wardell-armstrong.com

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

TILLICOULTRY QUARRIES LTD

Replacement Of Coated Stone Plant Ely

Landscape And Ecology Management Plan

February 2024

wardell armstrong

Wardell Armstrong LLP
City Quadrant, 11 Waterloo Square, Newcastle upon Tyne, NE1 4DP, United Kingdom
Telephone: +44 (0)191 232 0943 www.wardell-armstrong.com

DATE ISSUED:	February 2024
JOB NUMBER:	**NT16548**
REPORT NUMBER:	**0001**
VERSION:	**V1.0**
STATUS:	**FINAL**

TILLICOULTRY QUARRIES LTD

Replacement of Coated Stone Plant Ely

Landscape and Ecology Management Plan

February 2024

PREPARED BY:

Olivia Satur Ecologist

REVIEWED AND APPROVED BY:

Tim Palmer Technical Director

Wardell Armstrong is the trading name of Wardell Armstrong LLP, Registered in England No. OC307138.

Registered office: Sir Henry Doulton House, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom

UK Offices: Stoke-on-Trent, Birmingham, Bolton, Bristol, Bury St Edmunds, Cardiff, Carlisle, Edinburgh, Glasgow, Leeds, London, Newcastle upon Tyne and Truro. International Office: Almaty

CONTENTS

1 INTRODUCTION 1
1.1 Terms of Reference 1
1.2 Planning Conditions 1
1.3 Objectives of the LEMP 2
2 BASELINE CONDITIONS 3
2.1 Site Context 3
2.2 Habitats 3
2.3 Protected and Notable Species 3
3 MANAGEMENT OBJECTIVES 3
4 HABITAT CREATION, ESTABLISHMENT AND MANAGEMENT 4
4.2 Objective 1: Native Hedgerow 4
4.3 Objective 2: Individual Trees 6
4.4 Objective 3: Scrub 7
4.5 Objective 4: Attenuation Basins and Swales 9
5 RETAINED HABITAT ENHANCEMENT MEASURES 9
5.2 Objective 5: Ruderal Vegetation 9
5.3 Objective 6: Mixed Scrub 10
5.4 Objective 7: Line of Trees 11
6 PROTECTED SPECIES ENHANCEMENT MEASURES 12
6.1 Objective 8: Bats 12
6.2 Objective 9: Birds 13
7 CONCLUSION 14
8 REFERENCES 15

APPENDICES

Appendix 1 Maintenance Schedule

DRAWINGS	TITLE	SCALE
ED13486/019	Extended Phase 1 Habitat Survey Results	1:2000@A3
ED13486 004B	Proposed Site Layout	1:2500@A3
ED13486/028	Biodiversity Net Gain - Baseline Conditions	1:2000@A3
ED13486/029	Biodiversity Net Gain - Habitat Creation	1:2000@A3
ED13486/030	Biodiversity Net Gain - Habitat Retention and Enhancement	1:2000@A3
NT16548/001	Landscape Planting Plan	1:7,500@A3

1 INTRODUCTION

1.1 Terms of Reference

1.1.1 Wardell Armstrong LLP (WA) was commissioned by Tillicoultry Quarries Ltd to undertake a Landscape Ecological Management Plan (LEMP) in order to discharge planning conditions for the application for replacement of the existing coated stone plant with a new and modern plant, together with associated works and facilities. The project (hereafter known as the 'Site') is located at Ely Asphalt Plant, Potter Distribution Depot, Queen Adelaide, Ely, CB7 4UB, central Ordnance Survey (OS) grid reference TL 5599 8086.

1.1.1 A Preliminary Ecological Appraisal Report (PEAR), a Proposed Site Layout (ED13486 004B), Landscape Planting Plan, Biodiversity Net Gain assessment and a Biodiversity Management Plan (BMP) have been produced by Wardell Armstrong (WA 2022, 2023), to set out measures required to avoid/mitigate potential effects associated with the development proposals.

1.1.2 In general terms, this report outlines the management and maintenance of habitats and ecological mitigation measures to ensure that the development proposals are in line with the National Planning Policy Framework (NPPF, 2021) and published British Standards (2013) BS 42020:2013 Biodiversity - Code of practice for planning and development.

1.1.3 Habitat and ecological recommendations and proposals are shown on Drawings prepared by Wardell Armstrong, 2022:

- NT16548/001 Landscape Planting Plan
- ED13486/028 Biodiversity Net Gain - Baseline Conditions
- ED13486/029 Biodiversity Net Gain - Habitat Creation
- ED13486/030 Biodiversity Net Gain - Habitat Retention

1.2 Planning Conditions

1.2.1 The requirement of this LEMP is set out in Planning Condition 13, which states:

"A landscape and ecological management plan (LEMP) shall be submitted to and be approved in writing by the Mineral Planning Authority prior to the first use of the replacement coated roadstone plant approved by this permission. The LEMP should be based on the Biodiversity Management Plan (Wardell Armstrong, 2022). The content of the LEMP shall include the following.

A) Description and evaluation of features to be managed.

B) Ecological trends and constraints on site that might influence management.

C) Aims and objectives of management.

D) Appropriate management options for achieving aims and objectives (including biodiversity net gain).

E) Prescriptions for management actions.

F) Preparation of the work schedule (including an annual work plan capable of being rolled forward over a 30 year period and BNG audit).

G) Details of the body or organisation responsible for implementation of the plan.

H) Ongoing monitoring and remedial measures.

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured by the development with the management body(ies) responsible for its delivery. The plan shall also set out (where the results from monitoring show that conservation aims and objective of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme.

A 5 yearly report shall be submitted to the LPA confirming the progress of the LEMP and results of any monitoring work.

The approved plan shall be implemented for a minimum of 30 years from the date of this permission, or until habitat target conditions have been reached, in accordance with the approved details.

1.3 Objectives of the LEMP

1.3.1 This LEMP should be read in conjunction with the Preliminary Ecological Appraisal (PEA), Biodiversity Net Gain (BNG) Assessment report and BMP prepared by Wardell Armstrong LLP, 2022/2023. These documents present the baseline status/condition of features at the site, proposed and are of relevance to the content of the LEMP.

1.3.2 The broad objectives are to:

- Establish and maintain newly created habitats;
- Maintain and enhance retained vegetation;
- Maintain and enhance species populations;
- Contribute to local and national objectives i.e. by enhancing the habitats to ensure Biodiversity Net Gain.

1.3.3 This LEMP will be implemented by the Site Operator and relevant Contractors employed for the maintenance and management of the habitats discussed below.

1.3.4 Funding for and management of the implementation of this LEMP will be provided by the tenant during their occupation. Should the tenant leave the Site prior to the expiration of the 30-year management period, responsibility for funding and management will pass to the landlord.

2 BASELINE CONDITIONS

2.1 Site Context

2.1.1 The Site is located on the south-west end of Adelaide Park, an industrial area situated 520m east of Ely, Cambridgeshire. The application area comprises an asphalt plant with ancillary machinery and welfare machinery.

2.1.2 The Site was previously a landfill and supports minimal vegetation. Simple and robust management practices have been recommended below, which are suitable for the Site's industrial activities.

2.2 Habitats

2.2.1 The Site mainly comprises hard standing, with areas of dense continuous scrub, scattered scrub, tall ruderal vegetation, scattered trees and standing open water. The Site also includes a stock yard and storage area, which are used to store materials.

2.3 Protected and Notable Species

Bats

2.3.1 There is limited foraging and commuting habitat on Site, and no suitable roosting locations. However, the adjacent Ely Pits and Meadows Site of Species Scientific Interest (SSSI) is known to support at least six species of bat.

Breeding Birds

2.3.2 Potential breeding and foraging habitat will be lost and/or disturbed by the proposals. There will also likely be disturbance effects from noise and vibration resulting from machinery use.

3 MANAGEMENT OBJECTIVES

3.1.1 The below sections will discuss the management objectives included within the LEMP. These are listed below and have been selected in line with the BNG assessment (WA, 2022), which details the existing habitats to be retained and enhanced and those that are proposed post-development.

3.1.2 Two attenuation ponds have been included since the original Proposed Site Layout was proposed. The inclusion of the attenuation ponds will not negatively affect the BNG score, given the management prescriptions discussed below and that they will be created in areas of existing hard standing.

