

The background of the entire slide is a photograph of a building facade. It features a grid of windows of various sizes, some of which are open. The building's exterior is composed of large, rectangular panels in shades of orange and red, separated by dark vertical and horizontal lines. The windows reflect the surrounding environment, including trees and other buildings.

# JKA

## The Paper Garden: Building with what you have.

### Dr Jan Kattein

Jan Kattein Architects

The Bartlett School of Architecture

presentation by  
Jan Kattein Architects



Building with what you have is regenerative in that it mobilises local resources to responds to civic and environmental objectives.

It makes use of existing buildings, abundant materials and available skills.

The Paper Garden is part of the Canada Water masterplan which is set to deliver 3k+ homes, work and leisure space, retail and biodiverse parkland.

Whilst the masterplan is implemented over the next decade, the garden creates a space where existing and new communities can grow together.

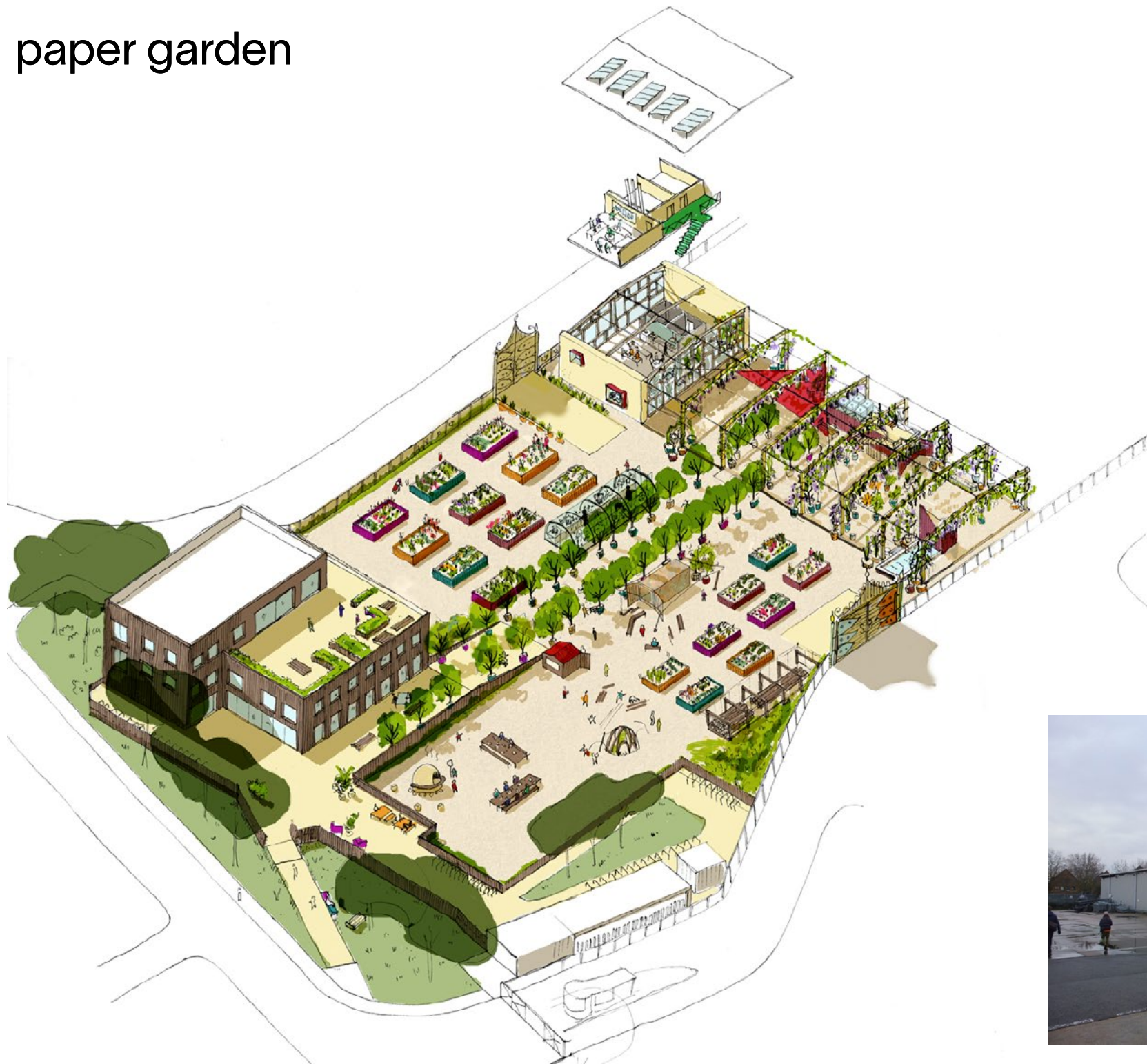


paper garden





# paper garden





paper garden





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We are promoting environmentally responsible urbanism through participative construction efforts and collaborative design processes.

