

ATTACHMENT D2 OPERATION OF WASTE FACILITIES

RESTORATION AND RECOVERY ACTIVITIES

The backfilling of the existing (and future) quarry voids at Huntstown with inert soils and stone is deemed to constitute inert waste recovery through deposition for the purposes of land improvement or restoration. The approved restoration scheme for the quarry complex provides for direct use of the imported soil and stone, without further processing.

The backfilling of the quarry voids using inert soil comprises the following classes of waste activity in accordance with the Waste Management Acts 1996 – 2015:

- *Class R3 : Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).* This activity applies to proposed importation and use of topsoil for use in final restoration of backfilled landform.
- *Class No. R5 - recycling and reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials (Principal Activity).* This activity is limited to the recovery of inert soil and stone through deposition, for the purposes of improvement or development of land.
- *Class No. R13 (storage of waste pending any of the operations R1 to R12).* This activity will be limited to the storage of imported wastes for recovery purposes at the facility (e.g. stockpiles of inert soil).

Only materials conforming to the following waste (EWC) codes are deposited (or recovered) at the facility:

- 17 05 04 Soil and stones other than those mentioned in 17 05 03.
- 17 05 06 Dredging spoil other than those mentioned in 17 05 05
- 20 02 02 Soil and stone from municipal facilities.

Backfilling / Restoration Overview

Backfilling of the existing (and future) quarries at Huntstown will progress upwards from the quarry floors to former (original) ground levels. An outline of the approved restoration scheme and the final ground level contours is shown in Drawing D2-1. In addition to imported materials, some soil in existing screening berms and/or stockpiles across the existing site will be used to backfill the quarry. Cross-sections through the final landform are shown in Drawing 2-2.

On final completion of the restoration works at each quarry, a cover layer of subsoil and topsoil will be placed and graded across the backfilled mineral soil. This will then be rolled and seeded with grass in order to promote stability and minimise soil erosion and dust generation. A short aftercare period will follow in order to ensure that vegetation becomes well established and that any bare or exposed soils are re-seeded. The approved restoration scheme also envisages that hedgerows will be planted across the restored areas in an effort to re-establish some of the former field boundaries which pre-dated quarry development.

Thereafter, the restored lands will be returned, at least initially to agricultural grassland, similar to that which originally existed prior to quarrying. Over the longer-term however, the lands are likely to be developed, in line with the existing land zonation indicated by the current (or future) Fingal County Development Plan.

Method and Safety Statements for Construction Works

Any additional infrastructure required at the application site, over and above that which is currently in place, will be constructed in accordance with a detailed construction method statement and health and safety plan prepared by Roadstone Ltd. and/or its external work Contractors.

Material Requirements

The only material requirements in respect of the approved restoration scheme at the Huntstown quarries are the inert soil, stone and rock to be used in backfilling them.

The total volume of backfilled soil required to create the restored landform at the North and West quarries is estimated to be approximately 5,025,000m³. The backfilled materials will be subject to a degree of compactive effort in order to maximise the overall capacity of the proposed recovery facility. An average target compaction density of 1.9t/m³ assumed for tonnage assessment purposes, gives the overall requirement for approximately 9,550,000 tonnes of inert soil and/or subsoil.

No construction and demolition waste (intermixed concrete, brick, pipes, metal, timber etc.) is imported for backfilling purposes. At the present time, minor quantities of virgin aggregate is used as and when required to facilitate construction of temporary haul roads and movement of HGVs across previously backfilled areas.

Up to 50,000m³ (95,000 tonnes) approximately of the materials required to backfill the quarry and/or reprofile the ground surface may be sourced from existing soil stockpiles and/or screening berms around the existing quarries. All remaining inert materials to be used for restoration purposes will be imported from external construction work sites. Much of the inert soil and stone is expected to be sourced either from greenfield development sites or from deeper (basement) excavations into undisturbed and uncontaminated soils at previously developed sites.

An estimate of the material quantities required to complete backfilling of the North and West Quarries is provided in the table below: -

**Table D2-1
Material Requirements**

Material	Quantity (tonnes)	Source
Inert subsoil, stones and rock	9,400,000 tonnes	Imported
Stockpiled soil	95,000 tonnes	In-situ
Aggregate	20,000 tonnes	Imported
Topsoil (150mm)	30,000 tonnes	Imported

Material Balance

As noted above, approximately 50,000m³ (95,000 tonnes) of the inert materials required to backfill the quarry voids may be sourced from existing soil stockpiles and/or screening berms around the North Quarry and West Quarry. All remaining inert materials to be used for restoration purposes will be imported from external construction work sites.

