serve a Purchase Notice on the District Council in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

STRICT ACCORDANCE WITH PLANS

1. The development shall be carried out in strict accordance with the details shown on the approved drawings and documents numbered/titled:

2889-4-1-DR 0001 S4P1 (Site Location Plan); 2889-4-1-DR-0002 S4P1 (Context Plan); 00464-200723-05 Rev 1 (Aerial View); 00464-200723-01 Rev 1 (Topographical Survey); 2889-4-4-4-DR-0001-S5 Rev P3 (Proposed Restoration Management Areas); and 00464/200528/01A (Location of Transfer Station).

BEAM QUARRY – PHASING SCHEME – REVISION 3 (Job Reference 00464/20052) and associated plans 200528/01 (Phasing Plan Years 1 and 2), 200528/02 (Phasing Plan Years 3 and 4), 200528/03 (Phasing Plan Years 5 and 6), 200528/04 (Phasing Plan Years 7 and 8), 200528/05 (Phasing Plan Years 9 and 10), 200528/06r1 (Phasing Plan Restoration - Subsoils and Topsoils); 200528/07r1 (Phasing Plan Section Locations), 200528/08r1 (Phasing Scheme Section 1), 200528/09r1 (Phasing Scheme Section 2), 200528/10r1 (Phasing Scheme Section 3), 200528/11r1 (Phasing Scheme Section 4), 200528/12r1 (Phasing Scheme Section 5) and 200528/13r1 (Phasing Scheme Section 6), 200528/14r1 (Phasing Scheme Section 7).

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FLOOD RISK ASSESSMENT REPORT (Report Reference: 2908/FRA V F2 Dated 15 January 2021) and proposed mitigation measures.

REASON: To enable the Mineral Planning Authority to adequately control the development and to minimise its impact on the rural character of the locality.

REMOVAL OF PERMITTED DEVELOPMENT RIGHTS

2. Notwithstanding the provisions of Part 17 of Schedule 2 of the Town and Country Planning (General Permitted Development) (England) Order 2015 (or any Order revoking, re-enacting or modifying that Order), which relate to mineral working, mining and mineral exploration, there shall be no development or activity additional to that specified in this planning permission within the red line boundary of this site following the commencement of development.

REASON: To enable the Mineral Planning Authority to adequately control the impacts of the operation according to the submitted details, and to minimise the landscape impact and the

extent of disturbance from the development in accordance with Policy M18 (Landscape and Visual Impact) of the Devon Minerals Plan 2011-2033.

MINERAL AND WASTE OPERATION TIME LIMITS

3. All approved operations shall cease and all associated plant, machinery and buildings associated with these operations shall be removed and the application site shall be restored in accordance with the approved drawings and documents no later than 15 years from the date of this decision.

REASON: To enable the Mineral Planning Authority to adequately control the development according to the submitted application and approved details and to minimise the duration and extent of disturbance from the development in accordance with Policy M23 (Quality of Life) of the Devon Minerals Plan.

PRE COMMENCEMENT CONDITIONS

MANAGEMENT OF SEDIMENT RUNOFF

4. The development hereby permitted shall not be commenced until a plan for the management of sediment runoff from the site has been submitted to and approved in writing by the Mineral Planning Authority. The plan shall be fully implemented and subsequently maintained in accordance with the submitted details.

REASON: To protect the water quality of the River Torridge in accordance with Policy M21 (Natural Resources) of the Devon Minerals Plan.

MAINTENANCE SCHEDULE FOR A386 ROAD CULVERT AND WATERCOURSE

5. The development hereby permitted shall not be commenced until a maintenance schedule for the A386 road culvert and watercourse has been submitted to and approved in writing by the Mineral Planning Authority. The schedule shall be fully implemented and subsequently maintained in accordance with the submitted details.

REASON: To ensure that flood risk from the site is appropriately managed in accordance with Policy M24 (Flooding) of the Devon Minerals Plan.

OPERATIONAL CONDITIONS

SURFACE WATER DRAINAGE/ MANAGEMENT

6. Surface water shall be managed in accordance with the approved Scheme for Surface Water Disposal and Soil Storage dated 25 May 2001 and approved by the Mineral Planning Authority on 18 October 2005. The scheme will be fully implemented, managed and maintained in accordance with the approved details until such a time that it is superseded by the operations associated with those works proposed in years 1 and 2 as shown on drawing reference 200528/01 a.

Prior to the commencement of the works proposed in years 1 and 2 as shown in the submitted Phasing Scheme and on drawing reference 200528/01, the following details shall be submitted to and approved in writing by the Mineral Planning Authority:

(a) A detailed drainage design of the proposed surface water drainage system which will manage surface water during the operational phase of the quarry. These details must include:
    (i) invert level of the basin;
    (ii) overflow from the basin, including type, size and level;
    (iii) side slopes of the basin;

(iv) any permanent water level within the basin;
(v) any proposed vegetation within the basin;
(vi) any channels or swales to direct flows to the basin; and
(vii) if the basin shall be developed or redesigned as the quarry progresses, these details must be submitted at this stage.

(b) Details of the existing spring within the site, including clarification of how this spring will be managed during the progression of the quarry as well as in the restored site.

(c) Details of groundwater management during the operational phase of the quarry and for the restored site.

(d) Proposals for the adoption and maintenance of the permanent surface water drainage system.

(e) A plan indicating how exceedance flows will be safely managed at the site.

The implementation of any works required as a result of the approved proposals and details submitted shall be carried out prior to the commencement of works in years 1 and 2 as shown on drawing reference 200528/01.

REASON: The above conditions are required to ensure the proposed surface water drainage system will operate effectively and will not cause an increase in flood risk either on the site, adjacent land or downstream in line with SuDS for Devon Guidance (2017) and in accordance with national policies, including the National Planning Policy Framework, Planning Practice Guidance and Policy M24 (Flooding) of the Devon Minerals Plan. The conditions should be pre-commencement as it is essential that the proposed surface water drainage system is demonstrated to be feasible before works begin to avoid redesign / unnecessary delays during construction when site layout is fixed.

7. A detailed design for surface water management shall be submitted to and approved in writing by the Mineral Planning Authority prior to commencement of the proposals for Years 9 and 10 as shown on drawing reference 200528/05 and shall include details of how surface water drainage features will be infilled or removed if required.

REASON: To ensure the proposed surface water drainage system will operate effectively and will not cause an increase in flood risk either on the site, adjacent land or downstream in accordance with SuDS for Devon Guidance (2017) and national policies, including National Planning Policy Framework, Planning Practice Guidance and Policy M24 (Flooding) of the Devon Minerals Plan and to demonstrate that the proposed surface water drainage system is feasible to avoid redesign and unnecessary delays during construction when site layout is fixed.

DEPTH RESTRICTION

8. No winning and working of minerals shall take place below 20.5m AOD except as proposed by plan reference 2889-4-4-4 DR-0002-P2 (PROPOSED ATTENUATION LAGOON RESTORATION AND CROSS SECTIONS).

REASON: To enable the Mineral Planning Authority to adequately to control the development and to minimise the effect on the local groundwater resources in accordance with Policy M21 (Natural Resources) of the Devon Minerals Plan.

CONTROL OF MATERIAL IMPORTATION

9. No materials other than inert waste materials shall be brought to the site.

REASON: To control the impact of the development on the surrounding area in accordance with Policies M18 (Landscape and Visual Impact), M21 (Natural Resources) and M23 (Quality of Life) of the Devon Minerals Plan.

STOCKPILING

10. No stockpiling of minerals or waste materials shall take place other than on the quarry floor.

REASON: To reduce the impact of the development on the surrounding area in accordance with Policies M18 (Landscape and Visual Impact), M21 (Natural Resources) and M23 (Quality of Life) of the Devon Minerals Plan.

11. All soils stripped from the site or brought into the site for restoration purposes shall be transported and stored separately so as prevent them becoming mixed and shall be kept free from contamination and shall be used for covering and restoration work in accordance with the approved restoration scheme.

Subsoil stores/ stockpiles shall not exceed 5 metres in height, topsoil stores/ stockpiles shall not exceed 3 metres in height and overburden stores/ stockpiles shall not exceed 8 metres in height and shall be graded, seeded with grass and all necessary steps shall be taken to control weeds at an early stage of growth to prevent their seeding.

No subsoil or topsoil shall be stored other than in locations which shall previously have been agreed in writing with the Mineral Planning Authority.

No storage/ stockpiling of topsoil, subsoil and overburden shall take place other than on the quarry floor.

REASON: To ensure maximum availability of soil materials for restoration work, that adequate and suitable material is available to reinstate the site upon completion of operations and to protect the local amenity and nature conservation in accordance with Policies M18 (Landscape and Visual Impact), M21 (Natural Resources) and M23 (Quality of Life) of the Devon Minerals Plan.

TIPPING AND STORAGE OF MATERIALS

12. No tipping or temporary storage of minerals or waste materials shall take place within six metres of any watercourse, and all necessary measures shall be taken to ensure that tipped or stored materials do not enter any watercourse or culvert.

REASON: To control the impact of the development on the surrounding area, protect the living conditions of local residents and minimise the risk of pollution of watercourses, in accordance with Policies M21 (Natural Resources) and M23 (Quality of Life) of the Devon Minerals Plan.

HOURS OF OPERATION

13. With the exception of essential maintenance works to plant and machinery and emergency procedures to maintain safe working, operations other than blasting shall only be carried out during the following hours:

(a) 0700 hours to 1800 hours on Mondays to Fridays inclusive and 0700 hours to 1300 hours on Saturdays; and

(b) there shall be no operations, including vehicle movements, on Sundays or Public Holidays.

REASON: In the interest of controlling and limiting the effects on the local community in accordance with Policy M23 (Quality of Life) of the Devon Minerals Plan.

BLASTING

14. Except as may be essential for reasons of safety, blasting shall only be carried out between 1000 hours and 1600 hours on Mondays to Fridays inclusive and not on Saturdays, Sundays or Public Holidays. There shall be no more than one blasting episode per calendar week and the operator shall inform the Mineral Planning Authority in writing within 24 hours of an occurrence outside of these times, together with an explanation.

REASON: To reduce the impact of the development on the surrounding area in accordance with Policies M18 (Landscape and Visual Impact), M21 (Natural Resources) and M23 (Quality of Life) of the Devon Minerals Plan.

TRANSFER STATION

15. Materials brought onto the site for final disposal may be processed so that any aggregate or building stone contained within them may be recovered for reuse or recycling. The remaining suitable material shall be used for the restoration of the site. The transfer station and associated processing/selling of reclaimed materials granted by this permission shall be ancillary to the quarrying and tipping operations.

REASON: In order to control the scale of development and to ensure that the transfer station does not become the principle activity on site.

MUD, WATER AND OTHER DEBRIS ON THE ROADS

16. Appropriate measures shall be utilised to prevent the spread of mud, water and other debris from the site onto the public highway and, should mud, water and other debris from the site escape onto the public highway, appropriate measures shall be undertaken to remove it in a timely manner.

REASON: In the interests of highway safety in accordance with Policy M22 (Transportation and Access) of the Devon Minerals Plan and to protect the living conditions of local residents in accordance with Policy M23 (Quality of Life) of the Devon Minerals Plan.

DUST EMISSIONS

17. Within 3 months of the date of this permission a scheme to prevent dust originating from operations hereby permitted from being deposited outside the site boundaries shall be submitted to and approved in writing by the Mineral Planning Authority and implemented in accordance with the approved scheme.

REASON: To protect the living conditions of local residents in accordance with Policy M23 (Quality of Life) of the Devon Minerals Plan.

