

# Statutory Requirements

## Attachment L1

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

The following provides details of how the Operator intends to meet the requirements of Section 40(4) of the Waste Management Acts (1996-2003). Each Sub-section within the Act is addressed individually.

**L1.1 Section 40(4) The Agency will not grant a licence unless it is satisfied that -**

**(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,**

There are only two point source air emissions from the activity. These are two air emissions stacks (A1-1 & A2-1) associated with the air abatement systems installed on site. The air emissions contain entrained particulates (fine metals and powders) and have been fitted with a series of cyclones and bag filters in accordance with the requirements of BAT.

A preliminary screening methodology was employed to determine if these point source air emissions were likely to have a discernable, negative impact on the surrounding environment. Emissions monitoring results for a comparable site (in Switzerland) indicate that the total particulate emissions from emission point A1-1, the more significant emission source, are below the relevant guideline limit (i.e. 1mg/Nm<sup>3</sup> dust, compared with a BAT guideline value of 20mg/Nm<sup>3</sup>). In addition, the maximum predicted ground level concentration/deposition level was also below the relevant guideline limit (1.7 µg/m<sup>3</sup>, compared with an EAL guideline value of 50 µg/m<sup>3</sup>).

Therefore, based upon the available data, no significant impacts with regards to air emissions were identified. The methodology used for the assessment is presented in the Environmental Report (*Attachment I*). No other air emissions monitoring results were available at the time of the Licence Application.

It is noted that the impact assessment was based upon monitoring data obtained from a sister site, (using identical equipment and abatement systems), in Switzerland. The Operator is committed to monitoring the air emissions from both A1-1 and A2-1 as may be required under the Waste Licence (refer *Attachment F2* for details), to verify the results of the preliminary impact assessment.

In addition, good management practices are used to help minimise general 'fugitive' air emissions from the activity, including:

- Keeping doors, loading bays and access ways closed unless in use;
- Prohibiting the outdoor storage of raw materials, products or wastes;

- Maintenance of hardstanding surfaces (internal and external) in good condition, *Karcher* KM85/50W sweeper is in use on site;
- Use of good housekeeping to help ensure a clean, dust free site; and
- Turning off vehicle engines while awaiting, and during loading/unloading activities.

There are no process wastewater emissions from the activity and there are no floor drains or other uncontrolled sewer access points inside the production building. Additionally, there are minimal quantities of liquid materials stored on the site (e.g. equipment containing oils) and no process chemical use or storage.

The only direct release to the municipal sewer is from the onsite staff amenity facilities. The Operator proposes to collect water from the air compressor system in drums and dispose of it at an appropriately licensed off-site facility as a potentially hazardous waste. The water will be passed through an oil/water interceptor before it is collected for off-site disposal (refer *Attachment D1*).

Surface water is collected from the roof and hardstanding areas on the Site and is discharged directly to the local surface water system without abatement. There are no links to the surface water system from inside the building. No activities, (other than vehicle movements), or storage of any kind will be undertaken outside of the building. Therefore, the potential for the release of contaminating substances outside of the production building and subsequent contamination of the surface water systems is considered to be negligible. Details of the surface water drainage are provided in the Environmental Report (*Attachment I*).

Noise emissions from potentially noisy equipment (e.g. the QZ Machine and Hammer Mill), have been minimised by the installation of purpose-designed noise abatement housings around each of these units and anti-vibration concrete flooring beneath the equipment. The specifications of the equipment indicate that the associated noise abatement housing is designed to provide an operating noise level 85dB(A) immediately adjacent (and external) to the machine. Further details are outlined in the Operating Manuals, which have been submitted separately as commercially sensitive information.

Environmental noise monitoring was undertaken at the Site, both prior to, and following the commencement of the activity. A summary of the results is presented in the Tables in *Attachment E5*. As indicated, the onsite activities are anticipated to have minimal impact on the immediate surrounding industrial area, and no discernable impact on the nearest potentially sensitive receptors (in this case, residential premises).

In addition, good management practices are used to help minimise general 'fugitive' noise emissions including:

- Keeping doors, loading bays and access ways closed unless in use;

- Prohibiting any outdoor activities (other than vehicle movements);
- Restriction of vehicle delivery times; and
- Turning off vehicle engines while awaiting, and during loading/unloading activities.

*(b) the activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution,*

Based on the available information, the Site is not predicted to have a significant impact on the surrounding environment. This will be ensured through the control of the emissions as indicated in Section L1.1(a) of this Attachment and the use of Best Available Technology (BAT) as described in the following section, L1.1(c).

*(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,*

*(bb) the activity concerned is consistent with the objectives of the relevant waste management plan or the hazardous management plan, as the case may be, and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan*

The technology being employed in the recycling process has been in existence for many years. *Immark*, the company that developed the equipment being used on-site, is the market leader in the provision of WEEE recycling equipment in Europe and are continually upgrading and developing the technologies used in the process. The equipment being installed has benefited from this process of continual improvement so that the maximum amount of recycling can be achieved. In particular, the QZ Machine has been developed to avoid shredding of the WEEE, which allows components containing hazardous substances (e.g. capacitors and batteries) to be removed intact.

At every point in the process, the aim is to separate out the different fractions to the highest degree practicable, to ensure the maximum potential for reuse and higher resale value. This practice also helps minimise the potential for cross-contamination with hazardous components within the WEEE.

In addition, the following aspects of Best Available Technology (BAT), as detailed in the BREF Guidance Note for the Waste Sector, will be implemented:

#### *Environmental Management System (EMS)*

The Site intends to develop and implement an EMS that incorporates the following features:

- An environmental policy for the installation defined and approved by top management (commitment of the top management is regarded as a precondition for a successful application of the EMS);
- Planning and establishment of the necessary procedures;
- Implementation of the procedures, paying particular attention to:
  - Structure and responsibility;
  - Training, awareness and competence;
  - Communication;
  - Employee involvement;
  - Documentation;
  - Process control;
  - Maintenance programme;
  - Emergency preparedness and response; and
  - Safeguarding compliance with environmental regulations.
- Monitoring performance and taking corrective actions where required, paying particular attention to:
  - Monitoring and measurement;
  - Corrective and preventative actions;
  - Maintenance of records; and
  - Independent (where practicable) internal auditing to determine whether or not the environmental management system conforms to planned arrangements and has been properly implemented and maintained.

The EMS will be reviewed regularly by top management. The Operator also intends to seek third-party certification of the EMS. Furthermore, the Operator intends to compile details of all key activities carried out on site including:

- Descriptions of the waste acceptance, segregation and recovery methods as formal procedures;
- Diagrams of the main plant items, together with process flow diagrams;
- Details of the control systems including how the system incorporates the environmental monitoring information; and
- Monitoring of key emissions.

In addition, the Operator will:

- Implement good housekeeping procedures;
- Maintain an Accident Prevention and Spill Control Plan;
- Maintain an Incident and Complaints Reporting Procedure;
- Maintain a close relationship with their waste producers and collectors to help ensure the required quality of waste;
- Have sufficient staff available and on duty with the requisite qualifications at all times; and
- Ensure that all personnel undergo specific job related training.

## *Waste Acceptance & Handling*

The Site will implement a Pre-acceptance Procedure containing at least the following items:

- Logging of incoming waste onto the computerised tracking system (We<sup>3</sup>) by the collection contractors prior to it's receipt at the gate;
- Ensuring that sufficient storage and treatment capacity is available at the time of delivery;
- Where possible, a system for transferring contaminated wastes to an appropriately licensed facility, prior to it's receipt at the gate (e.g. asbestos or PCB containing wastes);
- Inspection of the incoming waste and determination of its suitability for treatment;
- Ensuring that all necessary information is received on the source of the waste and verifying its input on We<sup>3</sup>,
- Analysing representative samples of the waste, where appropriate;
- Verifying that the correct code has been used according to the European Waste Catalogue (EWC); and
- Identifying alternate offsite treatment/disposal facilities where the site is unable to treat the waste stream.

The Site will further implement a Waste Acceptance Procedure containing the following items;

- A clear system and appropriate tools to allow the operator to identify and accept wastes at the site plant;
- A system (We<sup>3</sup>) to fully document and track wastes arriving at the site;
- Clear and unambiguous criteria for the rejection of wastes and the reporting of all non-conformances; and
- A system to track the maximum capacity of waste that can be stored and treated at the facility at any given time and an associated early warning system if the Site may exceed these thresholds.

The Site has developed an appropriate Waste Reception Area which incorporates a general waste receipt and inspection area, as well as a dedicated Quarantine Area and Hazardous Waste Storage Area. These areas are located on sound concrete floors, with no internal drainage areas. Each area will be clearly labelled and will be provided with secondary containment (e.g. palletised bunding) where required.

## *Outgoing Waste Transfer/Disposal*

In relation to processed WEEE products and waste materials which leave the Site, the Operator will have a system in place to guarantee traceability of waste treatment. This will include:

- Documenting the internal processing systems by flow charts and mass balances;

- Undertaking data traceability tests at several stages within the operation. Records will be kept up-to-date (via the We<sup>3</sup> system) to reflect deliveries, on-site treatment and dispatches;
- Recording and referencing the information on the characteristics of the outgoing products and wastes, including the source of each waste stream; and
- Only moving products /waste items off the site (or within the site) under instruction from the appropriate manager, and ensuring that the waste tracking system is amended to record these changes.

The We<sup>3</sup> computerised tracking system will be regularly backed up. The system will operate as a waste inventory and stock control and will include: date of arrival on-site, waste producer, details on previous holders, a unique identifier, pre-acceptance and acceptance analysis results where appropriate, package type and size, intended treatment/disposal route, the nature and quantity of wastes held on-site including all hazards, details on where the waste is physically located in relation to a site plan, and at which point in the designated disposal route the waste is currently positioned.

### *Utilities Management & Raw Materials*

The Site will:

- Provide a breakdown of the energy consumption by source;
- Continuously improve the energy efficiency of the installation, by:
  - Developing an energy efficiency plan;
  - Using techniques that reduce energy consumption and reduce both direct and indirect emissions;
  - Defining and calculating the specific energy consumption of the activity; and
  - Setting key performance indicators on an annual basis.
- Carry out an internal benchmarking (e.g. on an annual basis) of raw materials consumption; and
- Explore the options for the use of waste as a raw material.

### *On-site Storage and Handling*

The Site will:

- Ensure that there is no direct access to either the surface water or foul sewage drainage systems from any production or storage areas;
- Separately bund all liquid decanting and storage areas using bunds which are impermeable and resistant to the stored materials;
- Take measures to avoid problems that may be generated from the storage/accumulation of waste on the site (e.g. over crowding, traffic congestion);
- Visually inspect all storage areas on a daily basis;
- Integrity test all bunded areas every three years; and

- Ensure that damaged hoses, valves and connections are not used.

### *Air Emission Abatement*

There are two point source air emissions from the site, one from the CRT machine and the other from the filters associated with the production equipment (QZ and Hammer Mill). There will also be some fugitive emissions from the internal filters, traffic movements, refuelling and decanting activities, and general internal storage areas.

The Site will aim to prevent and control these emissions by a combination of the following:

- The use of purpose designed air extraction and multi-staged filtration systems for the main production equipment;
- Minimising any direct discharges to air by linking vents to suitable abatement systems wherever possible;
- Restricting the use of open vessels;
- Keeping all wastes and raw materials inside the production building;
- Keeping access doors closed when not in use;
- Correctly operating and maintaining all production and abatement equipment; and
- Having leak detection and repair procedures in place.

### *Prevention of Soil & Groundwater Contamination*

To prevent soil and groundwater contamination the Site will:

- Not install or use any underground tanks, pits, sumps or process piping;
- Provide and maintain all internal and external surfaces in good and impermeable repair;
- Prevent and quickly control any leaks and spills which may occur; and
- Inspect and maintain the drainage systems in a good state of repair.

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

Please refer to *Attachment L.2.*

*(e) the applicant has complied with any requirements under section 53,*

The applicant has developed a preliminary *Environmental Liability Risk Assessment (ELRA)* (refer *Attachment K1*), that identifies the key actions to be taken in the event of Site closure. The intent of the ELRA is to identify, manage and mitigate potential residual environmental risks associated with the Site (e.g. appropriate disposal of residual wastes and products, removal of



unwanted equipment, remediation of any contaminated areas etc). The document also sets out how the Operator intends to finance the implementation of the ELRA, including provisions in the event of unplanned closure, or financial difficulty.

The ELRA will be reviewed annually, and when significant change occurs on the Site, and any required upgrades to the Plan will be reviewed and reflected in the Operator's financial provisions.