Importation of Construction Materials

Any construction materials required to construct site infrastructure, hardcore, drainage stone and concrete will be sourced from Roadstone quarries and/or concrete production facilities. Other elements, will be sourced from specialist suppliers as required.

Removal of Materials Off-Site

Any non-hazardous or hazardous wastes identified within the inert soil and stone imported for recovery is separated and transferred to the waste inspection and quarantine facility, pending subsequent removal off-site to authorised waste disposal or recovery facilities by permitted waste collectors. On the basis of experience gained to date in operating this and other waste recovery facilities in the Greater Dublin Area however, Roadstone anticipates that the quantities of such wastes requiring removal off-site are likely to very low.

Any concrete, brick, timber, metal, pipes, skips, tiles or other construction and demolition / quarry waste currently held at the quarries will be removed off-site to an authorised waste recovery or disposal facility prior to placement of imported soil and stone. Any existing scrub vegetation will also be removed and recycled.

Any construction and demolition waste inadvertently brought to site in the course of the recovery operations is separated using mechanical plant and stockpiled at the waste quarantine area pending transfer off-site to an authorised construction and demolition waste recovery facility.

Any occasional metal waste encountered on site is separated and placed in a skip pending removal off site to a permitted (or licensed) waste recovery facility. Other non-inert waste (timber, plastic etc.) is also be separated and placed in a skip pending removal to an authorised waste facility.

Only operators and/or haulage firms holding valid current waste collection permits will be engaged to transfer these waste streams to other waste disposal or recovery facilities.

Formation Levels and Gradients

Backfilling of the existing void at the North Quarry will progress in phases from the northern side across to the southern side. At the present time, it is intended that once a sufficiently wide haul road descending to the quarry floor has been put in place, backfilling of the quarry will be undertaken in defined blocks / areas, with a number of 'lifts' from the existing quarry floor to original ground level in each area.

The quarry void will be backfilled upwards from the existing quarry floor at approximately 37mOD to 39mOD, and a final floor level of 23mOD at the southern end of the quarry where an additional 15m deep bench will be extracted in the near future (1-2 years). Final formation levels on completion of the backfilling and restoration works vary on account of the sloped nature of the restored landform, from approximately 65mOD on the eastern side up to 85mOD on the western side (refer to cross-sections in Figure 2-4).

It is envisaged that the backfilling of the West Quarry will proceed as a single 'lift' from existing quarry floor level to surrounding ground level given the relatively limited depth of excavation (typically no more than 3m). It is also envisaged that backfilling will progress from south to north, from the back of the excavated area, toward the internal paved haul road which runs along its northern limit.

Stability

Visual inspection and available site investigation data indicates that the areas to be backfilled are underlain by slightly weathered to fresh intact, competent bedrock. Backfilling of the quarry using in-situ and imported soil and stone will not therefore induce failure within the underlying ground. The application of loading to the underlying rock will not exceed that which existed prior to extraction and, as such, no deep seated foundation failure is anticipated.

Temporary side slopes in backfilled soils are graded at angles no steeper than 35° (approximately 1v:1.5h) and often considerably shallower, thereby ensuring that no large scale instability arises in imported backfill soil over the short-term. Temporary access ramps into and out of active backfilling areas are / will be constructed at a gradient of approximately 1v:10h. Ongoing inspection and assessment of stability will be undertaken at the facility as backfilling progresses.

During site restoration works, the upper surface of the backfilled materials is graded so as to ensure any surface water run-off falls to sumps at temporary low points within the quarries. As previously noted, water is pumped from these temporary sumps to existing channels and settlement ponds at original ground surface level on the eastern side of the North Quarry as required, and from there is discharged via settlement and treatment infrastructure to a tributary stream of the Ward River.

In the longer-term, once backfilling and restoration works are complete, there will be no risk of instability as the restored ground surfaces will be relatively flat or graded to form very shallow slopes. Permanent restored slopes on completion of the site backfilling and restoration activities will be everywhere less than 1v:2h (26°) and over much of the restored areas, considerably shallower than this, typically 1v:8h (7°).

