

PROPOSED SITE CLOSURE AND RESTORATION

Restoration Scheme

The principal recovery activity undertaken at the Huntstown Quarry Complex is the importation of soil and stone waste to fill existing quarry voids back to their original ground level and to restore the lands to agricultural grassland (refer to the overall site restoration plan attached).

The overall restoration scheme also envisages that hedgerows will be planted across the restored land in an effort to re-establish field boundaries similar to those which pre-dated the development of the South Quarry.

The waste recovery activity at the South Quarry which is the principal focus of this licence review application is, in and of itself, essentially a site closure and restoration project, albeit using imported inert natural soil and stone materials which are managed and controlled as waste. On cessation / completion of the backfilling activities, some minor works will be required thereafter to complete the facility closure works at the South Quarry recovery area. These are outlined below.

Capping and Decommissioning

On completion of backfilling activities, a cover layer comprising 150mm of topsoil and approximately 150mm of subsoil will be placed over the imported soil and stone materials. The final landform of the backfilled South Quarry will be modified as necessary to ensure that any surface water run-off falls northward toward the drainage channel which flows off-site to the headwaters of the Finglas Stream (or is otherwise intercepted and channelled toward it). The upper surface will then be harrowed and seeded to establish grass cover, promote stability and minimise soil erosion and dust generation.

Topsoil will only be imported to the South Quarry on occasion, as and when it is available. It will not be used immediately in general backfilling of the quarry void but rather will be stockpiled separately pending re-use toward the latter stages of the works at the quarry, when the top surface of the backfilled ground approaches the planned final ground level envisaged by the restoration scheme.

Any topsoil will be stored separately within the quarry, away from the active backfilling areas and in such location and manner as not to create any temporary adverse visual impact or potential dust nuisance.

Site Management and Supervision

The Applicant will clearly define the management responsibility for the site restoration work and will ensure that the nominated staff has the necessary information (from the EIAR, planning application and waste licence review application) and authority to manage and direct the restoration works. Relevant site-based personnel will be briefed on the scheme and will be adequately supervised / controlled. A system of record keeping for the key restoration activities will also be put in place.

Decommissioning

On completion, all mobile plant and equipment associated with the quarry backfilling, recovery and restoration activities will be removed off-site. Any dedicated site accommodation, site infrastructure and/or services will also be progressively decommissioned and/or removed off-site. Any elements of shared infrastructure used by adjacent aggregate processing or concrete production activities (including settlement ponds) will likely remain in place.

Wherever necessary, sealed concrete / paved surfaces will be broken up using a hydraulic breaker and transferred-off site to a local authorised construction and demolition waste recovery facility.