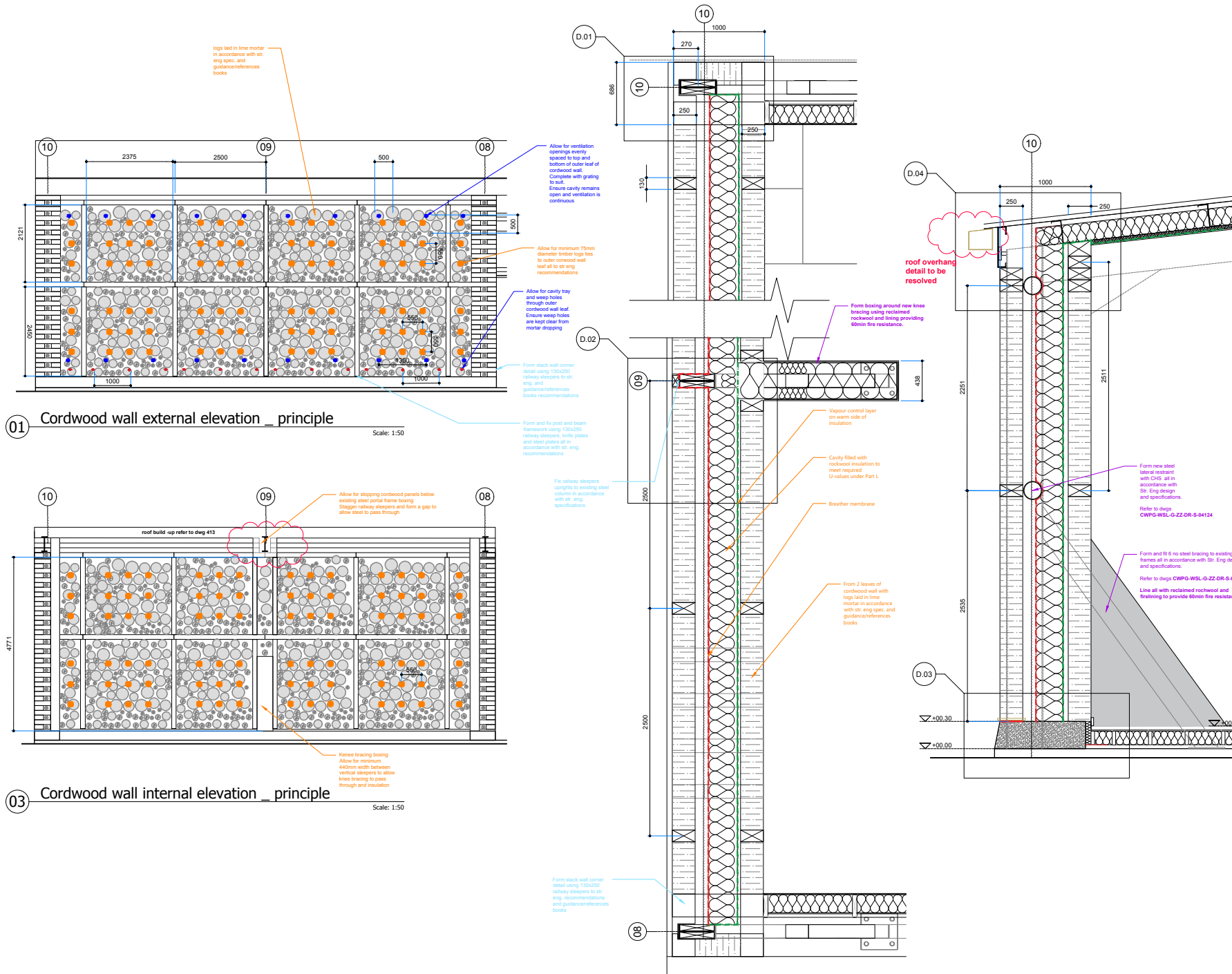
Circular economy principles are a means to reduce material consumption but also to engage and invest others in the project.



