

ATTACHMENT D1 – SITE INFRASTRUCTURE

D1.a Site Security Arrangements

Vehicular access to Roadstone Ltd.'s property at Huntstown Quarry and the application site is directly off the R135 Regional Road (or 'North Road', the former N2 National Primary Road) which runs along its eastern perimeter. There is no other vehicular access to the existing quarries, production facilities or recovery facility. All access is controlled by a manned security post along the internal access road leading off the R135 Regional Road. The post is manned by security staff on a 24 hour, 7 day a week basis.

All heavy good vehicles (HGVs) importing inert soil and stone to the recovery facility are required to pass over a weighbridge installed along the internal access road leading to the active waste recovery area within the facility. CCTV cameras are installed around the weighbridge and inspect all soil waste being imported for recovery at the facility.

D1.b Design for Site Roads

All trucks delivering inert soil for quarry restoration purposes are confined within Roadstone's landholding at Huntstown. At the present time, all heavy good vehicles (HGVs) importing inert soil and stone facility turn right and north at a T junction immediately east of the central infrastructure / production area. HGV traffic then continues north along a section of internal paved road which runs along the eastern side of the central infrastructure area, passing over a weighbridge and past the waste facility / weighbridge office, before continuing north over a further short section of paved road before then running onto an unpaved section of road and turning through 180° to head south back to the active backfilling area at the North Quarry. Existing haul roads around the licenced site are shown in Drawing D1.1.

D1.c Design of Hardstanding Areas

Provision for employee and visitor car parking is currently provided on paved ground surrounding the waste facility / weighbridge office or around the main office building at the central infrastructure area.

Much of the access road to the recovery facility and car parking areas is sealed by concrete or asphalt surfaces which will remain in place for the duration of the waste recovery activities. There are also extensive permanent concrete hardstanding surfaces located around production facilities in the central infrastructure area. Surface water falling across these surfaces drains via existing drainage networks and on-site settlement ponds to a tributary stream of the Ward River, to the north of the central infrastructure area.

In other areas within the application site, there are unpaved hardstanding areas around the quarry voids. Rain falling across these areas either percolates downwards into the underlying soil / bedrock or runs-off over the existing ground surface, into the existing quarry voids. These unpaved hardstanding areas are occasionally used for the storage of site plant, equipment and/or materials required at the waste recovery facility.

D1.d Plant

Plant maintained on site will principally comprise mechanical excavators and/or tracked bulldozers. Mobile plant and equipment undertaking the quarry backfilling works will be maintained / serviced on site at the existing maintenance / workshop facility, at the location shown on Drawing D1-1. A small bunded area for waste oils is provided within the maintenance shed. Oil collected in tanks is emptied at intervals by a licensed waste contractor and disposed off-site at an authorised waste facility.

D1.e Wheelwash

In order to prevent transport of soil out of the recovery facility onto public roads, an existing wheelwash facility is provided for all exiting HGV's along the paved road which runs out to the R135 North Road. The location of the wheelwash is indicated in the facility layout plan shown in Drawing D1-1.

D1.f Laboratory Facilities

Laboratory testing of soil, surface water, groundwater and soil water percolate (leachate) is undertaken off-site at an ILAB / UKAS accredited geo-environmental laboratory. Validation testing and laboratory testing required to confirm inert classification of waste soil, is also undertaken by an external accredited

laboratory. All samples taken on-site are forwarded to the laboratory and test results are typically returned to the Licensee within seven to ten working days.

Environmental monitoring equipment such as pH and temperature meters, conductivity meters and dissolved oxygen meters are not held on site. Such equipment is brought to site by an in-house environmental scientist and/or independent environmental consultant as and when required.

D1.g Design and Location of Fuel Storage Areas

Fuel for plant and equipment used at the recovery is stored in existing fuel storage tanks at the central infrastructure and production area within the Huntstown licensed facility / quarry complex. These tanks are constructed on sealed concrete surfaces and bunded to provide a storage volume equivalent to 110% of the tank storage volume. The mobile plant and equipment undertaking the quarry backfilling works is refuelled over concrete surfaces around the fuel storage tanks and on occasion, from mobile, double skin fuel bowsers.