3.1.3 The objectives are also in line with those discussed within the BMP (WA, 2023), and include:

Proposed Habitats

1. Native hedgerow (proposed);
2. Individual trees (proposed);
3. Scrub planting (proposed);
4. Standing Water;

Retained Habitats

5. Ruderal Vegetation (retained/enhanced);
6. Mixed scrub (retained/enhanced);
7. Line of trees (retained/enhanced);

Protected Species

8. Bats;
9. Birds.

3.1.4 The baseline conditions are given for each management objective below, and the proposals for each objective post-development are discussed. This will include information as to how the proposals will be obtained, including target conditions, habitat creation, habitat enhancement, habitat management, general management and monitoring.

3.1.5 Ongoing monitoring will comprise an annal review of the management prescriptions below and their suitability for the Site. An site visit will be made every five years by a suitably qualified ecologist and a Technical Note will be supplied to the Council considering whether the habitats are developing in line with the objectives set out below. If needed, modifications will be made to this LEMP in agreement with the LPA to ensure the objectives set out in Planning Condition 13 are met.

4 HABITAT CREATION, ESTABLISHMENT AND MANAGEMENT

4.1.1 The following habitat creation and management guidelines have been prepared for each objective with respect to the development proposals, BNG assessment and BMP.

4.2 Objective 1: Native Hedgerow

Proposals

4.2.1 Two new native species rich hedgerows are proposed along the northern and south-eastern boundary will include a mix of native species including field maple *Acer campestre*, hazel *Corylus avellana*, holly *Illex aquifoloim,* dog rose *Rosa canina*, blackthorn *Prunus spinosa* and hawthorn *Crataegus monogyna*.

Baseline Condition

No hedgerows currently exist in the baseline.

Target Condition

4.2.2 The hedgerows that will be created under the proposals will be of a Moderate condition. To achieve this, they will:

- Be >1.5m in height and width;
- Have no gaps >5m, with gaps making up <10% of the length; and
- Have >90% of the hedgerow free from non-native and neophyte species and from human damage.

Habitat Creation/Establishment/Management, General Management and Monitoring

Creation

4.2.3 The location of hedgerow planting is shown on Drawing ED13486/028 Biodiversity Net Gain - Habitat Creation by Wardell Armstrong (WA, 2022) and NT16548-001 Landscape Planting Plan (WA, 2023). Specifications for hedgerow planting would be as follows:

- Whips will be planted during the dormant season (November-February), but not during prolonged cold spells where frost might penetrate to the roots;
- Planting will be undertaken in two staggered rows with approximately 300mm between plants and 450mm between rows; and
- Biodegradable rabbit protection, in the form of shelters / spiral guards, will be installed around transplants.

Establishment and Aftercare

4.2.4 Please see Appendix 1 for Maintenance Schedules which summarises the below.

4.2.5 The specification for establishment and aftercare of newly planted species-rich hedgerows would be as follows:

- New hedgerows to be protected by biodegradable tree guards and rabbit proof fencing which should be 900mm high galvanised mesh and timber stakes (mesh to be buried 150mm below ground with 150mm angled away from planting);
- Specimens will be firmed and watered as necessary;
- Once planting is established, generally from Year 3 onwards, stakes and guards may be removed;
- Hedgerows will be maintained using mulch to reduce pesticide use;
- Hedgerows will be maintained free of weeds along the length of the double staggered row and for an overall width of 1m and;
- Any dead or diseased planting will be removed and replanted in the next season;

Management (Year 3 Onwards)

4.2.6 Long term management of new hedgerow habitat within the Site will have the aim to improve their structure and quality as follows:

- Hedgerows within the Site will be trimmed on a 3-year rotation, incrementally raising the cutting height each year to ultimately achieve 3m in height.
- All stakes and guards will be removed by the end of Year 5;
- Works will be undertaken in January and February to avoid the peak nesting bird season and following berry production which is a valuable resource for birds and mammals; and

4.3 Objective 2: Individual Trees

Proposals

4.3.1 A total of 0.2ha of native trees, including pedunculate oak *Quercus robur*, grey willow *Salix cinerea* and osier *Salix viminalis* will be planted near the existing line of trees to the south of the site. This is shown on Drawing ED13486/29 Biodiversity Net Gain - Habitat Creation (Wardell Armstrong 2022).

Baseline Condition

4.3.2 No individual trees exist in the baseline.

Target Condition

4.3.3 The individual trees that are to be planted will be of a Moderate condition. This will be achieved by:

- Ensuring the tree is a native species;
- Minimising anthropogenic impacts such as vandalism and herbicide use;
- Ensuring there is no regular pruning so trees retain >75% of canopy;
- Providing micro-habitats for birds, mammals and insects by promoting deadwood, cavities, ivy, loose bark etc.; and
- Ensuring >20% of the canopy area over sails vegetation.

Habitat Creation/Establishment/Management, General Management and Monitoring

Creation and Establishment

4.3.4 In order to ensure that healthy, vigorous growth is achieved of the newly planted trees, the following specification would be applied:

- all planting stock supplied would be in accordance with BS3936 and would be the best quality of their respective kind;
- all plant stock would be supplied from a reputable nursery which can supply species of local provenance where possible;

- all plant material would be healthy, vigorous and sound transplanted nursery stock with well-formed fibrous root systems and well-formed heads;
- plant material to be free from pest and diseases, undamaged and any containers free from weeds, prior to planting;
- The trees would be pit planted and protected using 1.2m high tree tubes or guards constructed of a biodegradable material and supported by a single stake;
- The trees will be maintained free of weeds for a 1m diameter area around each tree through the maintenance of mulch to reduce pesticide use; and
- Any dead or diseased planting will be removed and replanted in the next season.

4.3.5 Ground flora will be allowed to develop naturally.

Management and Monitoring

4.3.6 Monitoring of the condition of the trees will be carried out at least once every 5 years. Please see Appendix 1 for Maintenance Schedules. Other management work would include:

- Arboricultural works to rejuvenate trees in poor condition;
- The felling and clearance of diseased trees where there is a clear risk of disease or pest transmission.
- Creation of veteran tree features such holes, splits, cavities in existing poor quality trees to create habitat for invertebrates, nesting birds and bats;
- Limited selective thinning of trees and coppicing of selected species to introduce stand diversity and to benefit the growth of other trees and habitats; and
- Selective thinning of naturally regenerated juvenile trees to better the growth of the trees to be retained.

4.4 Objective 3: Scrub

Proposals

4.4.1 An area of native scrub will also be created, which is shown on ED13486/29 Biodiversity Net Gain – Habitat Creation. The proposed native scrub mix will include; field maple *Acer campestre*, common dogwood *Cornus sanguinea,* hazel *Corylus avellana*, hawthorn C*rataegus monogyna*, holly *Ilex aquifolium,* blackthorn *Prunus spinosa*, pedunculate oak *Quercus robur*, dog rose *Rosa canina*, elder *Sambucus nigra,* rowan *Sorbus aucuparia* and guelder-rose *Viburnum opulus.*

Baseline Condition

4.4.2 Several areas of scrub currently exist across the Site, including along the southern border and on the bund in the centre of the Site. However, existing species are of less

ecological value and include buddleja *Buddleja davidii,* bramble *Rubus fruticosus* and elder *Sambucus nigra.*

Target Condition

4.4.3 The scrub habitat created will be of Moderate condition, which will be achieved by:

- Ensuring there are at least three woody species, with no one species comprising more than 75% of cover;
- Ensuring the scrub has a well developed edge with scattered scrub and tall grassland and/or herbs present between scrub and adjacent habitats; and
- Ensuring there are clearings, glades or rides within the scrub.

Habitat Creation/Establishment/Management, General Management and Monitoring

Creation

4.4.4 In order to ensure that healthy, vigorous growth is achieved of the newly planted trees and shrubs, the following specification would be applied:

- All planting stock supplied would be in accordance with BS3936 and would be the best quality of their respective kind;
- All plant stock would be supplied from a reputable nursery which can supply species of local provenance where possible;
- All plant material would be healthy, vigorous and sound transplanted nursery stock with well-formed fibrous root systems and well-formed heads;
- Plant material to be free from pest and diseases, undamaged and any containers free from weeds, prior to planting;
- The trees and shrubs would be notch planted, with the exception of the holly which would be pit planted, and protected using 1.2m high tree tubes or guards constructed of a biodegradable material and/or post and wire fencing;
- The trees and shrubs will be maintained free of weeds for a 1m diameter area around each plant through the maintenance of mulch to reduce pesticide use; and
- Any dead or diseased planting will be removed and replanted in the next season.