LIGHTING

18. Prior to its installation, details of the proposed pedestrian/security lighting at the office and weighbridge shall be submitted to and approved in writing by the Mineral Planning Authority. There shall be no floodlighting used at the site.

REASON: Reason: In the interests of amenity and earth science conservation in accordance with Policy M17 (Biodiversity and Geodiversity) and M23 (Quality of Life) of the Devon Minerals Plan.

MAINTENANCE OF EQUIPMENT AND USE OF SILENCERS/ AUDIBLE SAFETY DEVICES

19. All vehicles, plant and machinery operated within the site shall be maintained in accordance with the manufacturer's specifications at all times and shall be fitted with and use effective silencers. No vehicle or mobile plant used (other than visiting road lorries) shall be operated within the permitted area unless they have been fitted with and use "white noise" alarms.

REASON: To minimise the effect on the living conditions of local residents in accordance with Policy M23 (Quality of Life) of the Devon Minerals Plan.

VEGETATION CLEARANCE

20. No vegetation clearance shall take place during the bird nesting season (1 March to 31 August, inclusive) unless the operator has been advised by a suitably qualified ecologist that the clearance will not disturb nesting birds and a record of this kept.

REASON: To protect the amenity, wildlife and biodiversity interests in the area in accordance with Policy M17 (Biodiversity and Geodiversity) of the Devon Minerals Plan.

PREVENTION OF WEED GROWTH

21. The topsoil, subsoil and overburden heaps and those parts of the site where stripping of soils and overburden has not yet been carried out shall be kept free from injurious weeds (as prescribed in the Weeds Act 1959) and all necessary steps shall be taken to control weeds growth at an early stage in their growth to prevent their setting seeds.

REASON: To ensure that the site does not become a source of weed seeds in the locality and to comply with Policy M21 (Natural Resources) of the Devon Minerals Plan.

REPLACEMENT OF DEAD/DISEASED LANDSCAPING

22. Tree, shrub, hedgerow or other planting which forms part of any landscaping, restoration and aftercare scheme approved in connection with this development that dies, is damaged, diseased or removed within the operational life of this permission and the 5 year aftercare period, shall be replaced during the next available planting season (October to March) with a similar plant(s) of such size, species as approved by the Mineral Planning Authority.

REASON: To protect the amenity, wildlife and biodiversity interests in the area in accordance with Policy M17 (Biodiversity and Geodiversity) of the Devon Minerals Plan.

OFFICIAL NOTIFICATION OF COMMENCEMENT OF APPROVED PHASES

23. The developer shall notify the Mineral Planning Authority in writing within one month of the dates of commencement/completion of those phases set out in the BEAM QUARRY – PHASING SCHEME – REVISION 3 (Job Reference 00464/20052) and associated plans 200528/01 (Phasing Plan Years 1 and 2), 200528/02 (Phasing Plan Years 3 and 4), 200528/03 (Phasing Plan Years 5 and 6), 200528/04 (Phasing Plan Years 7 and 8), 200528/05 (Phasing Plan Years 9 and 10), 200528/06r1 (Phasing Plan Restoration - Subsoils and Topsoils); 200528/07r1 (Phasing Plan Section Locations), 200528/08r1 (Phasing Scheme Section 1), 200528/09r1 (Phasing Scheme Section 2), 200528/10r1 (Phasing Scheme Section 3), 200528/11r1 (Phasing Scheme Section 4), 200528/12r1 (Phasing Scheme Section 5) and 200528/13r1 (Phasing Scheme Section 6), 200528/14r1 (Phasing Scheme Section 7).

REASON: To enable the Mineral Planning Authority to control and monitor the development and site in accordance with Policies M22 (Transportation and Access) and M27 (Restoration and Aftercare).

ANNUAL SUBMISSION OF RECORDS AND SITE SURVEYS

24. On 31st March of each calendar year the operator shall submit annual tonnage figures to the Mineral Planning Authority for mineral extraction; inert waste importation; inert waste disposal; and inert waste recycling. The operator shall also submit an annual site survey showing both proposed and current levels of extraction and disposal.

    REASON: To enable the Mineral Planning Authority to control and monitor the development and site in accordance with Policies M22 (Transportation and Access) and M27 (Restoration and Aftercare) of the Devon Minerals Plan.

OTHER CONTROLS

BUNDING AND STORAGE FACILITIES

25. Any liquid (other than water) shall be stored in appropriate tanks and containers which shall be housed in an area(s) surrounded by bund walls of sufficient height and construction so as to contain 110% of the total contents of all containers and associated pipework. The floor and walls of the bunded area(s) shall be impervious to both water and oil and pipes shall vent downwards into the bunded area. This facility shall be maintained so as to prevent any egress of fluids.

    REASON: To prevent contamination of the site and to protect the amenity, wildlife and biodiversity interests in the area in accordance with Policies M17 (Biodiversity and Geodiversity) and M21 (Natural Resources) of the Devon Minerals Plan.

GEOLOGICAL EXPOSURES

26. The approved restoration scheme shall provide, where safe and practical, accessible exposures of the geological succession exposed in the permission area.

    REASON: In the interests of amenity and earth science conservation in accordance with Policy M17 (Biodiversity and Geodiversity) of the Devon Minerals Plan.

EXISTING FENCING AND HEDGES

27. For the duration of the operations hereby permitted, existing fences and hedges around the site shall be retained and maintained, and, where necessary, additional fencing shall be erected so as to prevent the entry of livestock into the site.

    REASON: To protect the interests of users of adjacent land, to minimise the risk of unauthorised tipping arid to protect the visual amenities of the locality in accordance with Policy M23 (Quality of Life) of the Devon Minerals Plan.

INFORMATIVE NOTE

Statement of compliance with Article 35 of the Town and Country Planning (Development Management Procedure) (England) Order 2015

In determining this application, the Local Planning Authority has worked with the applicant in a positive and proactive manner based on seeking solutions to problems arising in relation to dealing with the planning application by liaising with consultees, respondents and the applicant/agent and discussing changes to the proposal where considered appropriate or necessary. This approach has been taken positively and proactively in accordance with the requirement of the NPPF, as set out in The Town and Country Planning (Development Management Procedure) (England) Order 2015.

Appendix 2 Phasing Scheme and Cross-Sections

BEAM QUARRY – PHASING SCHEME – REVISION 4

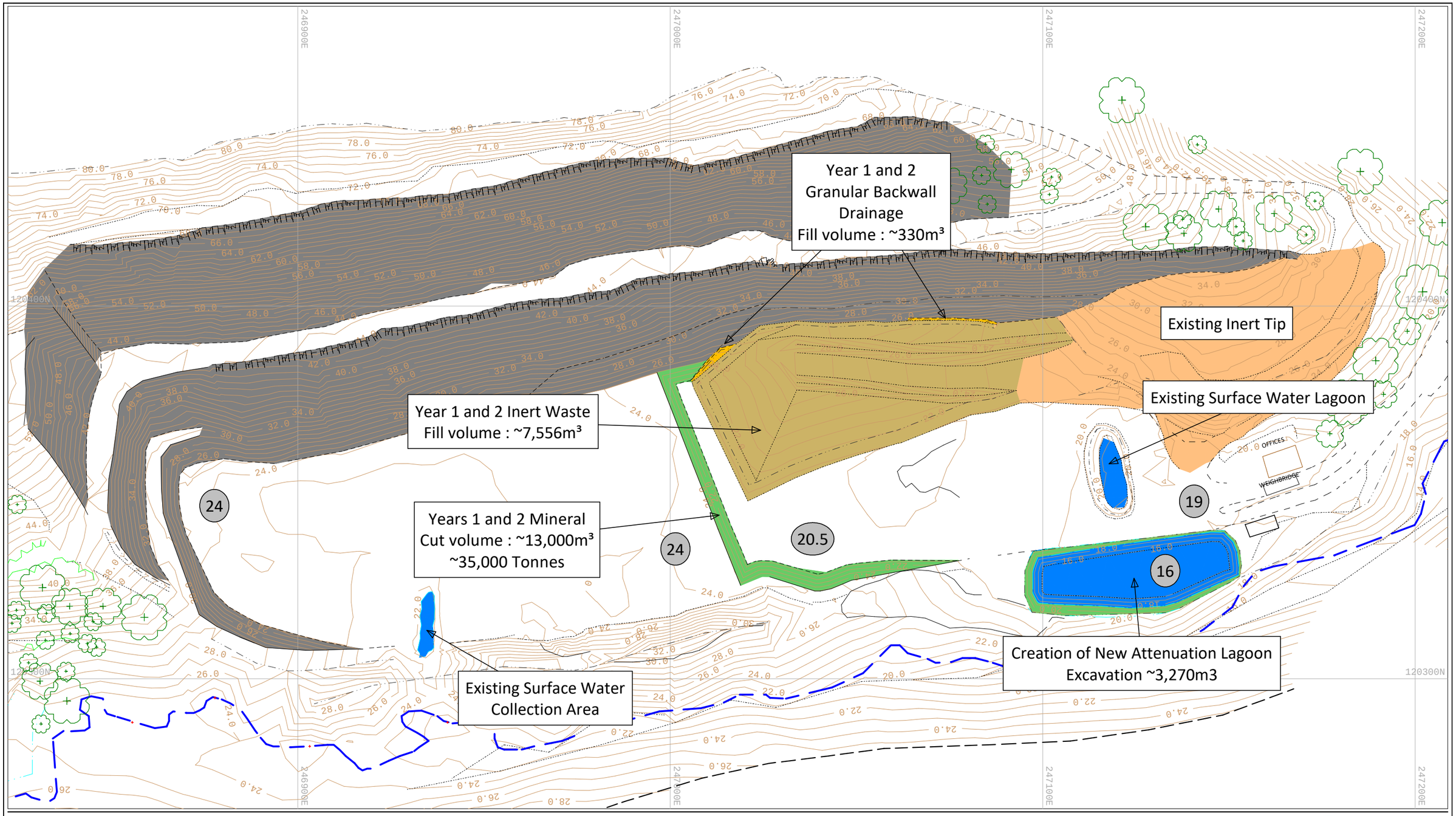
Table of Significant Material Quantities

Time Period	Mineral Extracted (to 20.5mAOD)		Inert Waste Volumes	Inert Waste Tonnages [1]			Drawing Number Reference
	m^3	Tonnes (@ 2.7t/m^3)	m^3	Tonnes Tipped (@1.5t/m^3)	Tonnes Recycled (@10%)	Total Tonnes into Site	
Years 1 and 2	13,000 [2]	35,100	7,556	11,334	1,133	12,467	200528/01
Years 3 and 4	11,500	31,050	12,415	18,623	1,862	20,485	200528/02
Years 5 and 6	8,020	21,654	13,670	20,505	2,051	22,556	200528/03
Years 7 and 8	End of mineral extraction in quarry floor		26,955	40,433	4,043	44,476	200528/04
Years 9 and 10	-	-	26,400	39,600	3,960	43,560	200528/05
Restoration Subsoils and Topsoils[3]	-	-	10,000	15,000	-	15,000	200528/06
Totals	**32,520**	**87,804**	**96,996**	**145,494**	**13,049**	**158,543**	-

1. *Note that it is proposed to bring into site an additional approximate 10% Inert waste for processing/recycling*
2. *There is an additional approximate 3,270m^3 mineral extraction from the eastern lagoon excavation*
3. *Estimate based on 300mm topsoil on slope areas and 1000mm of topsoil/subsoil on the floor areas @1.5Tonnes/m^3*

The scheme works mineral moving west to allow free drainage of surface water to the eastern collection sump. Inert waste is tipped against the existing north face, also moving west. A 10m wide strip is left to the south of the waste to allow access to the mineral.

