

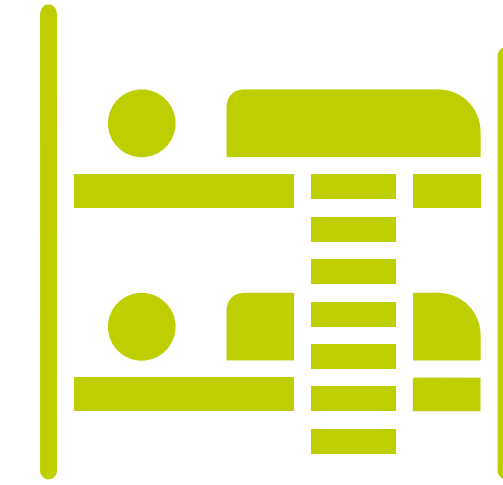
ZED CABIN

zedlife
zero fossil energy developments

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21 Sandmartin Way, London, SM6 7DF

CONSTRUCTING
VALUE

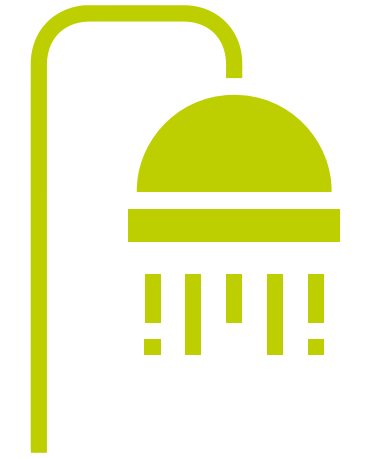




Comfy bunk beds



Convenient power & USB sockets



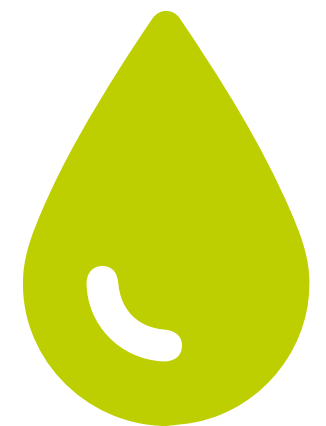
En-suite shower room



En-suite Toilet



Excellent indoor temperature & humidity



Running hot & cold water

Construction

We prep and build in our depots



1 Develop a Plan

Your plan, our plan or a joint plan

3 Delivery

Prefabricated Mobile House delivered to site.

Assembly

Cabin Block modules are erected on site.



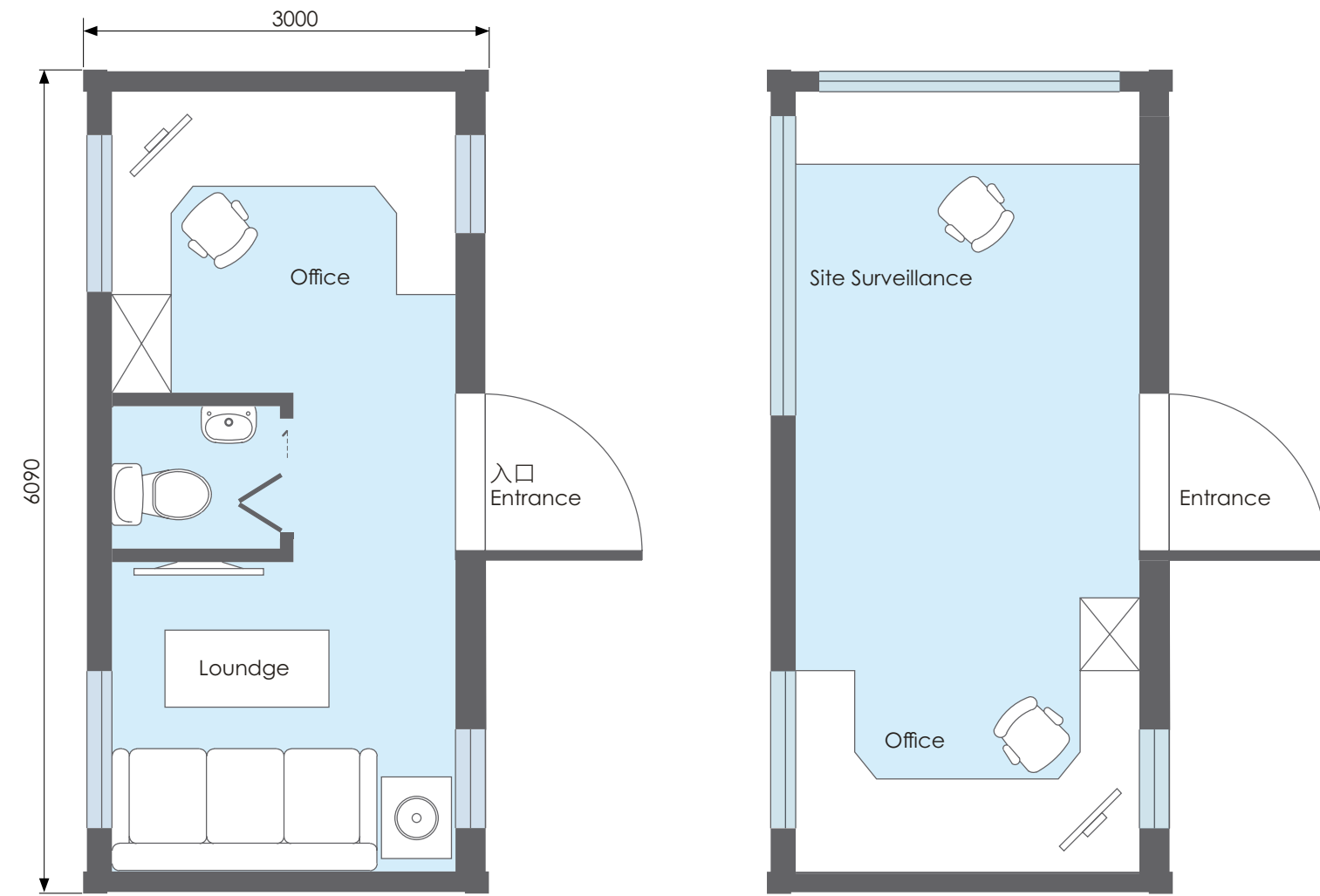
Office			
	Type	Size	Equipments
Office Cabin	Single Office	20' 5766mm x 2540mm	One office desk, sofa, private toilet Equipped with side cabinets, push cabinets, filing cabinets, chairs
	Office for 4 persons		One office desk, sofa, private toilet Equipped with side cabinets, push cabinets, filing cabinets, chairs
	Office for 2 persons	40' 11694mm x 2540mm	Desk x 2, equipped with side cabinets, push cabinets, filing cabinets, chairs, guest sofa x 2
	Office for 6 persons		Desk x 6, equipped with side cabinets, push cabinets, filing cabinets, chairs, guest sofa x 2
	Office + Lounge		Desk x 6, equipped with side cabinets, push cabinets, filing cabinets, chairs, guest sofa x 2
	Office + Small Meeting Room		Desk x 6, equipped with side cabinets, push cabinets, filing cabinets, chairs, guest sofa x 2
	Meeting Room Cabin	Small Meeting Cabin	40' 11694mm x 2540mm
Large Meeting Cabin		40' x 2 11694mm x 5540mm	Large conference table (seating capacity: 50-80 persons)

Residential				
	Type	Size	Equipments	
Living Cabin	Type A	1-2 persons	20' 5766mm x 2540mm	One double bed with private toilet Recommended size of double bed: 1200mm x 2000mm Can configure ark of chest, head of bed, TV ark to wait according to need.
	Type B	2-4 persons		Two double beds with semi-private toilet Recommended size of single size bed: 900mm x 2000mm Can configure ark of chest, head of bed, TV ark to wait according to need.
	Type C	4 persons		Two bunkbed with semi-private toilet Recommended size of single size bed: 900mm x 2000mm Can configure ark of chest, head of bed, TV ark to wait according to need.
	Type D	8 persons	40' 11694mm x 2540mm	Four bunkbeds for eight persons one shower room, one toilet with long table and storage space
Canteen	40' x 2 11694mm x 5540mm		Equip kitchen facilities Storage space, rice window	
Kitchen				
Bathroom	40' 11694mm x 2540mm		Shower rooms x 6 Toilet x 3 Washing basin x 10 Mop pool x 2	
Toilet			Toilet x 10 Washing basin x 10 Mop pool x 2	

01 Office Cabin — 20'

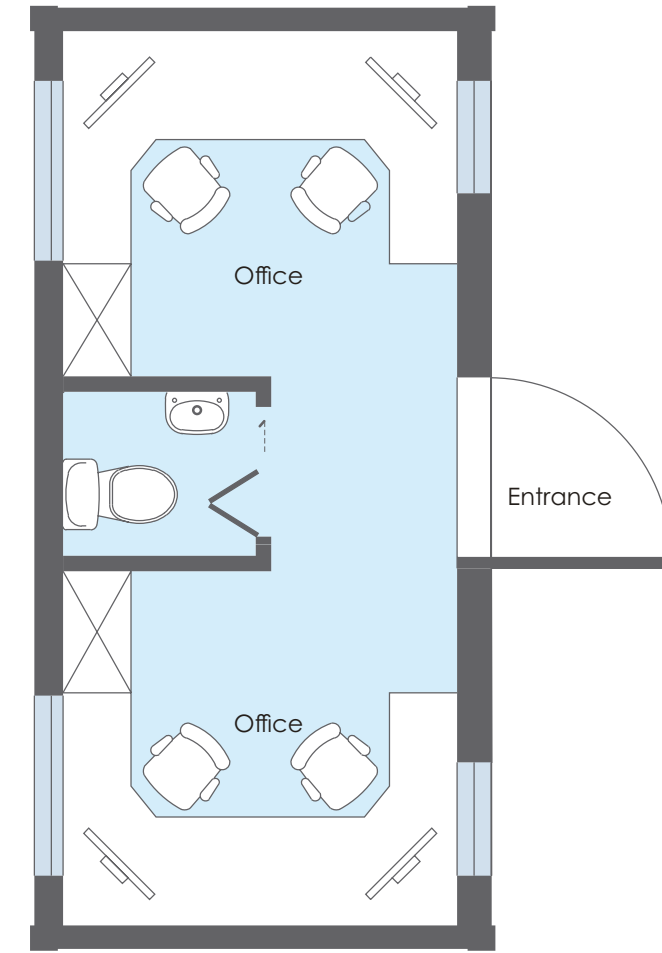
A Single Office

Desk x 2
Equipped with side cabinets, push cabinets, filing cabinets, chairs



B Office for 4

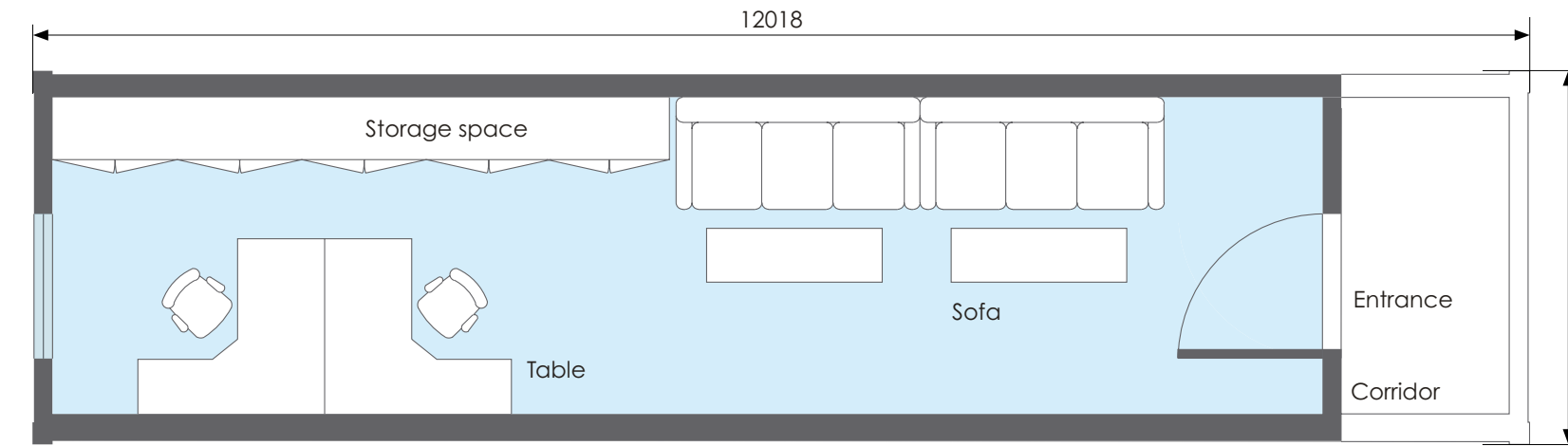
Desk x 4
Equipped with side cabinets, push cabinets, filing cabinets, chairs



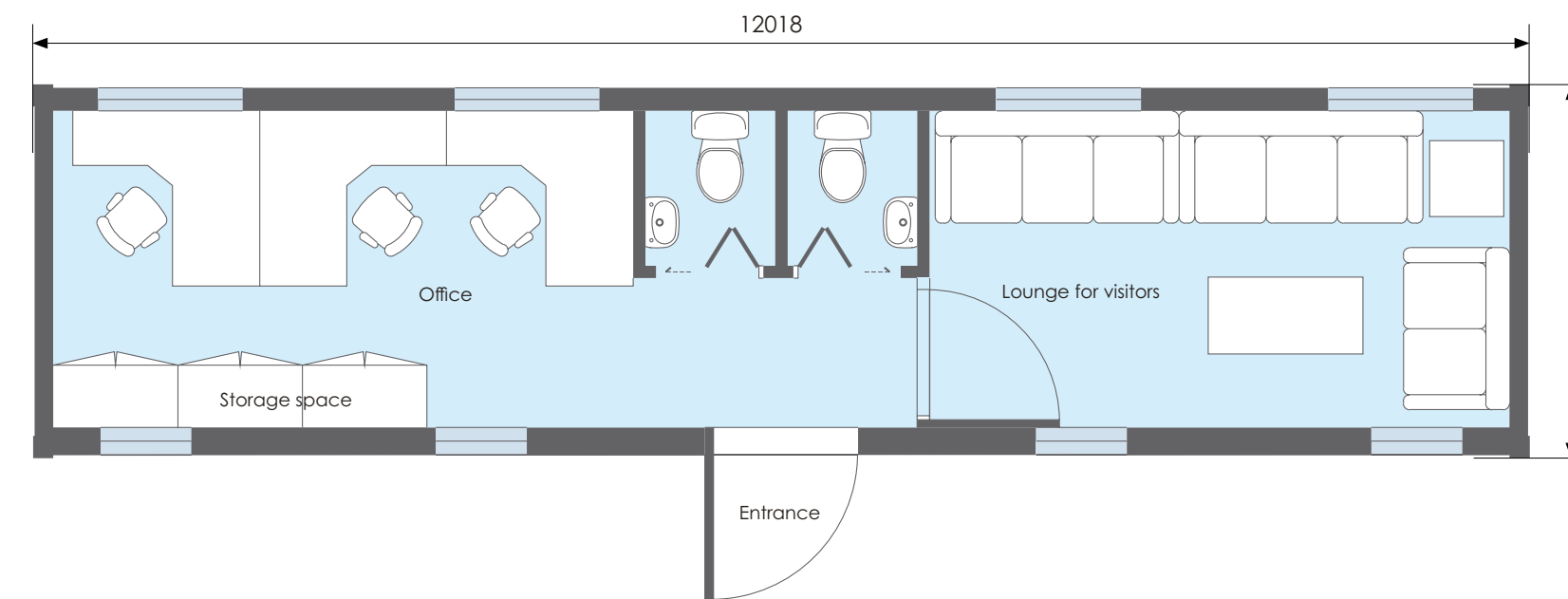
Office Cabin — 40'

