

APSE Northern Ireland one day seminar Incorporating the APSE Northern Ireland AGM

Monday 15 June 2009



Waste and recycling services; Context and practice



www.apse.org.uk

APSE in Northern Ireland

**‘Waste & Recycling Services’
- context & practice -**

15th June 2009



Michael Whitley

Architectural Partner

Michael Whitley Architects

Belfast



Sustainable Project

CASE STUDY:

NORTH DOWN BOROUGH COUNCIL



Investing in the Infrastructure

Lead Consultant



Design Team

Architects - **Michael Whitley Architects**

Quantity Surveyors - **VB Evans & Company**

Structural & Civil - **Albert Fry Associates Ltd**

Mechanical & Electrical - **A H Design**

CDM-Coordinator - **Michael Whitley Architects**

Main Contractor - **Heron Bros Ltd**



Take for granted

..... ?





Pollution

Michael Whitley Architects
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Michael Whitley Architects



Global Warming



Michael Whitley Architects
Michael Whitley Architects
Michael Whitley Architects

THE GLOBAL WARMING
SCEPTICS SOCIETY



Rising sea levels can't be considered a result of global warming until the water reaches the ceiling.

Sceptical ?

Michael Whitley Architects
Michael Whitley Architects
Michael Whitley Architects
Michael Whitley Architects

Waste



Michael Whitley Architects
Michael Whitley Architects
Michael Whitley Architects

Waste Management Issues

- EU Directives – Recycling Targets to be met
- Punitive fines
- Central and Local Government Policies
- Over reliance on landfill
- Historic lack of investment in the industry
- Need to raise awareness of environmental issues



Borough of North Down



Northern Ireland currently has 26 Council areas

- soon to be 11?



North Down



- 81 square kilometres
- Population of almost 80,000 [fifth largest council area in Northern Ireland).

Michael Whitley Architects
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Message

reduce

reuse

recycle

[reprocess]

incinerate

bury

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Historical Initiative

Rathgael, Bangor

Michael Whitley Architects
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Historical Initiative



split level dump

Rathgael, Bangor

Michael Whitley Architects
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Rathgael, Bangor

Historical Initiative



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compactor



Old Facilities



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Old Facilities



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Old Facilities

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drab dirty image

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new legislation

Rathgael, Bangor

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new location

**next generation
technology**

sustainability

[CEEQUAL]

Balloo Wood, Bangor

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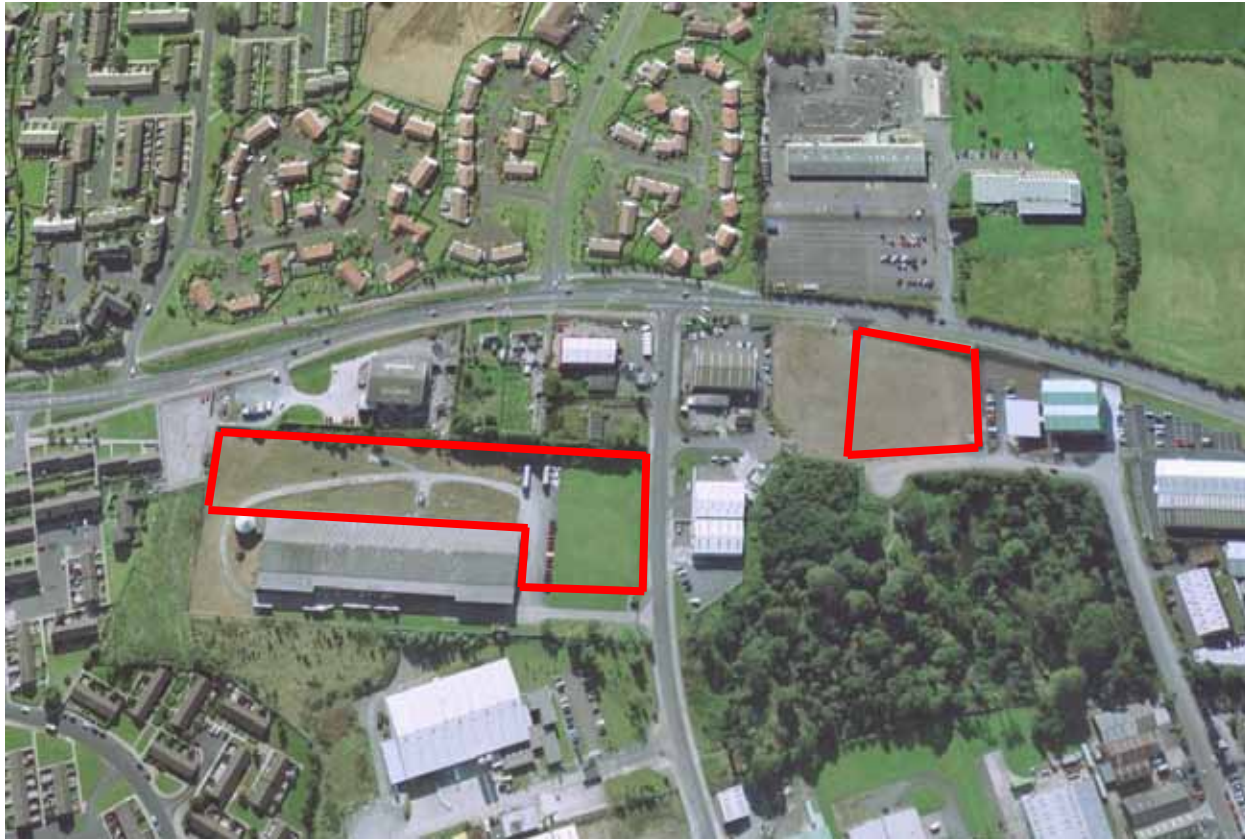
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Recycling Centre

Balloo Wood, Bangor

Michael Whitley Architects
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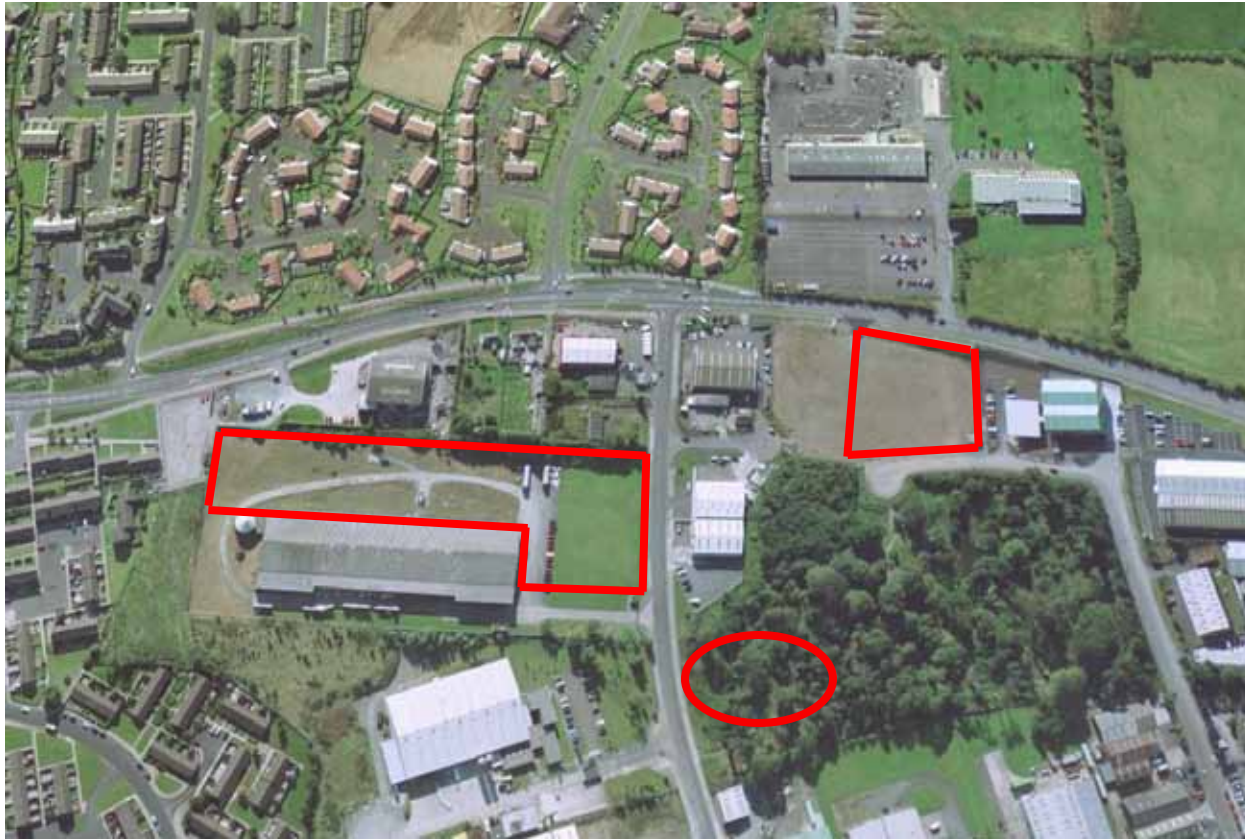
**Recycling
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**Transfer
Station**