Management and Monitoring

4.4.5 Please see Appendix 1 for Maintenance Schedules. Management and Monitoring would include:

- Scrub planting and management will encourage the growth of scrub species of a range of ages.
- Bramble around hawthorn, blackthorn and other native species will be cut to allow other shrubby species to persist, enhancing structure and diversity;

- Scrub within the receptor area will be managed to cover no more than 30% of the area; and
- All arisings to be removed from Site.

4.5 Objective 4: Attenuation Basins and Swales

Proposals

4.5.1 Two attenuation basins and one swale are to be created. The proposed swale runs along the western boundary of the Site and discharges into Basin 1, which is located just north of the retained ruderal vegetation. Basin 2 is the larger proposed basin and is located adjacent to the existing trees that line the southern boundary. This basin will accept the overflow from Basin 1 and discharge into the existing watercourse located within the ruderal vegetation (NT16548-100-P0-Drainage Layout-A0L.pdf).

Baseline Conditions

4.5.2 Two drains are present in the baseline; one is located to the east of the bund and the other crosses the south-western boundary of the Site.

Target Condition

4.5.3 Created habitats will be managed to achieve Moderate condition, via the following measures:

- Control of cover by duckweed Lemna spp. or filamentous algae;
- Monitoring of damage by plant activities;
- Control of non-native plant and animal species;

Habitat Creation/Establishment/Management, General Management and Monitoring

Enhancement and Management

4.5.4 Both attenuation ponds will be subject to annual removal of invasive weeds by hand.

5 RETAINED HABITAT ENHANCEMENT MEASURES

5.1.1 Habitats which are to be retained on Site will be managed in accordance with the condition assessment and subsequent habitat management recommendations stated within the BNG report completed by WA, 2022. Specific measures for each habitat are outlined below:

5.2 Objective 5: Ruderal Vegetation

Proposals

5.2.1 Of the existing 0.34ha of existing tall ruderal vegetation, 0.23ha will be retained and enhanced as a part of the proposals.

Baseline Condition

5.2.2 Two areas of tall ruderal vegetation exist in the baseline. One area is located on a bund in the centre of the Site, and the other can be found along the southern boundary. Existing species include common nettle *Urtica dioica,* hedge mustard *Sisymbrium officinale,* colts-foot *Tussilago farfara,* purple small reed *Calamagrostis canescens,* ragwort *Jacobaea vulgaris,* Canadian fleabane *Conzya canadensis* and more.

5.2.3 Both areas of ruderal vegetation were assessed as being of 'Poor' condition

Target Condition

5.2.4 The existing tall ruderal vegetation will be managed to a Moderate condition, by:

- Ensuring that bracken, scrub and trees account for <25%;
- Ensuring an absence of non-natives and species of sub-optimal condition; and
- Keeping cover of vascular and non-vascular plants between 5 and 10%.

Habitat Creation/Establishment/Management, General Management and Monitoring

Enhancement and Management

5.2.5 Retained ruderal vegetation will be managed with the following:

- Selective removal of bracken, scrub and tree species to keep their cover less than 25%;
- Selective removal of sub-optimal plant species including creeping thistle *Cirsium arvense,* spear thistle *Cirsium vulgare,* docks *Rumex spp.,* brambles *Rubus spp.,* common ragwort *Jacobaea vulgaris* and common nettle *Urtica dioica.*

5.3 Objective 6: Mixed Scrub

Proposals

5.3.1 Three areas of mixed scrub exist, totalling 0.16ha. Of this, the majority (0.14ha) will be retained and enhanced.

Baseline Condition

5.3.2 Scrub can be found along the southern and eastern boundaries and along the bund in the centre of the Site, where it forms a mosaic with the tall ruderal vegetation. Species found include buddleja *Buddleja davidii,* bramble *Rubus fruticosus* and elder *Sambucus nigra.*

5.3.3 All areas of scrub were assessed as being of 'Poor' condition.

Target Condition

5.3.4 The scrub habitat will be enhanced to a Moderate condition, which will be achieved by:

- Ensuring there are at least three woody species, with no one species comprising more than 75% of cover;
- Ensuring the scrub has a well developed edge with scattered scrub and tall grassland and/or herbs present between scrub and adjacent habitats; and
- Ensuring there are clearings, glades or rides within the scrub.

Habitat Creation/Establishment/Management, General Management and Monitoring

Enhancement and Management

5.3.5 Retained mixed scrub will be managed with the following suggestions (see Appendix 1):

- Selective removal of plants so that no one species comprises more than 75% of the cover, and to remove sub-optimal species;
- Supplementary planting of plants to maintain a good age range and ensure seedlings, young shrubs and mature shrubs are all present; and
- Removal, thinning and pruning as required to maintain a well-developed scrub edge, clearings, glades or rides.

5.4 Objective 7: Line of Trees

Proposals

5.4.1 The majority of the existing line of trees (0.18km of a total 0.2km) will be retained under the proposals.

Baseline Condition

5.4.2 A line of trees currently exists along the southern border of the Site. Species are dominated by grey poplar *Populus canescens,* with scattered whitebeam *Sorbus aria,* plum *Prunus spp.,* willow *Salix spp.,* elm *Ulmus procera* and ash *Fraxinus excelsior.*

5.4.3 The existing line of trees was assessed as being of a Moderate condition.

Target Condition

5.4.4 The trees will be enhanced to a Good condition. This will be achieved by:

- Supplementary planting / thinning to ensure native tree species account for >70%;
- Minimising anthropogenic impacts such as vandalism and herbicide use;
- Ensuring there is no regular pruning so trees retain >75% of canopy;
- Providing micro-habitats for birds, mammals and insects by promoting deadwood, cavities, ivy, loose bark etc.; and
- Ensuring >20% of the canopy area over sails vegetation.

Habitat Creation/Establishment/Management, General Management and Monitoring

5.4.5 Retained trees will be managed with the following suggestions to enhance biodiversity value of trees in poor condition (see Appendix 1):

- The felling and clearance of diseased trees where there is a clear risk of disease or pest transmission. This is to be only undertaken, following consultation with and under direction of the Forestry Commission;
- Limited selective thinning of trees, established groups of trees/ woodland and coppicing of selected species to introduce stand diversity and to benefit the growth of other trees and habitats; and
- Selective thinning of juvenile trees to better the growth of the trees to be retained.

6 PROTECTED SPECIES ENHANCEMENT MEASURES

6.1 Objective 8: Bats

Proposals

6.1.1 A sensitive lighting scheme will be used during construction works, which will maintain dark commuting corridors and foraging habitat. In particular, light spill onto the adjacent woodland of Ely Pits and Meadows SSSI will be minimised.

6.1.2 Furthermore, the creation and enhancement of habitats, such as the new species-rich hedgerows, will improve foraging and commuting habitat for bats.

Baseline Conditions

6.1.3 The Site contains limited foraging habitat for bats and supports no potential roosting habitats. The Site also lies in close proximity to alternative habitat in Ely Pits and Meadows SSSI. No habitats in the SSSI will be lost, however they will be disturbed through light pollution resulting from the development.

Target Condition

6.1.4 Dark corridors will be retained to provide suitable unlit routes for foraging and commuting bats using the adjacent SSSI.

6.1.5 Habitats created and enhanced as a part of the proposals will be done so to benefit foraging and commuting species of bat.

Habitat Creation/Establishment/Management, General Management and Monitoring

Management and Monitoring

6.1.6 A sensitive lighting scheme will be designed in accordance with 'Guidance Note 08/18' (BCT, ILP, 2018) to minimise light spill into sensitive habitats. Careful design/selection of product will be undertaken with consideration of the following:

- 'Luminaires will not emit light from the UV spectrum;
- Metal halide and fluorescent sources will not be used;
- LED luminaires will be used where possible;
- A warm white spectrum (ideally <2700 Kelvin) will be adopted;
- Luminaires will feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats;
- Luminaries with an upward light ration of 0% will be used;

6.1.7 The lighting scheme will be subject to review by a suitably qualified ecologist prior to finalisation.

6.1.8 The newly created hedgerow will be planted with a range of native species (field maple, hazel, holly, dog rose, blackthorn, hawthorn). Also, measures to establish and manage the habitat will improve its condition, (such as double planting of rows) will enhance the quality of the habitat. This will encourage invertebrate species, thereby providing food resources for bats.

