

## VARIATION NOTICE

Pollution Prevention and Control Act 1999  
The Environmental Permitting (England and Wales) Regulations 2010,  
Regulation 20

Certified a true copy of a notice  
served by me. Addressed as

this copy

Internal  
3x Post

Date 15.06.10

Name V. Paddy

Signature



IPSWICH  
BOROUGH COUNCIL

PPC Permit Ref: 5.1/AJO/1/08  
Variation notice Ref: WK/201001924  
EP Permit Ref: CR1/VPA/04/10

To:

**Ipswich Crematorium, Cemetery Lane, Ipswich, IP4 2TZ**

Ipswich Borough Council ("the Council"), in the exercise of the powers conferred upon it by regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 hereby gives you notice as follows:

The Council has decided to vary the conditions of permit reference 5.1/AJO/1/08 granted under regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 in respect of the operation of the installation at **Ipswich Crematorium, Cemetery Lane, Ipswich, IP4 2TZ**.

The varied consolidated permit and the date on which it takes effect are specified in Schedule 1 to this notice.

Signed on behalf of Ipswich Borough Council

.....  
Environmental Protection Manager  
An authorised Officer of the Council

Date: 14 June 2010

Permit issued by:

Environmental Protection Services  
Ipswich Borough Council  
Floor 4 East  
Grafton House  
15-17 Russell Road  
Ipswich  
IP1 2DE

Telephone: 01473 433053 or 01473 433112  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
Email: [environmentalprotection@ipswich.gov.uk](mailto:environmentalprotection@ipswich.gov.uk)

## Schedule 1

The conditions contained in the varied consolidated permit Ref: **CR1/VPA/04/10** overleaf come into effect immediately.

Signed on behalf of Ipswich Borough Council

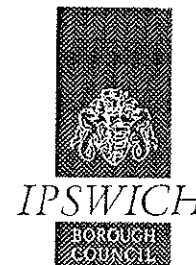


.....  
Environmental Protection Manager  
An authorised Officer of the Council

Date: 14 June 2010

# Permit with Introductory Note

The Pollution Prevention and Control Act 1999  
Environmental Permitting (England and Wales) Regulations 2010



Ipswich Crematorium  
Cemetery Lane  
Ipswich  
IP4 2TZ

Permit Ref: CR1/VPA/04/10

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## Chronicle

Detail	Date	Comments
First authorised	25 September 1992	5.1b/1/CFB
Variation Notice	1 March 1993	5.1b/1/V1
Variation Notice	23 August 1993	5.1b/1/V2
Variation Notice	23 February 1994	5.1b/1/V3
LAPPC Deemed Application	1 April 2004	Duly made
Temporary Permit	5 May 2004	5.1/RJD/1
Consultation Permit	25 October 2005	5.1/RJD/1/05
Permit	1 November 2005	5.1/RJD/1/05
Variation Notice	August 2008	5.1/AJO/1/08
Draft Permit	April 2010	CR1/VPA/01/10
Permit	June 2010	CR1/VPA/04/10
Variation Notice	June 2010	WK/201001924

## Permit issued by:

Environmental Protection Services  
Ipswich Borough Council  
Grafton House  
15-17 Russell Road  
Ipswich  
IP1 2DE

Telephone: 01473 433115  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
Email: [environmentalprotection@ipswich.gov.uk](mailto:environmentalprotection@ipswich.gov.uk)

## **INTRODUCTORY NOTE**

### ***This introductory note does not form part of the permit***

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 (S.I.2010 No. 675), hereinafter referred to as the EP Regulations, to operate a scheduled installation carrying out an activity, or activities covered by the description in section 5.1 in Part 2 to Schedule 1 of the EP Regulations, to the extent authorised by the Permit.

Conditions within this Permit detail Best Available Techniques (BAT), for the management and operation of the installation, to prevent, or where that is not practicable, to reduce emissions.

The definition of BAT is 'the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole'.

In determining BAT, the Operator should pay particular attention to relevant sections of the Secretary of State's Guidance for Crematoria – Process Guidance Note 5/2(04), and any other relevant guidance. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Note that the Permit requires the submission of certain information to Ipswich Borough Council, hereinafter referred to as the Regulator, and in addition, the Regulator has the power to seek further information at any time under Regulation 60 of the EP Regulations provided that the request is reasonable.