Given that the bulk of the soil materials to be imported to site for restoration purposes are likely to be relatively competent glacial tills, no long-term slope instability is anticipated to occur. This assertion is made in view of the fact that glacial till slopes of 1v:2h are routinely constructed for infrastructure projects across Ireland and are demonstrably stable.

Capacity and Lifespan

The estimated volume of inert soil and stone material to be placed at the North and West Quarries is approximately 5,025,000m³. Of this, a relatively small volume, estimated at no more than 50,000m³ will be sourced from on-site stockpiles, perimeter screening berms and general site levelling works required for the final restoration of the quarry. The remainder of the material will need to be imported.

The duration of backfilling activities at the North and West quarry voids will largely be dictated by the rate at which approximately 4,975,000m³ (9,450,000 tonnes) of externally sourced inert soil and stone is imported to the site.

Although this waste licence review application provides for an increase in the maximum permitted waste intake from 750,000 tonnes per annum to 1,500,000 tonnes per annum, it is not certain that the increased intake limit will be reached each year the facility continues in operation. There are many factors which will influence the soil waste intake rate, including, but not limited to the:

- Availability of acceptable inert materials from construction sites;
- Prevailing economic climate and related construction industry output;
- Distance of construction projects from the facility (and scale or duration of activity);

- • Logistical / programming constraints at sites generating inert materials;
- • Climatic conditions (reduced construction activity in wet weather) and
- • Disruptions along the existing local and national road network.

Were the maximum intake to be accepted at the facility each year, the time required to backfill both the North and West quarries would be of the order of 6 years.

If the average annual intake rate is lower, around the range of a more moderate 750,000 to 1,000,000 million tonnes per annum, the time required to achieve this would be of the order of 9.5 to 12 years.

WASTE ACCEPTANCE AND HANDLING

Inert soil and stone waste is accepted at the Huntstown recovery facility between 08.00 hours and 18.00 hours each weekday and Saturday. No materials are accepted at any other time including Sundays and Public Holidays.

Insofar as practicable, the source of each large consignment of soil and stone imported to the facility for backfilling and recovery purposes is identified in advance and subject to basic characterisation testing to confirm that soils at that location can be classified as inert. Ideally, characterisation testing will be undertaken in advance by customers / clients / contractors intending to forward soil to the facility.

Operating procedures at the recovery facility require all soil and stones forwarded for backfilling / recovery purposes to be pre-sorted at source, inert and free of construction or demolition waste or any non-hazardous / hazardous domestic, commercial or industrial wastes.

CCTV cameras mounted around the weighbridge and weighbridge office and are used to inspect all consignments being imported to the recovery facility. Any waste materials that are deemed to be unacceptable for recovery at the facility on the basis of a visual inspection at the weighbridge are rejected and directed to an alternative authorised waste facility.

All inert soils imported to the site are unloaded (end-tipped) from HGVs / trucks at the active backfilling area. Waste consignments are visually inspected by site personnel at that point to confirm that there is no intermixed construction or demolition, non-hazardous or hazardous waste placed within it.

If, following acceptance of waste, there is any subsequent grounds for concern about the nature of the wastes imported to site, it is segregated and transferred to the waste inspection and quarantine area for closer inspection and classification. A detailed record is kept of all such inspections.

A representative sample is taken from one in every 2000 tonnes of inert soil and stone accepted at the facility and subjected to compliance testing by Roadstone, as required by the existing waste licence. These data are used to confirm that the accepted soils are inert and comply with acceptance criteria.

Laboratory testing of imported soil, surface water, groundwater and soil water percolate (leachate) is undertaken off-site at an ILAB / UKAS accredited geo-environmental laboratory. All compliance / validation testing and laboratory testing required to confirm the inert classification of imported soil and stone waste soil is undertaken by an accredited laboratory.

A copy of the current Waste Handling and Acceptance Plan for this facility is provided in Appendix 2-1 of the Environmental Impact Statement submitted in support of the planning application and in Attachment H2 of this waste licence review application.

ENVIRONMENTAL MONITORING

General

There is an established programme of environmental monitoring in connection with ongoing rock extraction, aggregate processing, masonry / concrete production and waste recovery activities across the Huntstown Complex. This environmental monitoring programme complies with the requirements of existing planning permissions, waste permits and effluent discharge licences in respect of these activities granted by Fingal County Council. The existing monitoring programme also complies with the requirements of the existing waste licence issued by the EPA (Ref. W0277-01).

