



IBA ICP Working Weekend May 2018

Richard Bailey – Goodman Derrick LLP

Climate Change and its influence in the Construction Industry

Introduction - Climate Change



Introduction 2

- Climate change is happening and it is going to effect all of our lives.
- In the construction industry we are responsible for a large percentage of the greenhouse gases that are warming our world.

| Resource | (%) |
|--|-------------------|
| Energy | 45-50 |
| Water | 50 |
| Materials for building and roads (by bulk) | 60 |
| Agricultural land loss to buildings | 80 |
| Timber products for construction | 60 (90 hardwoods) |
| Coral reef destruction | 50 (indirect) |
| Rainforest destruction | 25 (indirect) |

Introduction 3

The Core Principles

Estimate of global pollution that can be attributed to buildings

| Pollution | (%) |
|--------------------------|------------|
| Air quality (cities) | 23 |
| Climate change gases | 50 |
| Drinking water pollution | 40 |
| Landfill waste | 50 |
| Ozone Depletion | 50 |

Contracts

- Very little has been done to amend standard forms of contract.
- Joint Contract Tribunal Design and Build Contract 2016 - Supplemental Provision 8 Sustainable development and environmental considerations

.1 The Contractor is encouraged to suggest economically viable amendments to the Works which, if instructed as a Change, may result in an improvement in environmental performance in the carrying out of the Works or of the Completed Works.

.2 The Contractor shall provide to the Employer all information that he reasonably requests regarding the environmental impact of the supply and use of materials and goods which the Contractor selects.

Its optional!

Contracts 2

- Employers are now requiring in amended contracts compliance with stricter environmental considerations when building
- Voluntary codes - eg Considerate Constructors Scheme
- We will conduct our business with respect and care for the environment and avoid pollution of the environment through our activities. We will:
 - at all times comply with applicable legislation relating to the environment;
 - identify the significant environmental aspects and impacts of our activities and set objectives and targets to improve our environmental performance;
 - conserve resources by efficient use of energy and water;
 - monitor and reduce our carbon footprint relative to our activities;
 - minimise waste generation and handle waste materials in a responsible manner, re-using and recycling materials where practicable;

Contracts 3

- Considerate Constructors Scheme, cont'd
- promote the education and training of employees and Monitors in environmental matters applicable to their activities;
- work with suppliers, member organisations, customers and Monitors to promote awareness of the importance of environmental issues and the need to work in an environmentally responsible manner;
- aim to implement and maintain ISO 14001:2015. Environmental management system to reduce waste and control pollution

Contracts 4 BREEAM

- BREEAM Code for a sustainable built environment
- An international scheme that provides independent third party certification of the assessment of the sustainability performance of individual buildings, communities and infrastructure projects
- Increasingly being incorporated into contracts with a requirement that the works when complete will achieve an excellent BREEAM rating.
- New Construction in the UK released this year.

Contracts 5 BREEAM

- BREEAM Code for a sustainable built environment
- considering impacts and costs from a lifecycle perspective
- reducing operational costs.
- enhancing the buildings economic and social value whilst mitigating its environmental impact
- creating better living and working environments for people, enhancing occupant satisfaction
- enhancing market demand, helping developers and owners to attract tenants, occupiers to attract and retain staff and house builders to showcase the quality of their homes to purchasers
- driving improvement in sustainable building approaches and technologies
- giving independent, third party certification of a development's sustainable credentials
- contributing to corporate social responsibility, business reporting and sustainable business leadership.

Contracts 6

- Contracts also provide for compliance with regulations. For example SWMP Regulations 2008 (Site Waste Management Plan) stopped being compulsory in 2013
- A framework for delivering materials resource efficiency – it is a working, living document from project inception to completion and provides a structured approach to waste minimisation and waste management during a demolition/construction project;
- Why use a SWMP?
- The idea is that using a SWMP should provide the construction industry with an effective and efficient means to reduce waste, increase profit and maximise resource efficiency, both on and off-site and across the supply chain;
- Compliance with SWMP Regulations to avoid being penalised for offences under the Regulations – in so doing, ensuring that the duty of care owed in the construction industry is managed appropriately.
- But what are the risks of these codes

It can go wrong



Changes in construction to deal with climate change

- Construction practices are changing:
- Use of renewable materials in construction
- Use of recycled material
- Whole life design including demolition and recycling of buildings
- Passive solar heating
- Solar shading
- Grey water recycling
- The future

One final thing