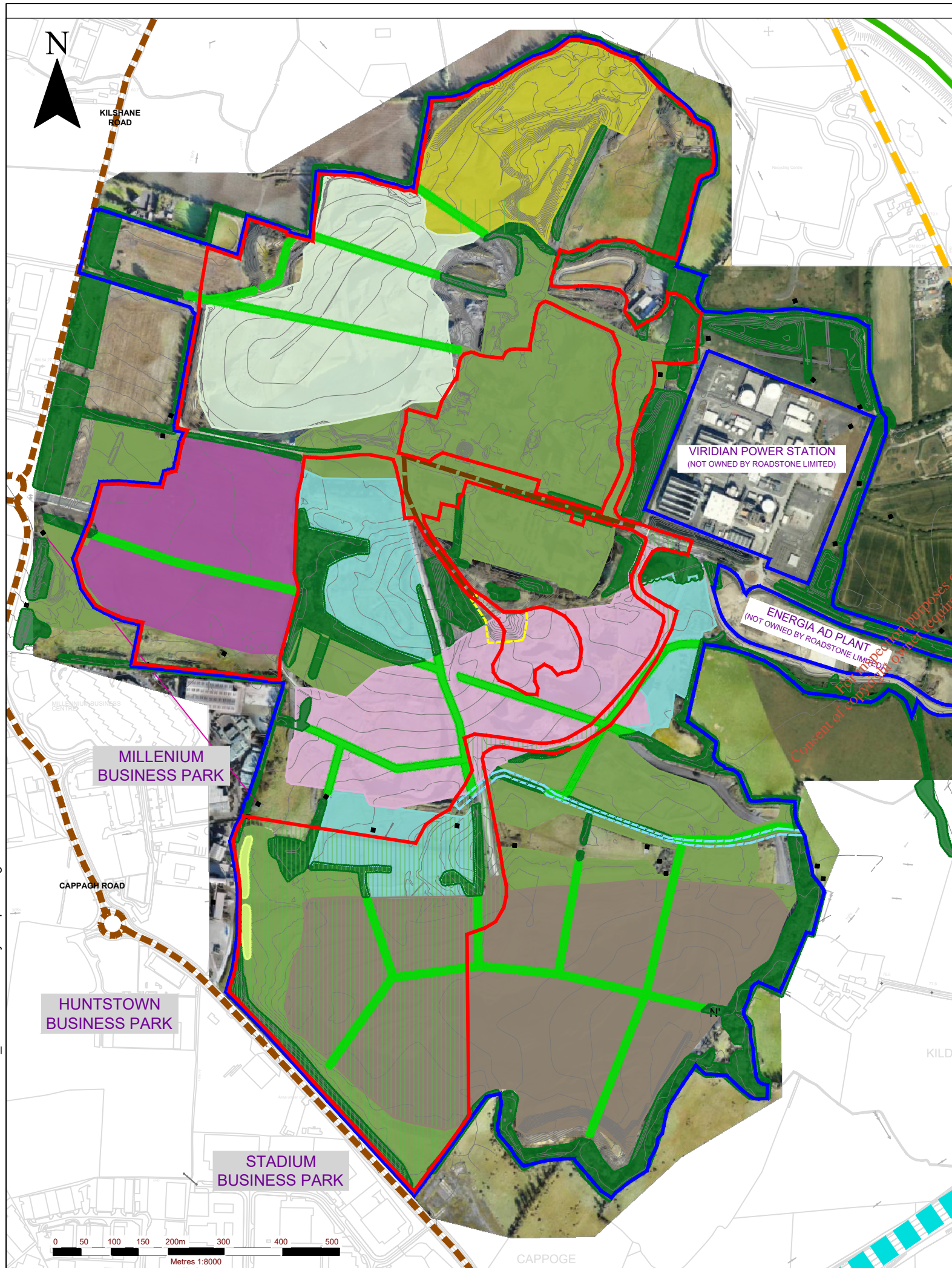
Aftercare and Monitoring

Following final completion of the restoration and site decommissioning works, provision will be made for further, short-term (<1year) environmental monitoring of air, surface water and groundwater.

Establishment maintenance will be carried out following the planting works. This will include weed control, replacement planting where required and the adjustment/removal of tree ties and spiral guards.

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0180.00313.FIG 9-1.Restoration Plan_Huntstown QuarryComplex.dwg



LANDSCAPE AND RESTORATION SCHEME

On completion of the extraction works, it is proposed to fill the quarry voids using imported inert soils and overburden and topsoil stored on site. The western quarry was restored without having been quarried for rock. The remaining quarry areas will be returned to agricultural after-use, with the exception of the Central Quarry which will be restored to calcareous grassland, to increase the biodiversity of the site and connect the existing wildlife areas. The final restored levels will be similar to the previous levels, prior to any extraction works taking place. Restoration will take place in a phased manner, as extraction operations cease in a given area and are subject to waste licenses being granted. In order to divide the large sites into smaller compartments, it is proposed to carry out native hedge planting in the location of former boundary lines, as indicated on the plan.

Please note that Roadstone Ltd are committed to pump all of the worked out quarry voids until such time that waste licenses are granted and the voids are filled to above the ground water level, in order to avoid large water bodies forming.

