

# Laboratory for Green Transformable Buildings GTB LAB®

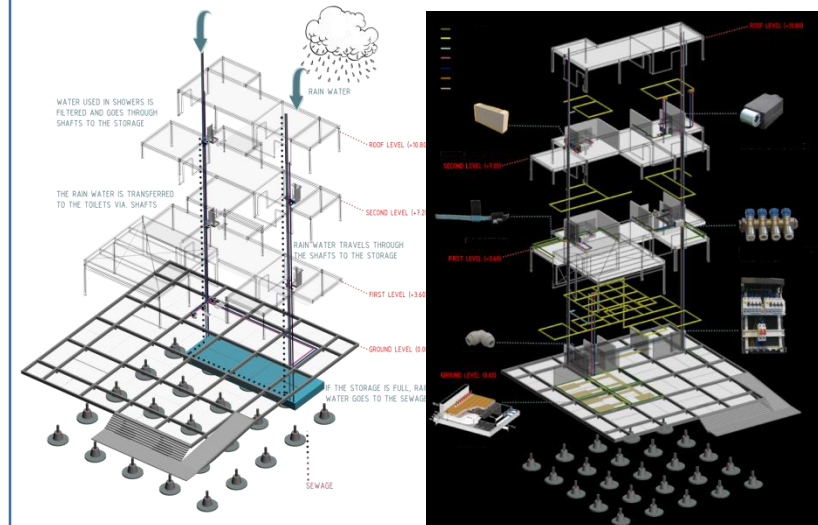
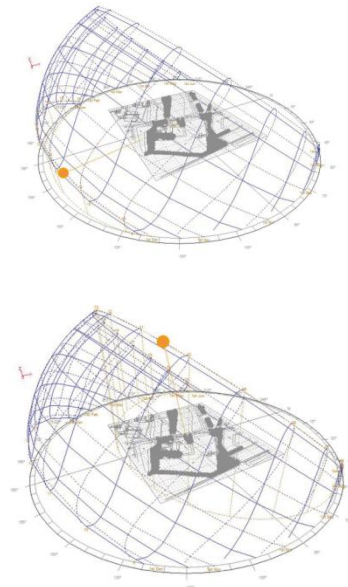
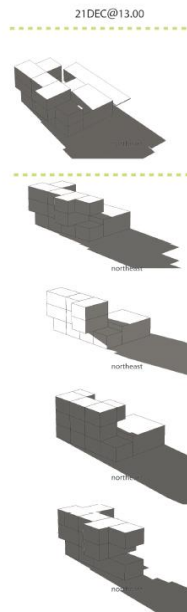
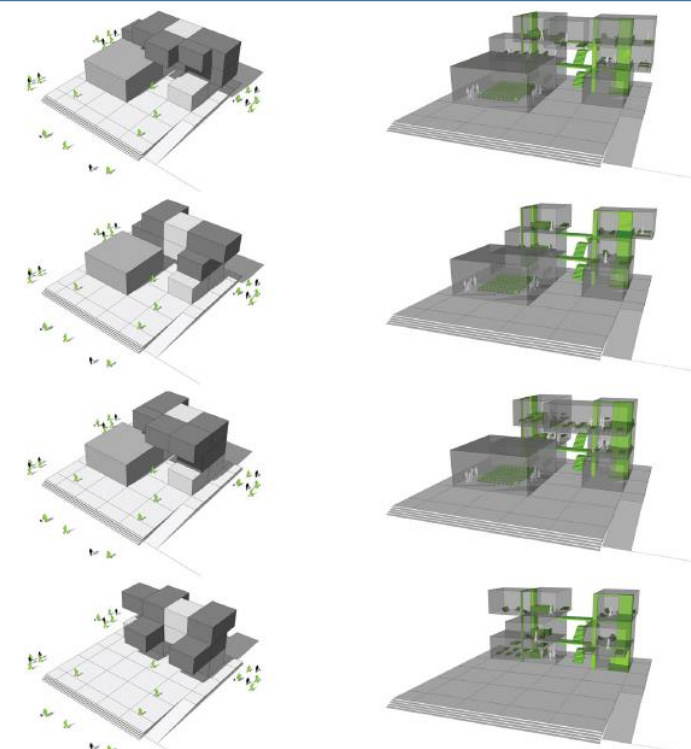
## Partners



Dr. Elma Durmisevic, BAMB research leader of Reversible Building Design, Founder & Creator of GTB Lab, 4D architects

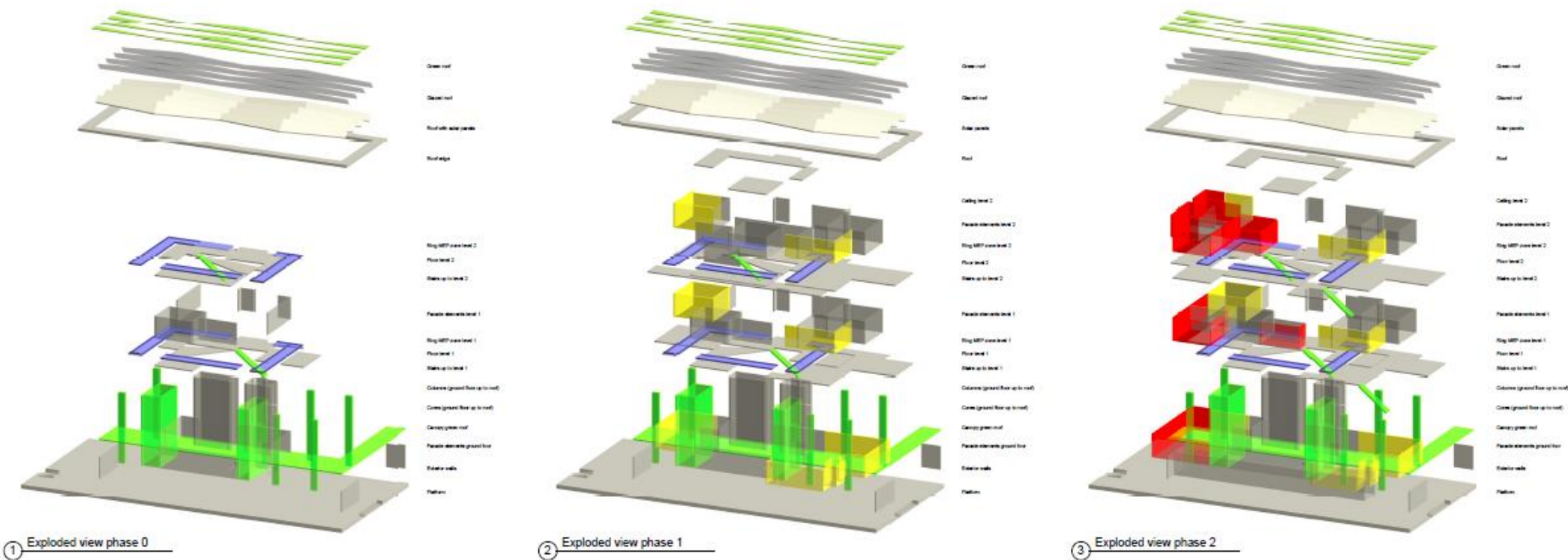


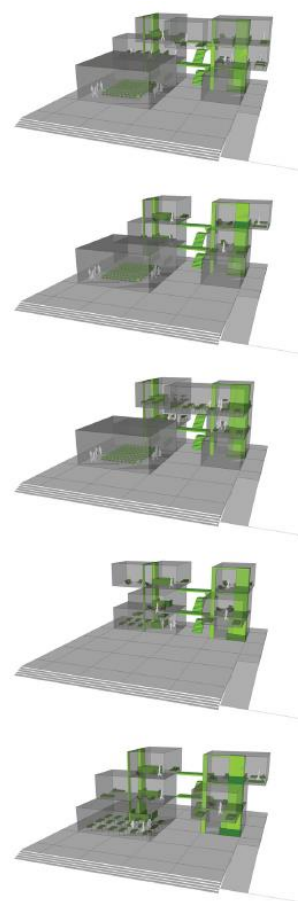
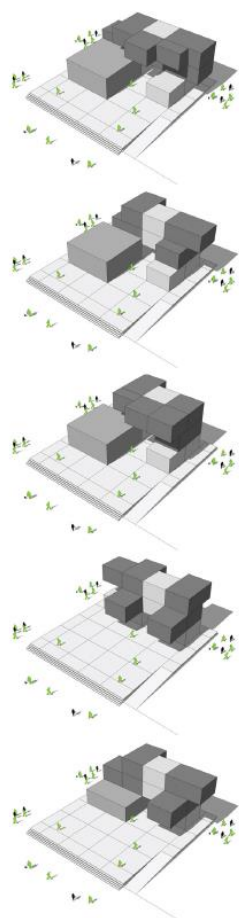
© Elma Durmisevic



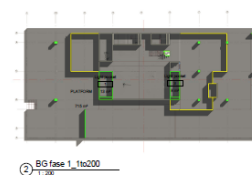
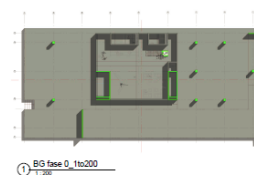
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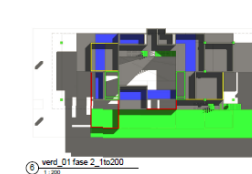
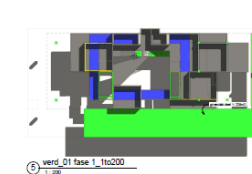
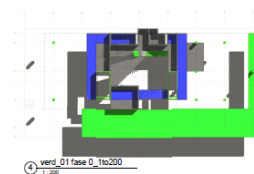