D1.h Waste Quarantine Areas

Any imported waste which, it is suspected, may not comply with waste acceptance criteria for the waste recovery facility, is transferred across to a pre-existing covered structure beyond the south-eastern corner of the North Quarry (refer to the facility layout plan in Drawing D1-1). This shed is constructed over a sealed concrete slab. It serves as the dedicated waste inspection and quarantine facility for the waste recovery operation.

Visual inspection, in-situ monitoring and testing of imported waste materials is undertaken by Roadstone site staff as inert waste materials are end-tipped at the active backfilling areas. In the unlikely event that suspected contamination of the soil matrix is subsequently identified during the spreading, placement and compaction operations, it will be segregated from the main waste body and transferred to the covered waste inspection and quarantine facility for closer inspection and testing to establish whether it is inert or not. Suspect waste is identified on the basis of visual inspection (unusual colour, intermixed wastes etc) or by smell.

Should it be necessary, provision will also be made for temporary storage of any separated non-inert construction and demolition waste (including metal, timber, plastic etc.) in skips prior to removal off-site to a licensed recovery facility.

D1.i Waste Inspection Areas

Any imported waste which is accepted at the facility but subsequently suspected to be non-compliant with waste acceptance criteria is transferred to the waste inspection and quarantine facility for closer examination and testing. Detailed records are kept of all inspections and testing of suspect wastes.

Should inspections and/or testing of suspect soil and stone wastes at the inspection and quarantine facility indicate that they are non-inert and cannot be accepted and used for backfilling and restoration purposes at this facility, they will be placed in skips and/or covered pending removal off-site by permitted waste collectors to a suitably permitted (or licensed) waste disposal or recovery facility.

D1.j Traffic Control

Internally, within the Huntstown Quarry Complex, direction signs, warning notices and speed restriction signs are in place along paved roads leading to and from the central infrastructure and production area and the waste recovery facility.

All HGV traffic entering the licensed facility is required to pass over the existing weighbridge, while all egressing HGV traffic is routed through the existing wheelwash facility. Car and HGV / truck traffic routing through the proposed facility is indicated in Drawing D1.1.

D1.k Sewerage and Surface Water Drainage Infrastructure

Site staff at the Huntstown soil and stone waste recovery facility use toilet, hand washing and welfare facilities provided at the main site offices at the central infrastructure area at Huntstown Quarry. There are further toilets, washbasins and sink units at the canteen facility. Wastewater from both these locations is currently collected and fed via a sewerage pipe to an on-site wastewater treatment plant (septic tank).

The only surface water drainage infrastructure at the site exists across the central infrastructure area where aggregate processing and concrete production activities are currently concentrated.

Rain falling across the remainder of the recovery facility either

- runs over unsealed ground into the existing quarry void and a small pond on the eastern side of the quarry floor
- percolates down through the existing soil / rock at the ground surface as recharge to groundwater, at which point it joins groundwater flow toward the quarry face / floor.

At the present time, groundwater levels at the North Quarry are lowered by means of sumps in the quarry floor. Surface water run-off and dewatered groundwater are collected in the pond on the quarry floor and pumped to the ground surface via an existing pipe network.

The depth of overburden stripping and removal at the West Quarry is typically 2m-3m, some distance above the groundwater table which has been depressed by dewatering at the adjacent North and South quarries. Although much of the rainfall over the West Quarry recharges into underlying rock, a small proportion of it runs over ground to ponds which formed at low points and/or at closed depressions (which are likely to be self-sealed with fine silt and/or sediment). Surface water run-off in these ponds is occasionally pumped across an internal haul road, to sumps at the North Quarry and re-used for dust suppression.

Surface Water Management during Quarry Backfilling

During the infilling operations, the upper surface of the backfilled soil is graded so as to ensure that surface water run-off falling over the quarry footprint and dewatered groundwater falls to sumps at temporary low points within the quarry floor or backfilled material. These temporary sumps will effectively function as primary settlement ponds and water collecting in them is pumped (causing minimum agitation to ponded water) to the existing drainage channel / watercourse on the eastern side of the North Quarry.

