



ATTACHMENTS IN SUPPORT OF A WASTE LICENCE APPLICATION FOR KILQUADE WASTE SOILS RECOVERY FACILITY

SEPTEMBER 2016




Wicklow County Council
Comhairle Contae Chill Mhantáin



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Abstract: This document contains the attachments to the application to the EPA for the proposed development of a waste soils recovery facility at Wicklow County Council owned lands at Priestsnewtown, Kilcoole, Co. Wicklow. The application has been prepared by Fehily Timoney & Company on behalf of Wicklow County Council.

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1 ATTACHMENT A – NON TECHNICAL SUMMARY

This Non-Technical Summary has been prepared in accordance with Article 12(1)(u) of the Waste Management (Licensing) Regulations S.I. 395 of 2004. Sub-articles (a) to (t) of Article 12 are addressed below.

For clarity, the paragraph numbering is in accordance with the numbering of Article 12(1), (a) to (t).

1.1 (a) General Details

1.1.1 Applicant

Wicklow County Council
County Buildings
Whitegates
Wicklow Town
Co. Wicklow
Tel: 0404-20100
Fax: 0404-67792

1.1.2 Address for Correspondence

c/o Mr. Derek Milton
Fehily Timoney & Company
J5 Plaza
North Park Business Park
North Road
Dublin 11

1.2 (b) Planning Authority

Wicklow County Council

1.3 (c) Sanitary Authority

Not Applicable

1.4 (d) Location

Pretty Bush Waste Soils Recovery Facility
Kilquade
Townland of Priestsnewtown
Kilcoole
Co. Wicklow
National Grid Reference 329000E 209300 N

1.5 (e) Nature of the Development

The proposed development comprises a waste soils recovery facility on the land at Pretty Bush, Kilquade, Kilcoole, Co. Wicklow. The proposal results from the works currently being undertaken as part of the River Dargle Flood Defence Scheme. These works include deepening and widening the river channel to make the river as hydraulically efficient as possible.

Construction of walls and embankments along the riverbank will contain the flow within the river channel from a 1 in 100-year fluvial flood event and a 200-year tidal flood event and are taking place over a stretch of river, approximately 3.5 km long, extending from the Harbour Bridge to the N11 Bridge in Bray town.

The widening and deepening of the river channel will generate 200,000 tonnes of riverbed material, mainly silt, clay and gravel.

It is proposed to deposit this material at the Pretty Bush soils recovery facility to raise existing ground levels and to subsequently develop an Eco Park at the site upon completion of placement of material. Placement of material is expected over an 8 – 15-month period. Up to 8,000 tonnes of topsoil will be imported to landscape the Eco Park. The development will necessitate the removal of up to 4,000 tonnes of vegetation from the existing site prior to placement of dredge spoil.

1.6 (f) Class of Activity

The classes of activity listed in Table A.1.1 are proposed:

Table A.1. 1: Waste Recovery Activities Proposed

Class R3	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).
Class R5	Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.
Class R13	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).

Class R5 is the principal activity.

1.7 (g) Quantity and Nature of Waste

During the Construction Phase, three primary types of material will require management at the site:

1. Vegetation cleared from the site
2. Dredge spoil material imported to site for placement
3. Topsoil material imported to site for Eco Park development

Table A.1.2 over presents the estimated quantities of each waste stream to be managed and their respective European Waste Catalogue (EWC) code.

Table A.1 1: Quantities of material to be managed onsite

EWC Code	Waste Description	Quantity to be managed	Source	Waste Management Option
20 02 02	Soils & stones	6,000 – 8,000 tonnes (3,000 – 4,000 m ³)	Imported from other development locations (greenfield sites only)	Recovery
17 05 06	Dredging spoil other than those mentioned in 17 05 05	200,000 tonnes (100,000 m ³)	Imported from the River Dargle Flood Defence Scheme	Recovery
02 01 07	Wastes from forestry	2,000 – 4,000 tonnes (4,000 – 8,000 m ³)	Generated from onsite clearance works	Recovery
20 02 01	Biodegradable waste **			Recovery

* where this refers to gorse and tree clearance

** where this refers to grass & vegetation cuttings

It is possible to only estimate at this juncture the quantity of vegetation to be cleared from the site given potential seasonal variation.

1.8 (h) Raw Materials

Natural resource consumption in relation to the proposed development will be limited to:

- fossil fuel consumption by plant and equipment during the construction phase
- importation of virgin material for haul road construction, facility entrance and hardstanding construction
- resource consumption through electricity use during the construction phase (site offices) and post construction (lighting at entrance)

Quantities and amounts of the identified resources to be consumed are estimated to be minor during both the construction and post-construction phase. Exact quantities are as yet unknown. However, usage will be reported following the completion of the waste placement phase of the proposed development.

Water usage onsite is difficult to ascertain at this juncture.

1.9 (i) Plant, Processes and Operating Procedures

1.9.1 Plant

Plant machinery shall be utilised during the construction phase at the proposed facility, likely as follows:

- tracked excavators (or similar)
- dumpers
- loading shovels (or similar)
- mobile shredder

A dry wheel clean system will be deployed to ensure cleaning of vehicles prior to leaving site. This system is based on a vibratory action as a delivery truck drives over a metals grid, thereby knocking debris from vehicles wheels.

In addition to the dry wheel clean system, a mobile road sweeper will be on constant operation at the site during the Construction Phase, to ensure that there is no impact from debris from haulage on the L1042 local road.

For the duration of the construction works, a temporary electrical connection to the site shall be provided through consultation with the ESB, to provide electrical power to the site offices. A temporary underground storage tank shall be installed adjacent to the site Porto Cabin to capture wash waters from the site welfare facilities. This tank shall be emptied on a regular basis under contract with an approved waste management contractor.