Roadstone operates an environmental management programme to monitor and manage emissions from its established on-site operations. Limit values for environmental emissions arising from these activities are identified by the EPA waste licence and other consents (as appropriate).

Environmental sampling, monitoring and testing is generally undertaken by Roadstone in-house personnel, with support from independent external consultants as and when required. Records of

environmental monitoring and testing are held on-site and forwarded to the EPA and/or Local Authority as required under the terms of the waste licence and various consents.

Details of monitoring arrangements for dust, water and noise emissions from the proposed waste recovery facility are provided in Attachments F2 to F6 of this waste licence application and in Chapter 2 of the Environmental Impact Statement which also accompanies it. All proposed environmental monitoring locations for these environmental media are identified in Drawing D2-4. Details of other monitoring requirements at the waste recovery facility are identified and discussed briefly below.

Ecological Monitoring

The existing waste licence requires Roadstone to carry out an annual breeding bird survey, unless otherwise required by the Agency. The survey is required to record the number of birds of conservation concern utilising the site. The most recent (2015) breeding bird survey conducted at the existing licenced facility (at the North Quarry) recorded a total of 24 species of birds at the facility and in the area immediately surrounding it. The majority of species either occurred in numbers that were not significant at the regional or local level and/or are species of low or no conservation concern.

Given the history of extractive industry at the North Quarry and West Quarry, the ongoing waste recovery activities and the absence of any rare or protected bird species, it is anticipated that future bird surveys are unlikely to record any significant change during future quarry backfilling and restoration operations.

Leachate and Landfill Gas Monitoring

In the absence of biodegradable waste amongst the inert materials used to backfill and restore the North Quarry and West Quarry, no leachate or landfill gas can be generated and accordingly no provision has been made for leachate or landfill gas monitoring at this facility.

Meteorological Monitoring

At the present time, no meteorological monitoring is undertaken at Huntstown. It is understood that temperature, rainfall, sunshine, wind speed and direction are recorded at the weather station at Dublin Airport approximately 6km east of the existing licensed facility. In view of this, it is considered reasonable to refer to temperature, rainfall, sunshine, wind speed and direction records obtained at the weather station at Dublin Airport, as and if required.

Odour Monitoring

As the materials being placed or recovered at the facility are not biodegradable and do not therefore emit odorous gases, the site restoration and recovery activities will not give rise to odour nuisance. Accordingly, no provision has been made for odour monitoring at this facility. Site staff will report, record and investigate any odour emissions at the site in the highly unlikely event that a complaint is made about odours emanating from the facility.

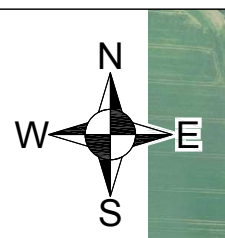
Stability and Settlement Monitoring

Temporary slopes in the backfilled soils (and existing quarry faces) will be visually inspected on an ongoing basis, at least once a month, by site staff and a record will be kept of same. Should these inspections give cause for concern, an inspection of the affected area(s) will be undertaken by a qualified geotechnical engineer and measures will be implemented to address any instability identified.

Following completion of restoration works and closure of the facility, stability and settlement monitoring will be undertaken as and if required by the grant of planning permission / waste licence.

CONTINGENCY ARRANGEMENTS

Details of existing contingency arrangements at the application site are provided in the contingency plan, a copy of which is provided in Attachment J of this waste licence review application.



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 will be restored without further quarrying, as the stone material was found to be of inferior quality. The quarry areas will then 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 to a depth of 20mm. 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 tilth.