6.2 Objective 9: Birds

Proposals

6.2.1 The avoidance of sensitive bird nesting periods and support by a suitably qualified ecologist will prevent the destruction/damage of or disturbance to any active bird nests that are present on Site during the construction of the proposed development.

6.2.2 The creation of new habitats and enhancement of existing habitats will also benefit breeding species of birds, by providing more suitable nesting and foraging opportunities.

Baseline Conditions

6.2.3 The Site currently supports habitats suitable for nesting birds, particularly the vegetation on the southern border and bund, which includes scrub and tall ruderal vegetation. The line of trees along the southern border also provides suitable bird nesting habitat.

6.2.4 Small areas of the scrub and tall ruderal vegetation are to be lost to the development, along with a small length of the line of trees. All suitable bird nesting habitat that is to be retained on the Site during construction will be subject to disturbance through noise and vibration.

Target Conditions

6.2.5 During development habitats being used by nesting birds will be protected by an appropriately sized buffer and period of time to ensure no nests are destroyed or disturbed.

6.2.6 Habitats will be created and enhanced to benefit breeding and foraging birds.

Habitat Creation/Establishment/Management, General Management and Monitoring

Management and Monitoring

6.2.7 Site clearance works will be undertaken where possible outside the active nesting season (taken to be March to August inclusive). In the event that such timescales cannot be accommodated a check for the presence of active nests will be undertaken by a suitably experienced ecologist, prior to commencement of works. Any active nests recorded would be identified and protected until the nesting attempt is complete.

6.2.8 The created and existing habitats will be created and managed appropriately to improve their suitability for birds. The creation of new hedgerows, individual trees and scrub habitat will provide more nesting habitat for breeding birds. Furthermore, trimming hedgerows on a 3-year rotation and outside of the active nesting season will promote the quality of nesting habitat and prevent management practices from disturbing nests.

6.2.9 Additionally, management practices such as the double planting of hedgerows, reduced use of pesticides will enhance food resources for birds through promoting invertebrate populations. Similarly, the use of berry and fruit-bearing shrubs and trees (such as hawthorn and species of plum tree) will promote food resources.

7 CONCLUSION

7.1.1 In conclusion, the management prescriptions outlined above show that the Site can be managed to benefit wildlife and provide biodiversity benefits. The Site should be managed and maintained in accordance with the above recommendations for 30 years to align with the recommendations enhancing the habitats to ensure a Biodiversity Net Gain can be achieved. The establishment of habitats including hedgerow, trees and scrub will provide an overall benefit to wildlife. In addition, the Site can be managed to enhance and manage habitats which will benefit populations of bats and nesting birds.

8 REFERENCES

British Standards Institute. (2013). *Biodiversity – Code of Practice for Planning and Development*. BS 42020:2013.

Collins, J. (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn. Bat Conservation Trust, London.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great Crested Newt Conservation Handbook, Froglife, Halesworth.

Gent, T. & Gibson, S. (eds). 2003. Herpetofauna Workers' Manual (revised reprint), JNCC, Peterborough, ISBN 1 86107 450 6.

Appendix 1 Maintenance Schedule

Maintenance Schedules

Component 1 – General operations												
Regular and periodic maintenance visits tasks – Annually	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Remove litter, debris, stones and fallen leaves						As Required						
Repair damage						As Required						
Watering						As Required						
Treating weeds, including invasive species			Once				Once					

Component 2 - Hedgerows													
Regular and periodic maintenance visits tasks		**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Year 1	Inspect all staked plants and replace any dead or damaged plants					Once					Once		
	Maintenance of rabbit guards and other forms of protection		Once	Once	Once	Once	Once	Once	Once	Once	Once		
	Watering					Weekly	Weekly	Weekly	Weekly				
	Remove plants suffering from visual defects, obstructing users of adjoining properties, pathways and roadways						As Required						
	Non-desirable woody species to be removed						As Required						
	Hand weeding to be carried out and top up mulch		Once		Once		Once		Once		Once		
	Trim transplants to one third of height (no less than 900mm)										Once		
	If required, fertiliser should be reported for agreement before application				As required								
	If required, herbicide should be reported for agreement before application							As Required					
Year 2	Inspect all staked plants and replace any dead or damaged plants										Once		
	Maintenance of rabbit guards and other forms of protection		Once	Once	Once	Once	Once	Once	Once	Once	Once		
	Watering					Weekly	Weekly	Weekly					
	Remove plants suffering from visual defects, obstructing users of adjoining properties, pathways and roadways						As Required						
	Non-desirable woody species to be removed						As Required						
	Hand weeding to be carried out and top up mulch		Once		Once		Once		Once		Once		
	Trim to 1200mm minimum										Once		
	If required, fertiliser should be reported for agreement before application				As required								
	If required, herbicide should be reported for agreement before application							As Required					
Year 3	Inspect all staked plants and replace any dead or damaged plants										Once		
	Maintenance of rabbit guards and other forms of protection		Once	Once	Once	Once	Once	Once	Once	Once	Once		
	Remove plants suffering from visual defects, obstructing users of adjoining properties, pathways and roadways						As Required						
	Non-desirable woody species to be removed						As Required						
	Trim to 1200mm minimum										Once		
	Hand weeding to be carried out and top up mulch		Once		Once		Once		Once		Once		
	If required, fertiliser should be reported for agreement before application				As required								
	If required, herbicide should be reported for agreement before application							As Required					
Year 4	Inspect all staked plants and replace any dead or damaged plants										Once		
	Maintenance of rabbit guards and other forms of protection		Once	Once	Once	Once	Once	Once	Once	Once	Once		
	Trim to 1500mm minimum for native hedgerows and 1200mm for Hornbeam										Once		
	Remove plants suffering from visual defects, obstructing users of adjoining properties, pathways and roadways.						As Required						
	Non-desirable woody species to be removed						As Required						
	Hand weeding to be carried out and top up mulch				Once		Once				Once		
	If required, fertiliser should be reported for agreement before application				As required								
	If required, herbicide should be reported for agreement before application							As Required					

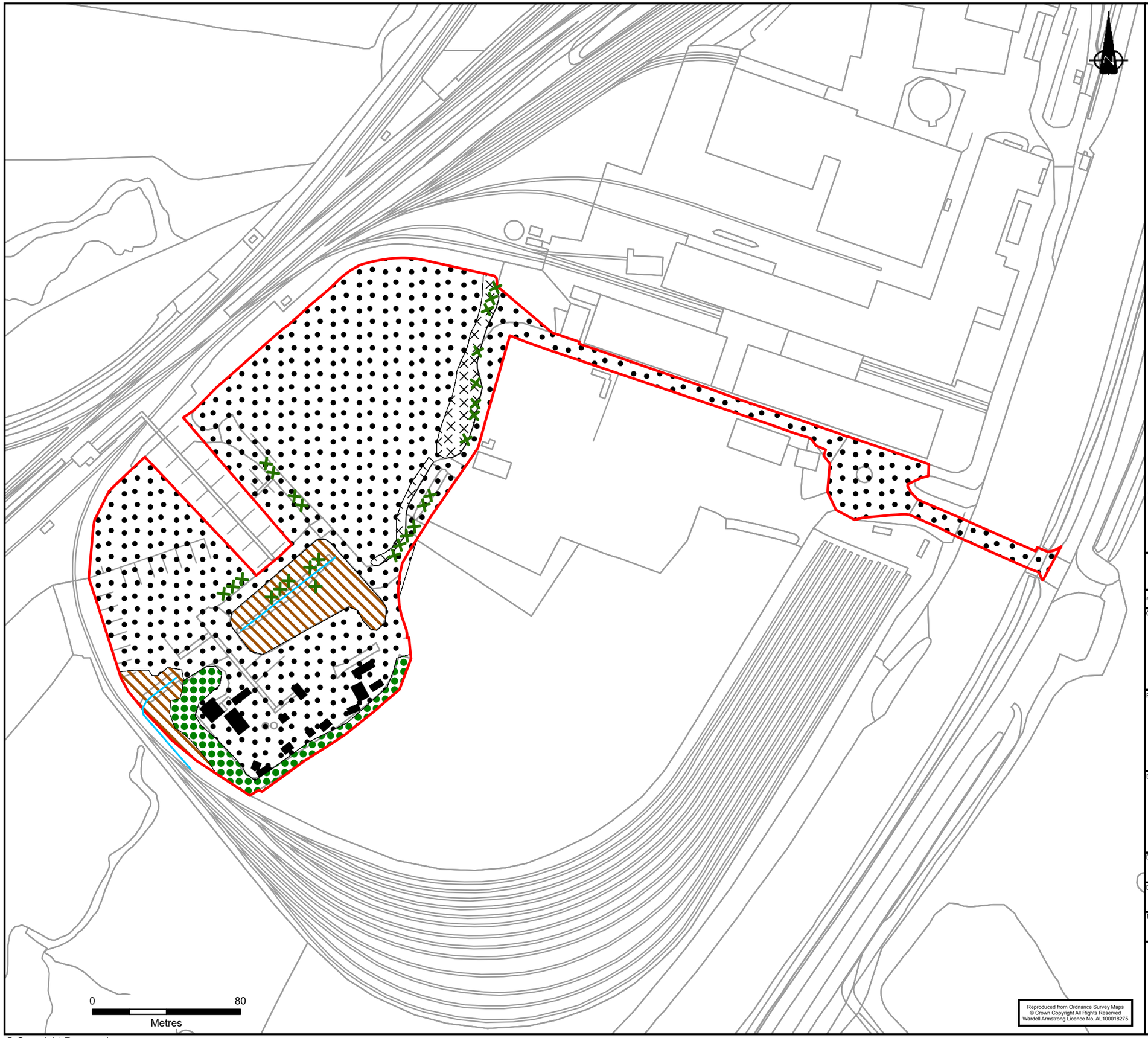
Component 2 - Hedgerows													
Regular and periodic maintenance visits tasks		**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Year 5 and ongoing	Inspect all staked plants and replace any dead or damaged plants										Once		
	Remove rabbit guards and other forms of protection no longer required		Once	Once	Once	Once	Once	Once	Once	Once	Once		
	Trim as required										Once		
	Remove plants suffering from visual defects, obstructing users of adjoining properties, pathways and roadways.						As Required						
	Non-desirable woody species to be removed						As Required						
	Hand weeding to be carried out and top up mulch				Once						Once		
	If required, fertiliser should be reported for agreement before application				As required								
	If required, herbicide should be reported for agreement before application							As Required					