Chemical toilets will be provided within the site compound for staff use which will be regularly emptied under contract.

The existing area currently used as a maintenance depot will be used as a temporary site compound location during the construction phase. A Porto Cabin structure or mobile welfare units will be installed to act as site office, canteen and welfare facility. A shipping container type structure will also be located in the compound for storage.

Post construction, no site accommodation shall remain.

1.9.2 Processes/Operations

The activities that will occur at the soil recovery facility are listed as:

- Site Clearance Works
- Waste Placement Activities
- Eco Park development
- Kilquade Eco Park

1.9.3 Site Clearance Works

In order to facilitate the development of the Eco Park and to accommodate the placement of the dredge spoil material, it is considered that approximately 80% of the existing vegetation onsite will be removed.

Vegetation removal is required as, were dredge spoil material to be directly placed on top of existing vegetation, there would be potential for leachate generation when the vegetation decomposes. Therefore, the site must first be cleared of vegetation to prevent this.

The removal of vegetation will principally be undertaken by hand with the use of slash hooks, chainsaws and other hand tools. A number of items of plant will also be used in clearance work for the loading and movement of material, for the removal of roots and for the feeding of the shredder. Plant expected to be utilised onsite are:

- 1 no. 13.5 tonne tracked excavator (or similar)
- 1 no. dumper
- 1 no. loading shovel with grab attachment (or similar)

Site clearance will be undertaken in phases, commencing with the material accessible immediately at the main site entrance and working inwards (south to south west) to the site.

A mobile shredder shall be located within the centralised staging area for the duration of the clearance works.

It is envisaged that the site clearance works will be undertaken over a 3 to 4-month period. The shredding activities will vary depending on the nature of the vegetation and the throughput of the shredder but a conservative assumption will see shredding occurring for up to 6 hours per day.

1.9.4 Waste Placement

Following site clearance, the placement of dredge spoil materials from the River Dargle Flood Scheme works will commence. Material shall be transported from its location at the River Dargle Flood Scheme works along an identified haul route to the Kilquade site. Vehicles shall enter the site via the existing main entrance which shall be widened temporarily to facilitate vehicle movement, and material shall be brought to the central staging area that was previously used for the site clearance.

A stock pile of material shall be maintained to feed placement activities. Plant expected to be utilised onsite during the material placement phase are:

- 2 no. 13.5 tonne tracked excavator (or similar)
- 2 no. dumpers
- 1 no. loading shovel (or similar)

1.9.5 Waste Acceptance & Handling

A Waste Acceptance Plan has been developed. The plan addresses a number of topics, summarised in the following.

- Waste Identification and Characterisation
- Waste Characterisation
- Waste Acceptance Procedures

1.9.6 Waste Placement Phasing Schedule

Material stockpiled within the central staging area will be loaded into the dumper using the loading shovel, brought to the placement location and tipped, where it will be spread, compacted and graded using the excavator. 2 no. excavator will work simultaneously per phase.

Incoming dredge spoil material will be placed in 300 mm layers, with a number of layers being applied on each other. A 200 mm layer of topsoil, either imported to site or reclaimed from the site during the site clearance works, will be applied to the dredge spoil material during placement, in order to attain the finalised contours.

Initially, this topsoil will be grass seeded upon application in order to mitigate potential sediment control and improve slope stability, prior to the planting activities to be undertaken as part of the Eco Park development.

1.9.7 Construction Phase – Entrance & Local Road Improvements during Site Clearance and Placement phases

Improvements to the site entrance and local road will be made during the construction phase – initially during the site clearance and placement phases, the existing gated entrance to the site will be widened and temporary fencing erected in order to facilitate trucks removing cleared material and delivering dredge spoil. Temporary traffic management systems shall be put in place as part of the traffic management plan to manage vehicle ingress and egress during construction.

1.9.8 Eco Park Development

Upon completion of the dredge spoil material and topsoil placement, with subsequent grassing, the development of the Eco Park will commence.

The time of year for the completion of the material placement works will influence the programme for the Eco Park development as planting of vegetation can occur only at certain times of the year.

The Eco Park development will comprise:

- Planting of the site in accordance with the Landscaping Plan
- Development of the site entrance, parking area and associated drainage
- Installation of various walkways throughout the Eco Park
- Installation of waymarkers and information signs

1.9.9 Eco Park – Post Construction Phase

The purpose of the Eco Park is to provide an outlet for recreation and amenity, and to act as an 'ecological hub' for plants and wildlife, providing the community an opportunity to interact with the environment.

The Eco Park shall be accessible to members of the public on a 24 hours, 7 days per basis. Maintenance shall be undertaken at intermittent intervals – in order to maintain as close a similarity to the existing Pretty Bush site, the Eco Park shall be allowed to develop in 'wild' status, with maintenance being limited to access points and walkway areas, to ensure paths are correctly maintained and do not become overgrown.

It is not expected that regular grass cutting or other landscaping shall be undertaken, save for that required in the initial years to ensure that the species identified in the Landscaping Plan establish themselves and develop appropriately.

Post construction, monitoring of the site shall be continue to be undertaken. It is intended that, over a period of time to be agreed with the EPA, where monitoring identifies no impacts resulting from the Eco Park, the licence for the site shall be surrendered, thus removing the waste management designation from the site.

1.9.10 Abatement Systems

There are no direct emissions to atmosphere, surface water, sewer or groundwater.