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	%
<i>Transplants</i>					
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	%
<i>Feathered Trees</i>					
190	Alnus glutinosa	Common Alder	150-175	2xTR	1
190	Quercus robur	Pedunculate Oak	150-175	2xTR	1
<i>Transplants</i>					
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

NOTES

1. TOPOGRAPHIC SURVEY PREPARED BY FUGRO BKS BASED ON MAY 2009 AERIAL PHOTOGRAPHY
2. ALSO REFER TO FIGURES 2-3 & 2-4: RESTORATION SECTIONS (NORTHERN AND WESTERN QUARRY)

LEGEND

- ROADSTONE LIMITED LAND INTEREST (c. 200.3 ha)
- APPLICATION AREA (c. 48.65 ha)

EXISTING FEATURES TO BE RETAINED

- HEDGEROWS AND SCREEN PLANTING BELTS
- WILDLIFE AREAS
- AREA PREVIOUSLY RESTORED UNDER EXISTING WASTE LICENCE PERMIT
- STREAM CORRIDOR FROM WILDLIFE AREA TO EASTERN BOUNDARY OF SITE
- ELECTRICITY LINES CROSSING OVER THE APPLICATION SITE

PROPOSED LANDSCAPE FEATURES

- PROPOSED WOODLAND SCREEN PLANTING ALONG PARTS OF WESTERN BOUNDARY

PROPOSED RESTORATION FEATURES

- PROPOSED RESTORATION CONTOURS
- QUARRY AREA TO BE INFILLED AND RESTORED TO AGRICULTURAL LAND UNDER EXISTING WASTE LICENCE (REF: W0277-01); INCREASED FILL RATE SUBJECT TO THIS APPLICATION
- PREVIOUSLY STRIPPED WESTERN QUARRY AREA TO BE INFILLED AND RESTORED TO AGRICULTURAL LAND, SUBJECT TO THIS APPLICATION
- QUARRY AREAS TO BE INFILLED AND RESTORED TO AGRICULTURAL LAND SUBJECT TO FUTURE WASTE LICENCE APPLICATIONS
- PROCESSING AREA, DISTURBED GROUND & OVERBURDEN AREAS TO BE LEVELLED AND RESTORED TO AGRICULTURAL LAND
- QUARRY AREA TO BE INFILLED AND RESTORED TO CALCAREOUS GRASSLAND SUBJECT TO FUTURE WASTE LICENCE APPLICATIONS
- PROPOSED HEDGEROWS IN THE APPROXIMATE LOCATIONS OF FORMER BOUNDARY LINES
- RETAINED QUARRY FACE FOR EXISTING PERIGRINE FALCONS ON SITE
- RETAINED QUARRY FACE FOR FUTURE ACCESS TO FORM TOBER COLLEEN FORMATION OVERLAYING WAULSORTIAN LIMESTONE
- RETAINED INTERNAL ACCESS ROAD TO VIEW QUARRY FACE