paper garden







Works are divided by work packages as highlighted below

01 \_ Steelwork package ← steelwork spec

02 \_ Masonry package ← masonry spec

03 \_ Carpentry package ← carpentry spec

04 \_ Joinery package ← joinery spec

05 \_ Electrics package ← elec spec

06 \_ Heating / Plumbing package ← heating / plumbing spec

**Cordwood masonry Notes:**

- timber logs ties [ minimum diameter 75mm]
- ventilation pipes [ minimum diameter 50mm]
- weep holes [ minimum diameter 20mm]

**Breather membrane BBA certified**

Damp proof Course / Damp Proof Membrane

Vapour control Layer

**General Notes:**

- Any discrepancies between drawings to be reported to the Architect immediately.
- All dimensions to be checked on site.
- Do not scale from this drawing. Use figured dimensions only.
- Refer to Engineers drawings for structural and servicing information.
- All Levels are above existing screed Floor level, are shown:  $\nabla + 0.00$
- Room numbers are shown: **XX** [room name]
- Door (DR) numbers are shown: **D[Door] XX** or **GD** [Glazed Door] **XX**
- Clear height is shown (finished floor level to finished soffit level): **2700**
- Copyright owned by Jan Katten Architects.
- Cordwood walls masonry and details all in accordance with guidance provided in reference books listed below
- Cordwood Masonry Houses - A Practical Guide for Owner - builder by Robert L. Roy
- Cordwood and the Code-A-Building Permit Guide book-master, edited and Compiled by Alan Stanlevitz and Richard Flatow with assistance from Rob Roy and Dr. Kris Dick

**k**

**Client:** Global Generation

**Project name:** Paper Garden

**Project number:** 186

**Drawing name:** Cordwood walls build up principle

**Drawing number:** 408

**Scale:** 1:50 & 1:20

**Revision:** C

**Drawing status:** Construction

**Page size:** A1

**Date:** 17 05 2021

**Drawn by:** HD

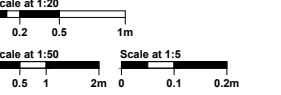
**Checked by:** JK

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**Rev A:** detailed design issue - 13/08/2021

**Rev B:** construction issue - 13/08/2021

**Rev C:** wall ties layout revision & proposed internal elevation - 25/10/2021





The design iterates during construction to account for materials and skills becoming available and to incorporate the lessons learned from the production of prototypes.