Water pumped to this channel is passed through settlement ponds and existing treatment infrastructure (silt trap and hydrocarbon interceptor) prior to its discharge to the Ballystrahan Stream which flows northwards from the north-eastern corner of the Huntstown quarry complex toward the Ward River. All surface water discharges from the recovery facility to the Ballystrahan Stream are required to comply with emission limits set by the existing EPA waste licence.

D1.1 All Other Services

Electric power, lighting and heating are all currently provided via the electricity network to existing site offices and staff welfare facilities at Huntstown.

Site staff overseeing backfilling and recovery operations at the licensed facility are contactable by mobile phone. Site staff are also contactable by fixed line telephone, fax and email facilities available at the waste facility office.

A potable water supply is provided to the main site office and canteen via a Local Authority water main.

High voltage overhead electricity transmission cables (110kV and 220KV) run to the east and south-west of the recovery facility, to and from the electricity substation north-west of the M50/N2 Interchange. Lower voltage overhead cable and telephone cables also run across the Huntstown Complex.

A gas pipeline runs to the nearby electricity generating plant operated by Huntstown Power (Viridian). This pipeline runs to the north-east of Roadstone landholding and does not cross the waste recovery facility. Details of existing site services are shown on Drawing D1-2.

D1.m Plant Sheds, Garages and Equipment Compound

Plant and equipment used in the quarry backfilling and soil recovery activities is stored around the licensed site or on the sealed hardstand area in the centre of the Huntstown quarry complex. Given the existing physical restrictions on access into the quarry complex, it is not considered necessary to provide a secure compound for plant and equipment servicing the waste recovery facility.

Any plant or equipment requiring specialist repair or overhaul will be taken to the existing maintenance sheds within the Huntstown complex. Small items of mobile or hand-held plant and equipment will also be stored as required in the existing maintenance sheds

D1.n Site Accommodation

All administration and management functions for the waste recovery facility are based at the dedicated waste facility office / weighbridge office adjacent to the weighbridge. Staff changing, washing and cooking facilities are provided separately at the main canteen facility at Huntstown, located to the east of the main office and weighbridge.

D1.o Fire Control System, including water supply

Given the lack of combustible waste materials at the licensed site, it is considered highly unlikely that a fire will break out during backfilling and recovery operations. A range of fire extinguishers (water, foam and CO₂) will be kept at the site / weighbridge office to deal with any localised small scale fires which might occur. Additional fire-fighting capacity can be provided by storing water in a mobile bowser on unsealed hardstand areas around the infrastructure area and ultimately, if required, by local firefighting services in Finglas or Swords. As previously mentioned, the water supply for the facility is provided via an existing public mains.