There is potential for fugitive dust emissions. There are a series of dust control mitigation measures which are described in this application. A Dust Management Plan (DMP) will be developed and implemented as part of the Construction Environmental Management Plan (CEMP). A summary of the mitigation measures is as follows:

- complaints will be recorded, causes(s) will be identified, appropriate measures to reduce emissions in a timely manner will be taken, and the measures taken will be recorded
- quarterly dust monitoring, weekly on-site and off-site inspections to include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100m of site boundary, with cleaning to be provided if necessary. Frequency of site inspections will be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- site layout will be planned so that machinery and dust causing activities are located away from receptors, as far as is possible.
- site runoff of water or mud will be avoided
- site fencing, barriers etc. will be kept clean using wet methods
- no idling vehicles
- maximum-speed-limit of 10 mph on facility roads and work areas
- adequate water supply
- enclosed chutes and conveyors and covered trailer will be used
- drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment will be minimised
- bonfires and burning of waste materials will be prohibited
- earthworks and exposed areas/soil stockpiles will be re-vegetated to stabilise surfaces as soon as possible.

There are no direct emissions to surface water. A drainage system will be put in place on site to control surface water runoff.

Two drainage routes exist through the site at present, and these will be preserved in the layout for Pretty Bush Eco Park. Both of these drainage routes convey overland flows towards the Kilcoole Stream. These are both described below.

The primary drainage route on the site runs from the north-west of the site towards the south-east. This watercourse will be re-profiled as it lies within the portion of the site where materials will be placed. The filled areas will be designed such that continuity is provided along this drain where it runs from the buffer zone towards the area subject to filling. A settlement pond will be constructed in-line with this stream at the downstream reach to allow any suspended solids to be removed from the runoff before being discharged via overland flow.

Another watercourse in the form of a small ditch runs along the eastern boundary of the site from north to south, where it joins with the watercourse described above before draining towards the Kilcoole Stream. This watercourse is in the buffer zone and as such no material will be placed in its vicinity.

Drainage ditches/swales are specified to convey overland flows southwards and reduce the potential for erosion on the imported material. It is anticipated that these ditches would be shallow (<400m) and have shallow side-slopes.

There is the potential for increased sediment to enter the drains on site due to the uncompacted nature of the soils to be deposited on the site during the construction stage. Silt Protection Controls (SPCs) are proposed at the location of the drain crossings. It is recommended that the SPCs will consist of a minimum of silt traps containing filter stone and filter material staked across the width of the swales and upstream of the outfall to any watercourse.

Site drainage, including silt traps and stilling ponds, will be put in place in parallel with or ahead of construction, such that placement of materials and construction of new infrastructure will have a functioning drainage system in place.

1.9.10.1 Drainage of Temporary Site Compound

The compound will be set back from the drain that runs alongside the eastern site boundary. Drains around the hard-standing areas of the site compound will be in the form of shallow swales to minimise the disturbance to sub-soils.

Filter drains may be used where trafficking by site staff is required to access the temporary site compound. The filter drains/swales will drain to a stilling pond.

1.9.10.2 Drainage of Stockpiled Material

Any stockpiles of material will be set back a minimum of 50m from the stream at the eastern site boundary. It is proposed to drain all exposed surfaces and imported material to settlement ponds. At the upslope side of any stockpiles, interceptor drains will be constructed where required to prevent ingress of water into stockpiled material.

Stockpiles on site will be kept to a minimum of 2m in height, and will be profiled such that runoff from the stockpiles is directed towards a silt trap or 'dirty water' drain.

Reinstated areas and berms will be re-planted and further measures will be undertaken, in the form of erosion control matting for example if deemed to be required.

1.9.10.3 Construction Stage Settlement Pond

A settlement pond will be provided at the south of the site. This is sized at 18m x 14m, with a depth of 1m. Prior to discharge via diffuse overland flow, runoff from the imported materials on the site will pass via the site drainage system through this settlement pond in order to minimise the suspended solids and protect the receiving watercourses.

1.9.10.4 Recovery and Treatment Systems

This project will see the creation of an Eco Park using dredge spoil as a substitute for other materials.

1.10 (j) Regarding Paragraphs (a) to (g) of section 40 (4) of the Waste Management Act

Section 40 (4) of the Waste Management Act 1996, amended by the Protection of the Environment Act 2003, sets out specific criteria of which the Agency must be satisfied before it will consider the granting of a licence. They are:

- (a) any emissions from the recovery or disposal activity in question ("the activity concerned") will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any other enactment,
- (b) the activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution,
- (bb) if the activity concerned involves the landfill of waste, the activity, carried on in accordance with such conditions as may be attached to the licence, will comply with Council Directive 1999/31/EC on the landfill of waste,
- (c) the best available technology not entailing excessive costs best available techniques will be used to prevent or eliminate or, where that is not practicable, to limit, abate or reduce an emission from the activity concerned, (cc) the activity concerned is consistent with the objectives of the relevant waste management plan or the hazardous waste management plan, as the case may be, and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan,
- (d) if the applicant is not a local authority, the corporation of a borough that is not a county borough, or the council of an urban district, subject to subsection (8), he or she is a fit and proper person to hold a waste licence,
- (e) the applicant has complied with any requirements under section 53.
- (f) energy will be used efficiently in the carrying on of the activity concerned,
- (g) any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 1992,
- (h) necessary measures will be taken to prevent accidents in the carrying on of the activity concerned and, where an accident occurs, to limit its consequences for the environment,
- (i) necessary measures will be taken upon the permanent cessation of the activity concerned (including such a cessation resulting from the abandonment of the activity) to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state,
- (j) the intended method of treatment is acceptable from the point of view of environmental protection, in particular when the method is not in accordance with section 32(1).