Balloo Wood, Bangor

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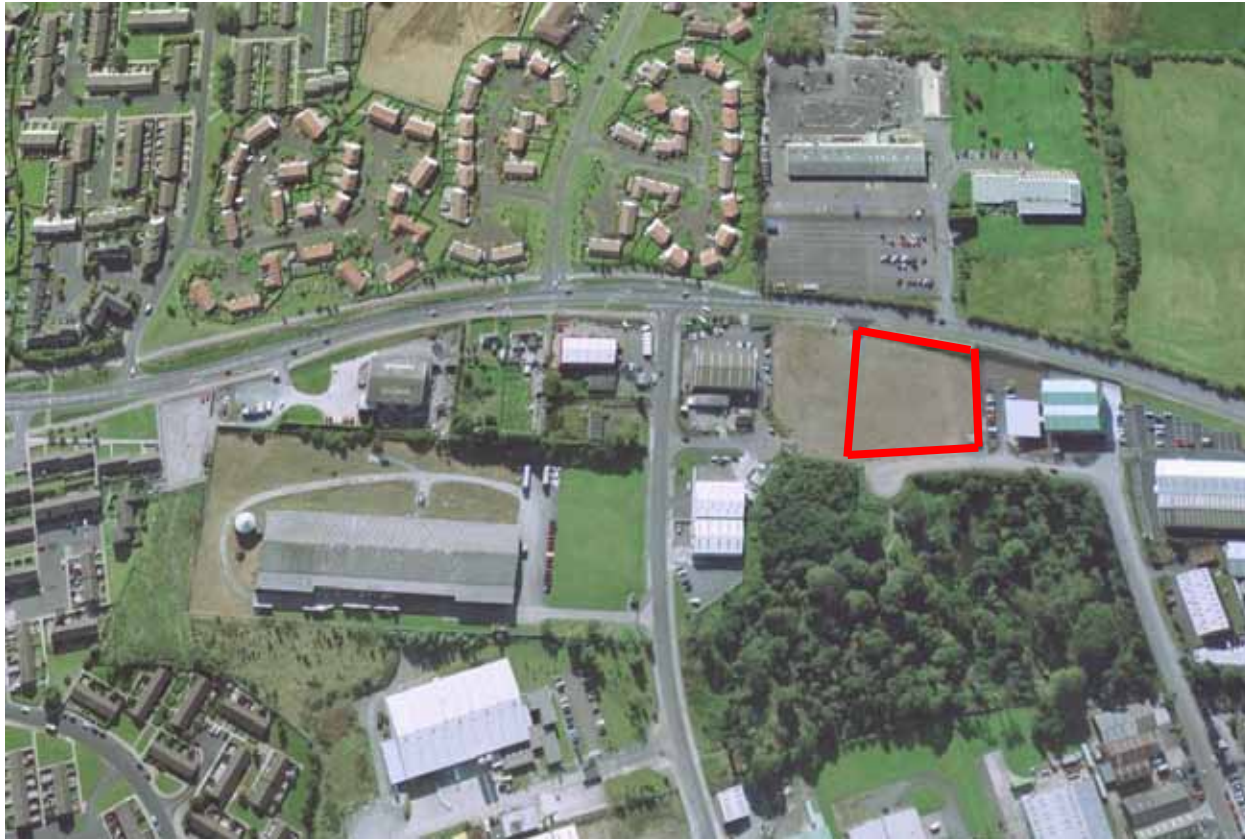
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**Wind
Turbine**

Balloo Wood, Bangor

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Recycling Centre

Balloo Wood, Bangor

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Recycle centre site

**Brownfield
site**



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Brief

CONCEPT

new image
user friendly
reduced queuing
obvious internal routes
multiple separation
simple disposal
clean
dry
safe
convenient
fun