## **Public Registers**

Information relating to Permits, including the application, is available on public registers in accordance with the EP Regulations. Certain information may be withheld from the public registers where it is commercially confidential, or if it is in the interest of national security to do so.

## **Variations to the Permit**

The Regulator may vary the permit in the future, by serving a variation notice on the Operator. Should the Operator want any of the conditions of the Permit to be changed, a formal application must be submitted to the Regulator (the relevant forms are available from the Regulator). The Status Log that forms part of this introductory note will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

## **Transfer of the Permit or Part of the Permit**

Before the Permit can be wholly or partially transferred to another Operator, an application to transfer the Permit has to be made jointly by the existing and proposed Operators. A transfer will not be approved if the Regulator is not satisfied that the proposed Permit holder will be the person having control over the operation of the installation, or will not comply with the conditions of the transferred Permit. In addition, if the Permit authorises

the Operator to carry out a specified waste management activity, the transfer will not be approved if the Regulator does not consider the proposed Permit holder to be a 'fit and proper person' as required by the EP Regulations.

### **Surrender of the Permit**

Where an Operator intends to cease the operation of an installation (in whole or in part) the Regulator should be informed in writing. Such notification must include the information specified in Regulation 24(3) of the EP Regulations.

### **Responsibility under Workplace Health and Safety Legislation**

The permit is given in relation to the requirements of the EP Regulations. It must not be taken to replace any responsibilities an Operator may have under the workplace health and safety legislation.

### **Appeal Against Permit Conditions**

Any person who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be received by the Secretary of State no later than 6 months from the date of the decision (the date of the Permit).

Appeals relating to installations in England should be received by the Secretary of State for Environment, Food & Rural Affairs. The address is as follows:

**The Planning Inspectorate  
Environmental Appeals Administration  
Room 4/19 – Eagle Wing  
Temple Quay House  
2 The Square  
Temple Quay  
Bristol, BS1 PN**

The appeal must be in the form of a written notice or letter stating that the person wishes to appeal and listing the condition(s) which is/are being appealed against. The following five items must be included:

- (a) A statement of the grounds of appeal;
- (b) A copy of any relevant application;
- (c) A copy of any relevant Permit;
- (d) A copy of any relevant correspondence between the person making the appeal and the Council;
- (e) A statement indicating whether the appellant wishes the appeal to be dealt with.
  - by a hearing attended by both parties and conducted by an inspector appointed by the Secretary of State; or
  - by both parties sending the Secretary of State written statements of their case (and having the opportunity to comment upon one another's statements).

At the same time, the notice of appeal and documents (a) and (e) must be sent to the Council, and the person making the appeal should inform the appropriate Secretary of State that this had been done.

- An appeal will not suspend the effect of the conditions appealed against; the conditions must still be complied with.
- In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority to either vary any of these conditions or to add new conditions.

### **Copyright of any maps if provided with this Permit**

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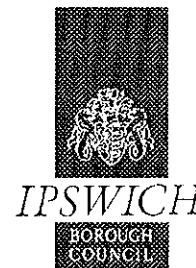
### **Talking to us**

Please quote the Permit Number if you contact the Regulator about this Permit. To give a notification the Operator should telephone 01473 433012 or any other number notified in writing by the Regulator for that purpose.

***~ End of Introductory Note~***

# Permit

**The Pollution Prevention and Control Act 1999  
Environmental Permitting (England and Wales) Regulations 2010**



**Permit Ref No: CR1/VPA/04/10**

Ipswich Borough Council in exercise of its powers under Regulation 13 of The Environmental Permitting (England and Wales) Regulations 2010, hereby authorises:

**Ipswich Crematorium**

whose registered office is:

**Ipswich Crematorium  
Cemetery Lane  
Ipswich  
IP4 2TZ**

to operate an installation at:

**Ipswich Crematorium  
Cemetery Lane  
Ipswich  
IP4 2TZ**

to the extent authorised by and subject to the conditions of this Permit.

