



Certification Europe Ltd

Attachments in Support of an application for a Waste Licence for John Morrin Land Restoration Facility

Prepared For:

John Morrin
Wolfestown
Eadestown
Naas
Co. Kildare

Prepared By:

Certification Europe
The Digital Hub
157 Thomas St
Dublin 8

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Section A - Non Technical Summary

Location of proposed WL Facility and description of existing area

This development is a proposal to backfill a large void which is presently a disused sand and gravel pit. Following the backfill operation it is envisaged that the land will then be fully restored to be used as agricultural pasture land.

The site was granted planning permission from Kildare County Council for “phased restoration of a former sand and gravel quarry to be effected through the controlled importation of appropriate inert materials to restore said lands to agricultural use” in 2006 Planning Ref: 295/05). The site was also granted a Waste Management Permit from Kildare County Council (Waste permit Reg. No. 140/2003). Although planning permission and a waste permit had been granted no such waste activity has been carried out at the disused sand and gravel pit as yet.

The proposed facility is located approximately 1km south-west of the village of Eadestown, Co. Kildare. The disused sand and gravel pit is set back approximately 0.5km from the R410 Naas / Blessington Road and is circa 16 hectares.

Class or Classes of Activity

The principal class of activity of the proposed Waste Licensed Facility is *Class 4* of the fourth Schedule of Waste Management Acts 1996 to 2003 namely;

Recycling or reclamation of other inorganic materials

Quantity of Waste and Nature of Waste

It is envisaged that 500,000 tonnes per year will be accepted at the facility annually until the final contour of the land is reached. It is envisaged that project will take 10 years.

It is anticipated that the following materials will be accepted for recovery at the site;

- Topsoil
- Sub soil
- Brickwork
- Pottery, china
- Stone, rock, slate
- Groundwork excavation materials
- Mortar
- Concrete waste/broken matter
- Other inert materials arising from the construction/demolition sector.
- Asphalt/tar based materials (for recycling NOT deposition)
- Wood (for recycling NOT deposition)

The relationship between the aforementioned material and the European Waste Catalogue is described in the Table A.1 below:

Table A.1

EWC/HWL Index	Description of Material
170101	Concrete
170102	Bricks
170103	Tiles and Ceramics
170104	Gypsum based construction materials
170501	Soil and stones
170602	Other insulation materials
170201	Wood
170301*	bituminous mixtures containing coal tar*

*wood and tar will not be deposited to land as it will sorted and sent for offsite reuse.

The following materials will **NOT** be accepted for land restoration project:

- Hazardous waste
- Dry recyclables
- Mixed C+D waste
- Municipal waste

Waste will only be accepted from permitted waste hauliers, no hazardous waste will be accepted to the facility. The facility has established a procedure to manage non conforming waste detailed in section H.2 below.

When the land restoration project is completed the waste licensed activity will cease and the owner will decommission the site in accordance with the EPA's conditions.

Energy and Resource Use

Due the uncomplicated nature of the proposed operation it is envisaged that main resources used will be electricity, diesel and lubricant oil for plant.

Site Facilities and Operating arrangements

Two portacabins (8ft x 40ft) will be used onsite to accommodate the site office and equipment. Access to the site will be controlled by automatic barrier and CCTV will monitor all vehicles entering site. A portable weighbridge will be used to ensure traceability and monitor weight of loads to the site. Such weighbridge records will be appropriately retained.

The following plant will be used on site

- Industry standard bulldozer, excavator and loading shovel
- Premiertrak 1100x800 and Pioneer 3150mm x 2550mm screening and crushing equipment;
- Roadsweeper

Plant and equipment will be maintained off site and only emergency repair works will be carried out onsite

The proposed hours of operation are 07.30-18.30 Mon-Friday, Saturday 07.30-14.00. During these operating hours the management will ensure that there is a competent person on site to oversee that the facilities operation in accordance with the conditions of waste licence.

Emissions from Site

It is envisaged minimal emissions will result from the operation of the proposed waste licensed facility, namely noise and dust emissions associated with plant and operations. No emissions to sewers, groundwater or surface water will be permitted from the operation of the activity.

It is planned to monitor both dust and noise levels on an annual basis (within 6 months of grant of licence) and implement necessary BAT if any license emission limit values are exceeded.

Emergency Procedures

Emergency procedures will be established to ensure that in the event of an unplanned occurrence site personnel will be able to control a potential emergency situation and minimise any foreseen environmental impact. Appropriate emergency equipment and training will be at the disposal of the site's personnel.

Closure, Restoration and After care

As part of the restoration of the aforementioned disused sand and gravel pit a layer of topsoil (500mm) will be placed over each phase when completed. The ground levels will match the surrounding original topography by providing unobtrusive slopes. All portacabins, temporary roadways, wheel wash, weighbridge, fuel and material storage facilities and waste quarantine area will be appropriately decommissioned and removed from site.

Prior to complete closure of the facility an environmental due diligence audit will be carried to highlight if any further remediation, decommissioning, restoration and aftercare is required

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Section B - General

B.1 Applicant Details

The applicant is the landowner of the proposed site John Morrin.
Drawing B.1 at the end of this section clearly shows the Ownership of the land (coloured in blue ink).

B.2 Location

The site is located in Eadestown, Naas, County Kildare. Grid Reference E296303, N217546.
Map 1 at the end of this section shows the site location.

B.3 Planning Authority

Planning permission has been granted by Kildare County Council for phased restoration of a former sand and gravel quarry to be effected through the controlled importation of appropriate inert materials to restore said lands to agricultural use (Planning Ref: 295/05).

The site was also granted a Waste Management Permit from Kildare County Council (Waste permit Reg. No. 140/2003).

Please find attached in this section Planning Permission (attachment B.3.1) and Waste Management Permit (B.3.2).

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Attachment B.3.1

Planning Permission as granted by Kildare Co. Co (Ref.:295/05)

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RE:/ Planning Permission is sought for phased restoration of a former sand & gravel quarry (circa 16 ha) to be effected through the controlled importation of appropriate inert materials (soils & subsoils 200,000m sq) to restore said lands to agricultural use. The activity is subject to a waste permit issued by Kildare County Council – John Morrin – Planning Ref: 295/05

SCHEDULE 1: CONSIDERATIONS AND REASONS.

Having regard to the Councils policy on rehabilitation of disused gravel pits as set out in the County Development Plan, it is considered that, subject to compliance with the conditions set out in Schedule 2, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, would be acceptable in terms of traffic safety and convenience and would be in accordance with the proper planning and sustainable development of the area.

SCHEDULE 2:

1. The development shall be carried out and completed in accordance with drawings and documentation submitted to the Planning Authority on 05/05/2005, as altered by revised drawings and documentation submitted on 23/12/2005, except where altered or amended by conditions in this permission.

Reason: To enable the Planning Authority to check the proposed development when completed, by reference to approved particulars.

2. The applicant shall apply for and obtain a waste permit under the Waste Management Act 1996 and Waste Management (Permit) Regulations 1998 prior to commencement of activities.

Reason: In the interest of public health, and of pollution control.

3. The site shall be filled and regenerated in accordance with the details contained on the site layout plan received by the Planning Authority on 23/12/2005.

Reason: In the interests clarity and of visual amenity.

4. [This permission shall be for a temporary period up to and including 6 years from the date of the granting of this permission only.]

Reason: In the interests of visual amenity, and to ensure that the site is restored within a satisfactory time-frame.

5. Only clean, clear, inert hardcore (or other inert material which shall be subject to the prior written approval of the Planning Authority) and subsoil and topsoil shall be used to reclaim / raise the site. No other materials shall be deposited on site.

Reason: In the interests of public health and to ensure proper planning and sustainable development.

6. The site shall be filled such that the top 150mm is graded topsoil. The site shall be then planted with grass seed.

Reason: To ensure regeneration of the site for agricultural purposes as stated in the public notices.

7. Removal of hedgerows to achieve the proposed sight visibility lines from the site shall be in accordance with Section 26 of the Wildlife (Amendment) Act 2000 and shall specifically not be removed during the nesting period, i.e. – September 1st to February 28th.

Reason: To ensure protection of wildlife within the area

8. Prior to the commencement of development, the applicant shall submit a revised site layout plan for the written approval of the Planning Authority, showing proposed boundary planting, incorporating trees and hedging of native deciduous species indigenous to the area, in a planting bed to be located inside the sight visibility lines indicated on the site layout plan

received by the Planning Authority on 23/12/2005. The revised proposals shall also incorporate new field divisional planting. This planting shall be carried out and completed within the first planting season following commencement of development.

Reason: In the interests of visual amenity

9. The existing entrance shall be closed permanently. Prior to commencement of the development, applicant shall submit full design details for the new entrance gate and entrance apron for the agreement of the Planning Authority. Turning radii shall be such that vehicles exiting the site to turn left can do so without crossing the centre line of the public road (R410). The access gateway shall be of sufficient width to allow trucks to pass in and out without causing an obstruction on the public road.

Reason: In the interest of traffic safety.

10. Lines of sight at entrance to the site shall be provided *strictly* in accordance with the requirements of the Design Manual for Roads and Bridges.

Reason: In the interest of traffic safety.

11. No development shall take place, until the new entrance details have been agreed in full in writing with the Planning Authority in accordance with Condition 10 above.

Reason: In the interest of traffic safety.

12. Heavy goods vehicles shall approach and exit the site via the route, as proposed in applicant's submission received on 23/12/05, (i.e.) using the R410 west of the site as far as Naas. Heavy vehicles shall not travel through Rathmore or on roads other than the R410 through Eadestown village. Trucks exiting the site shall turn left only. Articulated lorries shall not be used to deliver waste to the site.

Reason: In the interest of traffic safety.

13. Prior to commencement of the development, applicant shall submit proposals for improvements to the existing public road along the site frontage for the agreement of Planning Authority.

Reason: In the interest of traffic safety.

14. No development shall take place, until the details of proposed road improvement works have been agreed in full in writing with the Planning Authority in accordance with Condition 14 above.

Reason: In the interest of traffic safety.

15. The frequency of heavy goods traffic using the site shall not exceed 35 trucks per day as described in the applicants submission received on 23/12/05. Trucks shall not travel in convoys and shall not queue on the public road outside the facility.

Reason: In the interest of traffic safety.

16. A wheelwash unit shall be maintained on the site and used by vehicles exiting the site. No mud or other debris shall be deposited on the roads outside the site.

Reason: In the interest of traffic safety.

17. A written record of all heavy vehicles entering the site shall be maintained and made available for inspection at the request of the Planning Authority. The record shall include, but not be confined to :-

(a) vehicle registration number;

- (b) times of vehicle arrival and departure to and from site;
- (c) origin of vehicle contents;
- (d) gross vehicle weight.
- (e) nature of contents

Reason: In the interests of traffic safety.

18. The developer shall erect appropriate warning signage in the vicinity of the entrance for the benefit of all those passing the entrance and those entering and exiting from the site. Full details shall be agreed with the Planning Authority prior to commencement of the development.

Reason: In the interest of traffic and pedestrian safety.

19. Turning radii at the junction between public road and the entrance shall be at least 10.5 metres.

Reason: In the interest of traffic safety.

20. Sufficient car and truck parking and turning space shall be provided within the curtilage of the site for all operations carried out in association with the permitted site activities.

Reason: In the interest of traffic safety.

21. Parking shall be monitored and in the event of the Planning Authority deciding that a shortfall in parking spaces exists, the developer shall provide such extra car parking as the Planning Authority may specify at an approved location adjacent to the site / or within the curtilage of the site.

Reason: In the interest of traffic safety (having regard to the public road adjacent (R410), and to ensure that adequate car parking facilities are provided on site.

22. No surface water runoff from the site shall discharge onto the public road.

Reason: In the interest of traffic safety.

23. Surface water shall be collected and road gullies shall be provided in accordance with Section 3.19 of the Department of Environment and Local Government "Recommendations for Site Development Works for Housing Areas" (R.S.D.W.H.A.). All gullies shall be fitted with suitable locking type covers or gratings.

Reason: In the interests of proper drainage and traffic safety.

24. Existing land and roadside drainage shall not be impaired and new entrance to the site shall be designed and shaped to ensure the uninterrupted flow of existing roadside drainage.

Reason: To prevent interference with existing roadside drainage in the interest of proper development.

25. Lighting for any signs shall be erected in such a way so as not to distract or shine into the path of traffic.

Reason: In the interest of traffic safety.

26. Before development is commenced, the developer must arrange for the payment to Kildare County Council a special contribution of € 381,456.00 towards expenditure required for the provision of road improvement works on the regional road (R410). This special contribution shall be in addition to any works required in the conditions above and is pursuant to Section 48(2)(c) of the Planning and Development Act 2000.

Amended.

Reason: The provision of such services in the area facilitates the proposed development and it is considered reasonable that the developer should contribute to the cost of providing same.

27. The applicants shall take adequate precautions to prevent undue noise, fumes, dust, grit, untidiness, or other nuisance during the course of the works which would result in significant impairment of, or significant interference with the amenities of the environment beyond the site boundary. Dust monitoring shall take place on a monthly basis from monitoring points to be located and agreed in writing with the Planning Authority. A dust benchmark shall be set against which the monitoring results will be measured, and appropriate remedial measures will be instituted by the applicant should the benchmark be exceeded. These issues shall be agreed in writing with the Planning Authority within three months from the date of this order.

Reason: To ensure protection of the amenities of the area and in the interest of the proper planning and sustainable development.

28. The noise level attributable to all on-site operations at the development between the hours of 08.00 – 18.00 Monday to Friday inclusive (excluding Bank Holidays) and 08.00 – 14.00 on Saturdays shall not exceed 55 dB(A)Laeq (15 mins) at any noise sensitive location in the vicinity of the site.

Reason: In the interests of amenity, public health and to prevent noise pollution.

29. No storage of oils/ diesel or other chemical shall take place within the site.

Reason: To ensure that groundwater resources are protected.

30. No crushing or blasting shall take place on the site.

Reason: In the interests of amenity, public health and to prevent noise pollution

31. Within 2 months of the cessation of restoration operations on the site, an inspection shall be carried out by a suitably qualified person in order to confirm that the site has been restored suitable for agricultural use. A report prepared by that person confirming the site has been adequately restored shall be submitted to the Planning Authority within 3 months of the cessation of operations on the site.

Reason: In order to ensure that the site is adequately restored and in the interests of proper planning and sustainable development.

32. Within 2 months of the cessation of restoration operations on the site a topographic survey shall be carried out in order to confirm that the site has been restored in accordance with that proposed in the planning application. Within 3 months of the cessation of operations on the site, survey plans and sections shall be submitted to the Planning Authority confirming the final restored landform. The sections at an interval of not less than 20 metres shall show the restored landform and that proposed within the planning application.

Reason: In order to ensure that the site is adequately restored and in the interests of proper planning and sustainable development.

33. Prior to the commencement of development, the applicant shall submit revised proposals for the written approval of the Planning Authority, indicating proposed secure gates to be erected on site for the duration of development, and further proposals for an alternative gate to be erected following completion of the development which would be more appropriate to the rural area.

Reason: In the interests of visual amenity.

34. No temporary structure shall be erected on site unless same constitutes "exempted development" as defined by the Planning and Development Regulations 2001.

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Reason: To avoid any misunderstanding as to the proper construction of this development.

35. All materials to be used in association with the proposed development shall be obtained within 20 to 30 kilometre radius of the site, unless otherwise agreed in writing with the Planning Authority.

Reason : In the interest of sustainable development

- 36 Before development commences the applicant/developer shall pay to Kildare County Council, an amount to be agreed with Kildare County Council prior to commencement of development, in accordance with the Development Contributions Scheme adopted by Kildare County Council on 23rd February 2004 in accordance with Section 48 of the Planning and Development Act 2000. The amount payable under this condition shall be fully index-linked from the date of grant of permission.

Reason: It is considered reasonable that the developer should make a contribution in respect of public infrastructure and facilities benefiting the proposed development

Date 27th January 06

Senior Executive Officer
Planning & Public Safety

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Attachment B.3.2

Waste Management Permit from Kildare County Council (Waste permit Reg. No. 140/2003)

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Comhairle
Chondae
Chill Dara
Naomh Mhuire
An Nás



Kildare
County
Council
St. Mary's
Naas

E-mail: secretar@kildarecoco.ie
Main Switch
Phone: (045) 873800
Fax: (045) 876875

This matter is being dealt with by:

Date:

Your Ref:

Our Ref:

WASTE MANAGEMENT ACT 1996
and
WASTE MANAGEMENT (PERMIT) REGULATIONS 1998

Waste Permit Register Number: 140/2003

Mr. John Morrin,
Wolfstown,
Eadestown,
Co Kildare.

In pursuance of the powers conferred on it by the Waste Management Act 1996 and the Waste Management (Permit) Regulations 1998, Kildare County Council hereby grants a waste permit under article 5(1) of the said regulations to John Morrin, Wolfstown, Eadestown, Co. Kildare to carry on the waste activity listed below at Wolfstown, Eadestown, Co. Kildare, subject to nine conditions, with the reasons therefor set out in the permit.

**Permitted Waste Activity, in accordance with Part 1 of the First Schedule of the
Waste Management (Permit) Regulations, 1998**

Activity 5 The recovery of waste (other than hazardous waste) at a facility (other than a facility for the composting of waste where the waste held at the facility exceeds 1000 cubic metres at any time).

NOTE

THE GRANTING OF THIS PERMIT, AND ANY CONDITION IMPOSED BY IT, DOES NOT EXEMPT THE HOLDER OF THE PERMIT FROM COMPLYING WITH THE STATUTORY OBLIGATIONS OF ANY RELEVANT LEGISLATION, INCLUDING WATER POLLUTION, AIR POLLUTION, WASTE, LITTER AND PLANNING LEGISLATION.

Condition 1: SCOPE:

- 1.1 This Waste Permit is issued under the Waste Management (Permit) Regulations 1998 to Mr. John Morrin, Wolfstown, Eadestown, Co. Kildare for lands at Wolfstown, Eadestown, Co. Kildare. This permit is strictly non-transferable.
- 1.2 This permit is granted for a period not exceeding 36 months from the date of issue. This permit may be reviewed at any time by Kildare County Council.
- 1.3 For the purpose of these conditions the site is defined as the area outlined on drawing Number G7105 submitted with the permit application and shall take place only as specified in the application as modified and/or controlled by the terms of this permit.
- 1.4 The finished contours shall be as submitted unless otherwise agreed with Kildare County Council. Prior to final contouring a final restoration plan including levels, surface water drainage proposals and landscaping shall be submitted to Kildare County Council for its agreement.
- 1.5 Should environmental pollution occur at the site, this permit may be reviewed by Kildare County Council.
- 1.6 The permit holder shall be responsible for ensuring that the waste activities shall be controlled, operated and maintained in strict accordance with the terms of the application as modified and/or controlled by the conditions attached to the permit. The permit holder shall establish procedures to ensure that corrective action is taken should any condition of this permit not be complied with. Kildare County Council shall be notified of any such breach by telephone/fax, and full details shall be forwarded in writing on the next working day.
- 1.7 Where Kildare County Council considers that a non-compliance with the conditions of this permit has occurred, it may serve a notice on the permit holder specifying:
- (a) that only those wastes as specified, if any, in the notice are to be accepted at the facility after the date specified in the notice; and
 - (b) that the permit holder shall undertake the works stipulated in the notice, and/or otherwise comply with the requirements of the notice as set down therein, within any time-scale contained in the notice.

When the notice has been complied with, the permit holder shall provide written confirmation to the local authority that the requirements of the notice have been carried out. No waste, other than that which is stipulated in the notice, shall be accepted at the facility until written confirmation is received from the Council that the notice is withdrawn.

- 1.8 Should the permit holder wish to "dispose" of waste materials at the site then a waste licence from the Environment Protection Agency (EPA) is required and the permit shall be revoked. **This permit is solely for the recovery of soil based materials to restore the lands.** This permit does not constitute a disposal activity.

REASON: To clarify the scope of this permit.

Condition 2: MANAGEMENT OF THE ACTIVITY

- 2.1 The permit holder shall acquaint all staff, employees, lessees and agents, including replacement personnel, of the provisions and conditions of this permit.
- 2.2 A copy of the permit must be kept on site at all times.
- 2.3 The site shall be adequately manned and supervised at all times. It shall be maintained to the satisfaction of the Council, and adequate precautions shall be taken to prevent unauthorised access to the site.
- 2.4 Waste soils shall only be accepted at the site between the hours of 08.00 am and 18.00 pm, Monday to Friday inclusive (excluding Bank and National Holidays), and between the hours of 08.00am and 14.00pm on Saturday, unless otherwise agreed by Kildare County Council.

REASON: To make provision for the proper management of the activity

Condition 3: NOTIFICATION AND RECORD KEEPING:

- 3.1 All communication with Kildare County Council shall be addressed to Senior Executive Officer, Environment Section, St Mary's, Naas, Co Kildare.

Telephone (045) 873838, Fax: (045) 873848.

- 3.2 The operator shall maintain a written record for each load of waste arriving at the site. The operator shall record and make available on site the following details:-

- a) Origin of the load;
- b) Description of the material in each load;
- c) The quantity of the materials, estimated in tonnes and recorded in loads;
- d) Where loads are removed or rejected, details of the date and time of occurrence, the type of material, and the place to which they were removed;
- e) The names of the carriers and the vehicle registration numbers.

- 3.3 The operator shall maintain a written record of all complaints of an environmental nature related to the site. Each such record shall give details of the following:-

- a) Date and time of complaint;
- b) Name of complainant;
- c) Details of the nature of the complaint;
- d) Action taken on foot of the complaint;
- e) Response to each complainant.

- 3.4 The permit holder shall submit a report to Kildare County Council which shall include the information compiled in 3.2 and 3.3 above. In addition, the permit holder shall

include in the report a written summary of compliance with all of the conditions attached to the permit. This report shall be submitted for the preceding calendar year by no later than 28 February of each year and within one month of waste activities ceasing on the site. **The report shall be called The Annual Environmental Report (AER).**

3.5 The permit holder shall immediately notify Kildare County Council by telephone of any incident which occurs as a result of the activity on the site, and which:

- Has the potential for environmental contamination of surface water or ground water, or
- Poses an environmental threat to air or land, or
- Requires an emergency response by the Council.