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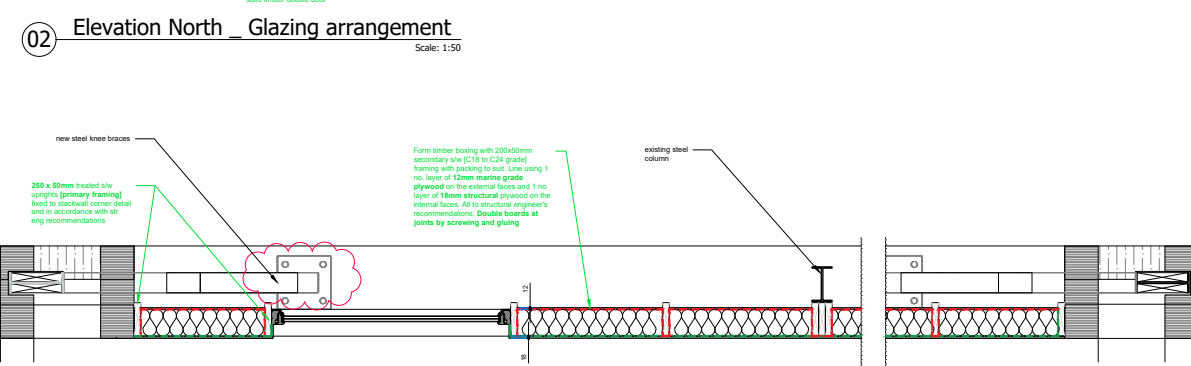
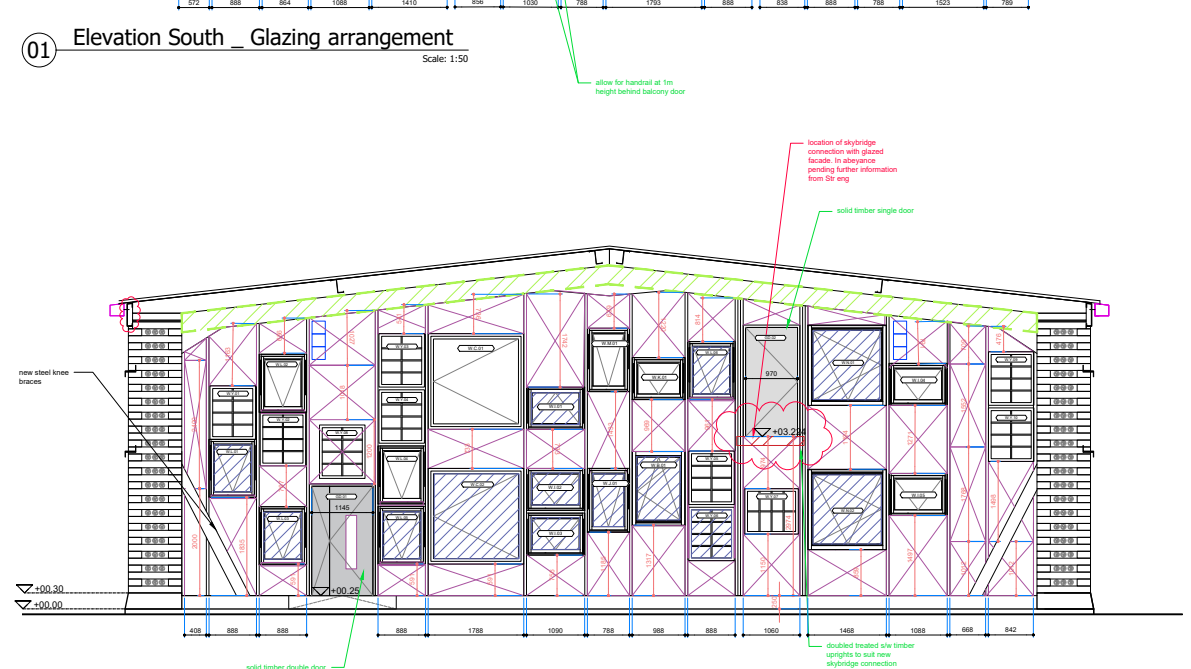
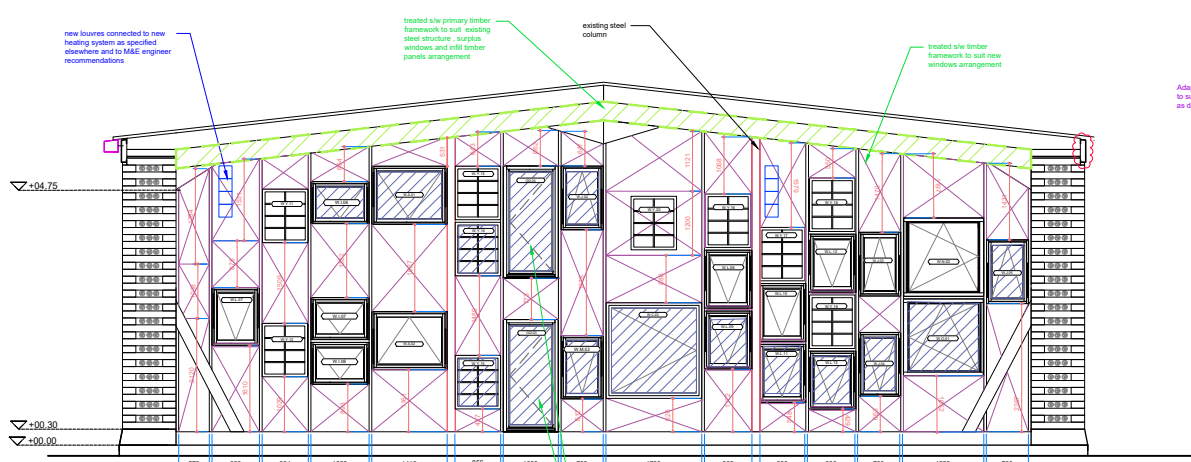