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Recycle centre

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split level

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Sustainability

materials

- GGBS Concrete
- rock panels

energy

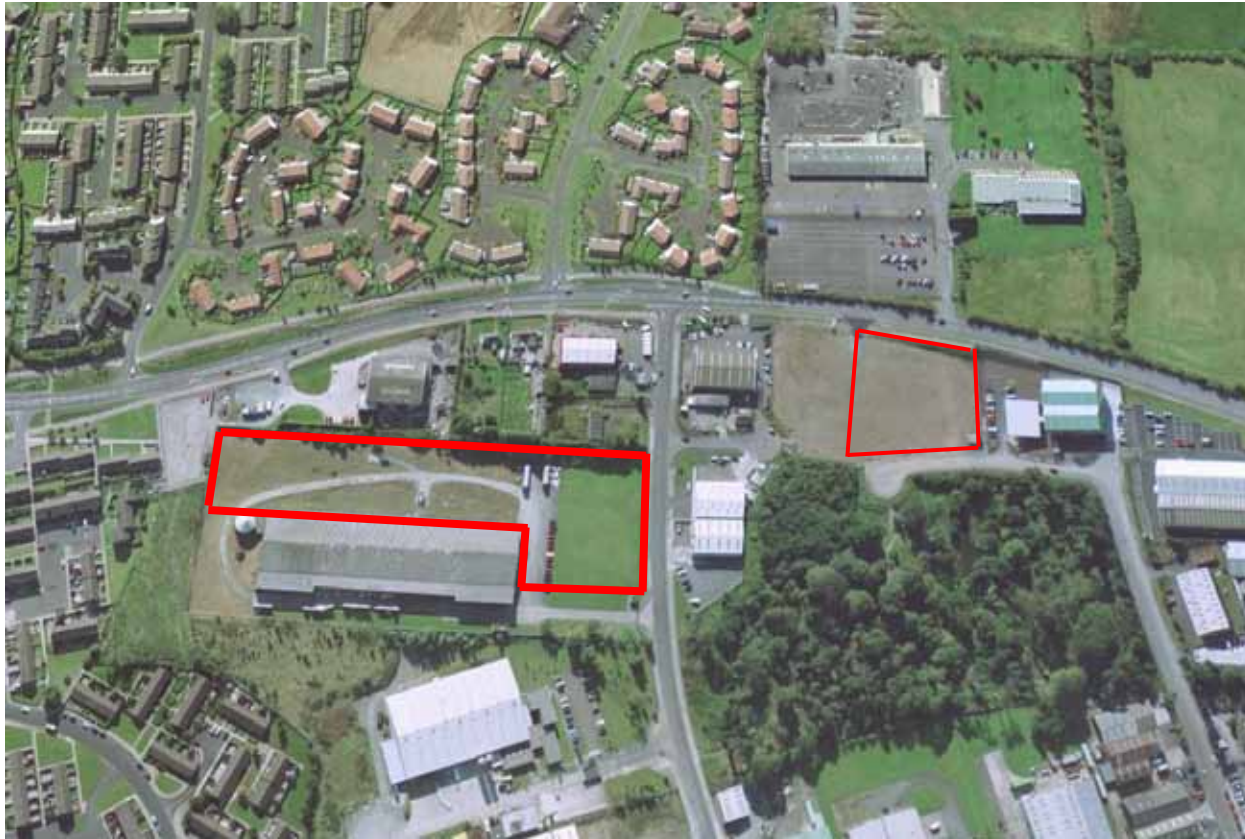
- solar panels
- wind turbine

waste

- rain water harvesting
- SUDS



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Recycling
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Balloo Wood, Bangor

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Transfer station site

**Brownfield
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Brief

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strong public image
staff friendly
multiple waste streams
simple internal routes
high technology
maximum automation
health & safety

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Waste Transfer Station



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Compactor



Cyclovent



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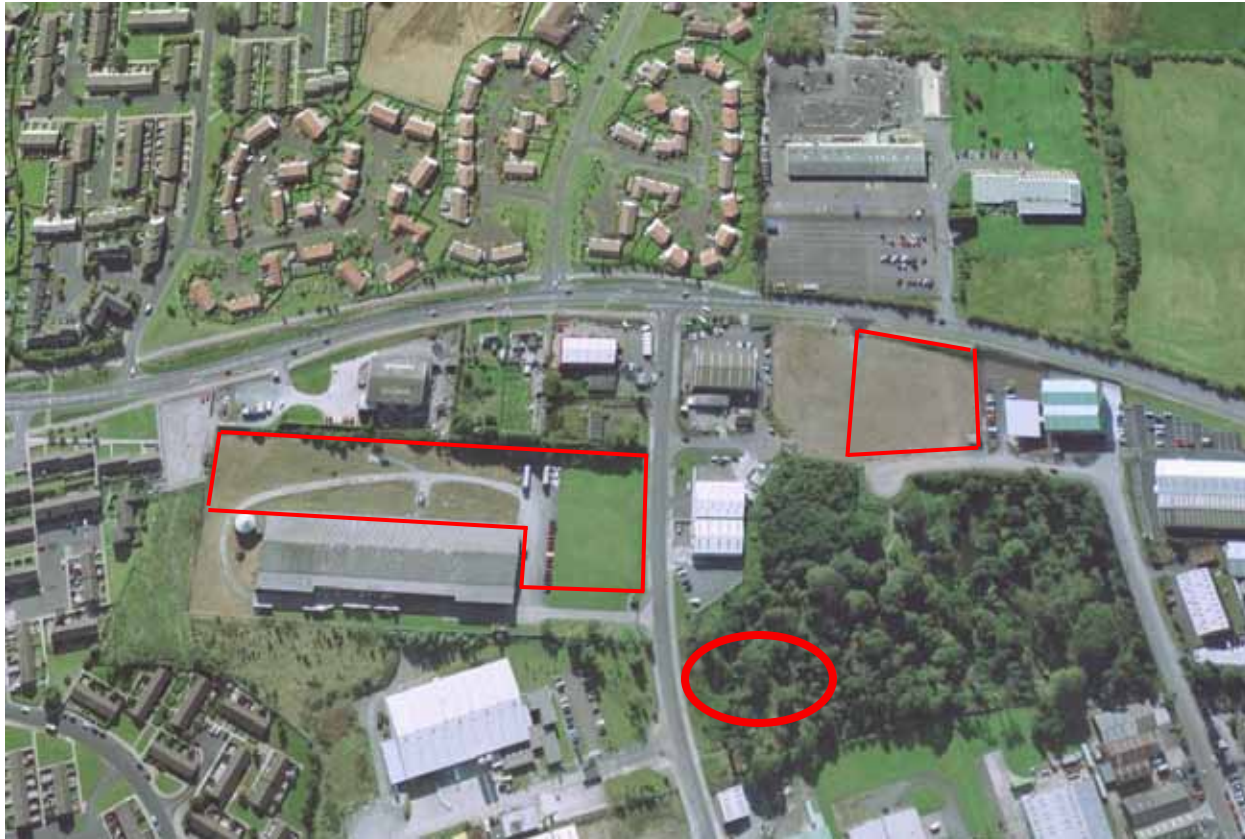
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Recycling
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**Wind
Turbine**

Balloo Wood, Bangor

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Ward Park

Historic Walled Garden, Bangor

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**Walled
Garden**

**Historic
Walled Garden,
Bangor**

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**Leisure
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**CHP
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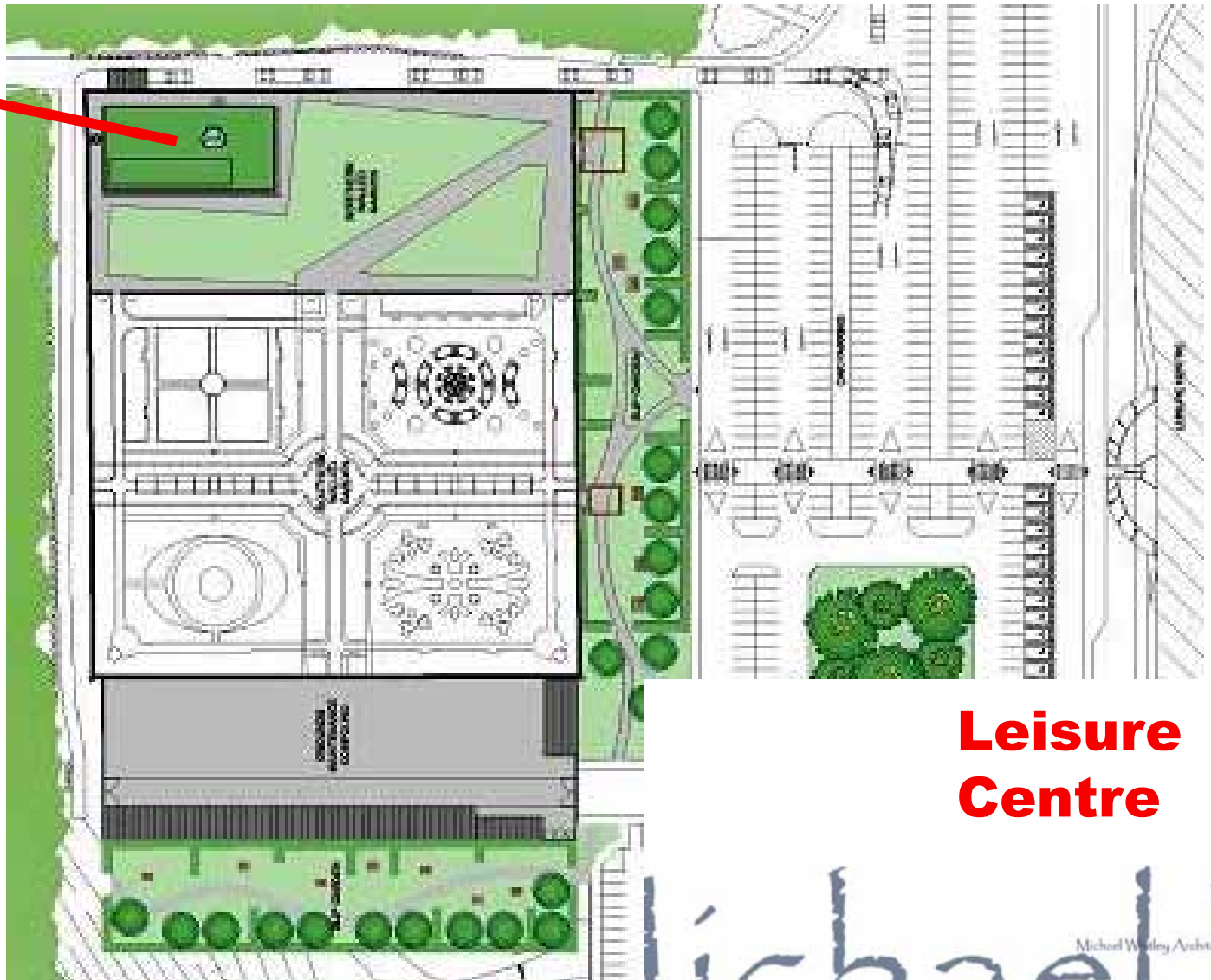
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**CHP
Plant**