C Office for 2

Desk x 2
Equipped with side cabinets, push cabinets, filing cabinets, chairs

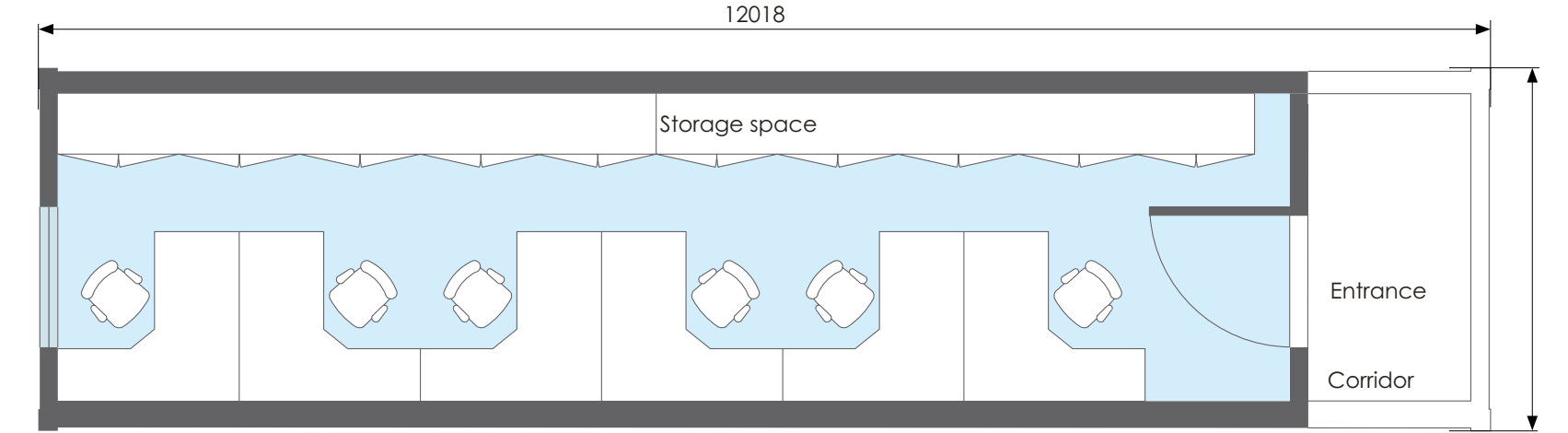


E Office + Lounge

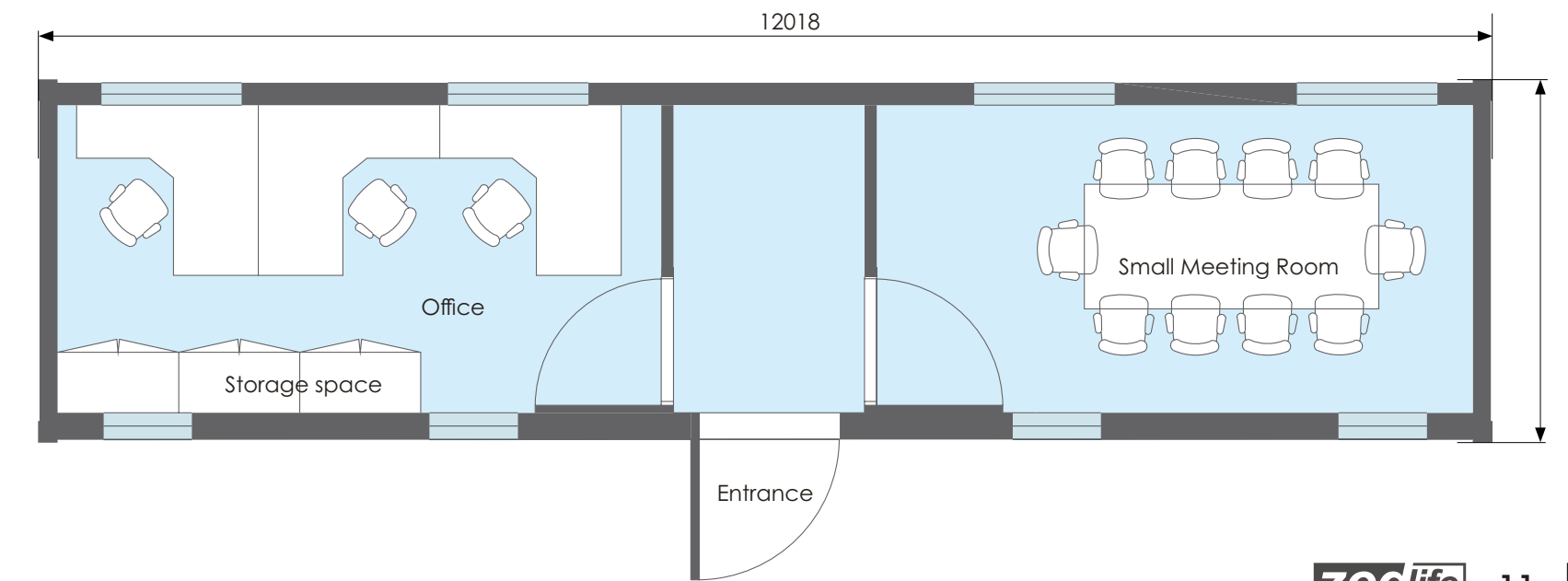


D Office for 6

Desk x 6
Equipped with side cabinets, push cabinets, filing cabinets, chairs



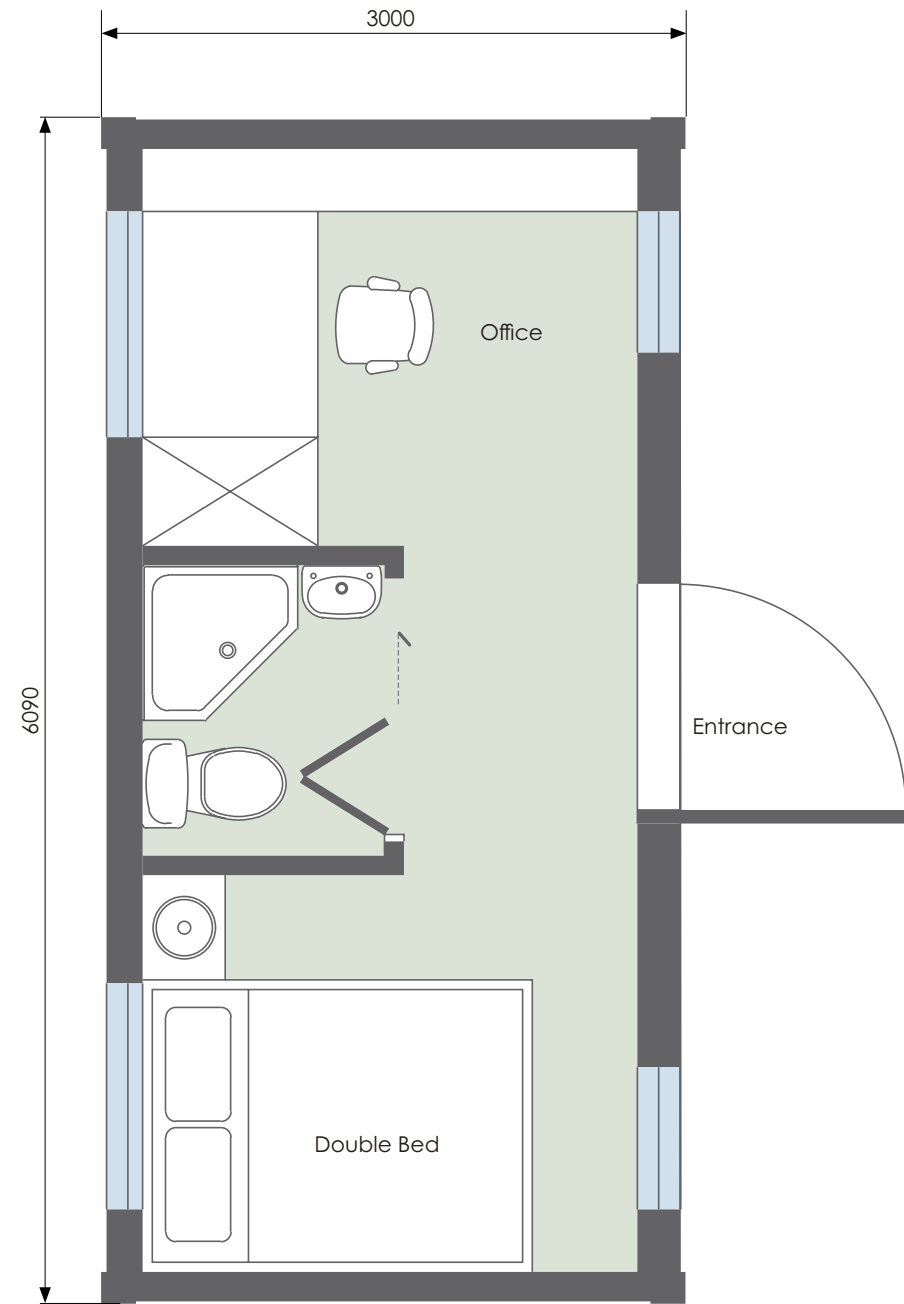
F Office + Small Meeting Room



02 Residential Cabin — 20'

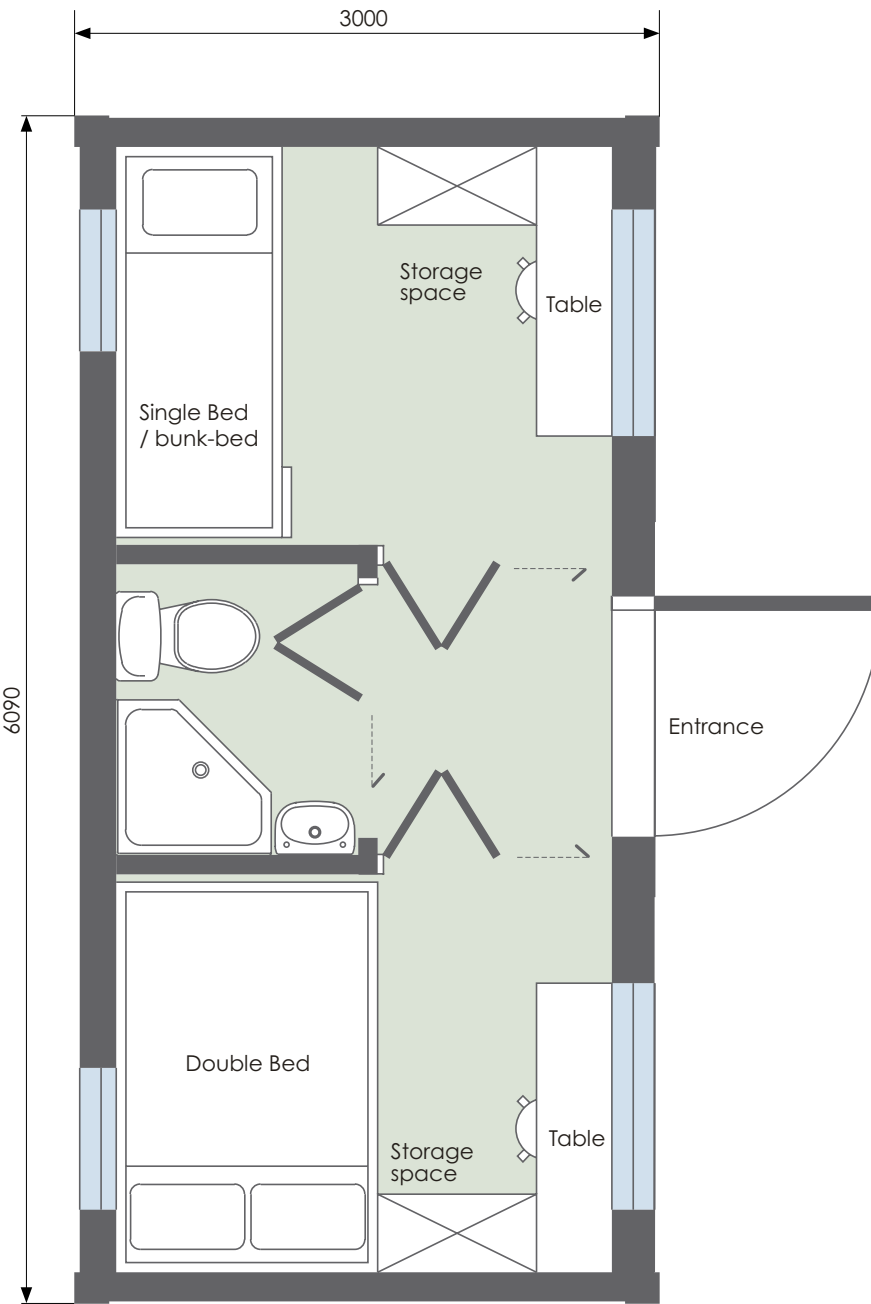
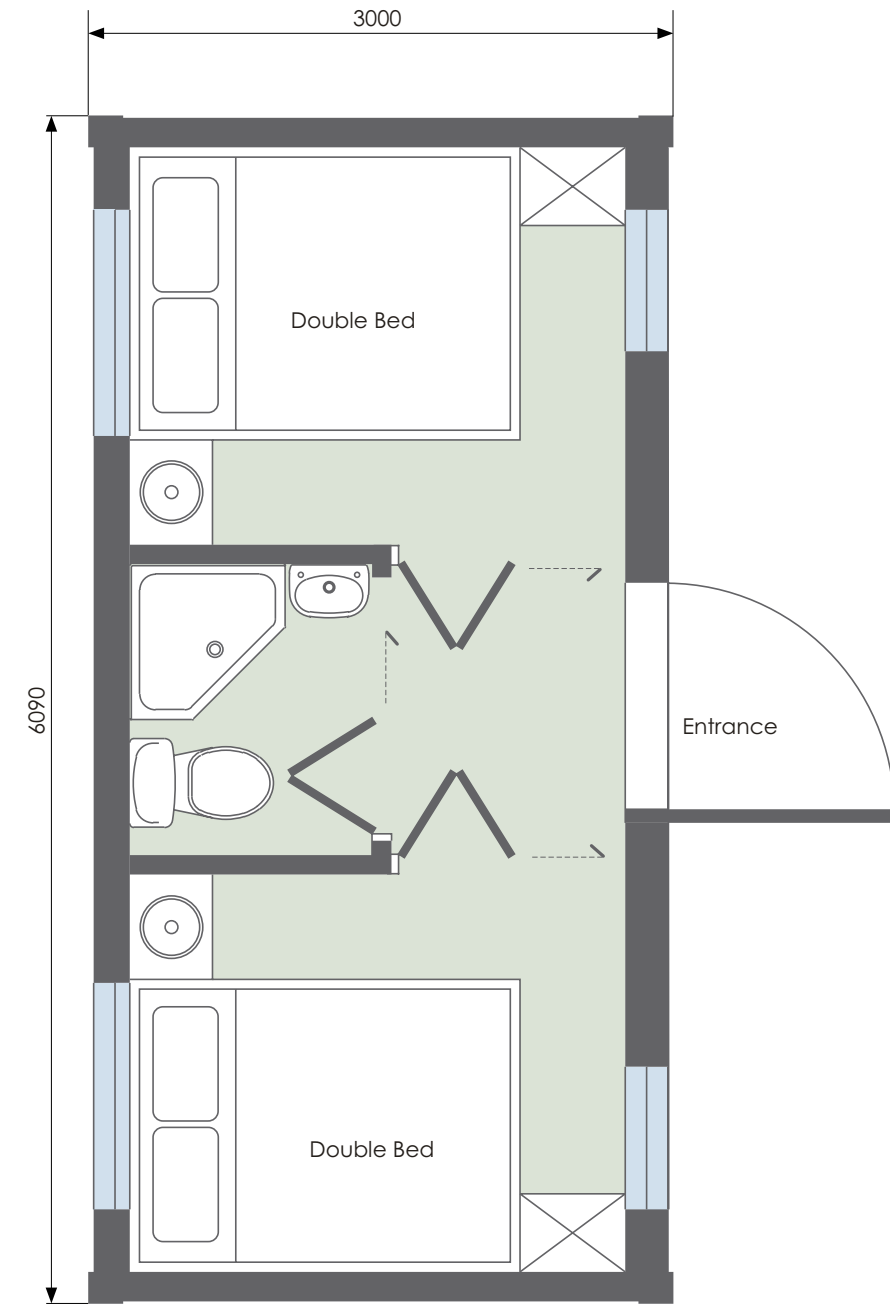
A 1 bed, 1-2 persons

Single room with private toilet
 Recommended size of double bed:
 1200mm x 2000mm
 Can configure ark of chest, head of
 bed, TV ark to wait according to need.



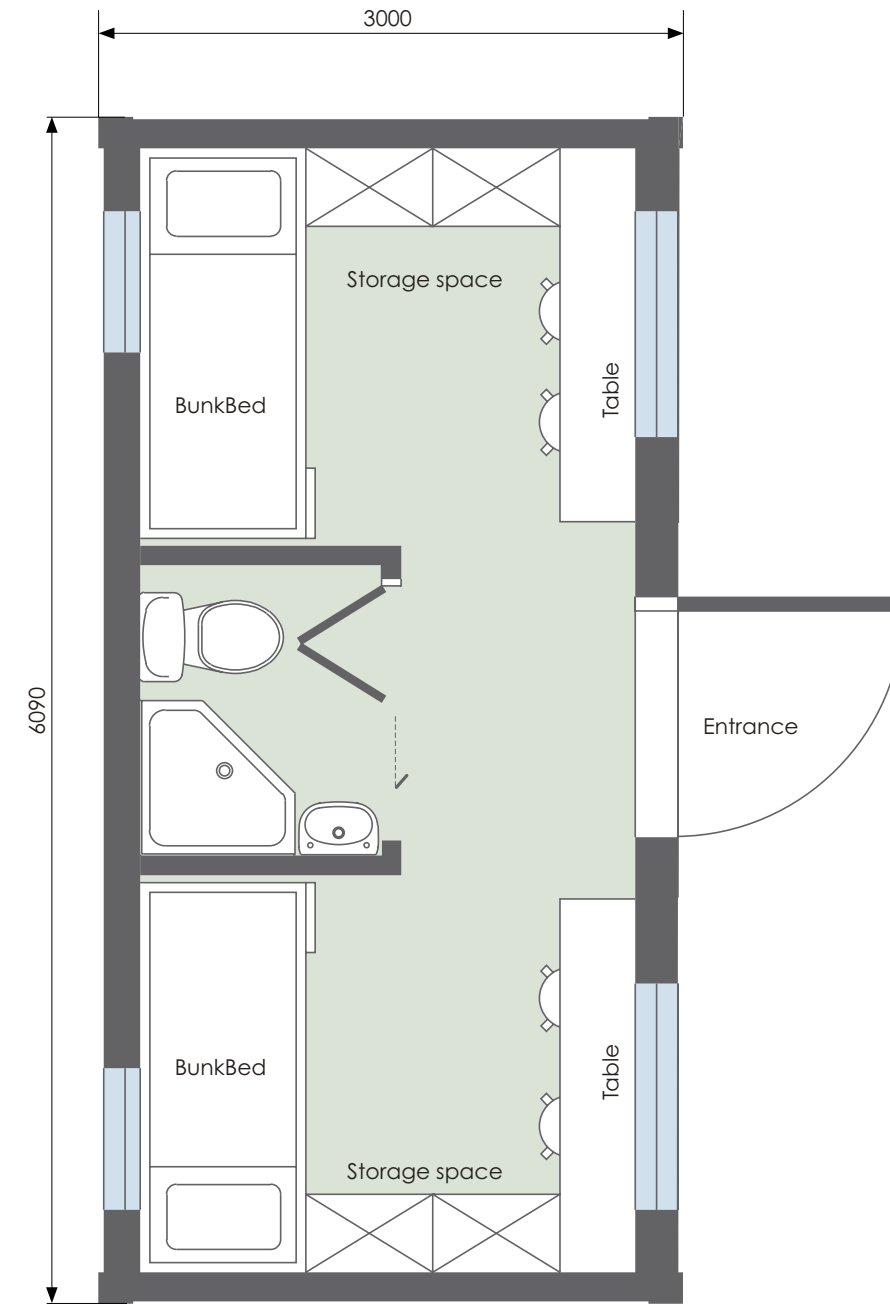
B 2 beds, 2-4 persons

Two Double beds room with private toilet
 Recommended size of double bed:
 900mm x 1900mm



C 4 beds, 4 persons

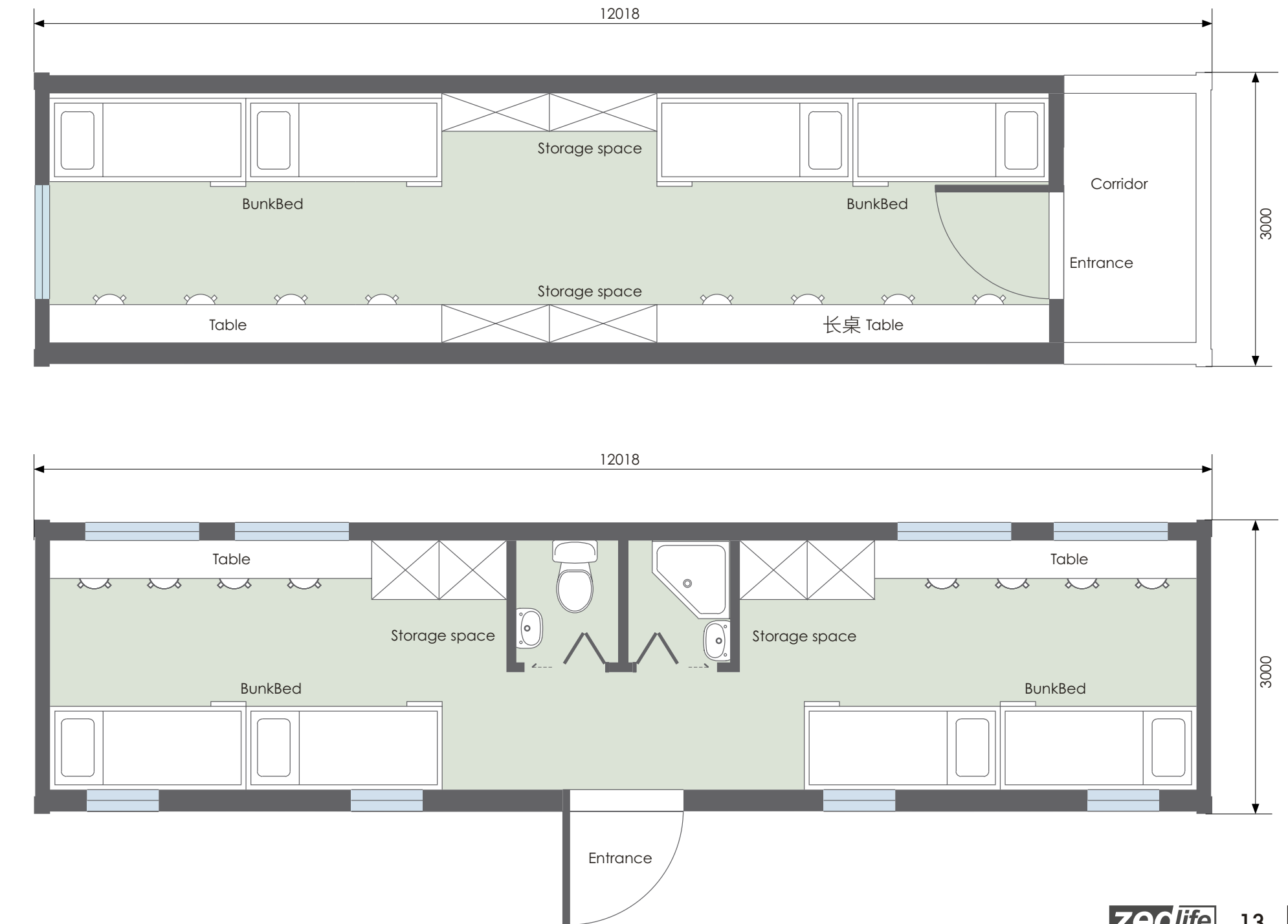
Two bunkbeds with semi-private toilet
 Recommended size of bunkbed:
 900mm x 1900mm



Living Cabin — 40'