Full details shall be forwarded in writing on the next working day.

3.6 The permit holder shall make all records maintained on site available to Kildare County Council staff at all reasonable times, and shall provide any relevant information when so requested by an authorised person of Kildare County Council.

REASON:	To provide for the notification of incidents, to update information on the activity and to provide for the keeping of proper records
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Condition 4: MATERIALS ACCEPTANCE AND HANDLING:

2
4.1 Only inert subsoil, topsoil, sand, gravel, clay, marls, and stone, shall be used to reclaim / raise the site. All material shall be deposited inside the site boundary. The permit holder shall ensure adequate steps are taken to prevent acceptance of any other waste types. Quantities of waste brick, block and concrete may be accepted at the site to provide for haul roads or hardstanding areas or for storage prior to crushing for secondary aggregates.

Note: Asphalt (EWC 17/03/01 and 17/03/02) and tar (EWC 17/03/03) and mixed construction and demolition waste (EWC 17/07/01) are excluded from the terms of this waste permits unless otherwise permitted in writing by Kildare County Council.

4.2 Any materials not complying with condition 4.1 shall be removed from the site and disposed of / recovered at an alternative approved facility.

4.3 The sources of all wastes shall be notified to, and approved by Kildare County Council prior to their acceptance at the site. A soil analysis shall be carried out on a representative sample of material from each source excavation, and Kildare County Council may require that further analysis of the material from certain sources be carried out.

4.4 The site shall be adequately secured so as to avoid "flytipping". Any such "flytipped"

loads of waste shall be removed immediately by the owner of the site to an appropriate facility.

- 4.5 The permit holder shall not allow any over-spill of waste outside the site perimeter or into surface water drains, as outlined on the site plan submitted with the permit application.
- 4.6 No skips, open containers, compactors or dumptrucks shall deposit waste on the site. A maximum of 50 trucks a day shall enter and deposit material on the site unless otherwise agreed in advance with Kildare County Council and records of these shall be kept in strict accordance with condition 3.2. Kildare County Council may at any time instruct the permit holder to reduce the number of trucks depositing waste on the site in the event that proper road haulage procedures are not put in place.
- 4.7 **All hauliers importing waste to the facility shall hold a valid waste collection permit in accordance with the Waste Management (Collection Permit) Regulations 2001 from the relevant authority where the waste was collected.**

REASON: To provide for the acceptance and management of wastes authorised under this permit

Condition 5: NUISANCES, EMISSIONS AND ENVIRONMENTAL IMPACTS:

- 5.1 The permit holder shall take adequate precautions to prevent undue noise, fumes, dust, grit, untidiness, and other nuisances during the course of the works which would result in a significant impairment of or a significant interference with amenities or the environment beyond the site boundary.
- 5.2 The road network in the vicinity of the site shall be kept free of any debris caused by vehicles entering or leaving the facility. Any such debris shall be removed without delay. Wheel washing (including a petrol/oil interceptor) shall be provided to prevent materials being carried out onto the road. The permit holder shall take adequate steps to ensure that no material of any sort can fall or be blown from vehicles delivering waste to the site.
- 5.3 Vehicles shall not be allowed to queue or park on the public road. Provision shall be made within the confines of the site for turning of vehicles. Car parking space shall be provided for all staff and visitors to the site, on a durable surface within the curtilage of the site. Adequate turning area is to be provided within the site which is capable of accommodating the tipper trucks using the site.
- 5.4 The permit holder shall ensure that waste activities on the site shall be carried out in such a manner so as not to have an adverse effect on the drainage of adjacent lands, on watercourses, on field drains or any other drainage system including the public roadway.

- 5.5 All loose litter accumulated within the site and its environs shall be removed and appropriately disposed of at an appropriate facility on a daily basis.
- 5.6 In dry weather appropriate measures shall be taken to reduce / eliminate airborne dust nuisance.
- 5.7 The operator shall ensure that the activities at the site shall be carried out in a manner such that emissions do not result in significant impairment of, or significant interference with the environment beyond the site boundary.
- 5.8 The noise level attributable to all on-site operations between the hours of 08:00-18:00 Monday to Friday inclusive (excluding bank holidays) and 08:00-14:00 Saturdays, from the development shall not exceed 55 dBA Leq(15min), at any point along the boundary of the development site.
- 5.9 The total dust emission arising from the on-site operations associated with the proposed development shall not exceed 130 milligrams per square meter per day, averaged over a continuous period of 30 days, when measured as deposition of insoluble particulate matter at any position along the boundary of the site. No stripping of topsoil or overburden shall be carried out in periods of dry weather.

REASON: To provide for the control of nuisances and emissions from the facility, and to provide for the protection of the environment

Condition 6: ENVIRONMENTAL MONITORING

- 6.1 Authorised staff of Kildare County Council shall have access to the site at all reasonable times, for the purpose of their functions under the Waste Management Act 1996, including such inspections, monitoring and investigations as are deemed necessary by the Council.
- 6.2 If so requested by Kildare County Council, the permit holder shall at his own expense make available a suitable excavator for the purposes of excavating trial holes in the waste material deposited on site, and shall arrange for the excavator to carry out whatever works are required by the Council on the site.
- 6.3 If so requested by Kildare County Council, the permit holder shall, at his own expense, carry out such further investigations and monitoring of the facility as required by the Council. The scope, detail, and programme, including report structure and reporting schedule, for any such investigations and monitoring shall be in accordance with any written instructions issued by the Council. In the event of pollution of waters in the vicinity of the site, or of leachate discharge onto adjoining lands, input of waste onto the site shall cease, and remedial measures shall be carried out immediately as directed by the Council.

REASON: To ensure compliance with the requirements of the conditions of this licence

Condition 7: RESTORATION AND AFTERCARE

- 7.1 As soon as is practicable following completion of the waste activities, the site shall be seeded with grass and used for agricultural purposes.
- 7.2 Prior to seeding, topsoil shall be spread evenly over the site to a minimum depth, after firming, of 150 – 200 mm. The topsoil shall be good quality, and shall comply with BS 3882 : 1991. The topsoil shall not be spread in wet conditions. The topsoil shall be adequately prepared for seeding by raking or harrowing and by rolling. Seed shall be spread at a minimum rate of 30 grams per square metre.
- 7.3 The applicant remains responsible for the proper nuisance free operation of all drainage systems on site, and for ensuring that no pollution of groundwaters shall occur at any time as a result of the proposed filling / waste recovery operation.

REASON: To provide for the restoration and aftercare of the facility

Condition 8: CONTINGENCY ARRANGEMENTS:

- 8.1 In the event that any monitoring, sampling or observations indicate that contamination has, or may have, taken place, the operator shall immediately:
- identify the date time and place of contamination;
 - carry out an immediate investigation to identify the nature, source and cause of the incident and any emission;
 - isolate the source of the emission;
 - evaluate the environmental pollution if any;
 - identify and execute measures to minimise the emissions and effects thereof;
 - identify and put in place measures to avoid reoccurrence;
 - identify and put in place any other appropriate remedial action, and
 - maintain a written record of the above.

REASON: To provide for immediate action in the event of contamination taking place.

Condition 9: FINANCIAL PROVISIONS:

- 9.1 The permit holder shall pay an annual contribution of EUR1000 to Kildare County Council towards the cost of inspecting, monitoring or otherwise performing any functions in relation to the permit activity. The Permit Holder shall pay to Kildare County Council this amount within 30 days of receipt of this permit and thereafter on an annual basis. In the event that the frequency or extent of monitoring or other functions carried out by Kildare County Council needs to be increased for whatever

reason the permit holder shall contribute such sums as are determined by the LA to defray costs.

REASON: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.

Signed: T. Maddock
T. Maddock, Senior Executive Officer,
Kildare County Council.

Date: 16 October 2002

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B.4 Sanitary Authority

The facility does not plan to discharge effluent or other matter to the sewer.

B.6 Notices and Advertisements

A copy of the site notice is enclosed as is Drawing B.6 showing its location on site. A copy of the complete newspaper in which the advertisement was placed is also included in the original application.

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Attachment B.6.1

Copy of the site notice

Newspaper containing the advertisement

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B.7 Type of Waste Activity

The principal class of activity of the proposed Waste Licensed Facility is *Class 4* of the fourth Schedule of Waste Management Acts 1996 to 2003 namely;

Recycling or reclamation of other inorganic materials

Brief Technical Description:

The Principal Activity comprises the processing, including handling, screening and crushing, of approved inert material. Suitable inert material will be deposited to the land following collection, inspection and authorisation from site management. Other materials not to be used in land restoration that are received will be screened and crushed. This material will be stocked piled for resale or used for the creation of hardstanding areas.

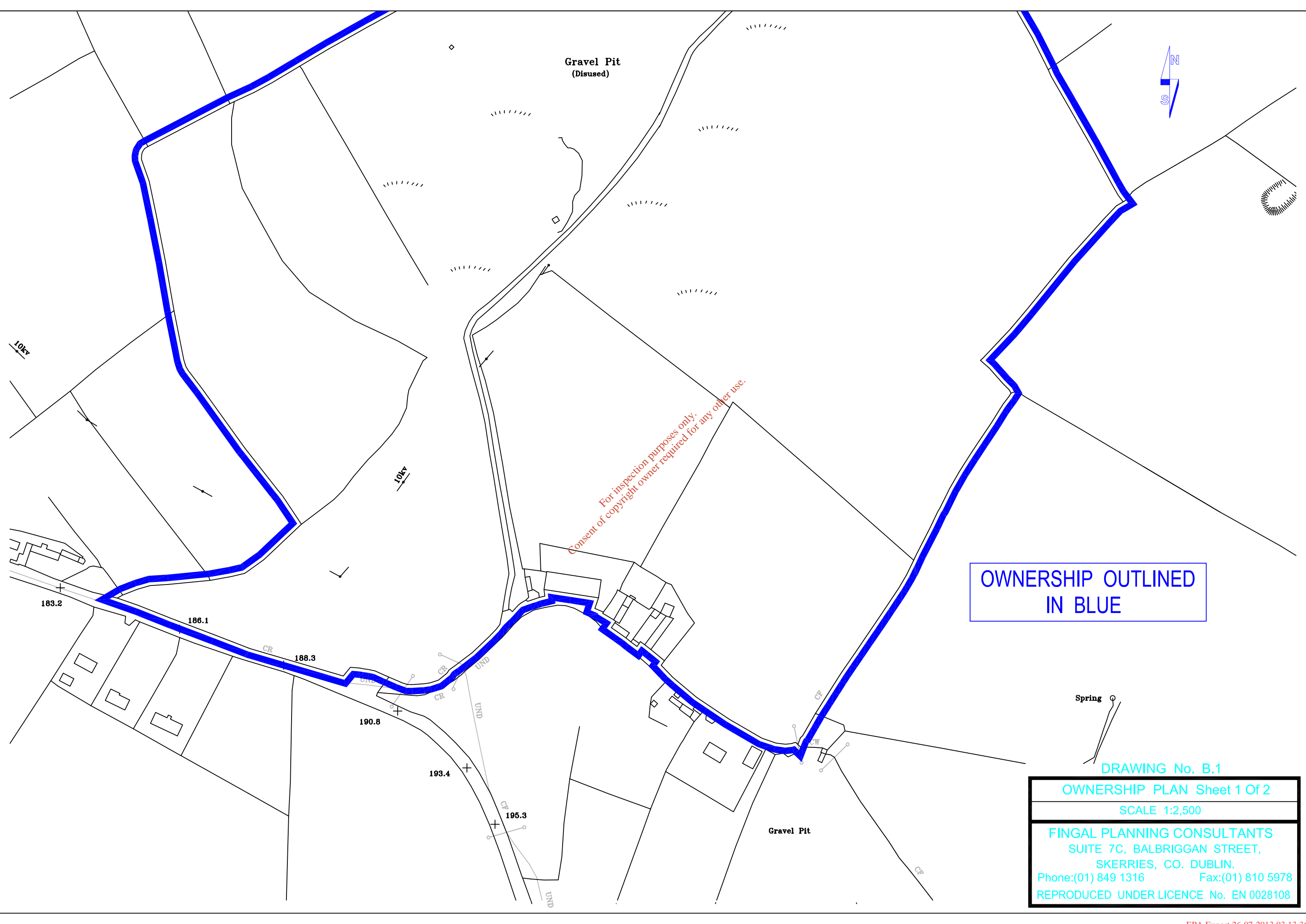
Type of Landfill

Under Article 4 of the Landfill Directive 1999/31/EC this activity can be described as a landfill for inert waste.

B.8 Seveso II Regulation

As the material to be accepted at the facility is inert the Seveso II Regulations do not apply.

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OWNERSHIP OUTLINED
IN BLUE

Spring

DRAWING No. B.1

OWNERSHIP PLAN Sheet 1 Of 2

SCALE 1:2,500

FINGAL PLANNING CONSULTANTS
SUITE 7C, BALBRIGGAN STREET,
SKERRIES, CO. DUBLIN.

Phone:(01) 849 1316 Fax:(01) 810 5978

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Spring

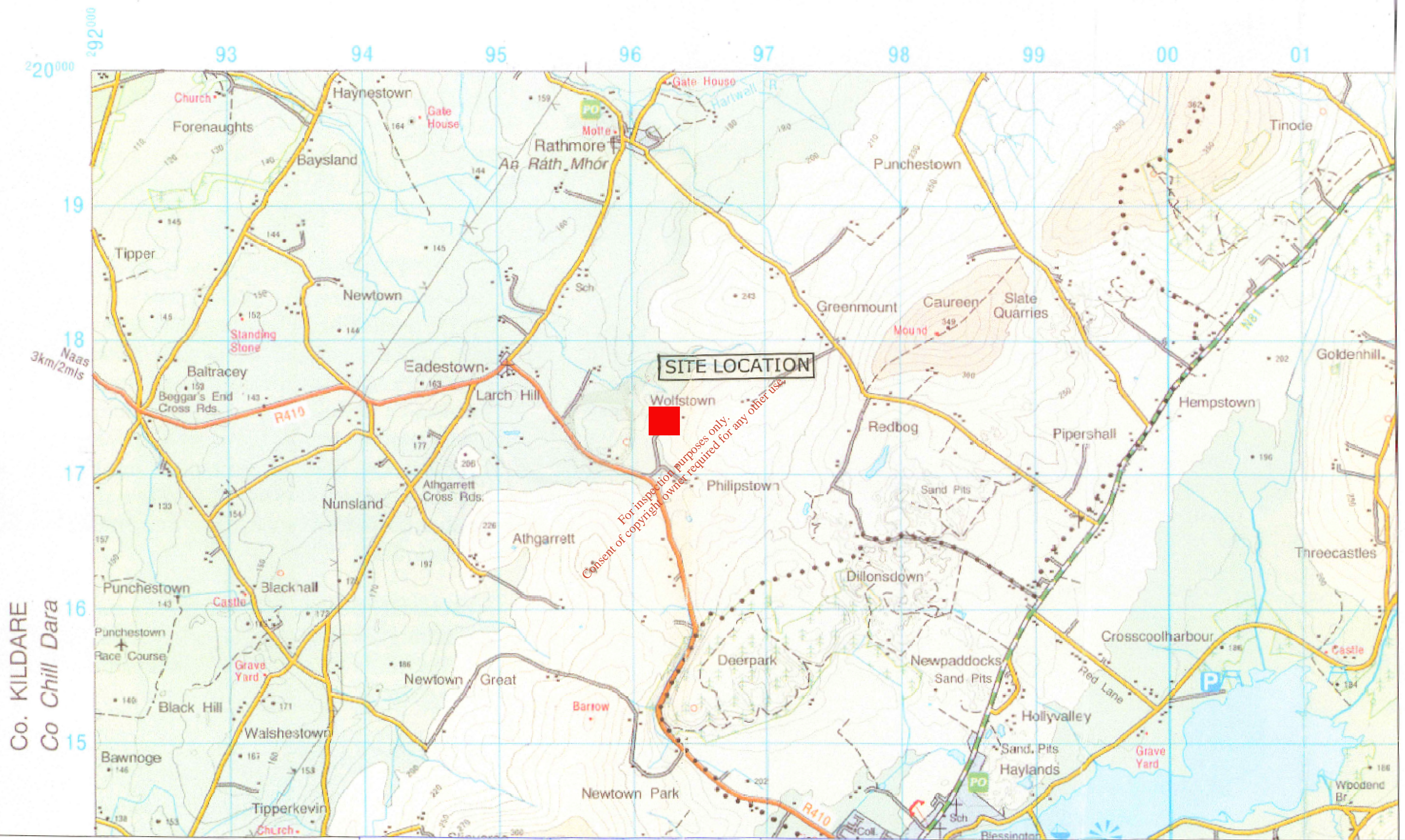
WOLFESTOWN

DRAWING No. B.1

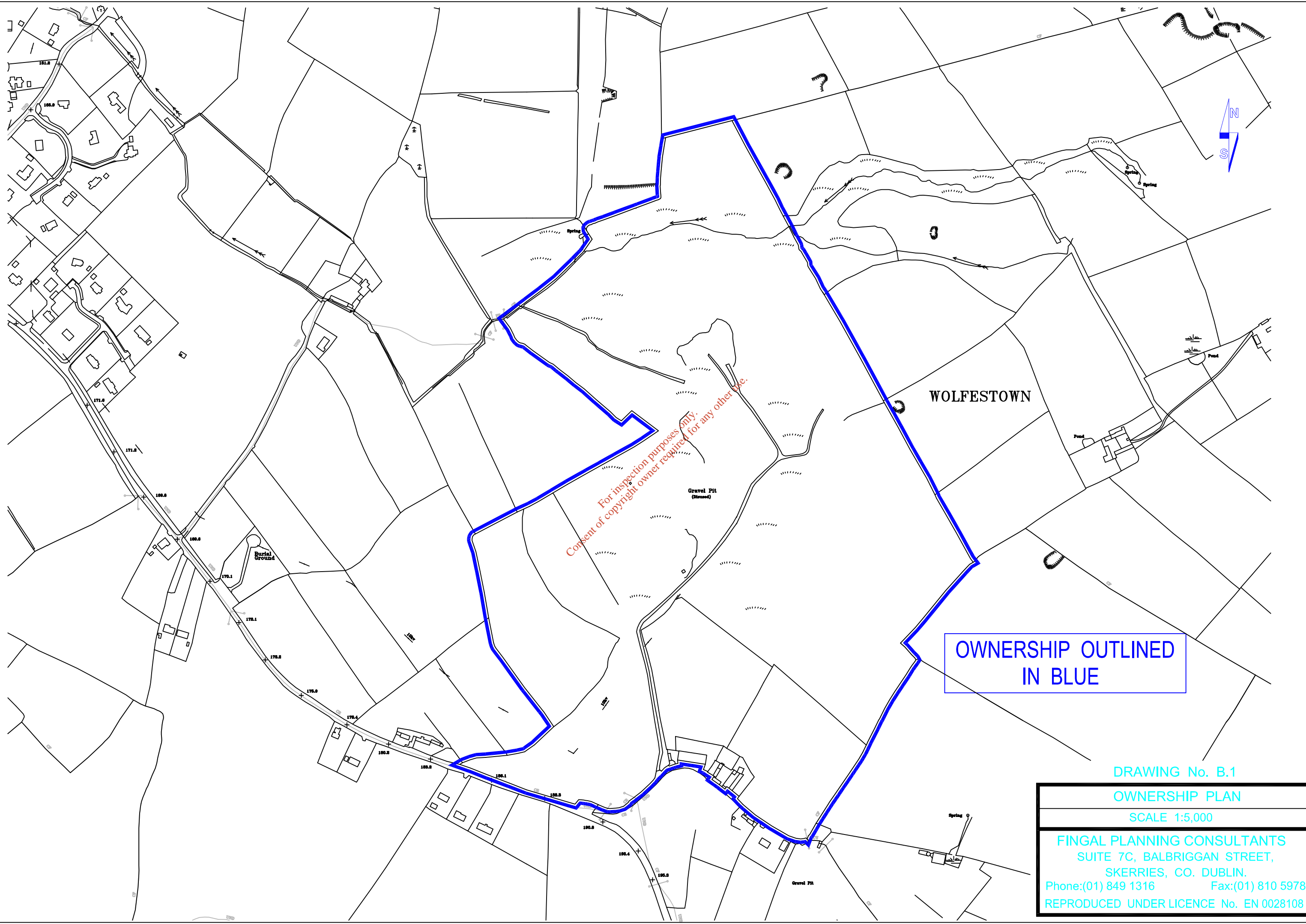
OWNERSHIP PLAN Sheet 2 Of 2

SCALE 1:2,500

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Location Map 1 (indicative site location)
 See B1 Map for exact site ownership boundary
 See B2(a) for site plan