Component 3 –Trees and native shrub													
Regular and periodic maintenance visits tasks		**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Year 1	Inspect all staked trees monthly and replace any dead or damaged trees in following planting season	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once
	Maintain 1m wide weed-free area around trees through application of a 75mm layer of mulch and/or application of suitable herbicide			Once						Once			
	Water to field capacity – at least 20 litres per tree. As appropriate depending on weather conditions to ensure healthy establishment and thriving. But weekly during dry months (typically May – August)				Weekly	Weekly	Weekly	Weekly	Weekly				
	Maintain rabbit guards and other forms of protection	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once
	Maintain all stakes, guys and ties, loosening or tightening as necessary	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once	Once
	Check for root firmness and upright alignment of tree after high winds and frost heave, and in spring/autumn until trees are wind firm			Once	As Required					Once			
	Formative canopy pruning as required following maintenance visits	As Required											
	Remove fallen, dead or damaged branches, shred and spread in woodland areas		Once								Once		
	Safety inspection and condition report by arboricultural advisor after severe weather	As Required											
Year 2	Inspect all staked trees and replace any dead or damaged trees in following season									Once			
	Mulch areas around trees with a 75mm layer			Once									
	Water to field capacity – at least 20 litres per tree. As appropriate depending on weather conditions to ensure healthy establishment and thriving. But weekly during dry months (typically April – August)				Weekly	Weekly	Weekly	Weekly	Weekly				
	Maintenance of 1m wide weed-free area through hand weeding or use of suitable herbicide				Once	Once	Once	Once	Once	Once			
	Maintenance of rabbit guards and other forms of protection			Once	Once	Once	Once	Once	Once	Once	Once		
	Maintain all stakes and ties, loosening as necessary			Once									
	Check for root firmness and upright alignment of tree after high winds and frost heave	As required											
	Formative canopy pruning as required	As Required											
	Remove fallen, dead or damaged branches, shred and spread in woodland areas		Once								Once		
	Safety inspection and condition report by Arboricultural advisor after severe weather condition	As Required											
Year 3	Inspect all staked trees and replace any dead or damaged trees in following season									Once			
	Mulch areas around trees with a 75mm layer			Once									
	Safety inspection and report on condition on trees by Arboricultural advisor			Once									

Component 3 –Trees and native shrub													
Regular and periodic maintenance visits tasks		**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
	Maintenance of 1m wide weed-free area			Once							Once		
	Maintenance of rabbit guards and other forms of protection			Once	Once	Once	Once	Once	Once	Once	Once		
	Maintain all stakes, guys and ties, tightening or loosening as necessary			Once									
	Check for root firmness and upright alignment of tree after high winds and frost heave	As required											
	Formative canopy pruning as required	As Required											
	Remove fell, dead or damaged branches, shred and spread in woodland areas		Once								Once		
	Safety inspection and condition report by Arboricultural advisor after severe weather condition	As Required											
Year 4	Inspect all staked trees and replace any dead or damaged trees									Once			
	Mulch areas around trees with a 75mm layer												
	Maintenance of 1m wide weed-free area			Once							Once		
	Maintenance of rabbit guards and other forms of protection			Once	Once	Once	Once	Once	Once	Once	Once		
	Maintain all stakes, guys and ties, loosening or tightening as necessary			Once									
	Check for root firmness and upright alignment of tree after high winds and frost heave			Once									
	Formative canopy pruning as required	As Required											
	Remove fallen, dead or damaged branches, shred and spread in woodland areas		Once								Once		
	Safety inspection and condition report by Arboricultural advisor after severe weather condition	As Required											
Year 5 and ongoing	Inspect all staked trees and replace any dead or damaged trees in following season									Once			
	Safety inspection and report on condition on trees by Arboricultural advisor			Once									
	Following inspection, remove stakes from trees and remove rabbit guards and other forms of protection					Once							
	Maintenance of 1m wide weed-free area			Once		Twice	Twice				Once		
	Check for root firmness and upright alignment of tree after high winds and frost heave			Once									
	Formative canopy pruning as required	As Required											
	Remove fallen, dead or damaged branches, shred and spread in woodland areas		Once								Once		
	Safety inspection and condition report by Arboricultural advisor after severe weather condition	As Required											

DRAWINGS

ED13486/019 Extended Phase 1 Habitat Survey Results



KEY

- Application Boundary
- Broadleaved Parkland/scattered trees
- Other tall herb and fern - ruderal
- Cultivated/disturbed land - ephemeral/short perennial
- Buildings
- Bare ground
- Scrub - scattered
- Running water

Notes:

Boundaries are indicative.

Classifications in accordance with Handbook for Phase 1 Habitat Survey - A technique for Environmental Audit (JNCC 2010).

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
C	ADDING HABITAT INFORMATION	06/22	HM	TP	TP
B	AMENDMENT TO DRAWING NUMBER	03/22	SW	BP	HK
A	FIRST ISSUE	10/21	SW	OS	TP

CLIENT

TILLICOULTRY QUARRIES LTD

PROJECT

ELY COATED STONE

DRAWING TITLE

EXTENDED PHASE 1 HABITAT SURVEY RESULTS

DRG No. ED13486/019		REV C
DRG SIZE A3	SCALE 1:2,000	DATE 23/06/2022
DRAWN BY SW	CHECKED BY OS	APPROVED BY TP

wardell armstrong

NEWCASTLE UPON TYNE | TEL 0191 232 0943
WWW.WARDELL-ARMSTRONG.COM

BIRMINGHAM, BOLTON, CARDIFF, CARLISLE, EDINBURGH, GLASGOW, LONDON, MANCHESTER, SHEFFIELD, STOKE ON TRENT

ED13486 004B Proposed Site Layout

6No. 12.0m x 20.0m Covered bays

Existing Drainage Ditch

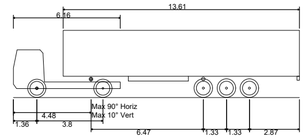
Proposed new additional weighbridge and re-located weighbridge office

Site office area to remain as existing

Site storage area to remain as existing

KEY

- Application Boundary
- Buildings/ structures
- Indicative tree locations
- Vehicle wheel track
- Vehicle body overhang
- P Car parking



FTA Design Articulated Vehicle (2016)

Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	6.600m

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
B	Revised project title + masked out existing storage bays	24-08-22	PAG	SC	NB
A	Revised Plant Layout	12-08-22	PAG	BP	NB