Signature:

Steve Rock  
Environmental Protection Manager  
The Authorised Officer for this purpose

Date:

**Permit issued by:**

Environmental Protection Services  
Ipswich Borough Council  
Grafton House  
15-17 Russell Road  
Ipswich  
IP1 2DE

Telephone: 01473 433053 or 01473 433112  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
Email: [environmentalprotection@ipswich.gov.uk](mailto:environmentalprotection@ipswich.gov.uk)

## OPERATING CONDITIONS

### Process Description

The cremation of human remains is carried out at Ipswich Crematorium, Cemetery Lane, Ipswich, IP4 2TZ. There are three cremators located within the crematorium as shown on the attached site plan 1, Appendix A.

The attached site location plan 2, Appendix A, shows the location of the site and its boundary.

### Emission limits, monitoring and other provisions

1.

Row	Substance	Concentration limits	Monitoring frequency
1	Hydrogen chloride (excluding particulate matter)	200mg/m <sup>3</sup> averaged over an hour	Annual
2	Total particulate matter from cremator	80mg/m <sup>3</sup> averaged over an hour for 95% of cremations and 160mg/m <sup>3</sup> averaged over an hour for 95% of cremations	Continuous indicative Annual
3	Carbon monoxide	100mg/m <sup>3</sup> averaged over the first hour for 95% of cremations and 200mg/m <sup>3</sup> averaged over the first hour for all cremations.	Continuous indicative Annual
4	Organic compounds (excluding particulate matter) expressed as carbon	20mg/m <sup>3</sup> averaged over an hour of cremation	Annual

Row	Substance	Combustion provision	Type of monitoring	Monitoring frequency
5	Temperature	Minimum of 1123K (850°C) in secondary combustion chamber	Measure at the entrance and after the exit from the secondary combustion zone  Automatically record temperatures  Visual alarm when temperature falls below 1123k	Continuous  Continuous  Record alarm activations
6	Oxygen	At the end of secondary combustion chamber, measured wet or dry, minimum	Monitor and record concentration at outlet of secondary combustion zone.	Continuous  Activate alarm when oxygen falls below



		average 6% and minimum 3%	Visual alarm and record alarm activations  During discontinuous tests, continuous reference oxygen measurements should be at the same sampling location as the parameters tested.	provision.
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2. The Operator shall keep records of inspections, tests and monitoring, including all non-continuous monitoring inspections and visual assessments. The records shall be:
  - (i) kept on site
  - (ii) kept by the Operator for at least two years, and
  - (iii) made available for an authorised officer of Ipswich Borough Council to inspect.
3. The Operator shall provide a list of key arrestment plant and shall have a written procedure for dealing with its failure, in order to minimise any adverse effects.
4. The Operator shall notify Ipswich Borough Council at least seven days before any periodic monitoring exercise to determine compliance with emission limit values. The Operator shall state the provisional time and date of monitoring, pollutants to be tested and methods to be used.
5. The results of non-continuous emission testing shall be forwarded to Ipswich Borough Council within eight weeks of the completion of the sampling.
6. Adverse results from any monitoring activity (both continuous and non-continuous) shall be investigated by the Operator as soon as the monitoring data has been obtained. The Operator shall:
  - (i) Identify the cause and take corrective action
  - (ii) Record as much detail as possible regarding the cause and extent of the problem, and the action taken by the Operator to rectify the situation.
  - (iii) Retest to demonstrate compliance as soon as possible; and
  - (iv) Notify Ipswich Borough Council.
7. Emissions from cremations should be free from visible smoke and in any case shall not exceed the equivalent of Ringelmann Shade 1 as described in British Standard BS2742:1969.
8. There shall be no offensive odour beyond the process boundary, as perceived by an authorised officer of Ipswich Borough Council.

9. Visual and olfactory assessments of emissions shall be made frequently and at least once each day whilst the process is in operation. The time, data, location and result of these assessments shall be recorded.
10. All releases to air, other than condensed water vapour, shall be free from persistent visible emissions.
11. All emissions to air shall be free from droplets.
12. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the Operator shall:
  - (i) Investigate and undertake remedial action immediately.
  - (ii) Adjust the process or activity to minimise those emissions; and
  - (iii) Promptly record the events and actions taken.
13. Ipswich Borough Council shall be informed without delay:
  - (i) If there is an emission that is likely to have an effect on the local community; or
  - (ii) In the event of the failure of key arrestment plant; or
  - (iii) If continuous monitoring results exceed twice the specified emission limit.
14. Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.
15. Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11%.

