

"Everyone must be clear that business as usual is not an option... our successors will have to live with the environmental consequences of the buildings we construct today".

**Margaret Beckett MP,**

*Sec. Of State for the Environment (2003)*



Photo: courtesy of Richard Green Director of Eastside

[www.natural-building.co.uk](http://www.natural-building.co.uk).

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#### REFERENCES

1. "Building a Better Quality of Life (DTI 2000)

#### USEFUL WEBSITE LINKS

Advantage W.Midlands <http://www.advantagewm.co.uk/>

Groundwork <http://www.groundwork.org.uk/>

Also soon forthcoming: [sustainable-eastside.net](http://sustainable-eastside.net)

Sustainable construction products merchants

Construction Resources <http://www.constructionresources.com/>

#### Case study

Zed Factory <http://www.zedfactory.com/>

Societies and associations

Timber Research & Development Association TRADA

<http://www.trada.co.uk/>

Association of Environmentally Conscious Builders AECB

<http://www.aecb.net/>

Royal Institution of Chartered Surveyors RICS

<http://www.rics.org/>

#### Specialist insurers

Zurich Municipal Insurance

<http://www.zurich.co.uk/Municipal/ZMHome/Welcome.htm>

#### Recycling schemes & initiatives – national

AggRegain <http://www.aggregain.org.uk/>

Centre for Alternative Technologies CAT

<http://www.cat.org.uk/>

Salvo <http://www.salvo.co.uk/>

UK Recycling Products Guide

<http://www.recycledproducts.org.uk/>

Waste Watch <http://www.wastewatch.org.uk/>

WRAP <http://www.wrap.org.uk/>

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Study commissioned by Groundwork Birmingham and undertaken by Faber Maunsell.

# Sustainable Eastside

## Advice Note No.2

*A Guide to the Availability of Sustainable and Local Building Materials For Eastside, Birmingham*

A website resource for guidance on sustainable building materials generally and suppliers in Eastside, Birmingham, the wider Midlands Region and the UK.



Photo: courtesy of Richard Green Director of Eastside



## **INTRODUCTION AND BACKGROUND**

This is website set up for the selection and procurement of sustainable building products in the regeneration of Eastside.

It now contains information on nearly 100 companies and suppliers of sustainable building products ranging from recycled concrete, reclaimed timber as well as advice on renewable energy systems.

The study also found areas where businesses could have opportunities for partnerships and increased local manufacturing of sustainable building materials.

### ***So what are 'Sustainable Building Products'?***

The specification of sustainable building products is essential in ensuring sustainable construction; those products that '... shall use less resources, have lower impacts and risks to the environment and prevent waste generation.'

### ***So why select 'Sustainable Building Products'?***

There is an increased drive now towards 'Sustainable Construction' as the application of sustainable development to the construction industry, the government suggests key themes for action by the construction industry:

- design for minimum waste
- lean construction (and minimise waste)
- minimise energy in construction and use
- do not pollute
- preserve and enhance biodiversity
- conserve water resources
- respect people and local environment.

The following facts demonstrate the reasons why adopting more sustainable construction is so important.:

- Our use of materials for construction is around 6 tonnes each year for every man, woman and child in the UK.
- Construction and demolition produce at least 70 million tonnes of waste each year, three times the amount of household waste. 13 million tonnes of this waste is unused materials.
- Some estimate that in the UK we are using 3 times our global share of resources.
- Energy produced from non-renewable sources & consumed in building services accounts for approx 50% of UK CO2 emissions, contributing to climate change, consuming non-renewable resources and adding to pollution.

### ***Sustainable Construction should first be addressed through design***

- Design for cleaner production and use (e.g., source reduction and less wastes)
- Design for reduction/substitution (of hazardous, toxic or otherwise environmentally unfriendly materials)
- Design for use of renewable materials.
- Design for durability, longevity, extended function, reuse and recycling, and simplicity.

### ***How do we know the materials on our website are truly sustainable ?***

All the products, companies, manufacturers and suppliers on the website have been thoroughly vetted through a sustainability matrix to verify their sustainability claims. Sustainable building products should have a sustainable approach and the issues covered have addressed the following issues as far as possible.

### ***Manufacturer's Sustainability Claims***

Where possible construction materials are sourced from manufacturers that demonstrate a commitment to sustainable development. Evidence of a business's commitment may include a certified Environmental Management System (e.g. ISO 14001, EMAS), adequate environmental and social policies and management systems exist for most of the suppliers.

### ***Corporate and Social Responsibility***

Corporate community engagement; i.e., details on involvement in community projects, education programmes for schools etc., exist so that companies can also demonstrate Corporate and Social Responsibility.

### ***Reused/reclaimed materials***

Wherever possible there are materials on the site, which are reused or reclaimed materials; i.e., those which are recovered from the waste stream and put back into use with minimal or no reprocessing (e.g. used bricks can be reincorporated in masonry walling).

### ***Recycled materials***

Failing this then the next best option is providing recycled materials; those, which require reprocessing before reuse, either as a primary material (e.g. cans made from recycled aluminium) or as a secondary material (e.g. rubber floor tiling made from tyres).

### ***Embodied energy***

Embodied energy refers to the energy spent to extract, manufacture, deliver, and theoretically lay / install the material considered. Where possible, materials with the least embodied energy should be selected.

### ***Locally Sourced Materials***

Sourcing materials locally will help reduce embodied energy, as less energy will be used to transport materials and pollution kept to a minimum.

### ***Search Engine***

The search engine has been set up particularly to promote the use of suppliers as close to and within Eastside wherever possible. The idea being that the shorter distance materials are transported that less CO2 emissions will produced and the impact on climate change lessened as far as possible. Materials and products can be searched for on a hierarchy starting with suppliers in Eastside first, then inner Birmingham, outer B'ham, the West Midlands and the UK.

### ***Local Business and Employment***

The promotion of local materials will also promote local business and employment; identifying opportunities where more sustainable building products could be manufactured locally.

### ***Natural Building Technologies***

Natural Building Technologies Ltd (NBT) is a technical and product development business with a new generation of ecological materials and systems. NBT believes that if the shell of the building is correctly constructed, then most of the main functions of buildings (weathering, thermal and acoustic protection and a healthy indoor environment) can be dealt with; meaning less need for additional services, greater durability, and less financial and environmental cost over the life of the building.

NBT has selected its materials on the basis of performance, ecology and cost effectiveness, which together combine into NBT systems

- Insulation: Woodfibre, flax, sheepswool and cellulose
- Boards Plasters Renders and Mortars: Lime, lime-cement, and clay products
- Blocks: Ziegel fired clay blocks for solid wall construction
- Paints: a range of UK produced trade paints, and a range of German Silicate paints

NBT is used as an example by the DTI/DEFRA Environmental Innovations Procurement Group, showing how a step change in construction in the could UK to bring meaningful long term environmental and health benefits.