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Engineering a Better Society

RECBE – IStructE Sustainability Report Template and Checklist

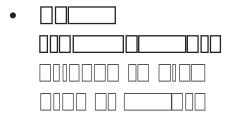
07.10.2022

Ian Poole Senior Engineer and Sustainability Consultant

"A template report to add project-specific information based on work undertaken to increase the sustainability of the project."

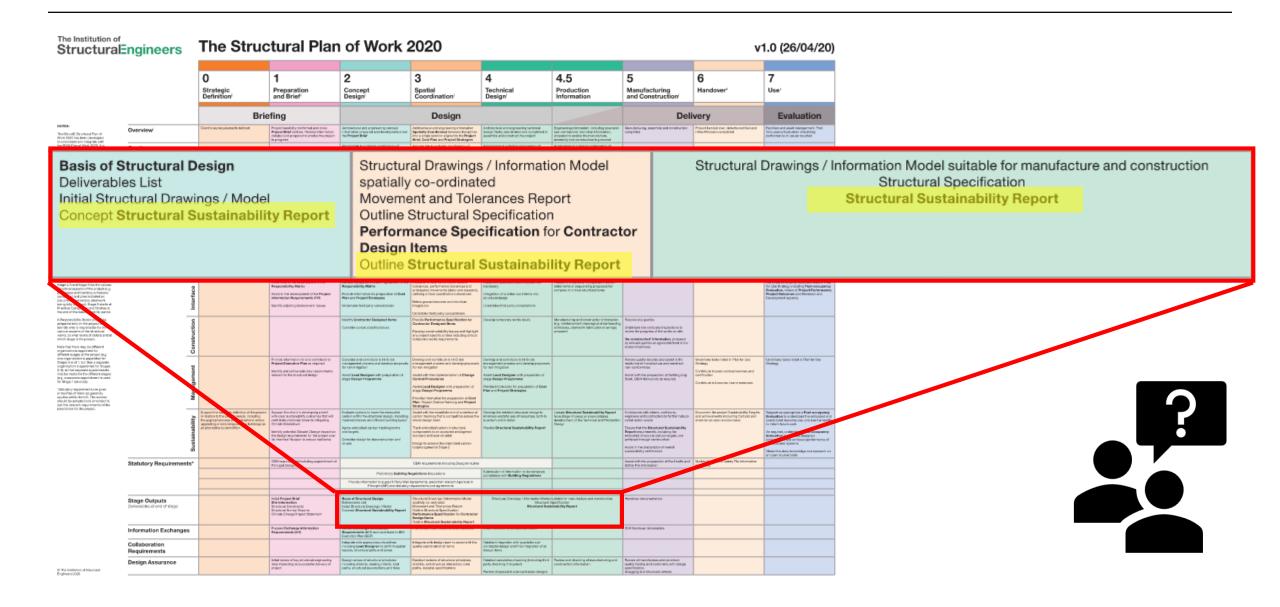
The Structural Plan of Work 2020

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				Proliminary Building Regulations discussions Provide international coupon Party Visit Agreements, and other relevant Agreements Principle (All) and statutory regularizations and agreements		Solenission of Information to demonstrate comptance with Building Regulations				
				Ranning Application support						
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The Structural Plan of Work 2020



- Provide a **standard scope for sustainability reporting** to ensure alignment across the profession and encouraging adoption by clients;
- **Drive best practice** through the use of IStructE and other publications and guidance, using links provided in the template;
- Record design decisions, principles and development that drive towards a highly sustainable structure during construction and use, and maximising extension of life through circular economy principles;
- Inform those constructing, using, retrofitting, and deconstructing the structure, so that they can unlock every environmental benefit enabled by the design;
- **Promote the sustainable specification and procurement** of materials, and consideration of sustainability in tendering processes.

Format - Example

1.7 Client ambitions and policy requirements

This project should meet your sustainability ambitions in line with your Corporate Social Responsibility Statements and wider commitments (e.g. Science Based Targets initiative) made to align with national legislation for achieving net zero.

The project must also meet requirements dictated by local and national planning policy and regulation and be resilient to future changes which may impact on planning approval as well as reputational impacts.

The following provides a summary of the requirements agreed for the Project to meet these ambitions and requirements. IStructE

0 ...