### **Continuous Monitoring**

16. All continuous monitoring readings shall be on display to appropriately trained operating staff.
17. Instruments shall be fitted with audible and visual alarms, situated appropriately to warn the operator of arrestment plant failure or malfunction.
18. Trained operating staff shall record the activation of alarms either automatically or manually each time they occur.
19. All continuous monitors shall be operated, maintained and calibrated in accordance with the manufacturer's instructions, which shall be made available for inspection by an authorised officer of Ipswich Borough Council. The relevant maintenance and calibration (or referencing) shall be recorded.
20. All new continuous monitoring equipment shall be designed for less than 5% downtime over any three-month period.

21. For each cremator, for carbon monoxide and for particulate matter, the Operator shall report the following continuous monitoring values to Ipswich Borough Council every six months:
- (i) Monthly or four weekly averages from the first hour of each cremation.
  - (ii) Values that exceed the 95% limit for each substance in condition 1 in that period for each cremation.
  - (iii) 60 minute mean emission values that exceed the 100% limit for each substance in Condition 1 in that period for each cremation.
  - (iv) A list of the highest 60-minute mean emission value for each period.
  - (v) The 95 percentile value for each period.
22. For temperature, oxygen and residence time, the Operator shall report the following continuous monitoring values to Ipswich Borough Council every six months:
- (i) Secondary chamber entrance temperature and four weekly/monthly maximum and minimum.
  - (ii) Secondary chamber exit temperature and four weekly/monthly maximum and minimum.
  - (iii) Oxygen concentration four weekly/monthly minimum.
  - (iv) Residence time four weekly/monthly minimum.
23. No results shall exceed the emission concentration limits specified, except where either:-
- (i) Data is obtained over at least five sampling hours in increments of 15 minutes or less; or
  - (ii) At least 20 results are obtained where sampling time increments of more than 15 minutes are involved, AND in the case of (i) or (ii).
  - (iii) No daily mean of all 15 minute mean emission concentrations shall exceed the specified emission concentration limits during normal operation (excluding start up and shut down); and
  - (iv) No 15 minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operation (excluding start up and shut down).

### **Non Continuous Monitoring**

24. Non continuous emissions monitoring of particulate matter shall be carried out according to the main procedural requirement of BS150 9096:2003, with averages taken over operating periods, excluding stop up and shut down.
25. The Operator shall ensure that adequate facilities for sampling are provided on vents or ducts.
26. The results of all non-continuous emission testing shall be forwarded to the local authority within 8 weeks of the completion of the sampling.

### **Control Techniques**

27. PVC and melamine shall not be used in coffin construction or furnishings.
28. Cardboard coffins shall not contain chlorine in the wet-strength agent.
29. Packaging for stillbirth, neonatal and foetal remains shall not include any chlorinated plastics.
30. Coffins containing lead or zinc shall not be cremated.
31. The cremator shall be designed and operated in order to prevent the discharge of smoke, fumes, or other substances during charging.
32. The charging system shall be interlocked to prevent the introduction of a coffin to the primary combustion zone unless the secondary combustion zone temperature exceeds the specified good combustion in the permit.
33. The cremator and all ductwork shall be made and maintained gastight if under positive pressure to prevent the escape of gases from the ductwork or cremator to air.
34. All cremators shall be designed to ensure complete combustion and shall be fitted with a secondary combustion zone.
35. The manufacturer shall state the volume of the secondary combustion zone.
36. When rebricking a cremator, the convolutions of the secondary combustion chamber shall be maintained and the volume of the chamber recalculated and restated.
37. The remains in the cremator shall only be moved when calcinations is completed.
38. The removal of ash and non-combustible residues from the cremator shall be undertaken carefully so as to prevent dust emissions via the flue.
39. Cremated remains shall be moved and stored in a covered container.

