

# Voluntary sustainable designer - Code of conduct

For new or refurbished building projects aiming for net zero whole life carbon emissions

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# The Voluntary Sustainable Designer Code of Conduct - background

## WHY THIS INITIATIVE?

To encourage designers, clients and contractors to adopt a holistic sustainable design method to their construction projects. It's intended to be used for new or refurbishment building projects aiming for net zero whole life carbon emissions. The code lists the primary aims of sustainable design to the client, design team and construction team.

Sustainable design benefits include:

- Health and wellbeing, energy saving, and social benefits leading to a better and more sustainable future for all.
- Designs will comply with local authorities climate change adaptations and bio-diversity net gain requirements.
- Sustainable buildings are desirable to occupy and benefit the community at large.

# The Voluntary Sustainable Designers Code of Conduct – background cont'd

## **APPLICATION**

The exercise produced the following documents;

- 1) Guide to the Sustainable Designers Code of Conduct
- 2) The Sustainable Designers Code of Conduct
- 3) The Sustainable Code in Practice

The code has been designed for Stolwood Architects LLP Chartered Architects and Landscape Architects. Stolwood Architects is a small, experienced practice.

Other small design practices should find this code useful with little modification. Larger design practices working on large urban design projects should modify the code according to their project needs.

# The Voluntary Sustainable Designer Code of Conduct – background cont'd

## **WHY VOLUNTARY?**

- Education is still needed on the benefits of sustainable design.
- There are many misconceptions particularly around cost.
- Even if the initial cost is higher in some cases, the payback period are short, with future cost savings and health benefits for the property users.
- The code is intended to be used with clients that have sustainable intentions for their designs. The code can also be used to inform other clients of some of the advantages of sustainable design they were previously unaware of.

# The Voluntary Sustainable Designer Code of Conduct – background cont'd

## HOW IS IT USED?

- The code is made up of a list of sustainable concepts which are introduced to the client to establish the appropriate application of sustainable design.  
Factors to consider are:
  - site analysis,
  - budget,
  - planning restrictions,
  - building use requirements.
- Questions arising from the list are addressed by the designer who can refer to the guide and source information.
- It is based on the United Nations Sustainable Development Goals for 2030 and outlines the actions required to achieve net zero.
- Use with the guide, RIBA Climate Guide, RIBA 2030 Climate Challenge.

# The Starting Point: United Nations Sustainable Development Goals for 2030 (UN, 2015)

17 Goals for 2030. Created by the United Nations in 2015 to provide common, achievable aspirations which act as a “blueprint to achieve a better and more sustainable future for all”.



# United Nations Sustainable Development Goals for 2030 (UN, 2015)

- The goals most applicable for the Sustainable Designer's Code of Conduct are numbers **3,6,7,8,9,11,12,13 and 15**
- As many of these goals are interrelated, some of the outcomes are relevant to more than one UN sustainable development, for example goals 7,11 and 12 are closely related and cross over.

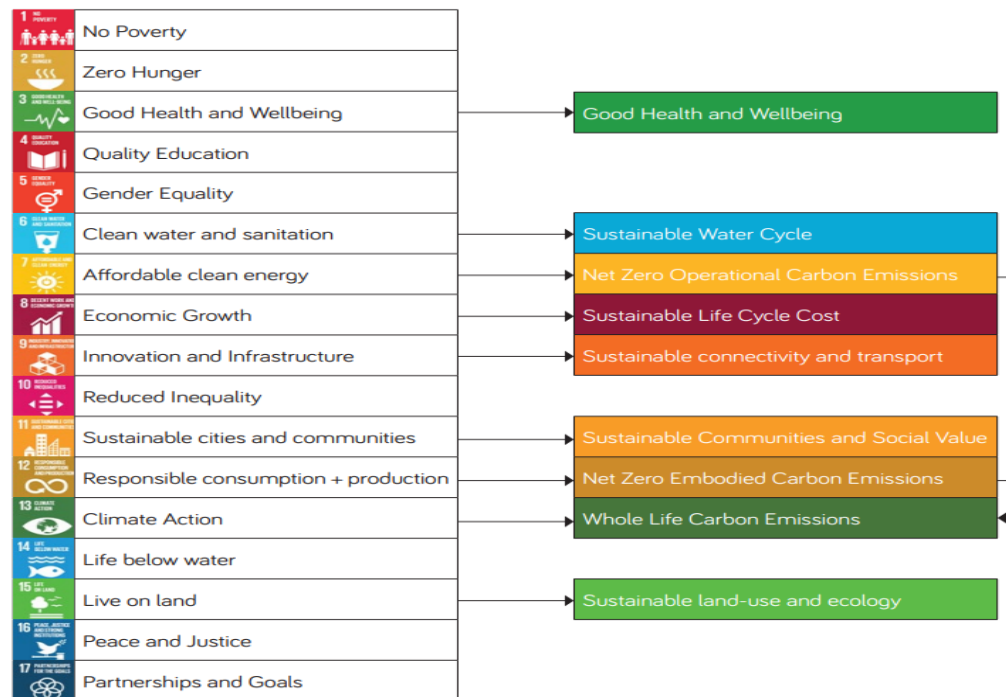
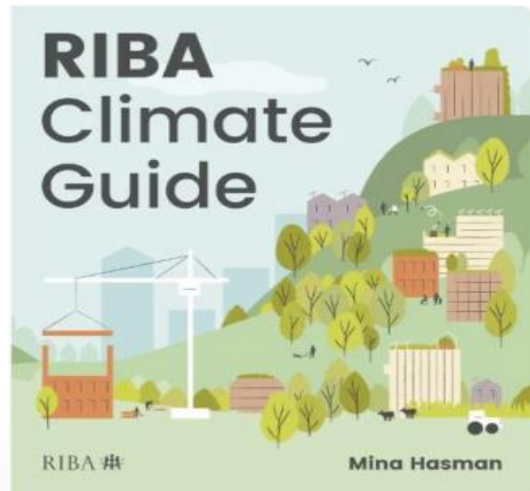