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WOLFESTOWN

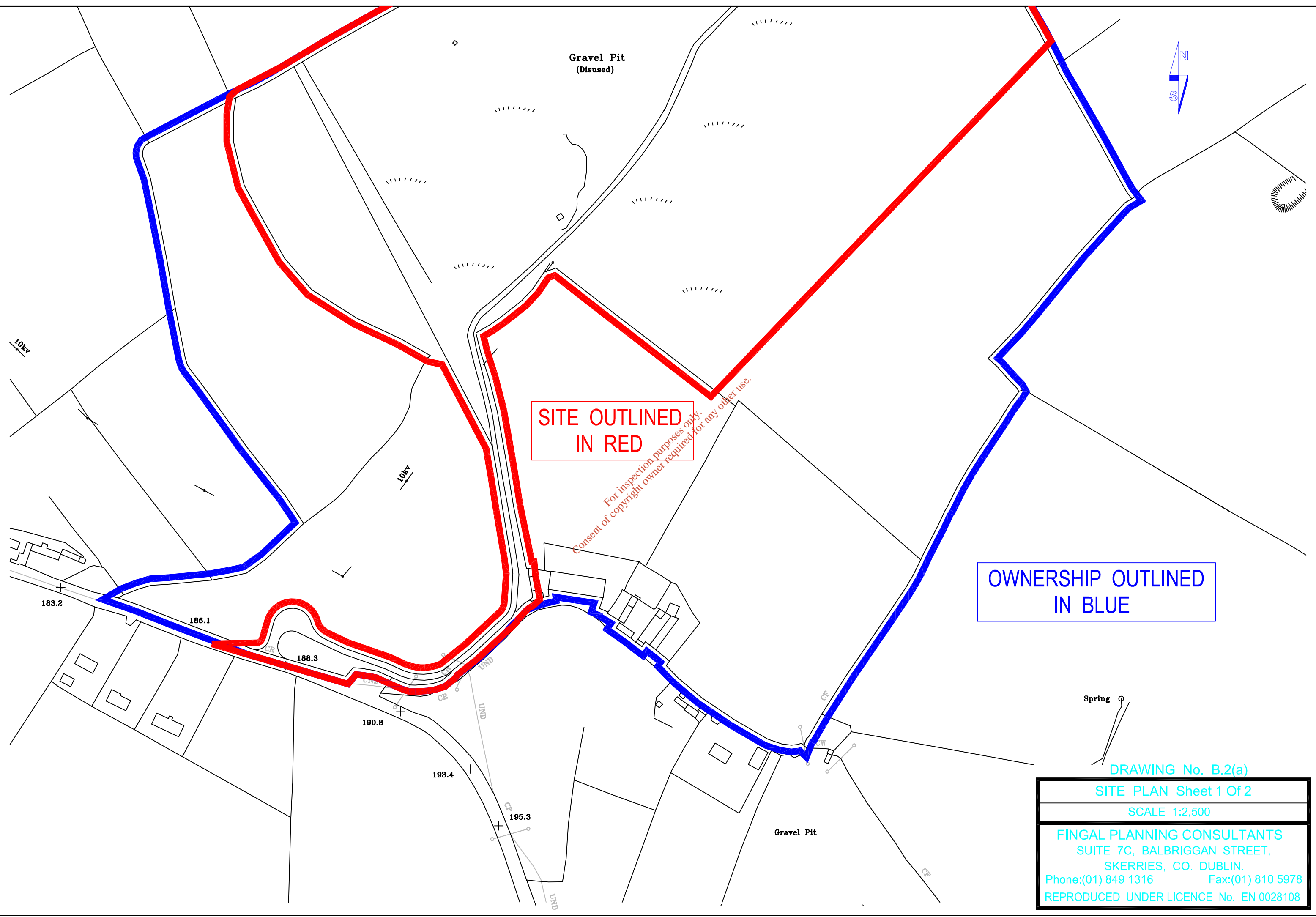
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DRAWING No. B.1

OWNERSHIP PLAN

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DRAWING No. B.2(a)

SITE PLAN Sheet 1 Of 2

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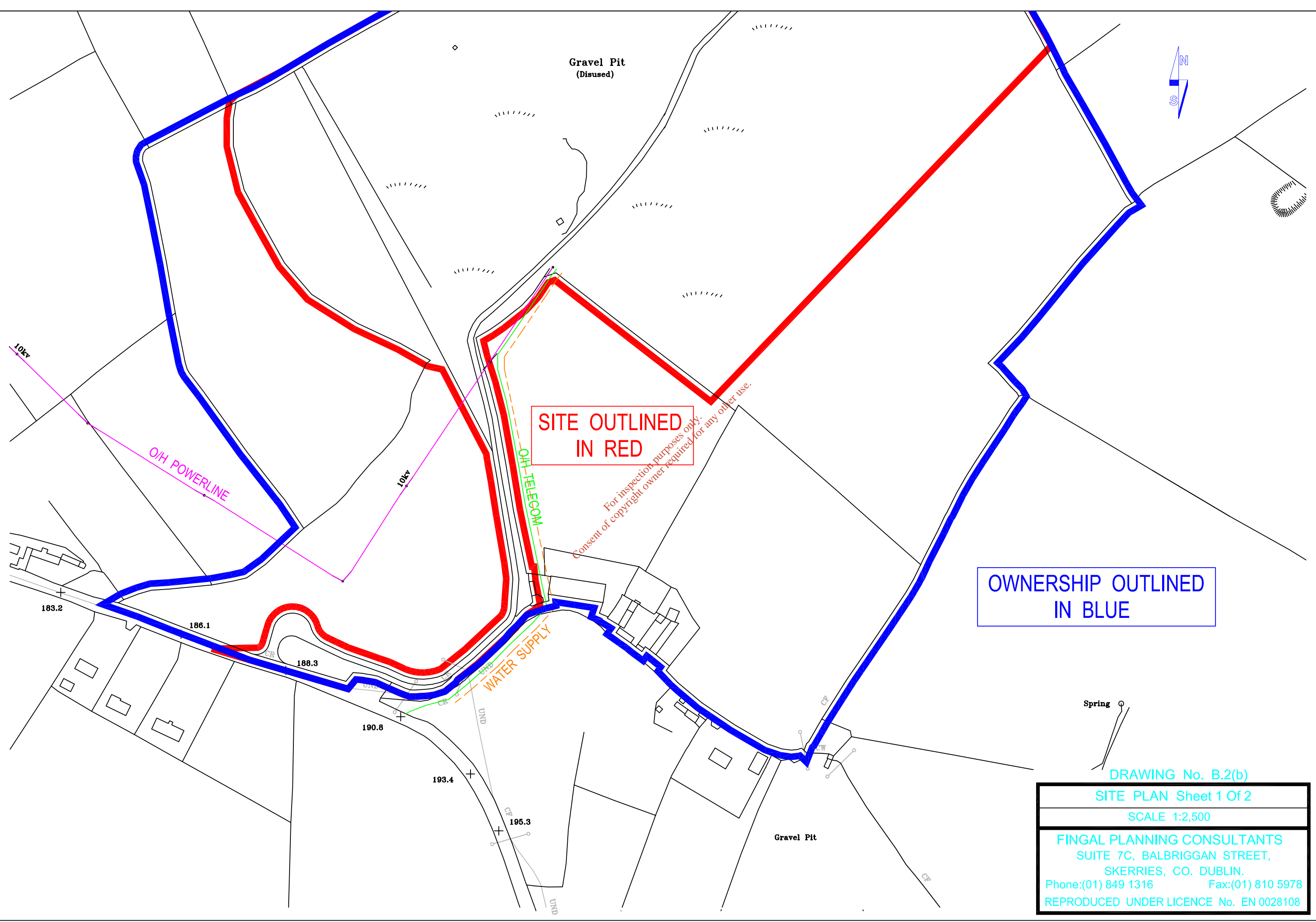
WOLFESTOWN

DRAWING No. B.2(a)

SITE PLAN Sheet 2 Of 2

SCALE 1:2,500

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O/H POWERLINE

O/H TELECOM

WATER SUPPLY

Gravel Pit
(Disused)



Spring

Gravel Pit

183.2

186.1

188.3

190.8

193.4

195.3

DRAWING No. B.2(b)

SITE PLAN Sheet 1 Of 2

SCALE 1:2,500

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WOLFESTOWN

DRAWING No. B.2(b)

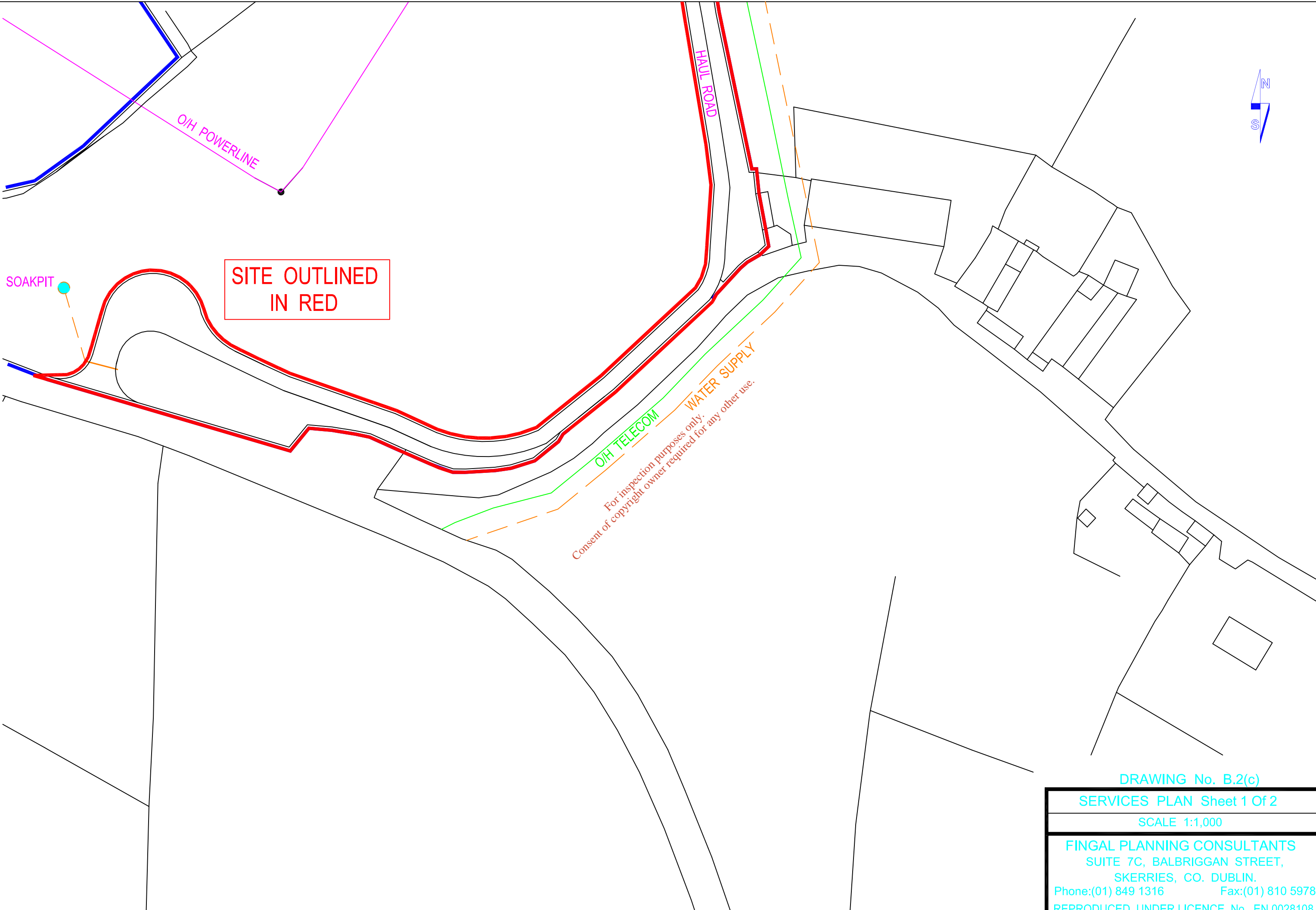
SITE PLAN Sheet 2 Of 2

SCALE 1:2,500

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Phone:(01) 849 1316 Fax:(01) 810 5978
REPRODUCED UNDER LICENCE No. EN 0028108

E 296303
N 217546





SITE OUTLINED
IN RED

SOAKPIT

O/H POWERLINE

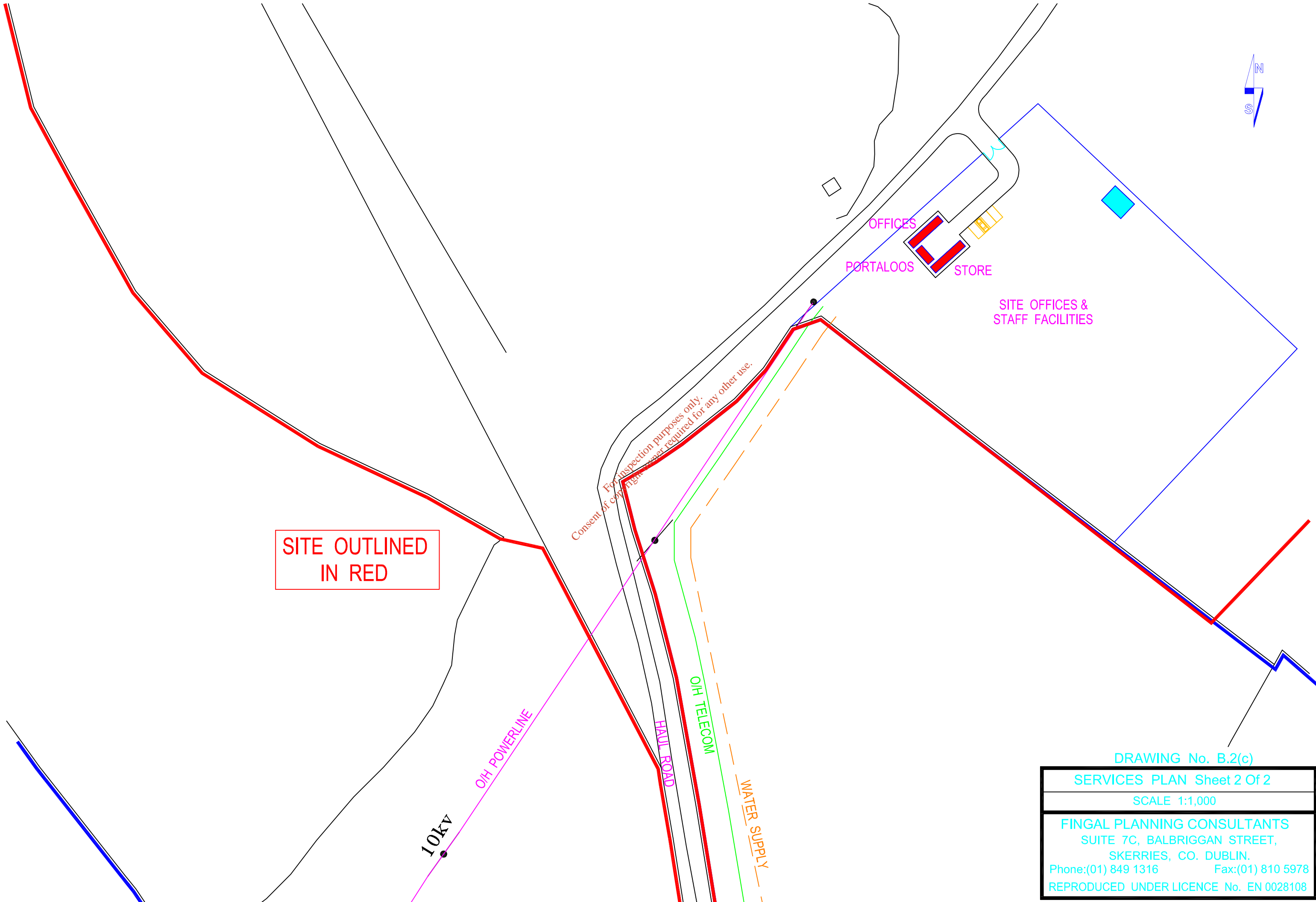
HAUL ROAD

O/H TELECOM

WATER SUPPLY

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DRAWING No. B.2(c)
SERVICES PLAN Sheet 1 Of 2
SCALE 1:1,000
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required for any other use.

10kV

O/H POWERLINE

HAUL ROAD

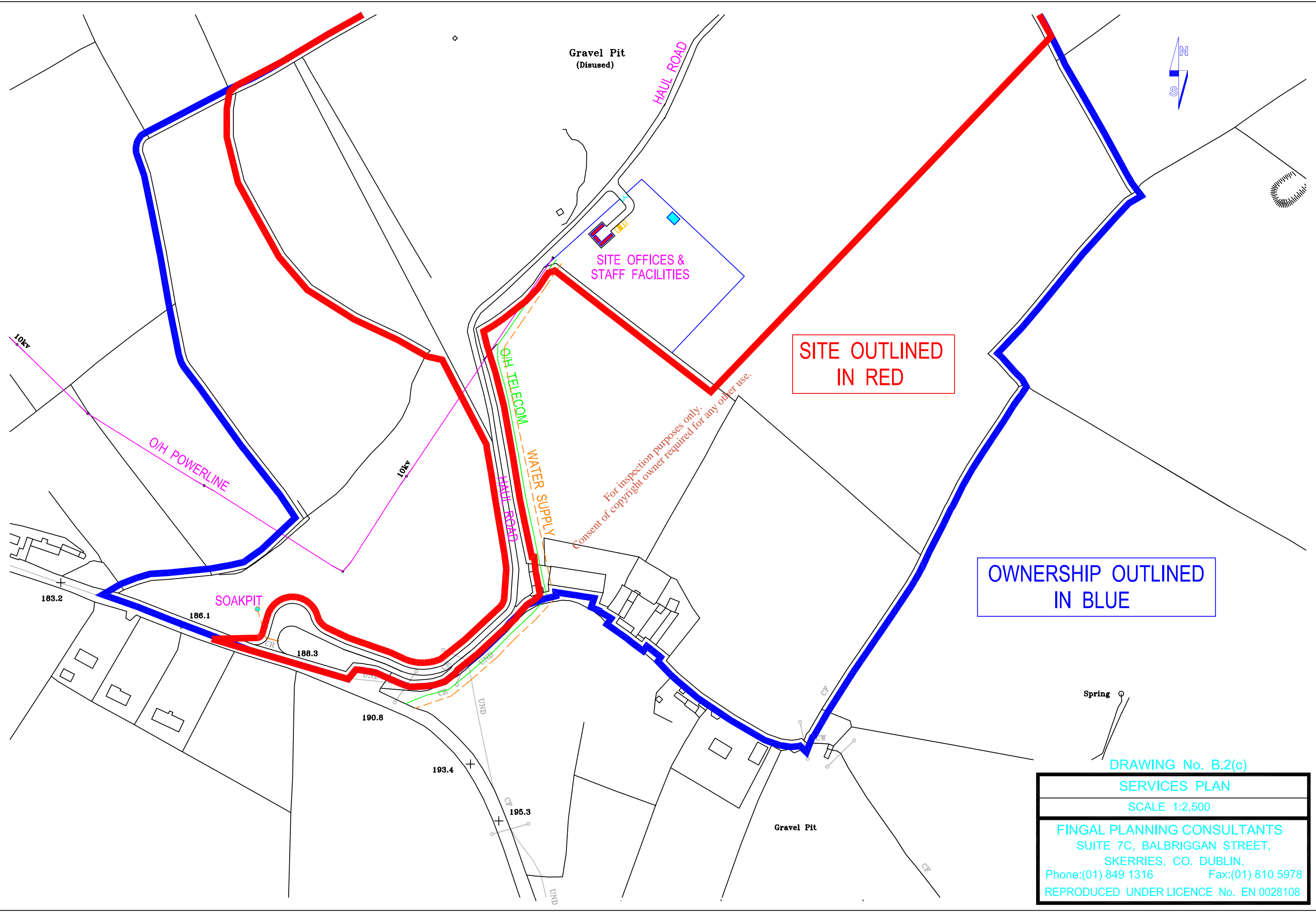
O/H TELECOM

WATER SUPPLY

OFFICES
PORTALOOS
STORE

SITE OFFICES &
STAFF FACILITIES

DRAWING No. B.2(c)
SERVICES PLAN Sheet 2 Of 2
SCALE 1:1,000
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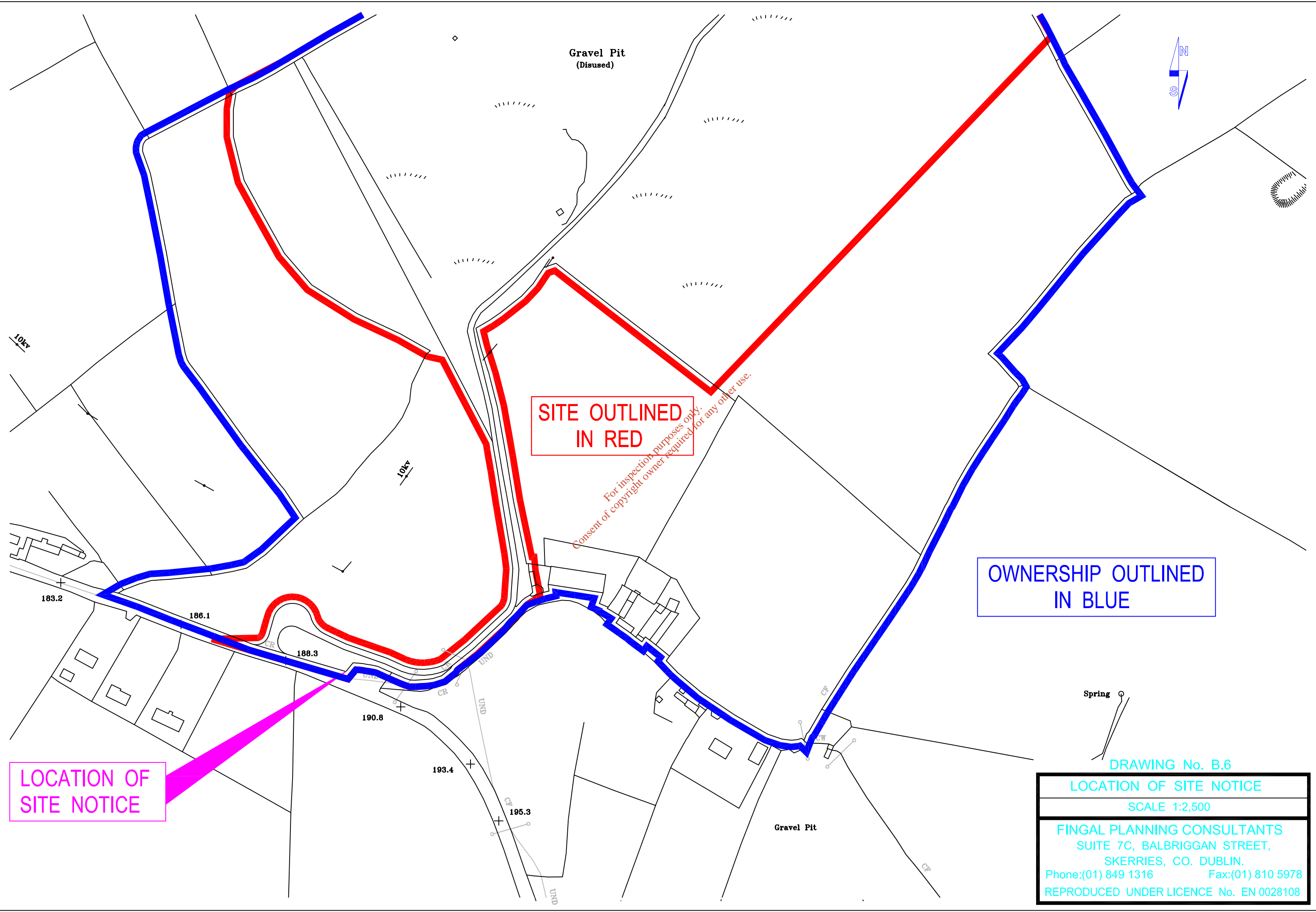
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DRAWING No. B.2(c)