**formal
walled
garden**



**Leisure
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CHP Plant



waste wood

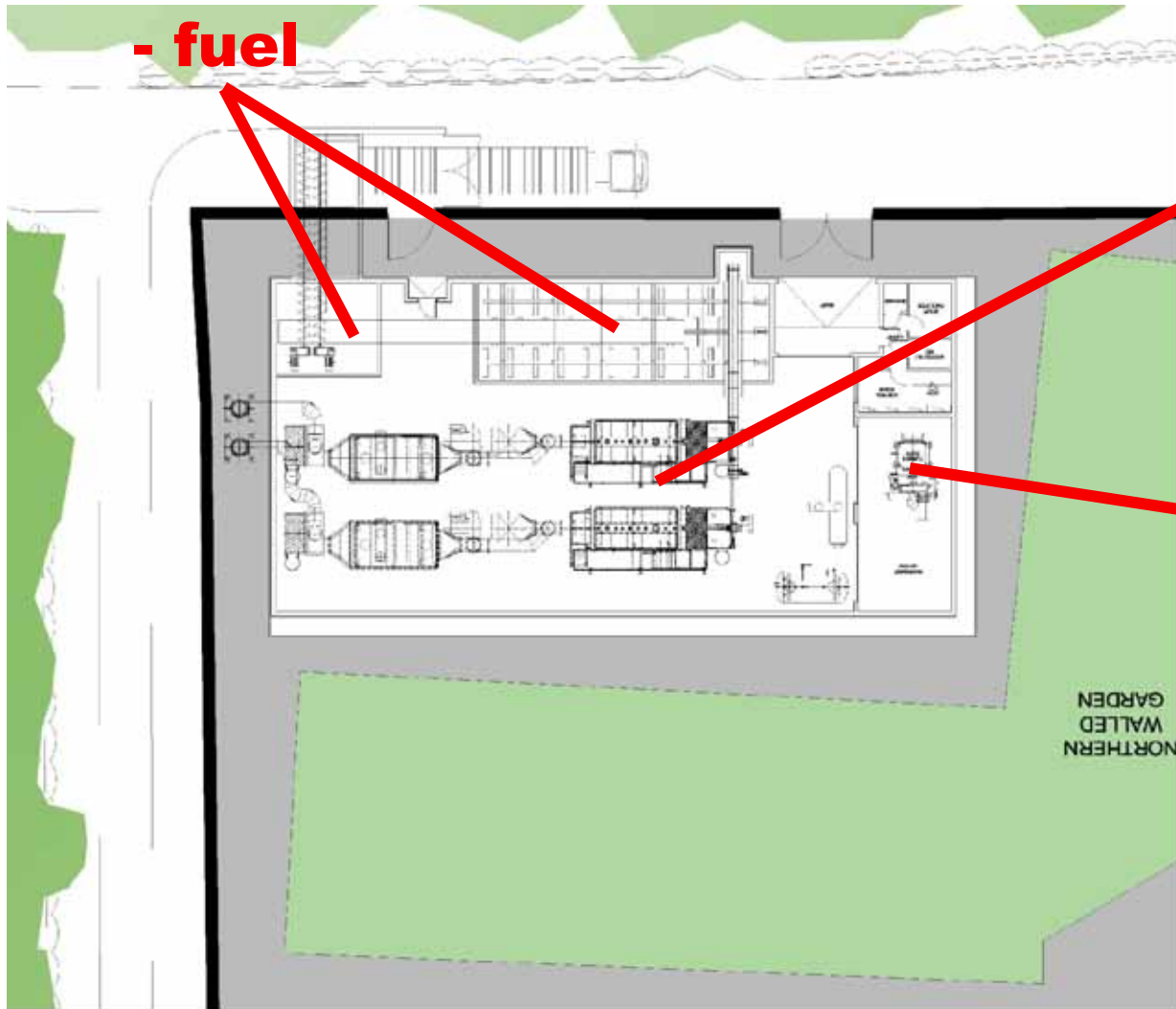
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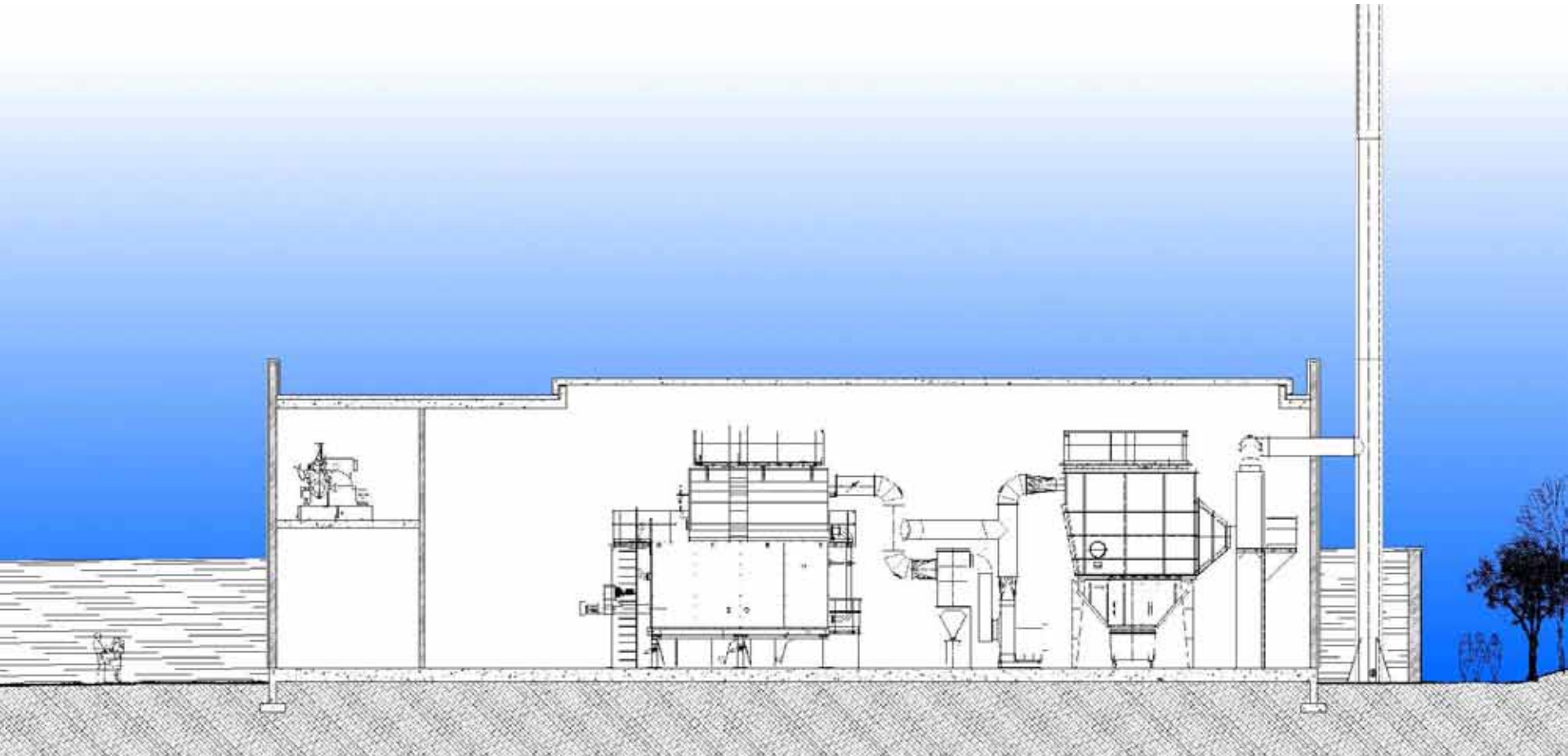
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CHP Plant