***(f) energy will be used efficiently in the carrying on of the activity concerned,***

Information relating to the Site's energy consumption and efficiency are summarised in *Attachment G2*. The technology being used by *TechRec* has been refined through practical experience to deliver the most energy efficient, and therefore cost effective, processing of the WEEE.

All the plant and equipment used in the process is driven by electricity and there is significant attention paid to the maintenance and servicing of the equipment. The Operator is in the process of developing a computerised Preventative Maintenance system which will incorporate all items of process, control and abatement equipment.

The plant uses approximately 90 kWh per tonne of WEEE processed, when all modules are in operation. Modules 2, 3 and 4 are all linked to a central monitoring and control system which allows the motors on all equipment in all Modules to be controlled individually by the operator. The system also tracks the individual kW drawn and the hours of operation, for all major equipment items, as well as all fans, motors and conveyor systems.

The process has been designed to be as energy efficient as possible. The QZ uses variable speed motors to rotate the impact chains which break up the WEEE. The process also uses the natural impacting force of the waste parts on each other to improve the breakage rate. Both the time the WEEE spends in the QZ and the energy input, can be varied from the control room and will be monitored closely to ensure that the minimal amount of energy is expended to produce the desired product.

The Site is committed to using green energy where possible and has made enquiries to obtain green electricity for the site. To date, this has proven to be difficult to secure. However the site intends to continue investigating this option.

In addition, the Site is committed to the conduct of annual energy audits and the development of an Energy Management Programme.

***(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,***

As described previously, noise emissions from potentially noisy equipment (e.g. the QZ Machine and Hammer Mill), have been minimised by the installation of purpose-designed noise abatement housing around each of these units and anti-vibration concrete flooring, beneath the equipment. The specifications of the noise attenuation equipment are outlined in the Design and Operating Manuals which have been submitted separately as commercially sensitive information.

Environmental noise monitoring was undertaken at the Site, both prior to, and following the commencement of the activity and a summary of the results is presented in *Attachment E5*. As indicated, the onsite activities are anticipated to have minimal impact on the immediate surrounding industrial area, and no discernable impact on the nearest potentially sensitive receptors (in this case, residential premises).

In addition, good management practices are used to help minimise general 'fugitive' noise emissions including:

- Keeping doors, loading bays and access ways closed unless in use;
- Prohibiting any outdoor activities (other than vehicle movements);
- Restriction of vehicle delivery times; and
- Turning off vehicle engines while waiting, and during loading/unloading activities;

***(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,***

An Environmental Management System will be developed for the Site which will include an Emergency Response Procedure (refer to *Attachments C2 and J1*). All staff will be trained on this procedure and spill kits will be available in areas where there is a risk of leaks or spills.

***(i) necessary measures will be taken upon the permanent cessation of the activity concerned (including such a cessation resulting from the abandonment of the activity) to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state.***

As indicated previously, a preliminary *Environmental Liability Risk Assessment* (ELRA) has been developed, indicating how the Operator intends to manage and mitigate the environmental risks associated with the Site on closure, or partial cessation of the activity. The ELRA will be reviewed annually, or when significant change occurs on the Site, in order to provide a true reflection of the activities and associated risks.

The assessment of financial provisions within the ELRA indicated that *TechRec Ireland Ltd*, supported by the parent company *One51 Ltd* and their shared insurance policies, has sufficient financial backing to meet any likely environmental risk, or unplanned closure scenario.

Copies of the Operator's relevant insurance certificates are included separately, as commercially sensitive information, in an Annex.

For inspection purposes only.  
Consent of copyright owner required for any other use.

# Fit & Proper Person

## Attachment L2

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

**Indicate whether the applicant or other relevant person has 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.**

No person involved in the management of the facility has been convicted of any offence under the *Waste Management Acts 1996 to 2003*, the *Environmental Protection Acts 1992 and 2003*, the *Local Government (Water Pollution) Acts 1977 and 1990* or the *Air Pollution Act 1987*.

**Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees (also refer to Section C.1 of the application).**

*Gerry Killeen, Managing Director*

Gerry has over 25 years experience of general management in Irish and international business. He was the founder and CEO of *Capital Leasing plc* for 12 years, and oversaw its public floatation and subsequent sale to an international banking group. Gerry has also worked with *Bord Bainne* in Dublin, *Continental Grain* in London and New York and more recently has been involved in the expansion of the *O'Briens Sandwich Bar* chain in Dublin.

*Brendan Palmer, Commercial Director*

Formerly the Managing Director of *Electronic Recycling*, Brendan has been involved in the management of electronic waste since 1996. He has extensive knowledge of the industry and developed the business of *Electronic Recycling* using the *WEEE Directive* as an operations template.

*Michael Gannon, Plant & EHS Manager*

Formerly the Plant Manager of the *Electrofast Group*. Michael also previously worked for *3 Comm* where he set up and managed a complete product production line and at *Telemacanique Ireland*. Michael has spent several months in Switzerland being trained in the operation of the plant, including *EHS management*, *maintenance* and *trouble shooting techniques*.

*Allen Kelly, Shift Supervisor*

Allen was previously employed as the *Logistics Manager* in a large multinational company.

*John Farrell, Site Electrician*

John was previously employed with a large Irish Electrical contractor.

*John Nolan, Site Mechanic & Fitter*

John has substantial previous experience of managing preventative maintenance programs and refurbishment of process facilities, turbine engines and complex engineering plants.

*Site Operators*

All employees will be given appropriate classroom-based and on-the-job training, prior to commencing work at the facility. The training will not only cover the operational aspects of the facility but will highlight the environmental issues employees need to be aware of to ensure the optimum recycling of WEEE is achieved.

***Provide information to show that the person is likely to be 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 (Link to Section K of the application).***

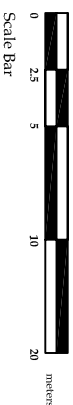
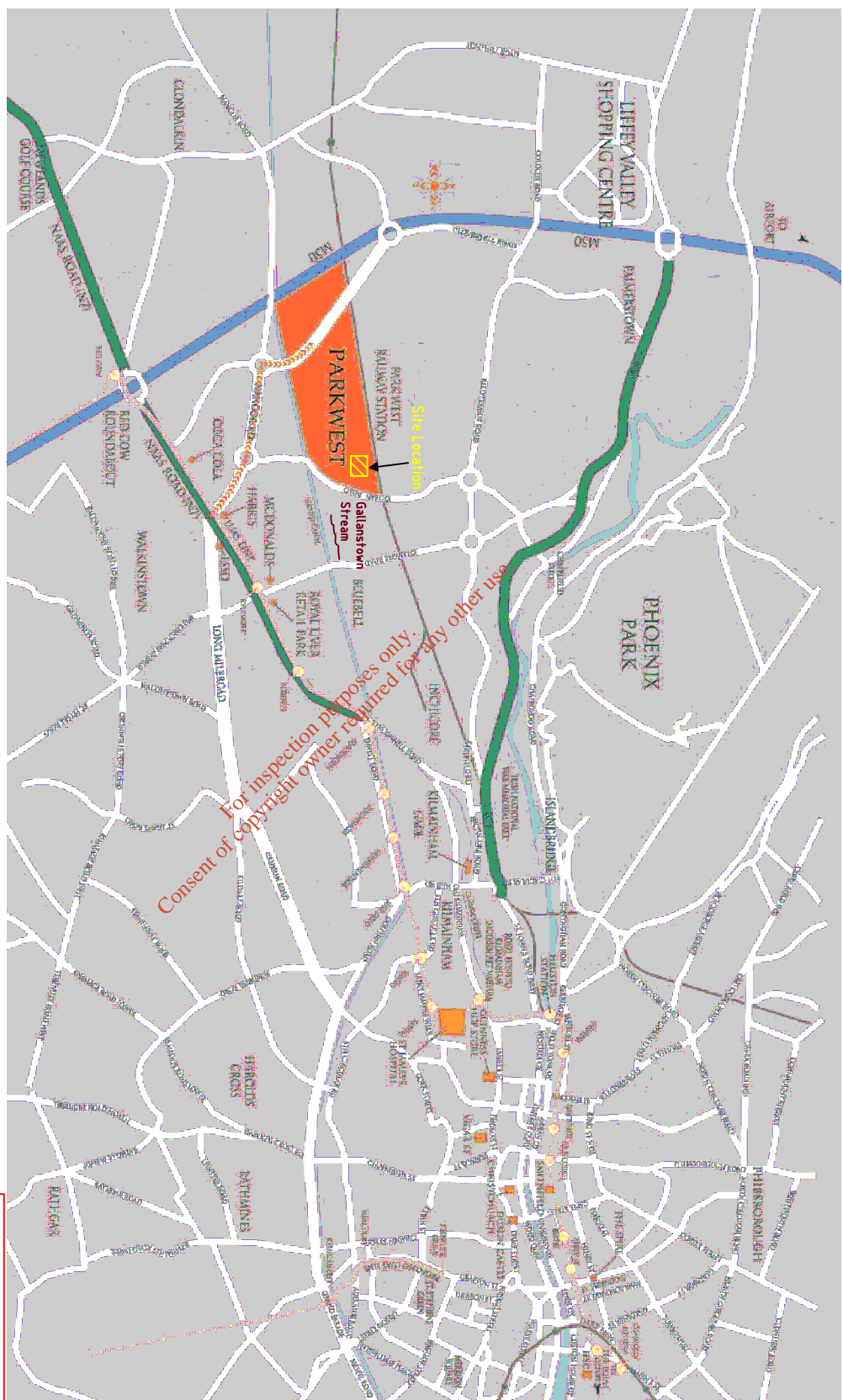
The applicant has developed a preliminary *Environmental Liabilities Risk Assessment Plan* (ELRA) (refer *Attachment K1*), that identifies the key actions to be taken in the event of Site closure. The intent of the ELRA is to identify, manage and mitigate any potential environmental risks associated with either the operation or closure of the Site. This may include spills, leaks, process failures, appropriate disposal of residual wastes and products, removal of unwanted equipment, remediation of any contaminated areas etc. The document also sets out how the Operator intends to finance the implementation of the ELRA, including provisions in the event of unplanned closure, or financial difficulty.

The ELRA will be reviewed annually, and when significant change occurs on the Site, and any required upgrades to the Plan will be reviewed and reflected in the Operator's financial provisions.

Additionally *TechRec Ireland* is 51% owned by *One51 Ltd* (formerly *IAWS Co-Op*). The company is one of Ireland's leading investors in the waste, energy and related sectors.

In addition to *One51's* existing infrastructure and property interests, they also own a significant shareholding in *NTR plc* (with interests in infrastructure, waste management and renewable energy). *One51* was involved in the establishment of *TechRec Ireland* and recently acquired *Rialta Environmental*, (formerly *Sita Environmental*), a total solutions provider in the hazardous waste sector.





**Legend**

- Site Location
- Lias Line

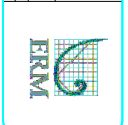
Consent of copyright owner required for any other use.