There is a growing adoption of regulations, policy and standards which may affect the requirements of the project, as well as the Client commitments.

We recommend discussing this at early stages with the Client to gain a better understanding of their commitments and aims (using their Corporate Social Responsibility Statements and other public commitments to guide the conversation). The outcomes are much more likely to be achieved through discussion with the Client – working to understand their needs, and demonstrating how the sustainable design fits with this.

A non-exhaustive list of some policy requirements in the UK is provided below that may be used for reference and can be included in the box above where relevant.

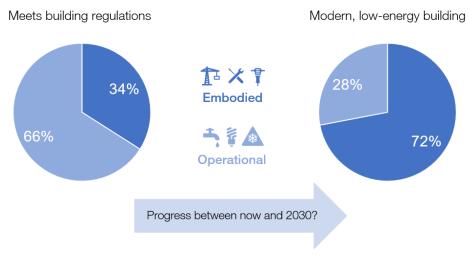
However, make sure to consult sustainability and planning advisors to understand the exact needs. Note, if there are no specific policy requirements, we advocate using the GLA SI2 requirements for energy and carbon assessments which are current best in class and SI7 requirements for circular economy assessments.

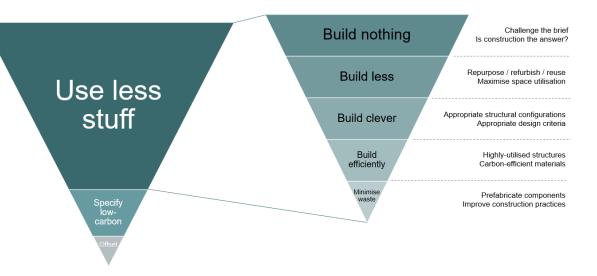
Accreditation – BREEAM and LEED both contain requirements for undertaking whole life cycle

Introduction

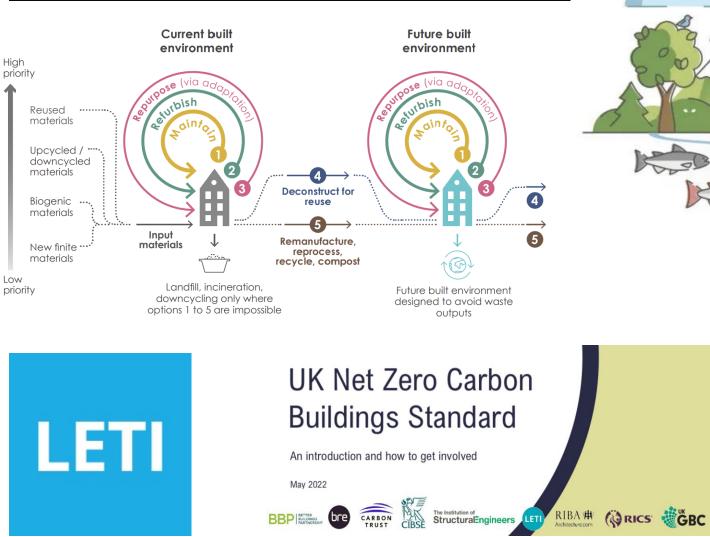
SUSTAINABLE GOALS 1 NO POVERTY 3 GOOD HEALTH AND WELL BEING 6 CLEAN WATER AND SANITATION 5 GENDER EQUALITY ZERO Hunger Ø Ų **Ň:**††:Ť _⁄\/∳ 8 DECENT WORK AND ECONOMIC GROWTH INDUSTRY, INNOVATIO 10 REDUCED INEQUALITIES 11 SUSTAINABLE CI AND COMMUNITI 12 RESPONSIBLE CONSUMPTION AND PRODUCTION ĩ $\langle \equiv \rangle$ $\mathcal{O}\mathcal{O}$ $\mathbf{\nabla}$ 13 CLIMATE ACTION 15 LIFE ON LAND 16 PEACE, JUSTICE AND STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS 14 BELOW WATER SUSTAINABLE DEVELOPMENT GOALS **** **&**