40m x 20m x 12m

CHP Plant

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inert box

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**natural
slate
[recycled]**

roof terrace

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Awards [so far !]



Awards

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CEEQual

- **materials**
- **wastage**
- **energy**
- **environmental impact**



Sustainable Project

client initiative

imaginative brief

focused project team

realistic budget

informed design team

extensive research

cooperative statutory bodies

realistic programme

competent contractor

sympathetic press



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ATTITUDE

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Trevor Polley

Chief Executive of North Down Borough Council,

“North Down is leading the way with these important projects.

We believe that they are facilities that other councils across the UK and Ireland will look to as examples of best practice and sustainability.”



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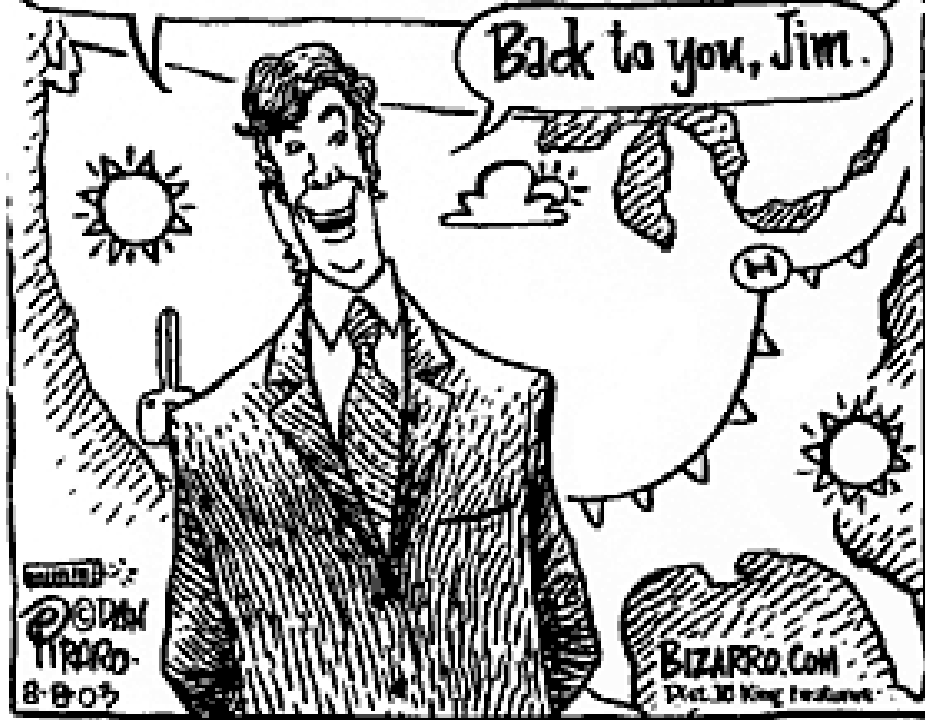
Global Warming



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Our extended forecast includes global warming & the catastrophic end of the human race. But for the weekend, it's looking like sunny skies, mild temperatures, & a general apathy toward environmental concerns.

Back to you, Jim.



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Waste



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Historical Initiative

Rathgael, Bangor

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Historical Initiative



split level dump

Rathgael, Bangor

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new location

**next generation
technology**

sustainability

[CEEQUAL]

Balloo Wood, Bangor

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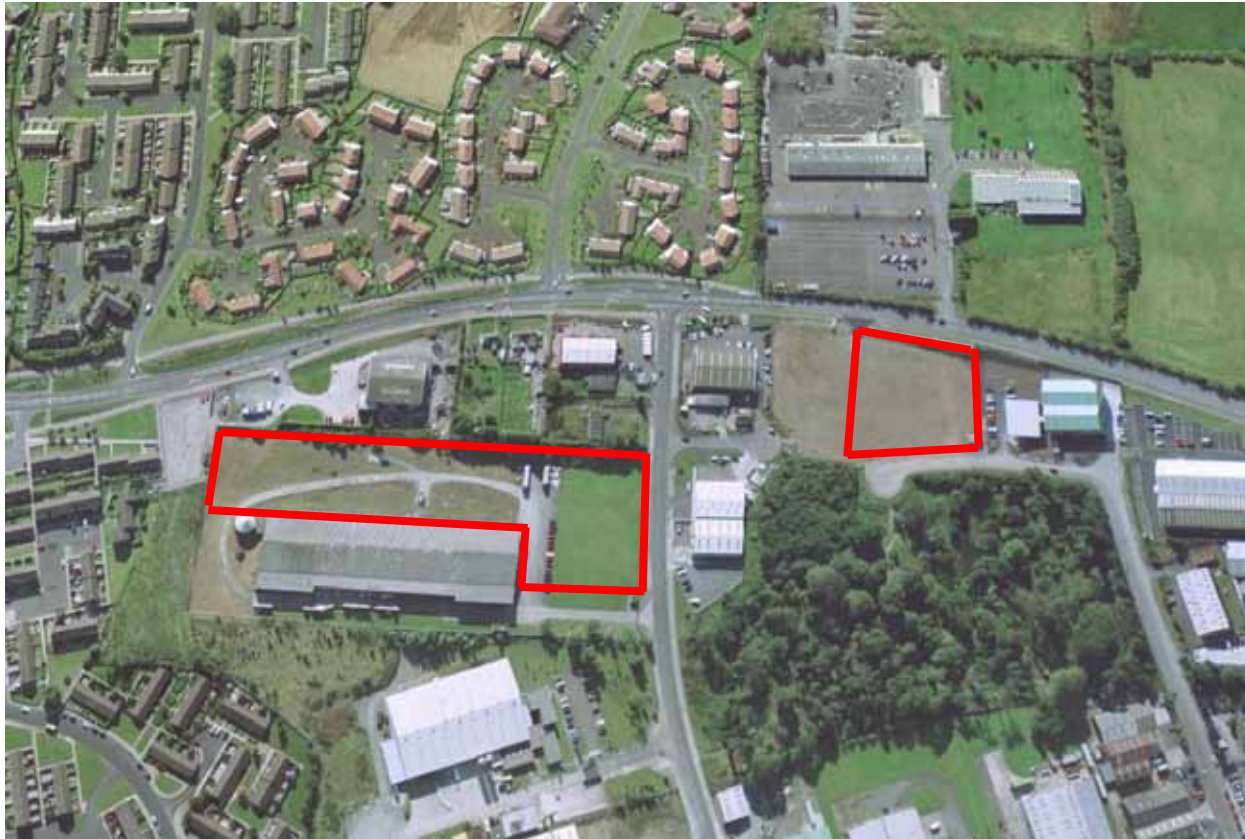
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Recycling Centre