Agent:  
 TechnRec  
 100 Phoenix Street  
 Phoenix, AZ 85004  
 Tel: +360 912 8100  
 Fax: +360 912 8110

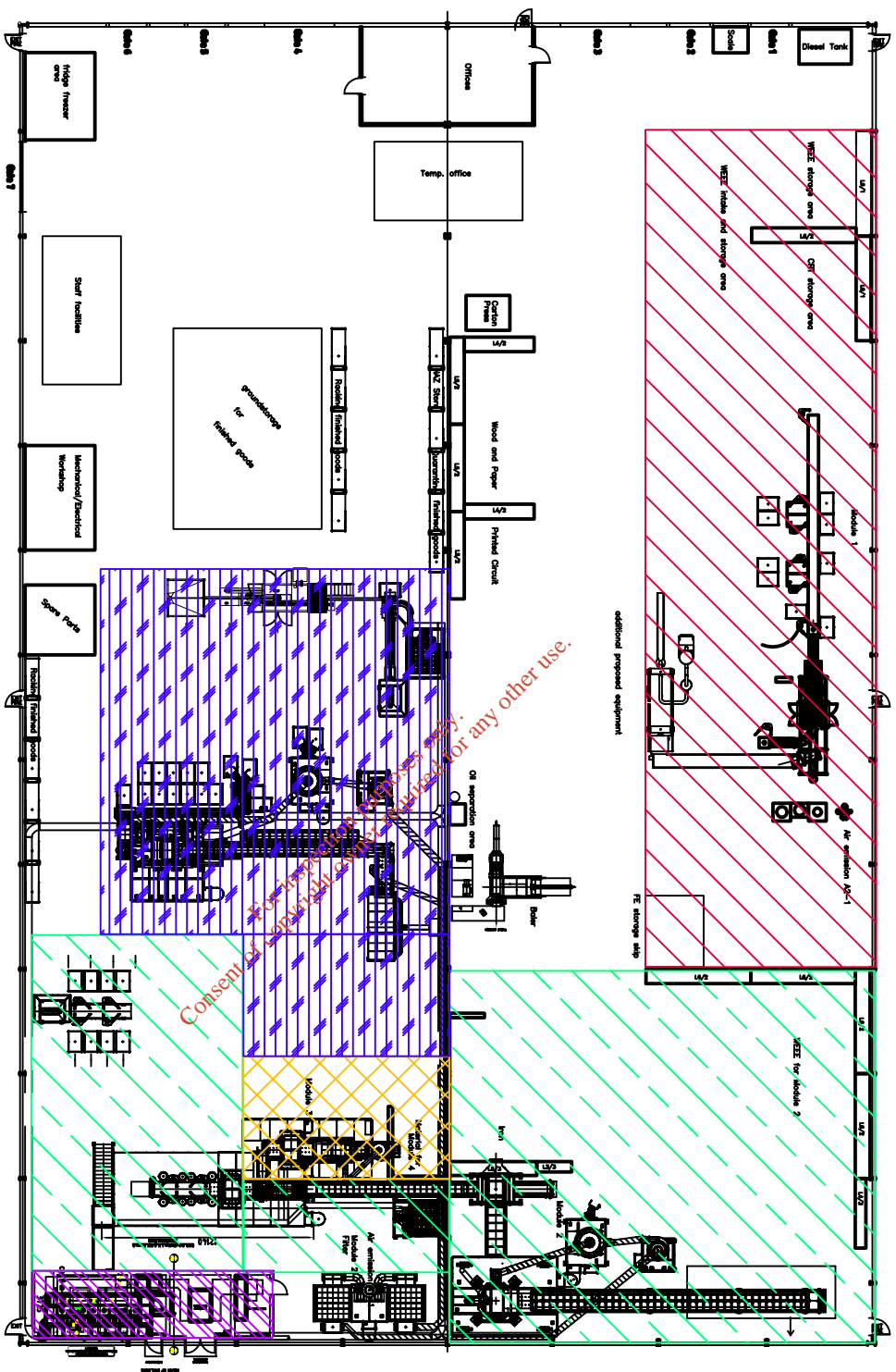
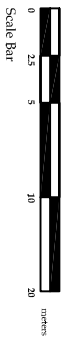
Project Title:  
**EPA Waste License Application**

Drawing Title:  
**Layout 02: Area Map / Road Layout**

|           |     |           |                                   |
|-----------|-----|-----------|-----------------------------------|
| Designer: | NS  | For Name: | 000643 - WTE Recycling Facilities |
| Checker:  | NS  | Date:     | 12/12/2008                        |
| Approver: | TNC |           |                                   |
| Version:  | 01  |           |                                   |







| Legend |  |
|--------|--|
|        | Module 1 - Goods receipt, sorting and manual dismantling (including CRT removal) |
|        | Module 2 - Preliminary Breakdown   |
|        | Module 3 - Mechanical Separation   |
|        | Module 4 - Fine Separation   |
|        | Control Room   |

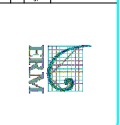
Consent of EPA/PAU is not valid for any other use.

Technec  
 14 +353 (0) 812 5200  
 1000 +353 (0) 812 5210  
 Technec Road Ltd  
 1000 +353 (0) 812 5200  
 1000 +353 (0) 812 5210

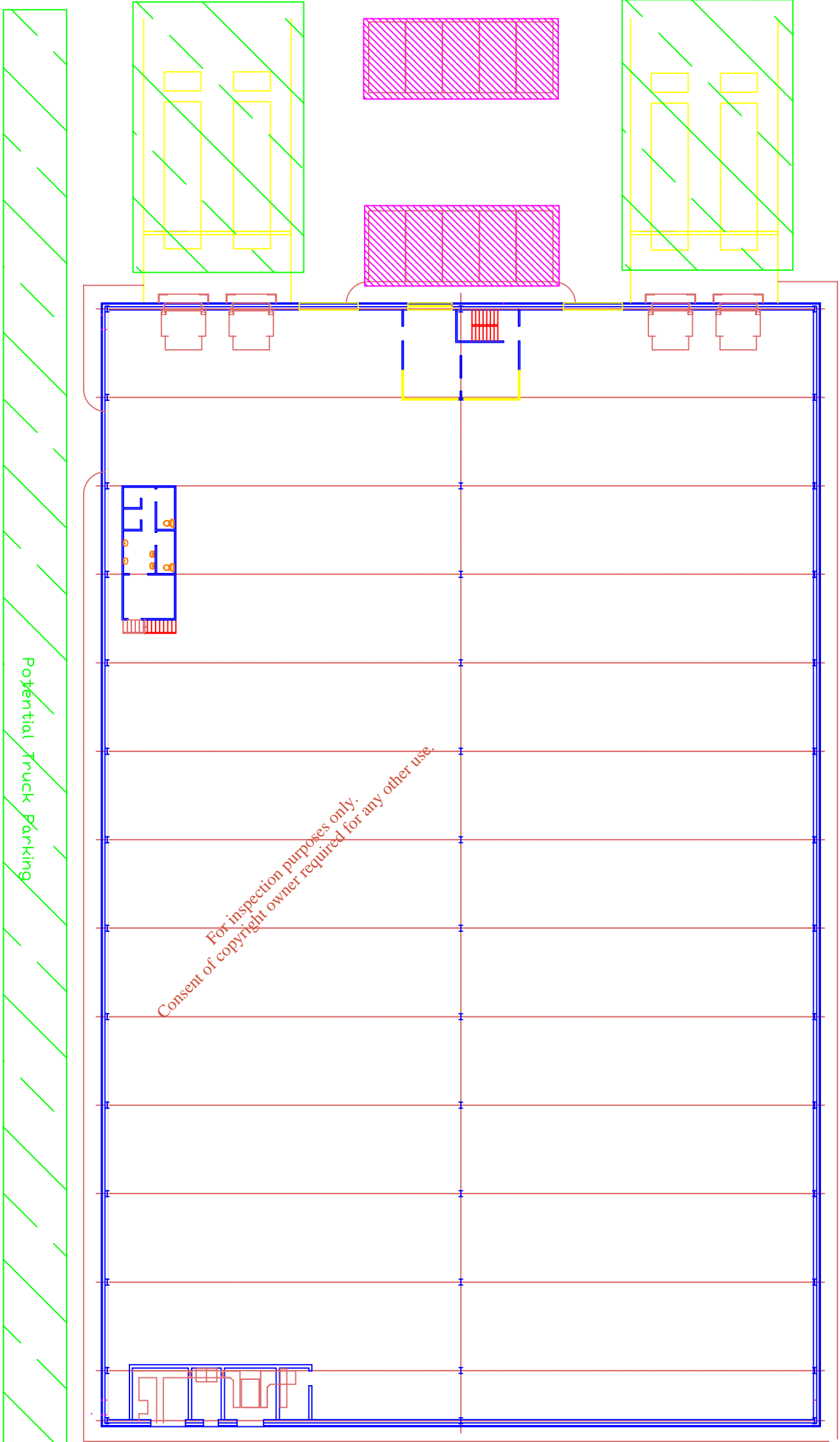
Project Title:  
**EPA Waste License Application**

Drawing Title:  
**Drawing 03: Module Location Plan**



|                    |  |
|--------------------|--|
| Designer: S2000000 | File Name: 030603 - WEZ Recycling Facilities |
| Checker: S2000000  | Date: 12/17/2008                             |
| Drawn: S2000000    | Checked: S2000000                            |








**Legend**

-  Car Parking
-  Truck Parking

Applicant:



TechRec Ireland Ltd  
 Technological Park  
 Dublin 15  
 Ireland  
 Tel +353 (1) 612 1200  
 Fax +353 (1) 612 1210

Project Title:

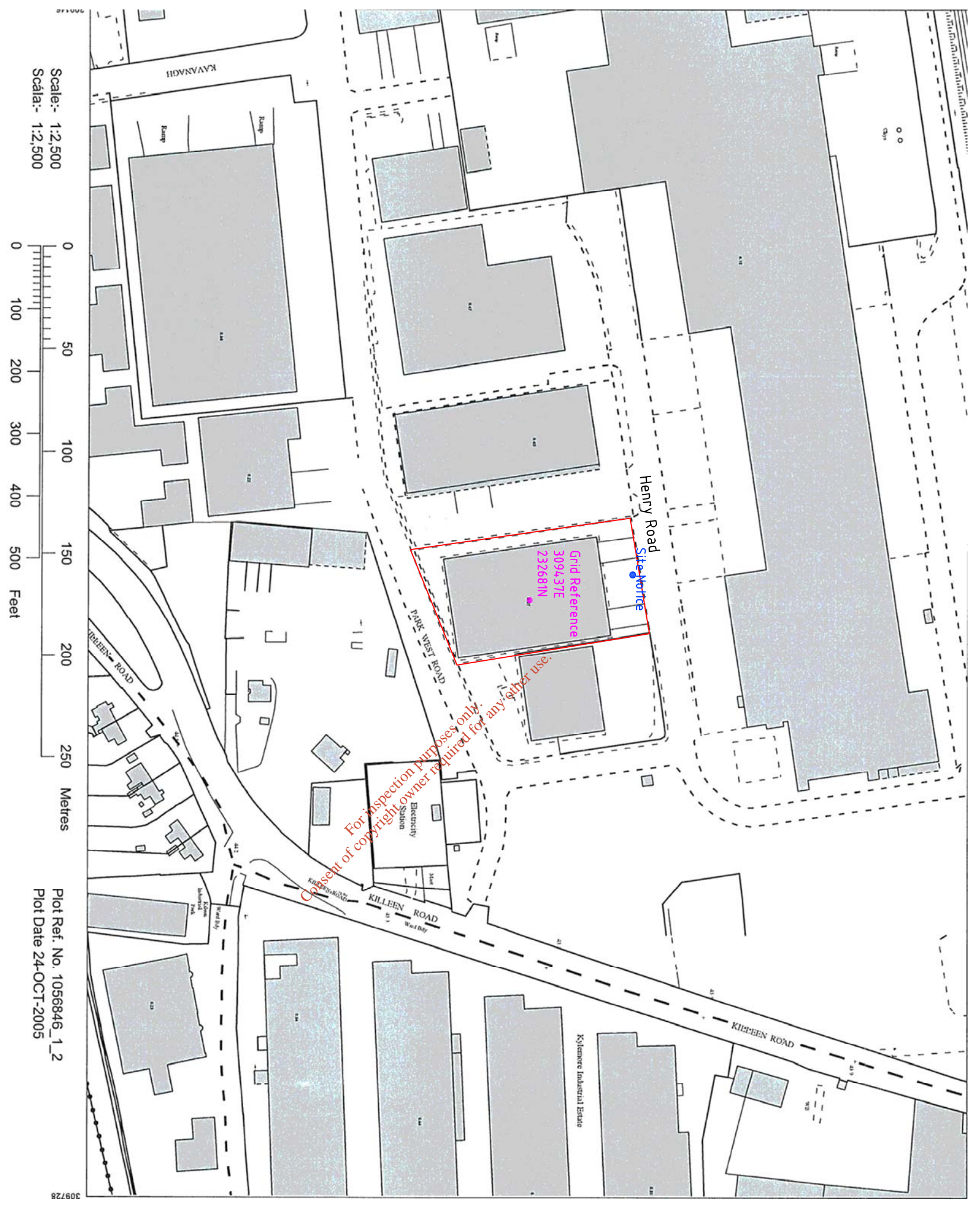
**EPA Waste License Application**

Drawing Title:

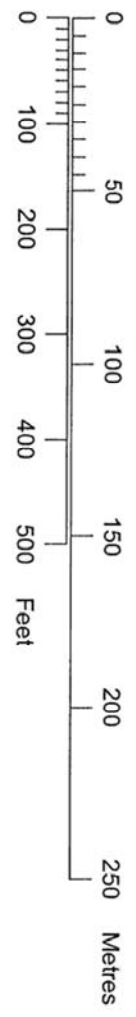
**Site Car Parking**

|                   |   |
|-------------------|---|
| Designed: JN/AVAK | File Name: 0036643 - WEE Recycling Facilities |
| Drawn: NS         | Date: 12.07.2006                              |
| Approved: TMC     |   |
| Checked: TS       |   |






Scale:- 1:2,500  
 Scála:- 1:2,500




Plot Ref. No. 1056846\_1\_2  
 Plot Date 24-OCT-2005

For inspection purposes only.  
 Consent of copyright owner required for any other use.

