

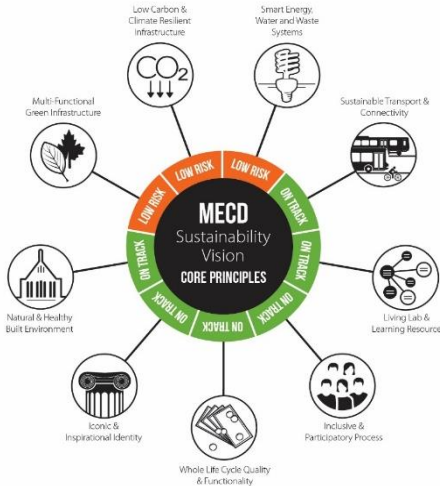
BURO HAPPOLD

Delivering a Sustainable MECD



Commitment and outcome

2012-2013 Stage 1 Briefing



2014-2018 Stage 2-4 Design & Monitoring

MECD Environmental Sustainability | Progress Dashboard

WIS Construction | Apr-2018

THINK

ES Tracker Score and RAG Status
 RAG: 10 Green, 7 Yellow, 0 Red

BREEAM **Green** **5** **Stars**

Energy / CO2

- ✓ Reduced carbon footprint: 40% reduction from baseline
- ✓ 100% carbon footprint reduction on construction materials
- ✓ 100% carbon footprint reduction on construction services
- ✓ 100% carbon footprint reduction on construction equipment
- ✓ 100% carbon footprint reduction on construction site
- ✓ 100% carbon footprint reduction on construction site
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- ✓ 100% carbon footprint reduction on construction site

Water

- ✓ 100% water reuse
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Transport

- ✓ 100% low carbon transport
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Waste & Materials

- ✓ 100% waste reuse
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Climate Change

- ✓ 100% climate change
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BREEAM, Health & Pollution

- ✓ 100% BREEAM
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Biodiversity & Green Infrastructure

- ✓ 100% biodiversity
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Communication & Research

- ✓ 100% communication
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- ✓ 100% communication

MECD Environmental Sustainability Project Tracker

Date: 18/04/18
 Rev: C31 - Stage 5 Review
 By: GC (ESA, Burdett)

Contractor Proposals	WIS - 7 Responsibilities (B+C+D+E+F+G+H+I)		WIS - 7	RAG Status
Approved Targets	CONTRACTOR	EMPLOYER	Key Actions / Documentation	
ENERGY				
ES001 Carbon Life Cycle Analysis	Water to Structural Concrete Specification	100% GGBS cement replacement	1. Completion of the proposed and final GGBS cement replacement used for each concrete mix.	2

Balfour Beatty | Green Sheet

MECD | Green Sheet

1. Key Project Environmental Sustainability KPIs

We appreciate our suppliers will have a broad overview of the key project requirements below but we are keen to ensure that sustainability is a deliverable responsibility and a key part of the value contribution that results in successful delivery against the University's Environmental Sustainability objectives. As such, templates provided for the construction should be signed off by you.

Category	Environmental Sustainability	System Assessment	By	Target
1	1.1 Carbon footprint	100% reduction	18/04/18	100%
2	2.1 Water reuse	100% reuse	18/04/18	100%
3	3.1 Waste reuse	100% reuse	18/04/18	100%
4	4.1 Biodiversity	100% protection	18/04/18	100%
5	5.1 Construction waste	100% reduction	18/04/18	100%
6	6.1 Materials	100% reduction	18/04/18	100%
7	7.1 Energy & CO2	100% reduction	18/04/18	100%
8	8.1 Transport	100% reduction	18/04/18	100%
9	9.1 Waste & Materials	100% reduction	18/04/18	100%
10	10.1 Climate Change	100% reduction	18/04/18	100%
11	11.1 Biodiversity & Green Infrastructure	100% protection	18/04/18	100%
12	12.1 Communication & Research	100% protection	18/04/18	100%

Green Sheet Environmental Sustainability Declaration

Environmental Sustainability KPIs relate to construction site activities and therefore applicable to you who will be working on site. Each supplier has a key part to play in helping Balfour Beatty deliver on its KPIs so we rely on each value your contributions and resources.