### **Stacks**

40. Flues and ductwork shall be cleaned to prevent accumulation of materials, as part of the routine maintenance programme.
41. Stacks or vents shall not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone which may be necessary to increase the velocity of the emissions.

## **Management**

42. The Operator shall be aware that important elements for effective control of emissions shall include:
- (i) proper management; supervision and training for process operations
  - (ii) proper use of equipment
  - (iii) effective preventative maintenance on all plant and equipment concerned with the control of emissions to the air; and
  - (iv) ensure that spares and consumables are available at short notice in order to rectify breakdowns rapidly. This is important with respect to arrestment plant and other necessary environmental control. It is useful to compile a list of essential items.
43. The Operator shall keep spares and consumables on site, in particular those subject to continual wear, or shall be available at short notice from a guaranteed supplier.
44. The Operator shall implement suitable and sufficient management systems to provide an effective technique for ensuring that all pollution prevention and control techniques (BAT) are delivered reliably and on an integrated basis.

## **Training**

45. The Operator shall ensure staff at all levels need the necessary training and instruction in their duties relating to control of the process and emissions to air.
46. The Operator shall ensure that training of all staff with responsibility for operating the process shall include:
- (i) awareness of their responsibility under the permit
  - (ii) actions to minimise emissions during abnormal conditions
47. The Operator shall maintain a statement of training requirements for each operational part and keep a record of the training received by each person whose actions may have an impact on the environment. These documents shall be made available to an authorised officer of Ipswich Borough Council at their request.

## **Maintenance**

48. The Operator shall employ an effective preventative maintenance on all aspects of the process including all plant, buildings and the equipment concerned with control of emissions to air. In particular:
- (i) a written maintenance programme shall be provided to the regulator with respect to pollution control equipment;
  - (ii) a record of such maintenance shall be made available for inspection; and
  - (iii) cleaning schedules shall be available on site.

## **Notifications**

49. The Operator shall notify Ipswich Borough Council without delay of:
- (i) the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution; and
  - (ii) any accident, which has caused, is causing or has the potential to cause significant pollution.
50. The Operator shall give written notification as soon as practicable prior to any of the following:
- (i) permanent cessation of the operation of part or all of the Permitted Installation;
  - (ii) cessation of operation of part or all of the Permitted Installation for a period likely to exceed one year; and
  - (iii) resumption of the operation of part or all of the Permitted Installation after a cessation has been notified.
51. The Operator shall notify the following matters to Ipswich Borough Council in writing within 14 days of their occurrence:
- (i) any change to the operation capable of altering the substances from the operation;
  - (ii) any change in the Operator's trading name, registered name or registered office address;
  - (iii) any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary);
  - (iv) any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement, or being wound up.

In this condition, 'change in operation' shall mean a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

52. The best available techniques shall be used to prevent or, where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation which is not regulated by any other condition of this permit.
53. The operator shall send the regulator, by no later than 1 June 2010 and 1 April in each year thereafter, a certificate from the Crematoria Abatement of Mercury Emissions Organisation (CAMEO organisation) or appropriate evidence from a comparable audited burden sharing arrangement or scheme which specifies:
- (i) the total number of cremations in the past 12 months;
  - (ii) the number of cremations undertaken in cremators fitted with operational mercury abatement equipment in the previous 12 months;
- or

- (iii) the number of cremations undertaken in the previous 12 months and the proportion of those subject to burden sharing arrangements under which money is paid for the benefit of abated crematoria; or
- (iv) in cases where mercury abatement is fitted but fewer than 50% of cremations at the installation were undertaken in cremators fitted with it in the previous 12 months, the relevant information in both (ii) and (iii).