SERVICES PLAN

SCALE 1:2,500

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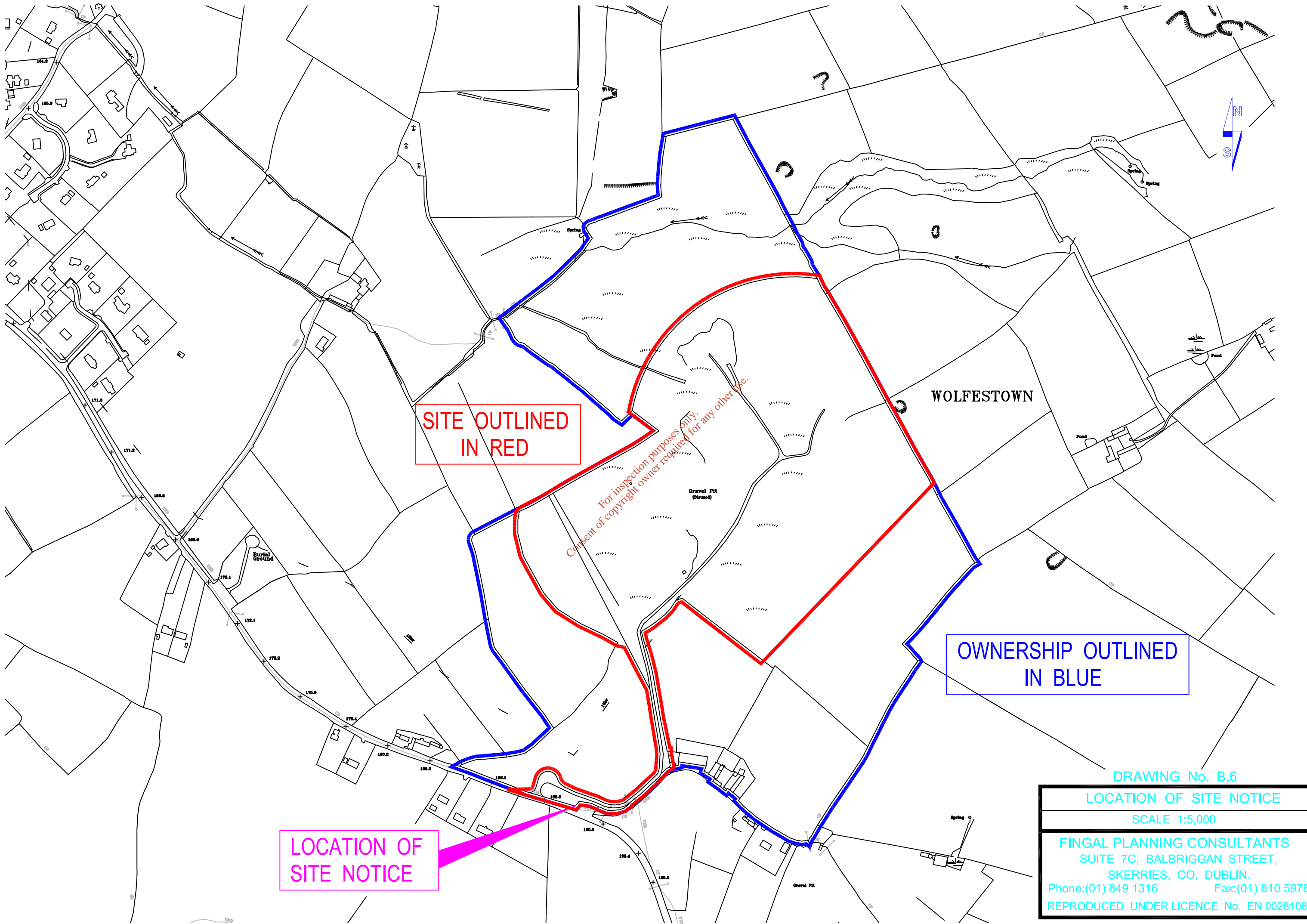
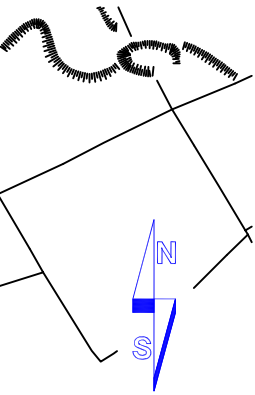
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**LOCATION OF
SITE NOTICE**

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DRAWING No. B.6
LOCATION OF SITE NOTICE
SCALE 1:2,500
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**LOCATION OF
SITE NOTICE**

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WOLFESTOWN

DRAWING No. B.6

LOCATION OF SITE NOTICE

SCALE 1:5,000

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SECTION C – Management of the Installation

C.1 Site Management

Once the waste licence has been granted it is the intention of John Morrin to assemble a team to manage the facility and ensure compliance with licence conditions and environmental procedures. It is not possible at this application stage to provide specific details of designated staff for the operation of the Site. The chart below describes the competence, interaction and responsibility of staff who will be involved in the day to day running of the facility. It is envisaged that three people will work on the land restoration facility and the services of a trained third party contractor will be obtained for cover when required.

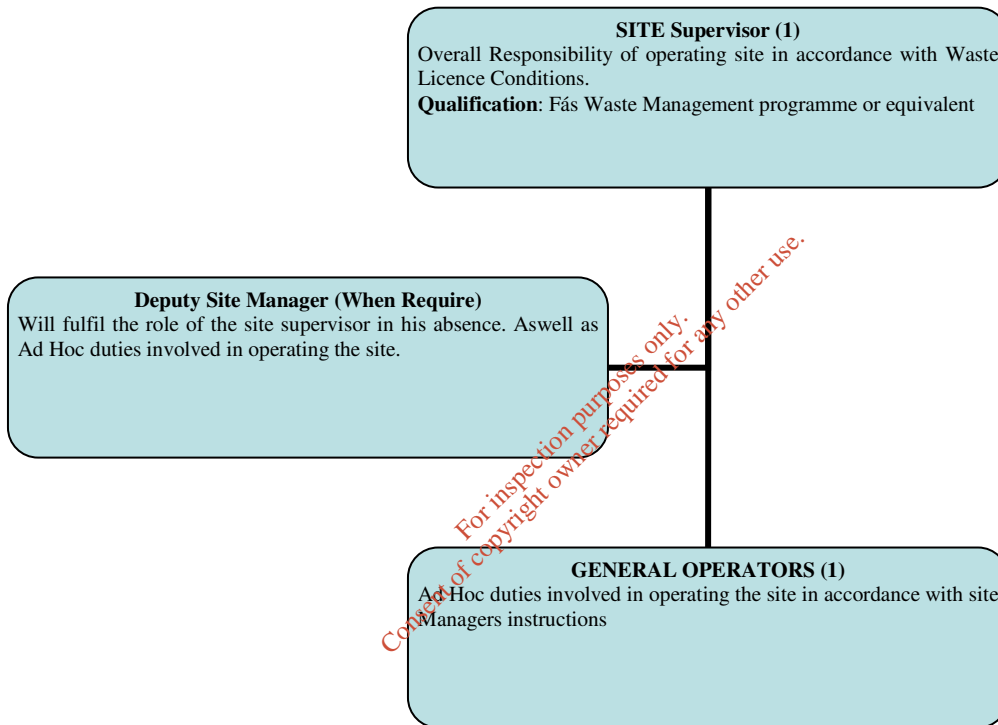


Chart C.1.1 Proposed On-Site Management Structure

C.2 Environmental Management System

Currently no EMS has been developed. Within 6 months of the granting of the licence John Morrin will implement an Environmental Management System which will include the following elements:

- Management and Reporting Structure
- Environmental Objectives and Targets
- Documentation and Record Controls
- Corrective and Preventative Action
- Staff Awareness and Training
- Public Awareness and Communications
- Plant Maintenance Programme
- Efficient Process Control

C.3 Details of hours of operation for the waste facility, civic waste facilities and other facilities.

- (a) Proposed hours of operation.
07.30- 18.30 Mon- Friday, Saturday 07.30-14.00
- (b) Proposed hours of waste acceptance/handling.
07.30- 18.30 Mon- Friday, Saturday 07.30-14.00
- (c) Proposed hours of any construction and development works at the facility and timeframes (required for landfill facilities)
07.30- 18.30 Mon- Friday, Saturday 07.30-14.00
- (d) Any other relevant hours of operation expected.
Emergency work outside normal working hours above may occur

C.4 Conditioning Plan

A Condition Plan is not required as the proposed activity is a land restoration project using inert materials.

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Section D – Infrastructure and Operation

D.1 Infrastructure

Security

The site will be secured with an entrance gate. A sheep wire fence will be erected to provide a secured boundary around the perimeter of the site. CCTV cameras will monitor the entrance to ensure that there is no unauthorised entry to the site.

Access Roads

See Drawing D.1 for access roads for i.e. main access road (R410 Naas –Blessington Road) and new tarmac haul roads

Specification of Hard standing areas

See Drawing D.1 for location of hard standing areas. A number of lined bays will be constructed in the processing area to allow for segregation and collection of material suitable for reuse.

Weighbridge

The Weighbridge to be used on site will be surface mounted, the weighbridge will have side rails, complete with six digital Weigh-Bars. The Capacity of the bridge will be 60,000kg x 20kg and its dimensions are 3m (wide) x 15m (long). The Weighbridge will be supplied with following instrumentation; digital weight indicator and weighbridge ticket printer to ensure traceability of loads and monitor material intake.



Figure D1. Proposed Weighbridge

Wheel Cleaner

The Wheel cleaner system consists of Corrugated iron entry and exit ramps with guide rail, a wash platform with side screens, cleaning booms bottom and side, and a multi-stage pump to deliver pressurised water. Water will be sourced from rainwater collected from roof run off from agricultural sheds and stored in a tank and will be used a feed water to the wheel cleaner, it is

envisaged that 10litres will be used per truck. It is anticipated that it will be desludged 3-4 times annually. It is a closed loop system. Sludge will be quarantined, tested and processed accordingly.



Figure D.2 proposed closed loop wheel cleaner

Laboratory

Laboratory facilities will not required as the services of an external accredited lab will be acquired.

Fuel Storage

A double skinned certified fuel tank for refuelling onsite plant will be used and located on a concrete plint adjacent to hardstanding area beside the works office. See Drawing D.1.

There will be no refuelling of any HGVs or other road vehicles onsite.

Waste Quarantine

A waste quarantine area will located onsite, although it is envisaged that no hazardous material will be brought to site as the loads will be inspected prior to departure for use in the land restoration site. The quarantine area will; be clearly identifiable with signage, be located on hardstanding ground and have the capable of storing any liquid waste as there will be certificated banded spill ballets present.

Lined bays (with a capacity of 500t/bay) will also be created to segregate and manage green waste/steel/wood/plastic etc that may arise in incoming loads so that they can be quarantined. See Drawing D.1

Waste Inspection Area

Material for the land restoration project will primarily be inspection in lined bays area however secondary inspection will occur at the infill at working phase. See Drawing D.1

Traffic Control

Parking will be provided for staff and visitors. One space for EPA visitor and one Space for Local Authority visitor beside weighbridge. Two spaces for staff will be located at the site offices. Parking spaces will be painted on a durable macadam surface. Space (2.5m x 5m) will be designed by marked, lined bays (durable, permanent material, 100mm white lines The Facility sign will be legible to persons outside the main entrance to the facility. The minimum dimensions of the board will be 1200 mm by 750 mm. See Drawing D.1

All services

See Drawing B.2, C and D.1 for services including power and water. On site lighting will be provided to ESB standards and to the satisfaction of the planning authority.

Sewerage or surface water drainage infrastructure

There will be no sewerage infrastructural requirements as the staff toilets will be fully enclosed portaloos, the waste from which will be collected on an ad hoc basis by a permitted waste contractor for approved disposal.

Site accommodation

See Drawing D.1 for site accommodation. Site accommodation will consist of two temporary portacabins (8ftx40ft), these will serve as a site office and a secure stores.

Fire Control System

The site will be fully stocked with a variety of fire equipment so the facility will be capable to response to manageable fires if they occur. In the instance where a fire cannot be controlled the local emergency services will be called upon.

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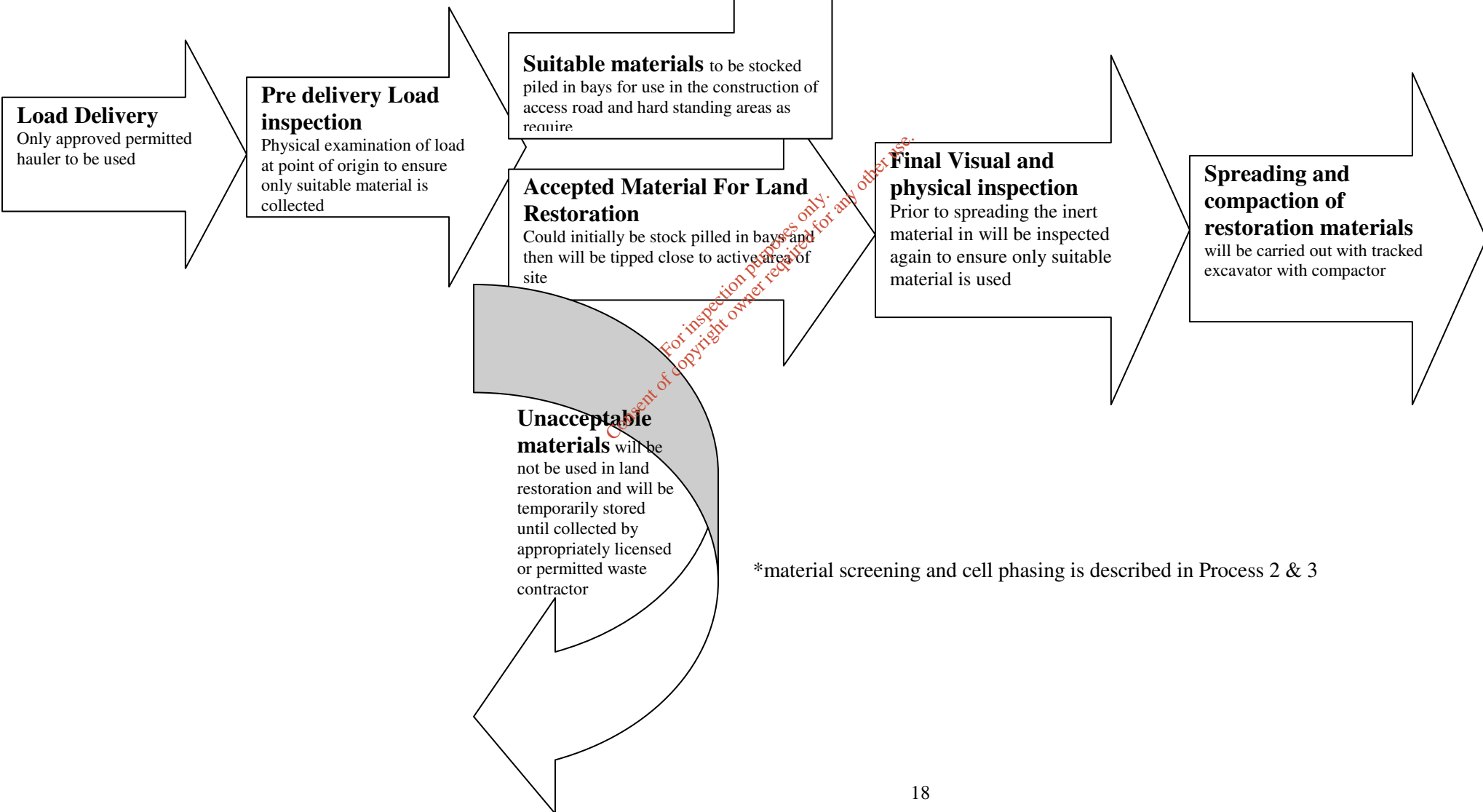
D.2 Facility Operation

The following process involved in the restoration project are describe below and are as follow:

- Process 1: Inspection, Delivery, Acceptance & Spreading
- Process 2: Screening and compaction
- Process 3: Land restoration phasing sequence
- Process 4: Non conforming waste procedure

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Process 1: Inspection, Delivery, Acceptance & Spreading*



*material screening and cell phasing is described in Process 2 & 3

Overview

Based on the topographical survey and operational capacity of the site it is estimated that 5,000,000 tonnes of inert material could be deposited on-site over a 10 year period to effect agricultural development/restoration. Material will only be accepted from suitably approved sources (up to 100 loads per day).

It is anticipated that the following materials will be accepted for recovery at the site;

- Topsoil
- Sub soil
- Brickwork
- Pottery, china
- Stone, rock, slate
- Groundwork excavation materials
- Mortar
- Concrete waste/broken matter
- Other inert materials arising from the construction/demolition sector
- Asphalt/tar based materials (for recycling NOT deposition)
- Wood (for recycling NOT deposition)

The relationship between the aforementioned material and the European Waste Catalogue is described in the below:

EW/C/HWL Index	Description of Material
170101	Concrete
170102	Bricks
170103	Tiles and Ceramics
170104	Gypsum based construction materials
170501	Soil and stones
170602	Other insulation materials
170201	Wood
17 03 01*	bituminous mixtures containing coal tar*

*wood and tar will not be deposited to land as it will sorted and resold

The following materials will **NOT** be accepted for land restoration project:

- Hazardous waste
- Dry recyclables
- Mixed C+D waste
- Municipal waste

The material to be used for restoration will be sourced from licensed/permitted third parties. Material will be delivered to the site by the third parties and loads will be subject to inspection by Mr. Morrin or his representative to ensure suitability. Once accepted, the load will be directed to a specified tipping area; the load will be tipped, segregated and then used as either fill, cover or resale.

Suitable materials (concrete, masonry, tar, blocks and brick) may be stock-pilled for wintertime use in the construction of access roads and hardstanding areas, as required. These materials may

be crushed and screened to facilitate use on-site or resold. If trees are accepted these will be shredded and used for bedding for local livestock. Topsoil will also be stockpiled for use as finishing material also.

Material deposition will occur in a phased manner – in line with operating conditions, planning restrictions and the availability of soil/sub soil in the marketplace.

Materials will be deposited and capped with a layer of topsoil (0.5m) in line with EPA Guidance on Landfill Manual.

Acceptance

As described above, only certain agreed types of material will be accepted. The following describes the unit processes to be carried out on-site and the relevant control mechanisms to be put in place.

Table D. 2 – Process Controls

Unit process	Control Point
Pre delivery load inspection	Only pre-approved suppliers admitted – physical examination of material prior to loading
Load acceptance	Record of origin of material
Load tipping	Physical examination
Material sorting/Screening and crushing	Physical examination
Placing and spreading of restoration materials	Compaction with tracked excavator

Delivery

The restoration material to be deposited will be transported to the site in rigid high-backed trucks, typically in 20tonne (10- 15m³ material dependant) loads. It will be the responsibility of the material provider to deliver the material to the site. It is anticipated that trucks will travel to the site via the Naas-Blessington public roadway. It is proposed an average of 80 loads per day will be accepted on-site. As suitable restoration material may not always be available, actual truck numbers are expected to fluctuate between 15 and 100 per day. The application is sought for a maximum of 100 loads per day.

Only permitted materials shall be accepted as agreed with contractors. All suppliers of restoration materials will be required to demonstrate compliance with the Waste Management (Waste Collection Permit) Regulations, 2001 and identify the source of the incoming materials. Such details will be recorded on-site.

The site shall be manned during working hours. The on-site supervisor shall conduct load inspection. The origin of each load will be recorded on-site. Should any non-conformances be noted at any stage the supplier of the material would be required to accept return of the load and remove it from the site.

If any unacceptable materials are inadvertently delivered to site, or discovered after a load has been deposited, then these shall temporarily stored on site pending disposal to an appropriately

licensed or permitted waste contractor. The supplier of the material shall be informed and any required action taken.