CLIENT

Tillicoultry Quarries Ltd

PROJECT

Ely Coated Stone Plant

DRAWING TITLE

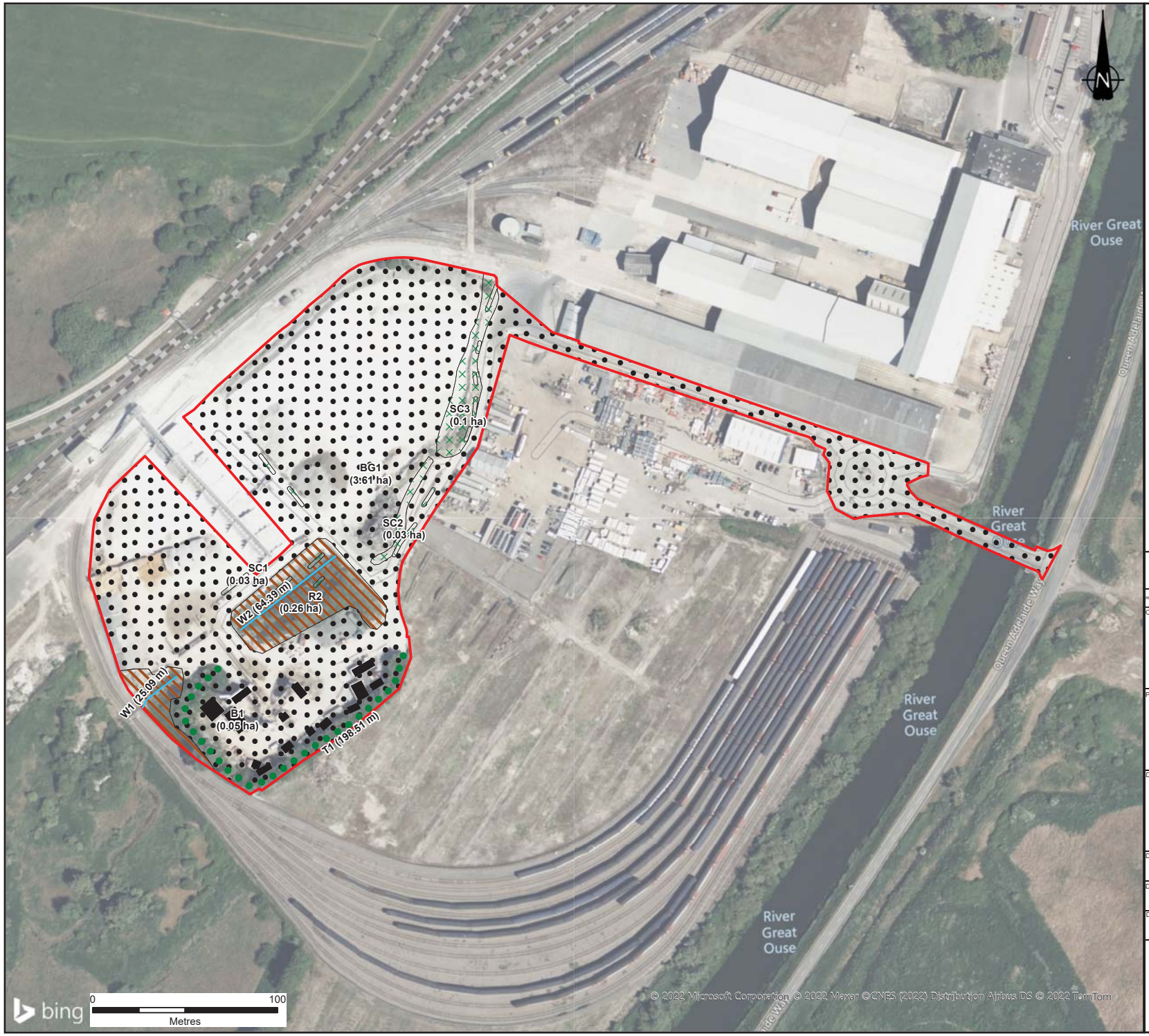
Proposed Site Layout

DRG No. ED13486-004		REV B
DRG SIZE A2	SCALE 1:1250	DATE 22-02-2022
DRAWN BY PAG	CHECKED BY BP	APPROVED BY NB

0 20 50
metres

wardell armstrong
NEWCASTLE UPON TYNE | TEL 0191 232 0943
WWW.WARDELL-ARMSTRONG.COM
BIRMINGHAM · BOLTON · CARDIFF · CARLISLE · EDINBURGH · GLASGOW · LONDON · MANCHESTER · SHEFFIELD · STOKE ON TRENT

ED13486/028 Biodiversity Net Gain - Baseline Conditions



KEY

- Application Boundary
- Heathland and shrub – Mixed scrub
- Sparsely vegetated lane - Ruderal/ Ephemeral
- Urban – Developed land; sealed surface
- Urban - Artificial unvegetated, unsealed surface
- Hedge – Line of trees (ecologically valuable)
- River - Ditches

Notes:

Boundaries are indicative.

Aerial imagery shown for context purposes only.

B - Buildings
BG - Bare ground
ESP - Ephemeral/Short Perennial
R - Ruderal
SC- Scrub
T - Trees
W - Water