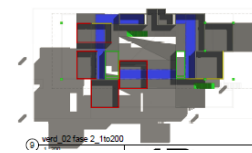
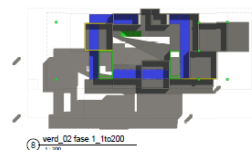
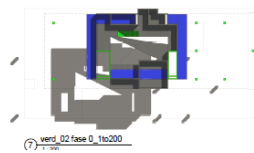
GROUND FLOOR



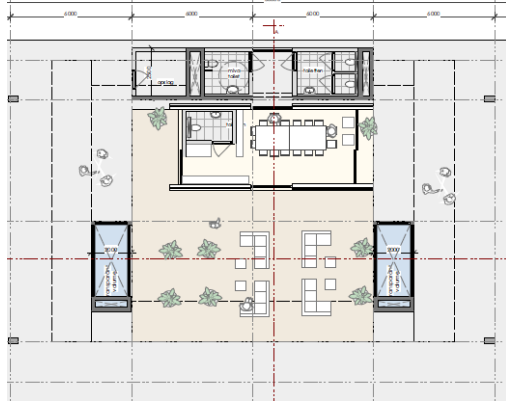
FIRST FLOOR



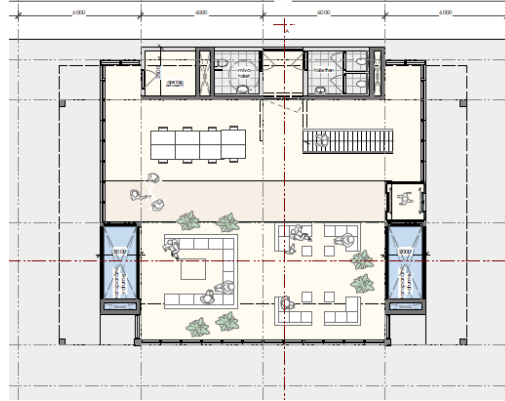
THIRO FLOOR



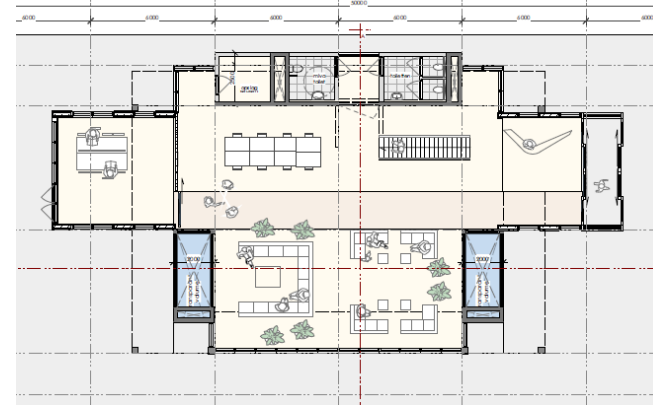
Grond floor core



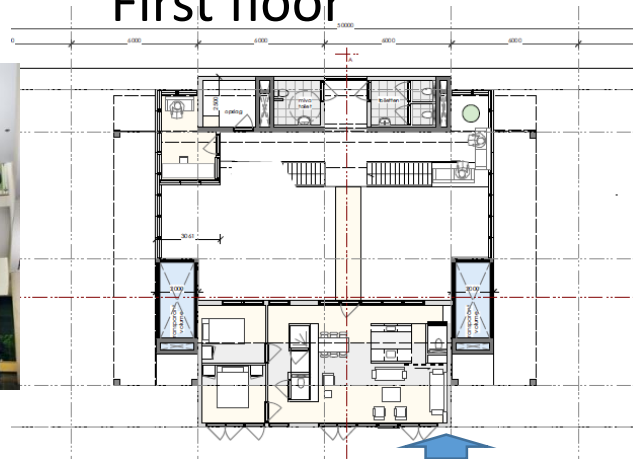
Grond floor var 1



Grond floor var 2

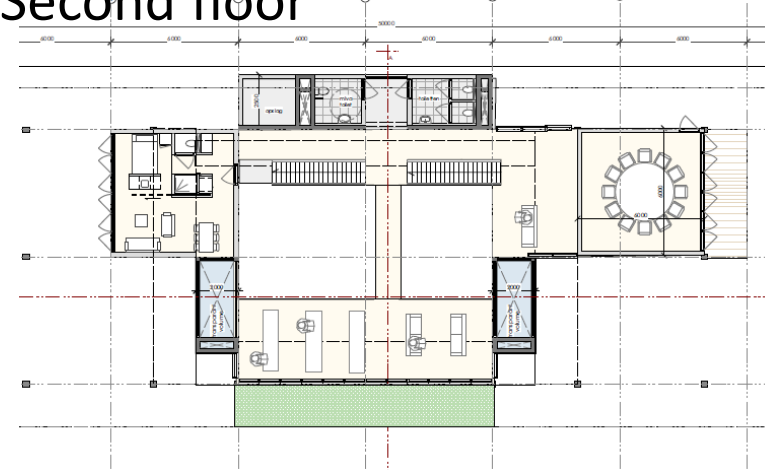


First floor



Two units of (2x36 m2) connected

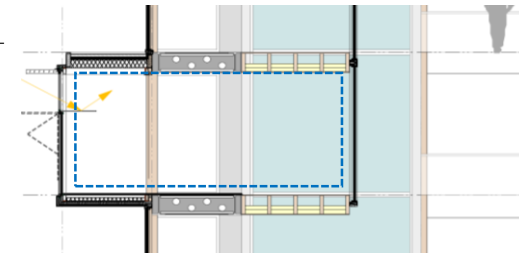
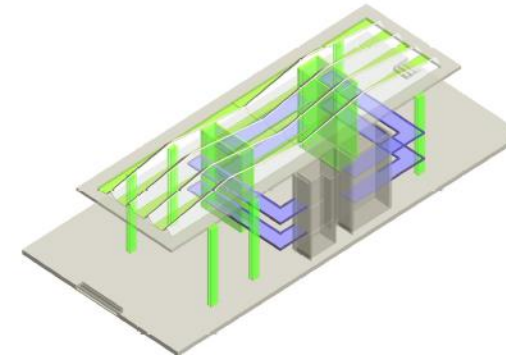
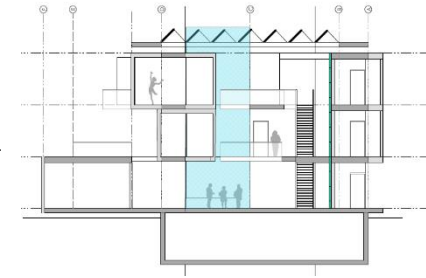
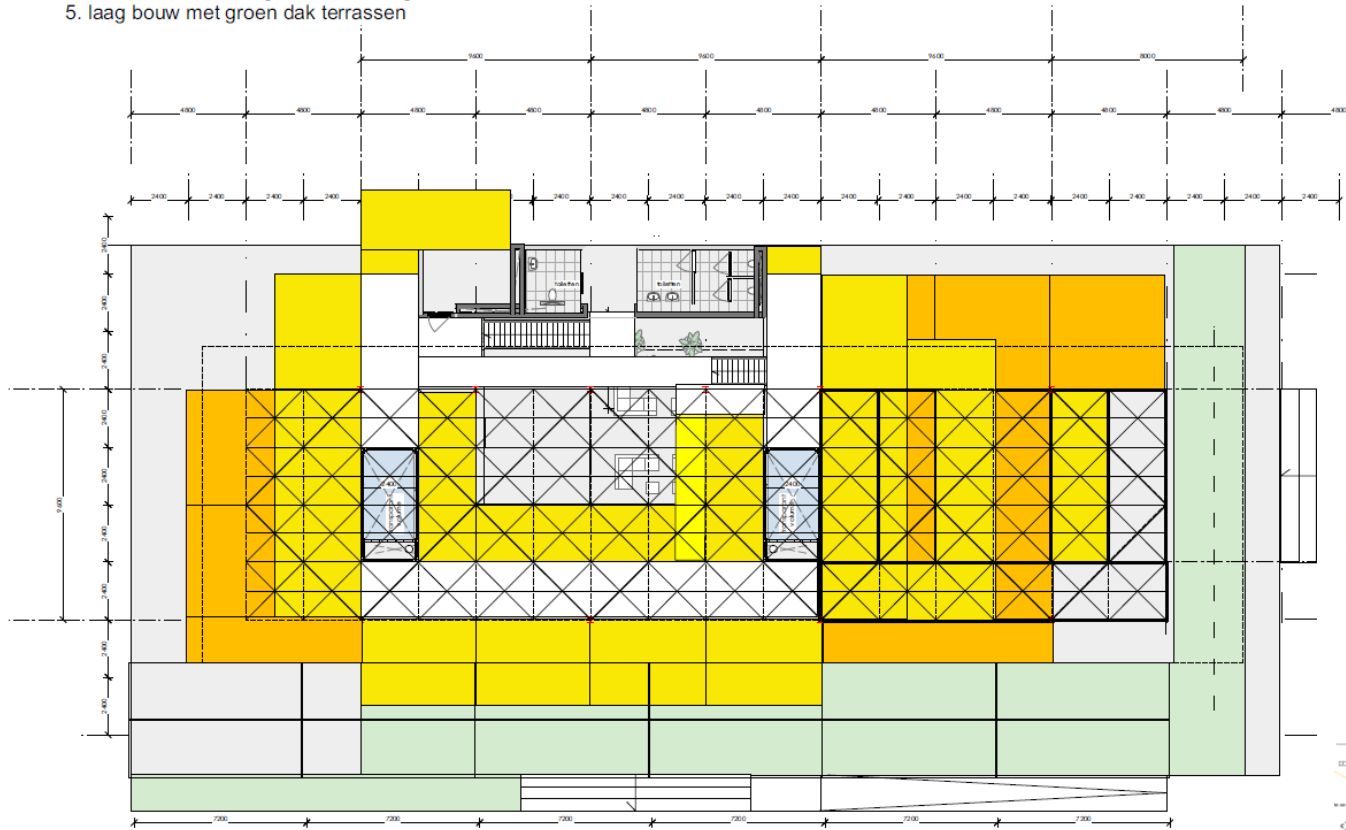
Second floor



.....