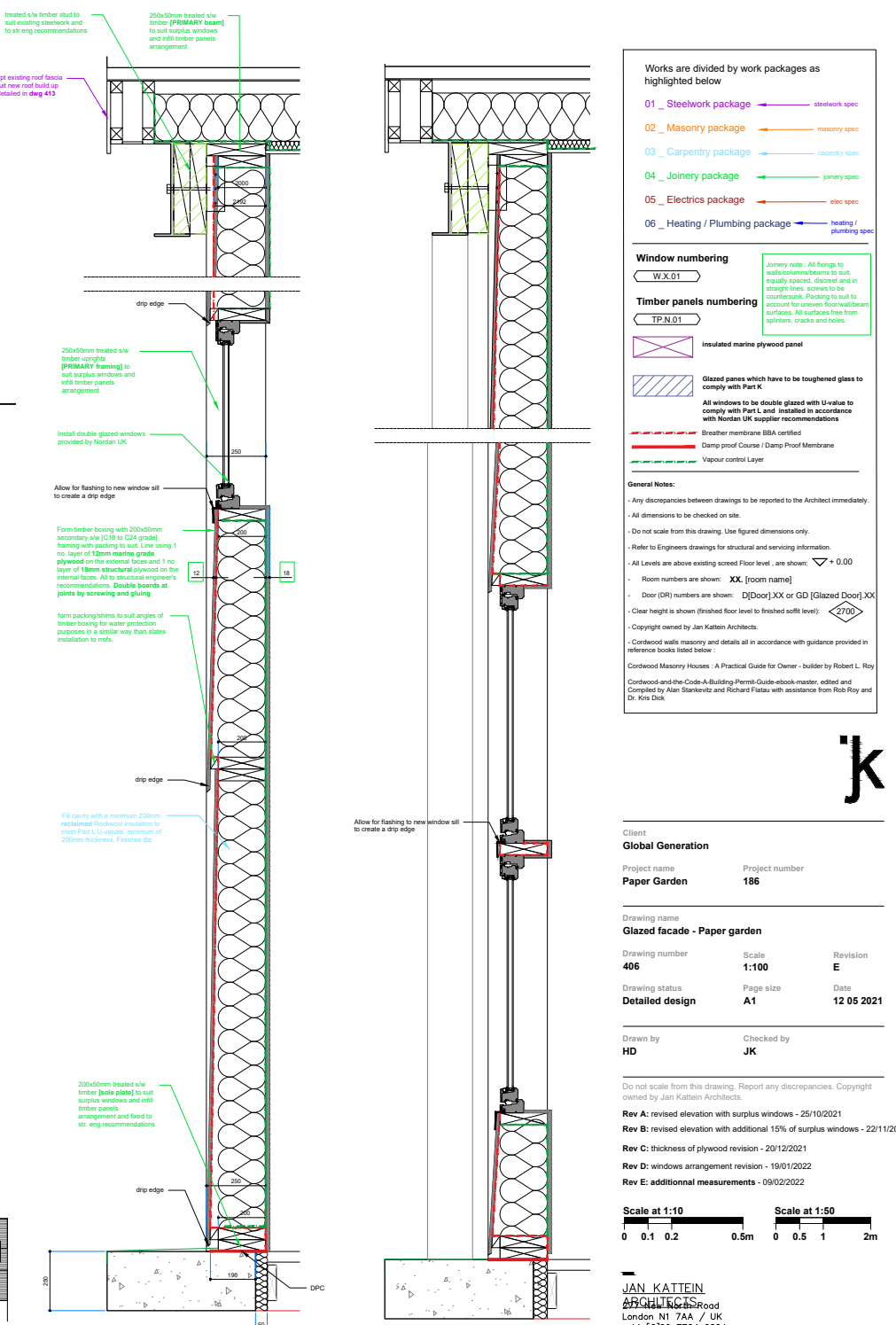
paper garden







03 Detail plan - glazing and framework



03 Detail section - glazing and framework

Works are divided by work packages as highlighted below

- 01\_Steelwork package
- 02\_Masonry package
- 03\_Carpentry package
- 04\_Joinery package
- 05\_Electrics package
- 06\_Heating / Plumbing package

Window numbering

W.X.G1

TP.N.G1

Insulated marine plywood panel

Glazed panes which have to be toughened glass to comply with Part K

All windows to be double glazed with U-value to comply with Part L and installed in accordance with Nordan UK supplier recommendations