Balloo Wood, Bangor

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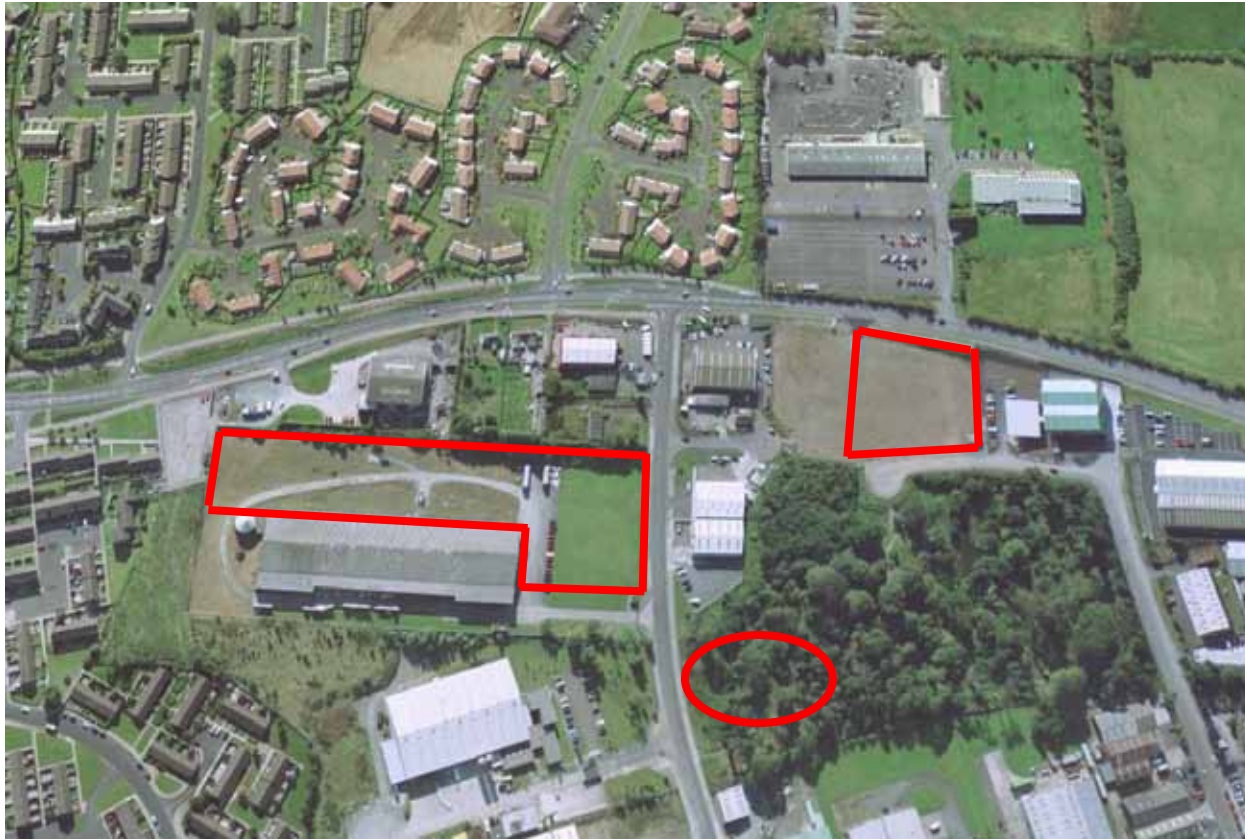
**Recycling
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Recycling Centre

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Recycle centre site

**Brownfield
site**



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Recycle centre

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split level

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Sustainability

materials

- GGBS Concrete
- rock panels

energy

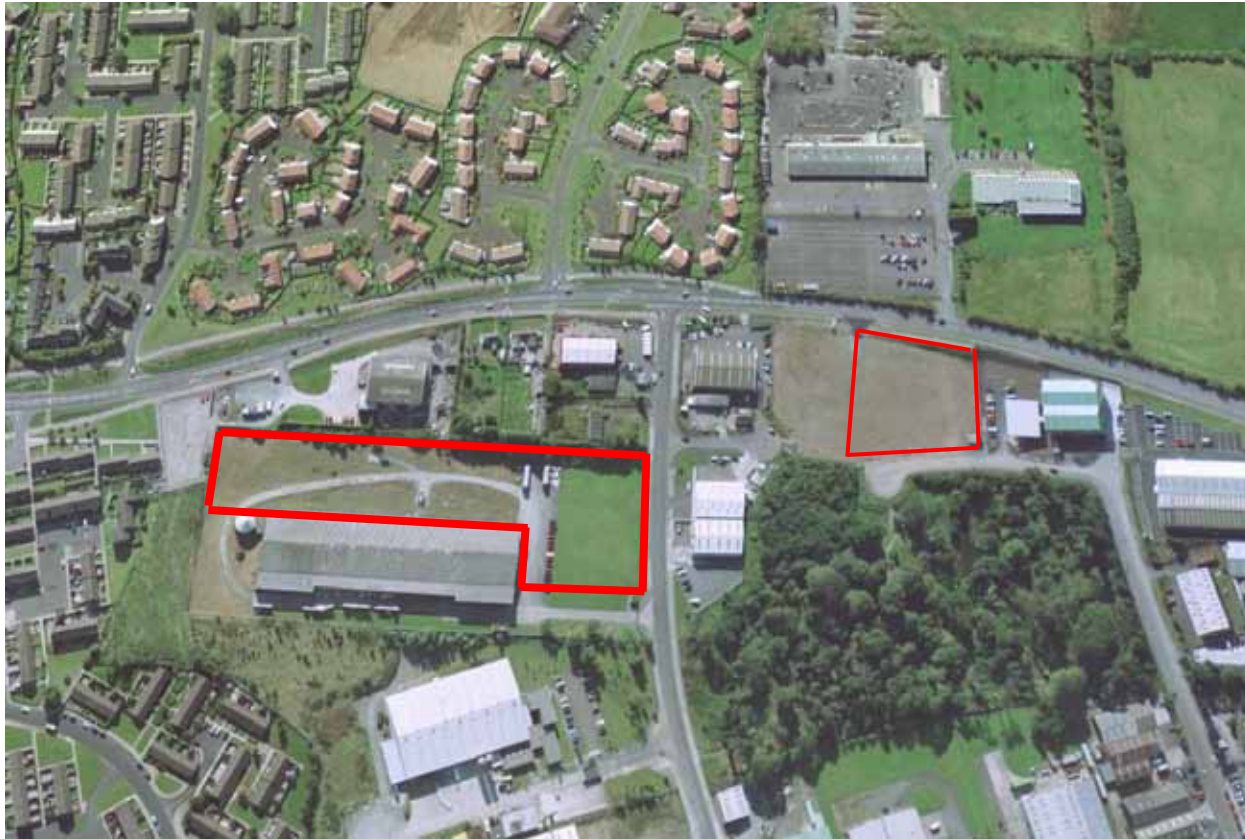
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waste