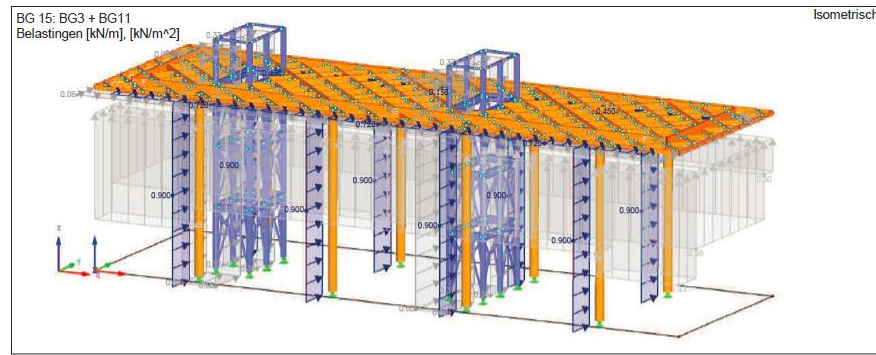
# Technical requirements - structural core overview

- overzicht uitbreiding constructie ( 5 zones)
- 1. verticaal core
  - 2. horizontaal distributie zone met HE dragers van uitbreiding zone (zone3)
  - 3. eerste uitbreiding zone van de hoofd gebouw
  - 4. maximaal uitbreiding van de hoofd gebouw met extra kolommen
  - 5. laag bouw met groen dak terrassen

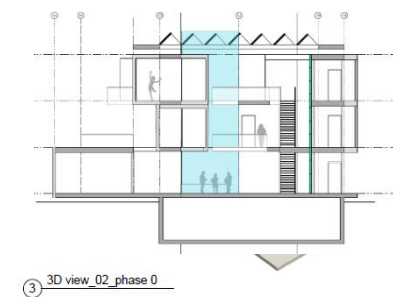
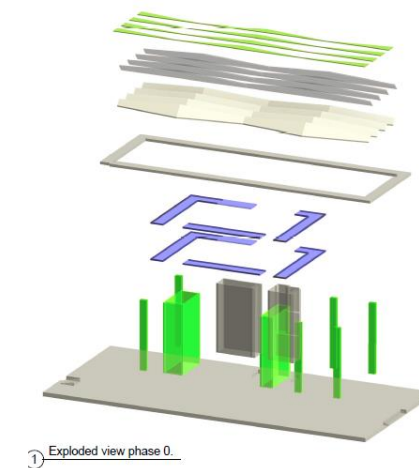
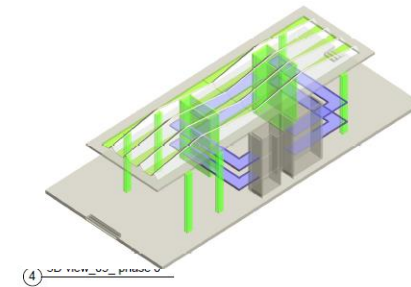
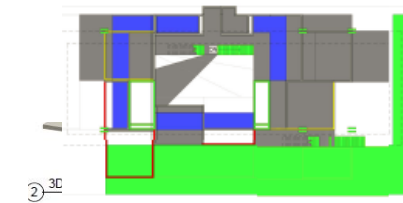
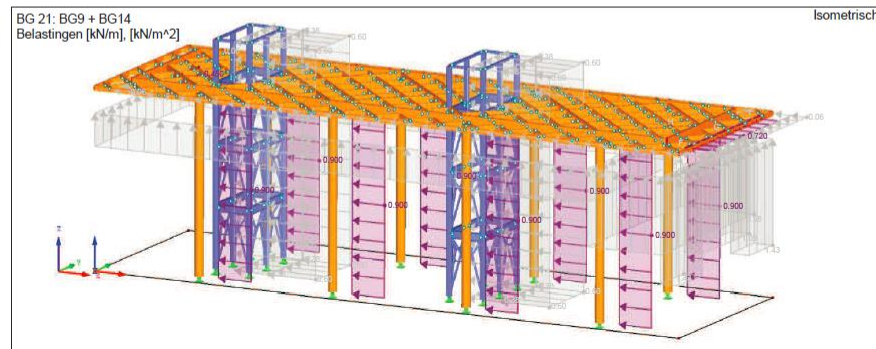




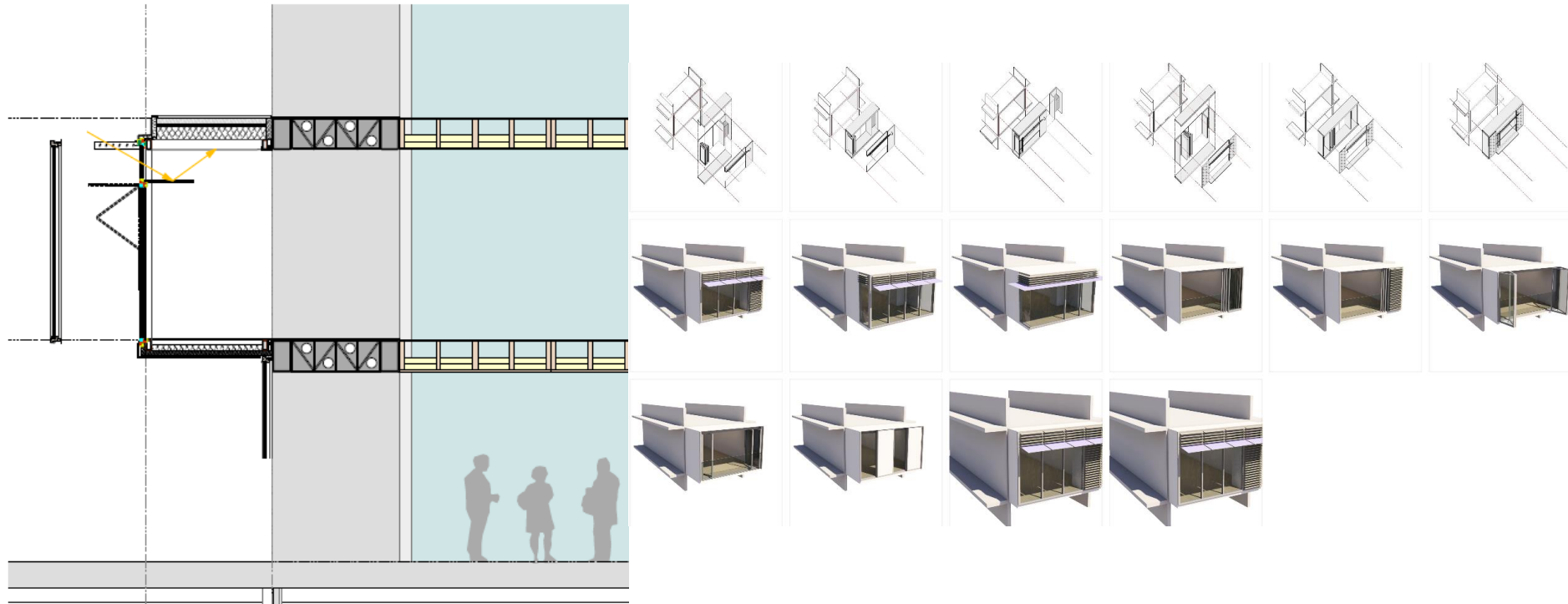
# The core



Figuur 5, Wind dak 0.75 kN/m² (basis ⊥)