Specific Criteria under Section 40(4)	Addressed in Non-Technical Summary and Application (See Attachment L.1)
a	Yes
b and bb	Yes (bb not applicable)
c and cc	Yes
d	Yes
e	Yes
f	Yes
g	Yes
h	Yes
i	Yes
j	Yes

1.11 (k) Emissions from the Site

There are no direct emissions from the proposed development.

1.11.1 Air

The proposed development has the potential to result in fugitive emissions to air (dust). An assessment of potential impacts from the earthworks activities associated with the construction of the proposed development, undertaken in accordance with the "Guidance on the assessment of dust from demolition and construction" identified a low risk from the activities to be undertaken onsite.

In the absence of mitigation measures, there is potential for fugitive dust emissions from the site during the construction phase. The EIS details the proposed measures to mitigate any potential dust emissions which are summarised above in section (i).

It is proposed to carry out dust monitoring at the facility to ensure that the mitigation measures are successful. There are 4 no. proposed dust monitoring locations as shown on the drawing referenced above.

It is proposed to carry out dust monitoring on a quarterly basis for the duration of the construction phase at each of the 4 locations. Monitoring will be carried out in accordance with the Standard Method VDI 2119 (Part 2, 1996) - (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). Dust pots will be erected for a 30 day +/- 2-day period at each location. They will be sealed and sent for laboratory analysis following the 30-day period for the analysis of:

- Organic dust
- Inorganic dust
- Total dust

1.11.2 Surface Water

There are no direct emissions to surface water. Surface water run-off from the site will be discharged diffusely by overland flow from a stilling pond.

An assessment of the potential impacts on surface water was carried out. The assessment concluded that the activities during the construction phase, if unmitigated, would have a negligible impact on receiving watercourses in terms of an increase in run-off or a risk of sedimentation in sensitive catchments. Operation and maintenance activities are not expected to have a significant effect on the receiving watercourses.

It is proposed to construct a stilling pond on site in order to allow solids to settle. The discharge from the stilling pond will be via diffuse overland flow. Regular monitoring of the surface waters on site will help to ensure that water quality is maintained and that all proposed mitigation measures to protect water quality are working effectively.

1.11.3 Noise

A noise impact appraisal was carried out for the proposed development comprising site clearance and spoil placement to allow for development of the site as an Eco Park.

Best practice noise limits for the site clearance and spoil placement activities were derived from British Standard 5228: Part 1 relating to appropriate limits for construction noise and the EPA's typical noise limits for licensable activities. The predicted noise levels from on-site plant carrying out these activities exceeded these limits at the nearest noise sensitive locations and indicated a potential for causing significant adverse impacts at the nearest locations.

However, the correct placement and installation of screening will provide a significant reduction of 15dB (estimated) on the predicted levels and will achieve compliance with the BS 5228:Part 1 construction limits and the EPA licence noise limits. This screening will also reduce the potential for significant adverse impact.

Monitoring will be carried out at the initial stages to determine the actual noise emissions from the site clearance and waste placement works. These noise levels will be used to inform the specific requirements for screening with follow up monitoring to confirm the noise level reductions, in accordance with the requirements of the EPA waste licence for the site.

In addition, it is proposed to carry out quarterly noise monitoring of the site at 4 noise sensitive locations during daytime operations.

1.11.4 Sewer

There will be no emissions to sewer.

1.11.5 Ground/Groundwater

There will be no emissions to ground or to groundwater.

1.12 (I) Effects of Emissions

An assessment of potential impacts from the earthworks activities associated with the construction of the proposed development, undertaken in accordance with the "Guidance on the assessment of dust from demolition and construction" identified a low risk from the activities to be undertaken onsite.

Increased surface water run-off may potentially lead to siltation and consequently physical effects on flora and fauna in aquatic habitats. Mitigation measures adopted will reduce the likelihood of the above potential impacts from occurring.

While noise levels during the construction phase are predicted to be significant, mitigation measures put in place will ensure that levels are maintained below applicable limits.

Overall, it is considered unlikely that there will be any negative impacts from emissions associated with the proposed development.

Mitigation measures were described in section (i) of this non-technical summary.

1.13 (m) Monitoring Points

The means of monitoring, proposed monitoring points and frequencies of monitoring for each parameter are presented in Table A-1.2.

Table A.1 2: Monitoring Details

Monitoring Parameter	Means	Location	Frequency
Incoming 'Greenfield material'	Letter of Suitability	n/a	Every 10,000 tonnes of dredge spoil & every 5,000 tonnes of topsoil
Dust Deposition	Bergerhoff	D1, D2, D3, D4	Quarterly during Construction Phase
Surface Water	Grab sampling	aSW1, sSW2, aSW3	Weekly & Quarterly (parameter dependent)
Groundwater	Grab sampling	aGW1, aGW2, aGW3	Quarterly
Noise	Meter reading	N1, N2, N3, N4	Quarterly during Construction Phase

1.14 (n) Arrangements for Prevention, Minimisation and Recovery of Waste Arising from the Activity

The vegetation currently located at the Kilquade site will be cleared. Chipping/shredding of the vegetation will then take place before the subsequent material will be sent off site for appropriate management.

1.15 (o) Arrangements for Off-site Treatment or Disposal of Wastes

Following vegetation clearance, shredded vegetation will be removed offsite to an authorised waste management facility for recovery.

Wastewater from the on-site wastewater tank for collection of water from the site office and welfare facilities and from the portaloo's will be transported off-site for appropriate treatment by an authorised collector.