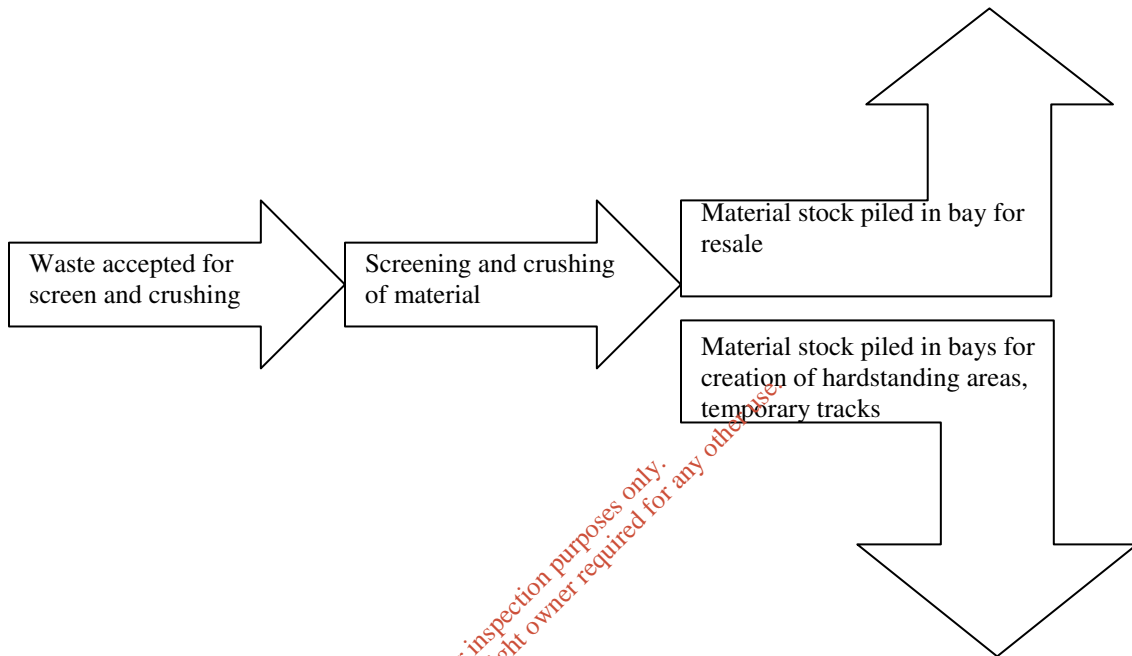
A number of bays lined bays will be constructed in the processing area to allow for segregation and collection of material suitable for reuse. Approximately 500 tonne of material will be stored in each bay. On a scheduled bay if required will then be crushed and/or screened and refilled into separate individual bays for reuse/resale as appropriate

Restoration materials shall be tipped close to the active area of the site. From here, material will be spread and compacted to and capped with topsoil

Bays will also be created to segregate and manage green waste/steel/wood/plastic etc that may arise in incoming loads so that they can be quarantined.

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Process 2: Screening, crushing and spreading



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Overview

The screening, crushing and spreading process is envisaged to be a very simple process. An industry standard track excavator will load restoration material in to the Premiertrak 1100x800 and Pioneer 3150mm x 2550mm technical details below. Materials will be sorted then spread on land or stockpiled depending on material.

Technical Details of 1100x800on Premiertrak

- High output and excellent reduction capacity
- High performance 1100 x 800 mm S.H.D. single jaw crusher
- Heavy duty fabricated chassis and track frame
- Fully skirted product conveyor with hydraulic tail lift
- Hydraulically folding hopper fitted as standard
- Two way dirt chute
- Dust suppression sprays
- Aggressive stoke with very high swing jaw
- Oversize cartridge encased mainframe bearings suitable for arduous applications and long life
- Low fuel consumption due to high efficiency drive system
- Dust suppression sprays fitted as standard



Figure D2.1 Shows Premiertrak 1100x800

TEREX Pegson pioneered the development of the 1100x800 Premiertrak to produce a high performance large capacity tracked mounted jaw crusher that is suitable for a variety of quarrying and contract crushing applications.

The 1100x800 Premiertrak has the “M” series S.H.D. single toggle jaw crusher which has been designed to deliver unsurpassed output levels on the toughest of applications.

This versatile unit is suitable for primary operations and will achieve capacities over 450 tph depending on the size and type of material being processed. It is fitted with a Caterpillar C13 engine and uses the Terex Pegson direct drive system for the crusher. This is the most efficient system available and minimises fuel consumption whilst maximising intervals between hydraulic oil changes.

Technical information on Pioneer Equipment to be used on site:

	Pioneer
Transport Height:	3150mm
Transport Width:	2550mm
Weight:	Approx 28 t
Drive Unit: Engine Hydraulic	Deutz BF4L2012C 122 Hp (90) Kw Proportional Load Sense Hydraulics
Feeder Hopper:	
Belt Feeder:	Plate apron or rubber belt feeder
Screen Box (Length x Width) :	4500mm x 1800mm
Conveyor Belt under the screenbox (Width)	1400mm
Oversize belt: Type Width	Heavy Duty 1500mm
Side Conveyor Left (fines): Width	1000mm
Side Conveyor Right (mid fines): Width	800mm
Track Drive:	3300mm x 400mm
Speed:	1 Km/h





Figure D2.2 Shows Pioneer Equipment to be used on site

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Process 3: Landfill phasing sequence

The proposed 5 phase sequence is marked on the applicable Drawing D.2. This plan will be used as a as guide, it may change depending on site conditions and incoming material quality.

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Process 4: Non conforming Waste procedure

Non conforming waste is defined as anything that cannot be categorised as the following:

EWC/	Description of Material
170101	Concrete
170102	Bricks
170103	Tiles and Ceramics
170104	Gypsum based construction materials
170501	Soil and stones
170602	Other insulation materials
170201	Wood
170301*	bituminous mixtures containing coal tar*

Non conforming waste will be immediately identified, labelled and removed to the waste quarantine area. Non conforming waste will be secured in the waste quarantine area and be sent for licensed disposal in a timely manner at the cost of the offending transportation company.

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D.3 Linear System

No liner system is required as material to be used land in restoration project is inert.

D.4 Leachate Management

Precipitation from rain landing on the restoration part of the site will partially infiltrate to ground and partially run off. The run off will slowly percolate to ground. Since the restoration material to be used will be inert in nature, no leachate will be created and therefore no leachate management is required.

D.5 Landfill Gas Management

As only inert material will be used in the land restoration project it is envisaged that no landfill gas will occur as this type of emission is usually associated with organic waste material.

D.6 Capping System

As each cell of the restoration project is completed a single layer of topsoil to a dept of 500mm will be placed over the completed cell. As the material being used in the land restoration is inert no flexible membrane liner is necessary.

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SOAKPIT

NEW ENTRANCE SIGNAGE
AS PER ENTRANCE LAYOUT

CR

188.3

UND

CR

UND

190.8

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193.4

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IN RED

CF

195.3

UND

DRAWING No. D.1

INFRASTRUCTURE Sheet 1 Of 3

SCALE 1:1,000

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OFFICES
PORTALOOS
STORE

BUNDED FUEL
AREA

SECURE STORAGE
COMPOUND

SECURE SITE COMPOUND
c/w 1.8m PALISADE FENCING

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10kv

O/H TELECOM
WATER SUPPLY

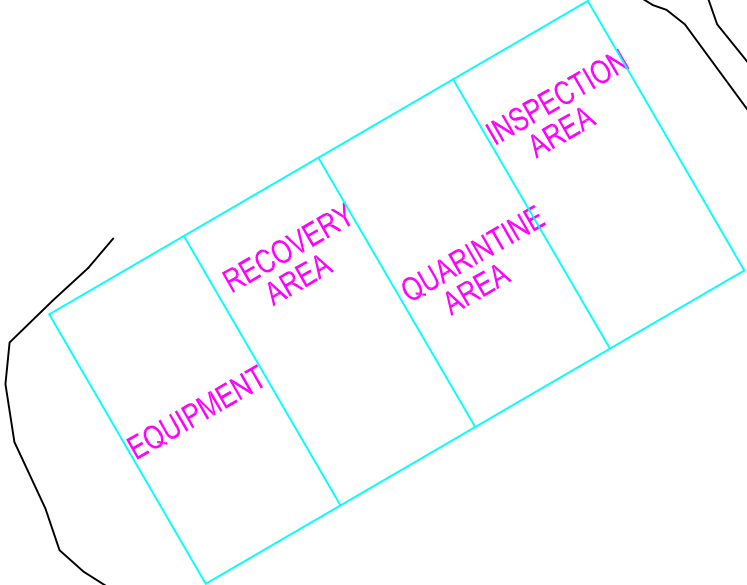
DRAWING No. D.1

INFRASTRUCTURE Sheet 2 Of 3

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WOLFESTOWN



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QUARANTINE / INSPECTION /
RECOVERY AREAS

HAUL ROAD

SECURE SITE COMPOUND
c/w 1.8m PALISADE FENCING

BUNDED FUEL
AREA

SITE OFFICES &
STAFF FACILITIES

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10kV

O/H POWERLINE

10kV

WEIGHBRIDGE

O/H TELECOM

HAUL ROAD

WATER SUPPLY

SOAKPIT

183.2

186.1

188.3

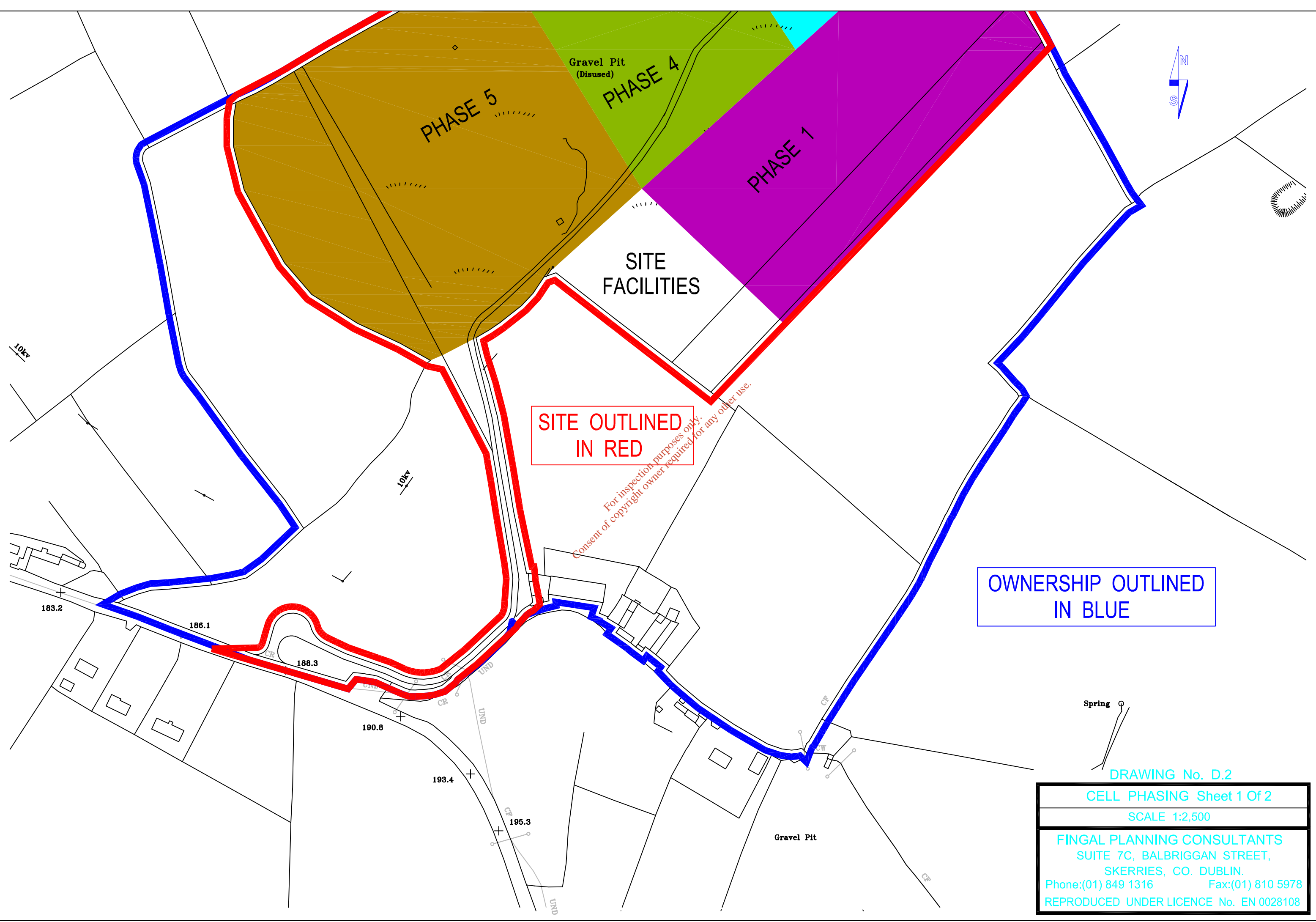
NEW ENTRANCE SIGNAGE
AS PER ENTRANCE LAYOUT

DRAWING No. D.1

INFRASTRUCTURE

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DRAWING No. D.2

CELL PHASING Sheet 1 Of 2

SCALE 1:2,500

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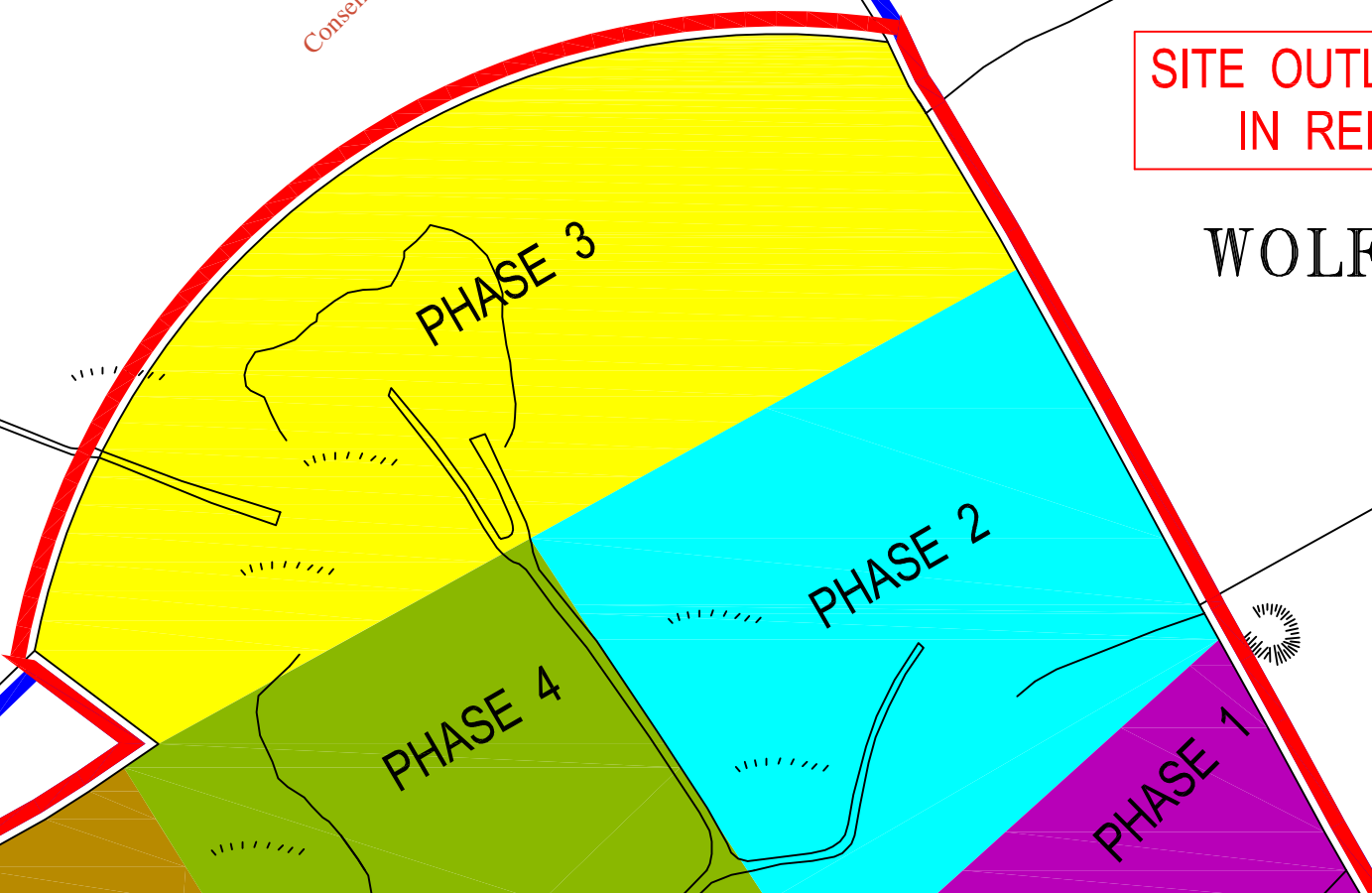


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WOLFESTOWN

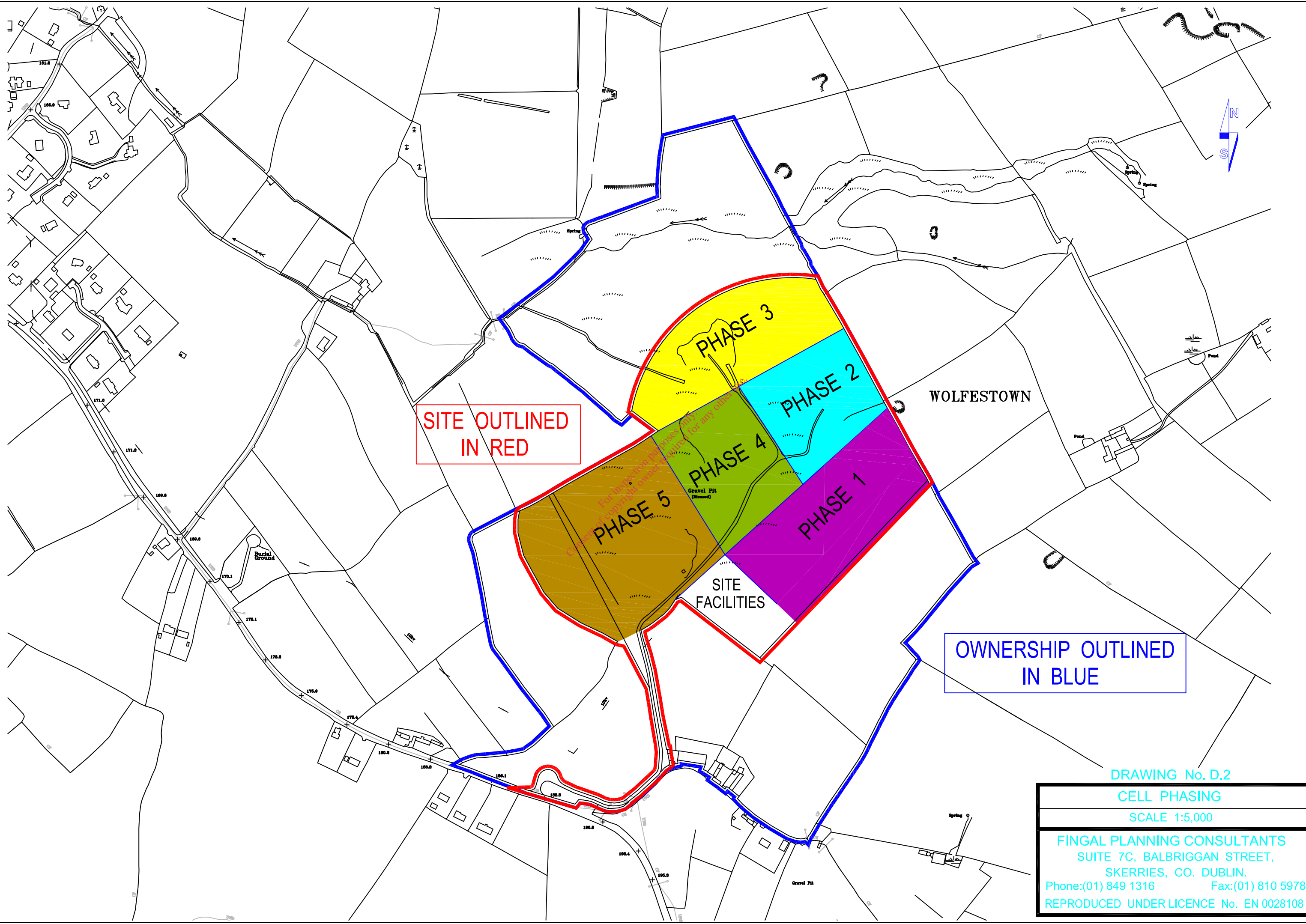


DRAWING No. D.2

CELL PHASING Sheet 2 Of 2

SCALE 1:2,500

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WOLFESTOWN

DRAWING No. D.2

CELL PHASING

SCALE 1:5,000

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Section E - Emissions

E.1 Emissions to Atmosphere

None of the following emissions are applicable:

- Composting Emissions
- Landfill Gas Emissions
- Landfill Leachate Emissions
- Infectious organisms/pathogens (clinical waste handling)
- Thermal oxidizer Emissions

Dust emissions monitoring from operation of land restoration activity will be carried out at 4 boundary locations within 6 months of operation.

E.2 Emissions to Surface Waters

There will be no surface water emissions from site as the wheel wash will recycle all water used in a self containing storage unit.

The operation will not discharge any water to the into the small stream to the north of the site which drains to the west into a tributary of the Morell River which in turn discharges into the River Liffey. This stream will be monitored on an intermittent basis.

E.3 Emissions to Sewers

This activity will not emit any effluent to the sewer.

E.4 Emissions to Groundwater

Precipitation from rain landing on the restoration part of the site will partially infiltrate to ground and partially run off. The run off will slowly percolate to ground. Since the restoration material to be used will be inert in nature, no leachate will be created and therefore, no mitigation is proposed.

There will be no discharges into boreholes/wells, swallow holes, or springs/groundwater lakes.

E.5 Noise Emissions

The main source of noise and vibration will be from:

- the excavator plant
- truck traffic on site and the unloading of material
- screening operation

There will be no precise location of noise/vibration sources as all plant will be mobile on site. The Sound Power level given by the manufacturers data for the screening equipment operating at various locations at a 1 meter ranges from 88.6- 89.8dB(A), at 10 meters ranges from 78.0- 88.8 dB(A) and at 20 metres ranges from 75.1 – 84.5 dB(A).

Noise will be emitted from the site on an intermittent basis between the working hours as mentioned in section C.3 above. Following a noise analysis carried out in 1999 (detailed in section I.6) it was determined that the site operation will have a minimal effect on the surrounding dwellings as the R410 is the main source of noise in the proximity of the proposed land restoration project.

E.6 Environmental Nuisances

It is anticipated that emissions from the restoration activity will be primarily composed of dust, and noise.

Aerosols

All infill material will be inert. No domestic/putrescible matter will be accepted. It is not anticipated that there will be any nuisance aerosols created.

Birds

All infill material will be inert. No domestic/putrescible matter will be accepted. It is not anticipated that there will be any aerosols nuisance created.