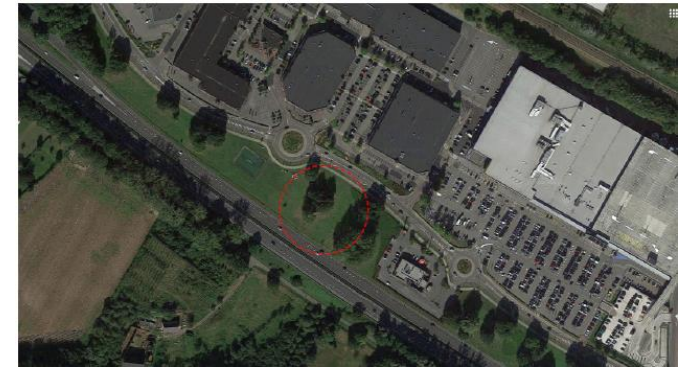
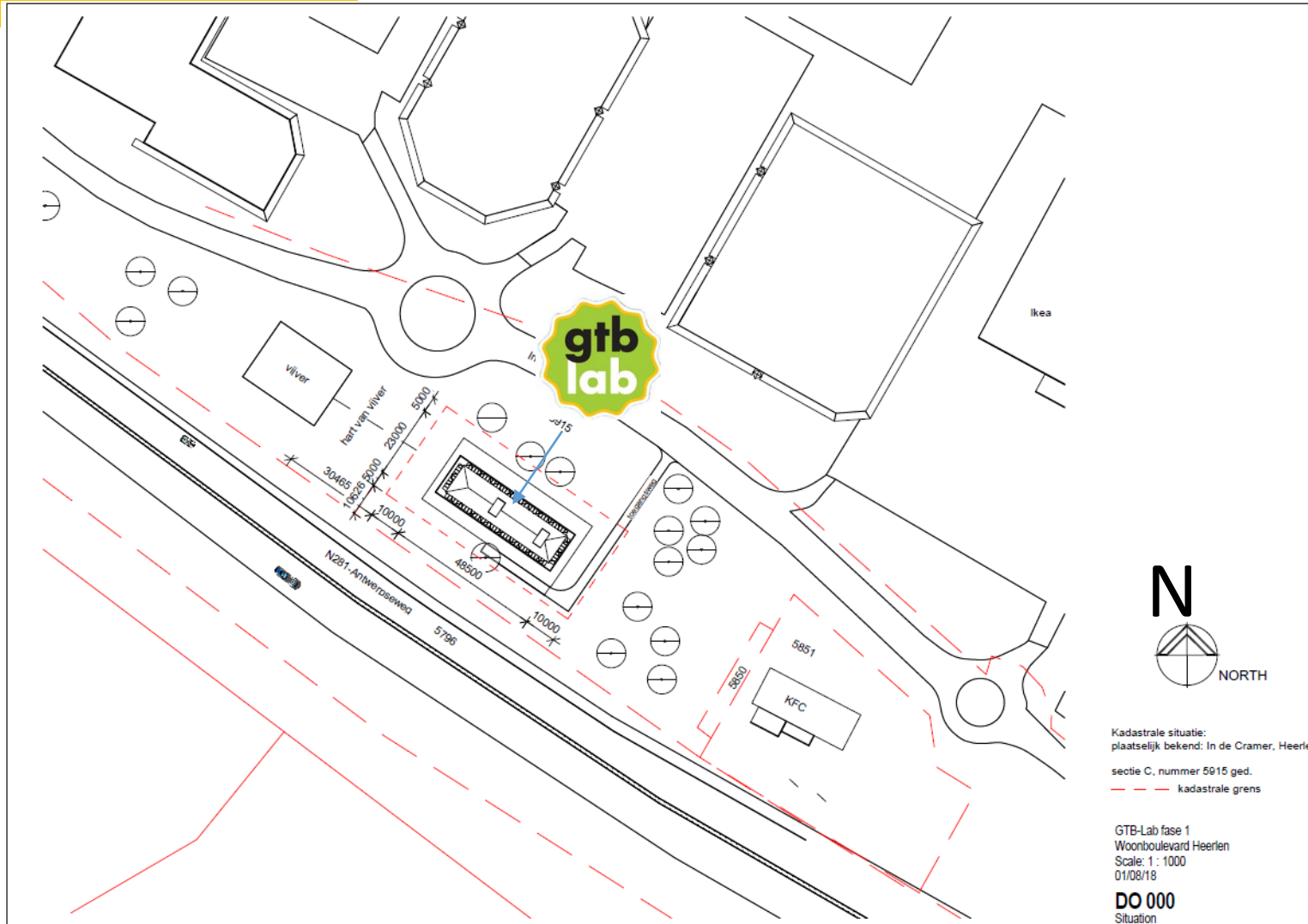