1.16 (p) Measures including Emergency Procedures for Unauthorised or Unexpected Emissions

The nature of the proposed site activity, which is clearance of existing vegetation, placement of inert soils and landscaping to develop an Eco Park will not create any potentially significant impacts on the environment. A Draft Emergency Response Plan has been prepared, it contains the following emergency response procedures:

- ERP - 001 Response to Mechanical Plant Failure
- ERP - 002 Response to Fire/Explosion
- ERP - 003 Response to Accidents and Notifiable Injury
- ERP - 004 Procedure for Dealing with Uncontained Spillage/Leakage ERP - 005 Flooding
- ERP - 006 Response to Potential Slope Collapse

1.17 (q) Decommissioning, Aftercare and Restoration

In this development proposal, waste placement will be defined over a relatively fixed 12-24-month period, i.e. the duration of the River Dargle Flood Defence Works. The aftercare proposals for the site form a central element of the development proposal, i.e. the creation of an Eco Park. Decommissioning works will simply relate to the completion of the placement works and the removal of construction related infrastructure.

It is anticipated that the following decommissioning measures will be undertaken at a minimum:

- Wicklow County Council will ensure that all waste material including vegetation, riverbed material, soils and topsoils is removed off site for appropriate disposal or treatment at licensed/permitted facilities
- Portable structures will be removed from the site, where applicable
- Road sweeper vehicles will be employed to clean the surrounding roads to the site

Aftercare will relate to the operation of the site as an Eco Park, with ongoing environmental monitoring in accordance with the requirement of the waste soils recovery licence.

1.18 (r) Related to landfilling of waste

Not relevant to this development.

1.19 (s) European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulation 2000

Not relevant to this development.

1.20 (t) Council Directive of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances

The activities proposed include clearance of vegetation, placement of dredge spoil and landscaping including import of topsoil to develop an Eco Park. The only activity with potential for minor emissions to ground in the absence of mitigation measures is the storage and use of fuel.

Any diesel or fuel oils stored at the temporary site compound will be banded. The bund capacity will be sufficient to contain 110% of the tank's maximum capacity. Where there is more than one tank within the bund, the capacity will be sufficient to accommodate 110% of the largest tank's maximum capacity or 25% of the total maximum capacities of all tanks, whichever is the greater. Design and installation of fuel tanks will be in accordance with best practice guidelines BPGCS005 (Oil Storage Guidelines).

Refuelling of plant during construction will be carried out at a dedicated refuelling station on site, which will be a minimum of 100 m from any watercourse. The station will be fully equipped for a spill response and a specially trained and dedicated environmental and emergency spill response team will be appointed before commencement on site. Drip trays and spill kits will be kept available on site, to ensure that any spills from the vehicle are contained and removed off site. Only emergency breakdown maintenance will be carried out on site and appropriate containment facilities will be provided to ensure that any spills from breakdown maintenance vehicles are contained and removed off site.

No other dangerous substances will be stored or handled on site.

1.21 (t bis) describe in outline the main alternatives, if any, to the proposals contained in the application which were studied by the applicant,

The works are being carried out by Wicklow County Council, with a contract for the entire works having been awarded to a single contractor in 2012, with responsibility for the management of the dredge spoil material being part of that contract. Following receivership of this company, WCC took back direct control of the delivery of the project and the requirement for the management of the dredge spoil material becoming their responsibility. As previously identified, authorisation of the works by An Bord Pleanála identified that material not reused in the flood defence works would be “removed off-site to suitably licensed disposal facility”.

A number of options presented themselves for consideration by WCC in terms of management of this material, including transportation to an appropriate third party site or development of a site under their ownership.

Based on the planning permission requirement, as well as a requirement of applicable waste management legislation. The options in terms of places to manage the material are limited to:

- Existing licensed/permitted waste management sites i.e. landfill or waste soils recovery facilities
- Sites for which a waste soils recovery licence could be secured¹
- Applications whereby the consideration of a material as a by-product may be applicable²

1.21.1 Alternative Locations

A number of possible locations were considered, with transportation distances greater than 40 km generally being considered uneconomic.

It was considered that the environmental impact of the sites, the majority of which operate under either waste licence, waste facility permits or certificates of registration, had been assessed as part of the licence/permit/certification process.

The consideration of alternative locations concentrated mainly on alternative licensed/permitted waste management sites, however that alternative capacity does not offer the benefit of creation of a community Eco Park and therefore may not provide a ‘real’ alternative to this development proposal.

Therefore, in addition to the site specific requirement to develop an Eco Park, no alternative sites are considered appropriate for the management of material that supplant the proposal to place the dredge spoil material at the Pretty Bush site and develop an Eco Park thereafter.

1.21.2 Alternative Development Options

Upon identification of the preferred development location, options in terms of end use were considered as follows:

- Development of the site as playing fields
- Development as a community Eco Park

Both options satisfied WCC’s own requirement for the provision of a community resource to the Kilcoole and wider locality.

It was through meeting and liaison with the National Parks and Wildlife Service (NPWS) through the development of this EIS that the option to develop a community Eco Park was identified as the preferred development option.

¹ On the assumption that an application for landfill development would not be warranted, relevant or achievable in the applicable timelines

² As per Article 27 of the European Communities (Waste Directive) Regulations, S.I. 126 of 2011

Further detail on this consultation is presented in Section 6 of this document but, in summary, it was considered that the Pretty Bush Eco Park development is more sympathetic to the existing ecology of the site, in terms of habitats preservation and maintaining the environmental and ecological capital of the site.

1.22 (u) include a non-technical summary of information provided in relation to the matters specified in paragraphs (a) to (t) of this sub-article,

As above.

1.23 (v) describe how the waste hierarchy in section 21A of the Act is applied

The Eastern & Midlands Regional Waste Management Plan 2015 – 2021 (EMRWMP) was made in April 2015.