An additional approximate 1,200m^3 of granular drainage material will also be required for backwall/under-liner drainage of the inert tip.



Legend

- Existing quarry face
- New quarry faces at end of Phase
- Existing inert landfill waste
- Granular backwall drainage
- Newly placed inert landfill waste
- Surface water body
- Line of Surface Watercourse
- Direction of surface water flow
- Line of Groundwater Seepage Flow
- Direction of Groundwater Seepage Flow
- 56 Ground Level (mAOD)

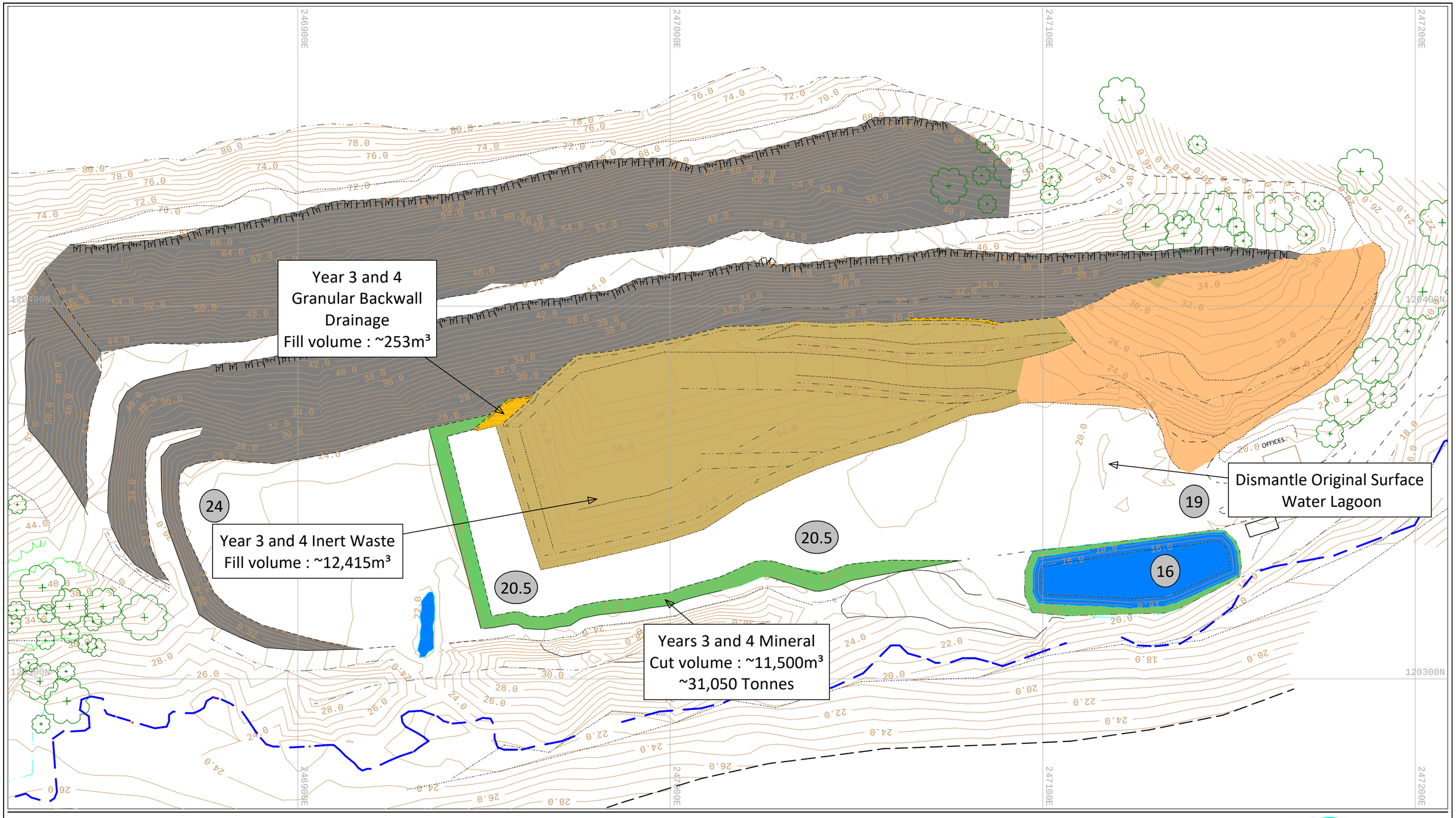
N

Quarry Design®

(00464) Beam Quarry

Phasing Plan
Years 1 and 2

Drawn By	Scale
RSW	1 : 1000
Dwg Nº	Paper Size
200528/01rev3	A3



Legend

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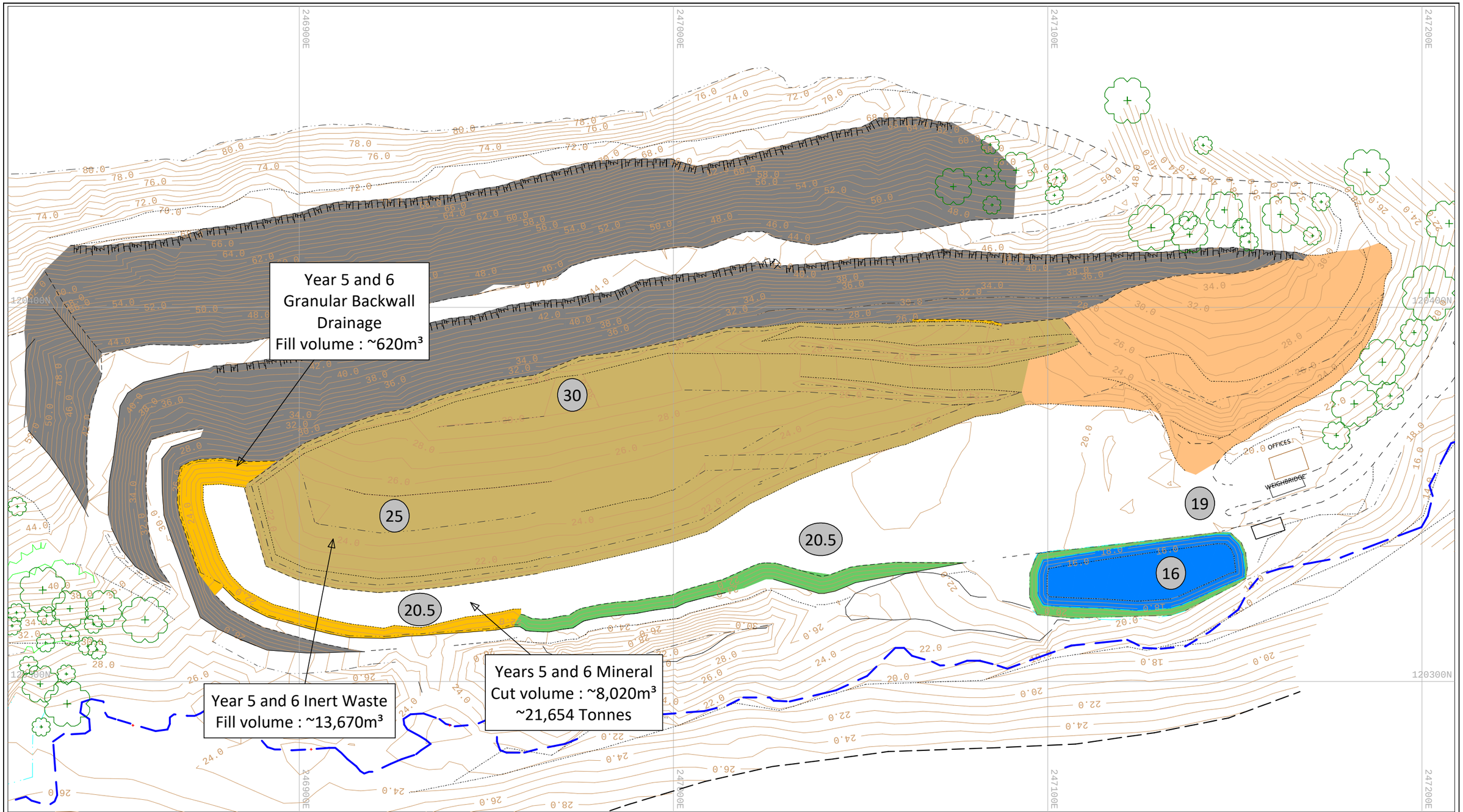
- Existing inert landfill waste
- Granular backwall drainage
- Newly placed inert landfill waste
- Surface water body
- Line of Surface Watercourse
- Direction of surface water flow
- Line of Groundwater Seepage Flow
- Direction of Groundwater Seepage Flow
- 56 Ground Level (mAOD)

Quarry Design®

(00464) Beam Quarry

Phasing Plan
Years 3 and 4

Drawn By	Scale
RSW	1 : 1000
Dwg Nº	Paper Size
200528/02rev3	A3



Legend

- Existing quarry face
- New quarry faces at end of Phase
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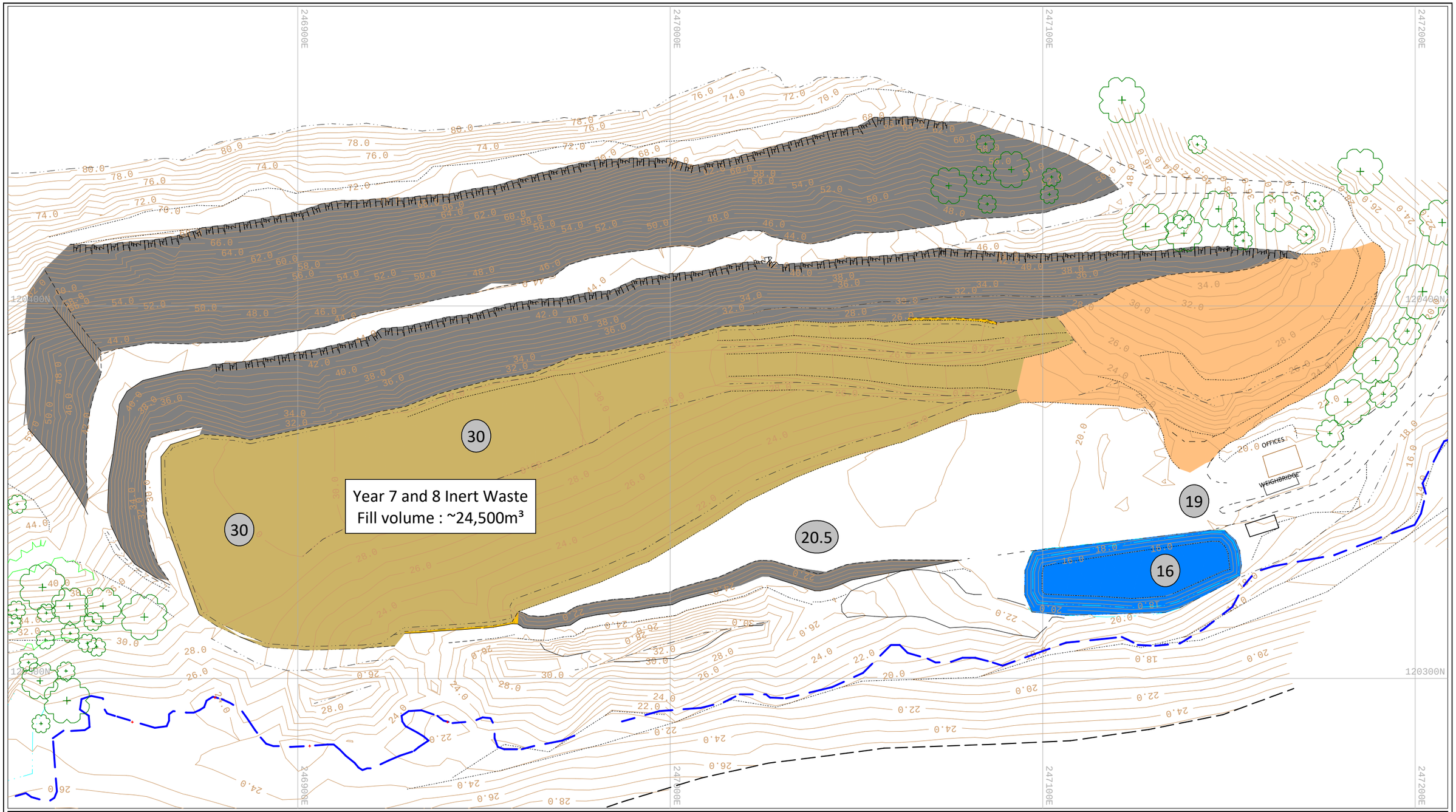
- Line of Groundwater Seepage Flow
- Direction of Groundwater Seepage Flow
- 56 Ground Level (mAOD)