## GTB-Lab - extension module

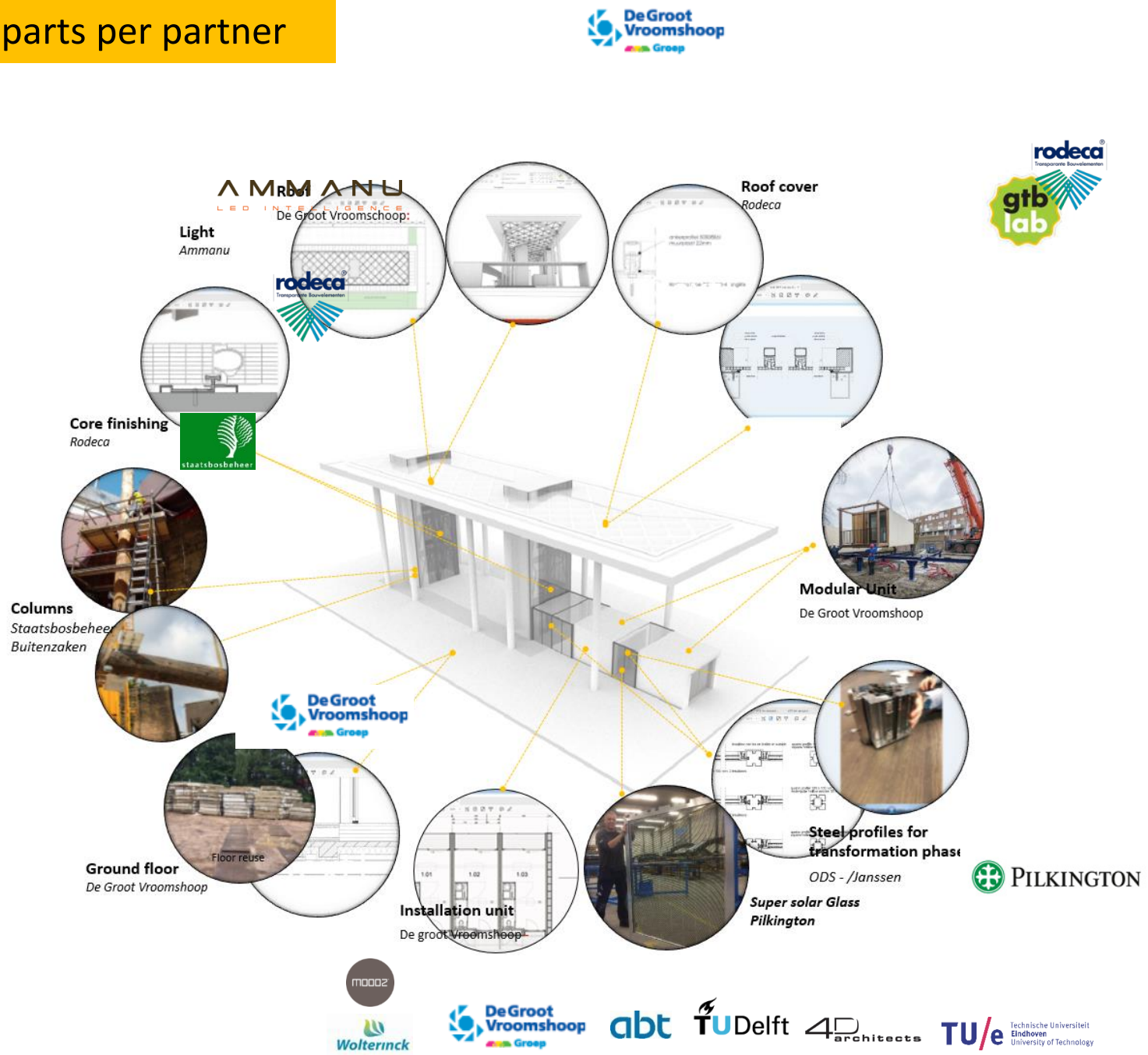


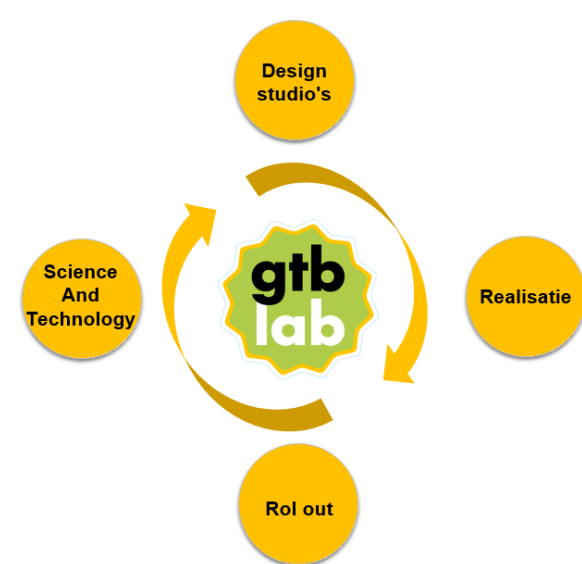
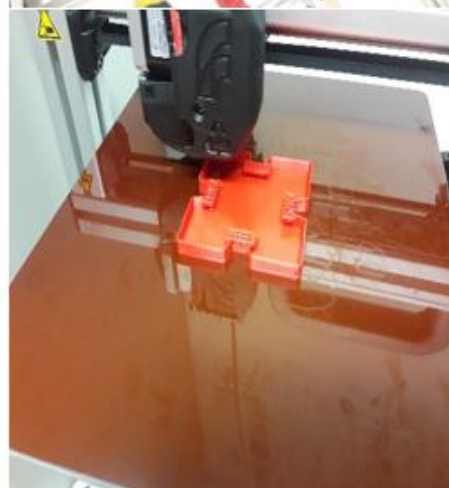
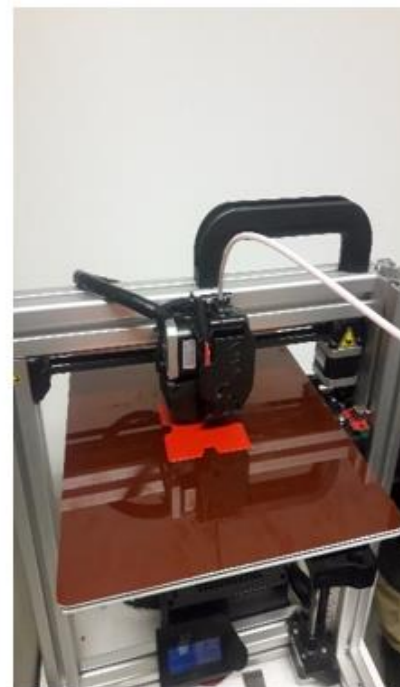
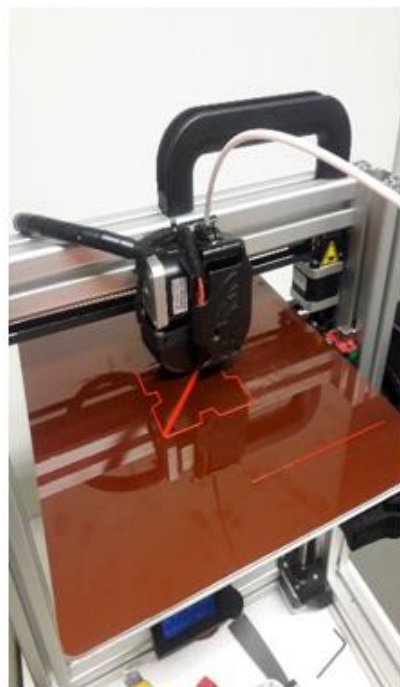
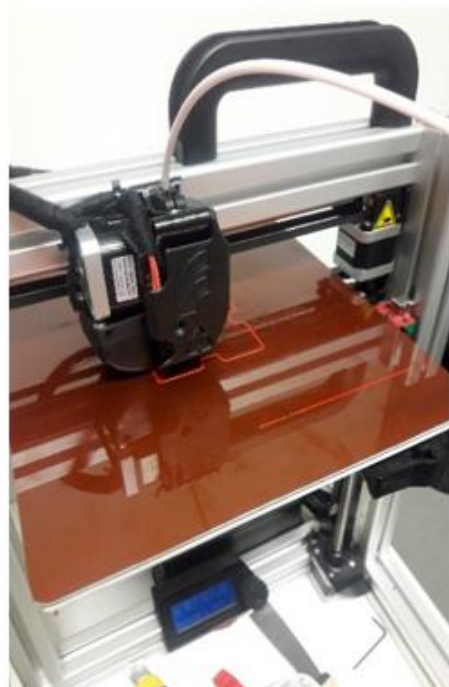


# Situation

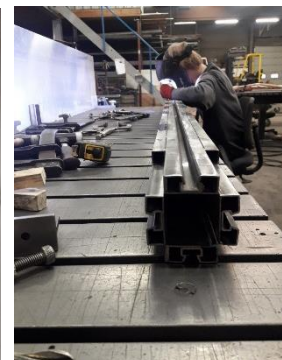
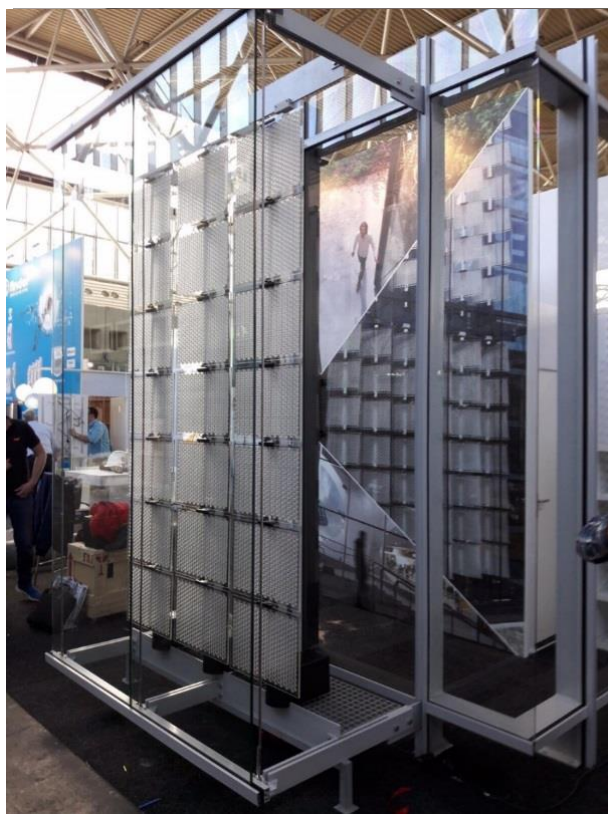
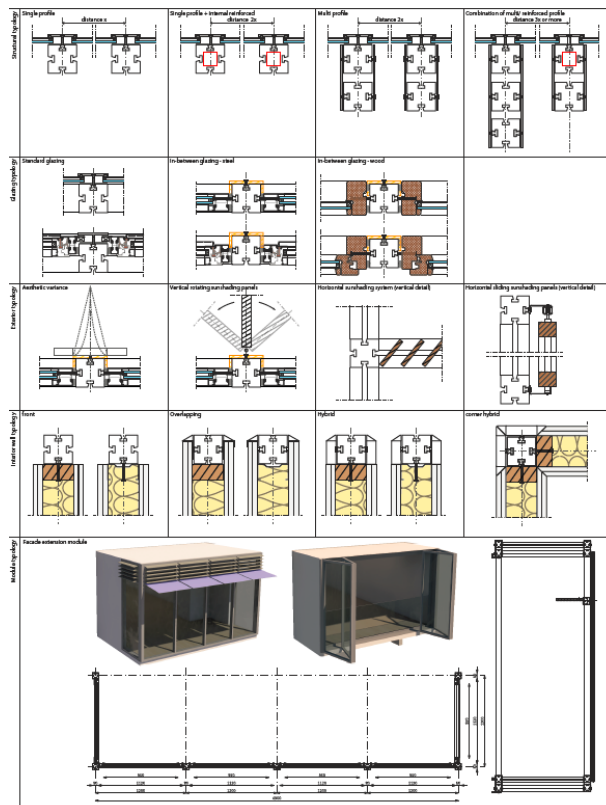


# Delivery of parts per partner

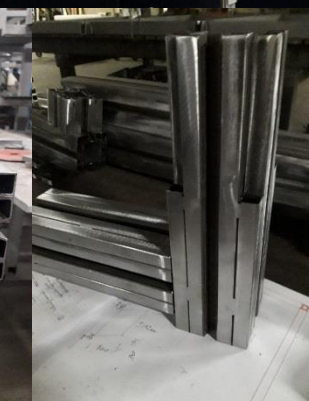
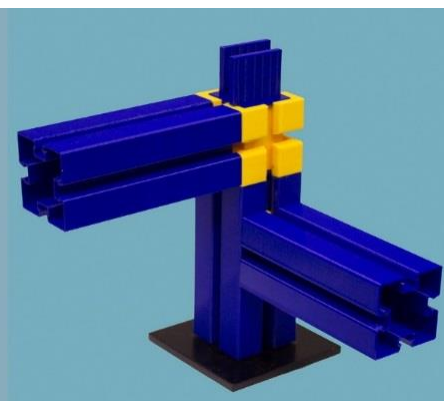
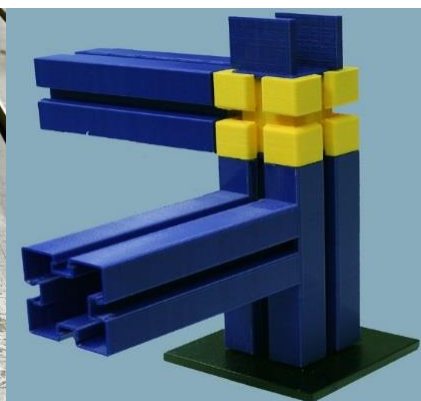
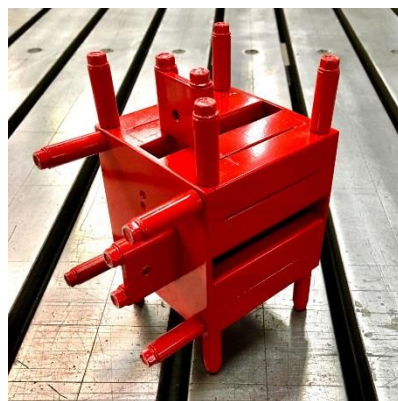








**Prototype**



**JANSEN**  
**ODS**  
 klöckner & co multi metal distribution  
**klöckner metals**  
 ODS Nederland

Dr. Elma Durmisevc, BAMB research leader of Reversible Building Design, Founder & Creator of GTB Lab, 4D architects





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# Laboratory for Green Transformable Buildings

TU ACHEN  
TU VIENNA  
TU PARIS  
KENT UNIVERSITY  
BRE  
VITO  
RUSSLE ENVIRONMENT  
UMINHO  
RONNEBY  
MOSTAR  
SUNDERHUS  
TUM  
TU HANOVER  
EPEA HAMBURG  
EPEA EINDHOVEN  
UM  
TU DELFT  
TU Eindhoven  
U TWENTE