D 8 beds, 8 persons

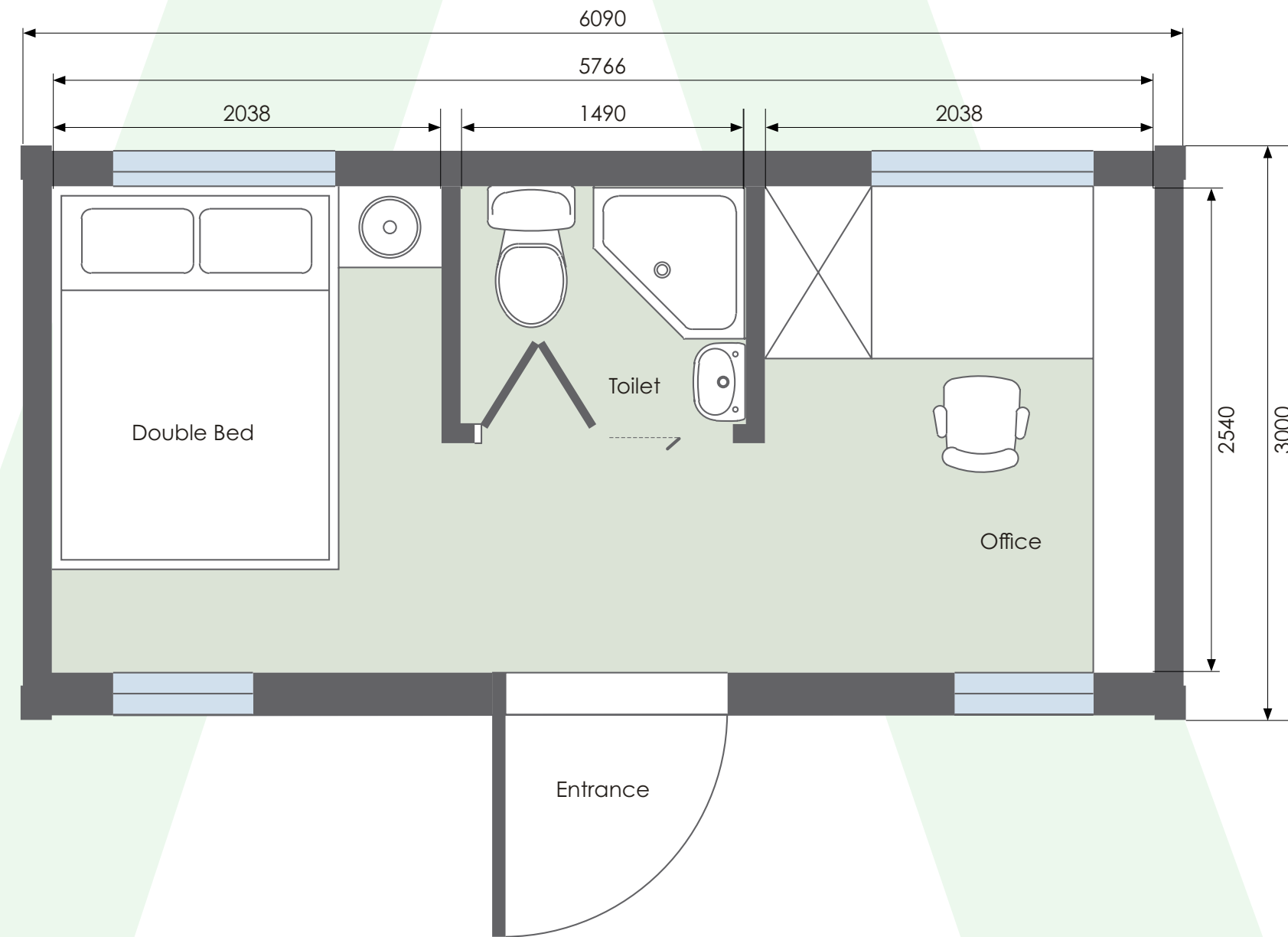
Four bunkbeds with semi-private toilet
 Recommended size of bunk-bed:
 900mm x 1900mm



Residential Cabin — 20'

A 1 bed, 1-2 persons

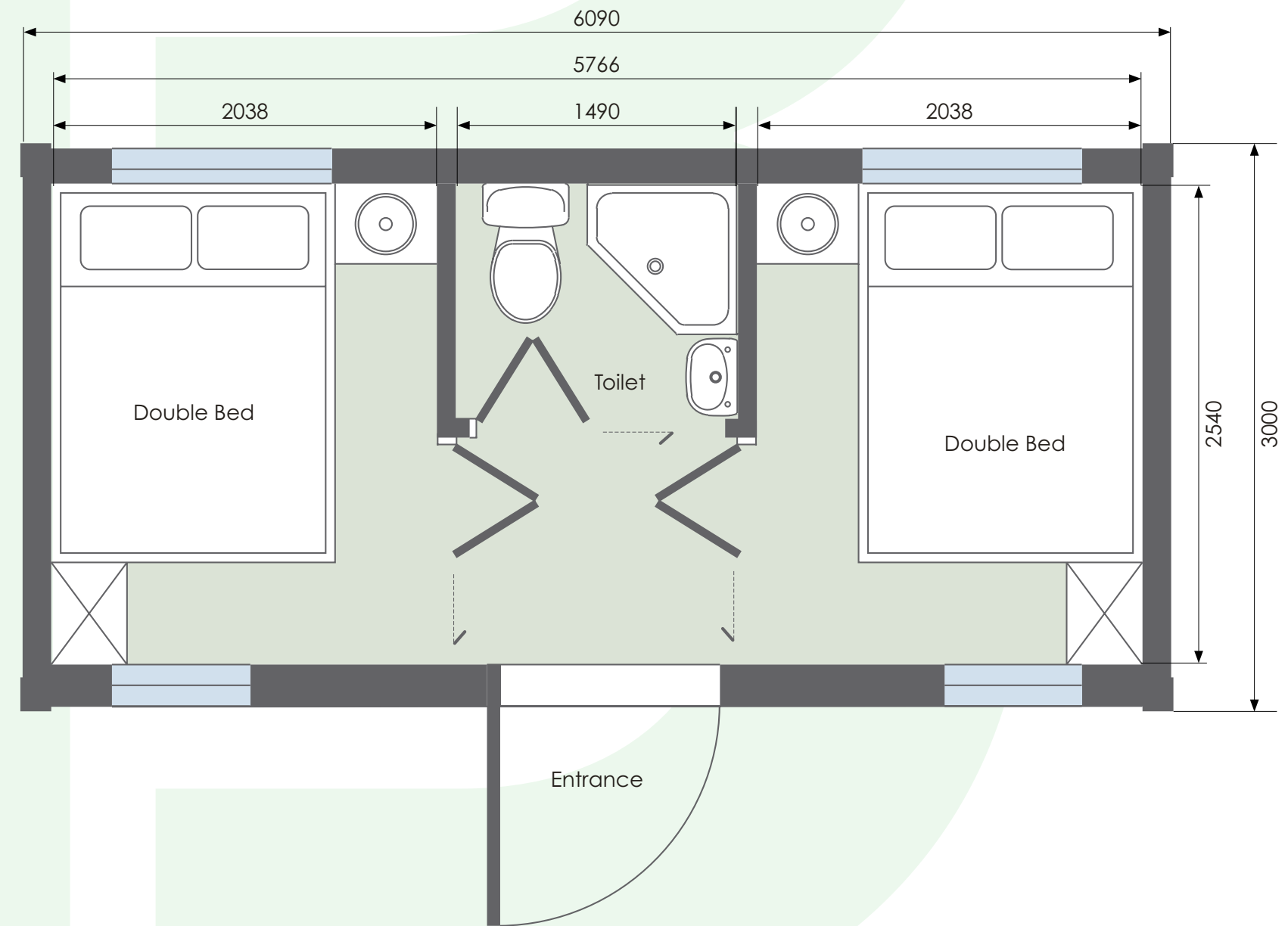
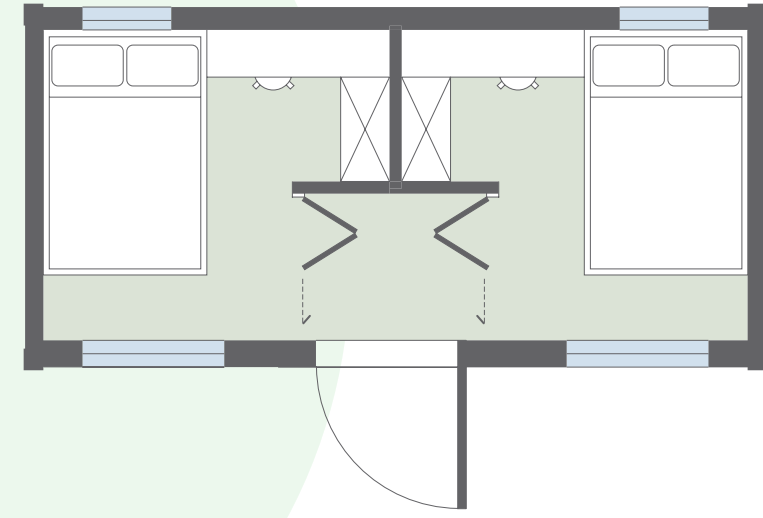
Single room with private toilet
Recommended size of double bed:
1200mm x 2000mm
Can configure ark of chest, head of bed, TV ark to wait according to need.



Residential Cabin — 20'

B 2 beds, 2-4 persons

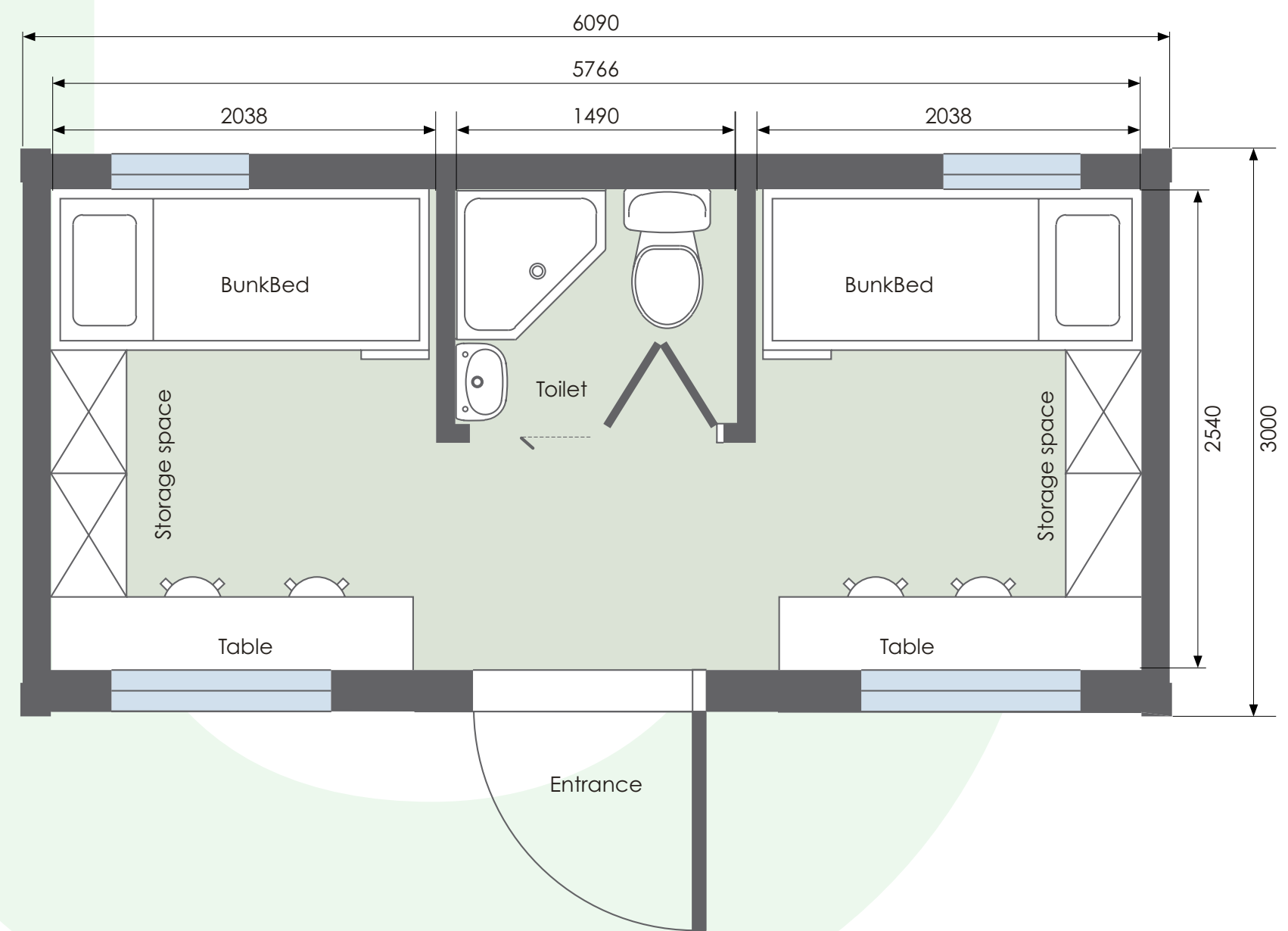
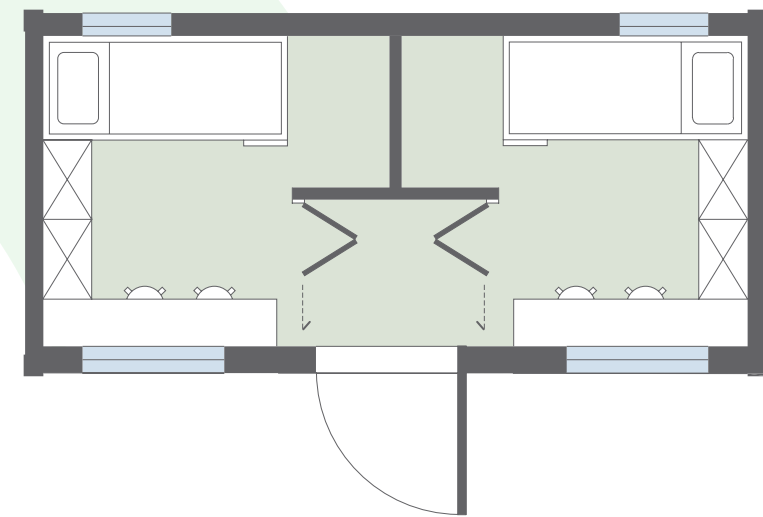
Two Double beds room with private toilet
Recommended size of double bed:
900mm x 1900mm



Residential Cabin — 20'

C 4 beds, 4 persons

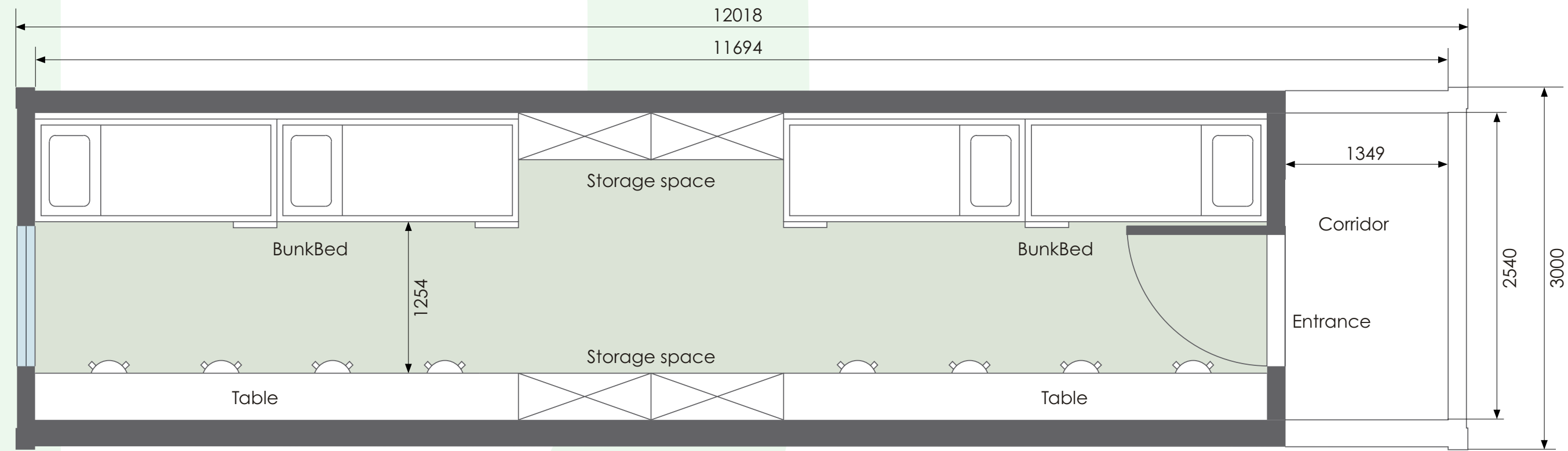
Two bunkbeds with semi-private toilet
Recommended size of bunkbed:
900mm x 1900mm



Residential Cabin — 40'

D 4 beds, 4 persons

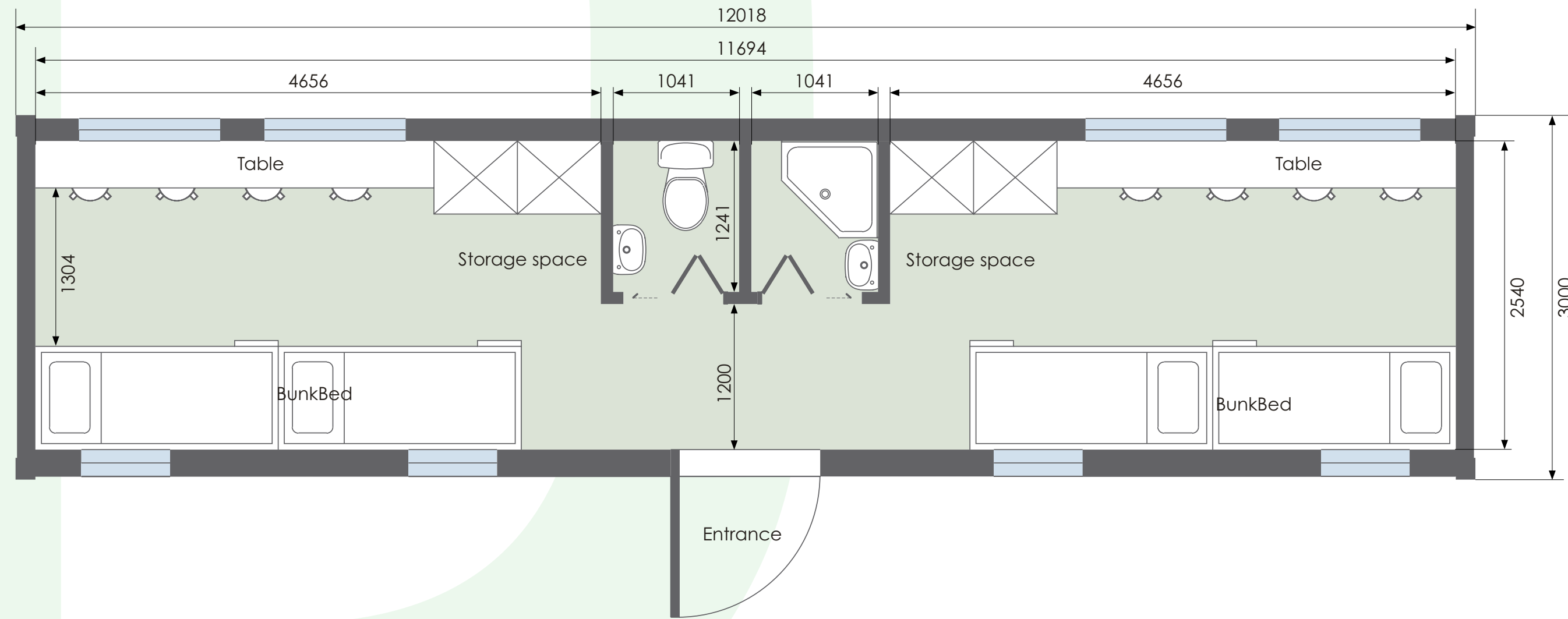
Two bunkbeds with semi-private toilet
Recommended size of bunkbed:
900mm x 1900mm



Residential Cabin — 40'

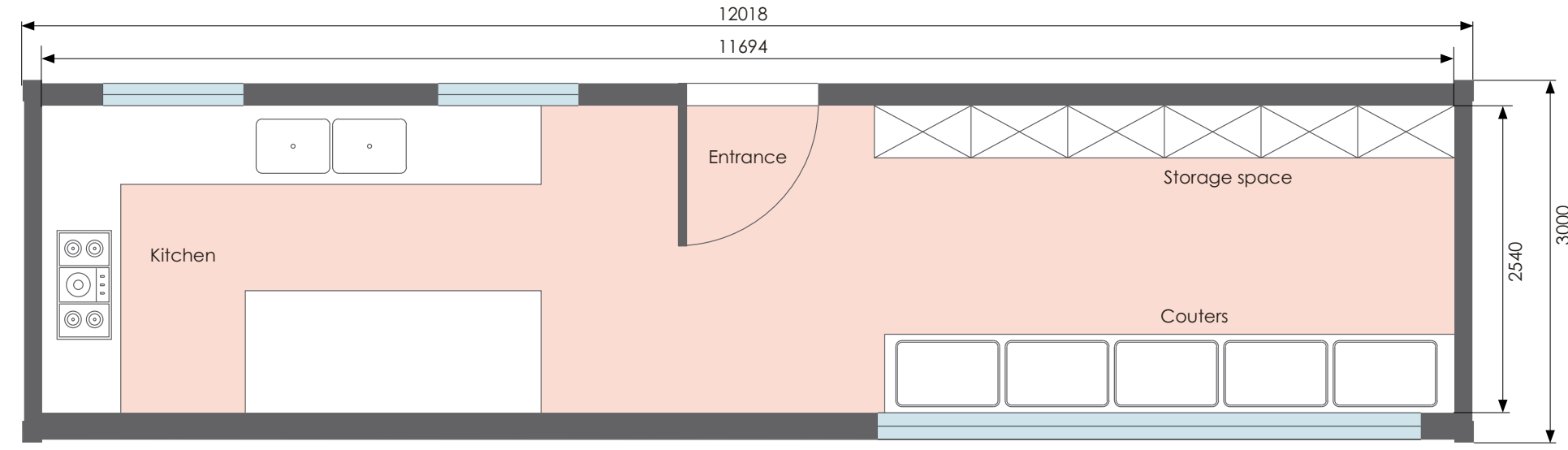
D 8 beds, 8 persons

Four bunkbeds with semi-private toilet
Recommended size of bunk-bed:
900mm x 1900mm