D1.p Civic Amenity Facilities

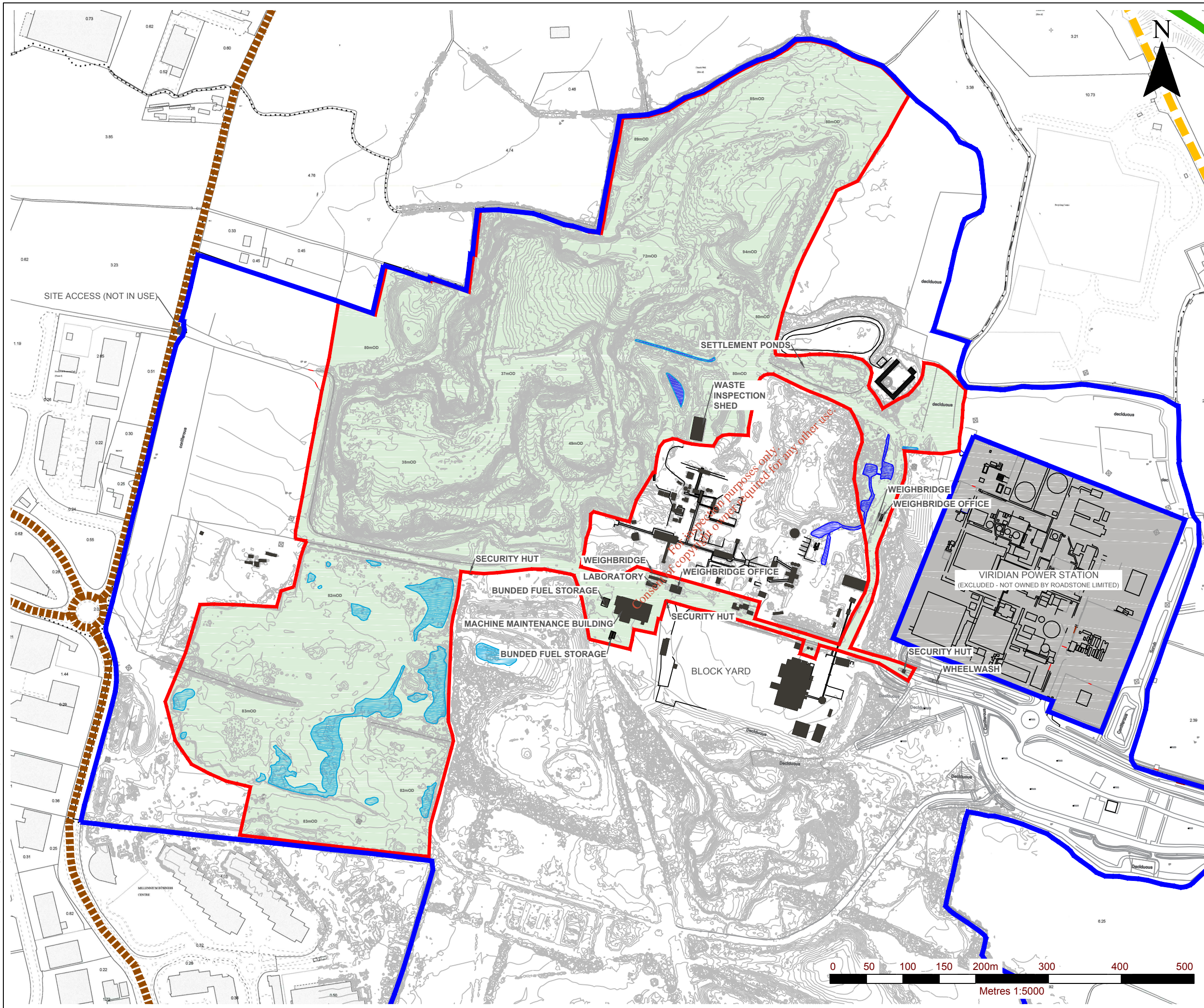
No civic amenity facilities are provided at this waste recovery facility.

D1.q Any Other Waste Recovery Infrastructure

In order to track and record the amount of material entering licensed facility, all HGV traffic importing soil and stones to the waste recovery facility is directed across the existing weighbridge located along the internal haul road leading to the active recovery area, at the location indicated on the site layout plan in Drawing D1.1.

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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
	SEMI-PERMANENT / EPHEMERAL PONDS IN WEST QUARRY (JUNE 2016)