Quarry Design®

(00464) Beam Quarry

Phasing Plan
Years 5 and 6

Drawn By	Scale
RSW	1 : 1000
Dwg Nº	Paper Size
200528/03rev3	A3



Legend

- Existing quarry face
- New quarry faces at end of Phase
- Existing inert landfill waste
- Granular backwall drainage
- Newly placed inert landfill waste
- Surface water body
- Line of Surface Watercourse
- Direction of surface water flow
- Line of Groundwater Seepage Flow
- Direction of Groundwater Seepage Flow
- 56 Ground Level (mAOD)

Quarry Design®

(00464) Beam Quarry

Phasing Plan
Years 7 and 8

Drawn By	Scale
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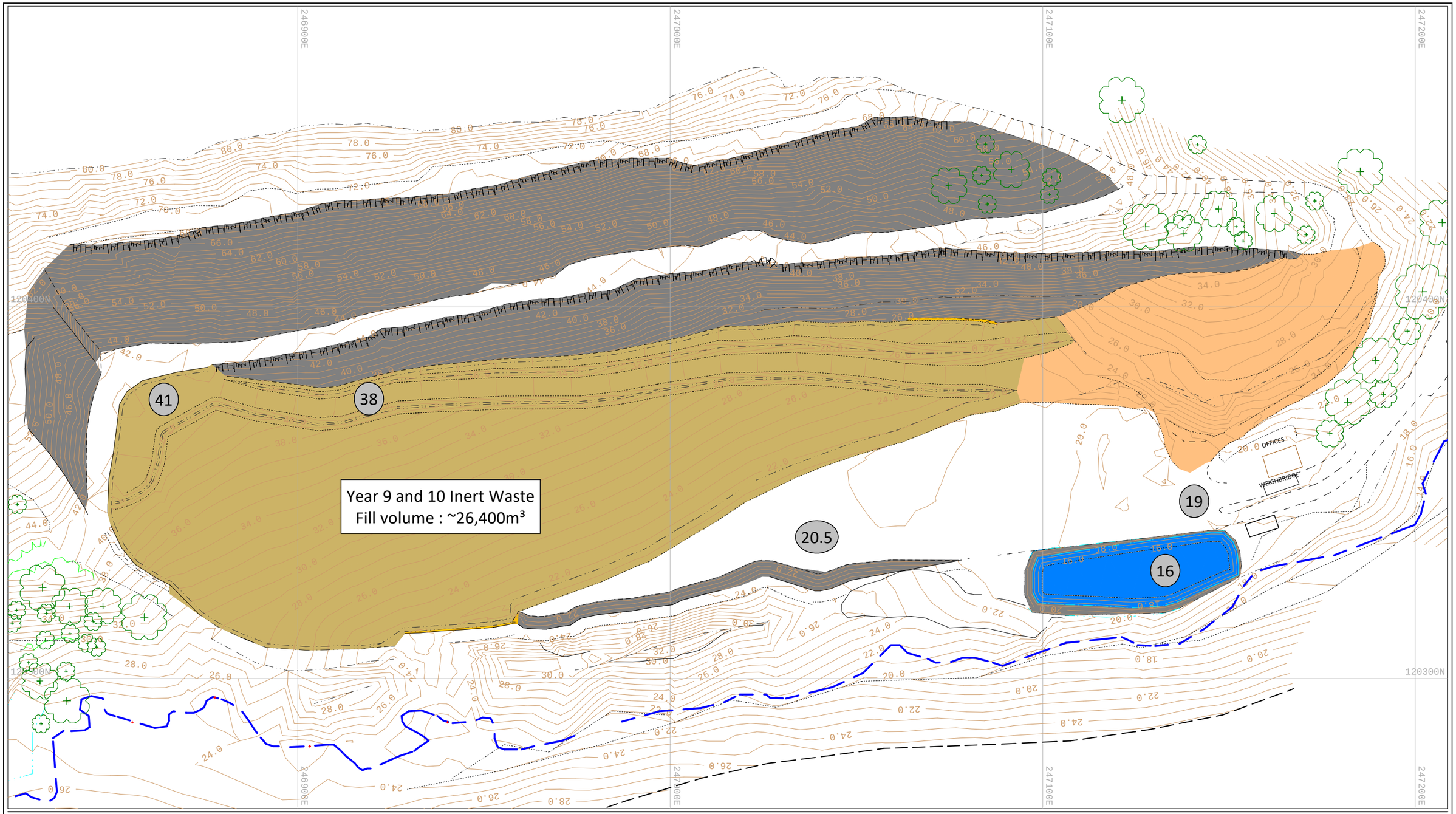
Dwg Nº	Paper Size
200528/04 rev3	A3



Legend

- Existing quarry face
- New quarry faces at end of Phase
- Existing inert landfill waste
- Granular backwall drainage
- Newly placed inert landfill waste
- Surface water body
- Line of Surface Watercourse
- Direction of surface water flow
- Line of Groundwater Seepage Flow
- Direction of Groundwater Seepage Flow
- 56 Ground Level (mAOD)

N

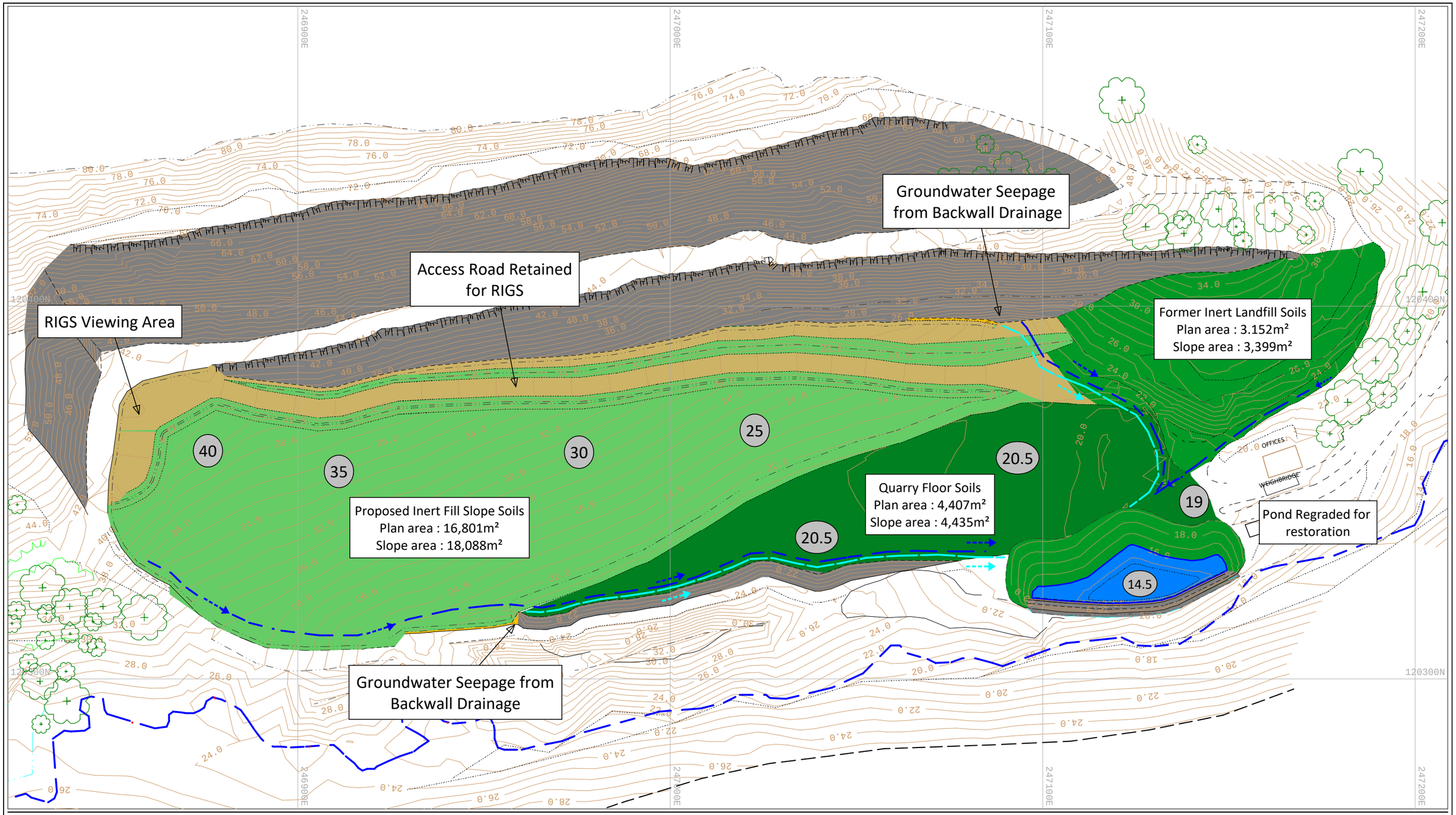
Quarry Design®

(00464) Beam Quarry

Phasing Plan
Years 9 and 10

Drawn By	Scale
RSW	**1 : 1000**

Dwg Nº	Paper Size
200528/05rev3	**A3**



Legend

- Existing quarry face
- Restoration of landfill slope
- Restoration of quarry floor
- Restoration of former landfill area
- Access track
- Surface water body
- Granular backwall drainage
- Direction of surface water flow
- Line of Surface Watercourse
- 56 Level (mAOD)
- Direction of Groundwater Seepage Flow
- Line of Groundwater Seepage Flow

Quarry Design®

(00464) Beam Quarry

Phasing Plan
Restoration

Drawn By	Scale
RSW	1 : 1000
Dwg Nº	Paper Size
200528/06rev4	A3

Years 7 to 8

Years 3 to 4

Existing Vegetation

Years 7 to 8

41

38

19

20.5

16

OFFICES

WEIGHBRIDGE

246900E

247000E

247100E

247200E

120400N

120300N

Legend

- Existing quarry face
- Existing Vegetation
- Restoration Years 3 to 4
- Restoration Years 7 to 8
- Inert Waste
- Surface water body
- Granular backwall drainage
- Direction of surface water flow
- Line of Surface Watercourse
- 56 Level (mAOD)
- Direction of Groundwater Seepage Flow
- Line of Groundwater Seepage Flow