Breather membrane BIBA certified

Damp proof Course / Damp Proof Membrane

Vapour control Layer

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Client

Global Generation

Project name

Paper Garden

Project number

186

Drawing name

Glazed facade - Paper garden

Drawing number

406

Scale

1:100

Revision

E

Drawing status

Detailed design

Page size

A1

Date

12 05 2021

Drawn by

HD

Checked by

JK

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Rev A: revised elevation with surplus windows - 25/10/2021

Rev B: revised elevation with additional 15% of surplus windows - 22/11/2021

Rev C: thickness of plywood revision - 20/12/2021

Rev D: windows arrangement revision - 19/01/2022

Rev E: additional measurements - 09/02/2022

Scale at 1:10

0 0.1 0.2 0.5m

Scale at 1:50

0 0.5 1 2m

JAN KATELIN

ARCHITECTS

London N1 7AA / UK

+44 [0]20 7704 0604

www.jankattelin.com / mail@jankattelin.com



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## RECLAIMED MATERIALS

300 railway sleepers  
200 doors  
50 sqm of floor decking  
2 disabled toilets kits  
5 kitchen appliances  
2 steel trusses  
3 steel staircases  
50 shuttering boards  
200m of s/w timber  
battens



## RAW MATERIALS

150 m3 Norwegian  
Spruce from Epping Forest  
150m3 of fire wood  
8 tonnes of lime