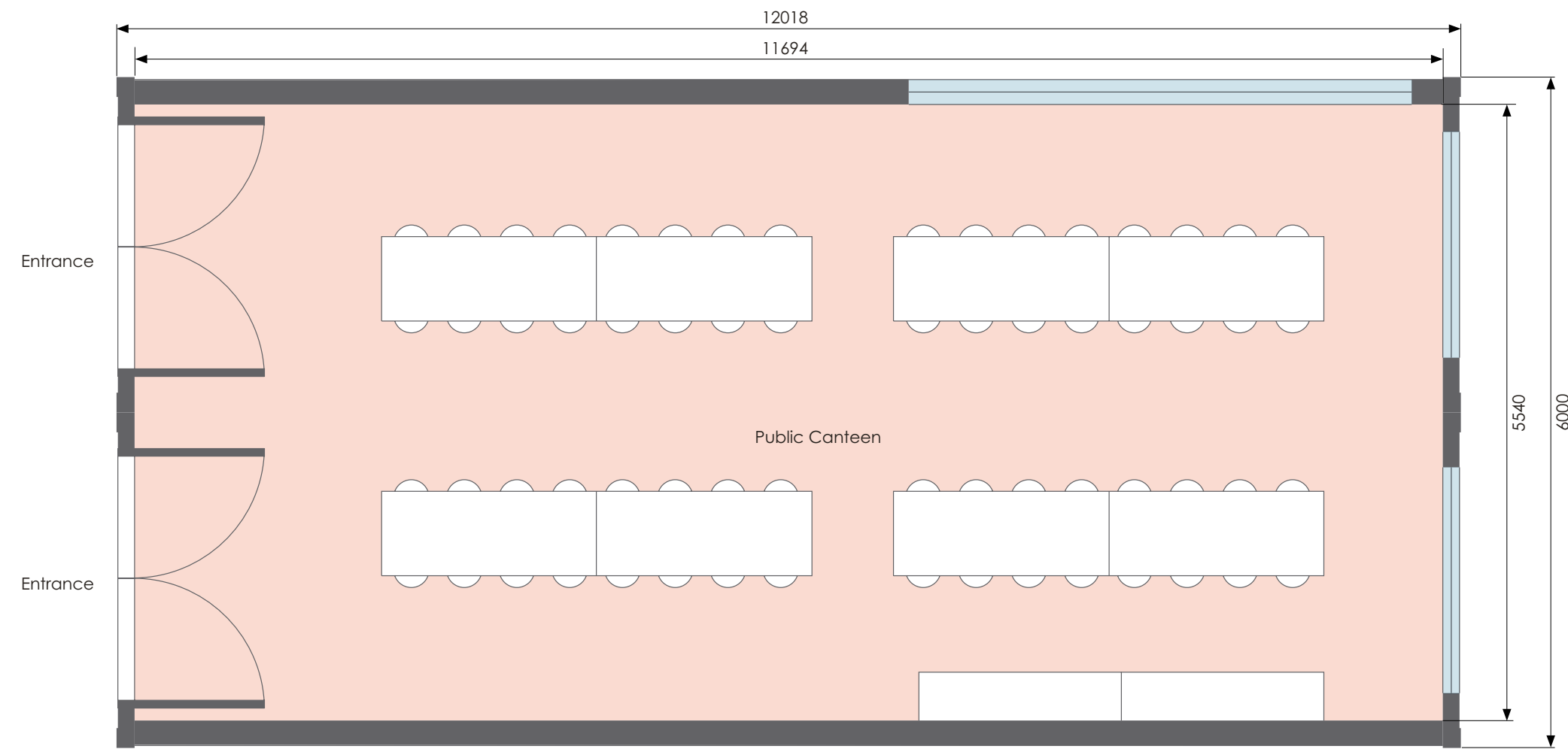


04 Others — 40'

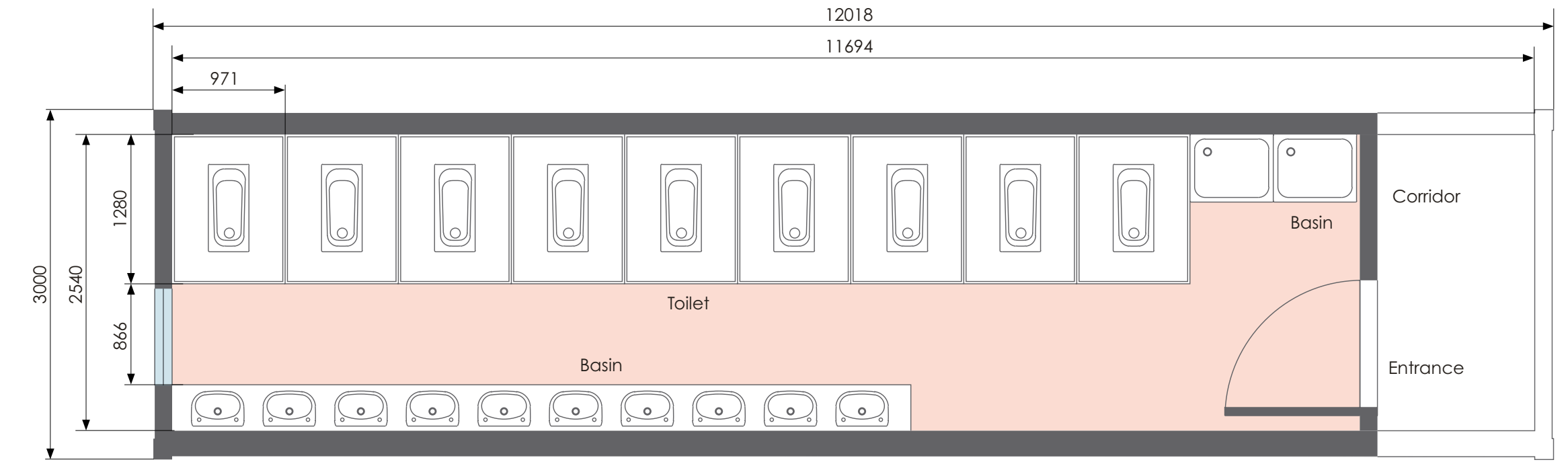
A Kitchen



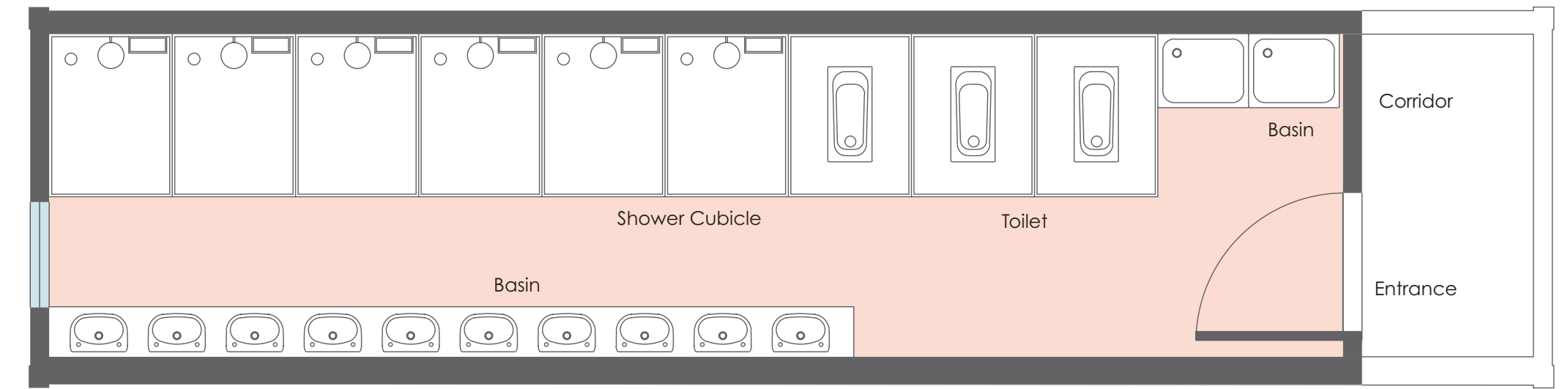
B Canteen



C Toilet Cabin

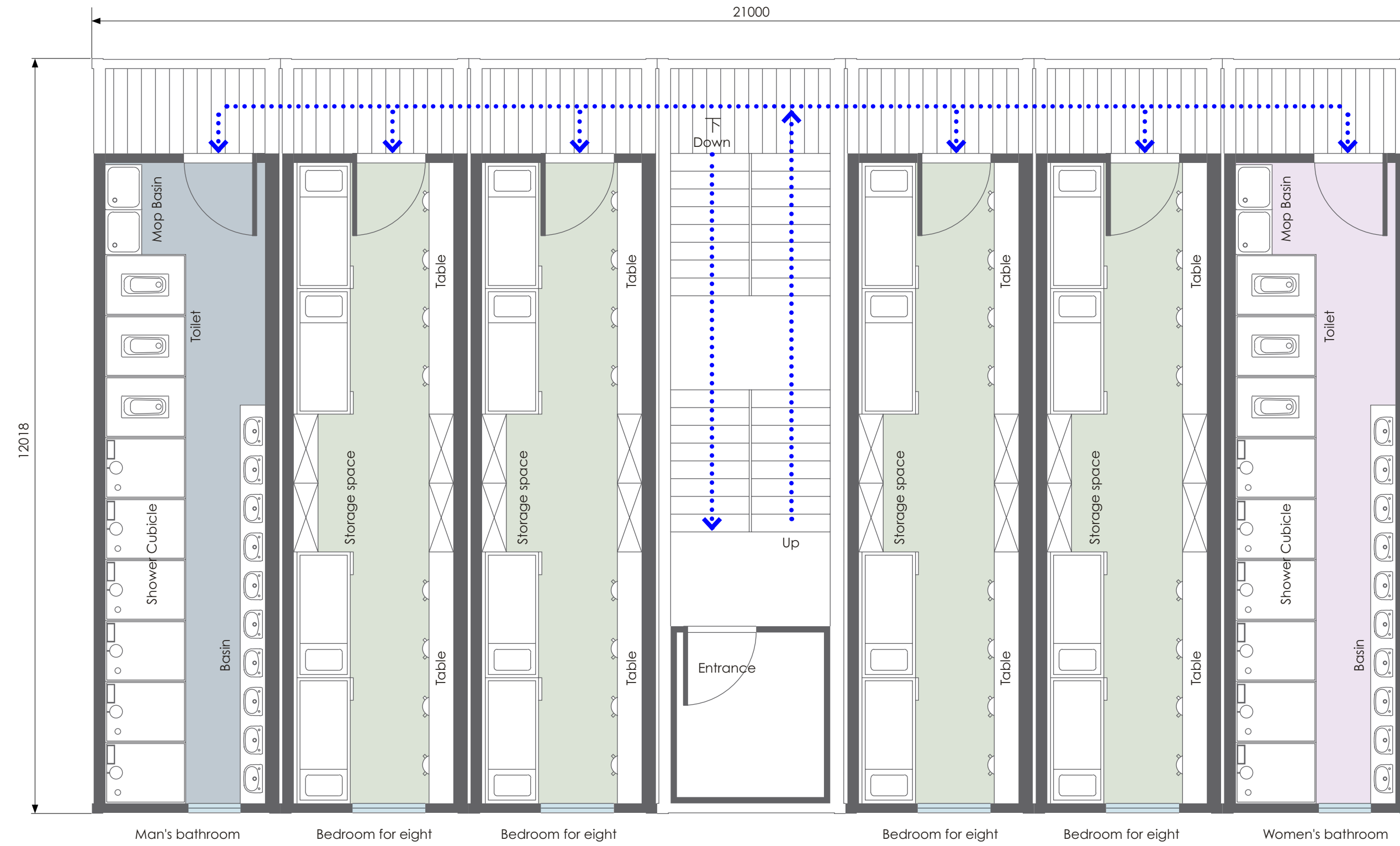


D Bathroom Cabin



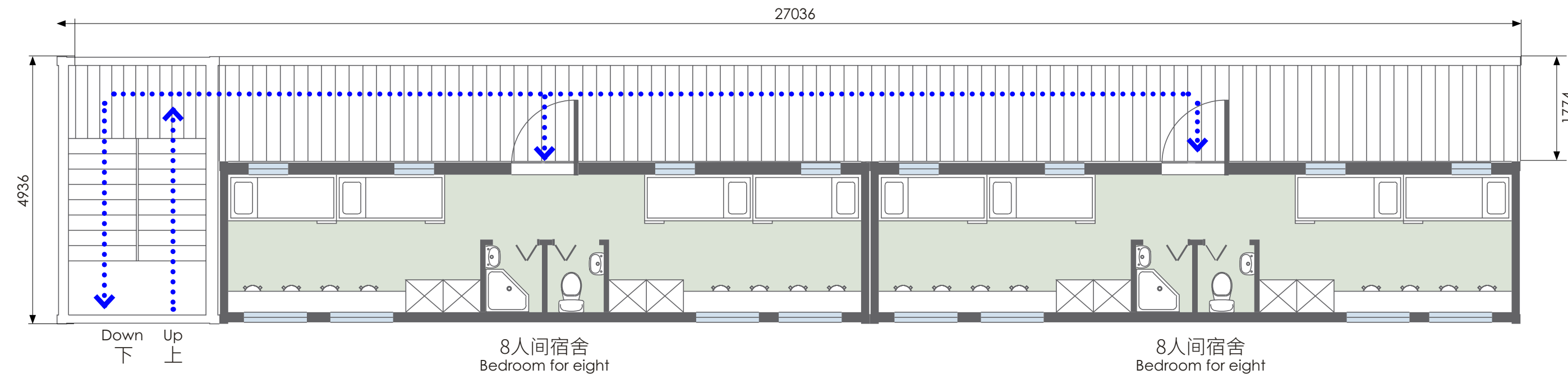
Residential Cabin Combination — for builders

Suitable for large construction site



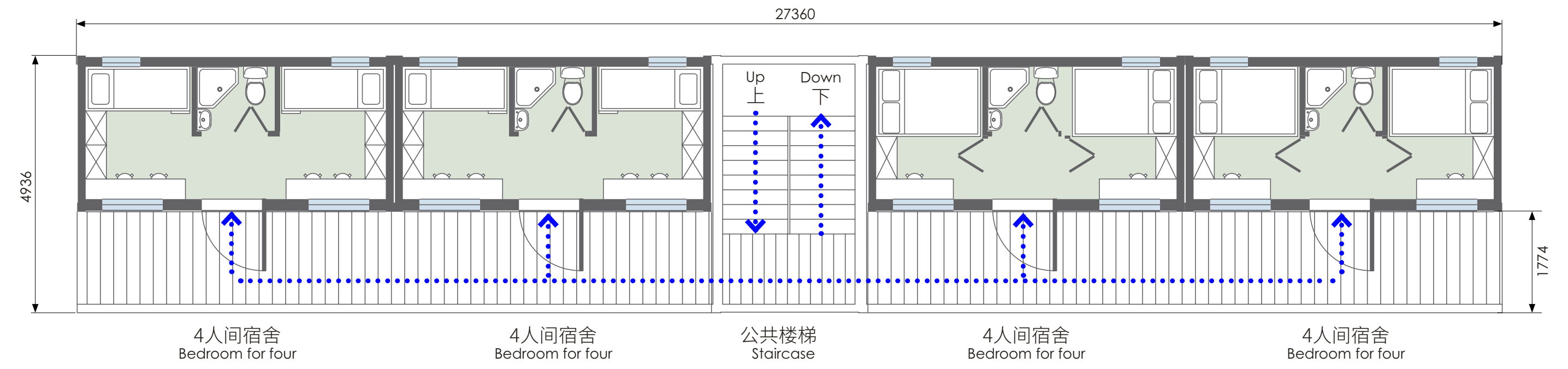
Residential Cabin Combination — for builders

Suitable for Medium/Small construction site



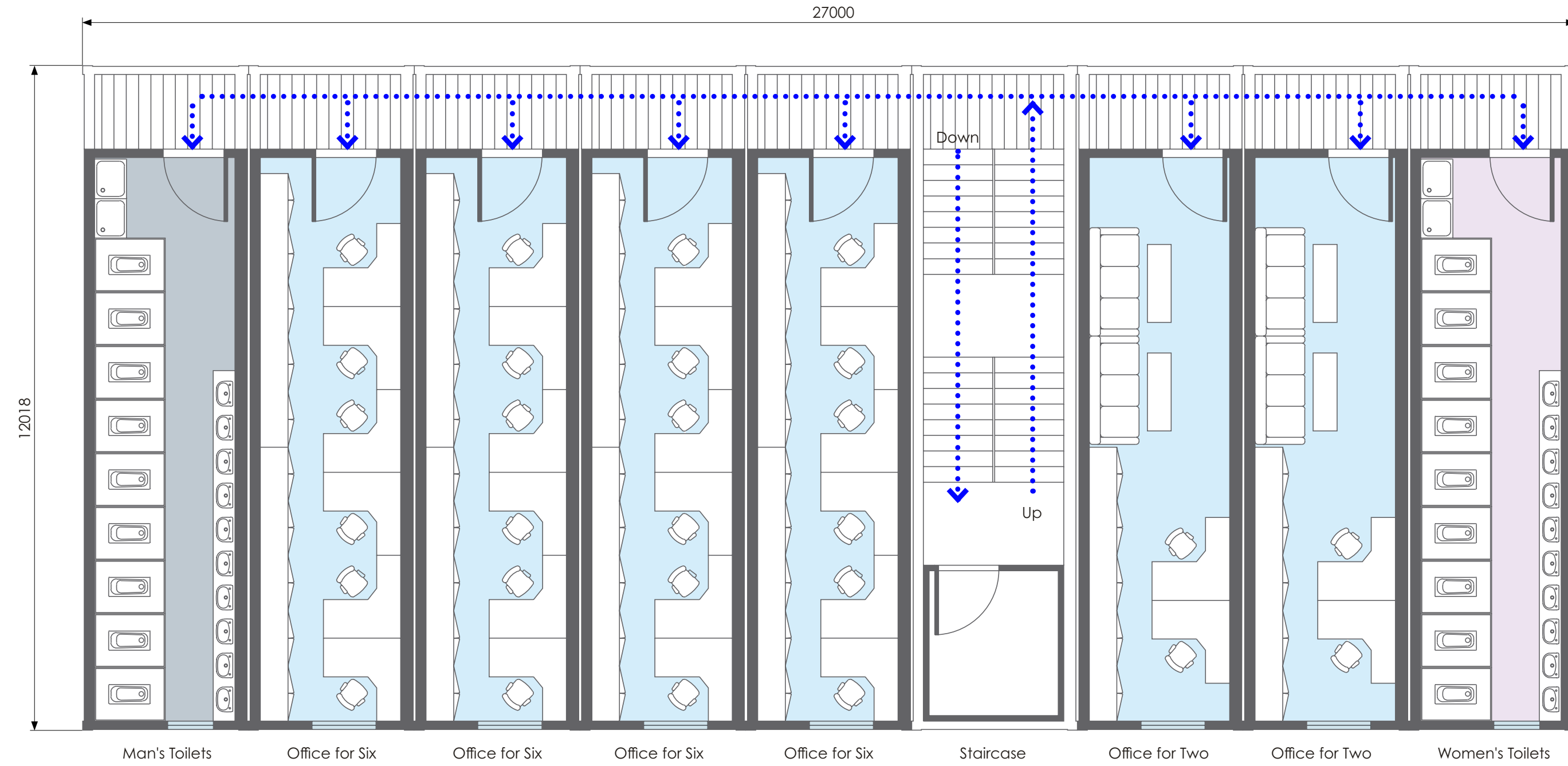
Residential Cabin Combination — for managers