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Recycling
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Transfer station site

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Waste Transfer Station



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Compactor



Cyclovent



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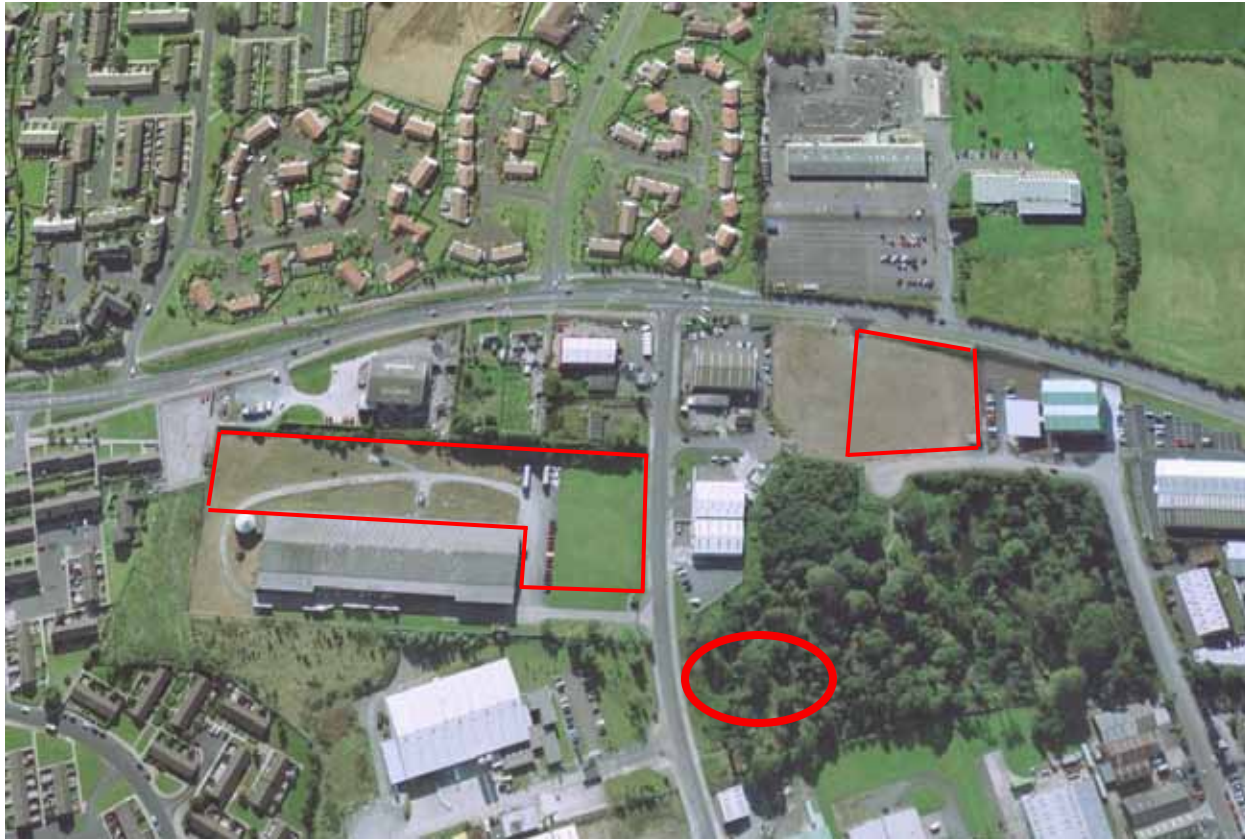
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Recycling