**GTB Lab Heerlen**

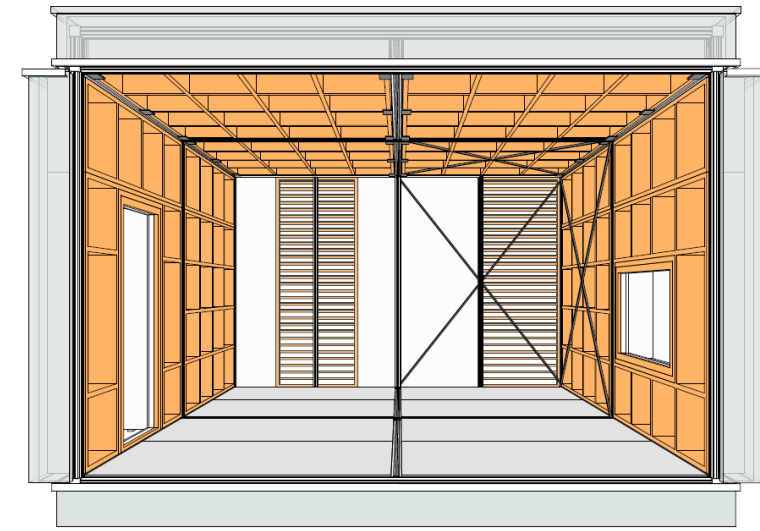
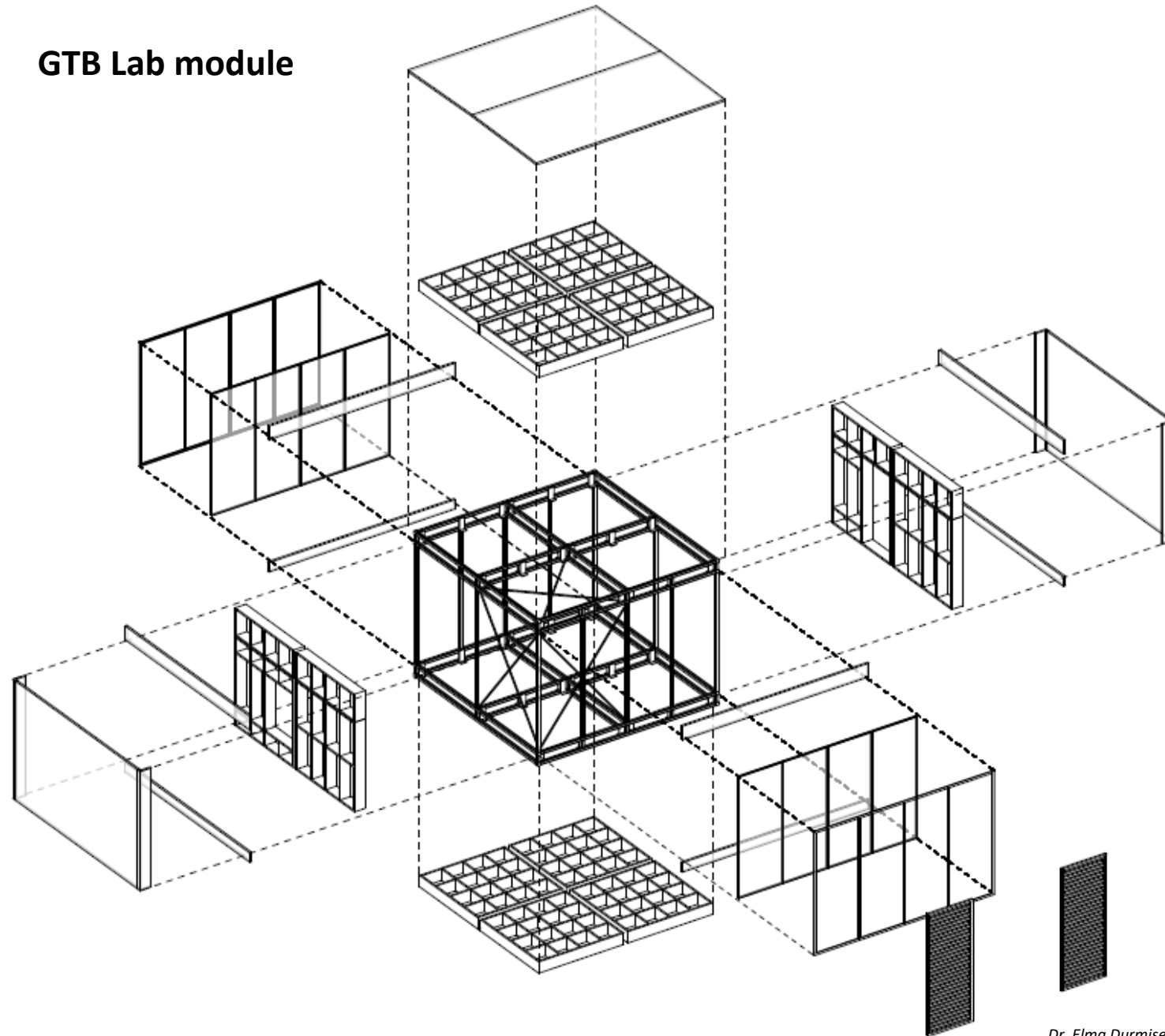


USA  
Florida  
University  
Israel  
Eco Design  
Jerusalem  
University  
Egypt  
Cairo  
University  
Turkey  
Istanbul  
Technical  
University  
Japan  
Kobajashi  
office

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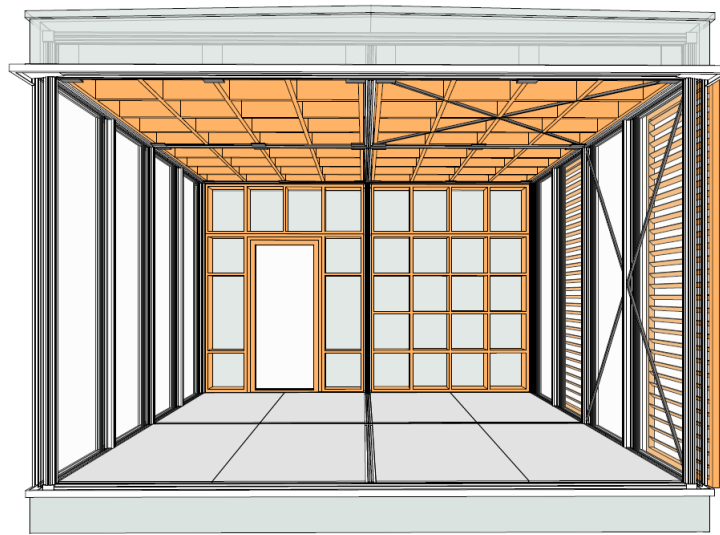
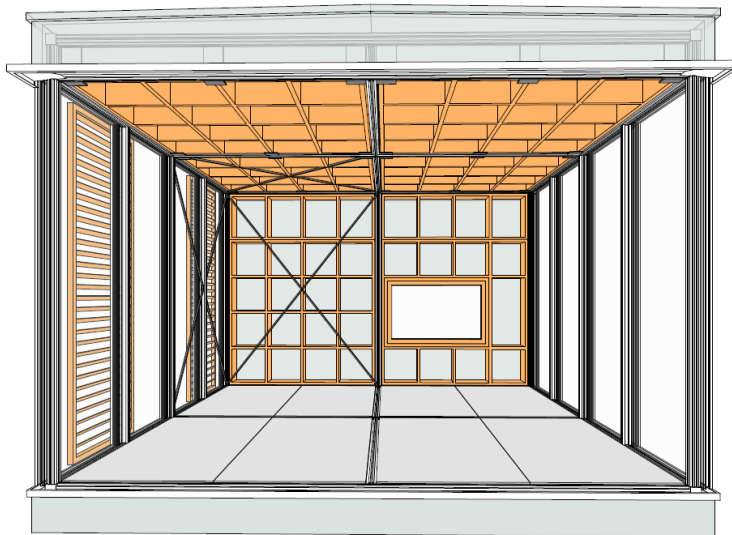
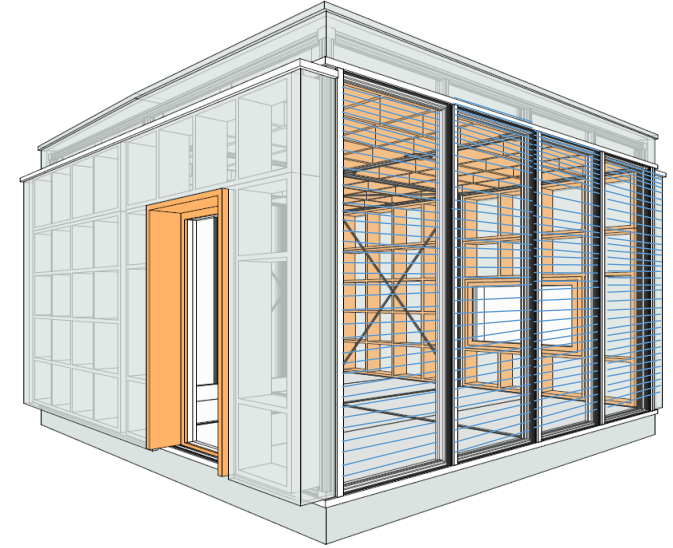
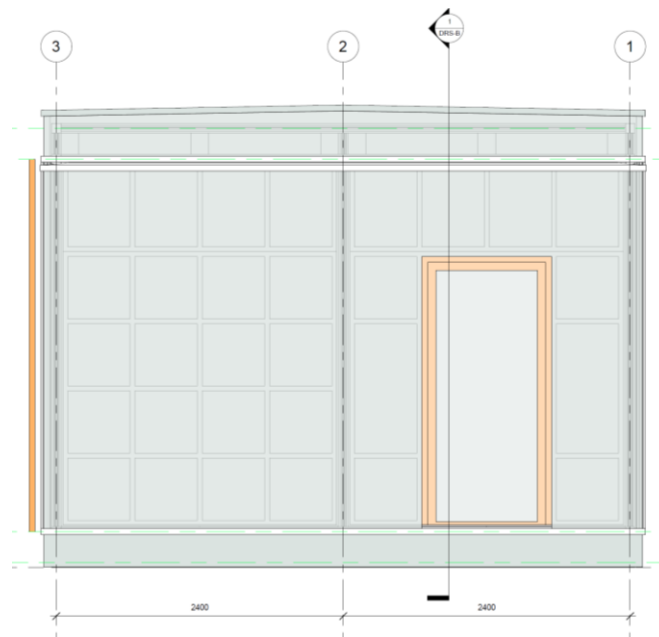
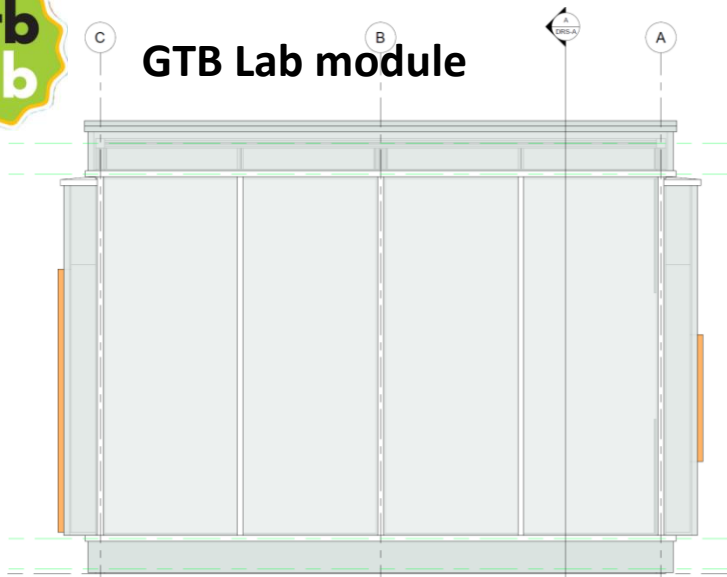
## GTB Lab module