Dust

In order to mitigate against any nuisance from dust, site operations will be controlled as follows:

- A wheel wash will be used to clean trucks
- Soils retained for cover shall be stockpiled and managed

In addition, it is proposed to assess dust deposition levels, through a survey, within 6 months of commencement of operations.

Fire

A site safety statement will be developed. Emergency equipment will be maintained on site. Potential fire hazards will be limited to the portacabin area and will be managed locally. All infill material will be inert.

Litter

A daily site inspection will be completed by the operator to ensure that there is no litter arising. Personnel arriving on site to deliver materials will be required to use provided waste bins for any litter. All infill material will be inert.

Odour

All infill material will be inert. No domestic/putrescible matter will be accepted. It is not anticipated that there will be any aerosols nuisance created.

Traffic control

Traffic on site will be controlled by a site speed limit and also directional signage directing them to the active area, as appropriate. In addition, the number of vehicle movements to the site will be controlled (max. 100 loads per day) and warning signs will be erected on the public roadway (Naas-Blessington) advising motorists of the existence of the entrance to the site. Members of the public will not be allowed enter the site.

There is an existing entrance to the site from the local access road from Naas-Blessington. Current sight lines extend 150m west and 160m east. However, following consultation with the Roads Design Section, Kildare CC, it was agreed to create a new entrance as indicated on the Drawing D.1. The construct of this entrance shall be completed to meet the requirements of Kildare County Council and this drawing has been approved by the planning section (roads division).

During the operational phase, the site will be secured by locked gates. On completion of the restoration project, the site entrance shall be rendered consistent with adjoining premises.

Access to site has been developed in line with consultation with Kildare CC and in conjunction with the requirements of the Design Manual, Roads and Bridges, as appropriate.

Vermin

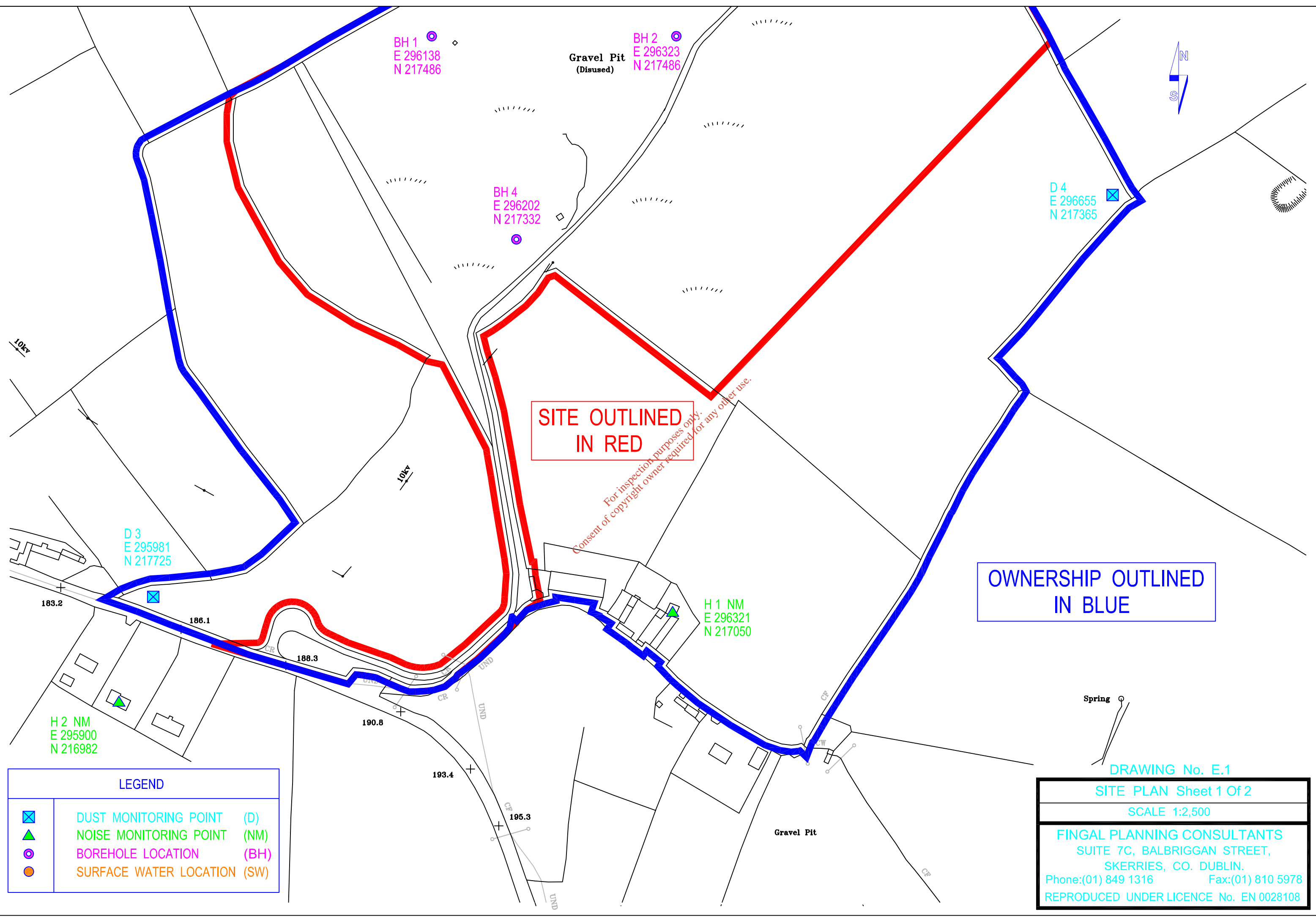
All infill material will be inert. No domestic/putrescible matter will be accepted. It is not anticipated that there will be any aerosols nuisance created.

Road cleansing

It is proposed to construct a tarmacadam and then hardcore based roadway from the new entrance at the Naas-Blessington roadway to the working area for vehicle access. Vehicles will travel over this area prior to exiting on to the public highway. A wheel wash will be installed adjacent to the site entrance. All vehicles will be directed through this wash prior to exiting the site and travelling on the public road thereby minimising the transfer of material to the public road.

The facility will use a roadsweeper to clean roads on-site, as required to prevent the transfer of any material onto the public road.

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BH 1
E 296138
N 217486

Gravel Pit
(Disused)
BH 2
E 296323
N 217486

BH 4
E 296202
N 217332

D 4
E 296655
N 217365

D 3
E 295981
N 217725

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H 1 NM
E 296321
N 217050

H 2 NM
E 295900
N 216982

LEGEND	
	DUST MONITORING POINT (D)
	NOISE MONITORING POINT (NM)
	BOREHOLE LOCATION (BH)
	SURFACE WATER LOCATION (SW)

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DRAWING No. E.1

SITE PLAN Sheet 1 Of 2

SCALE 1:2,500

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WOLFESTOWN

D 2
E 296303
N 218011

SW 1
E 296271
N 217863

D 1
E 295981
N 217725

BH 3
E 296531
N 217578

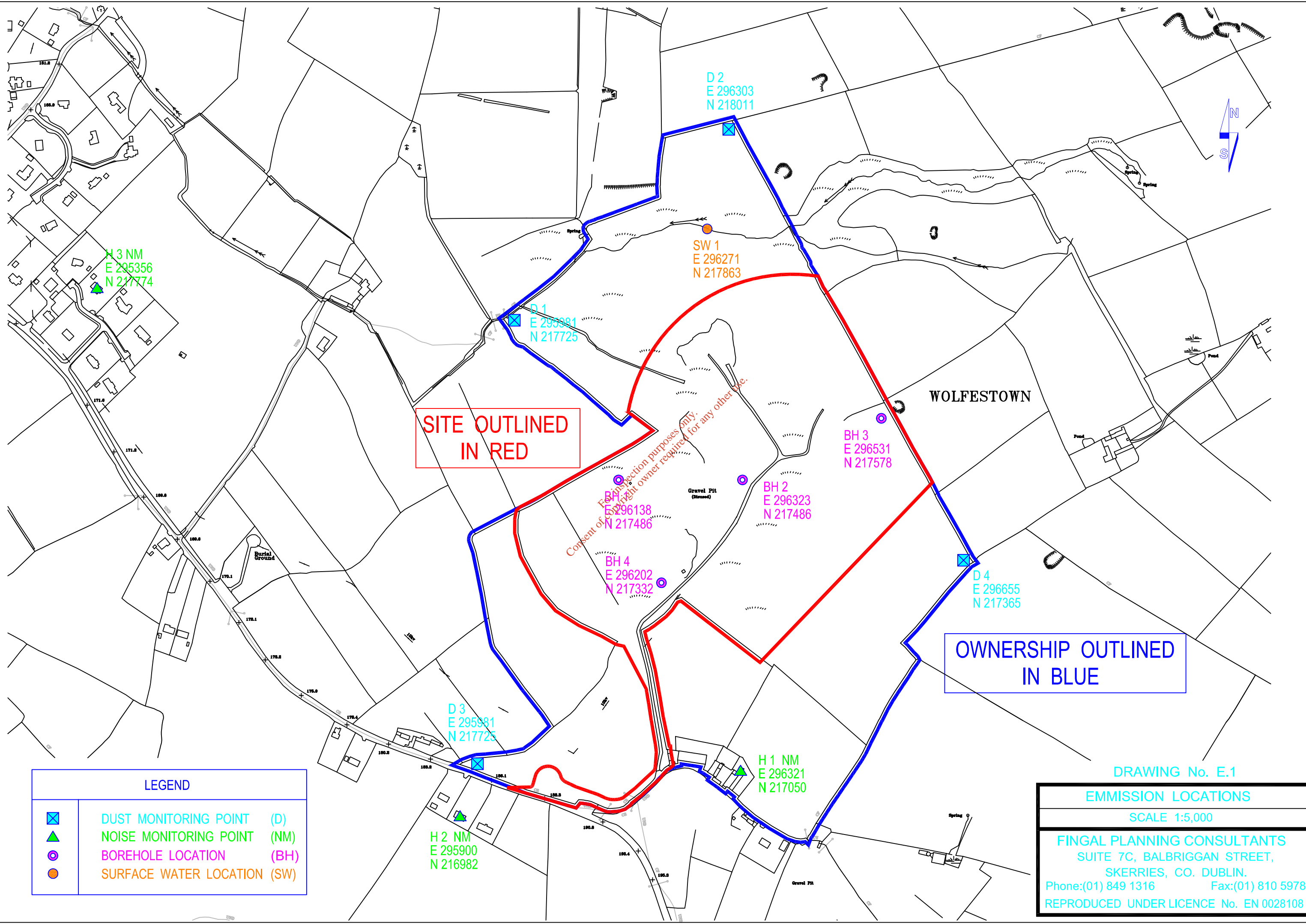
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Spring

LEGEND	
	DUST MONITORING POINT (D)
	NOISE MONITORING POINT (NM)
	BOREHOLE LOCATION (BH)
	SURFACE WATER LOCATION (SW)

DRAWING No. E.1
 SITE PLAN Sheet 2 Of 2
 SCALE 1:2,500

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LEGEND	
	DUST MONITORING POINT (D)
	NOISE MONITORING POINT (NM)
	BOREHOLE LOCATION (BH)
	SURFACE WATER LOCATION (SW)

DRAWING No. E.1

EMMISSION LOCATIONS

SCALE 1:5,000

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Section F – Control and Monitoring

All sampling and monitoring points are identified and located on an appropriately scaled plan ($\leq A3$) using the system outlined in **Section E**

As all emissions are ambient they are listed the required tables under Tables ff (i) –(iv) in Annex 1 of the Application in which details of dust, surface water, ground water and noise monitoring locations are given. Information regarding parameters, frequency of monitoring and accessibility of monitoring points are also provided in these tables.

F1. Emissions and Abatement

To Atmosphere

Dust:

In order to mitigate against any nuisance from dust, site operations will be controlled as follows:

- Soils retained for cover shall be stockpiled and managed
- A portable wheel wash will be installed for use at the facility
- The tarred road will be swept daily by a road sweeper

F2. Dust

Dust emissions from operation of land restoration activity will be carried out at 4 boundary locations within 6 months of operation.

Standard method VDI2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). A modification (not included in the standard) in which 2 methoxy ethanol may be employed to eliminate interference due to algae growth in the gauge may be employed.

F.3 Surface water

It is envisaged that there will be no emissions to surface water from the site as wheel wash water will be recycled in a closed system.

The operation will not discharge any water to the into the small stream to the north of the site which drains to the west into a tributary of the Morell River which in turn discharges into the River Liffey. Annual sampling of this stream will be carried to ensure the land restoration project is not affecting the quality of the water.

F4. Sewer discharges

Not Applicable as the land restoration project will not emit effluent to the sewer.

F.5 Groundwater

Ground water monitoring will be carried out GW1 – GW4 on an annual basis. Baseline figures have been submitted with this application Table I.4(i). Surface water from run off from entrance road will be collected in a soak pit (see drawing D.1) which will be monitoring periodically.

F.6 Noise

Noise monitoring in line with EPA Guidance will be performed annually at the noise sensitive locations NS1-NS3 as (specified in drawing E) during the day time operation to ensure the operation doesn't exceed the EPA threshold levels.

F7. Meteorological Data

Omitted following Certification Europe meeting with EPA in Dublin offices on 26th June 2008.

F. 8 Leachate

Given the inert nature of the waste deposited on site, it is contended that the material itself does not generate a leachate attributable to degradation or decomposition of its constituents. Therefore, any leachates generated are solely as a result of infiltrated precipitation which has come into contact with deposited inert material prior to entering the underlying bedrock unit.

F.9 Landfill Gas

All material deposited on site will be inert. No biodegradable material will be deposited therefore the possibility of gas generation at the facility is negligible.

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SECTION G RESOURCES AND ENERGY EFFICIENCY

G1. Raw Materials

Raw materials used onsite include inert topsoil used as final cover material. Oversize from the screening plant used as substrate for internal roads. Also sand and gravel will be used on temporary roads during wet period to control mud on site. It is envisaged that other sources of raw materials used will be diesel, hydraulic oil and engine oil which will be used to operate plant on site. Water usage will be minimised as the wheel wash will recycle the water used in a closed loop system.

G2. Energy Efficiency

Electricity will be used on site to power portacabin office, weighbridge, wheel wash, possible lighting for winter time operation and CCTV security camera system. This electricity usage is considered to be no more than the typical domestic usage.

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SECTION H – MATERIAL STORAGE

H.1 Waste types and Quantities

It is proposed that 500,000 tonnes of material will be handled at the land restoration facility. Due to market fluctuations and the lack of consistency in materials in the market is expected that a combination of C+D and inert material will be received.

Only appropriate inert material (past use) will be infilled; material that can be recovered for use as haul roads or aggregates for reuse in the marketplace will be so used. Therefore, the information in terms of source of materials can only be presented as INDICATIVE at this time. See completed tables H.1 and H.2 in Application for full details.

H.2 Waste Acceptance Procedure

It is anticipated that the following materials will be accepted for recovery at the site;

- Topsoil
- Sub soil
- Brickwork
- Pottery, china
- Stone, rock, slate
- Groundwork excavation materials
- Mortar
- Concrete waste/broken matter
- Other inert materials arising from the construction/demolition sector.

The relationship between the aforementioned material and the European Waste Catalogue is described in the Table H.2

EWG/HWL Index	Description of Material
170101	Concrete
170102	Bricks
170103	Tiles and Ceramics
170104	Gypsum based construction materials
170501	Soil and stones
170602	Other insulation materials
170201	Wood
17 03 01*	bituminous mixtures containing coal tar*

**wood and tar will not be deposited to land as it will sorted and sent offsite for reuse.*

All loads will be physically inspected at point of origin prior to entry, only per approved suppliers will be pre-approved and inspected loads will be allowed to enter into facility through the security barrier. Only permitted materials shall be accepted as agreed with contractors. All suppliers of restoration materials will be required to demonstrate compliance with the Waste Management (Waste Collection Permit) Regulations, 2007 and identify the source of the incoming materials. Such details will be recorded on-site

All loads that enter the site will have to use the site weighbridge to ensure traceability of loads and monitor material intake weights.

Cell Phasing

The proposed 5 phase sequence is marked on the applicable Drawing D.2. This plan will be used as a as guide, it may change depending on site conditions and incoming material quality.

H.3 a Waste Handling at the Landfill Facility

Not applicable as only inert material will be accepted

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Section I – Existing Environment

As discussed with the EPA as part of the pre consultation process; the site was awarded planning permission by Kildare County Council in 2005. An EIS was not required by the local authority as part of the planning process.

The following assessment is presented of the current environment.

I.1. Assessment of atmospheric emissions

The air quality of the locality is good with no significant sources of atmospheric emissions in the area. The main source of emissions will be from agricultural activities, quarry activities and also emissions from domestic heating systems. There are a small number of houses in Eadestown village situated approximately 1km to the NW and isolated dwellings along the nearby public road. The volume of traffic travelling along this road is low and will not have a significant impact on air quality beyond a few metres from the road-side. The principal land use in the locality is livestock or pasture and there will be minor atmospheric emissions associated with this type of agricultural activity, there is also quarry in the vicinity of the proposed land restoration project that also may contribute to dust levels in the atmosphere.

Dust deposition rates in the area will be typical of rural locations in Ireland removed from quarrying or stone processing activities and will be generally well below annual mean PM₁₀ limit value is 40 µg/m³.

Ambient concentrations of sulphur dioxide and nitrogen dioxide in the vicinity of the proposed land restoration project at Eadestown will be very low due to the distance from significant emission sources. The levels will be close to normal analytical detection level and well below the Directive 1999/30/EC (CEC, 1999) hourly limit of 350 µg/m³ and an annual mean limit of 20 µg/m³. Annual ambient nitrogen dioxide concentrations near the public road will also be very low due to the small volume of traffic using the road and well below the Directive 1999/30/EC (CEC, 1999) hourly limit of 200 µg/m³ and an annual mean limit of 40 µg/m³.

Atmospheric emissions Summary

Dust emissions that are defined as the Schedule of S.I. 394 of 2004 could be emitted to the atmosphere. However it is envisaged that the levels will not to be likely to impair the environment as mitigation measures will be implement to minimise the effect on environment.

It is envisage that there could be dust emissions from operation of land restoration activity will occur during the tipping and spreading of material.

In order to mitigate against any nuisance from dust, site operations will be controlled as follows:

- Soils retained for cover shall be stockpiled and managed
- A closed loop wheel wash will be installed

In addition, it is proposed to assess dust deposition levels, through a survey, within 6 months of commencement of operations.

I.2. Assessment of Impact on Receiving Surface Water

There will be no emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to surface water.

I.3. Assessment of Impact of Sewage Discharge

There will be no emission to sewer from the site. The on site portable toilets will have their content collected by a permitted waste contractor on an as required basis.

I.4 Assessment of impact of ground/groundwater emissions

As material to be used in the restoration project will be inert it is envisaged that no harmful emission to groundwater will occur.

I.5 Assessment of impact of to Ground and/or groundwater contamination

Introduction

A review of the existing and relevant geological and hydrogeological data has been made and a number of visits have been made to the site. To date five boreholes have been drilled to bedrock (carried out in 1998) and the results are included below.

The site lies approximately 190m to 220m above ordnance datum (a.O.D.) on slightly elevated ground. The terrain around the site is undulating. There is lower ground to the north, to the west and south of the site. The old sandpit consists of flat benches and a number steep pit faces (up to 10m high) and has an irregular surface.

The land in the surrounding area is used predominantly for agriculture (sheep pasture) and forestry. There are scattered farmhouses and private dwellings in the area some of which are located within 0.5km radius of the site.

General Geology

Bedrock in the area is comprised of chloritic, feldspathic greywackes of the Glen Ding formation and the overlying greywackes and shales of the Tipperkevin formation. Both are Lower Palaeozoic in age. The original mapping by the Geological Survey (circa 1860) shows no outcrop within about 0.5km of the site. The strata in the area are steeply dipping and are extensively folded.

The former sand and gravel pit at Wolfestown is part of a large area of Quaternary (subsoil) deposits. The deposits are up to 30m thick in the immediate area of the site. Gravels and sands and till of limestone origin are dominant in the area.

The soils in the Wolfestown site are classified as the Athy Series of the Complexes Great Soil Group. (Soils of County Kildare, 1970). In this area it is mainly the shallow component of this complex that is present. This component occurs on higher ground and the soils are shallow and excessively drained. They are Brown Earth soils.

The local bedrock, described above, has low permeability and is considered to be an aquitard or poor aquifer. Groundwater movement in the bedrock is likely to be limited to the upper weathered zone, more permeable beds of limited extent and/or fault or fracture zones. Information obtained

from the GSI database, on wells tapping bedrock in the area, shows that well yields in the bedrock are quite modest (i.e., less than 40m³/d).

Although the Quaternary deposits are not well delineated at this time they could be classified as a minor or locally important aquifer in the future if there is sufficient saturated thickness.

Most groundwater movement in the overburden (Quaternary deposits) will be restricted to horizons/beds/lenses of sand and gravel which may have limited hydraulic continuity with the bedrock. The groundwater flow direction in the area, based on the land surface gradient, appears to be to the northwest towards Eadestown.

There does not appear to be a regional water supply scheme or mains sewerage scheme in the village of Eadestown. Most of the houses in the area use private wells tapping the underlying geological deposits as their source of water supply. Two of these wells are about 250m from the entrance to the proposed Land restoration facility. The remainder are over 500m away.

Hydrogeological Characterisation

The descriptions of the site geology and hydrogeology are derived from the investigations carried out by EDA on the site. Five boreholes (200mm diameter) were drilled at the Wolfestown site between 30th of November 1998 and 18th of December 1998. The boreholes were drilled by Irish Geotechnical Services Ltd (IGSL) using a shell and auger rig. The boreholes were labeled BH1-BH5.

Only a little water was encountered at the bottom of four boreholes (the last borehole to be drilled, BH2 was dry when completed but water is likely to seep in over time). These four boreholes were temporarily completed with 150mm diameter plastic casing with a view to coring a short distance into bedrock at a later stage. These boreholes will be completed with another type of drilling rig and used to investigate the shallow groundwater moving close to the bedrock surface.