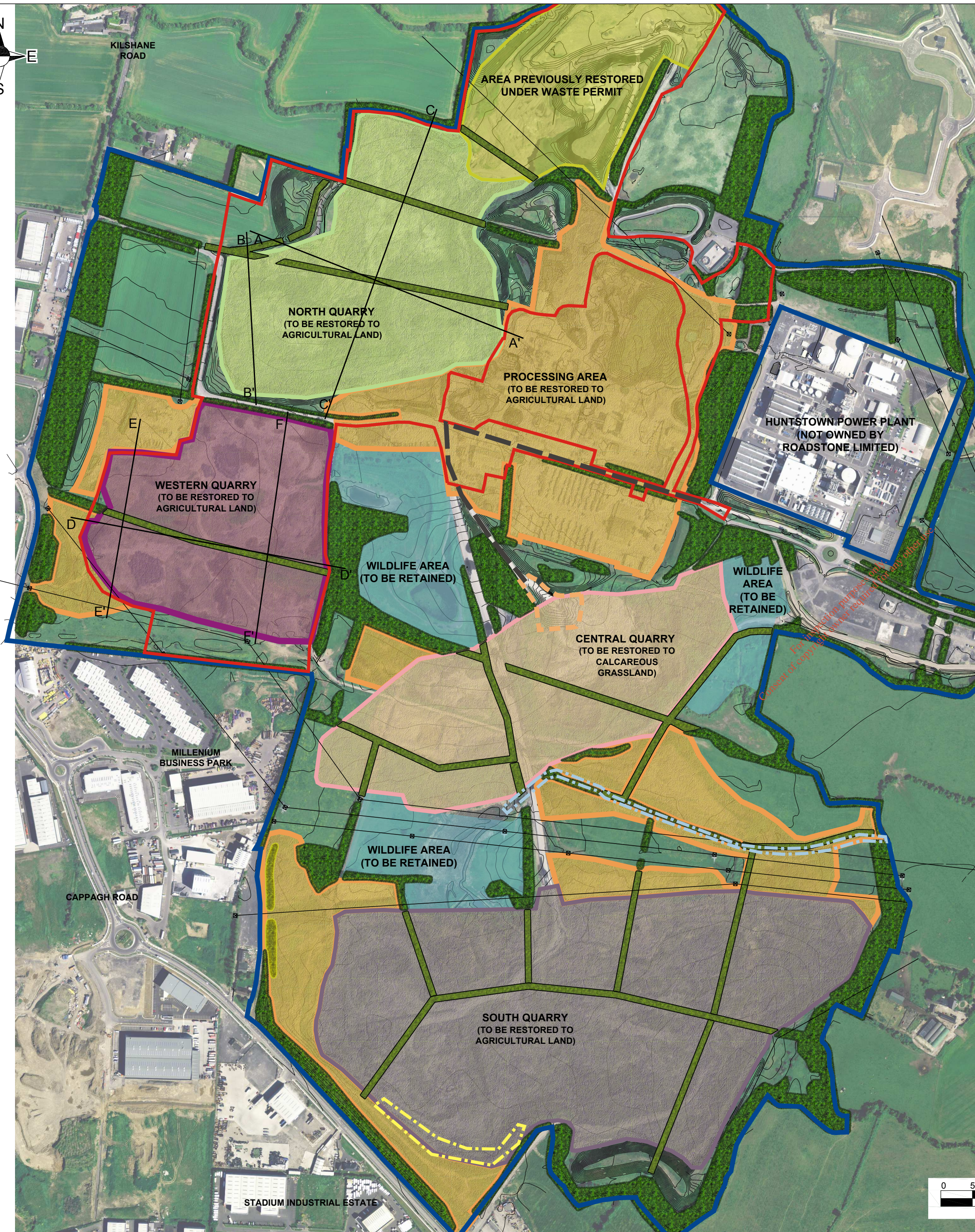
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ROADSTONE LIMITED
WASTE LICENCE REVIEW APPLICATION
HUNTSTOWN WASTE RECOVERY FACILITY
NORTH ROAD, FINGLAS, DUBLIN 11