N

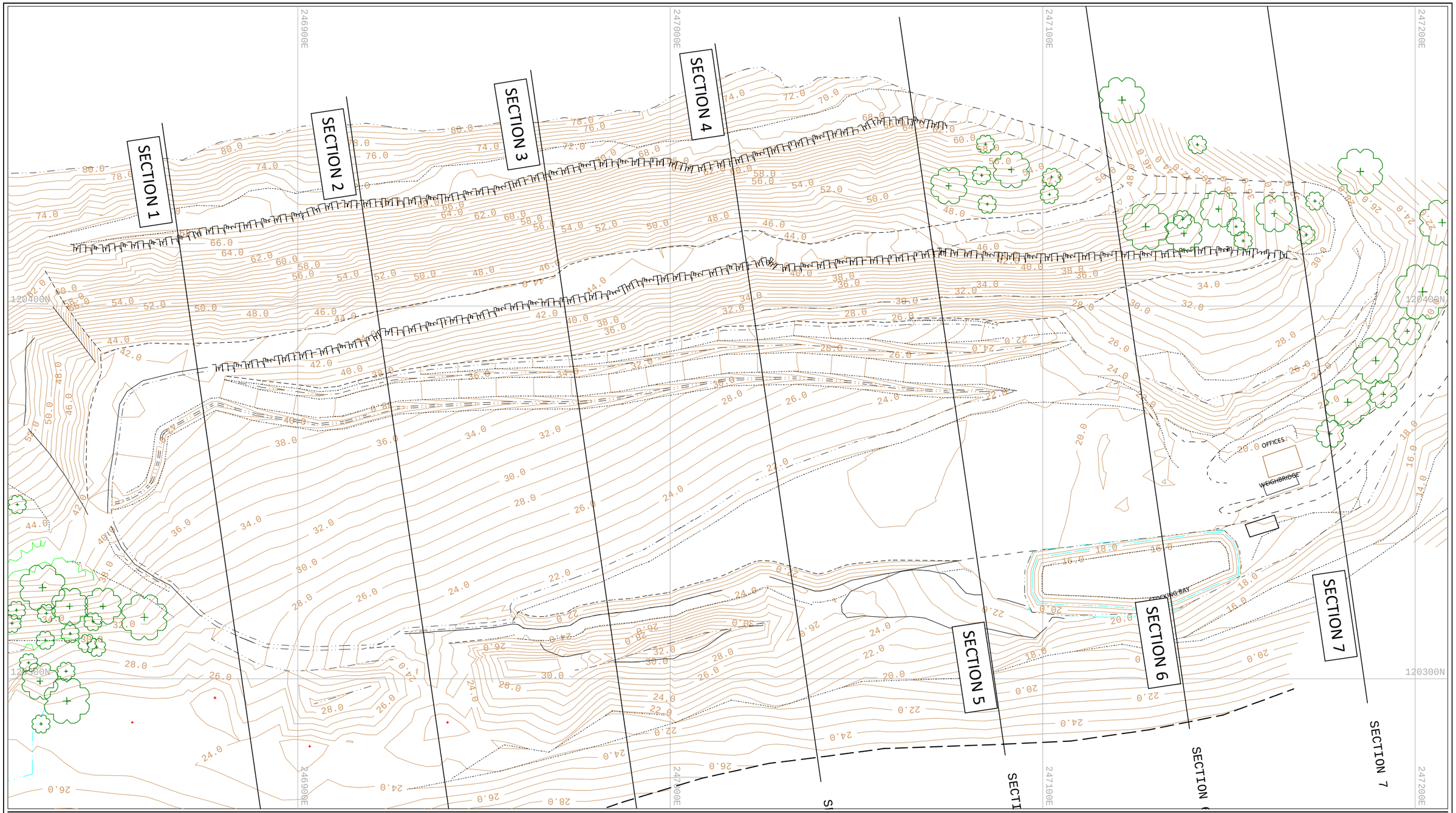
Quarry Design®

(00464) Beam Quarry

Phasing Plan
Restoration Phasing

Drawn By	Scale
RSW	1 : 1000

Dwg Nº	Paper Size
200528/06a r3	A3



Legend

- Existing quarry face
- New quarry faces at end of Phase
- Existing inert landfill waste
- Granular backwall drainage
- Newly placed inert landfill waste
- Surface water body
- Line of Surface Watercourse
- Direction of surface water flow
- Line of Groundwater Seepage Flow
- Direction of Groundwater Seepage Flow
- 56 Ground Level (mAOD)

Quarry Design®

(00464) Beam Quarry

Phasing Plan
Section Locations

Drawn By	Scale
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Dwg N°	Paper Size
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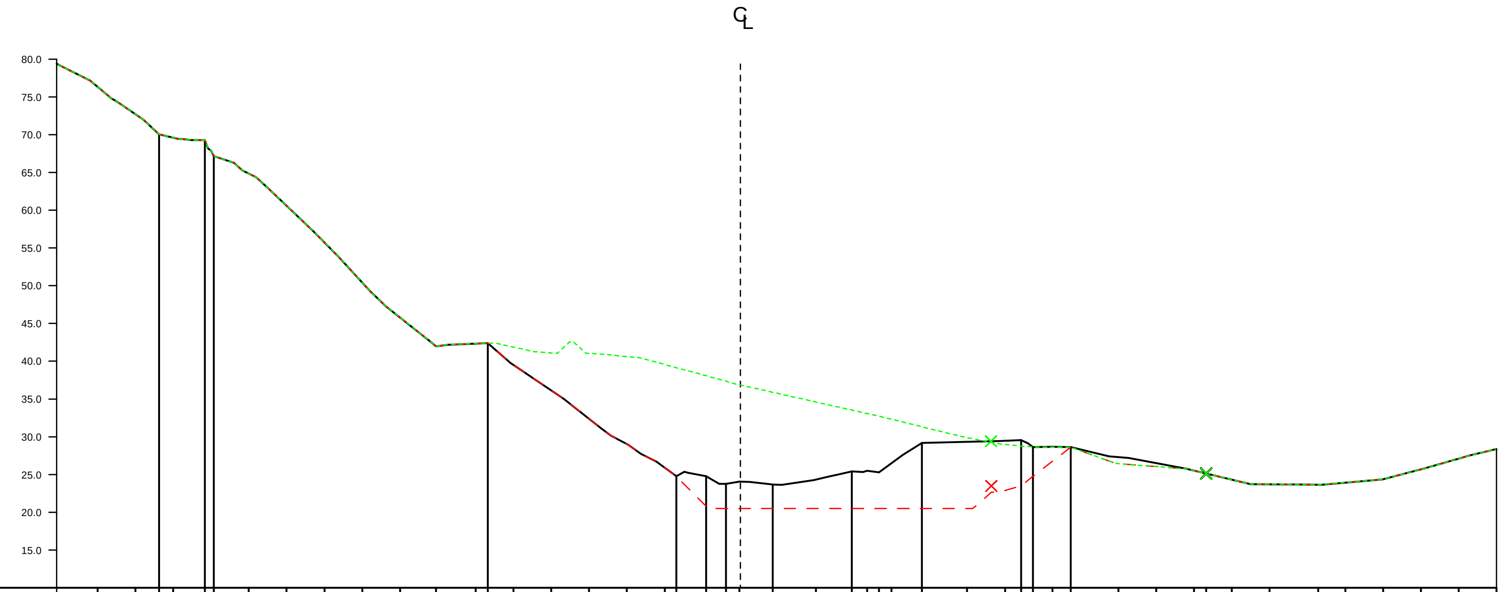


Datum 10.0

Existing Ground Levels	79.393 76.350 72.689 70.023 69.592 69.264 67.161 64.847 60.572 55.724 50.408 45.785 41.965 42.338 42.403 39.503 36.134 32.382 29.012 25.902 24.772 24.777 23.780 24.060 23.667 24.349 25.418 25.510 25.288 26.492 29.203 29.347 29.477 29.554 28.649 28.691 28.631 27.323 26.516 25.515 25.129 24.319 23.715 23.626 23.941 24.391 25.671 27.097 28.394
Maximum Mineral Extraction	79.393 76.350 72.689 70.023 69.592 69.264 67.161 64.847 60.572 55.724 50.408 45.785 41.965 42.338 42.403 39.503 36.134 32.382 29.012 25.902 24.772 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 [illegible] 22.893 23.500 25.768 28.631 26.432 26.053 25.515 25.129 24.319 23.715 23.626 23.941 24.391 25.671 27.097 28.394
Final Restoration	79.393 76.350 72.689 70.023 69.592 69.264 67.161 64.847 60.572 55.724 50.408 45.785 41.965 42.403 42.408 41.872 41.049 42.557 41.068 40.615 39.563 38.207 36.856 35.729 34.602 33.476 32.327 31.079 29.890 29.404 28.985 28.722 28.667 28.629 28.631 26.432 26.053 25.515 25.129 24.319 23.715 23.626 23.941 24.391 25.671 27.097 28.394
Existing offsets	-90.419 -85.000 -80.000 -76.864 -75.000 -70.799 -69.610 -65.000 -60.000 -55.000 -50.000 -45.000 -40.266 -35.000 -33.407 -30.000 -25.000 -20.000 -15.000 -10.000 -8.476 -4.503 -1.896 -0.105 4.295 10.000 14.750 16.780 18.358 20.000 24.022 30.000 35.000 37.155 38.696 41.290 43.694 50.000 55.000 60.000 61.615 65.000 70.000 76.408 80.000 85.000 90.000 95.000 100.000
Regular offsets	-90.000 -85.000 -80.000 -75.000 -70.000 -65.000 -60.000 -55.000 -50.000 -45.000 -40.000 -35.000 -30.000 -25.000 -20.000 -15.000 -10.000 -5.000 0.000 5.000 10.000 15.000 20.000 25.000 30.000 35.000 40.000 45.000 50.000 55.000 60.000 65.000 70.000 75.000 80.000 85.000 90.000 95.000 100.000

Chainage 0.0m (246877.7E 120350.0N)