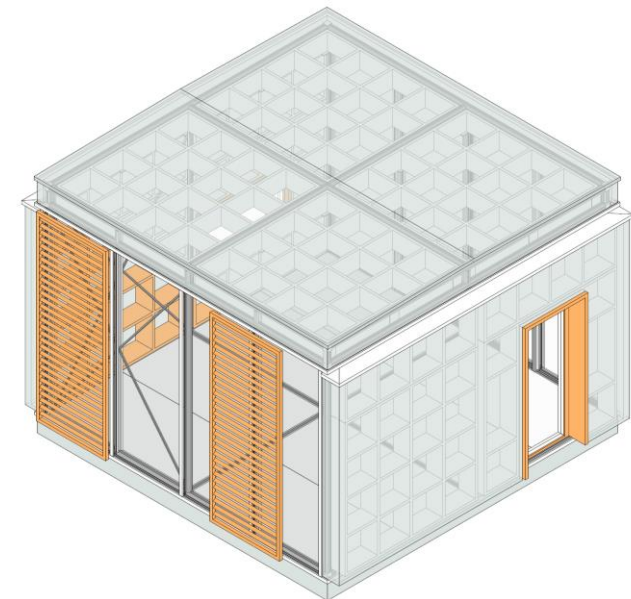
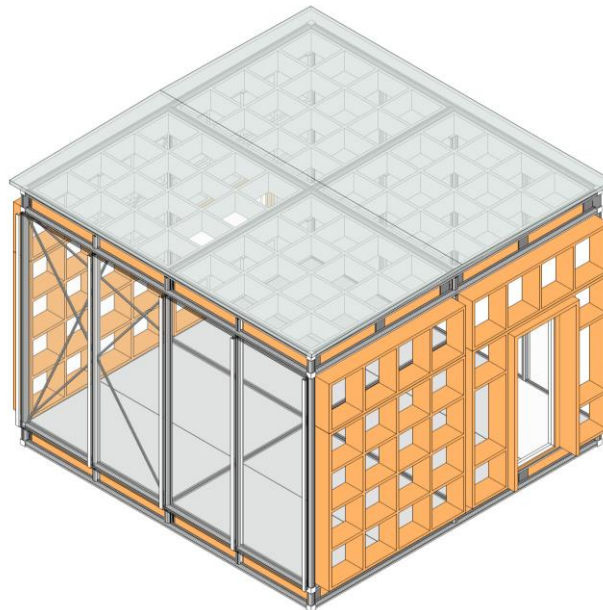
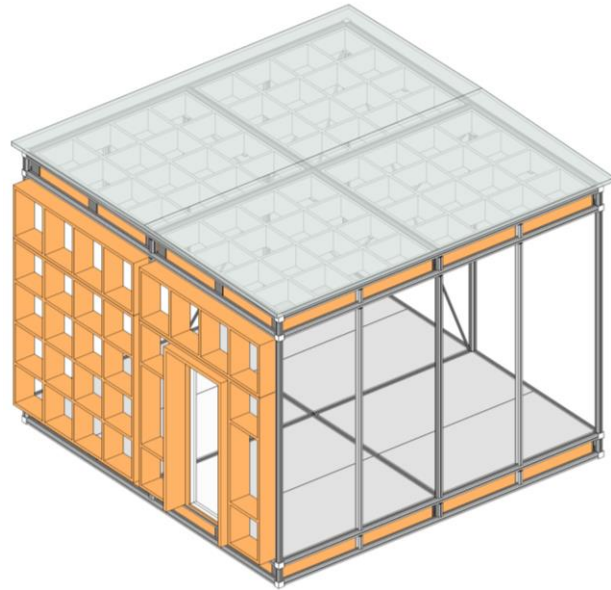
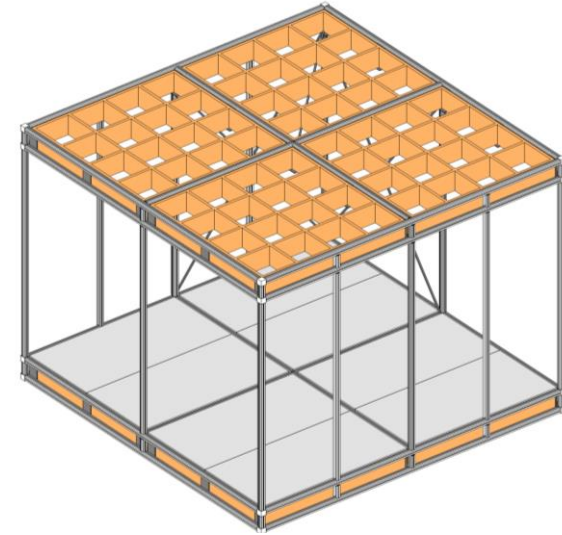
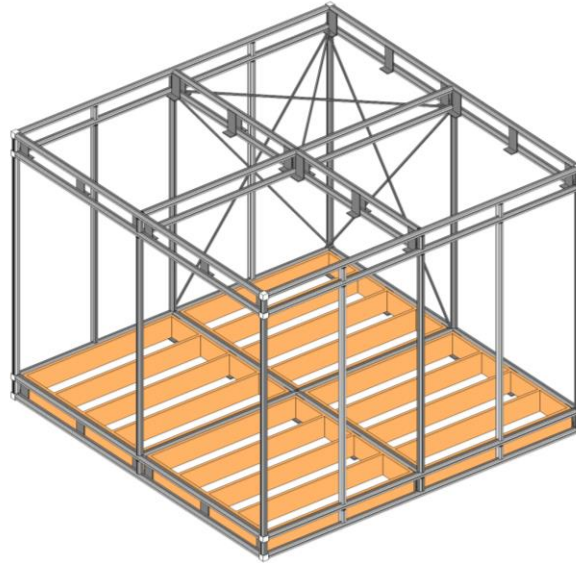
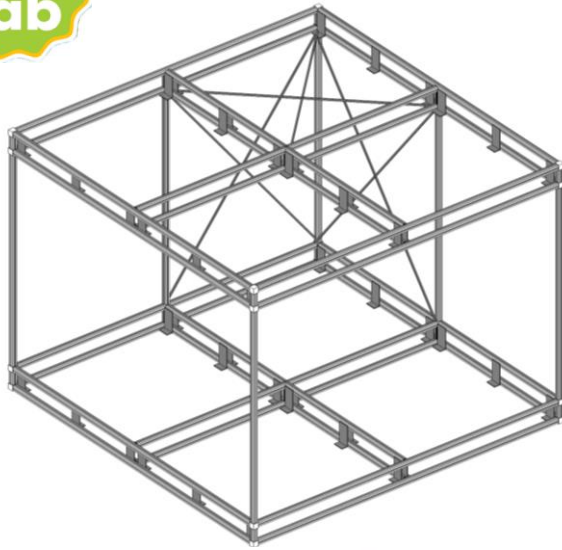
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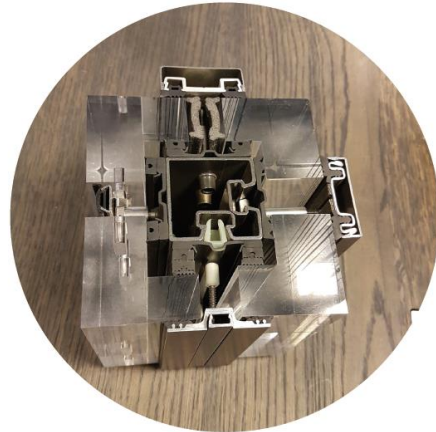
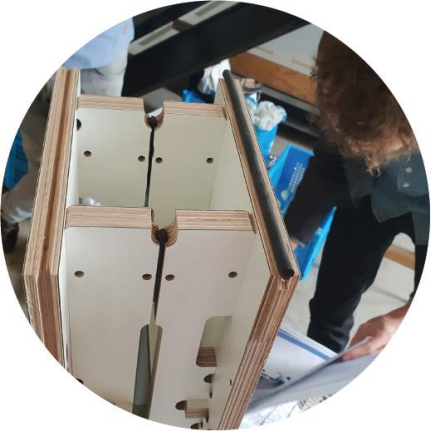
## GTB Lab module