LCA Terminology	Product Stage (A1-3)			Construction Process Stage (A4-5)		Use Stage (B1-7)						End-of-Life Stage (C1-4)				Benefits/Loads Beyond System Boundary (D)	
	E Raw material extraction	R Transport to manufacturing facility	S Manufacturing	Transport to construction site	Construction installation process	T Use / application	Maintenance	Repair	Replacement	Refurbishment	90 Operational energy use	20 Operational water use	Deconstruction / demolition	Transport	ର Waste processing	Disposal C4	Reuse, Recovery, Recycling
Upfront carbon																	
Embodied carbon																	
Operational carbon																	
Whole life carbon																	





Introduction

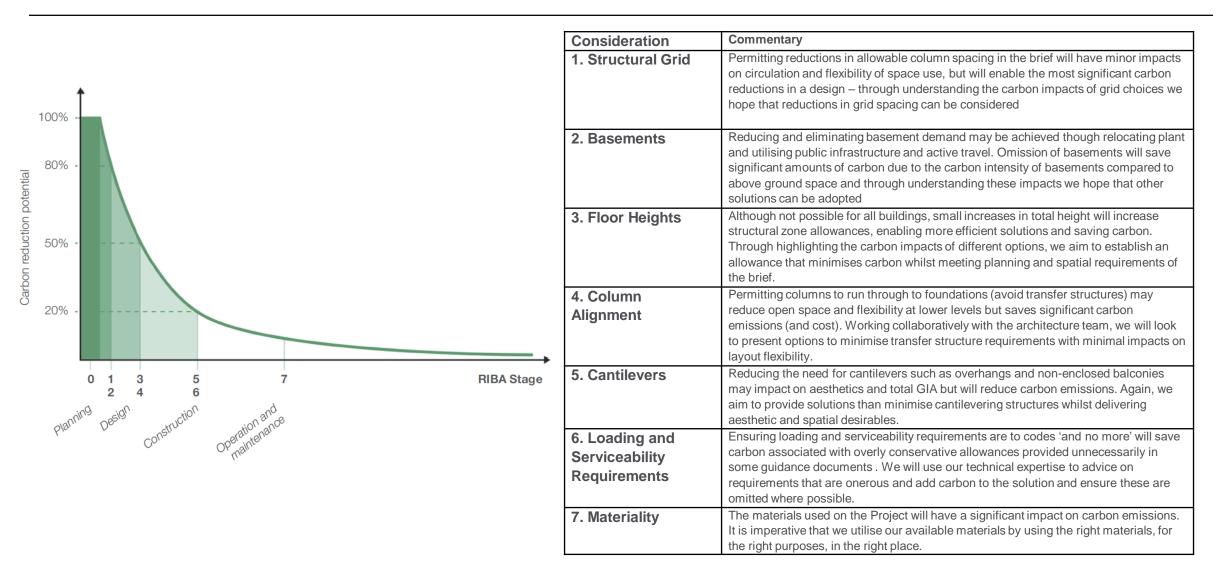




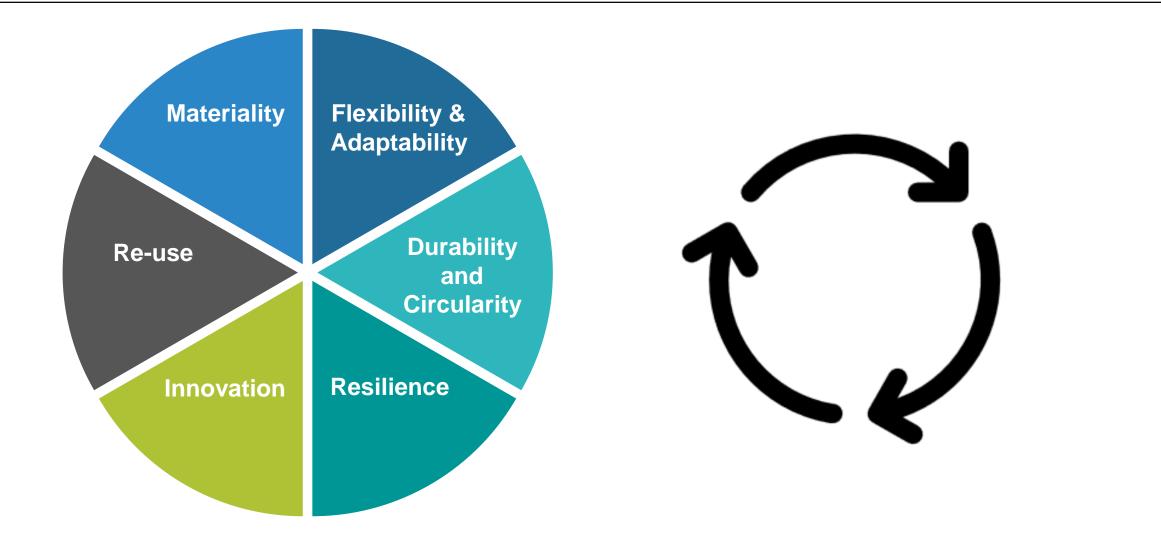


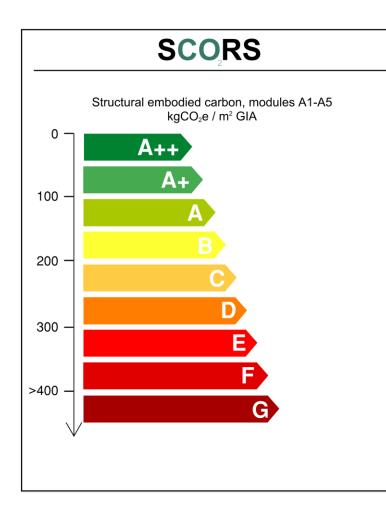
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The Brief



The Brief



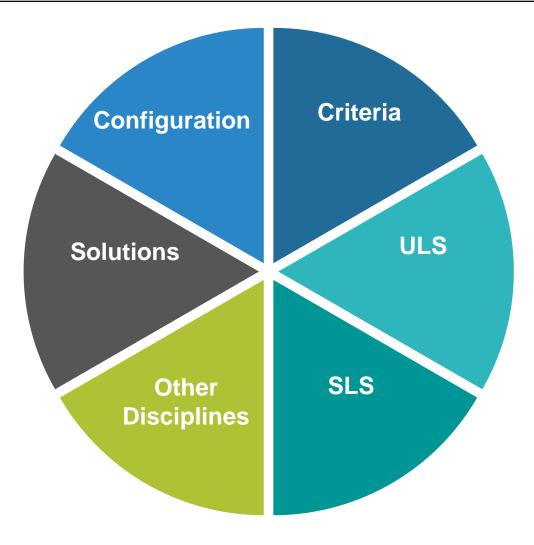


Element	Assumptions
Reinforcement	
Connections	
Fire Protection	
Corrosion Protection	
Screeds	
Secondary Steel	
Windposts	
Stairs	
Finishes	
Composite Systems	
Non- loadbearing Walls	
Other	



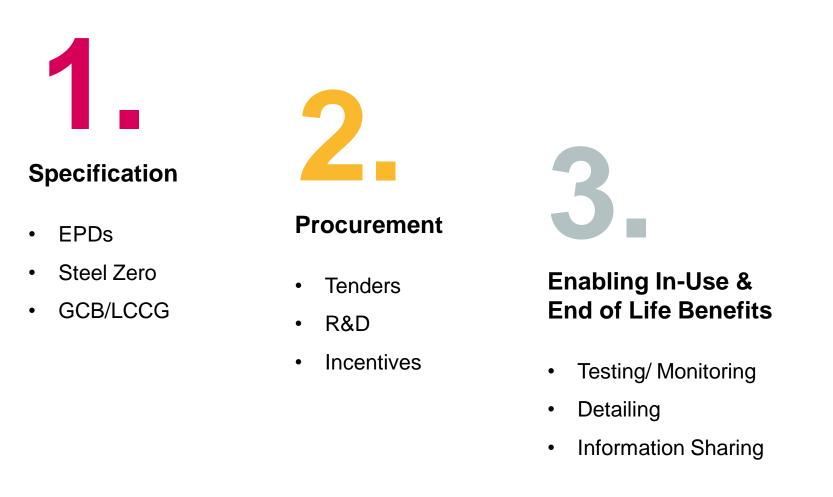
Material	A1-A3 Assumption	Other Assumptions
Concrete		
Steel		
Timber		
Masonry		
Other		