Suitable for Medium/Small construction site



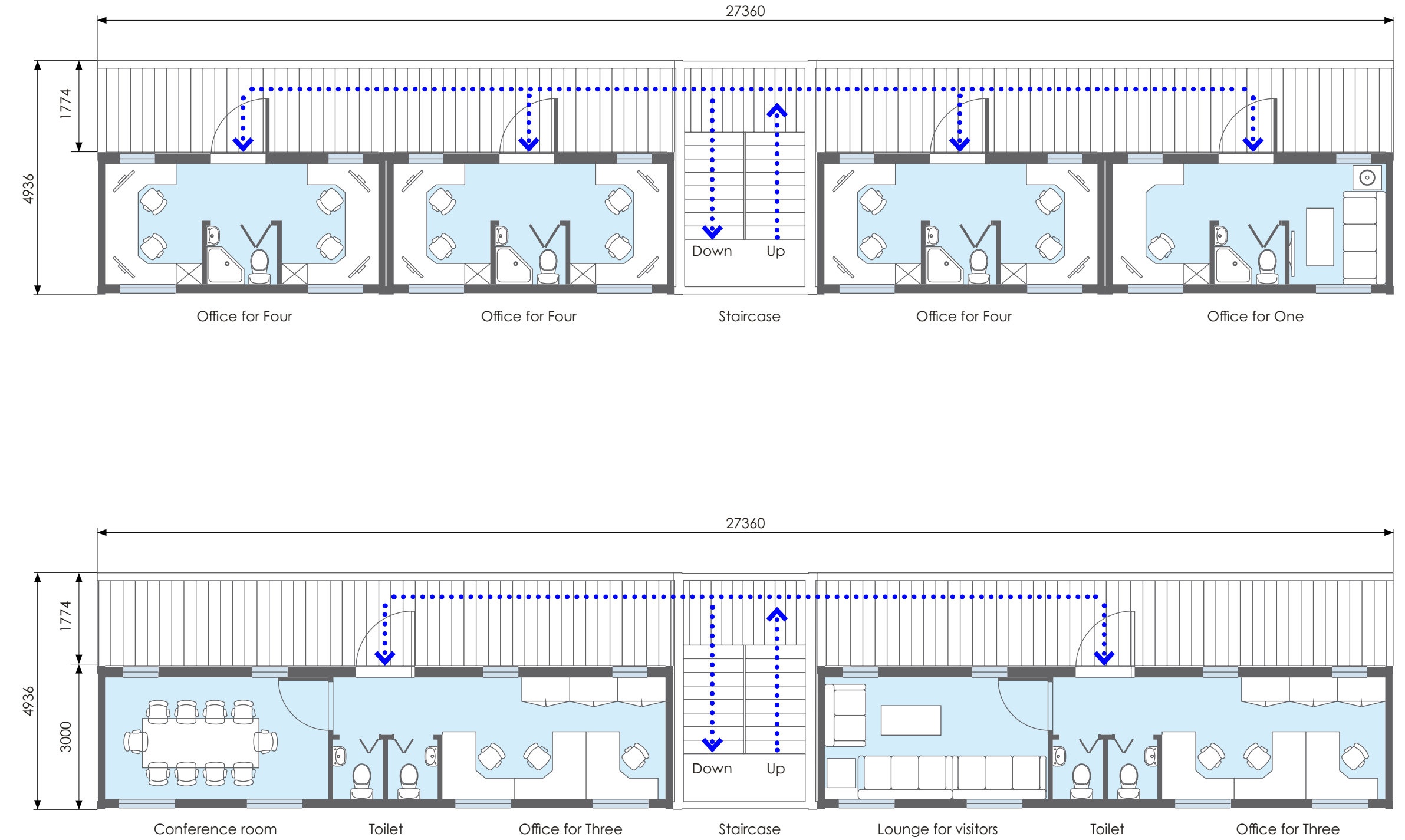
Office Cabin Combination

Suitable for Large construction site

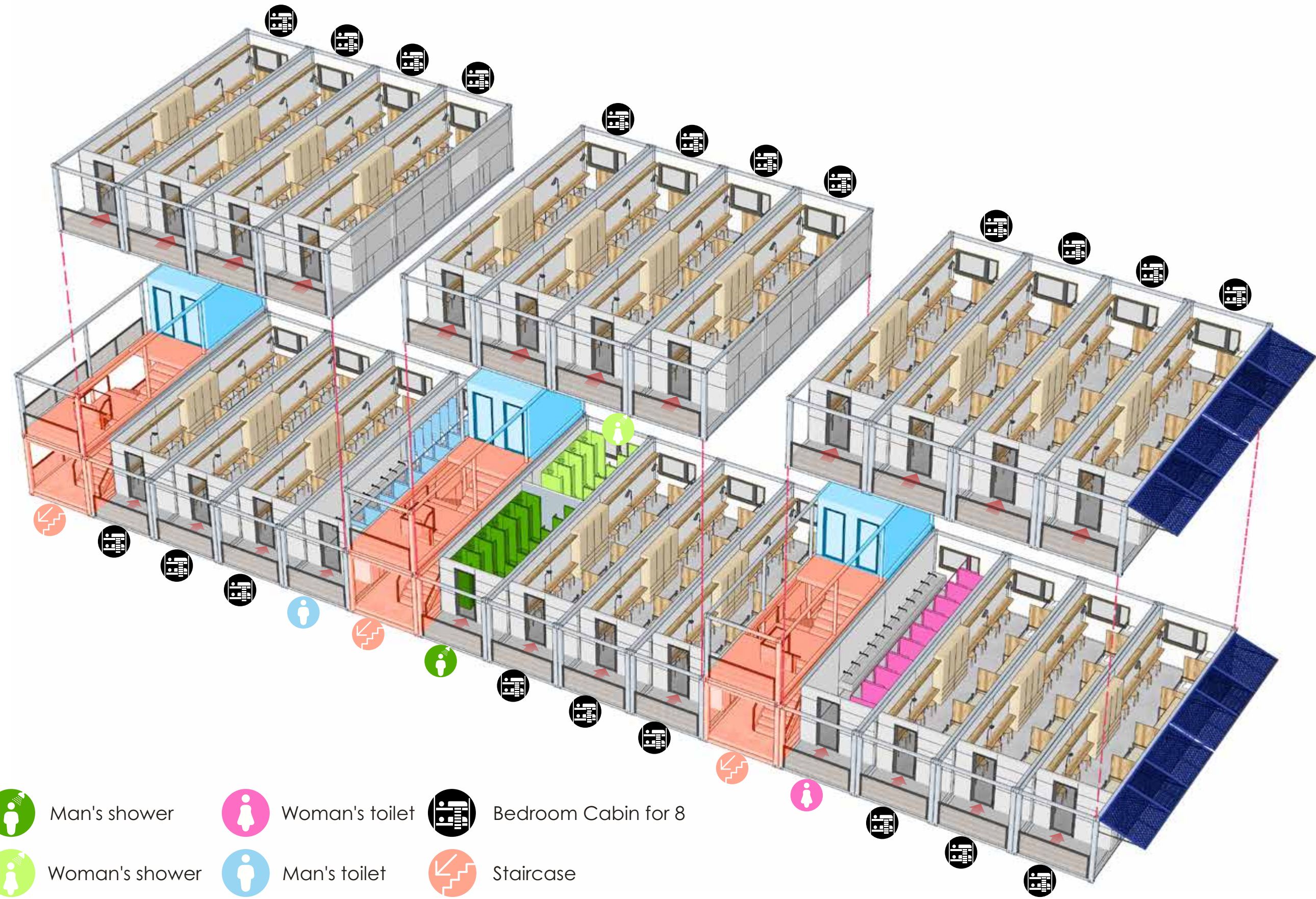


Office Cabin Combination — for managers

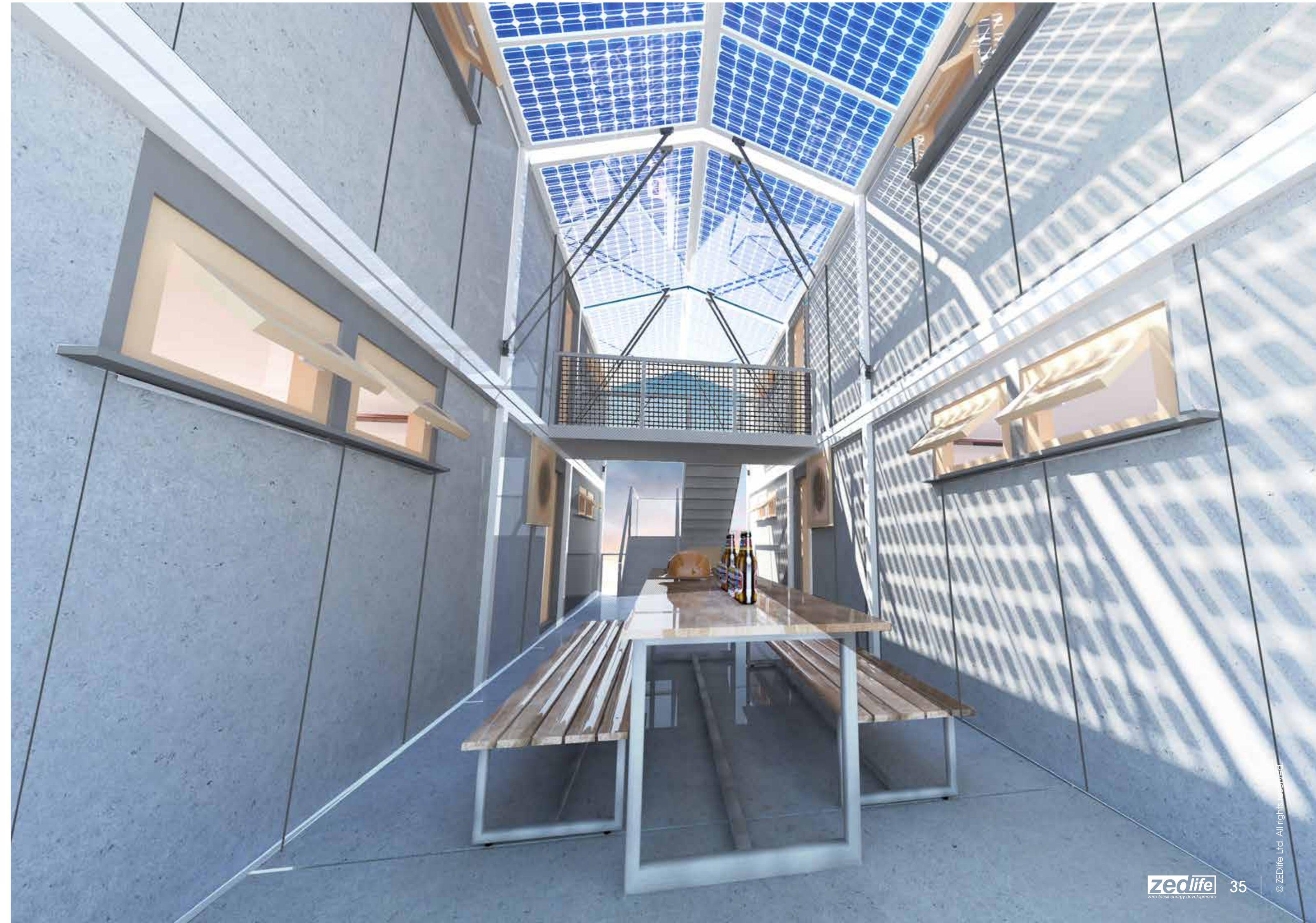
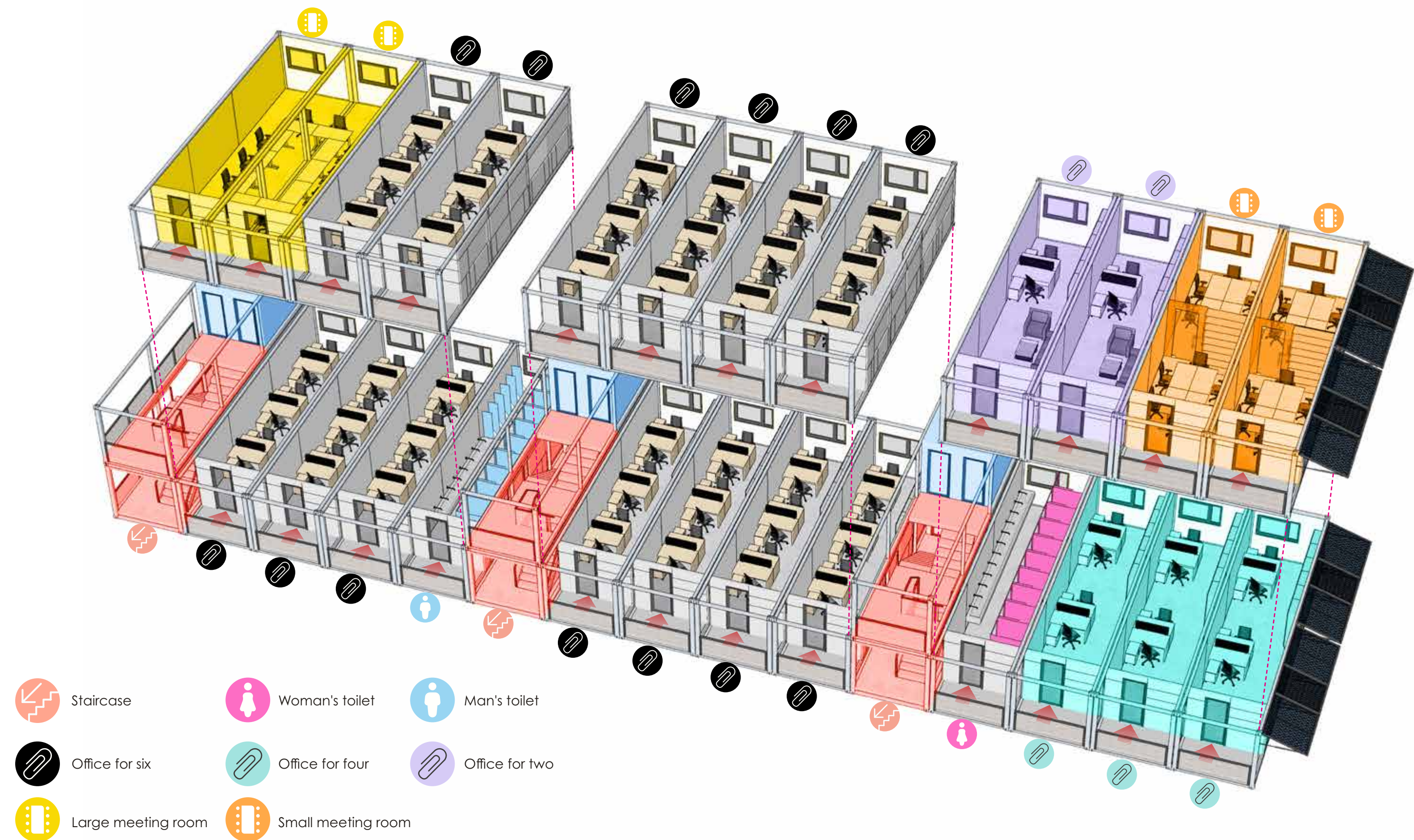
Suitable for small construction site