Key Contractors Signature

I/We hereby confirm that we have read and understood the above requirements and will ensure that our work on site will be in accordance with the above requirements and will ensure that our work on site will be in accordance with the above requirements and will ensure that our work on site will be in accordance with the above requirements.

Key Milestones

Balfour Beatty will monitor and report on total site energy consumption (plant and site). How can your proposals help minimise energy consumption in the construction (e.g. via alternative processes, innovative energy efficient plant and equipment)?

SUSTAINABILITY **THINK**

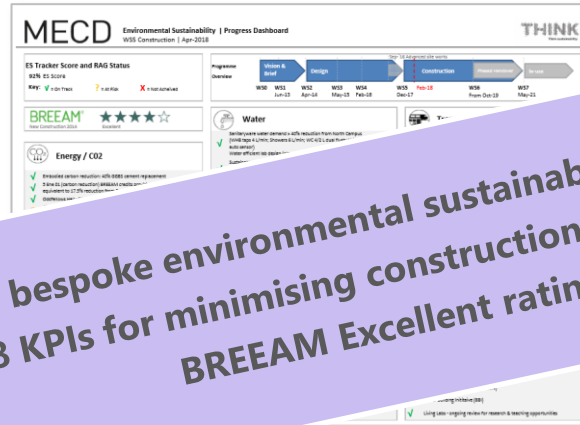


Commitment and outcome

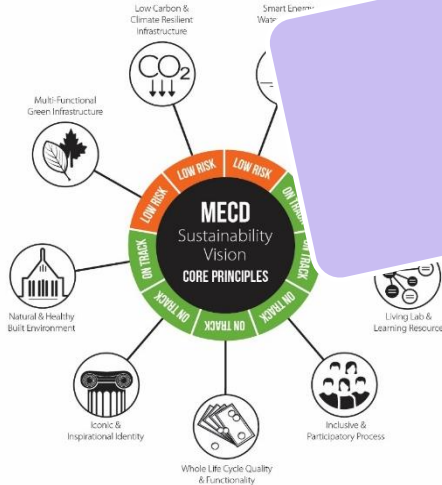
2012-2013
Stage 1 Briefing



2014-2018
Stage 2-4 Design & Monitoring



39 bespoke environmental sustainability targets
18 KPIs for minimising construction site impacts
BREEAM Excellent rating



mMECD Environmental Sustainability Project Tracker		Date: 18/04/18			
Voltage Stage 5-7		Rev: C33 - Stage 5 Review			
		By: GC/ESA, Burahappold			
Target (Integration point to W2S highlighted in pink)	TOPIC:	Contractor Proposals	W2S - 7 Responsibilities (6 = Lead + Co-lead)	W2S - 7	RAG Status
		Agreed Targets	CONTRACTOR	EMPLOYER	
ENERGY					
ES001	Carbon Life Cycle Analysis	Water to Structural Concrete Specification (Min 80% GGBS cement replacement)			1. Continuation of the proposed and final GGBS cement replacement used for each concrete mix. 2



Commitment and outcome

Building Less

~**40% reduction** in floor area from North Campus, whilst delivering the same functional requirements

Use Less New

>**15% recycled content** in new construction materials
>**10% of furniture** from North Campus reused in MECD

Less Energy & Carbon

Potential for over:
50% reduction in energy consumption
40% carbon reductions (first year)

Less Water

Potential for over
40% reduction in water use

Construction Impact

97% demolition waste recycled
95% construction waste diverted from landfill

Greener campus

73 new trees (better than one for one replacement)
New **690m² green roof**
13% soft landscaping, with native species and plants for pollinators maximised

Health Wellbeing

Optimised **daylighting and views out**
35% of the building natural or assisted natural ventilation
Outdoor space maximising access to nature

Climate Resilience

Ready for **2050 weather projections**
Allowance for **increase in rainfall** in the drainage design

Sustainable Travel

Consolidated campuses – **less travel**
Active Travel Hub (100 secured cycle spaces & facilities)
424 additional cycle spaces across MECD
Bicycle repair stations

Future Thinking

- Designed for future flexibility and adaptability
- Commitment to **3 year Post Occupancy Evaluation**
- **BBI** – ‘fine tuning’ the building