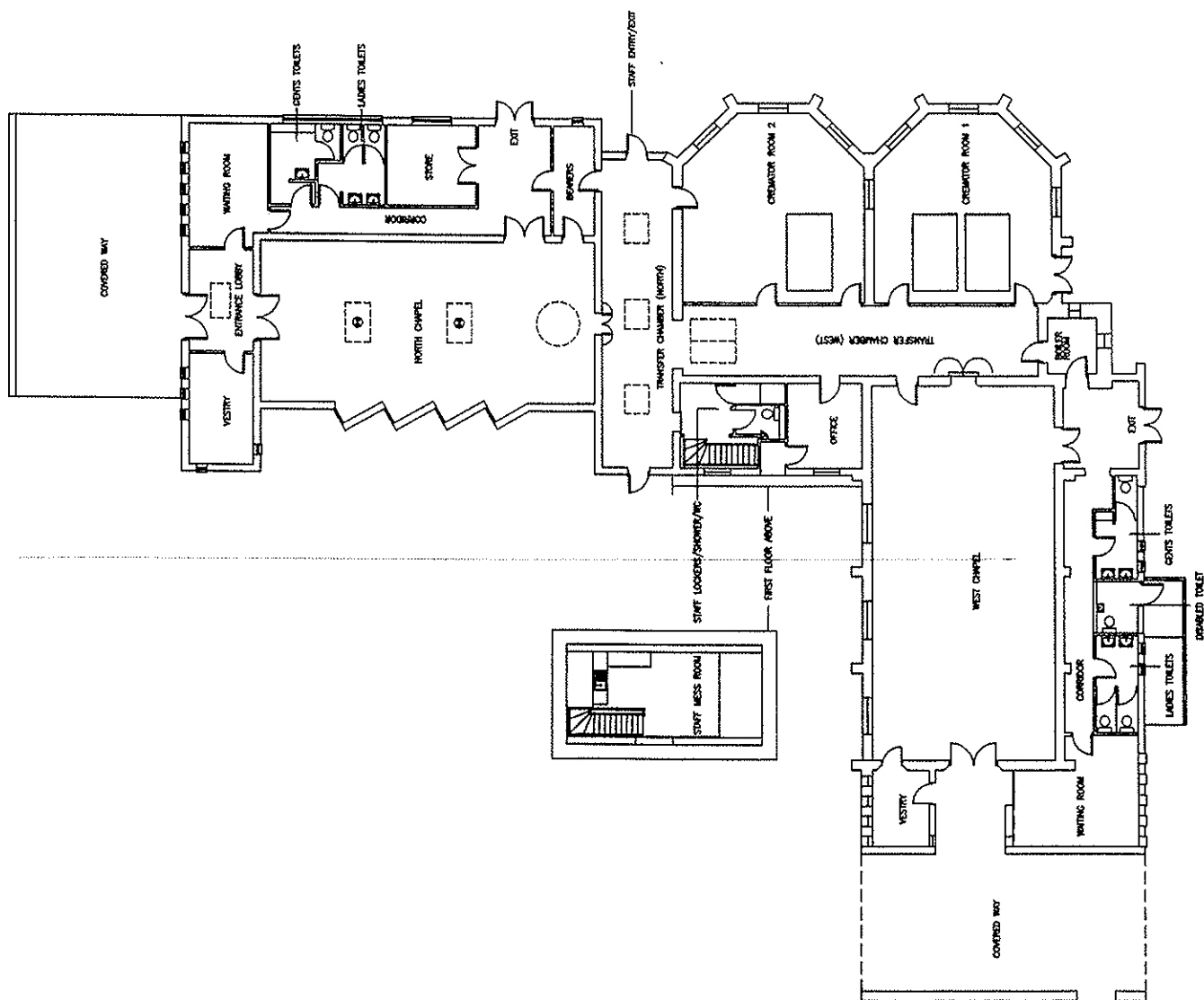
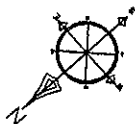
***~End of Permit~***

## **Appendix A**



# SITE PLAN 1

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Rev	Date	Description
C	04.11.04	Outline of plan of rooms added on paper layer.
A	23.03.00	Plan of rooms added on paper layer.
		Room names added/corrected.

Project	CREMATORIUM
Drawing Title	PLANS AS EXISTING

Scale	NIS	Checked	NIS
Date	21/01/99	Drawn	EPB
Drawing No		Issued	

Building & Design Services
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**IPSWICH**  
**BOROUGH**  
**COUNCIL**

CEMETERY AND  
CREMATORIUM

Draining Title SITE LOCATION PLAN  
NEW/LAWN CEMETERY  
AND CREMATORIUM

## Buildings & Design Services

Scale	25	Checked	Drawn	JK
Date	23/09/02			