Beam Quarry

Phasing Scheme

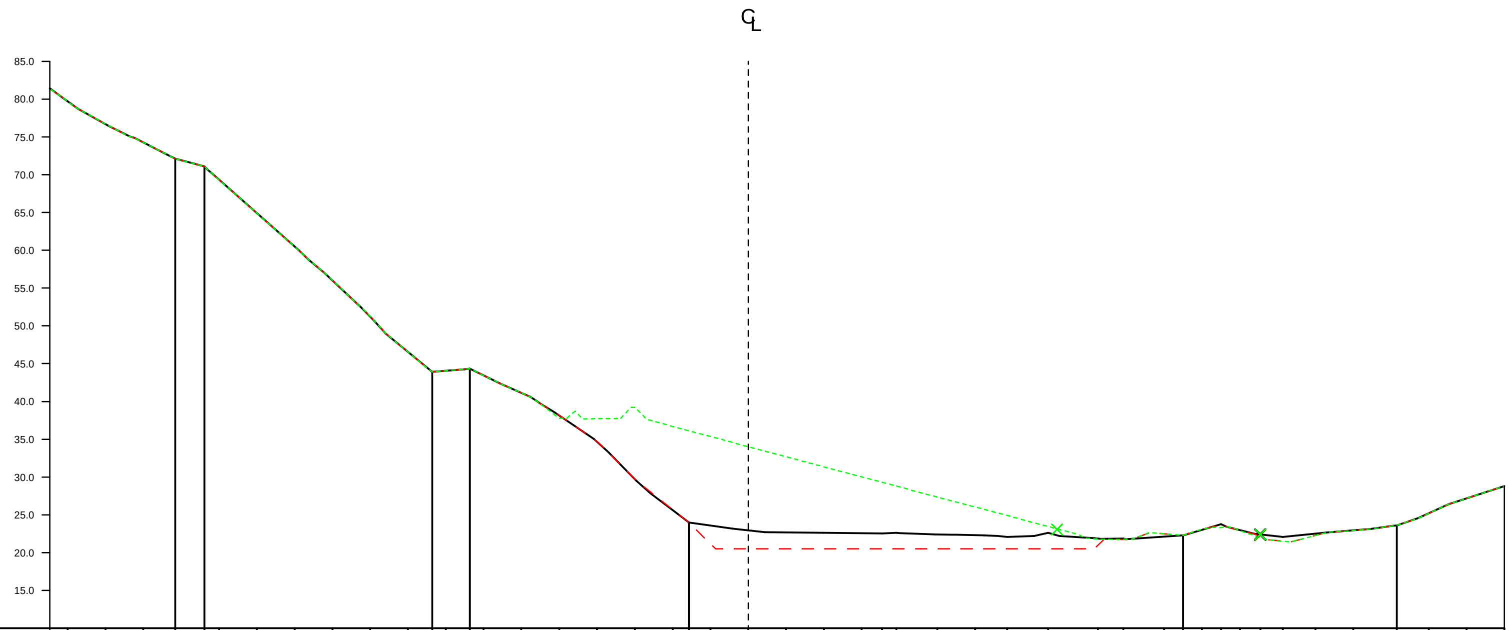
Section 1

Printed 21 DEC 20 15:12

Horizontal scale 1:1000
Vertical scale 1:1000

200528/08

r1



Datum 10.0

Existing Ground Levels	81.415 79.681 76.689 74.263 72.093 71.100 69.341 64.913 60.485 56.019 51.236 46.552 43.929 44.067 44.338 43.441 41.137 38.152 34.668 29.694 25.642 23.985 23.580 22.951 22.695 22.638 22.584 22.555 22.608 22.419 22.298 22.086 22.625 21.854 21.879 22.128 22.301 23.015 23.749 22.985 22.399 22.083 22.520 22.946 23.608 25.205 27.186 28.816
Maximum Mineral Extraction	81.415 79.681 76.689 74.263 72.093 71.100 69.341 64.913 60.485 56.019 51.236 46.552 43.929 44.067 44.338 43.441 41.137 38.152 34.668 29.694 25.686 23.985 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 20.500 21.780 21.698 22.644 22.497 22.295 23.097 23.749 22.985 22.399 21.587 21.428 22.282 22.946 23.608 25.205 27.186 28.816
Final Restoration	81.415 79.681 76.689 74.263 72.093 71.100 69.341 64.913 60.485 56.019 51.236 46.552 43.929 44.067 44.338 43.441 41.137 37.788 37.781 38.691 37.697 37.660 39.229 37.633 36.701 35.362 34.022 32.686 31.356 30.026 28.696 27.365 26.035 24.705 23.375 23.069 22.393 21.885 21.890 21.736 22.644 22.497 22.295 23.356 23.422 22.399 21.587 21.428 22.282 22.946 23.608 25.205 27.186 28.816
Existing offsets	-92.394 -90.000 -85.000 -80.000 -75.786 -71.949 -70.000 -65.000 -60.000 -55.000 -50.000 -45.000 -41.772 -40.000 -36.844 -35.000 -30.000 -25.000 -20.000 -15.000 -10.000 -7.832 -5.000 0.000 5.000 10.000 15.000 17.669 19.574 25.000 30.000 34.249 39.679 46.231 49.630 55.000 57.479 60.000 62.534 65.000 67.712 70.710 75.000 80.000 85.761 90.000 95.000 100.000
Regular offsets	-90.000 -85.000 -80.000 -75.000 -70.000 -65.000 -60.000 -55.000 -50.000 -45.000 -40.000 -35.000 -30.000 -25.000 -20.000 -15.000 -10.000 -5.000 0.000 5.000 10.000 15.000 20.000 25.000 30.000 35.000 40.000 45.000 50.000 55.000 60.000 65.000 70.000 75.000 80.000 85.000 90.000 95.000 100.000

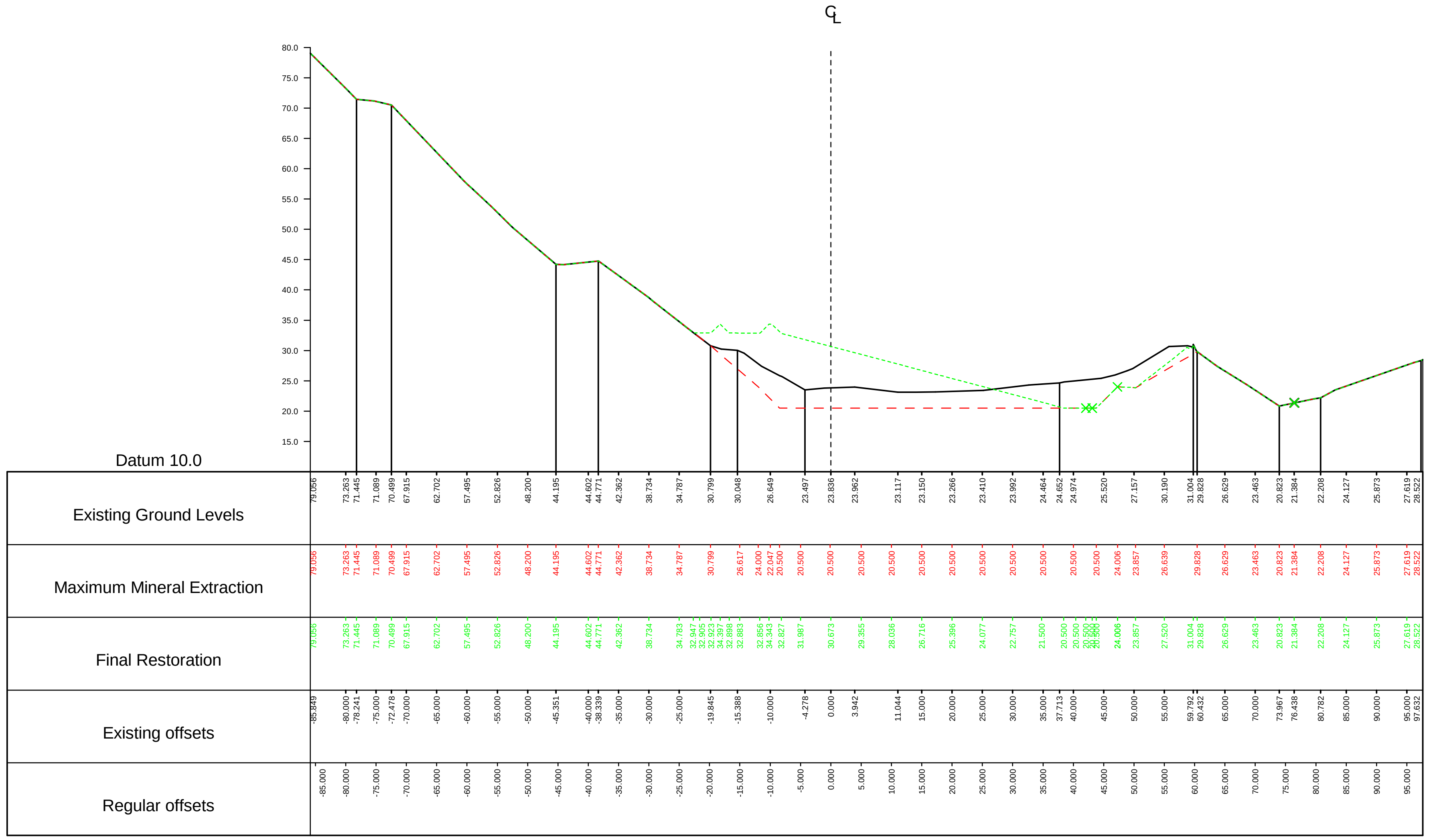
Chainage 50.0m (246927.2E 120357.1N)

Beam Quarry

Phasing Scheme

Section 2

Printed 21 DEC 20 15:13	Horizontal scale 1:1000 Vertical scale 1:1000	200528/09	r1



Chainage 100.0m (246976.7E 120364.2N)

Beam Quarry
Phasing Scheme
Section 3

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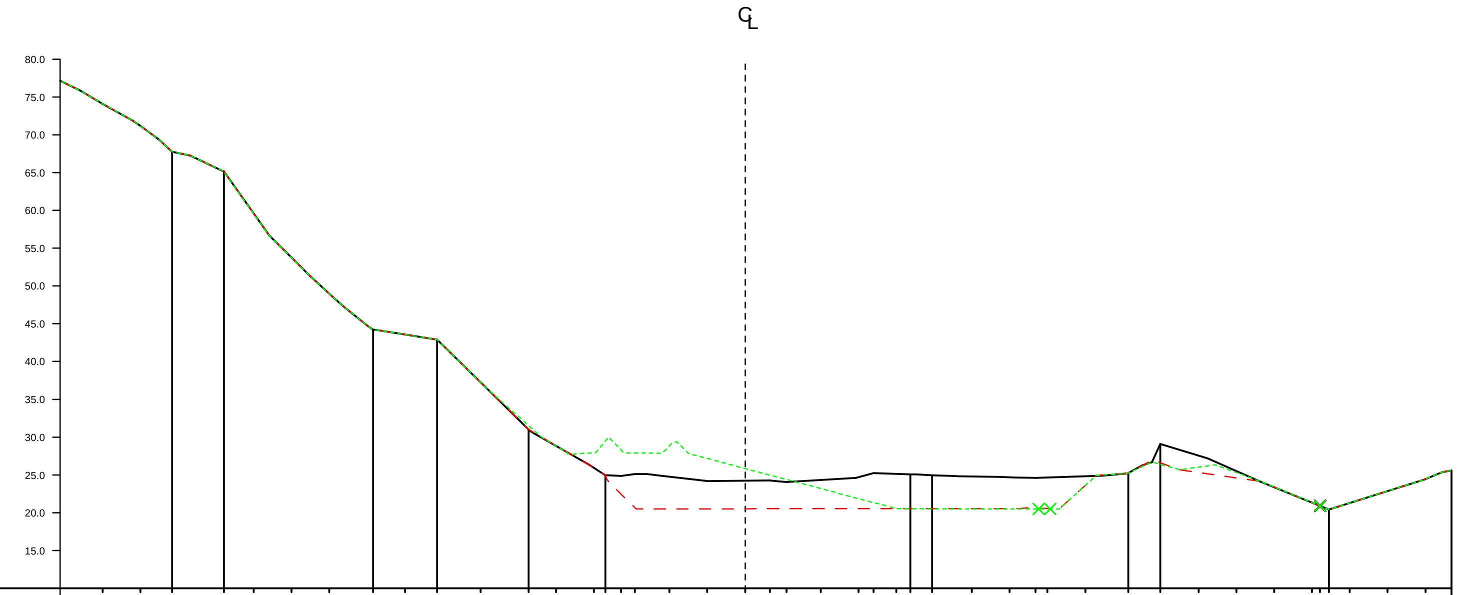