**Legend**

 Site Boundary

**Applicant:**



TechRec Ireland Ltd  
 151 Thomas Street  
 Dublin 8  
 Ireland  
 Tel +353 (0) 612 1200  
 Fax +353 (0) 612 1210

**Project Title:**

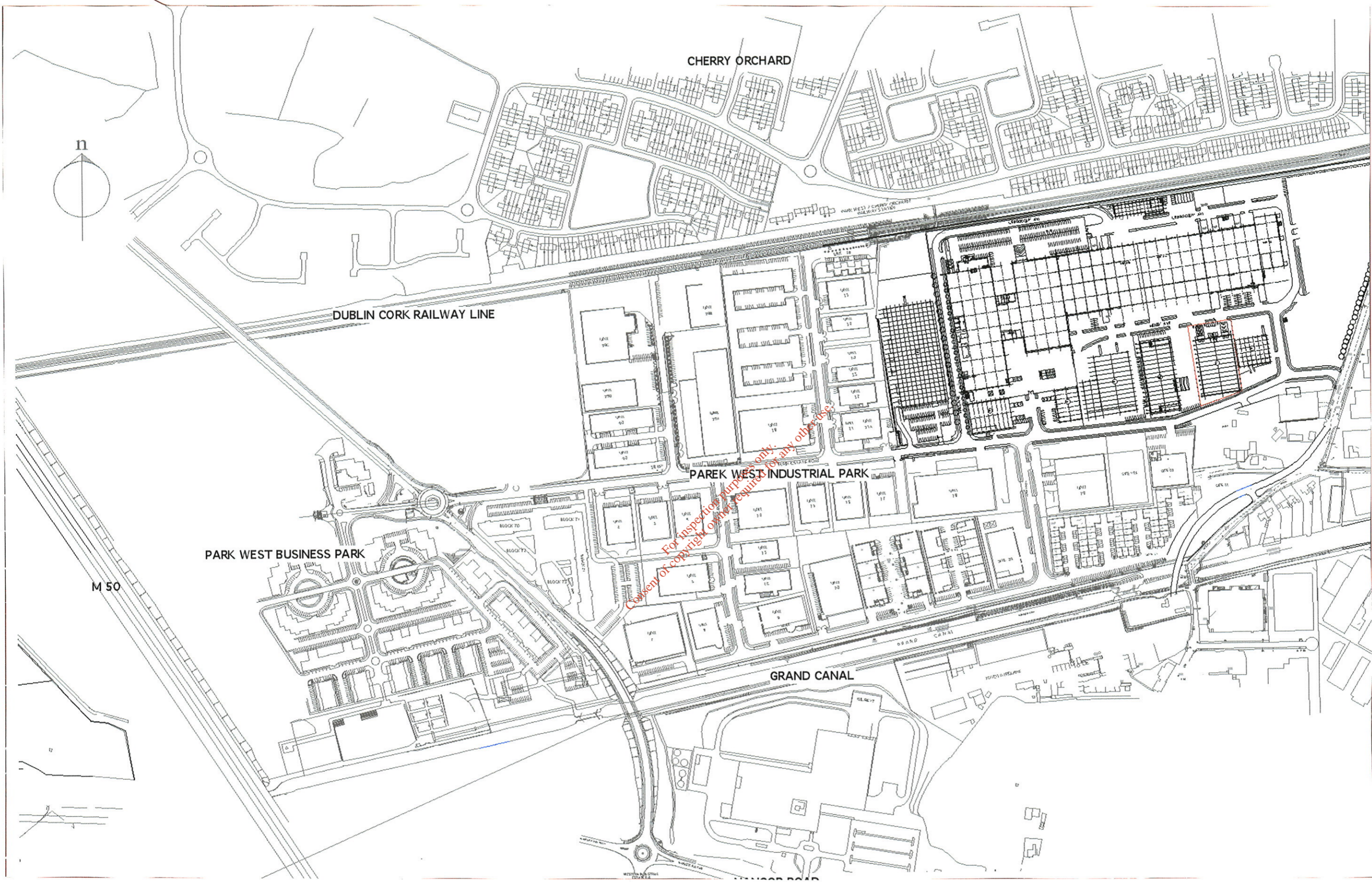
**EPA Waste License Application**

**Drawing Title:**



**Drawing 06: Site Boundary and Notice Location**

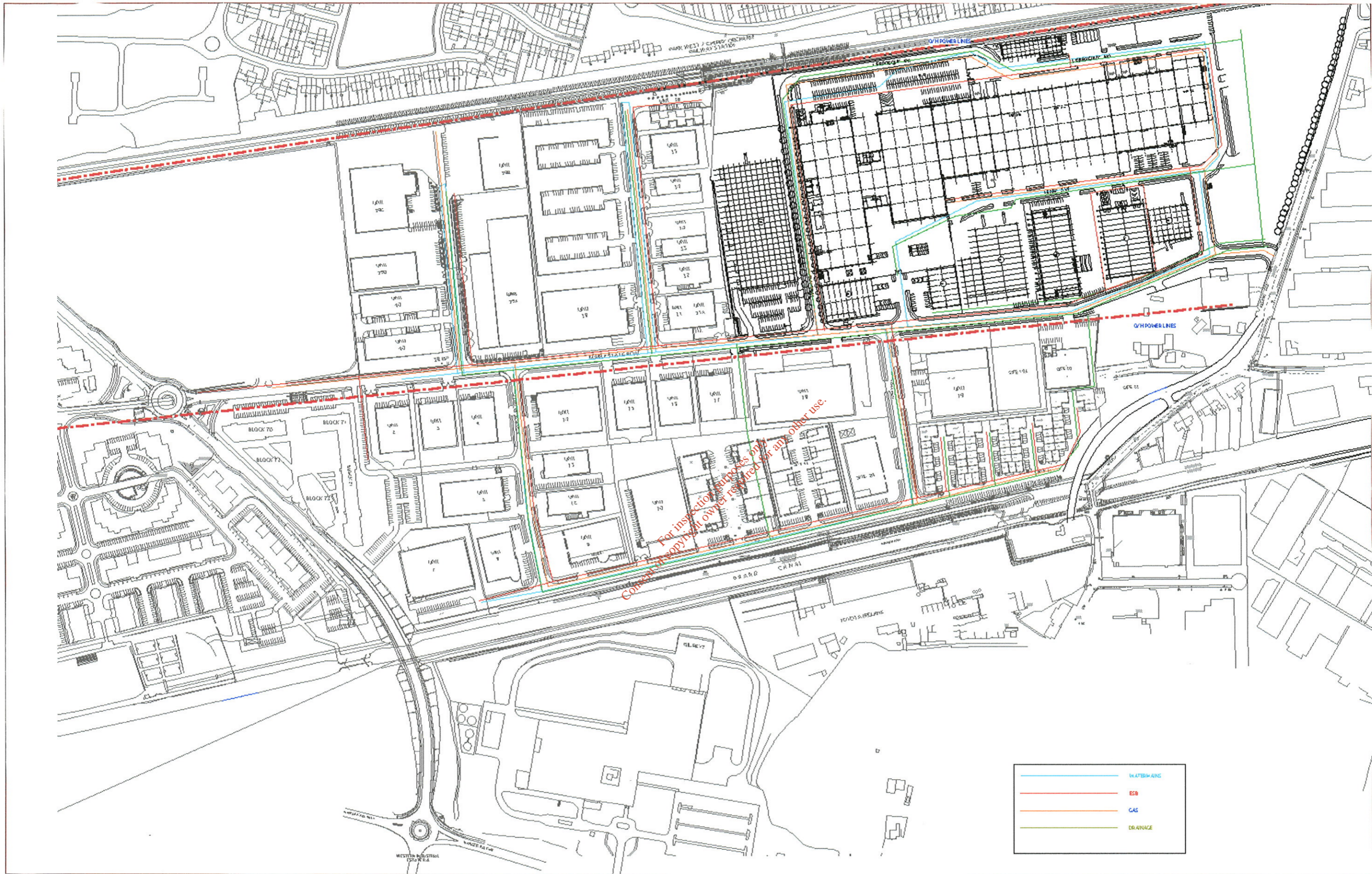
|                  |   |
|------------------|---|
| Designed: MANARK | File Name: 0036643 - WEL Recycling Facilities |
| Drawn: KS        | Date: 12.07.2006                              |
| Approved: TMC    |   |
| Checked: TB      |   |





For inspection purposes only.  
Content of copyright cannot be reproduced for any other use.

|   |   |   |   |           |                  |               |  |             |  |  |  |
|---|---|---|---|-----------|------------------|---------------|--|-------------|--|--|--|
| <p>Applicant:</p>  <p>TechRec Ireland Ltd.<br/>151 Thomas Street<br/>Dublin 8<br/>Ireland</p> <p>Tel +353 (1) 612 1200<br/>Fax +353 (1) 612 1210</p>   | <p>Project Title:</p> <p><b>EPA Waste License Application</b></p> | <p>Drawing Title:</p> <p><b>Drawing 07: Location Map showing roads, rivers, canals etc within 500m radius</b></p> |  |           |                  |               |  |             |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Designed: IMMARK</td> <td style="width: 50%;">File Name: 0036643 - WEE Recycling Facilities</td> </tr> <tr> <td>Drawn: KS</td> <td>Date: 12.07.2006</td> </tr> <tr> <td>Approved: TMC</td> <td></td> </tr> <tr> <td>Checked: TR</td> <td></td> </tr> </table> |   | Designed: IMMARK  | File Name: 0036643 - WEE Recycling Facilities   | Drawn: KS | Date: 12.07.2006 | Approved: TMC |  | Checked: TR |  |  |  |
| Designed: IMMARK  | File Name: 0036643 - WEE Recycling Facilities                     |   |   |           |                  |               |  |             |  |  |  |
| Drawn: KS   | Date: 12.07.2006  |   |   |           |                  |               |  |             |  |  |  |
| Approved: TMC   |   |   |   |           |                  |               |  |             |  |  |  |
| Checked: TR   |   |   |   |           |                  |               |  |             |  |  |  |



Applicant:  
  
 TechRec Ireland Ltd.  
 151 Thomas Street  
 Dublin 8  
 Ireland  
 Tel +353 (1) 612 1200  
 Fax +353 (1) 612 1210