1.0 Construction Site — Residential Cabins Block

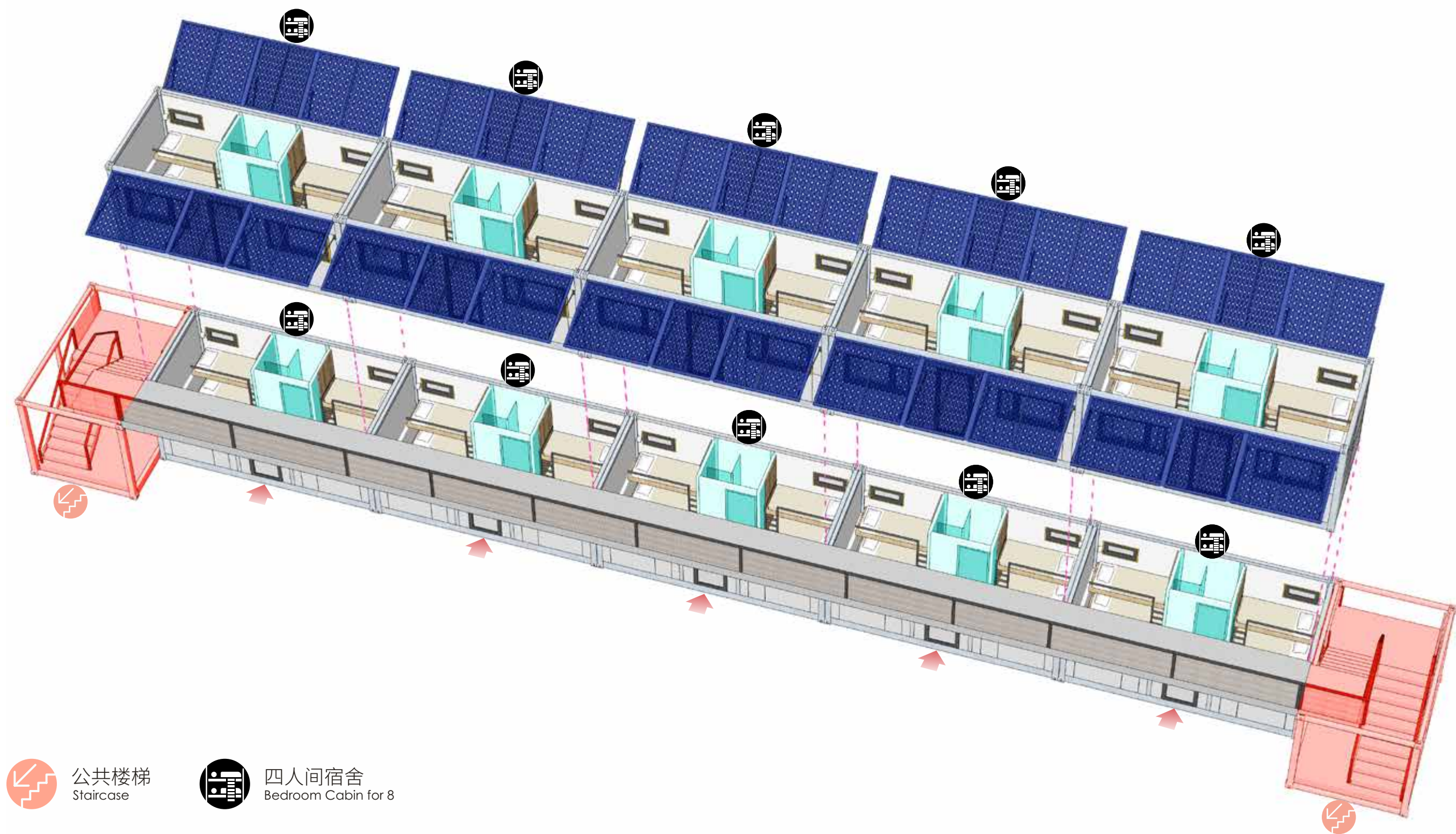


2.0 Construction Site — Office Cabins Block





3.0 Construction Site — Residential Cabins Block

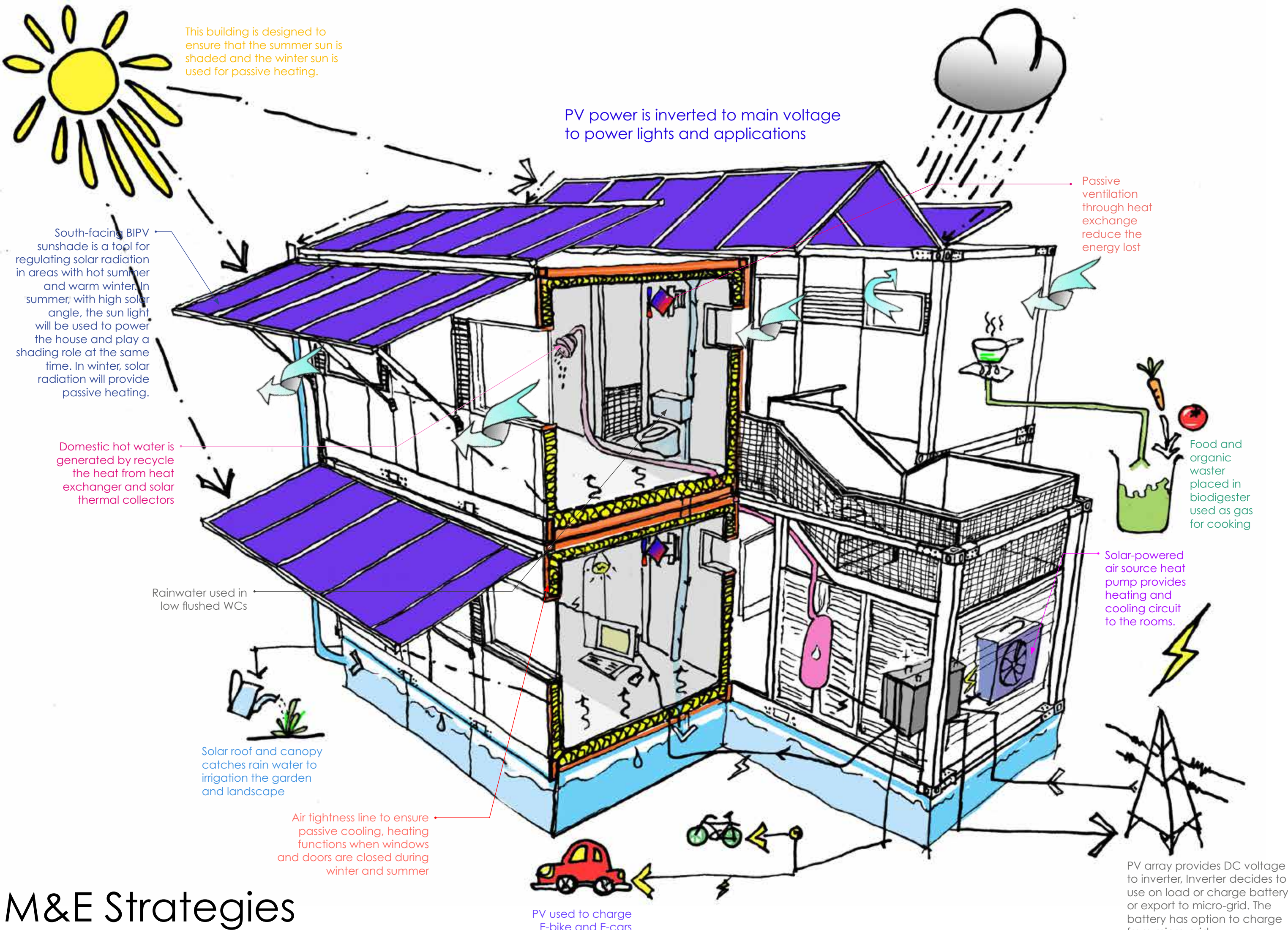


公共楼梯
Staircase

四人间宿舍
Bedroom Cabin for 8



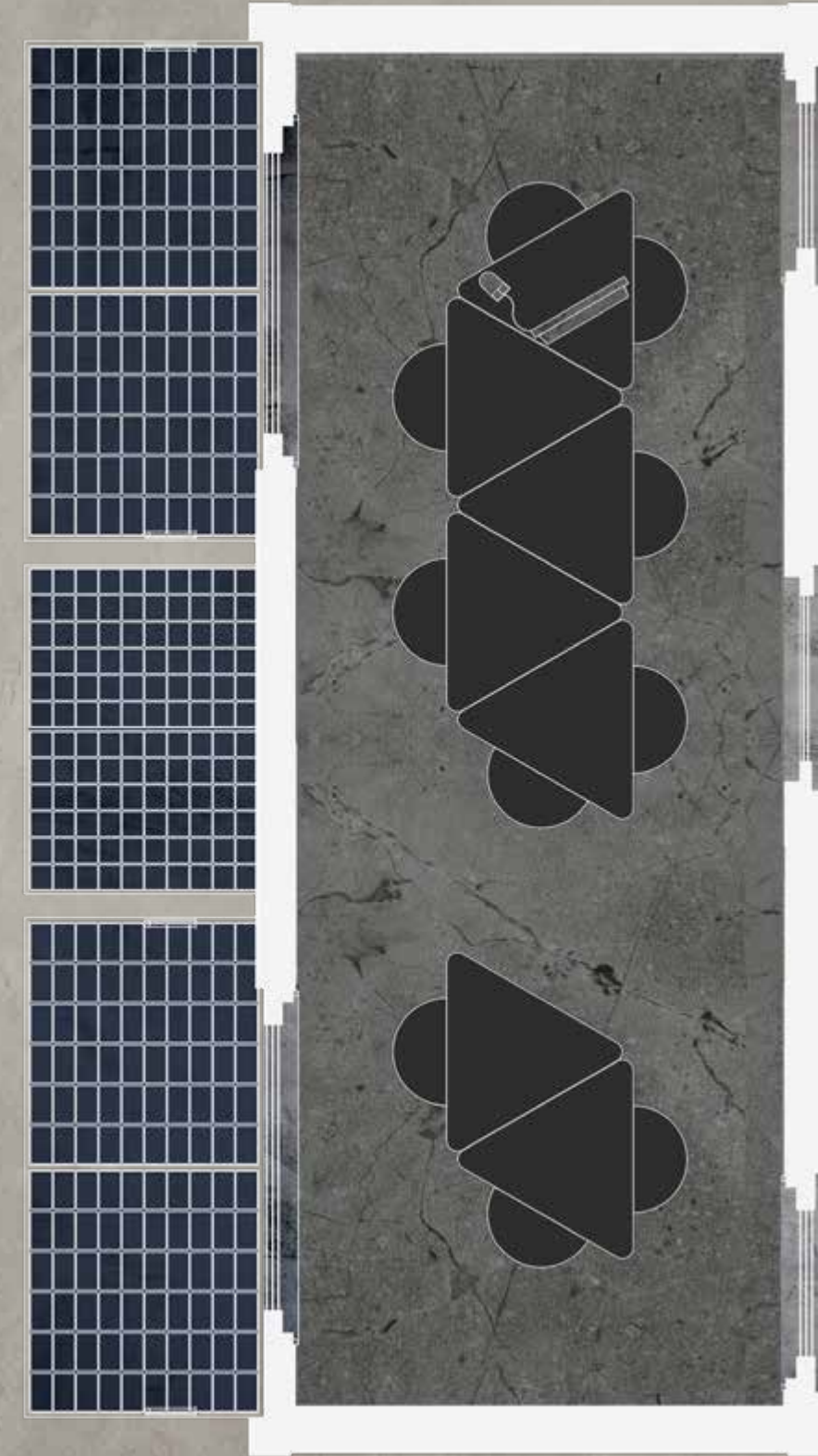
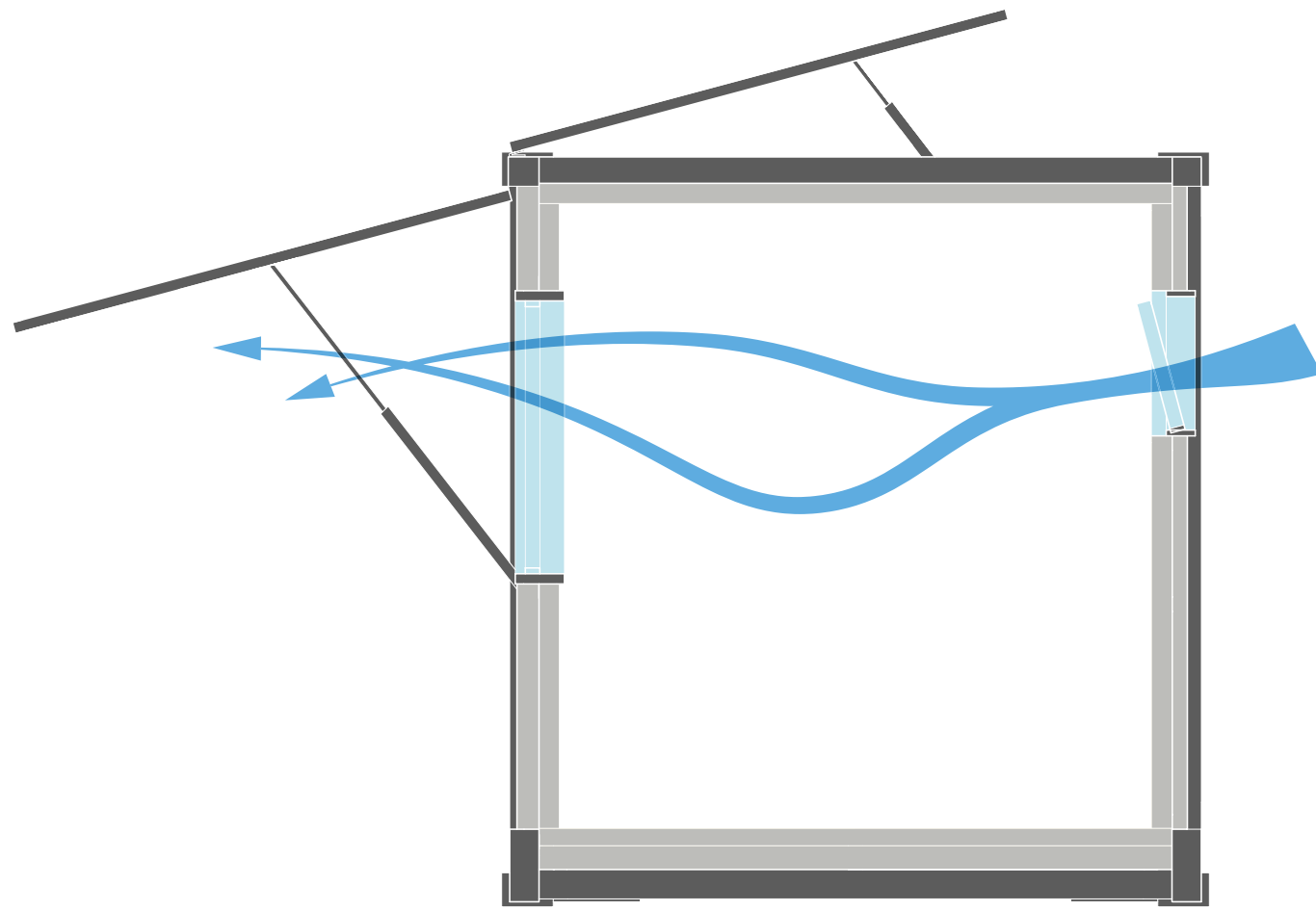




3.0 Integrated space for working and living

+ Ventilation

Maximize the natural ventilation combined with the passive heat recovery fresh air system. Wind effect is obvious, air quality is improved significantly without any heat and cool lost.



Meeting room

Magnetic blackboard

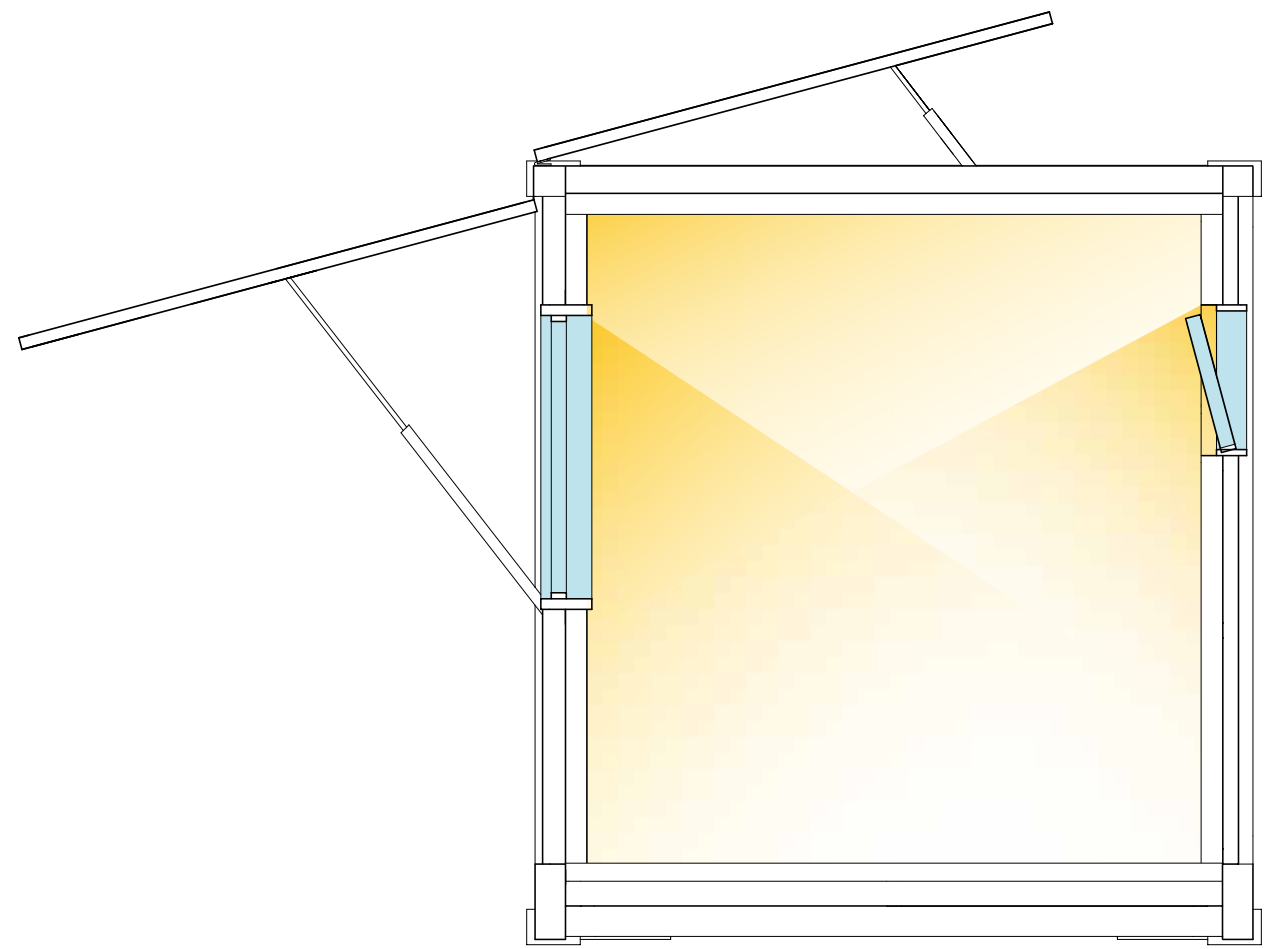
Storage

Meeting table

3.1 Maximise Natural Daylight

+ Natural daylight

Photovoltaic shading can block the high direct light of the summer sun and avoid excessive heating in the room. In winter, low-angle sun can penetrate into the room, automatically heating indoors, increasing indoor comfort and reducing heating energy demand.



Kitchen & Dining space

Charcoal recirculation kitchen cooker filter

Induction hobs with energy efficient AA+ kitchen appliances, refrigeration and microwave

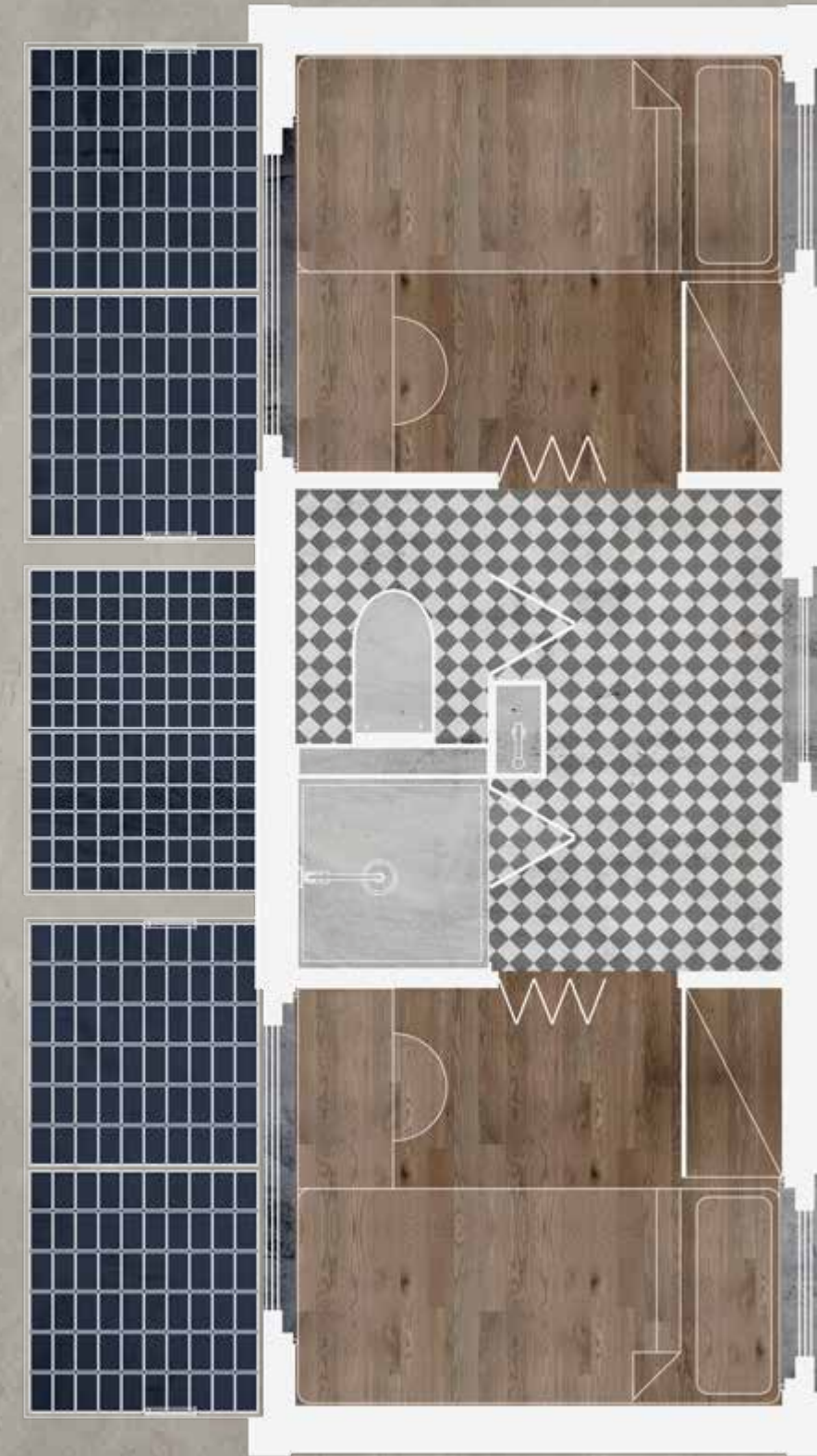
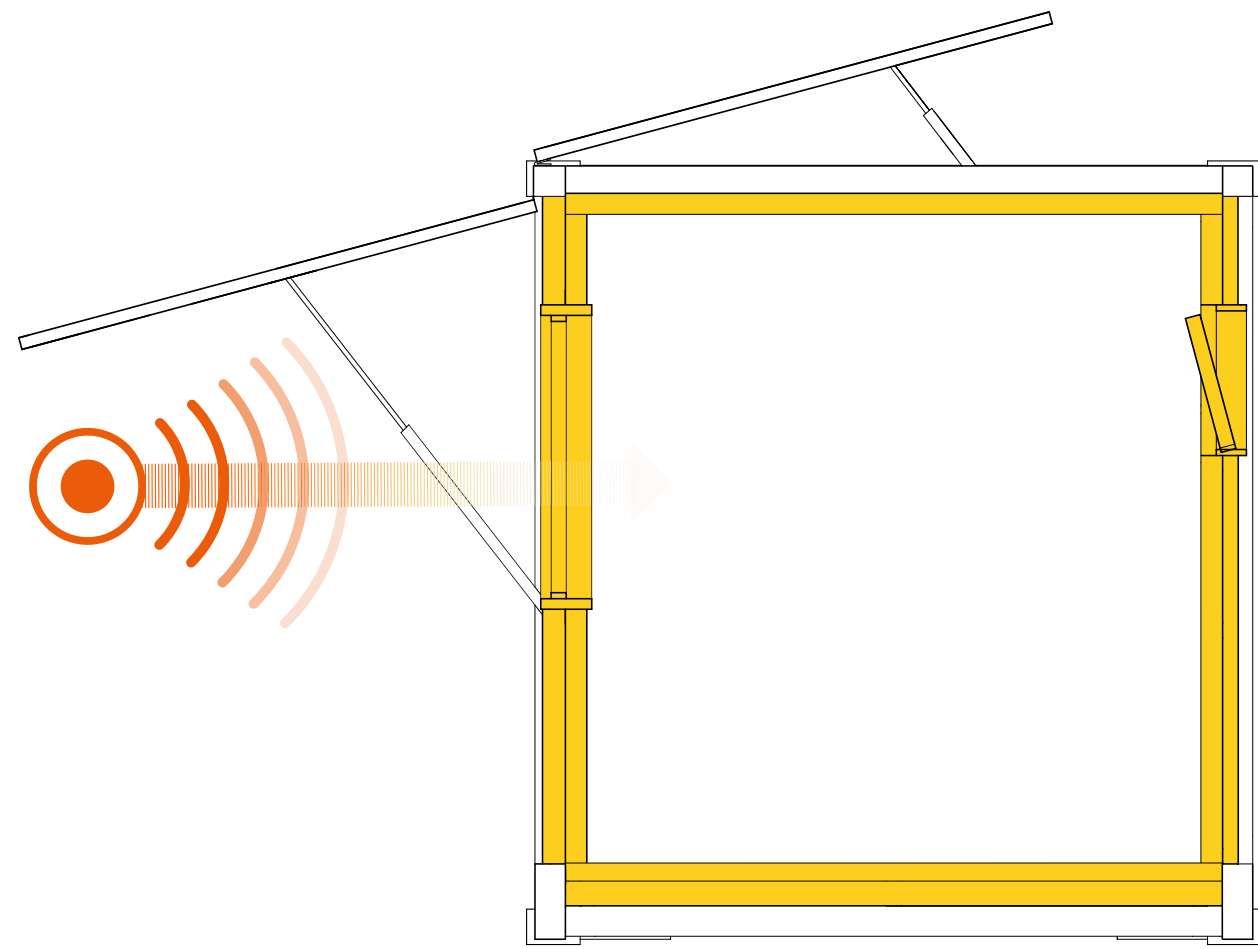
Dining table

3.2 Excellent acoustic performance

+ Acoustic performance

Using vapour permeable, non-combustible mineral wool insulation materials, the sound-absorbing and noise-reducing performance makes the ZED movable zero-carbon building soundproof and fully protects the personal privacy of the living workers.