SLR global environmental solutions

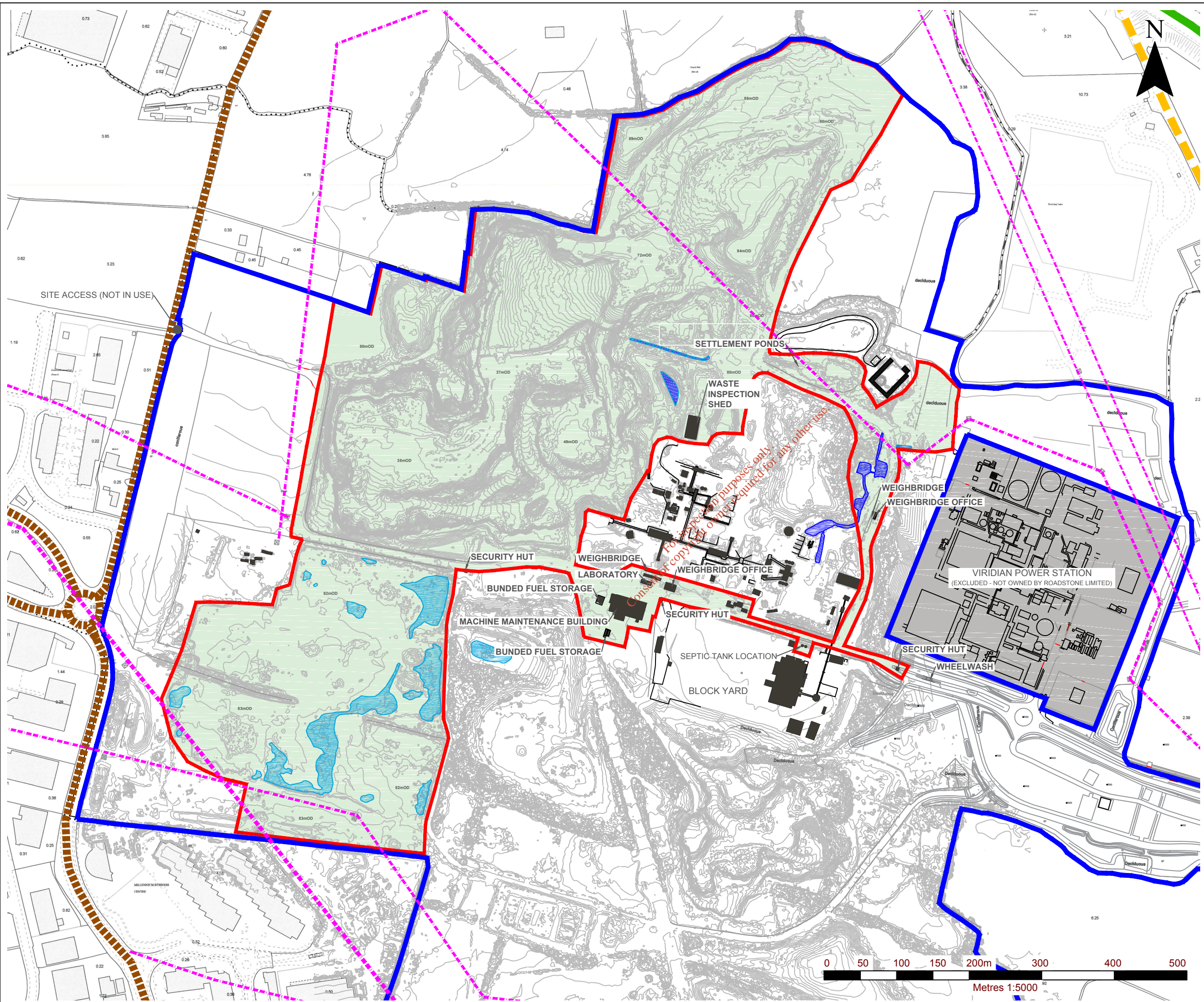
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ROADSTONE LIMITED
WASTE LICENCE REVIEW APPLICATION
HUNTSTOWN WASTE RECOVERY FACILITY
NORTH ROAD, FINGLAS, DUBLIN 11
EXISTING WASTE RECOVERY FACILITY LAYOUT

DRAWING D1-1

Scale 1:5,000 @ A3 Date SEPTEMBER 2016

0180.00152.0.FIG_D1-2.Site Utilities Layout.dwg



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	SEMI-PERMANENT / EPHEMERAL PONDS IN WEST QUARRY (JUNE 2016)
	OVERHEAD POWERLINES 10Kv / 38 Kv / 110Kv / 220Kv



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ROADSTONE LIMITED
WASTE LICENCE REVIEW APPLICATION
HUNTSTOWN WASTE RECOVERY FACILITY
NORTH ROAD, FINGLAS, DUBLIN 11
SITE UTILITIES LAYOUT
DRAWING D1-2

Scale 1:5,000 @ A3 Date SEPTEMBER 2016