The remaining borehole (BH2) was completed as a monitoring borehole with two piezometers measuring water levels in two separate gravel layers. A summary of the well details is given in Table I.5.1

Table I.5.1: Well Details for Monitoring Wells at Wolfestown, Eadestown, Co. Kildare

Well Number	Total Depth (m)	Rockhead (m.a.0.D.)	Depth to Bedrock (m)	Well Head* ma.O.D	Water Level (m.b.g.1.) (Dec. 1998)	Reduced Water Level m.a.O.D.
MW-1	23.70	171.8	23.70	195.5	5.90**	189.6
MW-2	9.20	200.5	9.0	209.5	8.90	200.6
MW-3	15.00	191.5	12.0	203.5	Dry	<191.5
MW-4	27.70	175.0	26.50	201.5	26.85	174.65
MW-5	23.00	171.5	23.00	194.25	20.82	173.43

*Estimates from survey map.

**Water level in the lower piezometer. This monitors a gravel layer about 6m above the bedrock.

Site Geology and Hydrogeology

Greywacke bedrock was encountered at the bottom of each of the five boreholes. The drilling results show that the depth to bedrock varies beneath the site from 9- 12m in the east and central part of the site and 23-26m over the rest of the site . There appears to be a bedrock ridge trending roughly SW-NE through the centre of the site. The surface of the top of the ridge is of the order of 20-30m higher than the surrounding rock surface.

The Quaternary deposits overlying bedrock are dominated by coarse poorly sorted material (mainly sand and gravel with some fines). There are also layers of silt and clay. These deposits are thinnest over the ridge and thickest around the boundary of the site.

Hydrogeology

The five boreholes were drilled a short distance into bedrock. In four of the boreholes some water (it was presumed water will seep into well BH2 over time) was encountered at the bedrock/Quaternary interface. Water was only encountered in the overburden in one of the five boreholes (BH3). In this borehole water was detected in two sand and gravel horizons. The water level in the upper layer is slightly higher than in the lower layer.

In general the water table in the rock is deeper in the eastern part of the site where bedrock is deepest. The groundwater gradient shown in the water table map (Drawing L.1) indicates that groundwater flow is in an easterly direction..

The permeability of the bedrock is relatively low with groundwater flow being limited to the upper weathered zone, more permeable beds of limited extent and/or fault or fracture zones. The results of the borehole drilling at this site, clearly show groundwater moving at the bedrock/Quaternary interface (upper weathered zone). The volume of groundwater moving in this thin zone would not be sufficient for the rock to be classified as an important aquifer.

The geological logs of the five boreholes show that the Quaternary (subsoil) deposits are very variable in lithology. Therefore the permeability in the deposits will also be variable. The sands and gravels, that dominate the succession will have a relatively high permeability. In each borehole a horizon of sandy silt, silty to clayey sand, gravelly clay, etc. These will all have relatively low permeability. The presence of low permeability horizons and the perched ponds indicates some degree of confinement and isolation of the bedrock groundwater from the surface. Therefore, the groundwaters beneath the site will have some level of natural protection.

The investigation confirms that owing to the deep water table over most of the site there is little groundwater movement in the sands and gravels. On the lower ground to the east there are areas where the saturated thickness is significant. However, the overall distribution of rock outcrops and areas where it is close to the surface indicate that the sands and gravels would not be classified as an important aquifer.

Groundwater Vulnerability

The vulnerability of groundwater at any site is a function of the geological and hydro-geological conditions. At the Wolfestown site the Quaternary deposits are relatively thick, under saturated with significant layers of low permeability material. These materials have a high capacity to attenuate potential pollutants. In these circumstances the underlying bedrock groundwater has a low vulnerability to pollution based on the GSI draft classification (1995).

Non conforming Waste procedure

Non conforming waste is defined as anything that cannot be categorised as the above in table H.2. Non conforming waste will be immediately identified, labelled and removed to the waste quarantine area. Non conforming waste will be secured in the waste quarantine area and be sent for licensed disposal in a timely manner at the cost of the offending transportation company.

H. 3 Waste Handling

The following describes the unit processes to be carried out on-site and the relevant control mechanisms to be put in place.

Table H 1. – Process Controls

Unit process	Control Point
Pre delivery load inspection	Only pre-approved suppliers admitted – physical examination of material prior to loading
Load acceptance	Record of origin of material
Load tipping	Physical examination
Material sorting, screening and crushing	Physical examination
Placing and spreading of restoration materials	Compaction with tracked excavator

The waste handling at the facility will involve continuous monitoring at the various process stages involved. Operators on delivery, tipping, sorting and spreading will check both physically and visually for unsuitable material, as only inert material will be used in the land restoration project. Any delivery of unsuitable material will be sent to a suitable destination at the expense of the carrier but this scenario is not likely to occur due to strict controls being applied prior to delivery to the land restoration site.

A number of bays lined bays will be constructed in the processing area to allow for segregation and collection of material suitable for reuse. Approximately 500 tonne of material will be stored in each bay. On a scheduled bays each material type will then be crushed and/or screened and refilled into separate individual bays for reuse/resale as appropriate

Restoration materials shall be tipped close to the active area of the site. From here, material will be spread and compacted to and capped with topsoil

Bays will also be created to segregate and manage green waste/steel/wood/plastic etc that may arise in incoming loads so that they can be quarantined.

Screening and crushing

The screening, crushing and spreading process is envisaged to be a very simple process. An industry standard track excavator will load restoration material in to the Premiertrak 1100x800 and Pioneer 3150mm x 2550mm technical details below. Materials will be sorted then spread on land or stockpiled depending on material

On 4th of June 2008, groundwater chemical analysis was performed on the site to assess the quality of the existing environment. Samples were taken by O'Neil Groundwater in Nass, Co. Kildare and analysis was then carried out by accredited laboratory AI Control in Dublin 15. Only two samples were obtained from BH1 (down gradient) and BH2 (middle) as BH3 (up gradient) was dry.

All analytical results can be found in Section I.4.i in the Annex of the Waste Licence Application. To summarise;

- In BH2 Diesel Range Organics (DRO's) exceed the EPA IGV Value, as did Dissolved Manganese, Ammonical Nitrogen, Total and fecal Coliforms;
- In BH1, Sulphate exceeds the EPA IGV Value, as did Ammonical Nitrogen, Total and fecal Coliforms and Potassium.

Soils

The topsoil and shallow subsoils have been removed over most of the site area as a result of working for sand and gravel. As the individual phases are reinstated the land will be restored to something approaching its original shape and be covered with suitable topsoil (details are provided elsewhere in the report). This will result in a marked improvement in the site and result in a beneficial environmental impact.

I.6 Noise Impact

The area surrounding the proposed site is rural in character with relatively low background noise levels. The existing noise environment is determined by traffic noise on the R410 road, Naas to Blessington, and by distant traffic from the Naas dual carriage way/M7.

A noise survey was carried out at Wolfestown on 24th November 1998 between 10.00 a.m. and 5.00 p.m. The objective was to establish existing ambient noise levels. There have been no changes in site conditions since this survey was completed.

Survey Details

Measurements were made at two positions P1 and P2 as shown on the map attached (I.6.1). Position P1 was 30m from the road, on elevated ground with a clear view of the road. Noise levels at this position can be taken as being representative of the noise exposure of houses along the R410, such as H2 and H3.

The second monitoring position P2 was 100 metres from the road, and was screened from the road by a hill. There was a clear view over the surrounding countryside in the direction of Naas. Steady underlying traffic noise from the M7 was audible at this location. The noise levels at this position are representative of the ambient noise level to be expected at houses which are screened from the R110 road, such as H1.

Summary and results

The survey was carried out by Colin Doyle M.Sc. MIOA of ANV Technology. The results of the noise survey are shown in Table I.6.1 below. A graph of the noise level over time at position P1 is shown in Figure I.6.1. The existing traffic noise at houses along the R410 route to the Land restoration facility site is 57 dB(A) (L_{Aeq} , 1hr). This data was measured at position P1 and applies to houses which are set back approximately 30 m from the road. House groups H2 and H3 shown on the map attached are likely to experience this level of traffic noise. The steady underlying component of the background noise at these houses is taken to be the measured L_{Ago} value, 35 dB(A). Houses which are screened from the R410 road are exposed to lower levels of traffic

noise, Traffic noise levels at these houses are better represented by the measured level at P2, which was found to be 42 dB(A) L_{Aeq} . An approximate traffic count on the day of the survey from 11.00 to 13.00 indicated a traffic flow rate of 160 vehicles per hour, including 12 HGV per hour. The steady component of the underlying background noise was a little higher at P2 than at P1, 38 dB(A) compared with 35 dB(A). This was due to higher levels of motorway noise at the elevated position P2.

Table I.6.1 Noise Survey Results

Monitoring Position	Time	L_{Aeq}	L_{A10}	L_{A90}	Comment
P1	11-12	57	61	36	Traffic noise from R110
	12-13	56	61	35	Traffic noise from R110
	13-14	57	61	33	Traffic noise from R110
	14-15	57	62	35	Traffic noise from R110
	15-16	58	63	34	Traffic noise from R110
	16-17	57	63	35	Traffic noise from R110
P1: Mean Values		57	62	35	
P2	11-12	42	43	40	Steady distant traffic noise from motorway to west
	12-13	42	44	38	Steady distant traffic noise from motorway to west
	13-14	38	41	33	Steady distant traffic noise from motorway to west
	14-15	44	47	38	Steady distant traffic noise from motorway to west
	15-16	43	45	39	Steady distant traffic noise from motorway to west
P2: Mean Values		42	44	38	

Predicted Noise Levels

The impact of traffic to the land restoration site is assessed by comparing it with existing traffic noise levels along the R410 route to the site.

Houses located approximately 30m from the road currently are exposed to traffic noise levels of 57 dB(A) L_{Aeq} , 1hr. The additional noise produced by truck movements to and from the site is calculated to be 46 dB(A). This will produce no detectable increase in traffic noise levels. A similar analysis applies to houses located closer to the road. The contribution of the site traffic noise will be insignificant compared to existing noise levels. Therefore no traffic noise impact identified.

It is envisaged that equipment for grading and compacting the material into the phases, and possibly earth moving equipment will operate on the site.

In assessing the potential impact of noise emissions from such equipment, the overall sound power emission of the equipment is assumed to be 115 dB(A). This is a reasonable allocation, and covers a wide range of heavy diesel powered plant and equipment that could conceivably be used in the restoration site.

The calculation procedures of BS 5228 are followed, allowing for distance attenuation and noise screening provided by the terrain. Houses H1, H2 are well screened by the existing terrain, and screening of 15 dB is assumed. Houses at H3 near Eadestown will have line of sight to sections of the site, and noise screening of just 6 dB is assumed in this direction. In view of the elevation of the site above the surrounding countryside, no allowance is made for ground attenuation

Table I.6.2 Calculated Noise Level due to equipment operating on site

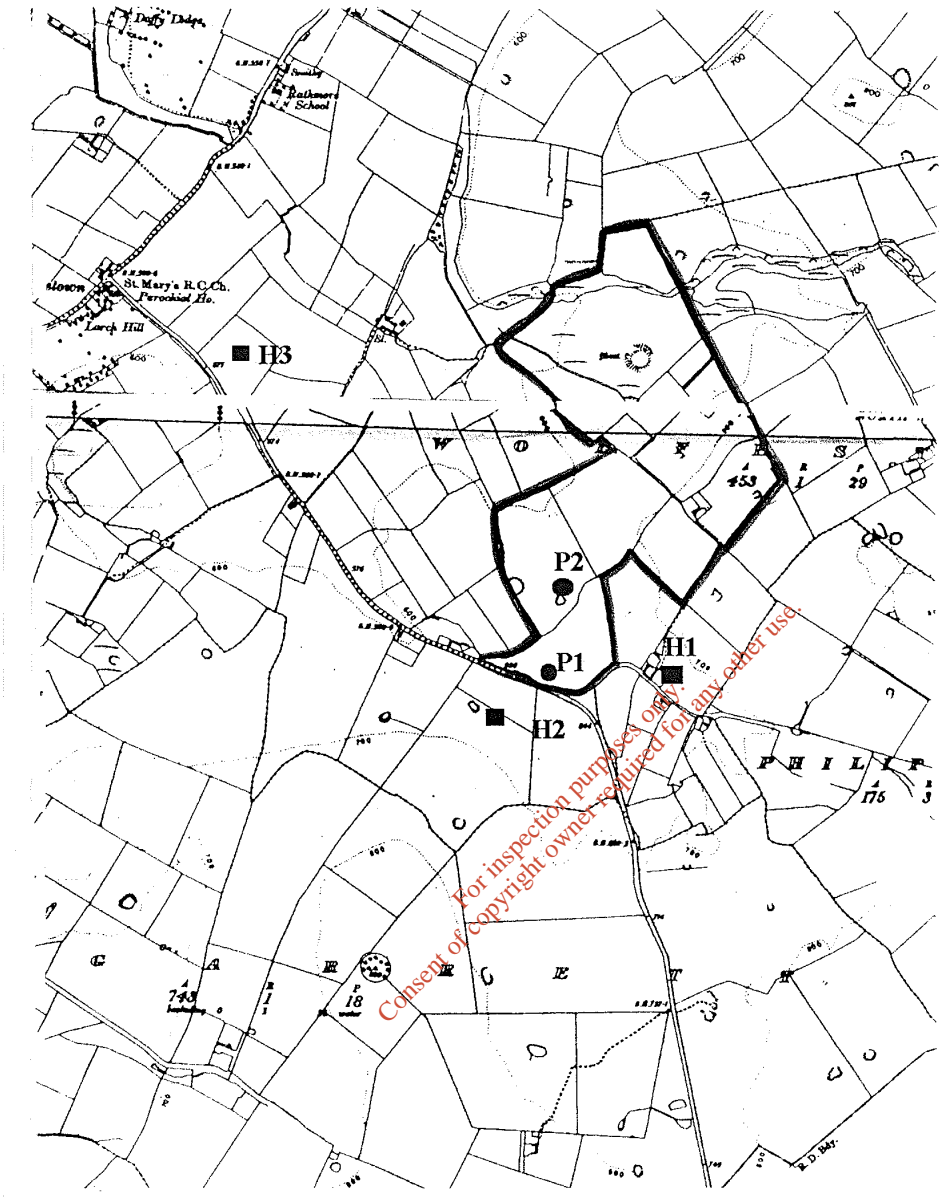
Noise Sensitive Location (see map)	Calculated Noise Level due to equipment operating within the land restoration site L _{Aeq, 1hr} dB(A)
H1: farmhouse near site entrance	46
H2: houses across R110 from site	40
H3: house near Eadestown	41

Summary

The main source of noise in the area is existing road traffic. It is envisaged that site operations will not breach the EPA's daytime level of 55 dB (A) at any of the Noise sensitive location (NSL) during operation. However if a noise emission problem arises at any of the Noise sensitive location the applicant will implement noise attenuation measures to mitigate against any potential impact.

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Fig. I.6.1 Map of monitoring locations as per 1998 ANV monitoring noise report



I.7 Assessment of Ecological Impacts & Mitigation Measures

Introduction

The site is a disused gravel pit, which was dug into the glacial materials of the Blessington end moraine on the northern side of Glen Ding. Before extraction the ground was high in the southern half of the area and fell to the north-west and north to two small streams, now there is a complex of steep slopes and cliffs in the centre with platforms formed by old settling ponds. Fields of pasture surround the southern end with rough grassland in the main valley.

The site was examined in December 1998 by a habitat survey (Phase I type) including an investigation of the mammals and birds. Summer birdlife has had to be inferred from knowledge of the local habitats accumulated over previous years. A subsequent habitat review (2007) indicated that no significant changes have occurred from those conditions observed in the initial survey.

Existing habitat

The habitats occurring on site may be divided into disturbed soil, grassland, flushed grassland, stream/pond and hedge and they will be described in this order.

Disturbed soil:

The glacial deposit seems to have been of mixed quality and there are many piles of loose material still present as well as exposed cliffs of sand and finer silts. The early plant colonists of such soils are, in rough order of appearance:

<i>Arenaria serpyllifolia</i>	sandwort
<i>Tussilago farfara</i>	coltsfoot
<i>Cardamine hirsuta</i>	bittercress
<i>Geranium molle</i>	soft cranesbill
<i>Sagina apetala</i>	pearlwort
<i>Linum catharticum</i>	fairy flax
<i>Myosotis arvensis</i>	forget-me-not
<i>Medicago lupulina</i>	black medick
<i>Trifolium dubium</i>	yellow trefoil
<i>Prunella vulgaris</i>	self-heal
<i>Hypericum sp.</i>	St John's wort
<i>Pilosella officinarum</i>	mouse-eared hawkbit
<i>Leontodon taraxacoides</i>	small hawkbit
<i>Crepis capillaris</i>	smooth hawkbeard
<i>Carex flacca</i>	glaucous sedge
<i>Calliergon cuspidatum</i>	a moss
<i>Camptothecium lutescens</i>	a moss
<i>Pseudoscleropodium purwn</i>	a moss
<i>Ctenidiuni molluscum</i>	a moss

Trailing willowherb *Epilobiurn brunnescens* and the liverwort *Moerckia hibernica* are found in damp and shaded sites, the latter on fine sediment

Grassland

As the above unstable community of the disturbed soils gradually accumulates, a soil and perennial plants take over to form grassland, which in turn is being colonised by gorse *Ulex europaeus*. In the absence of fertilisation the species diversity is higher and the moss component of the vegetation large. The additional plants include:

<i>Achillea millefolium</i>	yarrow
<i>Festuca rubra</i>	red fescue
<i>Cirsium palustre</i>	marsh thistle
<i>Plantago lanceolata</i>	ribwort plantain
<i>Trisetum flavescens</i>	yellow oat
<i>Rhytidadelphus squarrosus</i>	a moss
<i>Veronica chamaedrys</i>	germander speedwell
<i>Hypochaeris radicata</i>	catsear
<i>Fragaria vesca</i>	wild strawberry

Outside the confines of the pit are the original fields, which are under sheep pasture. This occurs at the south-western end of the site close to the Glen Ding road and also above the cliff on the south-eastern side of the pit. The surface is generally dry and the vegetation consists of several grass species and a few broad-leaved plants. Characteristic species are:

<i>Cynosurus cristatus</i>	crested dogstail
<i>Anthoxanthum odoratum</i>	sweet vernal grass
<i>Agrostis capillaris</i>	common bent
<i>Poa pratensis</i>	meadowgrass
<i>Dactylis glomerata</i>	cocksfoot
<i>Holcus lanatus</i>	Yorkshire fog
<i>Trifolium repens</i>	white clover
<i>Cerastium fontanum</i>	mouse-ear
<i>Bellis perennis</i>	daisy
<i>Cardamine pratensis</i>	lady's smock
<i>Urtica dioica</i>	nettle
<i>Cirsium arvense</i>	creeping thistle

These species show a moderate level of management with occasional spreading of manure and almost constant grazing. In low places in this grassland near the entrance, creeping buttercup *Ranunculus repens* is prominent and there is a little sweet grass *Glyceria fluitans* also.

Hedges and scrub

Thin hedges surround the fields in the south-western corner, consisting of hawthorn *Crataegus monogyna* and gorse *Ulex europaeus* with germander speedwell *Veronica chamaedrys*, violet *Viola riviniana*, pearlwort *Sagina procumbens* and the moss *Fissidens* sp below. There is also quite a lot of gorse in the centre on hilly ground. A more solid belt of gorse occurs at the northern tip of the site forming the boundary feature. A few plants of autumn gorse *U.gallii* occur at the eastern end of the site where there is a low hedge of bramble *Rubus fruticosus*. Hedges at the south-western side of the abandoned pit contain much crab apple *Malus cf sylvestris*.

Fauna

Rabbit and fox were the only species of mammal seen but there is likely to be some use also by the Irish hare, stoat and brown rat. No evidence of badger was seen and the only possible location for a sett would be on the northern boundary.

Birdlife was similarly scarce in winter through a lack of cover. Meadow pipit, linnet, rook and hooded crow were the only species seen on the open ground. A grey wagtail was feeding in the stream (and a snipe beside it) while a number of 'garden' birds were seen in the scrub here - blackbird, robin, wren, dunnock and song thrush. In summer a colony of about 20 pairs of sand

martins occurs in the disused pit and there are likely to be whitethroat and possibly stonechat and willow warbler in the gorse.