It specifically addresses recovery capacity requirement for backfilling of inert wastes in Section 16.4.4 of the Plan with specific policies identified. That text is replicated here:

"Backfilling activities (of inert waste), which meet the recovery definition and are in compliance with Articles 4 and 13 of the WFD, sit on the other recovery tier of the waste hierarchy. Local authorities in the region authorise such activities through the award of WFPs and CoRs. Similarly, the EPA authorises significant backfilling of inert waste at large site such as old quarries for restoration purposes.

Through recovery of the dredge spoil the objectives in relation to 'landfill elimination' and use of material for a 'more sustainable' use is supported by the proposed development site.

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 County Buildings
 Wicklow
 Co Wicklow
 0404 20100

accountsreceivable@epa.ie

ENVIRONMENTAL PROTECTION AGENCY
 P O Box 3000
 Johnstown Castle Estate
 Co Wexford

Supp ID / Uimh. Áitheantais Soláthraí 368579
 Pay Date / Dáta Íocaíochta 29/08/2016
 Page / Leathanach 1 of 1

REMITTANCE ADVICE OF PAYMENT BY EFT / DUILLÍN ÍOCAÍOCHTA FAOI ÍOCAÍOCHT EFT

Your Ref/ Bhur dTagairt	Inv Date/ Dáta Sonraisc	Our Ref/ Ár dTagairt	AMOUNT/ SUIM EUR	Payable/ Iníochta EUR
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PAGE TOTAL / IOMLÁN AN LEATHANAIGH			EUR	10,000.00
GRAND TOTAL / MÓRIOMLÁN			EUR	10,000.00

WH = Withholding Tax, SC = Subcontractors Tax

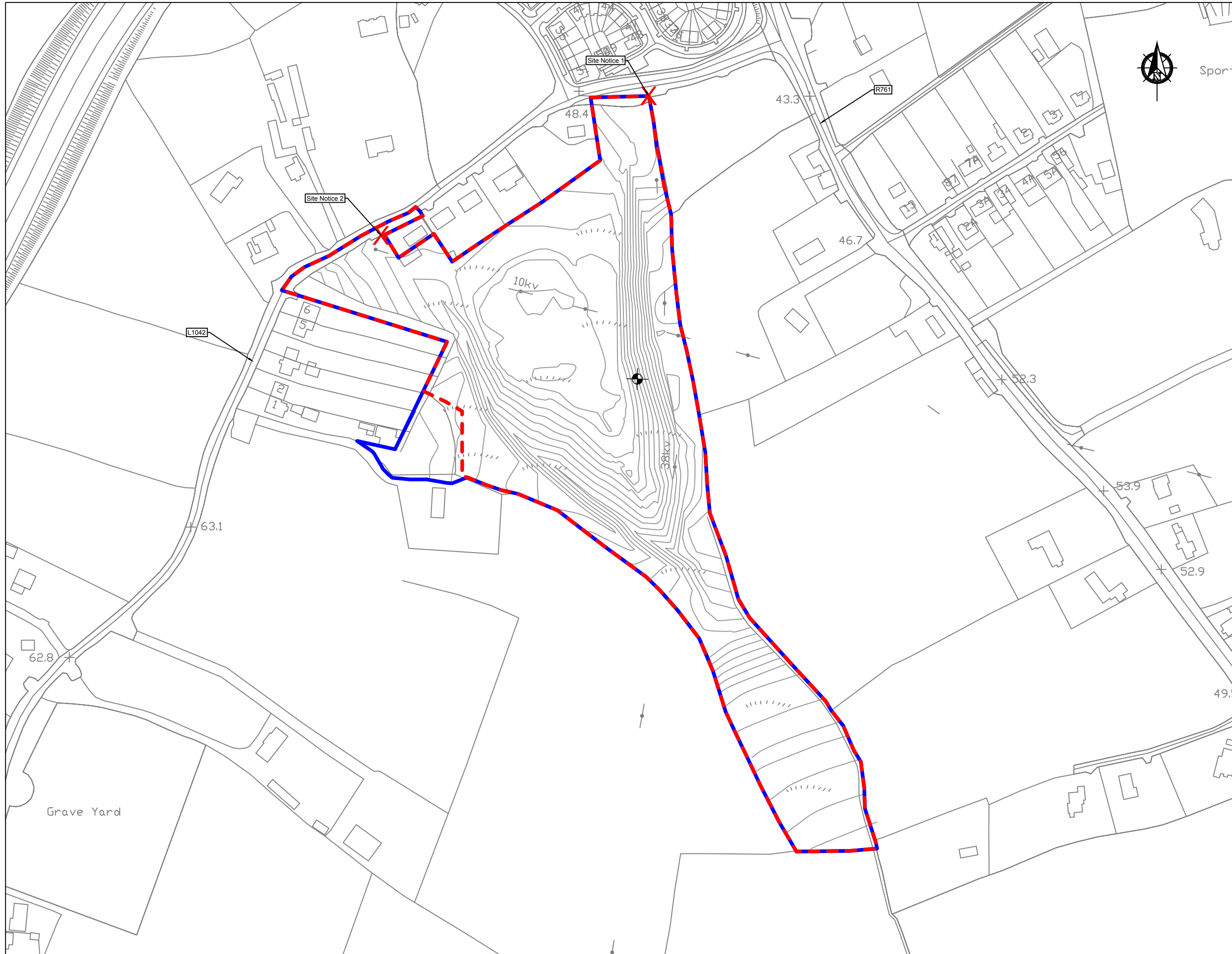
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2 ATTACHMENT B

2.1 Attachment B.1 Applicants Details

The proposed site is owned by the applicant, Wicklow County Council. An ownership map is included in this attachment.