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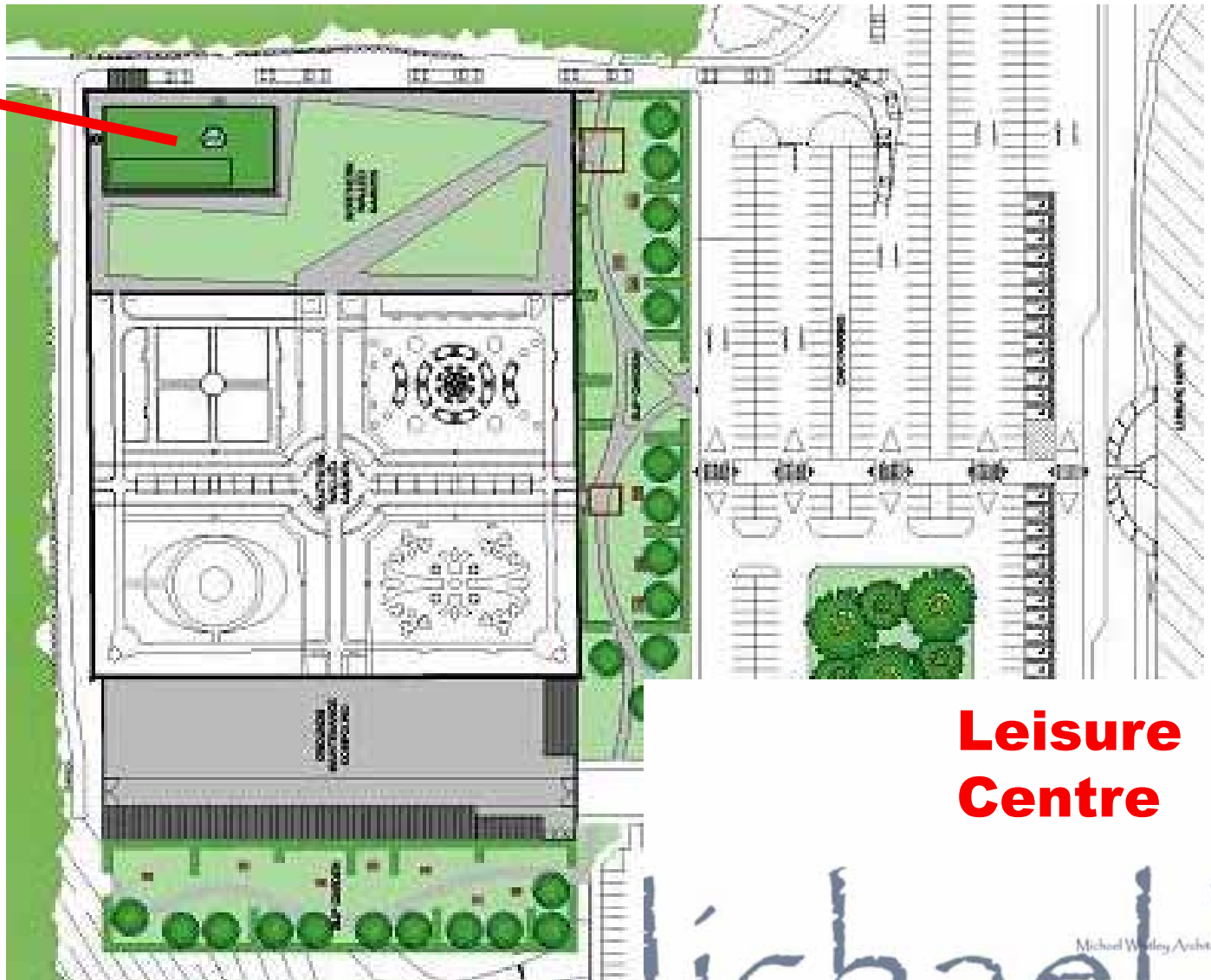
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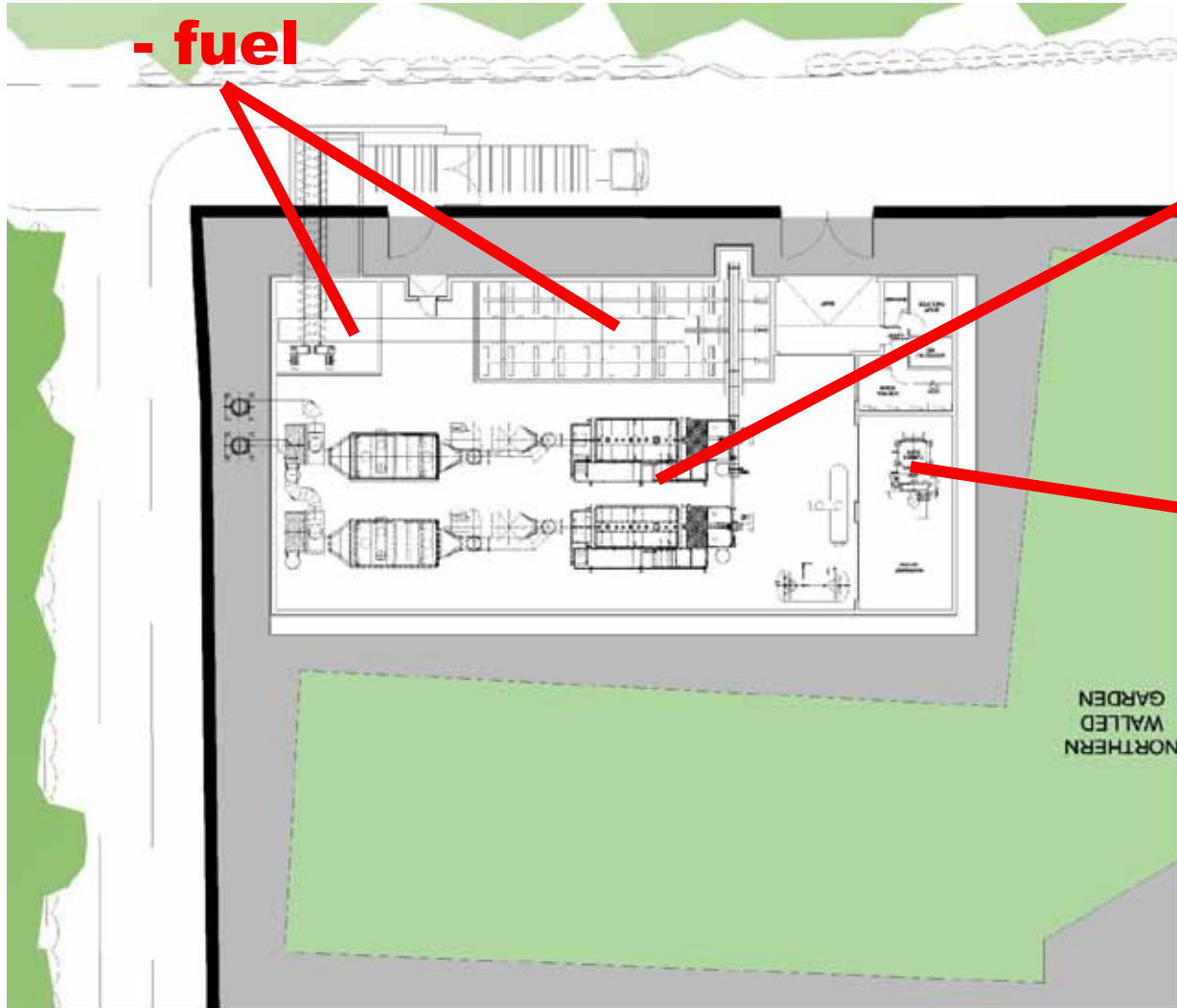
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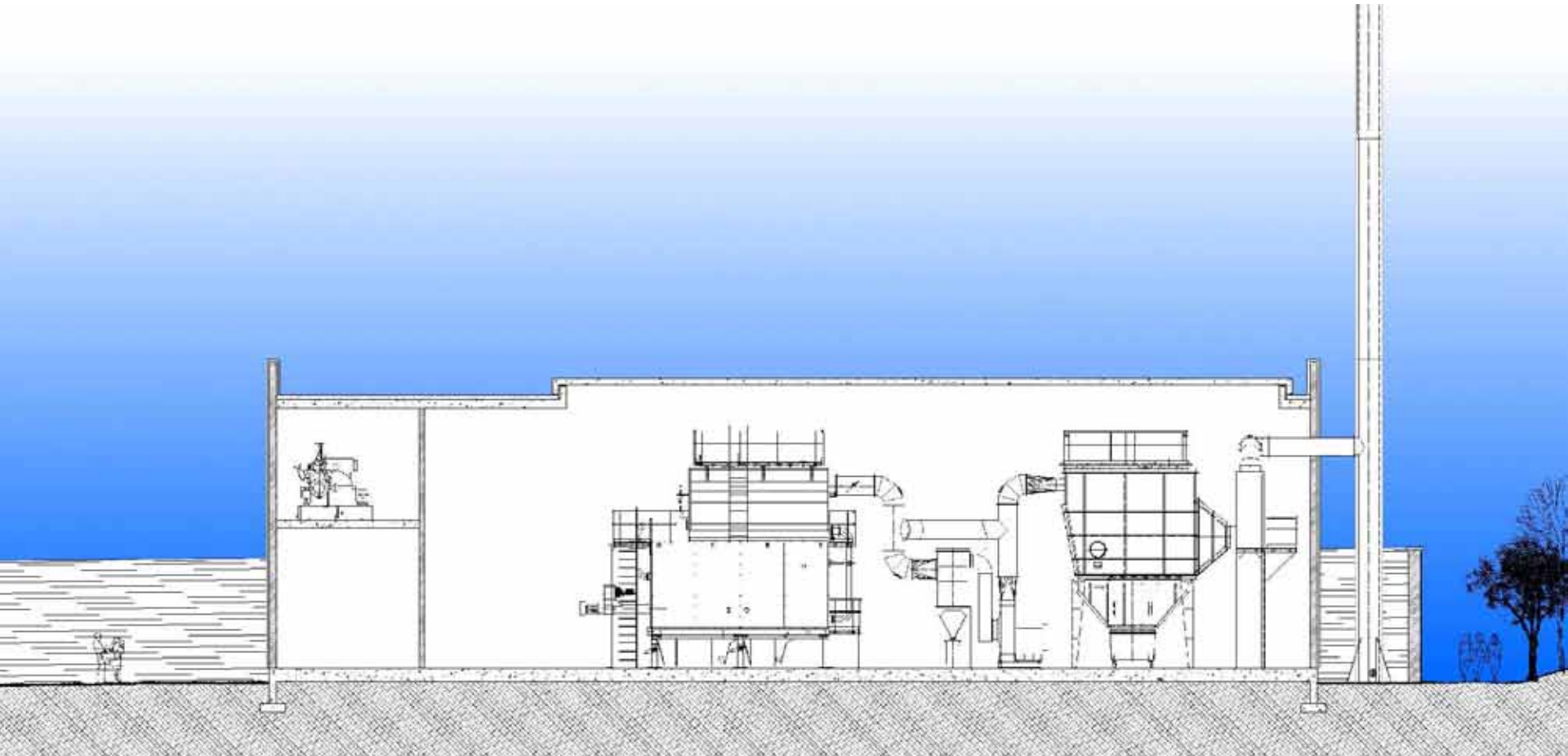
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APSE Northern Ireland one day seminar Incorporating the APSE Northern Ireland AGM

Monday 15 June 2009



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