GTB Lab module

the future

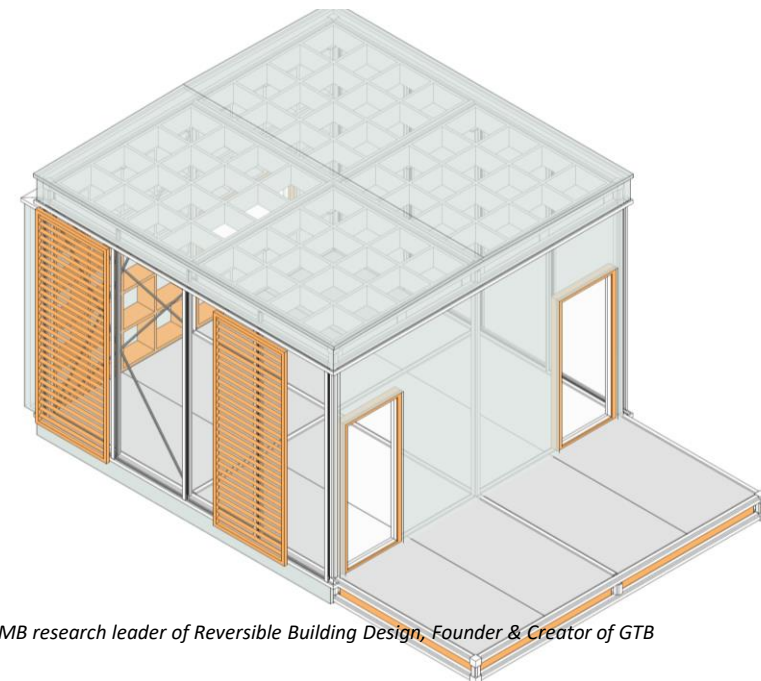
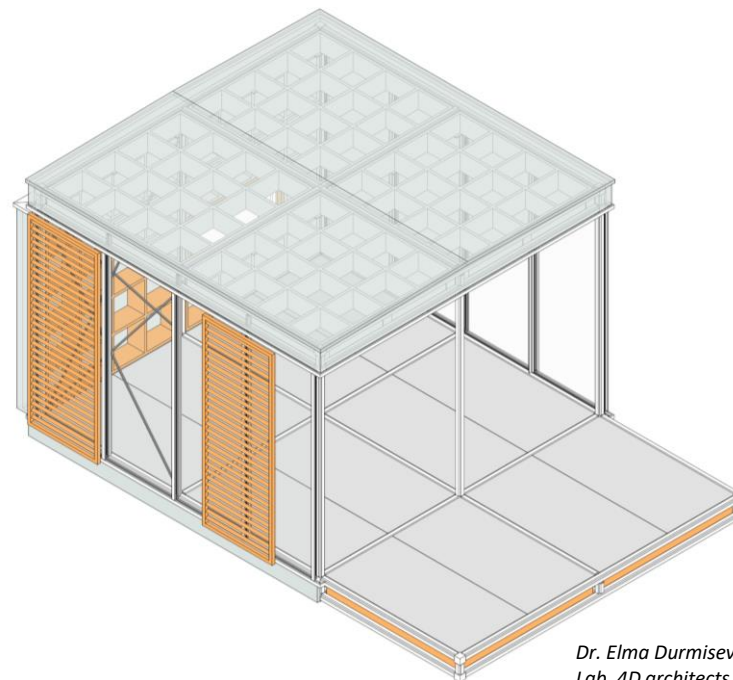
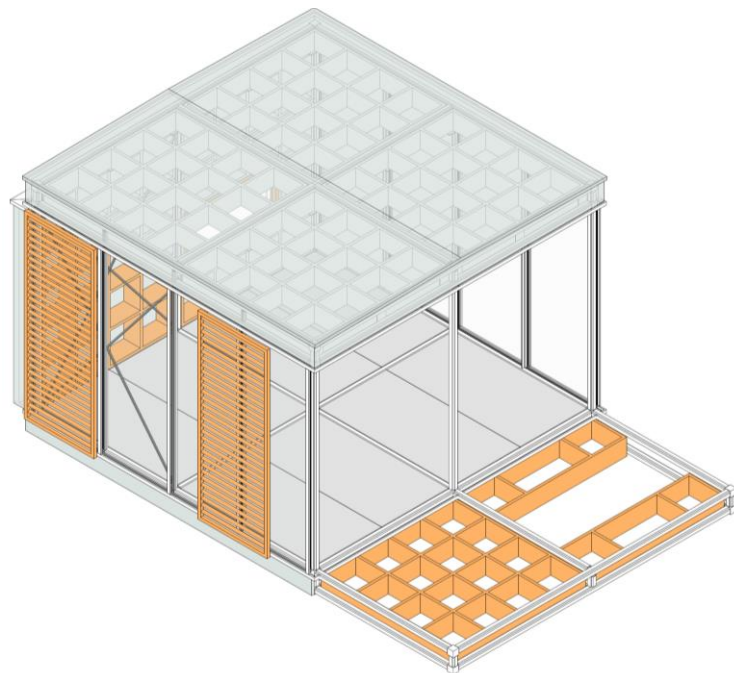
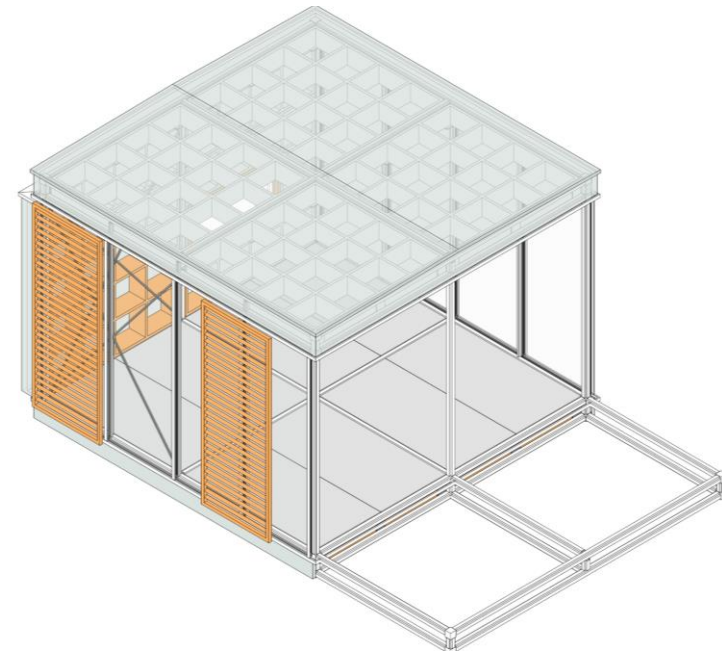
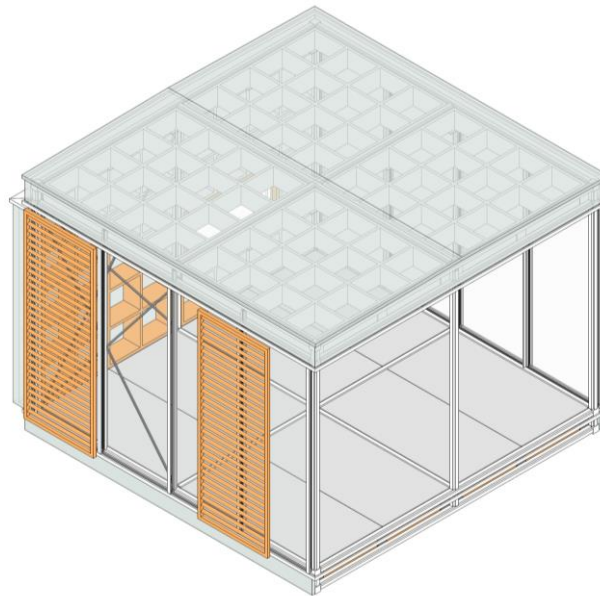
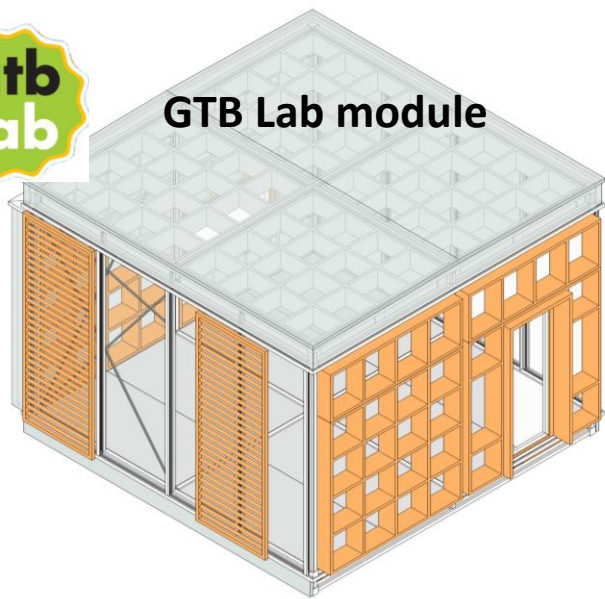


GTB lab production lines





## GTB Lab module



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