Airtightness: Target of 1.3 ACH@50Pa test pressure. It is much higher than the 0.5 ACH required by the National Indoor Air Quality Standard.



Bunk Beds with showroom & Toilet

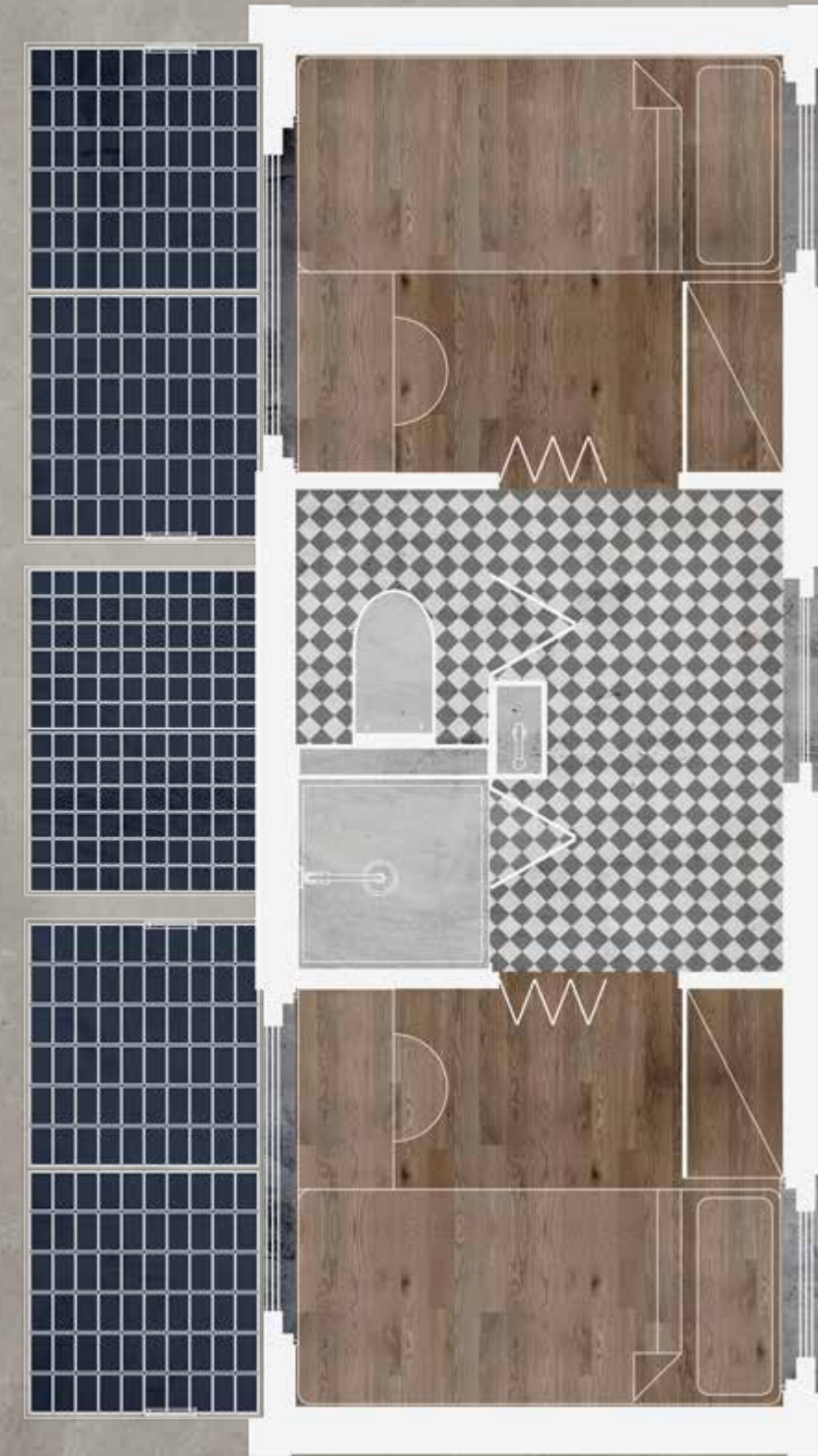
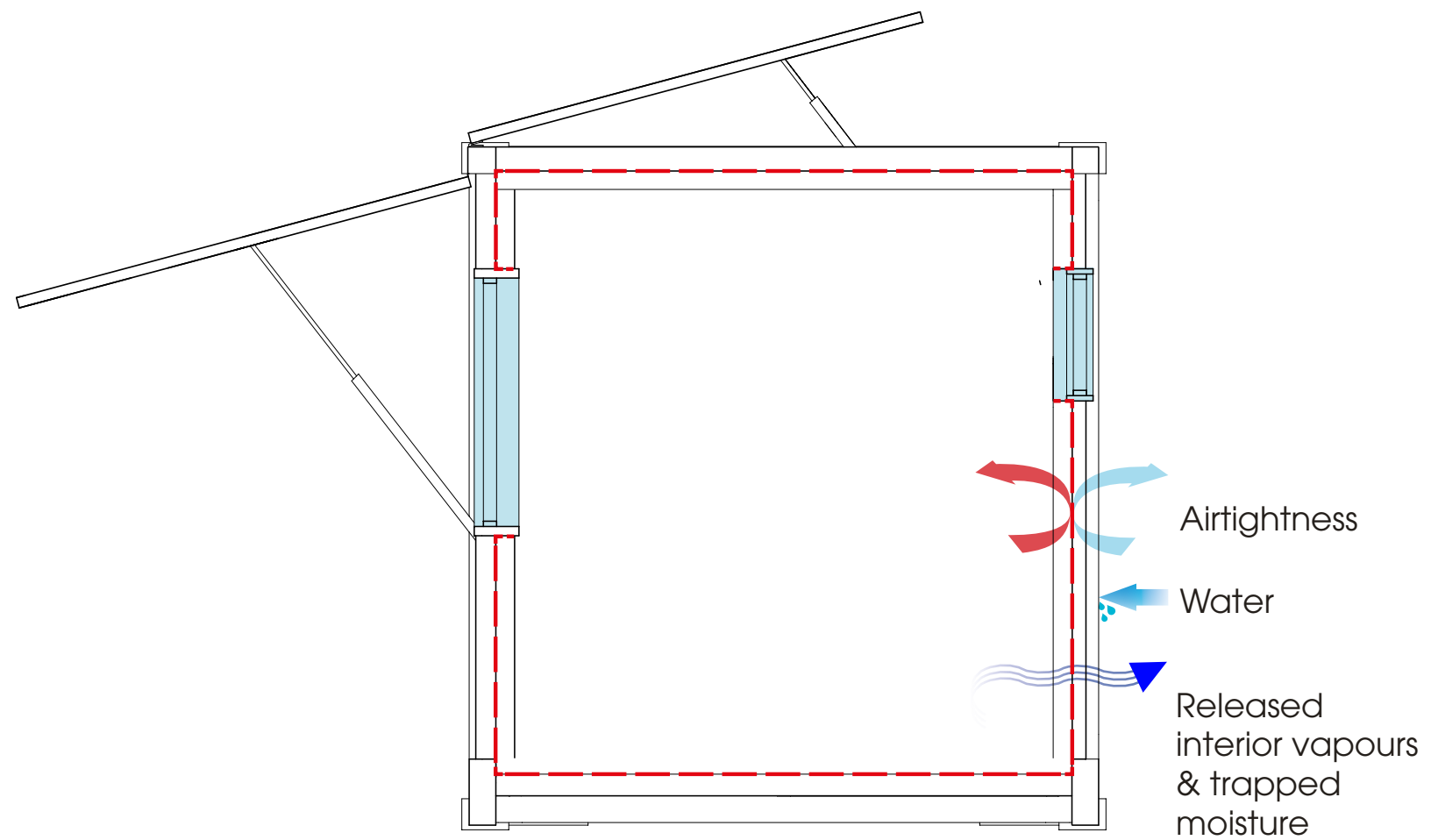
Storage

Bunk bed

3.3 Breathing wall structure

+ Airtightness

More rainfall and humid climate in Shanghai lead to more humid living conditions for workers. ZED moveable zero-carbon building uses a vapour permeable breathing wall structure, create the most comfortable living environment for human body.



Hall way & Washing area

Washing Area

3.4 High-quality Materials & Fittings

+ High quality design

The ergonomic design makes the living environment of workers more comfortable, giving workers enough respect and dignity to improve workers' happiness and work efficiency.



Bedroom for four people

Storage

Table

Bunk bed

3.5 Health & Safety

+ Fireproof

Using Class A fireproof material—mineral wool insulation. It has good insulation performance and is non-combustible.

+ Anti-theft

The specially designed stair module and room module each have an independent door lock and double insurance to prevent theft.

+ Earthquake resistance

The main structural material is high-standard hot-dip galvanized steel. The structural strength and anti-corrosion treatment make the building can reach the service life of more than 50 years. Even if it is moved or accumulatively assembled, it will not effect the structure. The composition has an impact and extends the overall investment recovery cycle of the building.

+ Windproof

It can resist the typhoon level 12 and ensure the financial loss caused by personnel safety and building damage.

+ Insect control

Insect nets have been preset in the wall and the ground to prevent insects such as termites from entering the interior of the building and to protect the wooden structure and personnel.

+ Earthquake resistance

The cabin is designed according to the seismic intensity of the structure, which is 8 degrees and a half in haikou. As a temporary building, the seismic force will be weakened. Ensure the safety of workers' lives and property.



“
Together
we can build
a LOW-CARBON
FUTURE
that works.”

— Dunster OBE

✦ **No high-volt electricity**

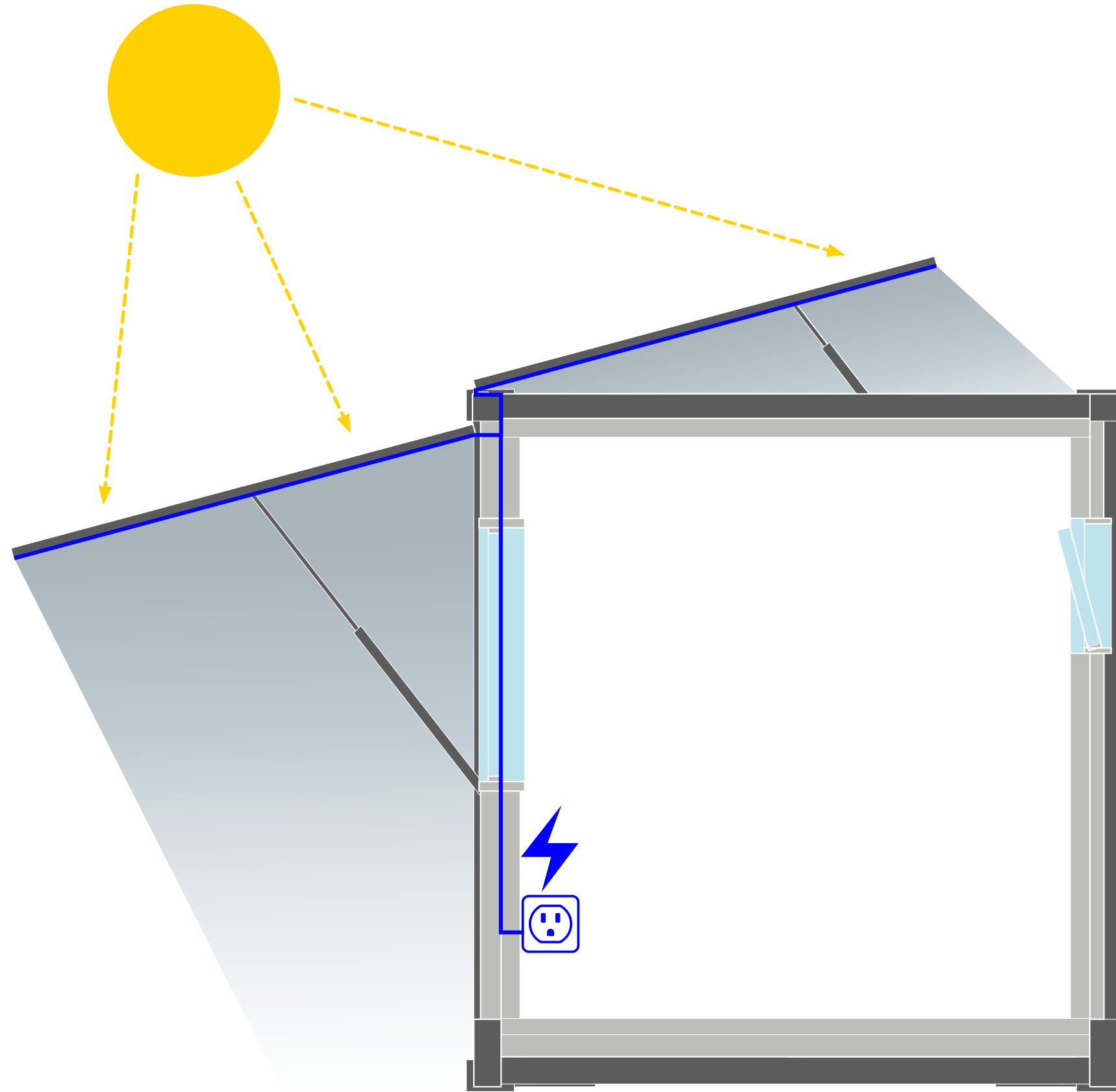
The solar photovoltaic power generation technology is used to store the generated direct current in the ZED battery system. The mobile phone, computer and other electrical appliances can be directly charged, and no transformer is needed, thereby further increasing the safety of the resident.

3.6 Low energy consumption allows zero emissions

+ BIPV Energy Roof

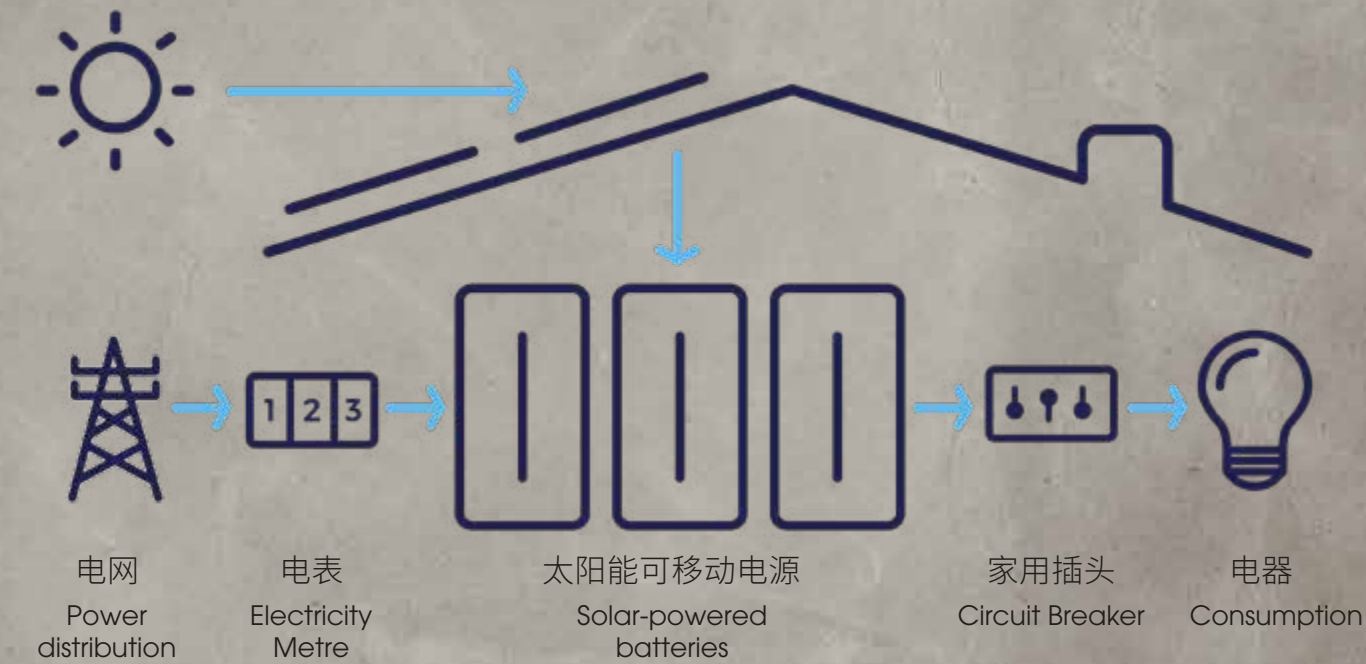
A Full offgrid capability allows instant deployment on any site

Press a button and the solar shades open up converting sunlight to electricity and powering the heating / cooling system, the heat / coolth recovery ventilation system supplying 100 % fresh air with no recirculation and the lithium battery storage banks that power lights, laptops, e bikes, mobile phone charging and powertools.



+ Energy system

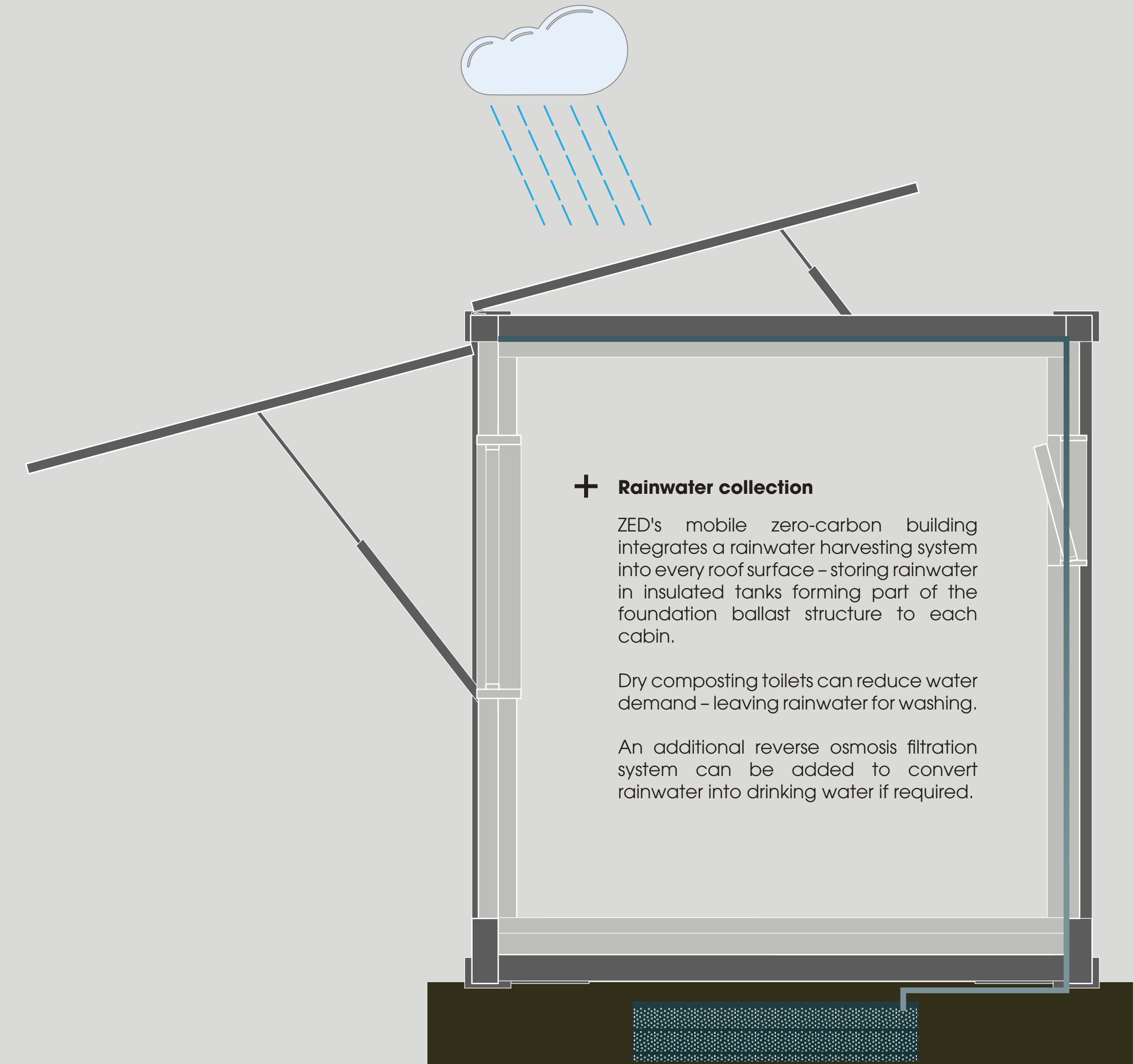
Provide continuous, efficient and stable mobile power for mobile indoor and outdoor operations (mobile phones, computers, battery cars, electric cars, energy storage in capacity houses, etc.).