Design Approach



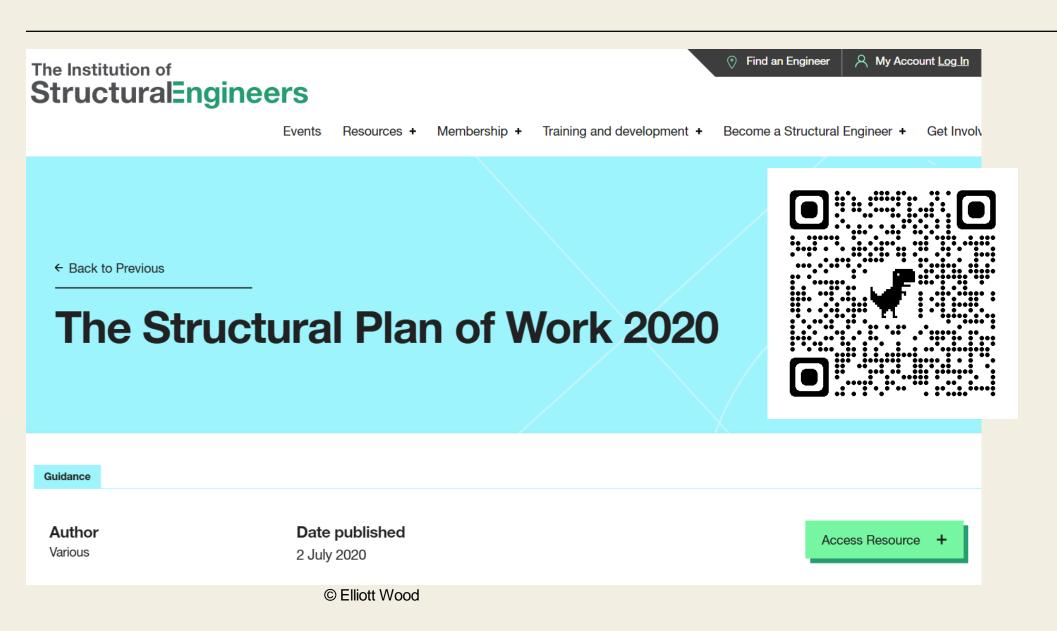


Construction Approach

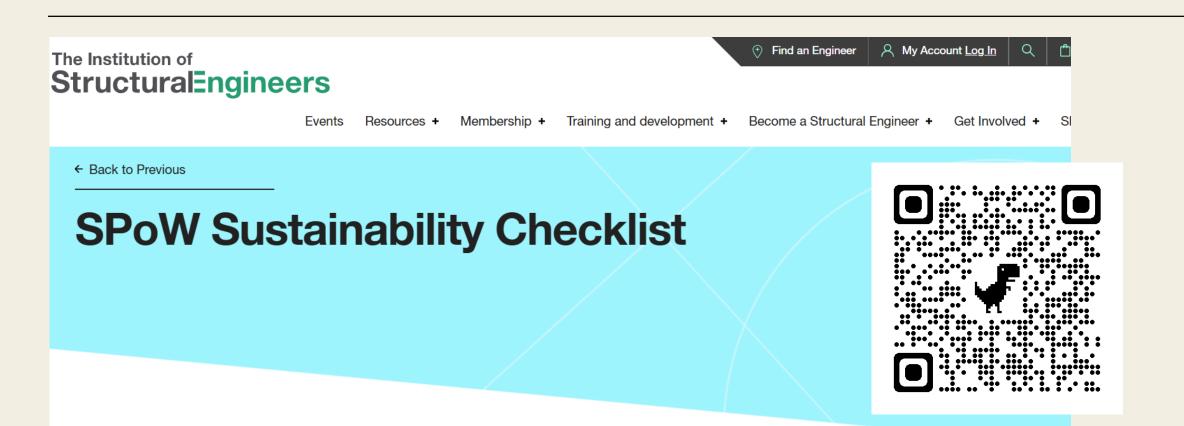




Sustainability Report Template



Sustainability Checklist



This Checklist should be used to guide the structural engineering design process towards achieving sustainable outcomes, focusing on low carbon design over which the structural engineer holds significant influence.

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Thank you!