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LEGEND:
Irish National Grid
Reference Location = 329000 E, 209300 N
Waste Licence Boundary
Ownership Boundary

Rev.	Drawn	Chkd	Appd	Rev Origin	Date	Description
A	GW	TR	DM	Cork	30.09.16	WASTE LICENCE APPLICATION

Revision History		INFORMATION
Name of Client		

WICKLOW COUNTY COUNCIL

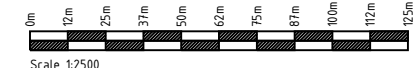
PRETTY BUSH WASTE SOILS RECOVERY FACILITY & ECO PARK

OWNERSHIP BOUNDARY PLAN

Scales Used: 1:2500
Dwg. No.: LW15-247-01-0100-102
Rev.: A

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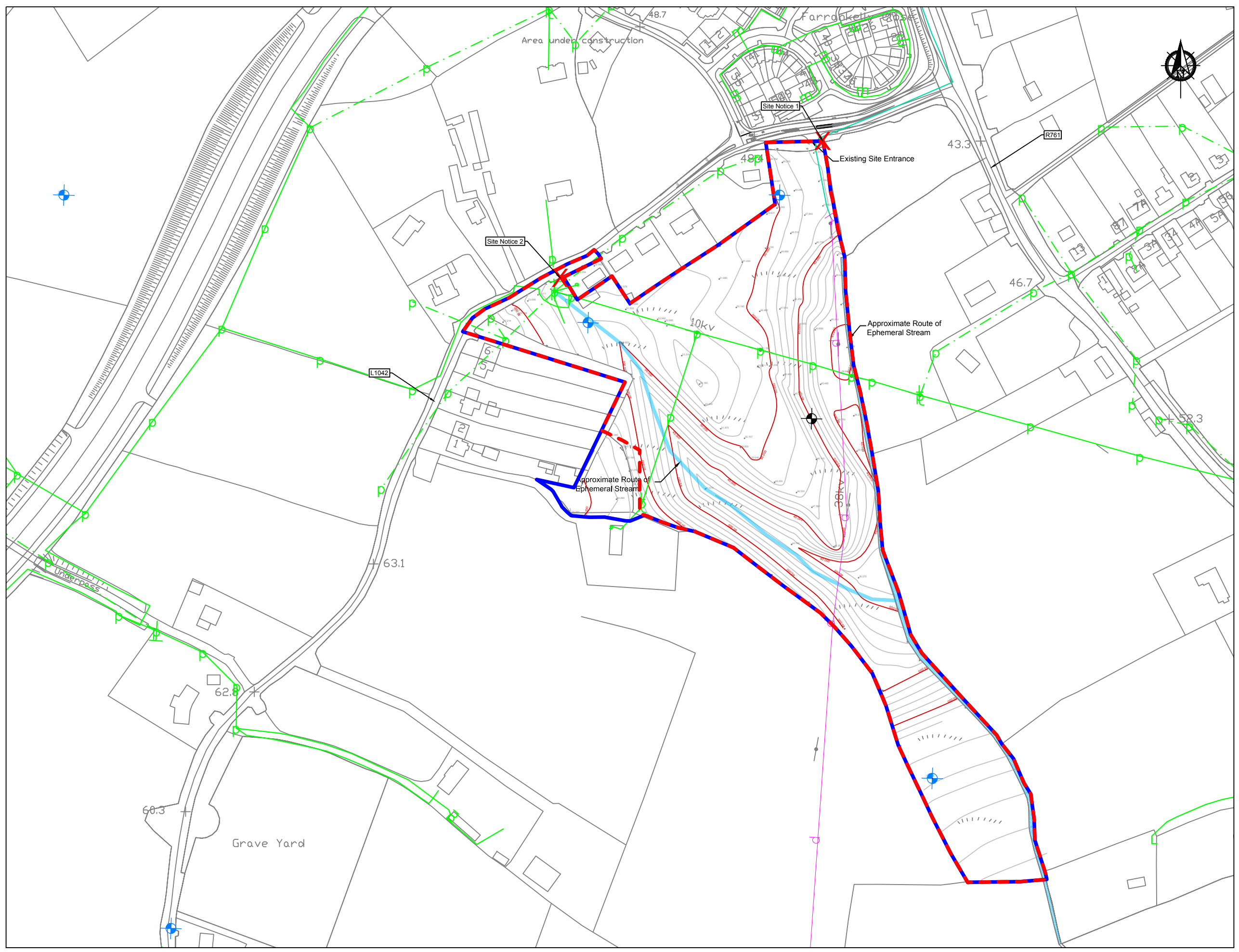
OWNERSHIP BOUNDARY PLAN
Scale 1:2500



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2.3 Attachment B.2 Location of Activity

This attachment contains a Site Location Map, an Existing Site Layout and a Services Plan. The proposed waste licence boundary, is shown on all of the drawings and figures shown with this application, so a separate Site Plan was not prepared.



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- LEGEND:**
- Irish National Grid Reference Location = 329000 E, 209300 N
 - Waste Licence Boundary
 - Ownership Boundary
 - Track
 - Existing Watercourses
 - Groundwater Wells within 500m of Waste Licence Boundary
 - Contours @ 1m Intervals
 - MV Cables
 - MV Cables
 - HV Overhead Cables
 - HV Underground Cables

Rev.	Drawn	Checked	App'd	Rev Origin	Date	Description
A	GW	RR	DM	Cork	30.09.16	WASTE LICENCE APPLICATION