3.6 Low energy consumption allows zero emissions

+ Wall Structure

Due to the addition of new energy systems and temperature-maintaining walls, the requirements for air tightness and ventilation are met, allowing mobile buildings to operate at very low energy levels, minimizing energy consumption.



+ Rainwater collection

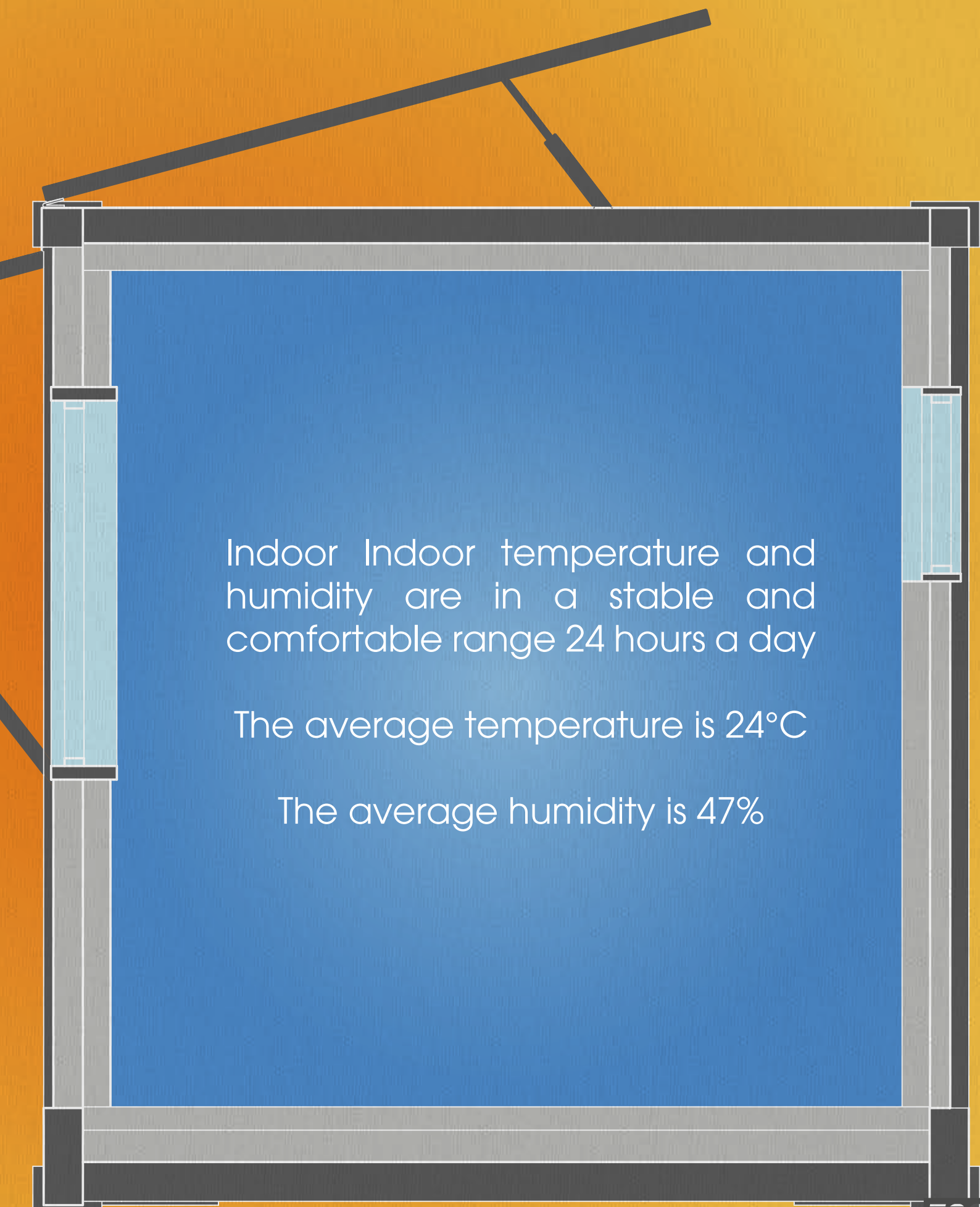
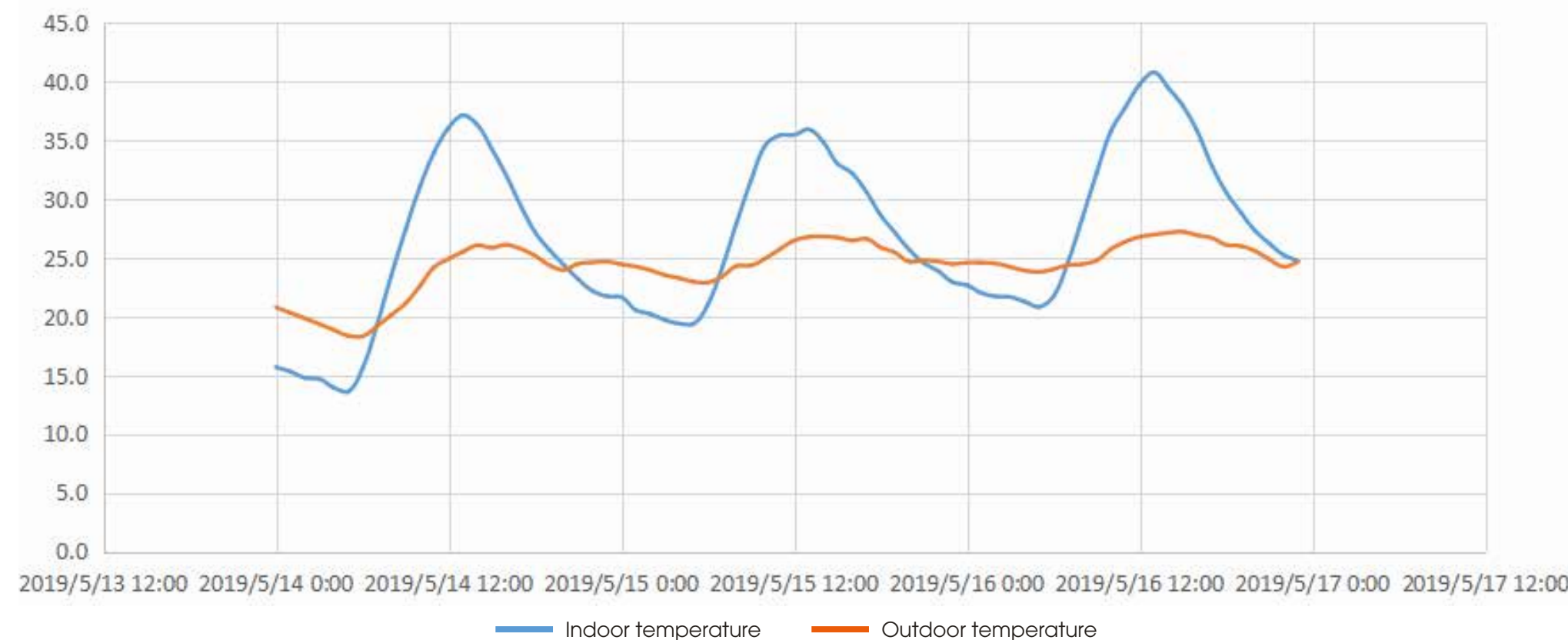
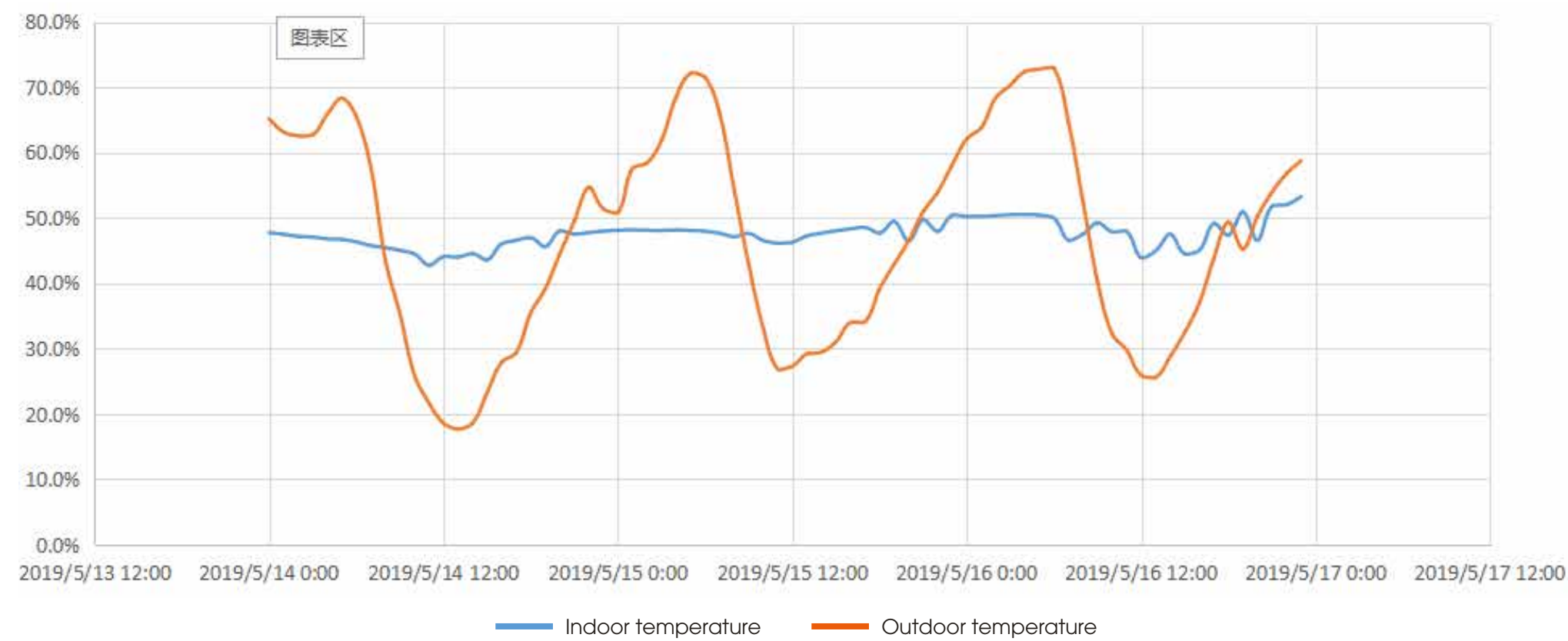
ZED's mobile zero-carbon building integrates a rainwater harvesting system into every roof surface – storing rainwater in insulated tanks forming part of the foundation ballast structure to each cabin.

Dry composting toilets can reduce water demand – leaving rainwater for washing.

An additional reverse osmosis filtration system can be added to convert rainwater into drinking water if required.

3.7 Excellent indoor temperature and humidity using solar powered air conditioning with battery storage for 24 hour operation.

It can be seen from fig.1 and fig.2 that the outdoor temperature and humidity vary greatly day and night. The average maximum temperature is 38°C, the average minimum temperature is 18°C, and the maximum temperature difference between day and night is 20°C. The average maximum humidity is 71%, the average minimum humidity is 23%, and the maximum humidity difference between day and night is 48%. The indoor temperature and humidity are in a stable and comfortable range 24 hours a day, with an average temperature of 24°C and an average humidity of 47%. It can be seen from table 2 that the daily air conditioning and refrigeration time ranges from 6 to 9 hours, which is concentrated in the period from 10:00 to 20:00, and the rest of the time is in standby stage. The average daily air conditioning and refrigeration time is 7.6 hours, and the average consumption is 2.322kWh, which can maintain the cabin in a comfortable environment.



3.8 Specification

Super-insulated Building Fabric—U-value: 0.175 W/m² K

Vapour Permeable Breathing Wall Construction—Wall U-value: 0.18 W/m² K

Super-insulated Roof Construction—Roof U-value: 0.11 W/m² K

Super-insulated Floor Construction—Floor U-value: 0.14 W/m² K

Non-combustible Class A insulation

Airtight Construction—1.3 air changes/hour @50 pascals test pressure

Aluminium Clad — triple-glazed windows and doors with U-value: 0.8 W/m² K

Thro colour cement board insulated cladding panels

Internal wall, floor and ceiling surfaces lined with non-combustible MGO Board

FSC Certified Timber Hardwood Decking Boards

Structure—hot-dip Galvanised Steel

Exhaust air heat pump for heat recovery and hot water

Heat recovery through wall balanced intake/exhaust ventilation fan providing fresh air with over 80% efficient heat recovery from extracted stale air, allowing ventilation without opening windows Through wall miniature low voltage 15 watts heat/coolth recovery unit in living room and bathroom only maintains internal air quality.



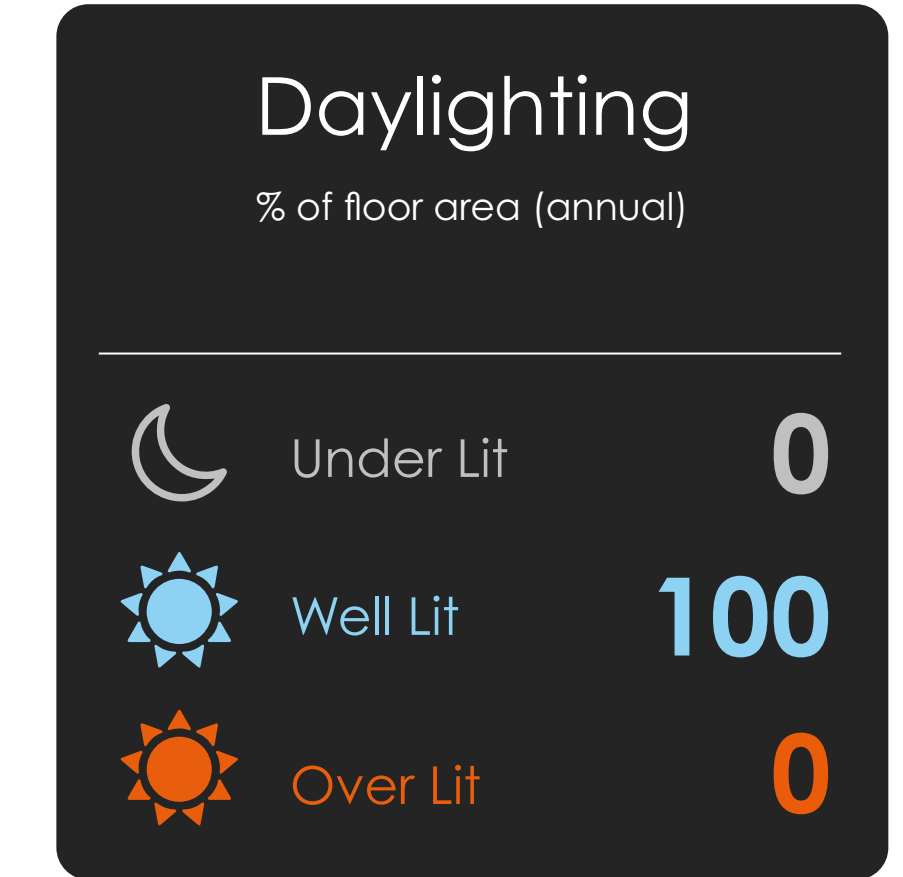
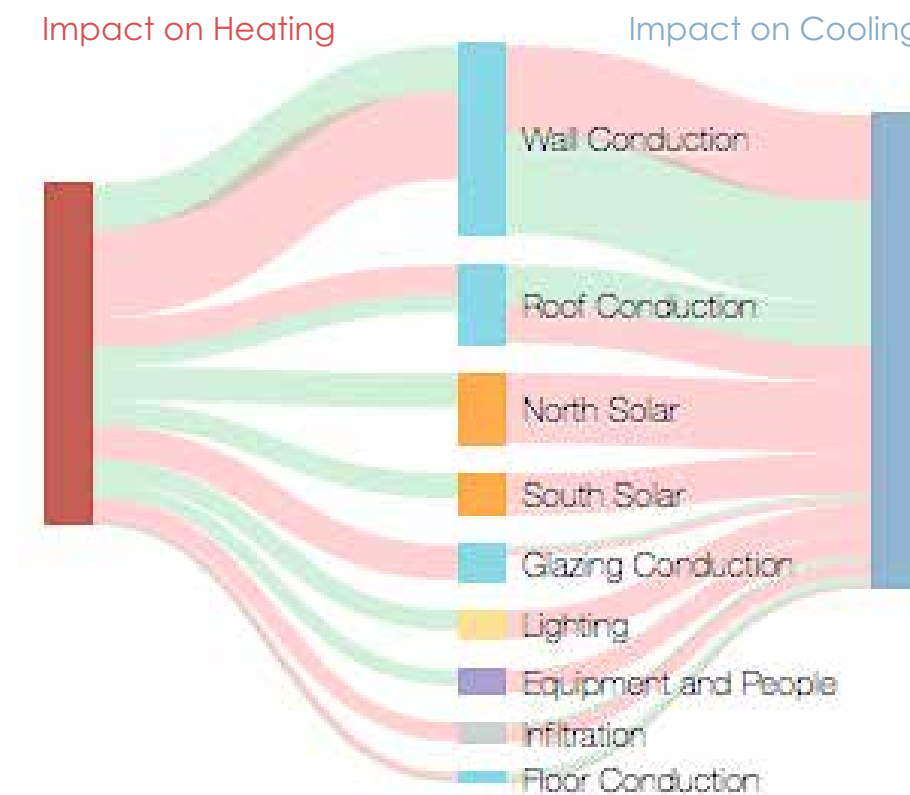
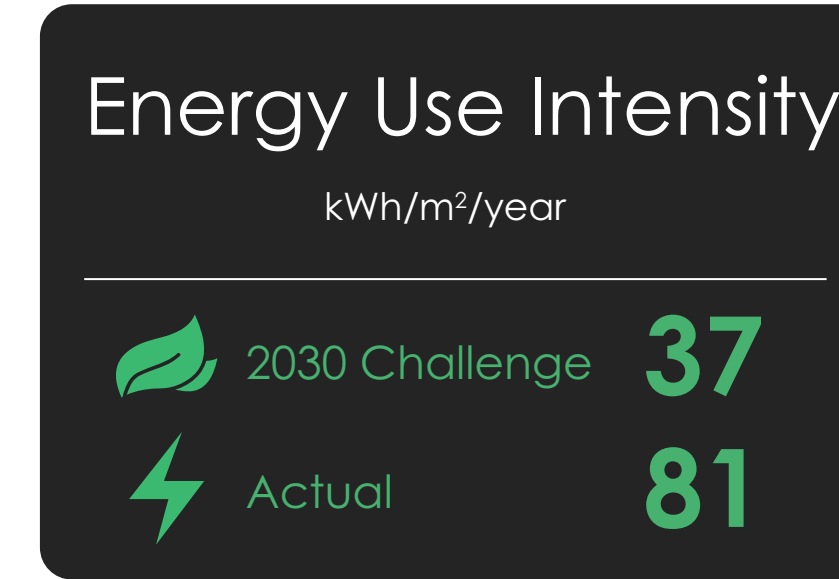
Space heating/cooling Peak Load: 1.6kW (excluding internal gains) supplied by Evaporator plate solar assisted heat pump and integrated water Cylinder and Low flow temp Eco-rad

Charcoal recirculation kitchen cooker filter

Induction hobs and energy efficient AA plus kitchen appliances, refrigeration and microoven /grille with microwave

LED lights installation

Optional Battery Storage: approx. 3kWh/person of communal lithium iron phosphate battery storage capacity



3.9 Carbon Emission

+ Zero Carbon Emission

Zero carbon emissions can be achieved throughout the building. Due to the good wall insulation design, minimal thermal bridges and vapour permeable but airtight design, as well as the heat recovery fresh air system, ZED mobile zero carbon construction can achieve good internal comfort conditions in . The electric energy generated by the solar photovoltaic panel can completely cover this part of the energy consumption, and the extra electric energy can be used for other appliances. Currently, only ZED mobile zero carbon buildings can do this.



室内实景照片
Cabin interior photos

4.0 Zero local damage to the natural environment.

+ Environmentally Friendly

No waste water run off, no air pollution, no noise pollution, no foundations needed, no compaction of the ground needed and no damage to local land and vegetation. Also meet the EIA standards.



+ Reusable

Ordinary container buildings generally have a service life of 5-10 years. The ZED mobile zero-carbon building has a design life of at least 50 years, and the reuse rate is much higher than that of ordinary container buildings.

+ Quick assembly

The off site volumetric prefabricated factory built modules are constructed carefully in workshop conditions and all components fully tested before leaving our factory. The standardized module design, self-contained loading and unloading holes and convenient assembly method enable one unit to be put into use in 3.5 hours. It is also possible to move the prefabricated modules to other designated locations. It can be operated and arranged on the construction site with a simple forklift or mobile crane without any construction pollution.



4.1 Production per industrial standard

Standardised processing and production in the processing centre to strictly control the precision of product components and guarantee production efficiency and process quality.







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