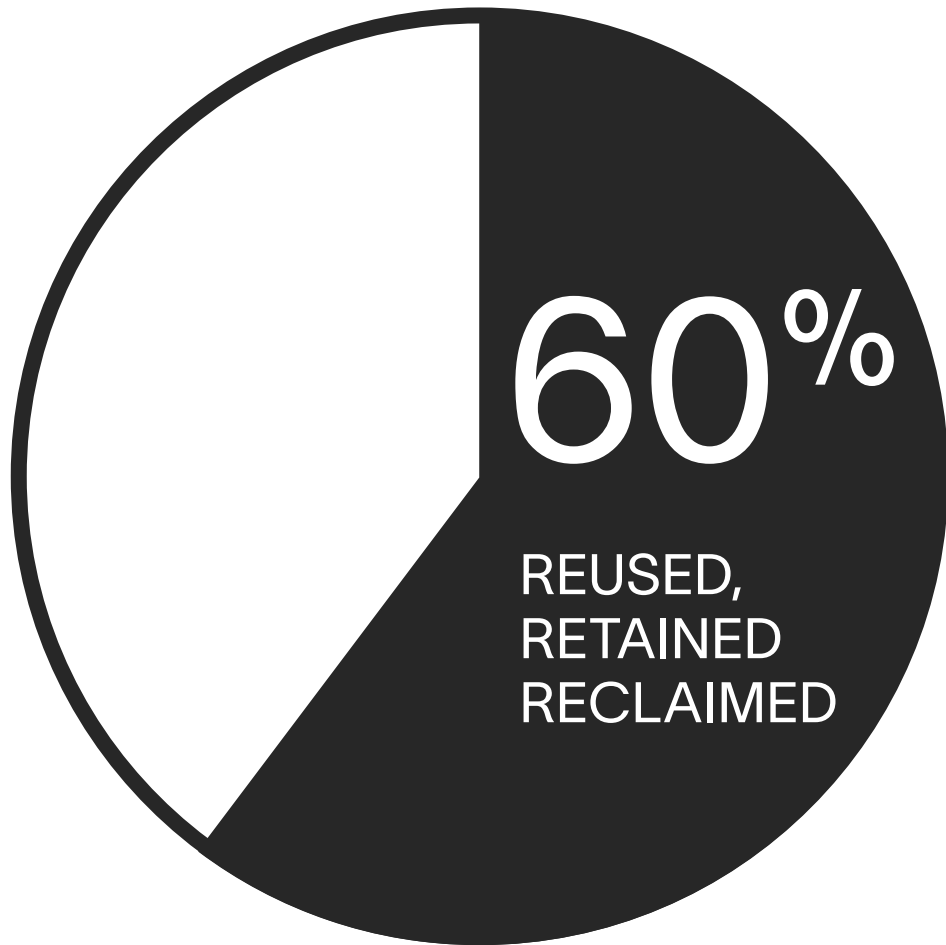


## SURPLUS MATERIALS

100 donated surplus stock  
windows  
50 donated surplus light  
fittings









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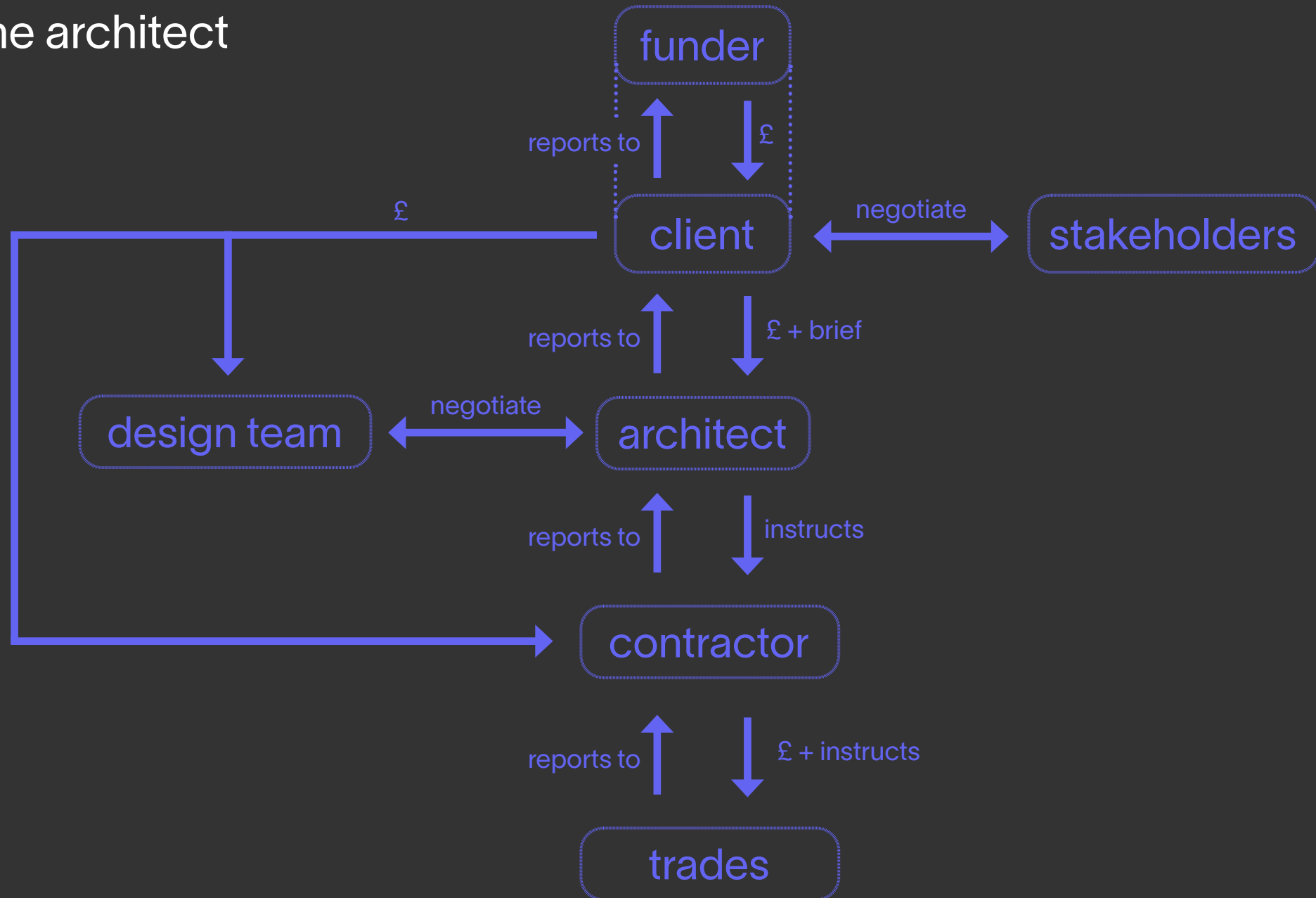