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D

CLIENT

TILLICOULTRY QUARRIES LTD

PROJECT

ELY COATED STONE

DRAWING TITLE

BIODIVERSITY NET GAIN - BASELINE CONDITIONS

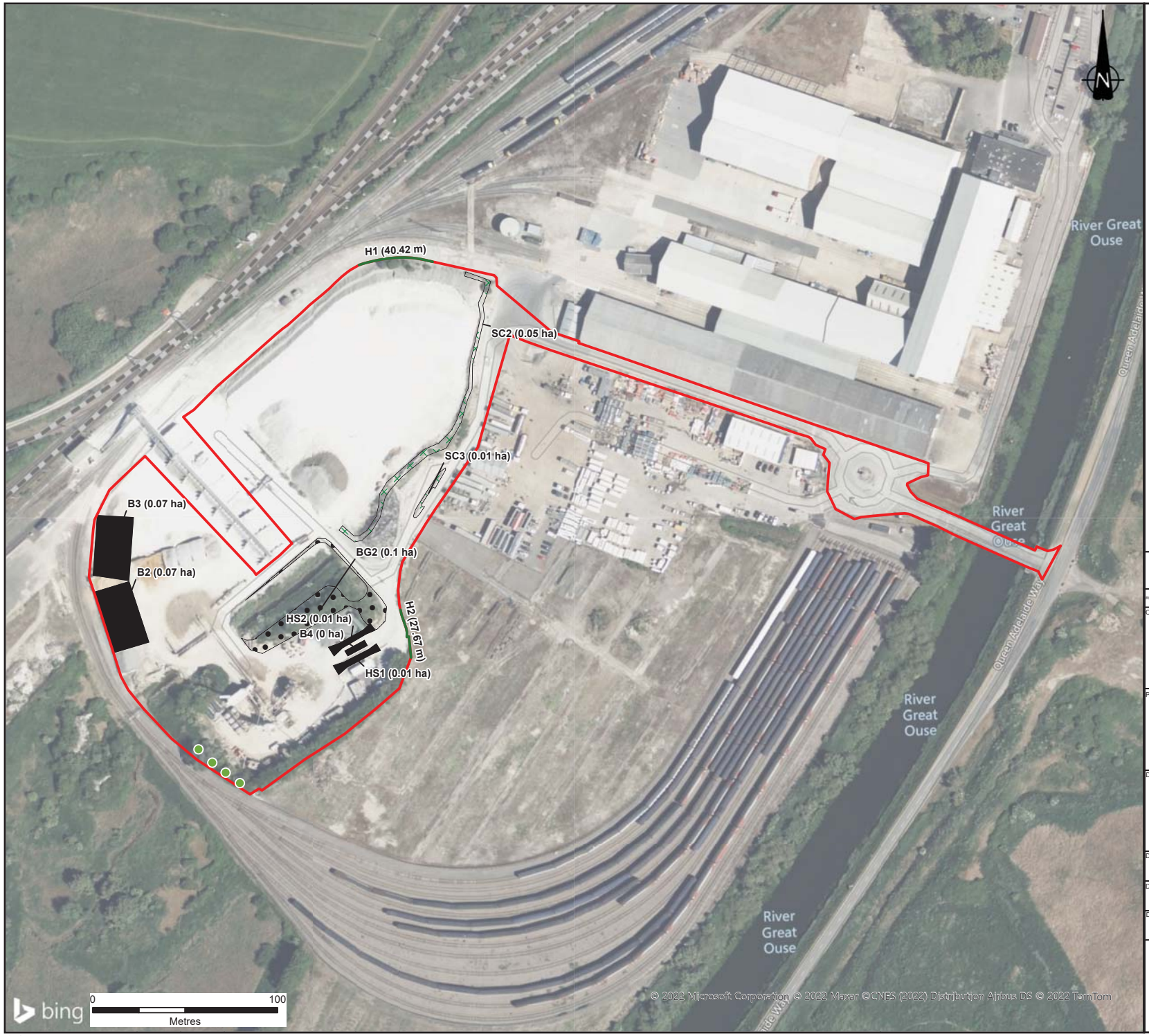
DRG No.	REV
ED13486/028	A

DRG SIZE	SCALE	DATE
A3	1:2,000	02/09/2022

DRAWN BY	CHECKED BY	APPROVED BY
SRW	CS	TP

wardell armstrong

ED13486/029 Biodiversity Net Gain - Habitat Creation



KEY

- Application Boundary
- Heathland and shrub – Mixed scrub
- Urban - Artificial unvegetated, unsealed surface
- Urban – Developed land; sealed surface
- Native species rich hedge
- Individual Urban Trees

Notes:

Boundaries are indicative.

Aerial imagery shown for context purposes only.

B - Buildings
BG - Bare ground
H - Hedgerow
HS - Hard standing
SC- Scrub

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D

CLIENT

TILLICOULTRY QUARRIES LTD

PROJECT

ELY COATED STONE

DRAWING TITLE

BIODIVERSITY NET GAIN - HABITAT CREATION

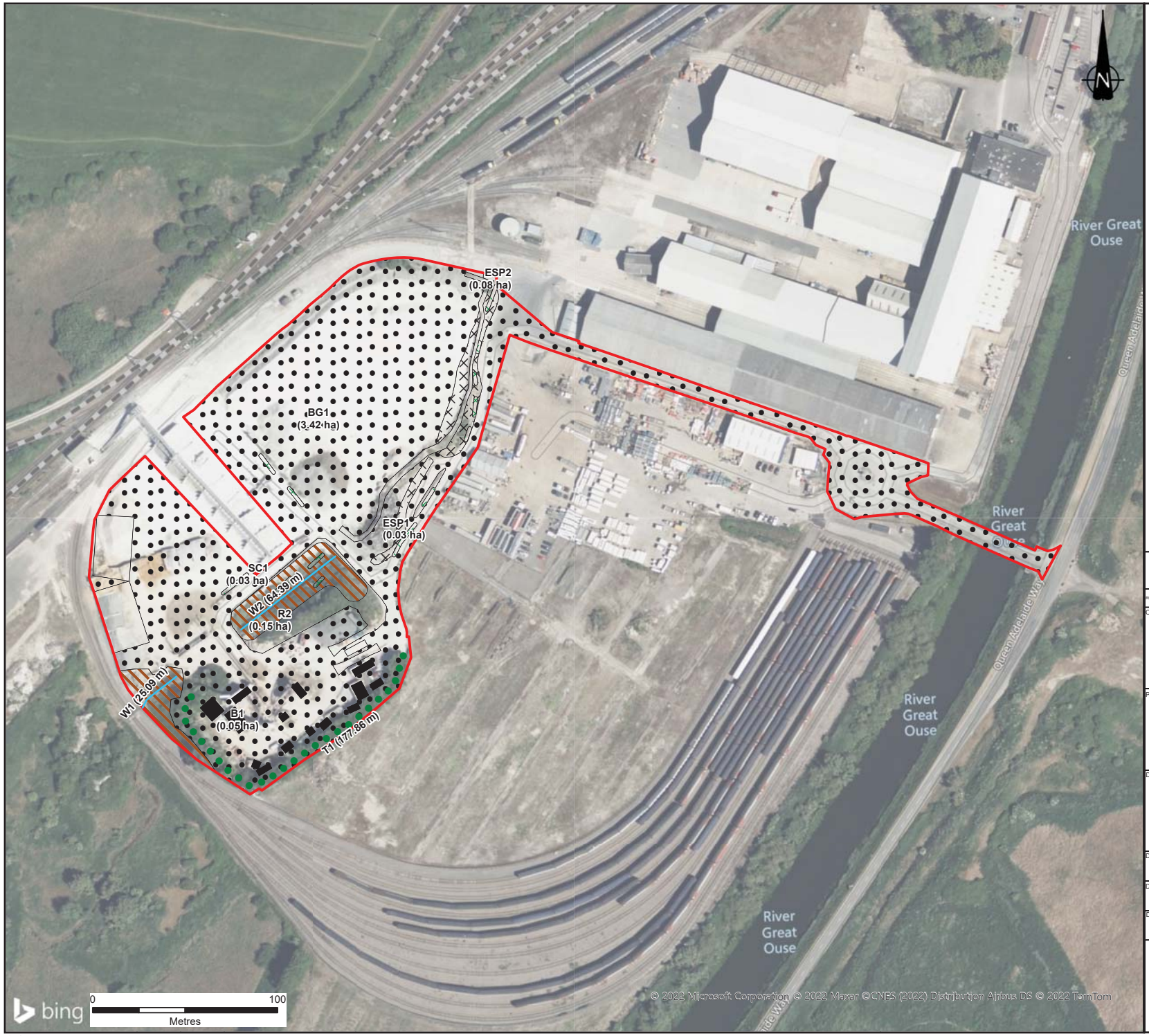
DRG No.	REV
ED13486/029	A

DRG SIZE	SCALE	DATE
A3	1:2,000	02/09/2022

DRAWN BY	CHECKED BY	APPROVED BY
SRW	CS	TP

wardell armstrong

ED13486/030 Biodiversity Net Gain - Habitat Retention and Enhancement



KEY

- Application Boundary
- Heathland and shrub – Mixed scrub
- Sparsely vegetated lane - Ruderal/ Ephemeral
- Sparsely vegetated lane - Ruderal/ Ephemeral
- Urban – Developed land; sealed surface
- Urban - Artificial unvegetated, unsealed surface
- Hedge – Line of trees (ecologically valuable)
- River - Ditches

Notes:

Boundaries are indicative.

Aerial imagery shown for context purposes only.

B - Buildings
BG - Bare ground
ESP - Ephemeral/Short Perennial
R - Ruderal
SC- Scrub
T - Trees
W - Water

