1. 540×300mm timber beam
2. Double glazing
   - 6mm toughened glass
   - 24mm air cavity
   - 8mm safety glass
3. 16mm PVC based polymer board
4. 8mm fibre weather proof board
5. Air vent

Mechanically controlled louver

Double facade section 1:20

Connection hub

Original elevation

Circulation hub

Circulation

Rooftop plan

Massing model photo

Ventilation component section 1:5

Original elevation

Renovated elevation

Double facade entrance
1. Multipanel metal grating with 33×37mm c/c mesh size
2. 720×300mm timber beam
3. 1000×80×40mm steel handrail
4. Hydroponic plant holder
5. 120/5mm CHS steel column
6. Welded steel rod bolded onto core column as closing up
7. Bolt
8. Bolted column holder
9. Plant holder
85/3mm polyethylene tube with opening
50/5mm polyethylene tube supporter
Soft rubber water pipe attached bolted onto steel column
10. 320×320mm timber column
1. 2mm aluminium flashing
2. 100×100 mm timber beam
3. Mechanically opened window
6mm toughened glass
20mm air cavity
8mm safety glass
4. Double glazing
6mm toughened glass with integral
photovoltaic covering
20mm air cavity
8mm safety glass
5. 120/5mm CHS steel column
6. 2mm perforated aluminium cladding
upon 40mm waterproof insulation
7. 5mm aluminium water gutter
8. 180×80mm holding timber beam
9. 90mm timber parapet
10. Outlet water pipe with valve
11. 40mm plywood cover paving
12. Existing roof structure:
concrete + insulation+waterproof layer
13. 120mm added concrete layer
14. 100mm mineral-wool insulation
15. Steel anchor inserted in concrete base
16. Rainwater pipe
17. 180×80mm holding timber beam
18. 12mm fibre glass water tank
19. 180×80mm holding timber beam
20. Outlet water pipe with valve
21. Concrete base
Traditional

Strong in one orientation

Square unit

Flexible for diverse combination

Opening for ventilation

Vary in size & direction

Combination options

Introductive

Interpenetrated

Interactive

Steel joint

Timber joint

Introductive space - museum/gallery-like

Exhibitional pergola hanging plants

Interpenetrated space - walk in the rainforest

Introductive space - touch the plants & water

Circulation space with bar

Visiting route

Combination options

Openable window section 1:10

Introductive

Interpenetrated

Interactive