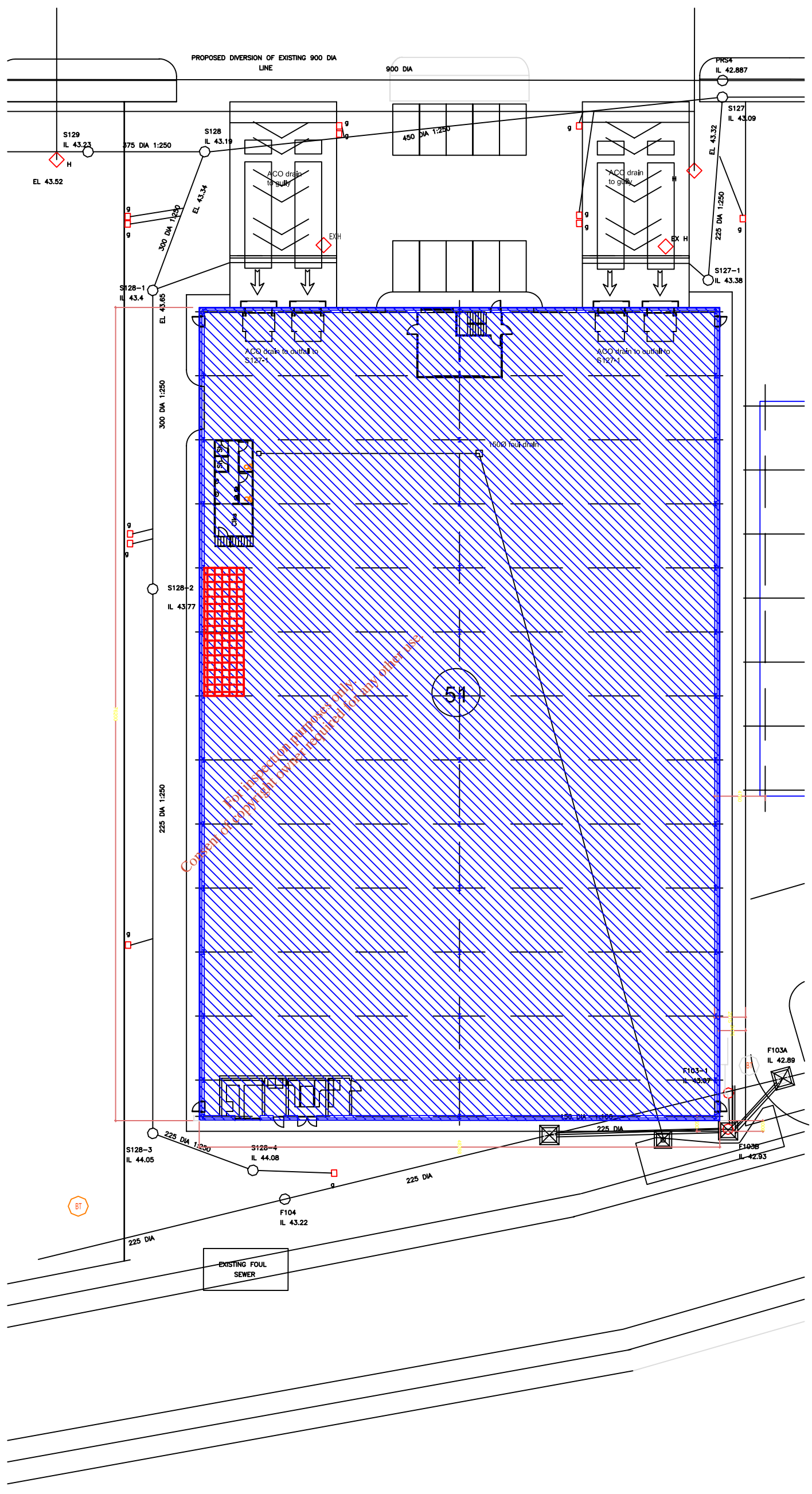
Project Title:  
**EPA Waste License  
 Application**

Drawing Title:  
**Drawing 08: Site Services 250m**

|                  |   |
|------------------|---|
| Designed: IMMARK | File Name: 0036643 - WEE Recycling Facilities |
| Drawn: KS        | Date: 12.07.2006                              |
| Approved: TMC    |   |
| Checked: TR      |   |







| Legend |                  |
|--------|------------------|
|        | Main Building    |
|        | Maintenance area |

Applicant:  
  
 TechRec Ireland Ltd.  
 151 Thomas Street  
 Dublin 8  
 Ireland  
 Tel: +353 (0) 612 1200  
 Fax: +353 (0) 612 1210

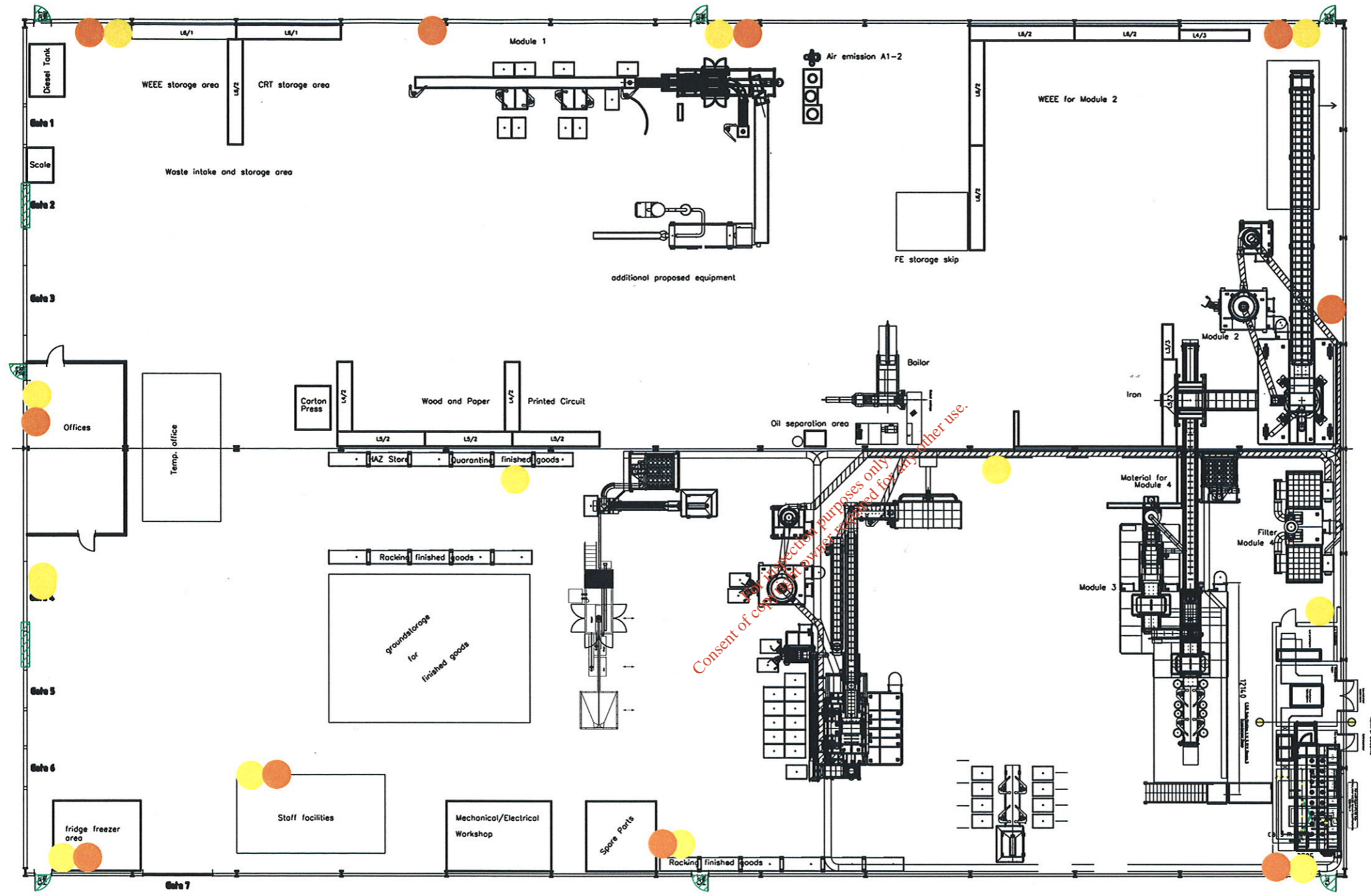
Project Title:  
**EPA Waste License Application**

Drawing Title:  
**Drawing 10: Buildings on Site**

|                   |   |
|-------------------|---|
| Designed: MANANAK | File Name: 0036643 - WEE Recycling Facilities |
| Drawn: RS         | Date: 12.07.2008                              |
| Approved: TMC     |   |
| Checked: TB       |   |



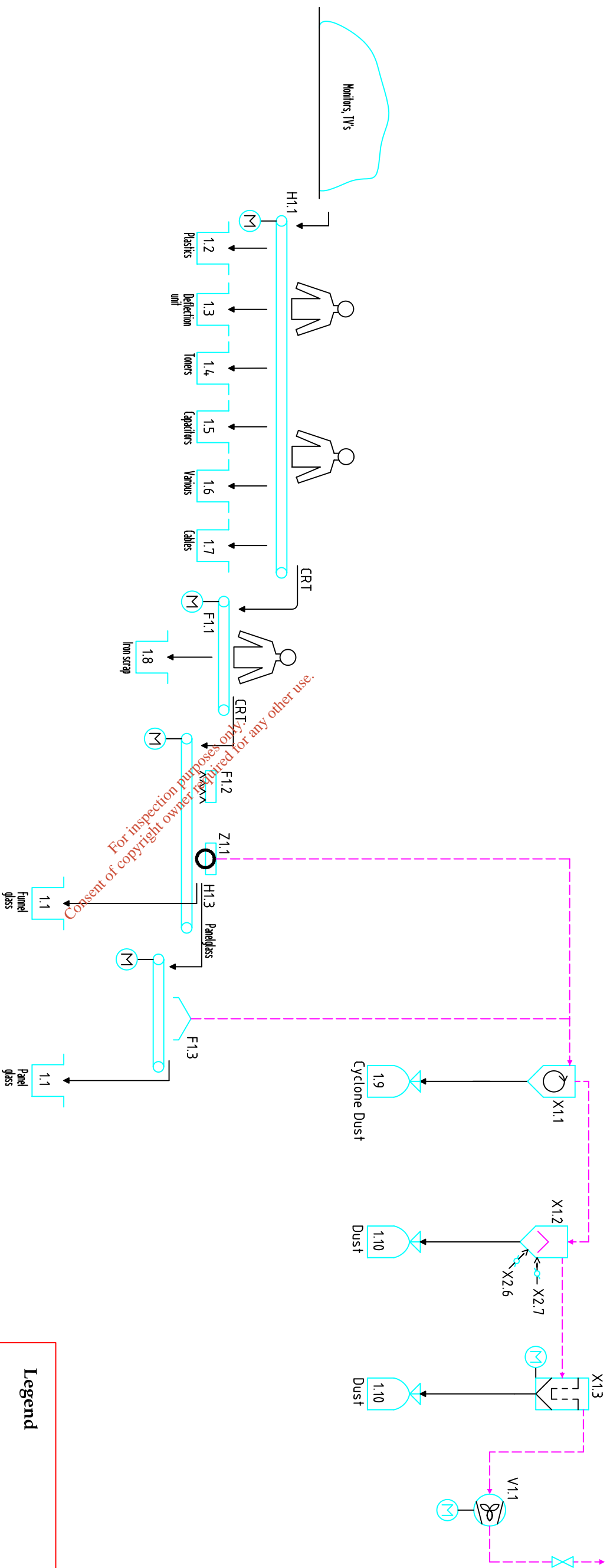




**Legend**

- Foam Spray
- Carbon Dioxide
- Fire Exits


|   |   |   |  |
|---|---|---|--|
| <p>Applicant:</p> <p>TechRec Ireland Ltd.<br/>151 Thomas Street<br/>Dublin 8<br/>Ireland</p> <p>Tel +353 (1) 612 1200<br/>Fax +353 (1) 612 1210</p> | <p>Project Title:</p> <p><b>EPA Waste License Application</b></p>         | <p>Drawing Title:</p> <p><b>Drawing 11: Fire Extinguisher / Exit Location</b></p> |  |
| <p>Designed: IMMARK<br/>Drawn: KS<br/>Approved: TMC<br/>Checked: TB</p>   | <p>File Name: 0036643 - WEE Recycling Facilities<br/>Date: 12.07.2006</p> |   |  |



# Module 1

- Legend**
- 1.1 Glass (picture tubes)
  - 1.2 Picture Tubes
  - 1.3 Deflection units
  - 1.4 Toners
  - 1.5 Capacitors
  - 1.6 Various
  - 1.7 Cables
  - 1.8 Iron Scrap
  - 1.9 Cyclone Dust
  - 1.10 Dust

Applicant:



TechRec Ireland Ltd  
151 Phoenix Street  
Dublin 8  
Tel +353 (0) 612 1200  
Fax +353 (0) 612 1210

Project Title:

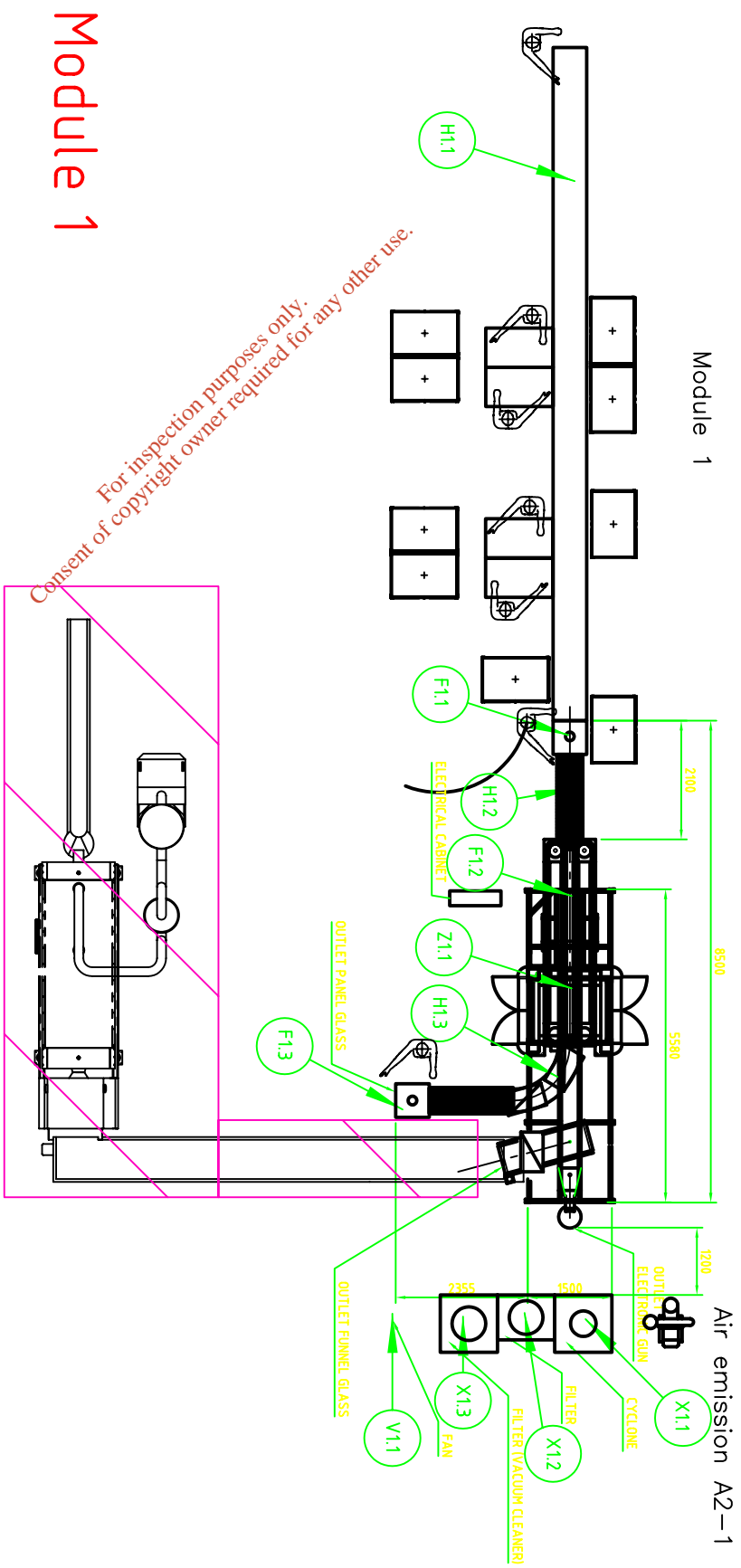
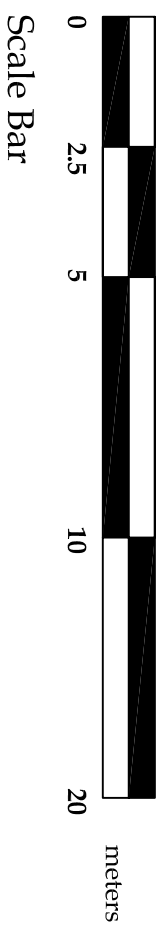
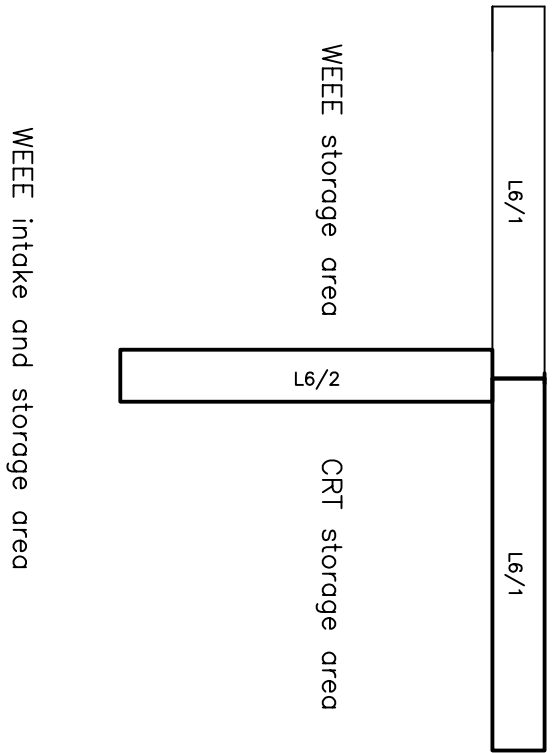
**EPA Waste License Application**

Drawing Title:

**Drawing 12: Module 1 - General Receipt, Sorting and Manual Dismantling (including CRT removal): Process Flow**

|                   |  |
|-------------------|--|
| Designed: NANA/KK | File Name: 003643 - WEE Recycling Facilities |
| Drawn: KS         | Date: 12.07.2006                             |
| Approved: TNC     |  |
| Checked: TB       |  |





# Module 1

additional proposed equipment

Applicant:  
TechRec Ireland Ltd.  
151 Thomas Street  
Dublin 6  
Ireland  
Tel +353 (0) 612 1200  
Fax +353 (0) 612 1210

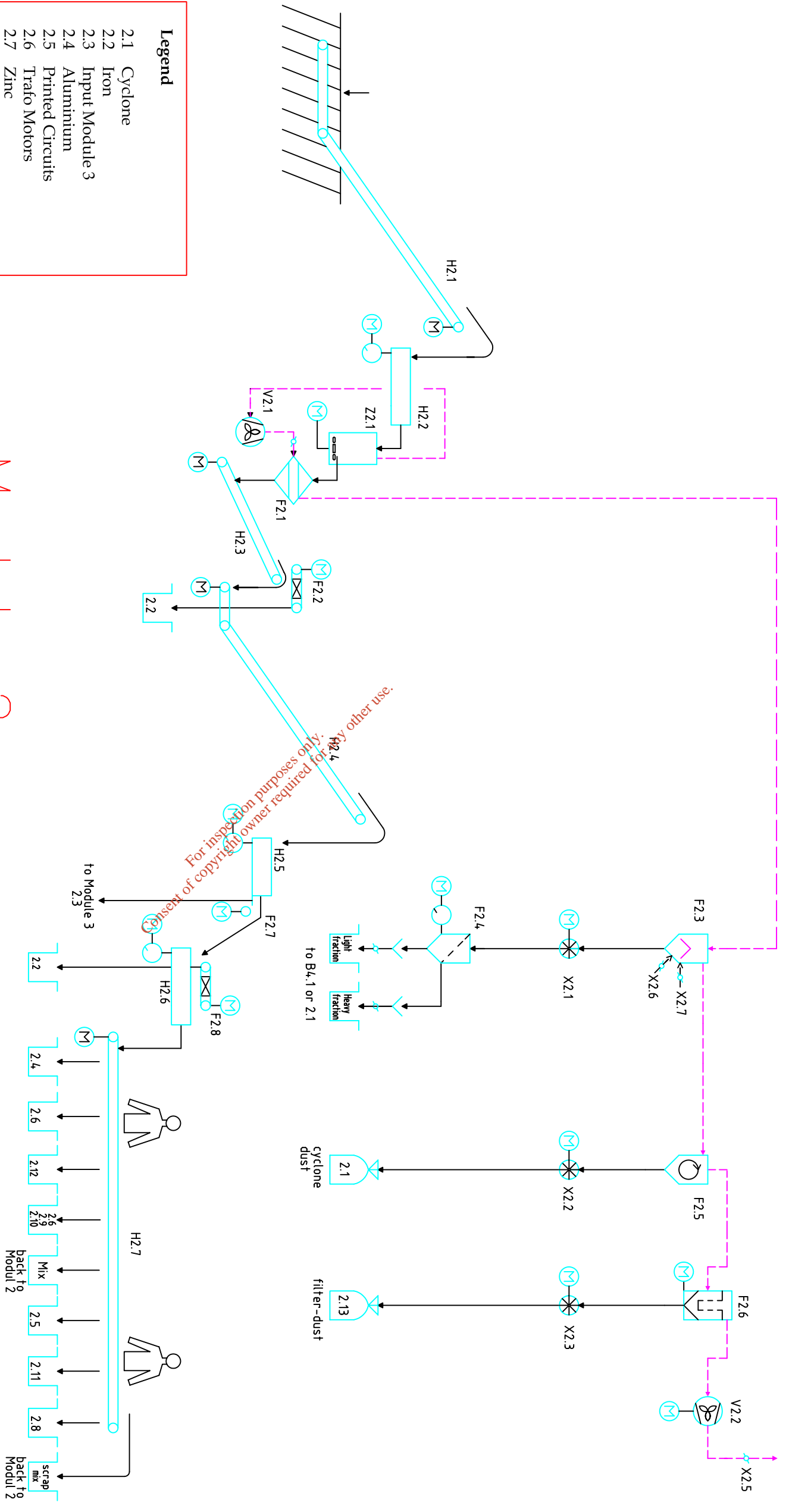
Project Title:  
EPA Waste License  
Application

Drawing Title:  
Drawing 13: Module 1 - Plan View

|                   |   |
|-------------------|---|
| Designed: IMANARK | File Name: 0036643 - WEE Recycling Facilities |
| Drawn: KS         | Date: 12.07.2006                              |
| Approved: TMK     |   |
| Checked: TB       |   |



- Legend**
- 2.1 Cyclone
  - 2.2 Iron
  - 2.3 Input Module 3
  - 2.4 Aluminium
  - 2.5 Printed Circuits
  - 2.6 Trafo Motors
  - 2.7 Zinc
  - 2.8 Brass
  - 2.9 Capacitors
  - 2.10 Batteries
  - 2.11 Copper-cables
  - 2.12 Chrome/Nickel
  - 2.13 Dust



# Module 2

Applicant:

TechRec Ireland Ltd  
151 Thomas Street  
Dublin 8  
Ireland  
Tel: +353 (0) 612 1200  
Fax: +353 (0) 612 1210

Project Title:

**EPA Waste License Application**

Drawing Title:


**Drawing 14: Module 2 - Preliminary Breakdown: Process Flow**

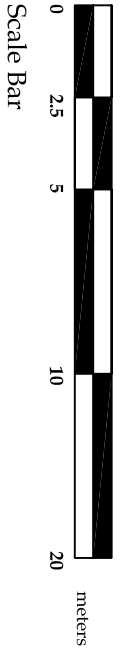
|                   |  |
|-------------------|--|
| Designed: INAVARK | File Name: 008645 - WEE Recycling Facilities |
| Drawn: NS         | Date: 12/07/2008                             |
| Approved: TMC     | Checked: TB                                  |



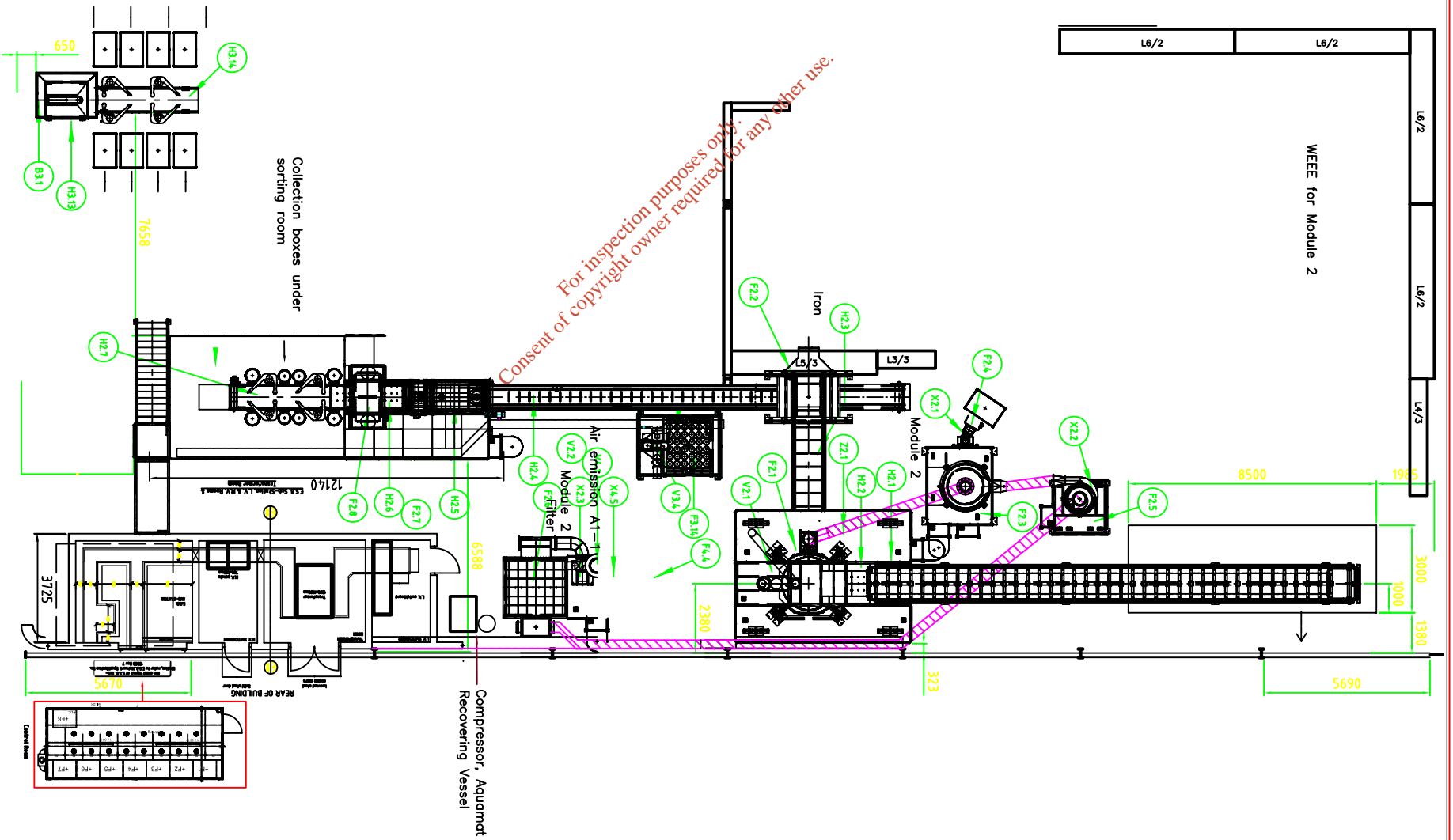


**Legend**


 A-1 Air Emissions Abatement System



## Module 2



Applicant:



TechRec, Ireland Ltd.  
151 Thomas Street  
Dublin 8  
Ireland

Tel: +353 (0) 612 1200  
Fax: +353 (0) 612 1210

Project Title:

**EPA Waste License Application**

Drawing Title:

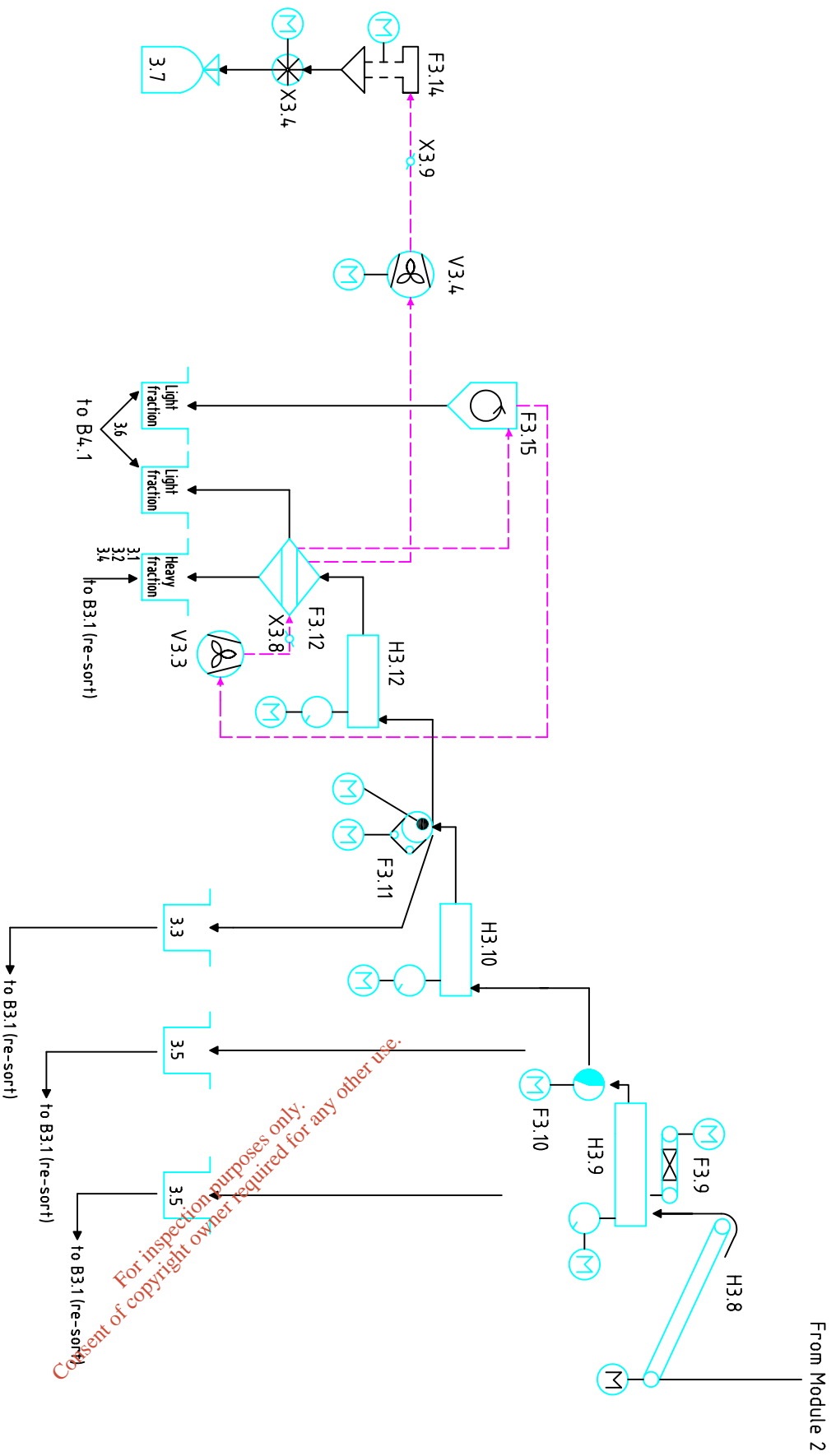
**Drawing 15: Module 2 - Plan View**

|                  |  |
|------------------|--|
| Designed: NMA/RK | File Name: 0086643 - WEEE Recycling Facilities |
| Drawn: KS        | Date: 12/07/2006                               |
| Approved: TMC    |  |
| Checked: TB      |  |



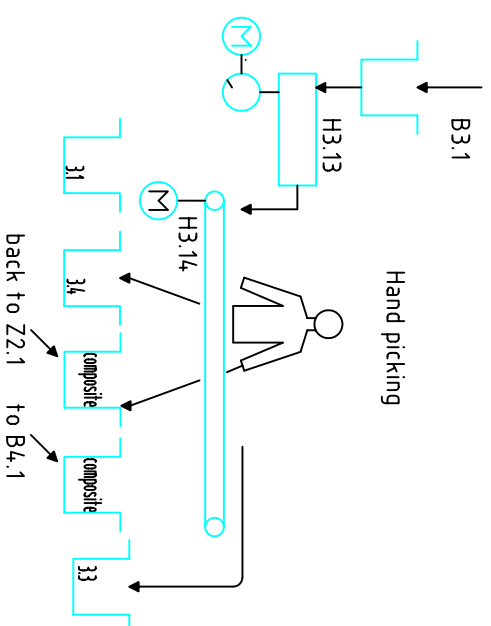


- Legend**
- 3.1 Capacitors
  - 3.2 Trafo Motors
  - 3.3 Non Ferrous Metal
  - 3.4 Batteries
  - 3.5 Iron
  - 3.6 Input Module 4
  - 3.7 Dust



For inspection purposes only.  
Consent of copyright owner required for any other use.

# Module 3

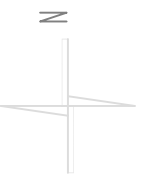


**TechRec Ireland Ltd.**  
 151, Thomas Street  
 Dublin 6  
 Ireland  
 Tel: +353 (0) 812 1200  
 Fax: +353 (0) 812 1210

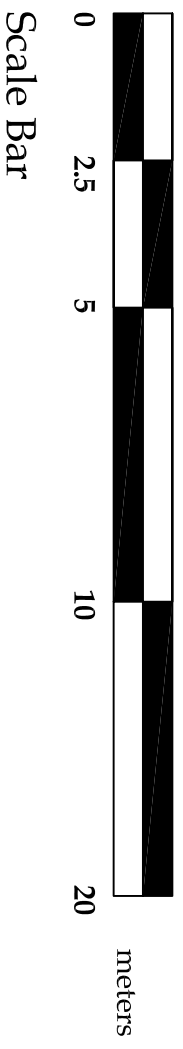
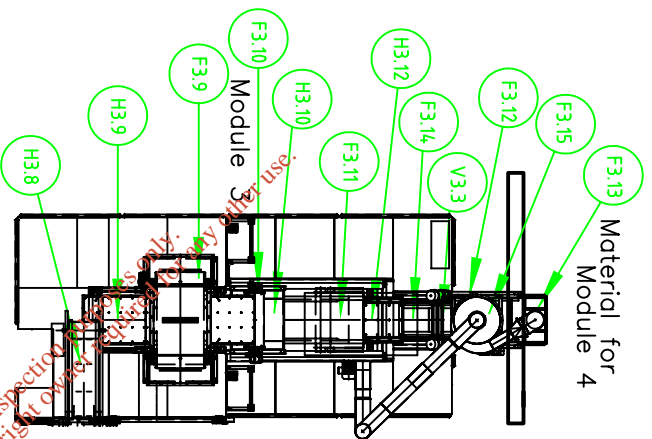
Project Title:  
**EPA Waste License Application**

Drawing Title:  
**Drawing 16: Module 3 - Mechanical Separation: Process Flow**

|                 |  |
|-----------------|--|
| Designed: IMNAK | File Name: 003643 - VEE Recycling Facilities |
| Drawn: NS       | Date: 12.07.2008                             |
| Approved: TMC   |  |
| Checked: TB     |  |




# Module 3



Scale Bar

For inspection only.  
Consent of copyright owner required for reuse.

Applicant:



TechRec Ireland Ltd.  
The  
Dublin  
Republic of Ireland

Tel +353 (0) 612 1200  
Fax +353 (0) 612 1210

Project Title:

### EPA Waste License Application

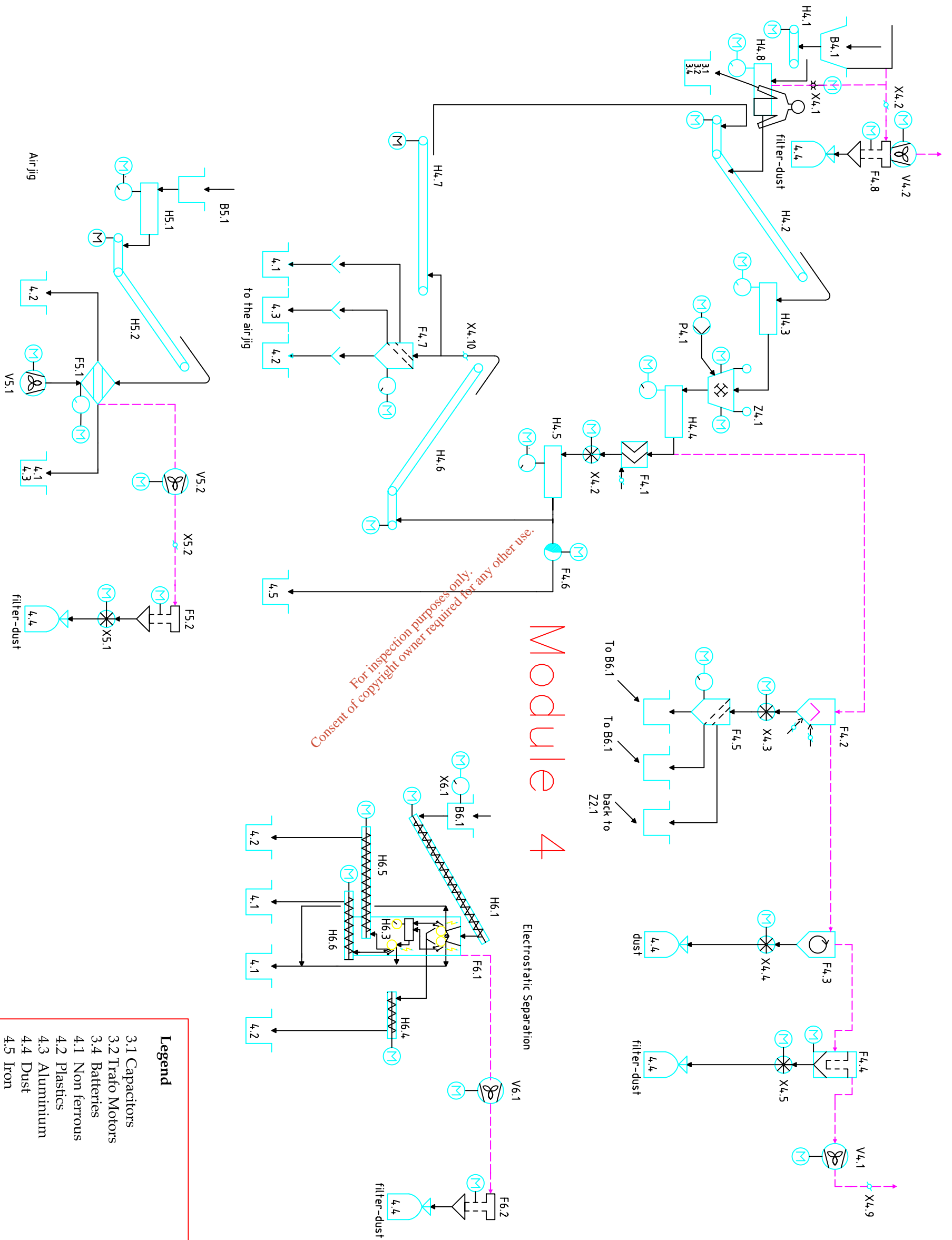
Drawing Title:

### Drawing 17: Module 3 - Plan View

|                  |   |
|------------------|---|
| Designed: IMANAK | File Name: 0036643 - WEE Recycling Facilities |
| Drawn: NS        | Date: 12.07.2006                              |
| Approved: TMC    |   |
| Checked: TB      |   |







Applicant:

TechRec Ireland Ltd  
151 Thomas Street  
Dublin 8  
Tel: +353 (0) 612 1200  
Fax: +353 (0) 612 1210  
Ireland

Project Title:

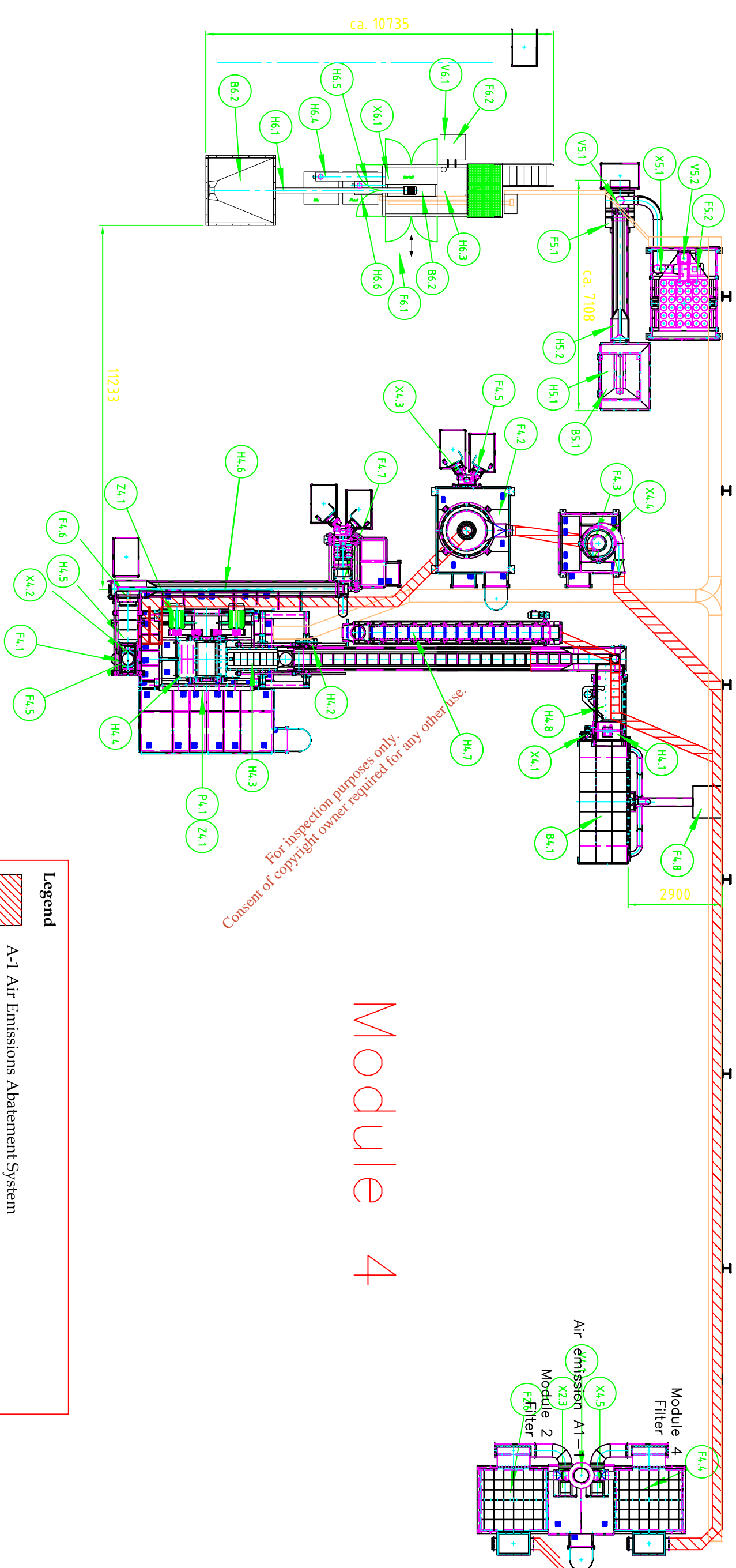
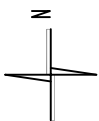
**EPA Waste License Application**

Drawing Title:

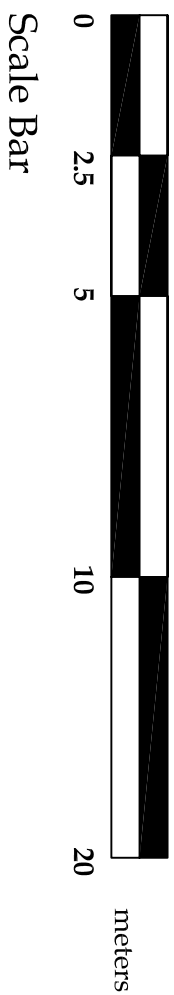
**Drawing 18: Module 4 Fine Separation: Process Flow**

|                  |  |
|------------------|--|
| Designed: IMAVAR | File Name: 003643 - VEE Recycling Facilities |
| Drawn: NS        | Date: 12.07.2006                             |
| Approved: TMC    | Checked: TB                                  |







# Module 4



**Legend**

 A-1 Air Emissions Abatement System

Applicant:



TechRec Ireland Ltd.  
151 Thomas Street  
Dublin 8  
Ireland  
Tel +353 (1) 612 1200  
Fax +353 (1) 612 1210

Project Title:

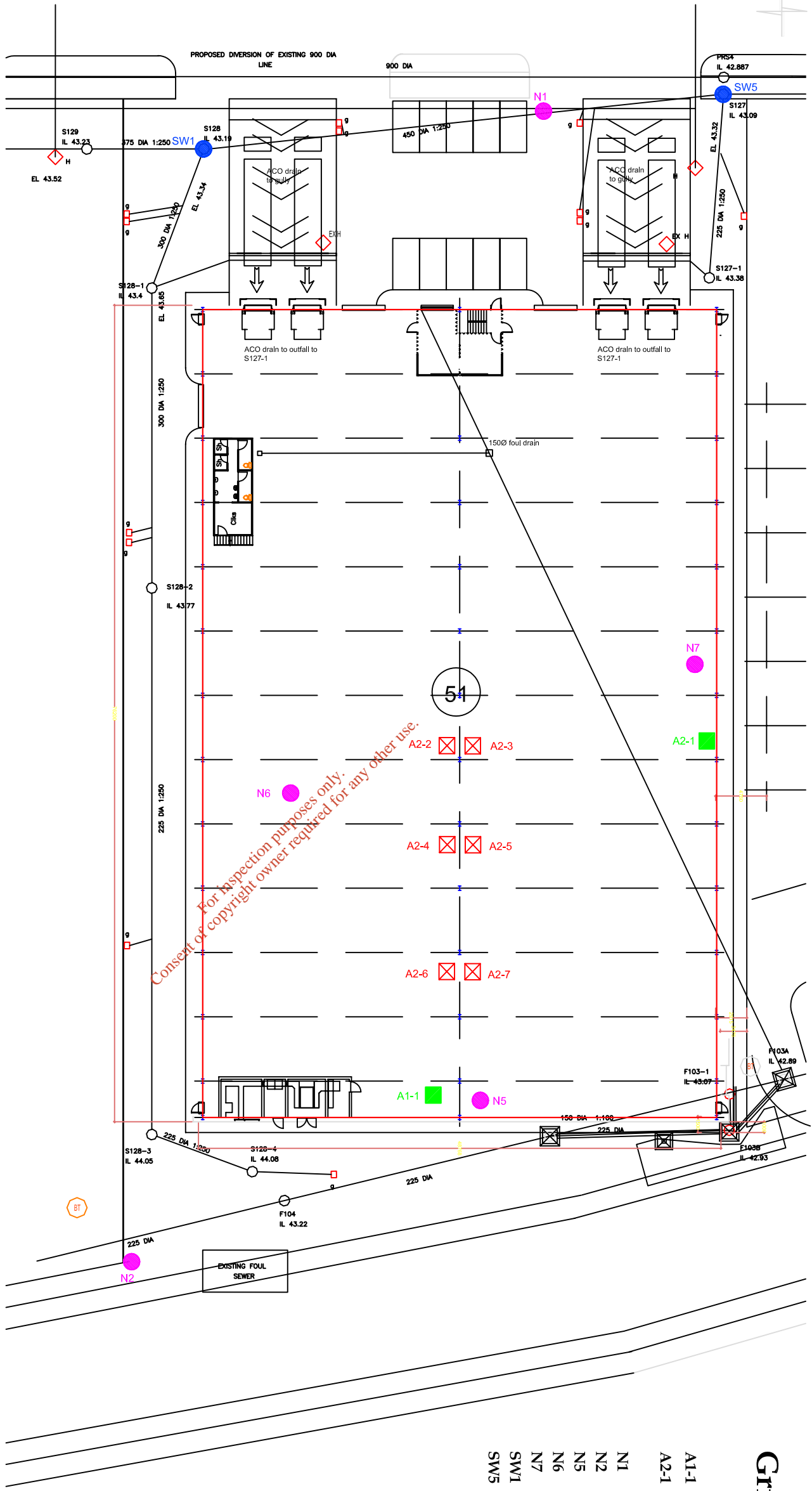
**EPA Waste License Application**

Drawing Title:

**Drawing 19: Module 4 - Plan View**

|                   |   |
|-------------------|---|
| Designed: NAN/ARK | File Name: 0026643 - WTE Recycling Facilities |
| Drawn: KS         | Date: 12.07.2006                              |
| Approved: TMC     |   |
| Checked: TB       |   |

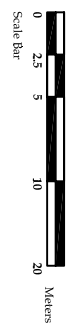




For inspection purposes only.  
Consent of copyright owner required for any other use.

## Grid References

|      |          |          |
|------|----------|----------|
| A1-1 | 309432 E | 232654 N |
| A2-1 | 309460 E | 232685 N |
| N1   | 309435 E | 232744 N |
| N2   | 309402 E | 232618 N |
| N5   | 309440 E | 232656 N |
| N6   | 309422 E | 232667 N |
| N7   | 309466 E | 232685 N |
| SW1  | 309405 E | 232738 N |
| SW5  | 309450 E | 232748 N |



**Legend**

- Surface Water
- ⊠ Fugitive Emissions
- Air Emission
- Noise Emission and Monitoring Location

Applicant:

**TechRec**

TechRec Ireland Ltd.  
151 Thomas Street  
Dublin 8  
Ireland

Tel: +353 (0) 812 1200  
Fax: +353 (0) 812 1210

Project Title:

**EPA Waste License Application**

Drawing Title:

**Drawing 20: Emissions, Locations to Atmosphere and Surface Water**

|                   |   |
|-------------------|---|
| Designed: JMALANK | File Name: 0036643 - WIE Recycling Facilities |
| Drawn: KS         | Date: 12/07/2006                              |
| Approved: TMC     |   |
| Checked: TB       |   |