Revision History A

Name of Client
WICKLOW COUNTY COUNCIL

Name of Job
PRETTY BUSH WASTE SOILS RECOVERY FACILITY & ECO PARK

Title of Drawing
SITE LOCATION MAP

Scales Used
1:2500

Dwg. No.
LW15-247-01-0100-103

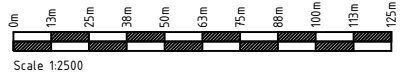
Rev.
A

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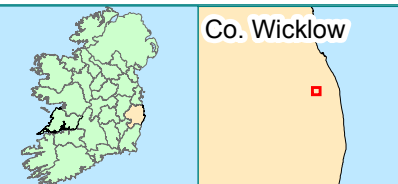
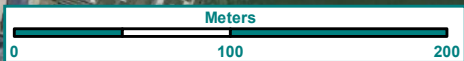
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J5 Plaza, North Park Business Park, North Road, Dublin 11, Ireland
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SITE LOCATION MAP
 Scale 1:2500



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Legend

- Waste Licence Boundary
- 1m Contours

Date 16/09/2016

Name Of Client
Wicklow County Council

Name Of Job
Waste Licence, Planning & EIS for
Waste Soils Recovery Facility

Title Of Figure
Existing Site Layout

Scale Used 1:3,500 @ A4

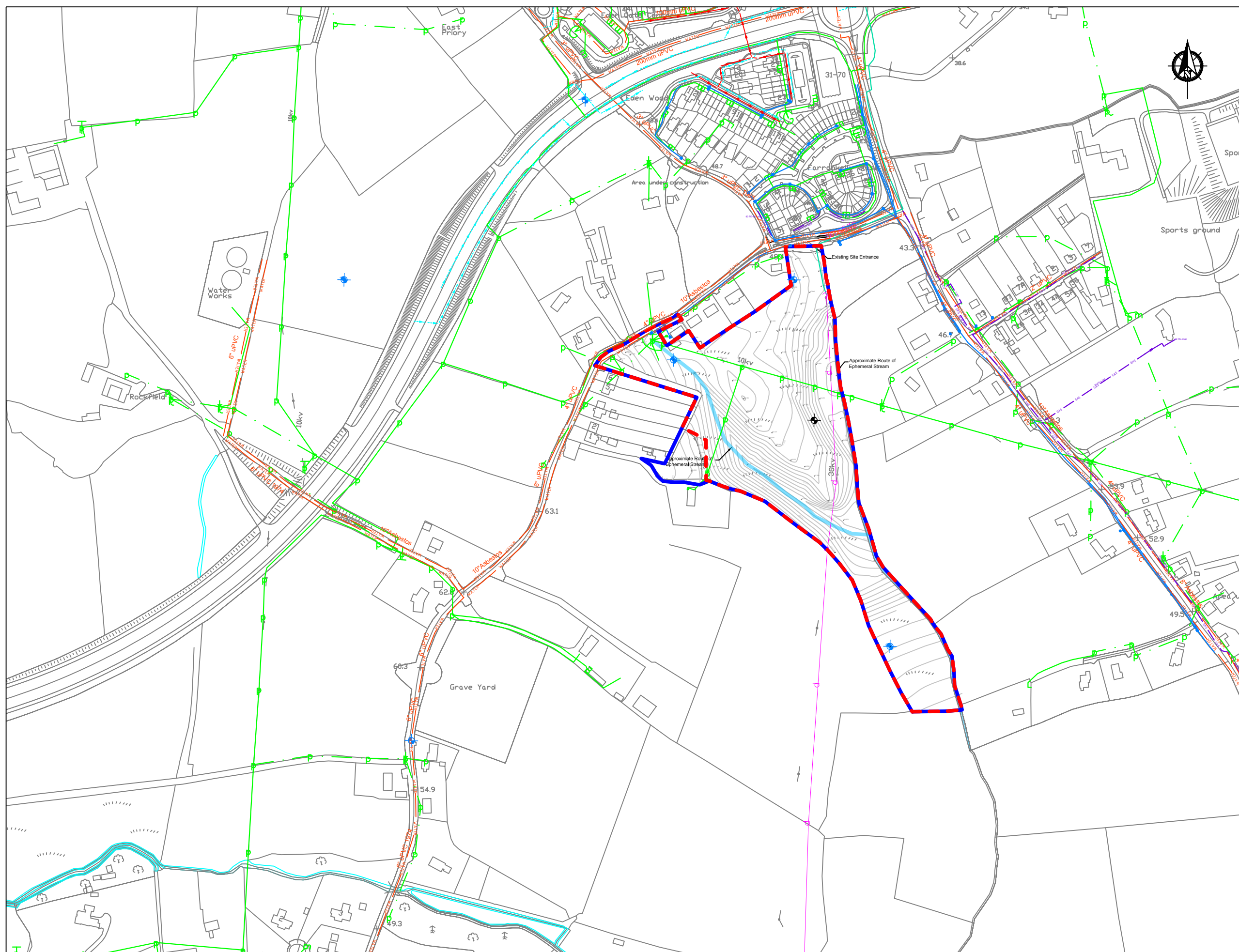
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- HV Underground Cables
- Existing Storm Network
- Existing Eir Ducting
- Existing Foul Network
- Gas Networks Ireland
- IW Watermains

Rev.	Drawn	Checked	App'd	Rev Origin	Date	Description
A	GW	RR	DM	Cork	30.09.16	WASTE LICENCE APPLICATION

Rev.	Drawn	Checked	App'd	Rev Origin	Date	Description
INFORMATION						

Name of Client
WICKLOW COUNTY COUNCIL

Name of Job
PRETTY BUSH WASTE SOILS RECOVERY FACILITY & ECO PARK

Title of Drawing
SERVICES PLAN

Scales Used
1:4000

Dwg. No.
LW15-247-01-0100-104

Rev.
A

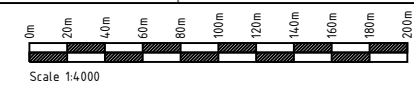
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SITE LOCATION MAP
 Scale 1:4000



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