CULTIVATION, GRASS SEEDING AND ESTABLISHMENT (AGRICULTURAL GRASSLAND)

Following cessation of landform construction, topsoil and soil forming materials, from storage mounds on site, are to be spread over the areas to be restored to grassland. All soil handling to be carried out in accordance with current best practice guidance.

Final cultivations will include raking the seeding area with a chain harrow or drag mat to form a true, even surface, suitable for subsequent maintenance by mechanical blade trimming and extending the cultivation into any adjacent existing areas to ensure full marrying in of levels and to achieve a fine till.

For all areas, an agricultural seed mix suitable for the intended land use will be evenly sown, in calm weather, at an appropriate time of year (for example September) at the rate recommended by the manufacturer. The seed to be used is to be fresh and for use in the season of seeding. A certificate is to be provided in respect of each consignment of seed mix giving the supplier's name, the proportions of constituents of the mixture and a signature of the representative of the supplier.

The contractor shall mix the seed well with bulking agent, e.g. dry sand, in order to assist an even distribution. The seed will be mixed well before application and frequently during application. The seed will be divided into two equal sowings in two transverse directions at the specified rates. After seeding, the soil will be lightly harrowed or surface raked and rolled lightly, for example with a Cambridge roller, to ensure a good contact between soil and seed.

When the grass is between 40mm and 75mm high, the contractor will remove debris and all stones and clay balls larger than 40mm in any dimensions and roll the area with a light roller. The area will be cut to approximately 35mm high. Spot treatment using a selective herbicide shall be applied to pernicious agricultural weeds, such as thistle, docks and ragwort.

CALCAREOUS GRASSLAND

As far as practically possible, the in-filled Central Quarry will be restored to fields supporting calcareous grassland. As the landform construction is nearing completion, guidance will be sought from an experienced ecological consultant. It is envisaged that it should be possible to collect seed and/or take hay cuts for seeding from the existing fields along the eastern boundary of the Central Quarry. In any case no fertiliser will be applied to this area, to ensure the best chance of developing a species rich sward.

PROPOSED NATIVE WOODLAND SCREEN AND HEDGE PLANTING

Approximately 3,000 sq.m. of woodland screen planting is to be carried out and it to be planted at 1.5m centres, in same species groups of 20-30. Groups are to be randomly spread throughout the planting blocks.

Approximately 4,800 lin.m. of hedge will be planted in total. Hedges are to be planted in two staggered rows, with plants within each row 50cm apart (i.e. 4 plants per m) and rows 50cm apart. Feathered trees to be planted at distances of 8-16m and staked. Transplants to be planted randomly in same species groups of 10-20.

Trees shall conform to BS3936 for nursery stock and shall be supplied true to size and species name, as per the tables below. All proposed plant species are native and will be sourced locally. The percentage of berry producing trees is low, in order not to attract a large amount of birds, which could result in a hazard for Dublin Airport. Planting is to take place between the months of November and March.

All plant handling, planting works and aftercare will be carried out in accordance with the CPSE Recommendations for Plant Handling. Establishment maintenance to be carried out for 24 months following the completion of each planting phase.

Native Woodland Screen Planting Mix

No.	Plant Name	Common Name	Height (cm)	Age/Pot Size	%
Transplants					
390	Alnus glutinosa	Common Alder	60-90	1+1	30
260	Corylus avellana	Hazel	60-90	1+0	20
390	Euonymus europaeus	Spindle Tree	60-90	1+1	30
130	Quercus robur	Pedunculate Oak	60-90	1+1	10
130	Salix caprea	Goat Willow	60-120	0+1	10

