

Fact Sheet TestBed TB1

Address: 82/80 Yen Lang, Yen Lang Ward, Dong Da District, Hanoi, Vietnam

Coordinates: 21.012102671343104, 105.81532382003472

Building: Traditional four storey tube house

Occupation: Resident building

Plant system: Plant container system consisting of A and B for green roofs

Plant container system consisting of C for green walls

Plants: Nativ plants:

Cay Cau Lua Vang / Butterfly Palm (canopy layer)

Cay Duong Xi / Common Fern (bush layer)

Cay So Huyet / Purple Shellfish (shrub layer)

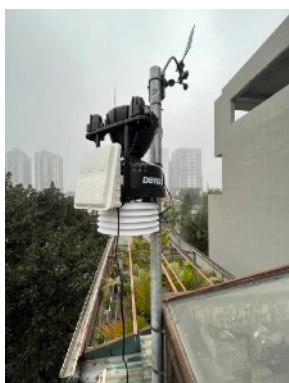
Cay Bach chi / Spider Plant (bush layer)

Cay Cuc Tan An Do / Hanging Plant (creeper plant)

Quantity: **418 plants**

Irrigation: Use of rainwater. Drip irrigation. Wilo-PW-251E pump

Data acquisition: DAVIS Instruments, Gateway, Vantage Pro2, wired



Fact Sheet TestBed TB2

Address: 21/35 Nguyễn Cung Tru, Dong Nhan Ward, Hai Ba Trung District, Hanoi, Vietnam

Coordinates:	21.013545515243333, 105.85525679460432
Building:	Seven storey building, L-shape floor plan
Occupation:	Resident building (used as AirBnB Hotel)
Plant system:	Plant container system consisting of A and B for green roofs Plant container system consisting of C for green walls
Plants:	Native plants: Cay Cau Lua Vang / Butterfly Palm (canopy layer) Cay Duong Xi / Common Fern (bush layer) Cay So Huyet / Purple Shelfish (shrub layer) Cay Bach chi / Spider Plant (bush layer) Cay Cuc Tan An Do / Hanging Plant (creeper plant)
Quantity:	730 plants
Irrigation:	WILO Abionik WA-MBR-TB225 water filtration unit (rain-, grey-, and black water); WILO Medana smart pump for drip irrigation and water fogger
Data acquisition:	DAVIS Instruments, Gateway, Nodes and Vantage Pro2, Wireless; Sentek soil sensors; leaf sensors; roof- and facade sensors

Green roofs and façades

Greening from a worm's eye view and the water sub-distribution on the wall. The green cap is the drip irrigation, the orange cap is the fogger combined with drip irrigation.



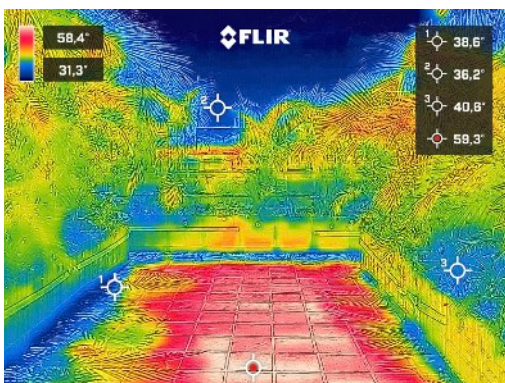
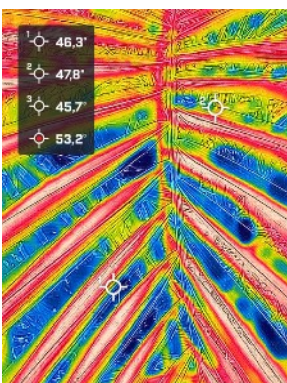
Sensors

DAVIS Instruments weather station at the highest point of the building. Leaf sensor in the plant's foliage. Various sensors on the facade and two drone images.



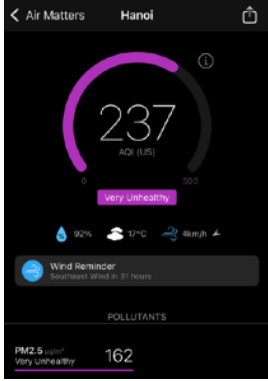
Thermal imaging

Surface temperatures of the building, plants and neighbouring metal roofs



Environment

TB2 is located in the area of the old Hanoi night market. Perfect for spare parts, fitting pieces and replacement parts for plumbing and electrical installations, as well as the appropriate tools. The air quality provided less living quality in the beginning.



WA-MBR-TB225 water treatment plant

BA series of pictures showing the pre-installation, delivery and handover to the owner.