Designations

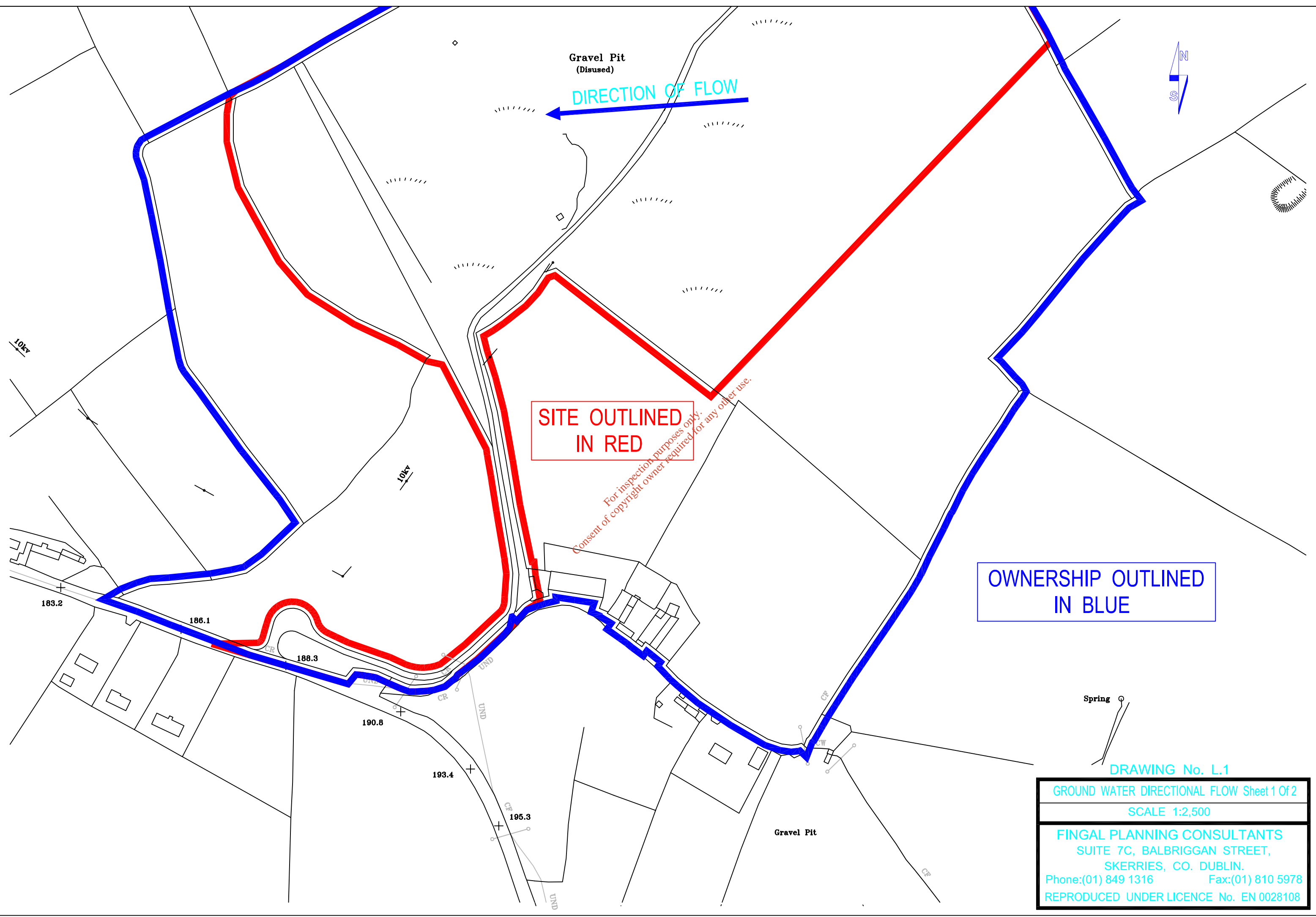
No part of the site is included in a proposed Natural Heritage Area (NHA), existing Area of Scientific Interest or other designated area. The only one nearby is the Red Bog NHA (#397) which has well developed marsh and fen habitat including peaty areas. Similarly there are no priority habitats or species occurring at Wolfestown that are mentioned for special protection by the EU Habitats Directive (92/43/EEC).

The actual presence of inert fill in the area will have little if any impact on the wildlife. Overall the development is unlikely to cause any significant impact except to the local population of sand martins - which is currently small.

Mitigation Measures and Summary

As the project's aim is to restore the land so it can be used for raising bloodstock it is envisaged that the restoration will not have detrimental impact on the local environment flora and fauna. Local species of trees and shrubs will be used in the marginal areas in the southern part of the site to create wildlife habitat. Cattle grazing will be continued at a low level in the northern part to maintain open vegetation and limit the spread of gorse scrub.

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Spring

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DRAWING No. L.1

GROUND WATER DIRECTIONAL FLOW Sheet 1 Of 2
SCALE 1:2,500

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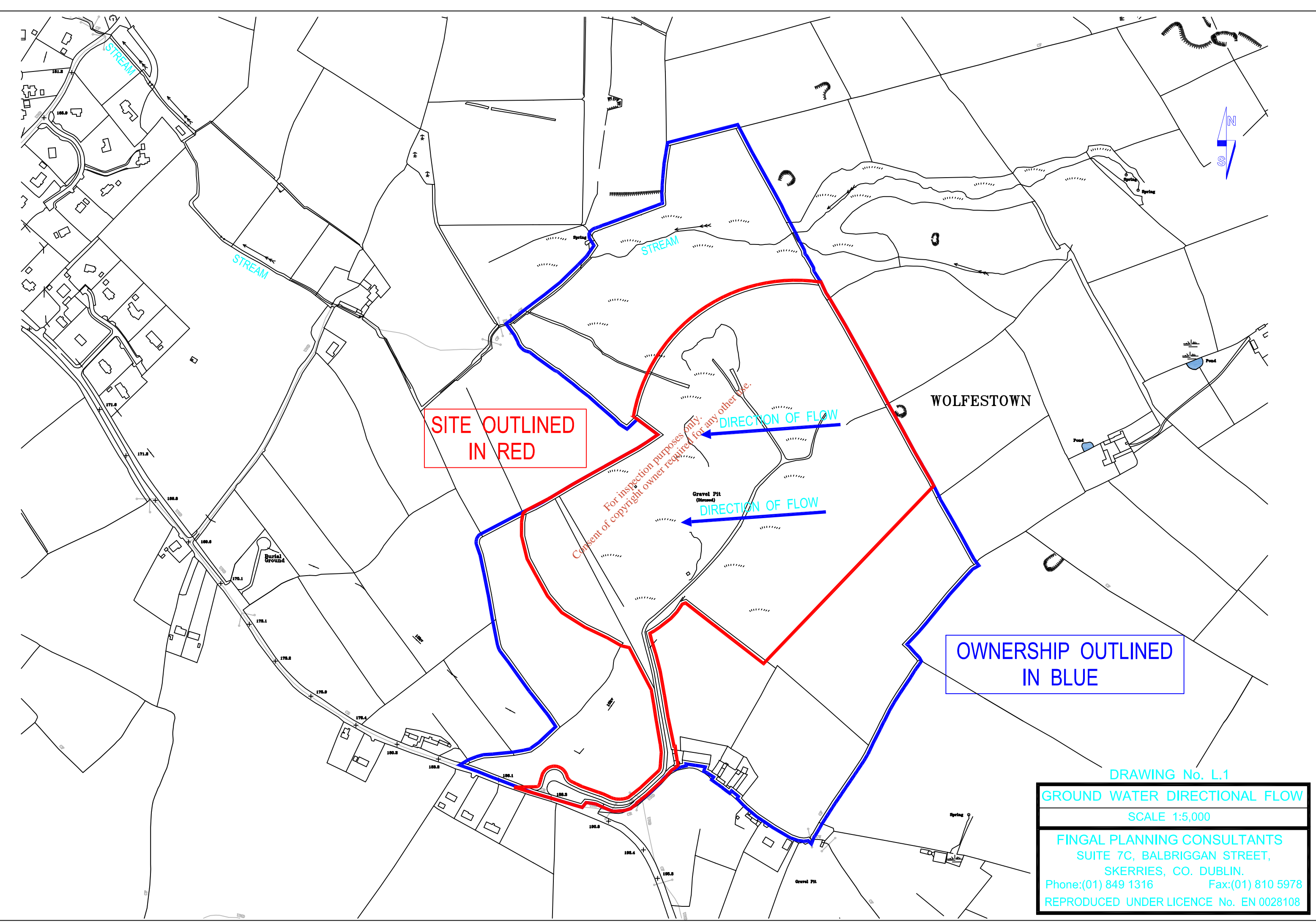
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WOLFESTOWN

DIRECTION OF FLOW

DRAWING No. L.1	
GROUND WATER DIRECTIONAL FLOW Sheet 2 Of 2	
SCALE 1:2,500	
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DIRECTION OF FLOW

DIRECTION OF FLOW

DRAWING No. L.1

GROUND WATER DIRECTIONAL FLOW

SCALE 1:5,000

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Section J Accident Prevention and Emergency Response

J.1 Accident Prevention and Emergency Response

A site safety statement will be developed. Emergency equipment will be maintained on site. Potential fire hazards will be limited to the portacabin area and will be managed locally. All infill material will be inert so risk from the material is minimal.

Portable spill containment will be present on site. Staff will be trained in spill containment and all contaminated material following a spill will be put in suitable receptacle prior to collection by appropriately licensed/permited waste contractor. Fuel materials will be stored in a double skin fuel tank on a concrete plinth.

A notice board will be erected at the site entrance and will contain a contact number for management to be contacted outside normal working hours in the event of an emergency situation. Also local emergencies will be made aware of the site on the granting of the waste licence.

A suitable level of Public Liability insurance including cover for Environmental Impairment, or an agreed alternative, for an amount appropriate to the risks posed by the site will be purchased and maintained by the applicant. Copies of insurance certificates will be submitted on grant of licence

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Section K – Remediation, Decommissioning, Restoration and Aftercare

As the proposed area will be infilled with inert material it is envisage that minimal Remediation, Decommissioning, Restoration and Aftercare will be required. A layer of topsoil (500mm) will be placed over each phase when completed. The capping will restore the landscape similarly to its former state prior to the commencement of the quarry. The land will be restored to its original state as grass land and will be used for raising bloodstock.

Topographical assessments will be carried out on a periodical basis to assess the quality, profile and stability of restored areas. An environmental due diligence audit will be carried to highlight if any further remediation, decommissioning, restoration and aftercare is required. However, as the nature of the material to be deposited is inert it is envisaged no post closure care management plan will be necessary.

Portacabins, portable wheel wash and weighbridge will be removed from site and all fuel tanks and bunds will be safely decommissioned.

See drawing (s) K.1 –for contours of land restoration.

If the Agency grants the licence to carry out this land restoration project, the restored will be used by the land owner to raise bloodstock. This restoration project actually meets the Agriculture and Equine Industry and Extractive Industry objectives of the Kildare National Development Plan 2005-2011 as follows:

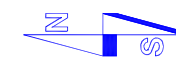
Chapter 10.1.2 Objectives

- (1) To promote a vibrant, environmentally sustainable and well managed agricultural, horticultural, forestry sector and bloodstock / equine industry, which contributes to a dynamic and successful rural economy.
- (2) To encourage rising competitiveness of farm enterprises while ensuring that farm output is produced in an environmentally friendly manner.
- (3) To encourage the diversification of farm production and the establishment of rural enterprise.

and;

Chapter 14.3 Objectives

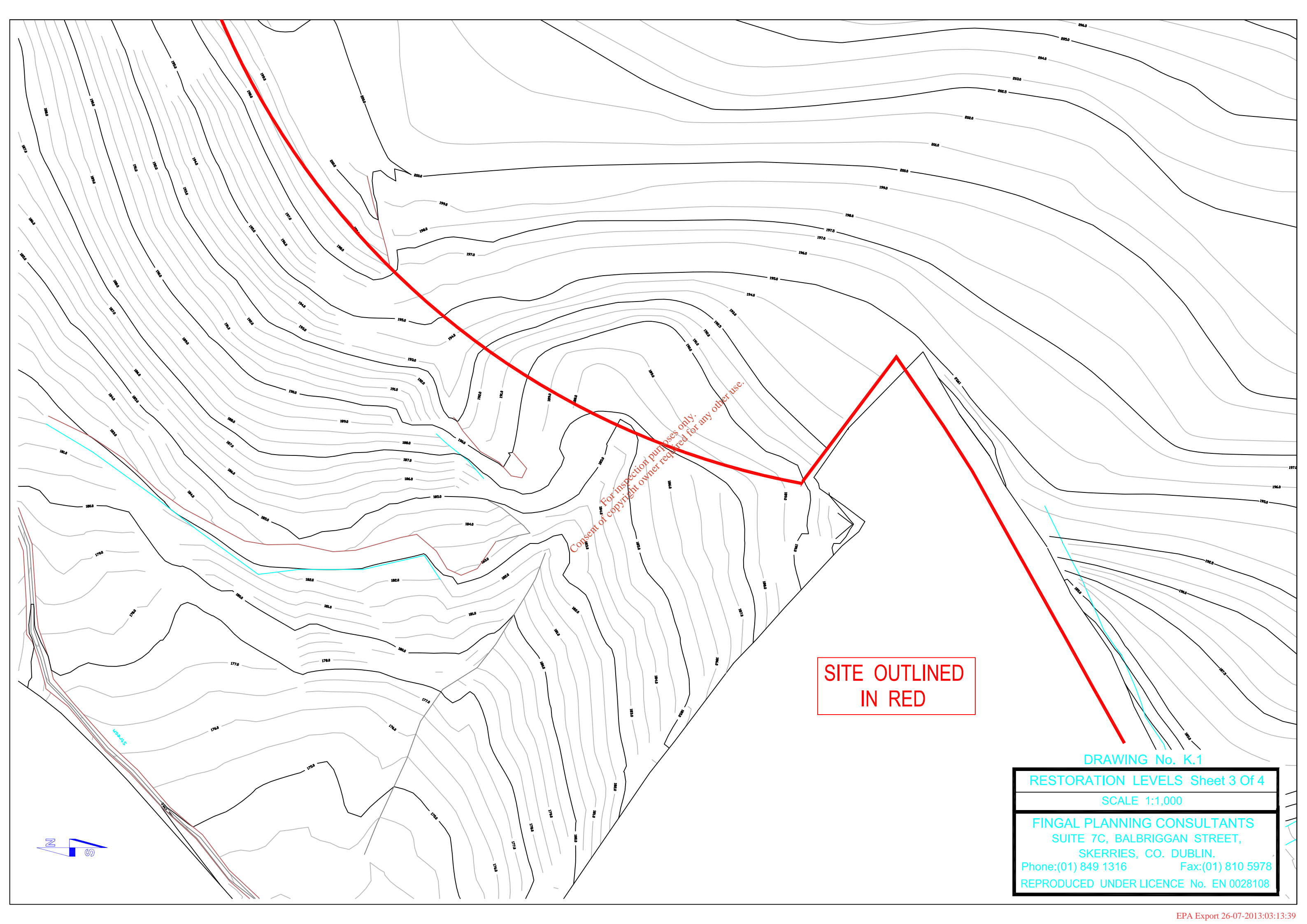
- (2) To ensure that the extractive industry will minimise and/or mitigate any adverse visual and/or environmental impacts on the built or natural environment.



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DRAWING No. K.1	
RESTORATION LEVELS Sheet 2 Of 4	
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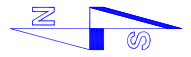
RESTORATION LEVELS Sheet 3 Of 4

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DRAWING No. K.1

RESTORATION LEVELS Sheet 4 Of 4

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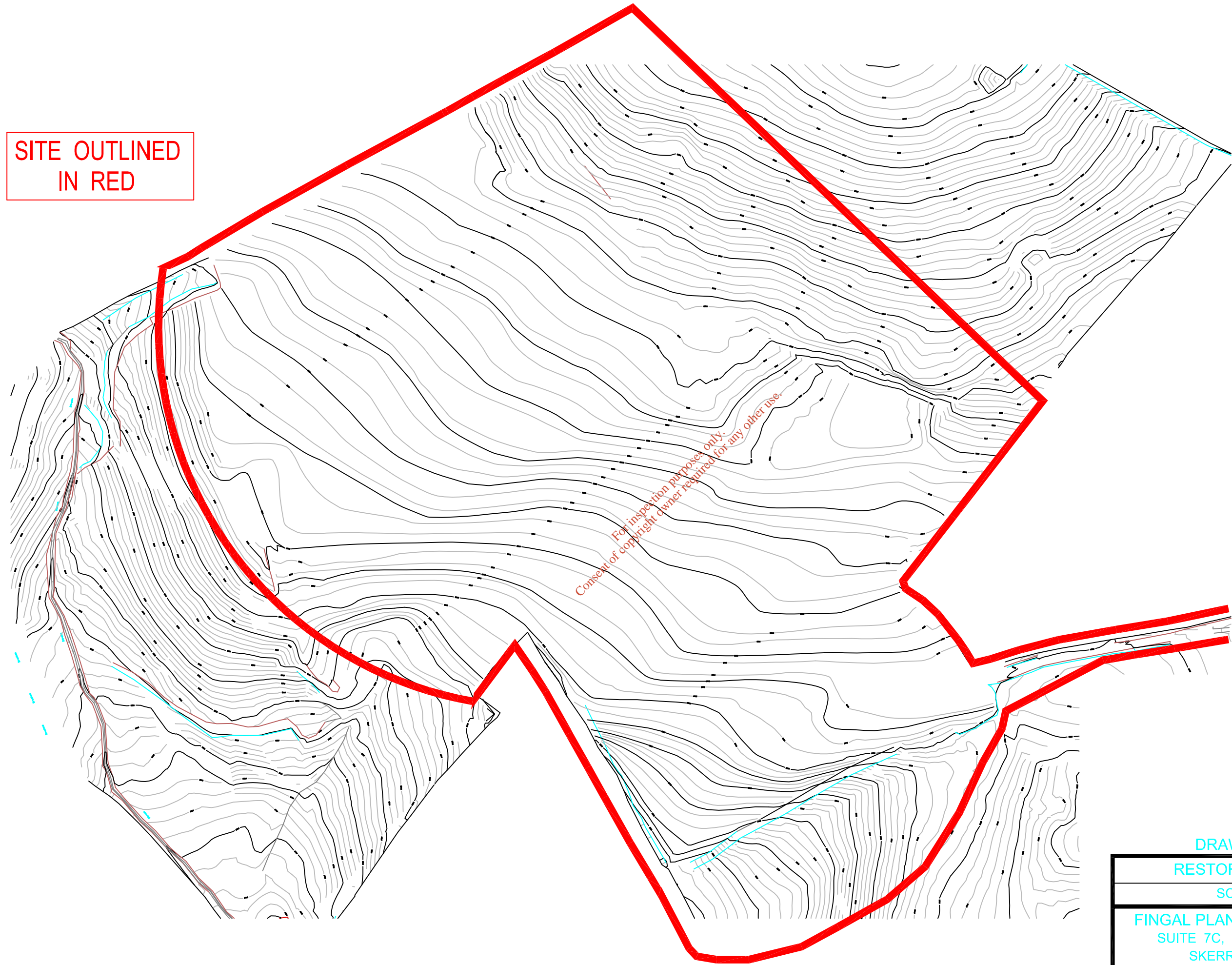
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Section L – Statutory Requirements

L.1 Statutory Requirements

In developing this restoration project, Mr. Morrin has had regard to the requirements of Section 40(4) of the Waste Management Acts 1996-2007. These requirements are addressed as follows:

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.

As the materials used to backfill and restore the application site are inert and non-biodegradable, they do not generate leachate or landfill gas. Accordingly, activities at the site presents only a minimal risk of groundwater contamination, no risk of landfill gas emissions and no risk of bird, litter, odour or vermin nuisance.

During the restoration and operation of the site, there only potential risk of groundwater pollution could from an accidental spillage of fuels or lubricants.

In order to minimise the risk of pollution to groundwater occurring during the site restoration works, a number of mitigation measures are proposed. These measures give effect to Council Directive 80/68/EEC on the protection of groundwater against pollution and are outlined in Section J - Attachments.

An Environmental Management Systems will be put in place to minimise and control emissions to the environment during the restoration works.

b) The activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution; if the activity concerned involves the landfill of waste, the activity carried on in accordance with such conditions as may be attached on the licence, will comply with Council Directive 1999/31/EC on the landfill of waste.

The recovery of inert soil and stones is necessary for the restoration of the site to its previous landform and presents little or no risk to the natural environment. The activity will not generate any leachate or landfill gas.

Inert waste inspection and handling procedures will be put in place to ensure that only material which is demonstrably inert will be placed at this site. An Environmental Management Systems will be put in place to minimize the risk of environmental pollution arising.

The Applicant undertakes to execute the restoration works at the application site in accordance with such further conditions as may be attached to the Waste Licence to prevent environmental pollution.

c) The best available technology not entailing excessive costs will be used to prevent or eliminate or, where that is not practicable, to limit, abate or reduce an emission from the activity concerned; 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 by the relevant local authority or authorities for the purpose of the implementation of such plan.

As the materials used to restore the site are inert, there is little or no risk of potentially contaminated emissions to ground, groundwater or the atmosphere. Therefore, there is little requirement to apply best available technologies to limit, abate and/or reduce ground and/or groundwater emissions. Emphasis will be placed on implementation of stringent waste acceptance and inspection procedures to ensure that only appropriate inert material is used for site restoration purposes at the site.

Recycling of inert construction and demolition wastes will require use of conventional crushing and screening equipment. The use of this plant and equipment will generate noise and dust emissions. Noise and dust management will be effected, as required.

As part of the application process, the applicant, Mr. Morrin has assessed the requirements of the Kildare County Development Plan 2005-2011 (Section 14) and the Kildare Waste Management Plan (2005-2011). This restoration project is consistent with their stated objectives.

d) If the applicant is not a local authority, the cooperation of a borough that is not a country borough, or the council or an urban district, subject to subsection (8), he or she is a fit and proper person to hold a waste licence.

Refer to Attachment L2.

e) The applicant has complied with any requirements under Section 53.

Mr. Morrin will furnish such particulars, and make such financial provisions as are deemed necessary by the Agency in respect of the implementation and/or completion of the proposed restoration scheme.

f) Energy will be used efficiently in the carrying on of the activity concerned.

Plant and equipment required to undertake the proposed restoration scheme will be powered by diesel fuel. Energy use will be minimised insofar as practicable.

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.

Noise emissions from plant and equipment will be controlled and monitored to comply with such limits and conditions as may be imposed by a Waste Licence issued in respect of the proposed restoration works.

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.

Refer to Section J (Attachments)

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 satisfactory state.

Refer to Section K (Attachments).

All emission from the site will be monitored in accordance with the requirements of the Waste License. Any instances of non conformances in relation to the conditions of the Waste Licence will be swiftly addressed by applying Best Available Technology to ensure no reoccurrence of non conformity. When determining BAT the applicant will consider Annex IV of Council Directive 2008/1/EC concerning integrated pollution prevention and control.

L.2 Fit and proper person

John Morrin the applicant:

- Has never been convicted under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.
- Will acquire the services of appropriately qualified consultants to carry out assessment or offer guidance in relation to any technical issues arising from the waste licence activity
- Ensure that any site supervisor will complete the appropriate FAS Waste Management Training or equivalent
- Will complete himself the appropriate FAS Waste Management Training or equivalent
- Will provide relevant information (to be held confidential) to show that he is in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application relates or in consequence of ceasing to carry out that activity.

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