RESTORATION PLAN
HUNTSTOWN QUARRY COMPLEX

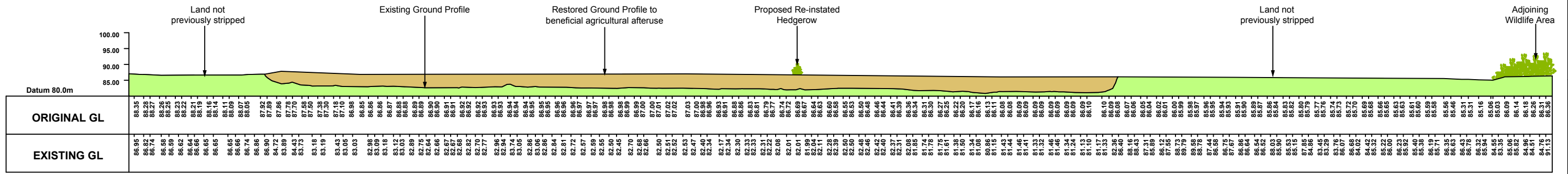
DRAWING D2-1

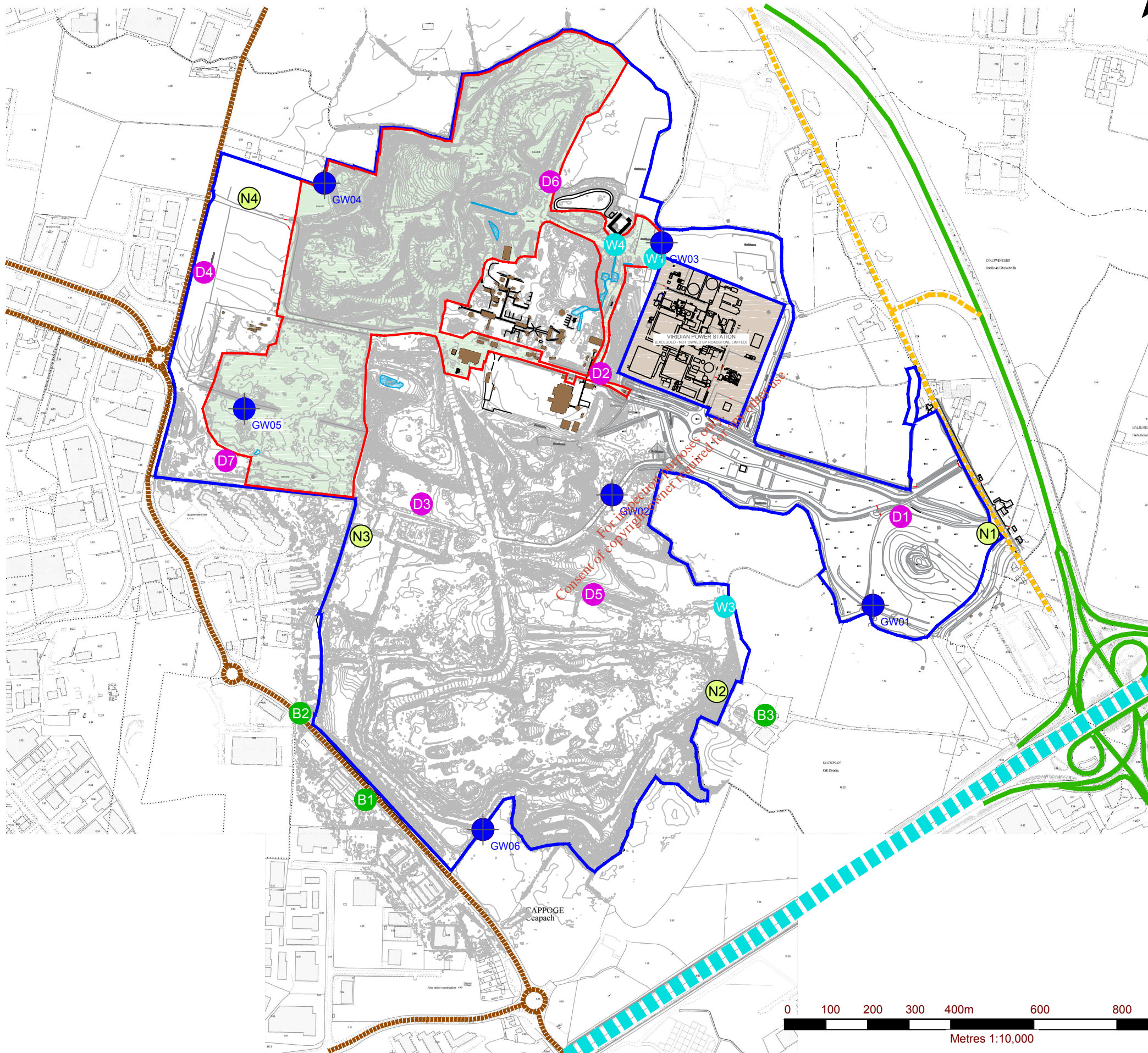
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NOTES
 1. REFER TO **DRAWING D2-1** FOR LOCATIONS OF CROSS SECTIONS





NOTES
 1. EXTRACT FROM 1:2,500 ORDNANCE SURVEY DIGITAL SHEET NO'S. 3062-A, 3062-B, 3062-C, 3062-D, 3063-A, 3063-C, 3130-A & 3130-B.
 2. ORDNANCE SURVEY IRELAND LICENCE NO. SU 0000716 (C) ORDNANCE SURVEY & GOVERNMENT OF IRELAND

LEGEND

	ROADSTONE LIMITED LAND INTEREST (c. 200.3 ha)
	APPLICATION AREA (c. 48.65 ha)
	N2 DUAL CARRIAGEWAY
	NORTH ROAD (R135)
	LOCAL ROAD
	M50 MOTORWAY
	NOISE MONITORING LOCATION
	DUST MONITORING LOCATION
	GROUNDWATER MONITORING WELL LOCATION
	SURFACE WATER MONITORING LOCATION
	BLAST MONITORING LOCATION

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ROADSTONE LIMITED
 WASTE LICENCE REVIEW APPLICATION
HUNTSTOWN WASTE RECOVERY FACILITY
 NORTH ROAD, FINGLAS, DUBLIN 11
 ENVIRONMENTAL MONITORING LOCATIONS

DRAWING D2-4
 Scale 1:10,000 @ A3
 Date SEPTEMBER 2016