Native Hedge Planting Mix

No.	Plant Name	Common Name	Height (cm)	Age/Pot Size	%
Feathered Trees					
190	Alnus glutinosa	Common Alder	150-175	2xTR	1
190	Quercus robur	Pedunculate Oak	150-175	2xTR	1
Transplants					
3450	Alnus glutinosa	Common Alder	60-90	1+1	18
4800	Corylus avellana	Hazel	60-90	1+0	25
2880	Crataegus monogyna	Hawthorn	60-90	1+1	15
4800	Euonymus europaeus	Spindle Tree	60-90	1+1	25
1920	Prunus spinosa	Blackthorn	60-90	1+0	10
960	Sorbus aucuparia	Rowan	60-90	1+1	5

PROPOSED RESTORATION FEATURES

- PROCESSING AREA, DISTURBED GROUND & OVERBURDEN AREAS TO BE LEVELLED AND RESTORED TO AGRICULTURAL LAND
- CENTRAL QUARRY AREA TO BE BACK-FILLED AND RESTORED TO CALCAREOUS GRASSLAND SUBJECT TO FUTURE WASTE LICENCE APPLICATION
- PROPOSED HEDGEROWS IN THE APPROXIMATE LOCATIONS OF FORMER BOUNDARY LINES
- RETAINED QUARRY FACE FOR FUTURE ACCESS TO VIEW TOBER COLLEEN FORMATION OVERLAYING WAULSORTIAN LIMESTONE
- RETAINED INTERNAL ACCESS ROAD TO VIEW QUARRY FACE

NOTES

1. EXTRACT FROM 1:2,500 ORDNANCE SURVEY DIGITAL SHEET NOS. 3062-A, 3062-B, 3062-C, 3062-D, 3063-A, 3063-C, 3130-A & 3130-B.
 2. ORDNANCE SURVEY IRELAND LICENCE NO. CYAL50167032 (C) ORDNANCE SURVEY IRELAND/ GOVERNMENT OF IRELAND
 3. SURVEY COMPLETED ON AUGUST 2021 BY ASM IRELAND TO ITM AND MALIN HEAD DATUM
- TOPOGRAPHIC SURVEY PREPARED BY FUGRO BKS BASED ON MAY 2009 AERIAL PHOTOGRAPHY
ALSO REFER TO FIGURES 5: RESTORATION SECTIONS (SOUTHERN QUARRY)

LEGEND

- ROADSTONE LIMITED LAND INTEREST (C. 171.8 HA)
- AMENDED WASTE LICENCE AREA (COMPRISING EXISTING LICENCE AREA AND PROPOSED EXTENSION) (C. 77.5 HA)
- PROPOSED EXTENSION TO CURRENT WASTE LICENCE AREA
- HEDGEROWS AND SCREEN PLANTING BELTS
- WILDLIFE AREAS
- AREA PREVIOUSLY BACK-FILLED UNDER WASTE FACILITY PERMIT
- STREAM CORRIDOR FROM WILDLIFE AREA TO EASTERN BOUNDARY OF SITE

PROPOSED LANDSCAPE FEATURES

- PROPOSED WOODLAND SCREEN PLANTING ALONG PARTS OF WESTERN BOUNDARY

PROPOSED RESTORATION FEATURES

- PROPOSED RESTORATION CONTOURS
- NORTH QUARRY AREA CURRENTLY BEING BACK-FILLED AND RESTORED TO AGRICULTURAL LAND UNDER EXISTING WASTE LICENCE (REF: W0277-01)
- RECENTLY BACKFILLED WESTERN QUARRY AREA, RESTORED TO AGRICULTURAL LAND
- SOUTH QUARRY AREA TO BE BACK-FILLED AND RESTORED TO AGRICULTURAL LAND SUBJECT TO FUTURE WASTE LICENCE APPLICATION

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WASTE LICENCE REVIEW APPLICATION
HUNTSTOWN WASTE RECOVERY FACILITY
NORTH ROAD, FINGLAS, DUBLIN 11
RESTORATION PLAN
HUNTSTOWN QUARRY COMPLEX

FIGURE 9-2-3

Scale 1:8,000 @ A3 Date DECEMBER 2021