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D

CLIENT

TILLICOULTRY QUARRIES LTD

PROJECT

ELY COATED STONE

DRAWING TITLE

BIODIVERSITY NET GAIN - HABITAT RETENTION

DRG No.	REV
ED13486/030	A

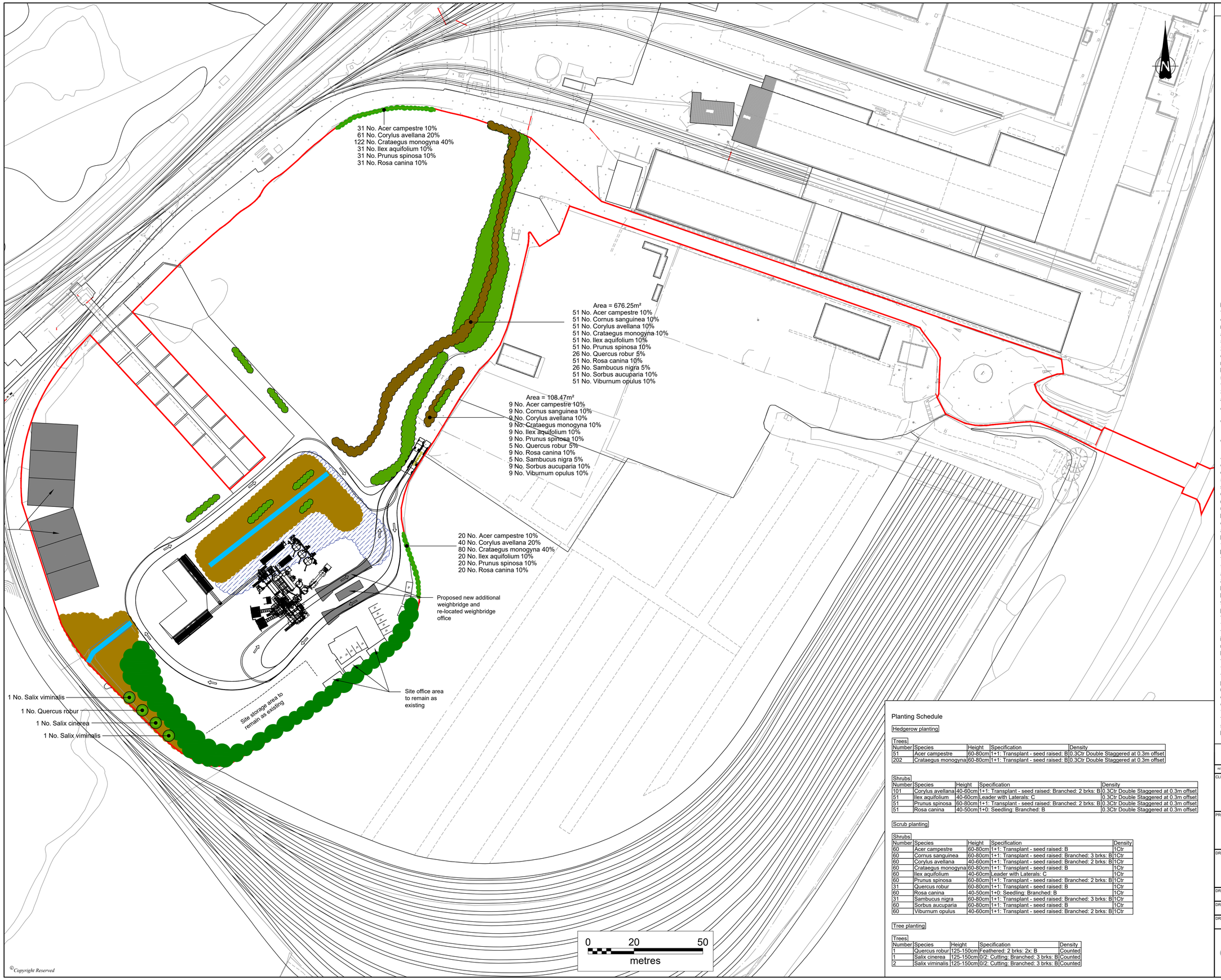
DRG SIZE	SCALE	DATE
A3	1:2,000	02/09/2022

DRAWN BY	CHECKED BY	APPROVED BY
SRW	CS	TP

wardell armstrong

NT16548/001 Landscape Planting Plan

DO NOT SCALE FROM THIS DRAWING



KEY

- Site boundary
- Developed land
- Mixed scrub - retained
- Ruderal planting - retained
- Trees - retained
- Drainage ditch - existing
- Trees - proposed
- Mixed scrub - proposed
- Hedgerow - proposed
- Vegetation - removed

NOTES

1. Tree protection will be in place prior to works commencing. Any existing trees to be retained are the responsibility of the main contractor on site who will take all necessary protective measures set out in BS 5837:2012.
2. All areas of proposed planting affected by construction works to be relieved of compaction by ripping to a depth of 600mm, in two directions. Works to be carried out while soil and weather conditions are suitable; do not plant during periods of frost or strong winds.
3. All groundworks and planting operations will be in accordance with the following British Standards:
   - BS 3882 Specification for Topsoil
   - BS 4428 Code of Practice for General Landscape Operations
   - BS 8545 Trees from Nursery to Independence in the Landscape
4. Effective weed control will be carried out prior to cultivation. All planting areas to be cultivated to a depth of 300mm, except within 4.0m of any existing tree stem.
5. Topsoil depths to be: 300mm for trees and shrubs. Good quality on site topsoil can be used. Otherwise imported topsoil should be to BS3882:2015 (multipurpose sandy loam).
6. Tree Pits will be dug by the landscape contractor. Pits for containerised shrubs and larger trees to be no deeper than root system and wide enough to accommodate roots when fully spread. Tree pits to be backfilled with 300mm topsoil, 300mm subsoil. All transplants to be notch planted as appropriate. Hedgerows to be trench planted.
7. Any deciduous trees to be planted in late October to late March. Container grown plants may be planted at any time of year.
8. Apply peat-free tree and shrub planting compost by thoroughly incorporating it with topsoil into planting holes.
9. Trees will be watered in with 25 litres per tree position.
10. Trees to be supported by single angled stake and tie.
11. Tree pit root barriers to be included wherever the installed rootball will be within 3 m of an existing underground service route and/or within 2 m of a building foundation.
12. Transplants to be protected by biodegradable tree/shrub guards and canes.
13. All planting areas to be maintained weed free, preferably by maintaining mulch to minimise herbicide use. Any dead or diseased plants will be replaced during the following planting season. Watering to be carried out as necessary to allow plants to thrive through the 5-year establishment maintenance period.
14. Contractor to review the existing and proposed services drawings before commencement of the landscape works and to locate and protect these on site.

Planting Schedule

Hedgerow planting

Trees

Number	Species	Height	Specification	Density
51	Acer campestre	60-80cm	1+1: Transplant - seed raised: B	0.3Ctr Double Staggered at 0.3m offset
202	Crataegus monogyna	60-80cm	1+1: Transplant - seed raised: B	0.3Ctr Double Staggered at 0.3m offset

Shrubs

Number	Species	Height	Specification	Density
101	Corylus avellana	40-60cm	1+1: Transplant - seed raised: Branched: 2 brks: B	0.3Ctr Double Staggered at 0.3m offset
51	Ilex aquifolium	40-60cm	Leader with Laterals: C	0.3Ctr Double Staggered at 0.3m offset
51	Prunus spinosa	60-80cm	1+1: Transplant - seed raised: Branched: 2 brks: B	0.3Ctr Double Staggered at 0.3m offset
51	Rosa canina	40-50cm	1+0: Seedling: Branched: B	0.3Ctr Double Staggered at 0.3m offset

Scrub planting

Shrubs

Number	Species	Height	Specification	Density
60	Acer campestre	60-80cm	1+1: Transplant - seed raised: B	1Ctr
60	Cornus sanguinea	60-80cm	1+1: Transplant - seed raised: Branched: 3 brks: B	1Ctr
60	Corylus avellana	40-60cm	1+1: Transplant - seed raised: Branched: 2 brks: B	1Ctr
60	Crataegus monogyna	60-80cm	1+1: Transplant - seed raised: B	1Ctr
60	Ilex aquifolium	40-60cm	Leader with Laterals: C	1Ctr
60	Prunus spinosa	60-80cm	1+1: Transplant - seed raised: Branched: 2 brks: B	1Ctr
31	Quercus robur	60-80cm	1+1: Transplant - seed raised: B	1Ctr
60	Rosa canina	40-50cm	1+0: Seedling: Branched: B	1Ctr
31	Sambucus nigra	60-80cm	1+1: Transplant - seed raised: Branched: 3 brks: B	1Ctr
60	Sorbus aucuparia	60-80cm	1+1: Transplant - seed raised: B	1Ctr
60	Viburnum opulus	40-60cm	1+1: Transplant - seed raised: Branched: 2 brks: B	1Ctr

Tree planting

Trees

Number	Species	Height	Specification	Density
1	Quercus robur	125-150cm	Feathered: 2 brks: 2x: B	Counted
1	Salix cinerea	125-150cm	0/2: Cutting: Branched: 3 brks: B	Counted
2	Salix viminalis	125-150cm	0/2: Cutting: Branched: 3 brks: B	Counted

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD

CLIENT

TILLICOULTRY QUARRIES LTD

PROJECT

REPLACEMENT OF COATED STONE PLANT ELY

DRAWING TITLE

LANDSCAPE PLANTING PLAN

DRG No.	REV	SUIT. CODE
NT16548-001		

DRG SIZE	SCALE	DATE
A1	1:750	01/11/2023

DRAWN BY	CHECKED BY	APPROVED BY
AB	LG	LG

wardell armstrong

wardell-armstrong.com

STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM
Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON
41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

BRISTOL
Temple Studios
Temple Gate
Redcliffe
Bristol
BS1 6QA
Tel: +44 (0)117 203 4477

BURY ST EDMUNDS
Armstrong House
Lamdin Road
Bury St Edmunds
Suffolk
IP32 6NU
Tel: +44 (0)1284 765 210

CARDIFF
Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE
Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH
Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW
24 St Vincent Place
Glasgow
G1 2EU
Tel: +44 (0)141 428 4499

LEEDS
36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International office:

ALMATY
29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

wardell armstrong