Figure 2. The eight RIBA Sustainable Outcomes Goals mapped against the UN SDGs. Source: RIBA Sustainable Outcomes Guide.

# Sources to be used with the code and guide

Use the guide, RIBA Climate Guide, RIBA 2030 Climate Challenge

- RIBA Climate Guide by Mina Hasman  
Lists possible sustainable outcomes of the UN SDG
- RIBA 2030 Climate Challenge – version 2 (2021)  
Contains targets towards net zero whole life carbon emissions





## **VOLUNTARY SUSTAINABLE DESIGNER CODE OF CONDUCT** for Stolwood Architects

**18 Sustainable design methods** for new or refurbished buildings aiming for net zero whole life carbon emissions.

*Use site analysis, budget, planning restrictions and the building use requirements, to establish the appropriate application of the code and sustainable design methods.*

- Biophilic-Organic and sensory design
- Maximise passive design
- Active design strategies for energy reduction
- Specify services that don't use fossil fuels or high carbon emissions
- Maximise onsite renewables
- Prioritise refurbishment, retrofit and reuse to reduce carbon
- Use modular and easy to assemble and disassemble, reusable products
- Designing for change (flexibility and adaptability) and regeneration
- Non-toxic interior finishes, materials and furniture, Bio-based materials
- Responsible and ethical sourcing
- Water efficiency and consumption (water-efficient fittings, fixtures and equipment)
- Wastewater recycling and water harvesting (Retention tanks or ponds, green/living biodiverse roofs and filters Grey- and blackwater treatment)
- Sustainable urban drainage systems (SuDS)
- Specify low carbon, local, natural, recyclable and reusable materials.
- Retain and enhance the sites indigenous natural biodiversity net gain and green cover
- Planting indigenous biodiverse trees and diverse landscapes with wildlife boxes
- Use RIBA 2030 Climate Challenge 2030 guides for information to achieve targets
- Provide electric vehicle charging points and bicycle accommodation

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



### 1) Biophilic-Organic and sensory design.

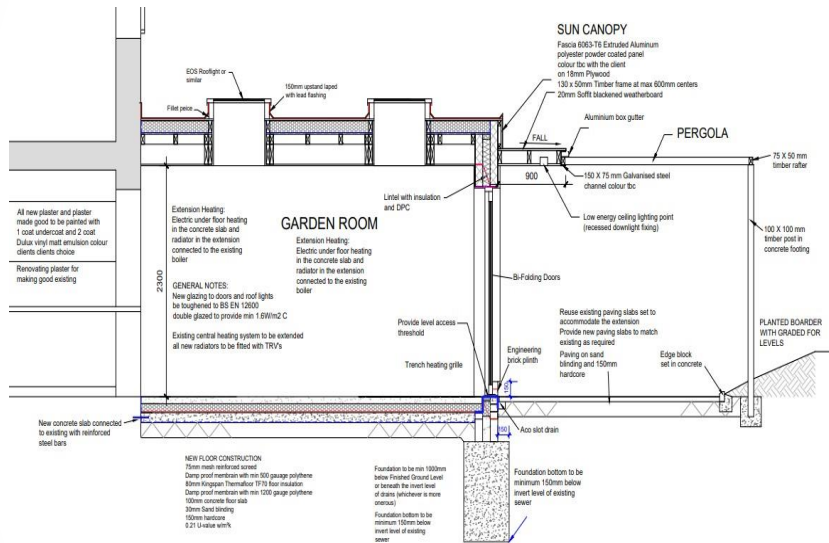
Biophilic design is a concept used within the building industry to increase occupant connectivity to the natural environment. Through the use of direct nature, indirect nature design.