Datum 10.0

Existing Ground Levels	77.163 74.106 71.168 67.747 65.146 59.555 53.737 48.962 44.219 43.577 42.899 37.256 31.012 28.819 25.915 24.937 24.851 25.121 24.754 24.171 24.236 24.255 24.074 24.335 24.698 25.237 25.133 25.069 24.944 24.809 24.688 24.603 24.654 24.828 25.231 29.116 27.564 25.522 23.382 21.333 20.898 20.422 21.295 22.866 24.449 25.589
Maximum Mineral Extraction	77.163 74.106 71.168 67.747 65.146 59.555 53.737 48.962 44.219 43.577 42.899 37.256 31.012 28.880 25.915 24.000 20.500 20.515 20.520 20.525 20.530 20.535 20.540 20.545 20.550 20.554 20.559 20.648 20.553 20.500 24.947 25.231 27.004 25.319 24.603 23.382 21.333 20.898 20.422 21.295 22.866 24.449 25.589
Final Restoration	77.163 74.106 71.168 67.747 65.146 59.555 53.737 48.962 44.219 43.577 42.899 37.256 32.734 29.959 27.995 27.760 27.964 30.021 27.934 27.878 29.352 27.829 27.174 25.854 24.534 23.202 21.578 20.570 20.500 20.500 20.500 20.500 20.500 20.500 20.500 24.947 25.231 26.707 25.679 26.029 26.340 25.309 23.382 21.333 20.898 20.422 21.295 22.866 24.449 25.589
Existing offsets	-90.606 -85.000 -80.000 -75.794 -68.960 -65.000 -60.000 -55.000 -49.230 -45.000 -40.757 -35.000 -28.642 -25.000 -20.000 -18.491 -16.403 -14.578 -10.000 -5.022 0.000 3.270 5.486 10.000 15.000 17.000 20.000 21.842 24.722 30.000 35.000 38.435 40.000 45.000 50.679 54.943 60.000 65.000 70.000 75.000 76.063 77.224 80.000 85.000 90.000 93.432
Regular offsets	-90.000 -85.000 -80.000 -75.000 -70.000 -65.000 -60.000 -55.000 -50.000 -45.000 -40.000 -35.000 -30.000 -25.000 -20.000 -15.000 -10.000 -5.000 0.000 5.000 10.000 15.000 20.000 25.000 30.000 35.000 40.000 45.000 50.000 55.000 60.000 65.000 70.000 75.000 80.000 85.000 90.000

Chainage 150.0m (247026.2E 120371.3N)

Beam Quarry

Phasing Scheme

Section 4

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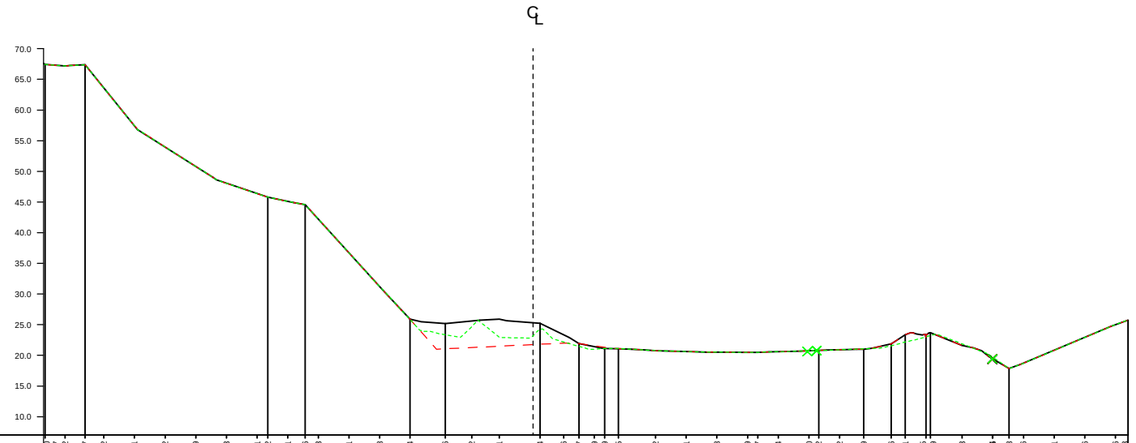

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Existing Ground Levels	67.580 67.478 67.182 67.367 63.572 57.431 53.962 50.789 48.053 46.371 45.782 45.101 44.576 42.203 36.691 31.178 25.884 25.186 25.602 25.901 25.224 23.336 21.927 21.429 21.119 21.055 20.772 20.621 20.518 20.479 20.477 20.594 20.750 20.802 20.912 21.009 21.886 23.381 23.945 23.699 21.623 **19.408** 17.868 18.716 20.821 22.926 24.996 25.743
Maximum Mineral Extraction	67.580 67.478 67.182 67.367 63.572 57.431 53.962 50.789 48.053 46.371 45.782 45.101 44.576 42.203 36.691 31.178 25.884 21.000 21.275 21.516 21.756 22.027 21.562 21.060 20.772 20.621 20.518 20.479 20.477 20.594 20.750 20.802 20.912 21.009 21.886 23.381 23.945 23.699 21.623 **19.408** 17.868 18.716 20.821 22.926 24.996 25.743
Final Restoration	67.580 67.478 67.182 67.367 63.572 57.431 53.962 50.789 48.053 46.371 45.782 45.101 44.576 42.203 36.691 30.223 25.790 24.060 23.901 23.479 22.936 25.767 22.897 23.818 24.235 22.765 21.958 20.961 21.122 21.060 20.772 20.621 20.518 20.479 20.477 20.594 **20.621** **20.774** 20.909 21.113 21.989 23.461 21.867 **19.408** 17.868 18.716 20.821 22.926 24.996 25.743
Existing offsets	-79.838 -78.315 -78.311 -73.050 -70.000 -65.000 -60.000 -55.000 -50.000 -45.000 -43.249 -40.000 -37.152 -35.000 -30.000 -25.000 -20.060 -14.318 -10.000 -5.478 1.165 5.000 7.492 10.000 11.701 13.928 20.000 25.000 30.000 35.000 36.682 40.000 45.000 46.600 50.000 53.950 58.446 60.716 64.682 64.807 70.000 **76.000** 77.645 80.000 85.000 90.000 95.000 97.033
Regular offsets	-75.000 -70.000 -65.000 -60.000 -55.000 -50.000 -45.000 -40.000 -35.000 -30.000 -25.000 -20.000 -15.000 -10.000 -5.000 0.000 5.000 10.000 15.000 20.000 25.000 30.000 35.000 40.000 45.000 50.000 55.000 60.000 65.000 70.000 75.000 80.000 85.000 90.000 95.000

Chainage 200.0m (247075.7E 120378.5N)

Quarry Design®

Beam Quarry

Phasing Scheme

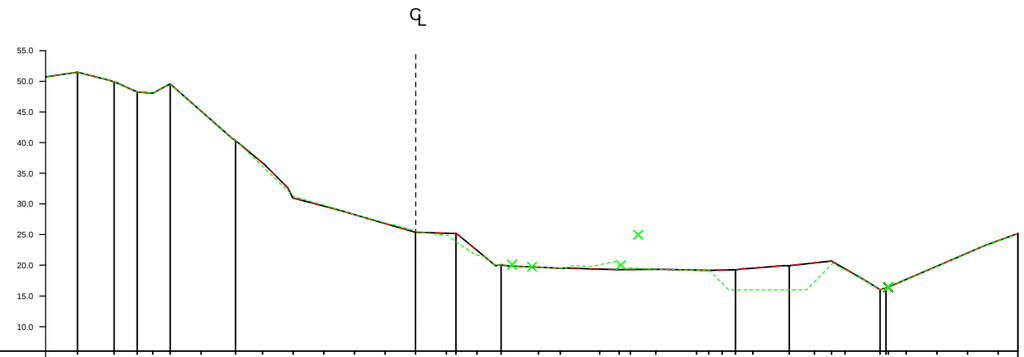
Section 5

Printed 21 DEC 20 15:15

Horizontal scale 1:1000
Vertical scale 1:1000

200528/12

r1



Datum 6.0

Existing Ground Levels	50.693 51.476 49.892 48.269 48.060 49.563 45.115 40.337 36.676 30.983 29.658 28.253 26.792 25.379 25.235 25.187 22.426 20.089 19.679 19.530 19.378 19.289 19.303 19.334 19.196 19.177 19.227 19.274 19.512 19.915 20.377 20.692 19.423 16.042 16.044 17.684 19.831 21.990 24.022 25.199
Maximum Mineral Extraction	50.693 51.476 49.892 48.269 48.060 49.563 45.115 40.337 36.676 30.983 29.658 28.253 26.792 25.379 25.235 25.187 22.426 20.089 19.679 19.530 19.378 19.289 19.303 19.334 19.196 19.177 19.227 19.274 19.512 19.915 20.377 20.692 19.423 16.042 16.044 17.684 19.831 21.990 24.022 25.199
Final Restoration	50.693 51.476 49.892 48.269 48.060 49.563 45.115 40.337 36.154 31.188 29.792 28.304 26.932 25.533 24.872 21.750 20.089 20.103 19.748 19.679 19.530 19.912 19.741 20.093 20.581 20.078 25.000 19.334 19.196 19.185 18.500 16.000 16.000 16.000 18.500 20.339 19.268 16.042 16.044 17.684 19.831 21.990 24.022 25.199
Existing offsets	-60.388 -55.156 -49.197 -45.432 -42.685 -40.078 -35.000 -29.406 -25.000 -20.000 -15.000 -10.000 -5.000 -0.033 5.000 6.544 10.000 13.914 20.000 23.572 30.000 33.182 35.000 39.165 45.838 47.794 50.000 52.141 55.000 60.888 65.000 67.806 70.000 75.720 78.000 80.000 85.000 90.000 95.000 98.189
Regular offsets	-60.000 -55.000 -50.000 -45.000 -40.000 -35.000 -30.000 -25.000 -20.000 -15.000 -10.000 -5.000 0.000 5.000 10.000 15.000 20.000 25.000 30.000 35.000 40.000 45.000 50.000 55.000 60.000 65.000 70.000 75.000 80.000 85.000 90.000 95.000

Chainage 250.0m (247125.2E 120385.6N)

Quarry Design®

Beam Quarry

Phasing Scheme

Section 6

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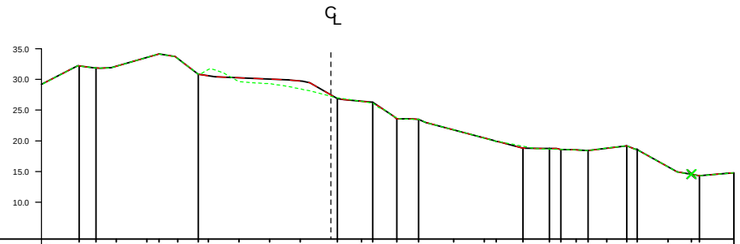


Datum 4.0

Existing Ground Levels	29.192 32.200 31.866 32.158 33.602 34.170 33.426 30.842 30.601 30.271 30.059 29.770 26.880 26.442 26.275 23.596 23.493 21.789 20.452 19.885 18.809 18.774 18.601 18.519 18.405 18.775 19.175 18.612 15.748 14.579 14.311 14.295
Maximum Mineral Extraction	29.192 32.200 31.866 32.158 33.602 34.170 33.426 30.842 30.601 30.271 30.059 29.770 26.880 26.442 26.275 23.596 23.493 21.789 20.452 19.885 18.809 18.774 18.601 18.519 18.405 18.775 19.175 18.612 15.748 14.579 14.311 14.295
Final Restoration	29.192 32.200 31.866 32.158 33.602 34.170 33.426 30.842 31.798 29.665 29.298 28.461 27.042 26.429 26.148 23.645 23.493 21.789 20.452 19.885 19.366 18.747 18.670 18.601 18.519 18.405 18.816 19.175 18.612 15.748 14.579 14.311 14.295
Existing offsets	-47.201 -41.054 -38.299 -35.000 -30.000 -28.033 -25.000 -21.661 -20.000 -15.000 -10.000 -5.000 1.055 5.000 6.809 10.761 14.299 20.000 25.000 26.958 31.308 35.660 37.512 40.000 41.951 45.000 49.250 49.961 55.000 58.808 60.100 65.730
Regular offsets	-45.000 -40.000 -35.000 -30.000 -25.000 -20.000 -15.000 -10.000 -5.000 0.000 5.000 10.000 15.000 20.000 25.000 30.000 35.000 40.000 45.000 50.000 55.000 60.000 65.000