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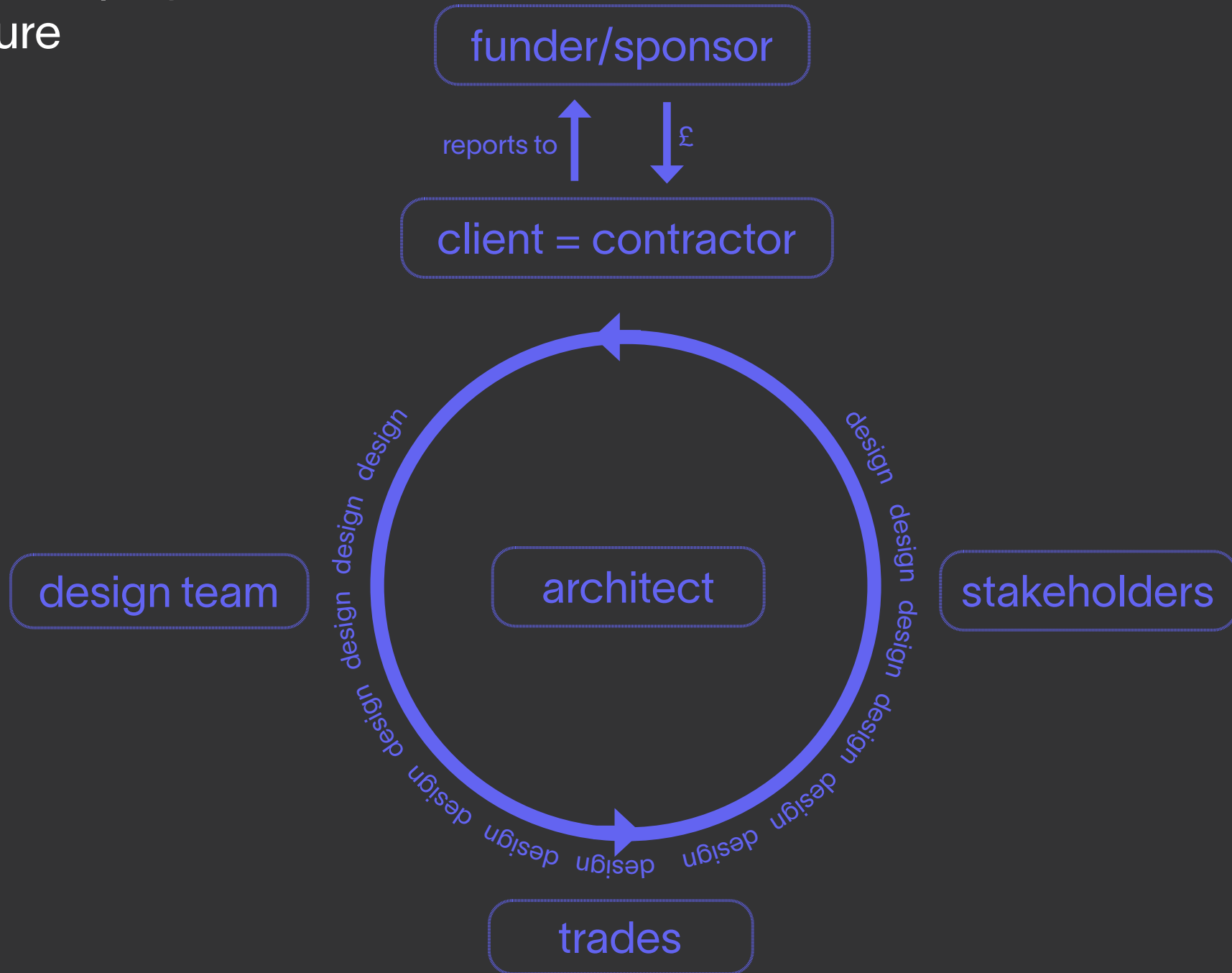


# traditional role of the architect





# integrated project structure





The Paper Garden is a piece of true civic infra-structure that realise educational-, social-, environmental and placemaking objectives for communities in Canada Water. We hope that this project will become an inspiration for all those involved in designing cities.



# JKA

WEB	<a href="http://www.jankattein.com">www.jankattein.com</a>
EMAIL	<a href="mailto:mail@jankattein.com">mail@jankattein.com</a>
AD	277 New North Road London, N1 7AA
TEL	0207 7040604
TWITTER	<a href="https://twitter.com/jankatteinarch">@jankatteinarch</a>
INSTAGRAM	<a href="https://www.instagram.com/jankatteinarch">@jankatteinarch</a>