Natural environments give us health and wellbeing benefits.

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE

### 2) Maximise passive design.



Air tight buildings should include a passive buffer zone transitional space; garden room or reception.

- Natural ventilation
- Daylight penetration
- Insulate
- Mitigate and allow in solar heat gains
- Planting (Shade, cooling & shelter)
- Thermal mass
- Shape orientation
- Rainwater harvesting

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



**3) Active design strategies for energy reduction.** Entails systems and supporting technologies, integrated into buildings, to maintain comfortable and healthy indoor conditions. Example airtightness and MVHR (mechanical ventilation heat recovery system)

**4) Specify services that don't use fossil fuels of high carbon emissions.**

Use renewables to power an air sourced heat pump for heating, cooling and hot water.



# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



### 5) Maximise onsite renewables.

Example PV photovoltaic panels on roofs

Solar thermal collectors

### 6) Prioritise refurbishment, retrofit and reuse to reduce carbon.

Retrofit reduces carbon emissions up to 75%.

Enhance health and welfare

Material savings for net zero calculations

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



**7) Use modular and easy to assemble and disassemble, reusable products.**

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE

The logo for the High Streets Task Force features the text 'HIGH STREETS TASK FORCE' in a bold, sans-serif font, stacked in four lines. To the left of the text is a vertical line, and below the text is a horizontal line, forming a crosshair-like graphic.

### HIGH STREETS TASK FORCE

#### **8) Designing for change (flexibility and adaptability) and Regeneration.**

The High Streets Task Force is a central government initiative to support communities and local government to transform their high streets. Their vision offers a sustainable future. We are working with the High Streets Task Force to undertake a number of assessments of towns each with its own characteristics

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



**9) Non-toxic interior finishes, materials and furniture, Bio-based materials**

**10) Responsible and ethical sourcing**



# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



### 11) Specify low carbon, local, natural, recyclable and reusable materials

Examples;

- Local vernacular thatch roof
- Timber wall and roof shingles



# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



### 12) Wastewater recycling and water harvesting

*Photo rainwater collection from RWP into water butts*

### 13) Sustainable urban drainage systems (SuDS)

- Permeable surfaces specified and rain gardens



### 14) Water efficiency and consumption (water-efficient fittings, fixtures and equipment)

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



**15) Retain and enhance the sites indigenous natural biodiversity net gain and green cover.**

Developed by Natural England within their Green Infrastructure Framework, Urban Greening Factor is a new planning tool to improve the quality and quantity of Green Infrastructure.



# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE

### 16) Planting indigenous biodiverse trees and diverse landscapes with wildlife habitats

#### Casestudy

Biodiversity case study Kings  
Orchard Marina.

This soft landscaping scheme was designed using native species that would thrive on the site, as well as native wildflowers and grasses surrounding the pond to attract wildlife.



# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



### 16) **Bio regional urbanism**

Stolwood Architects have done a number of residential home zone projects. We aim to bring natural landscape elements into the scheme, whether this is by enhancing the existing green infrastructure or by providing new landscape elements. The ultimate outcome will be a residential estate in keeping with the local landscape character and providing residents with an increased amount of accessible green space.

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE



**17) Use RIBA 2030  
Climate Challenge guides  
for information to  
achieve targets aiming  
for net zero.**

Stolwood Architects are registered with the RIBA 2030 Climate Challenge and can apply their targets aiming for net zero whole life carbon emissions to projects.

# THE SUSTAINABLE DESIGNER CODE OF CONDUCT

## THE CODE IN PRACTICE

**18) Provide electric vehicle charging points and bicycle accommodation.**





# United Nations Sustainable Development Goals for 2030 (UN, 2015) No13 Climate Action: **Act Now**



- *Support climate charities and action groups*
- *Continuous learning and sharing knowledge*
- *Apply the sustainable development goals to your projects, practice and lifestyle*





# Thankyou



*Image from climate action protest on air pollution*