Chainage 298.253m (247172.9E 120392.4N)

Quarry Design®

Beam Quarry

Phasing Scheme

Section 7

Printed 21 DEC 20 15:16

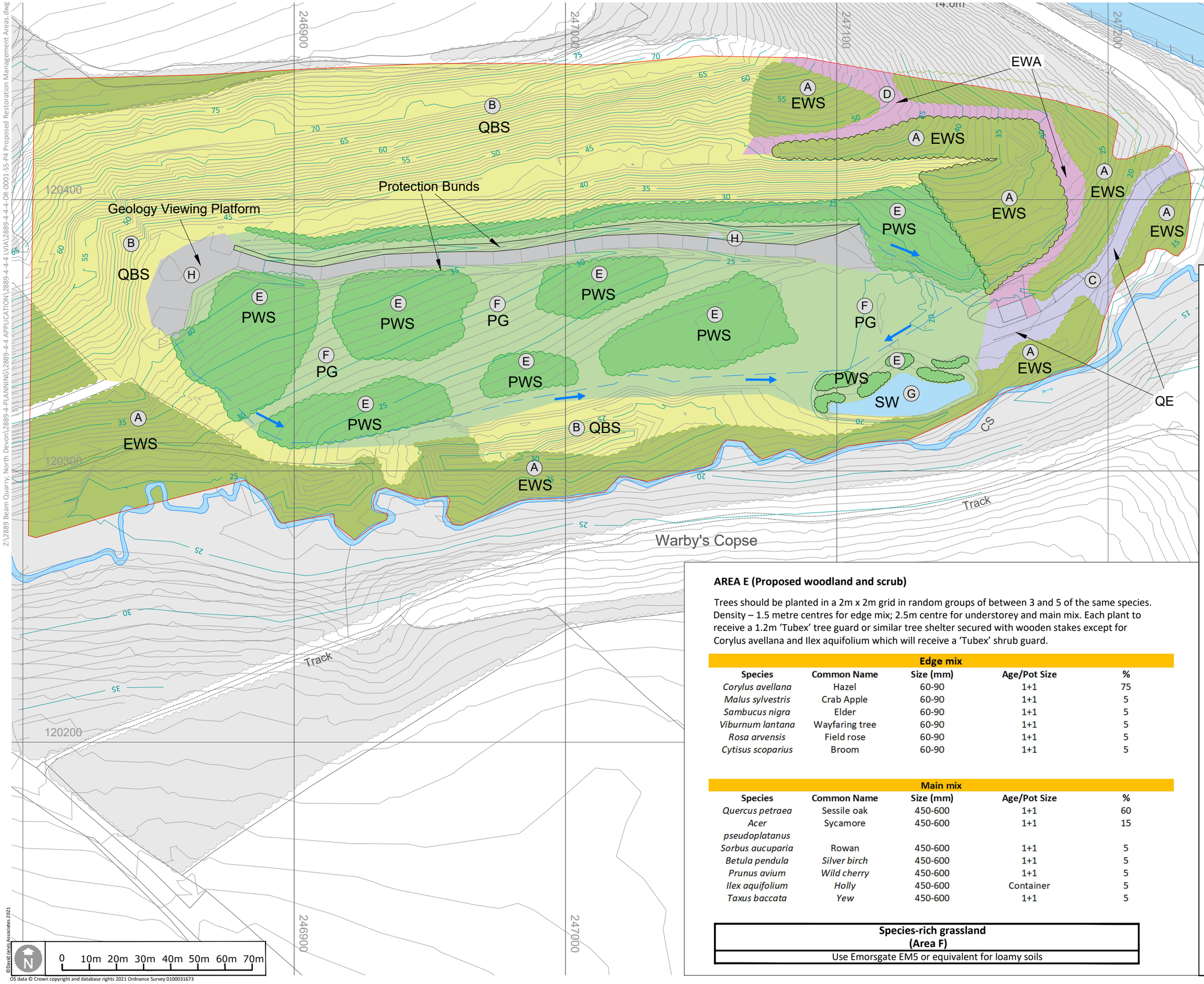
Horizontal scale 1:1000
Vertical scale 1:1000

200528/14

r1

Appendix 3 Restoration Plan

Z:\2889 Beam Quarry, North Devon\2889-4 PLANNING\2889-4-4 APPLICATION\2889-4-4 LVIA\2889-4-4-DR-0001-S5-P4 Proposed Restoration Management Areas.dwg



AREA E (Proposed woodland and scrub)

Trees should be planted in a 2m x 2m grid in random groups of between 3 and 5 of the same species. Density – 1.5 metre centres for edge mix; 2.5m centre for understorey and main mix. Each plant to receive a 1.2m 'Tubex' tree guard or similar tree shelter secured with wooden stakes except for Corylus avellana and Ilex aquifolium which will receive a 'Tubex' shrub guard.

Edge mix

Species	Common Name	Size (mm)	Age/Pot Size	%
Corylus avellana	Hazel	60-90	1+1	75
Malus sylvestris	Crab Apple	60-90	1+1	5
Sambucus nigra	Elder	60-90	1+1	5
Viburnum lantana	Wayfaring tree	60-90	1+1	5
Rosa arvensis	Field rose	60-90	1+1	5
Cytisus scoparius	Broom	60-90	1+1	5

Main mix

Species	Common Name	Size (mm)	Age/Pot Size	%
Quercus petraea	Sessile oak	450-600	1+1	60
Acer pseudoplatanus	Sycamore	450-600	1+1	15
Sorbus aucuparia	Rowan	450-600	1+1	5
Betula pendula	*Silver birch*	450-600	1+1	5
Prunus avium	*Wild cherry*	450-600	1+1	5
Ilex aquifolium	*Holly*	450-600	Container	5
Taxus baccata	*Yew*	450-600	1+1	5

Species-rich grassland (Area F)

Use Emorsgate EM5 or equivalent for loamy soils

KEY

- Boundary: Application Site
- Contours 1m Interval
- Proposed Restoration Contours 1m Interval
- (A) Existing Peripheral Woodland & Scrub (EWS) 13,960m²
- (B) Quarry Benches and Slopes (QB) 21,270m²
- (C) Former quarry office weighbridge and access roads (QE) 1,250m²
- (D) Existing woodland access roads (EWA) 1,600m²
- (E) Proposed Woodland & Scrub (PWS) 8,900m²
- (F) Proposed Grassland (PG) 10,080m²
- (G) Attenuation Lagoon (SW) 820m²
- (H) Proposed Access Track to Geology Viewing Platform 2,040m²
- Proposed Drainage & Flow Direction

Status: **PLANNING**

DAVID JARVIS ASSOCIATES
DAVID JARVIS ASSOCIATES LIMITED
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Client: L.J DEVELOPMENT

Project: BEAM QUARRY

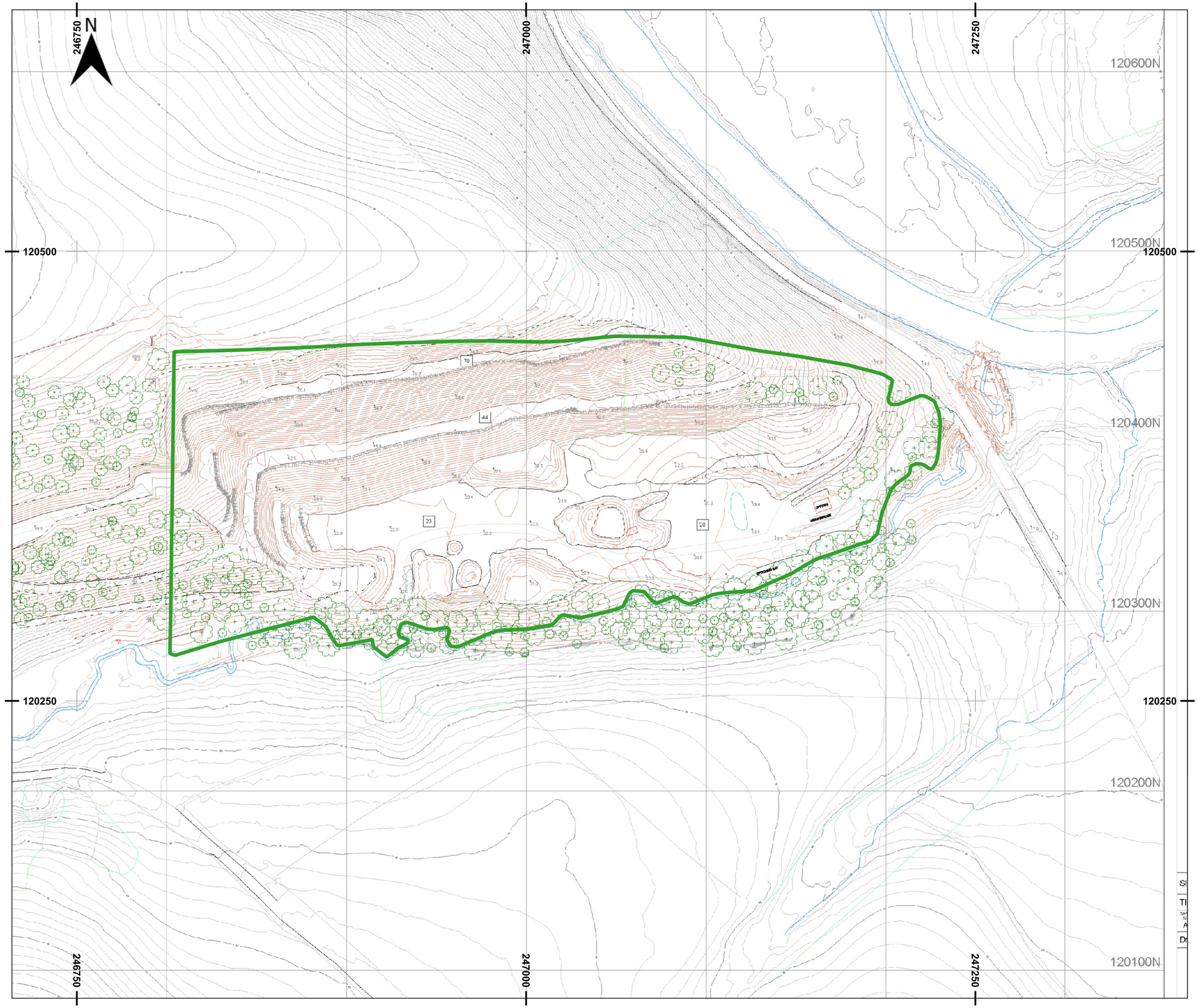
Drawing Title: PROPOSED RESTORATION MANAGEMENT AREAS

Scale	Sheet Size	Date
1:1,250	A3	06/05/2021

Client Ref.	Drawing Ref.	Status
-	2889-4-4-4-DR-0001-S5	P4

List of Drawings

Drawing No CE-BQ-1936-DW01	Environmental Permit Boundary	1:2,000 @ A3



Legend:

Permit boundary

Final Revision:	Date:	Description:	By:	Chk:

Consultant:

Crestwood Environmental Ltd

Science, Technology & Prototyping Centre
University of Wolverhampton Science Park
Glaisher Drive, Wolverhampton
WV10 9RU

Tel: 01902 229563
info@crestwoodenvironmental.co.uk
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Client:

QuarryPlan

Site: Beam Quarry

Drawing Title: **Proposed permit boundary**

Date:	Scale	Paper Size:
25 / 10 / 2021	1:2,000	A3 (420×297mm)

Drawn By:	Checked By:	Status:	Final Revision:
AA	ST	FINAL	-

Drawing Ref:	Drawing No:
CE-BQ-1936-DW01	**Figure 1**

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