Timbeco Modular

SUSTAINABLE LIVING

STANDARD MODULAR APARTMENT BUILDINGS

LCA 286 KG CO_2E/M^2 I STARTING FROM 6–9 MONTHS DELIVERY I 2-3 BEDROOM

Revolutionizing Sustainable Living with Factory-Built Homes

In recent years, the world has witnessed a growing trend towards sustainable living as individuals and communities embrace the urgent need to protect our environment. Among the various approaches to sustainable living, one concept has been gaining considerable attention: premium living through factory-built sustainable housing. This innovative approach combines the best of luxury and eco-consciousness, offering a unique living experience that is both opulent and environmentally responsible.

Factory-built sustainable housing involves the construction of high-end, customizable homes in controlled environments, using advanced manufacturing techniques. These state-of-the-art factories are equipped with cutting-edge technology and precision engineering to create exquisite living spaces with minimal environmental impact. By leveraging off-site construction methods, these homes are built more efficiently and with less waste compared to traditional on-site construction.

What sets premium living apart is the emphasis on luxury and comfort. These factory-built sustainable homes are designed by renowned architects and interior designers who understand the desires of discerning homeowners. Every aspect of the living space is meticulously crafted to provide a lavish and indulgent experience. From spacious floor plans and high ceilings to premium finishes and smart home automation, no detail is overlooked in creating the perfect sanctuary.

30 YEARS OF TIMBECO

However, luxury is not the sole focus of premium living. These homes can also be equipped with a range of sustainable features that minimize their ecological footprint. Solar panels, rainwater harvesting systems, and energy-efficient appliances are just a few examples of the eco-friendly elements that can be integrated into these residences. Additionally, innovative insulation materials and efficient HVAC systems ensure optimal energy usage, reducing both costs and environmental impact.

The factory-built nature of these homes brings numerous advantages. Firstly, it allows for streamlined and predictable construction timelines. Since the components are manufactured indoors, the building process is not hindered by external factors such as weather conditions. As a result, homeowners can expect shorter construction periods and a more reliable move-in schedule.

Beyond the individual benefits, factory-built sustainable housing contributes to a more sustainable future for all. By optimizing material usage and reducing waste, these homes help conserve natural resources. The incorporation of renewable energy systems and efficient insulation significantly lowers greenhouse gas emissions, making them a vital part of the fight against climate change. Factory-built sustainable housing is a testament to the fact that luxury and environmental consciousness can coexist harmoniously.

As we navigate an era where responsible living is imperative, premium living through factory-built sustainable housing presents a compelling solution. These homes offer an extraordinary combination of elegance, comfort, and ecological mindfulness. They provide individuals with the opportunity to enjoy a luxurious lifestyle while actively contributing to a healthier planet. In the quest for a sustainable future, this innovative approach paves the way for a new era of premium living that is both glamorous and environmentally responsible.

Think Differently, Live Sustainably!

In short

Timbeco Modular Standard (TMS)

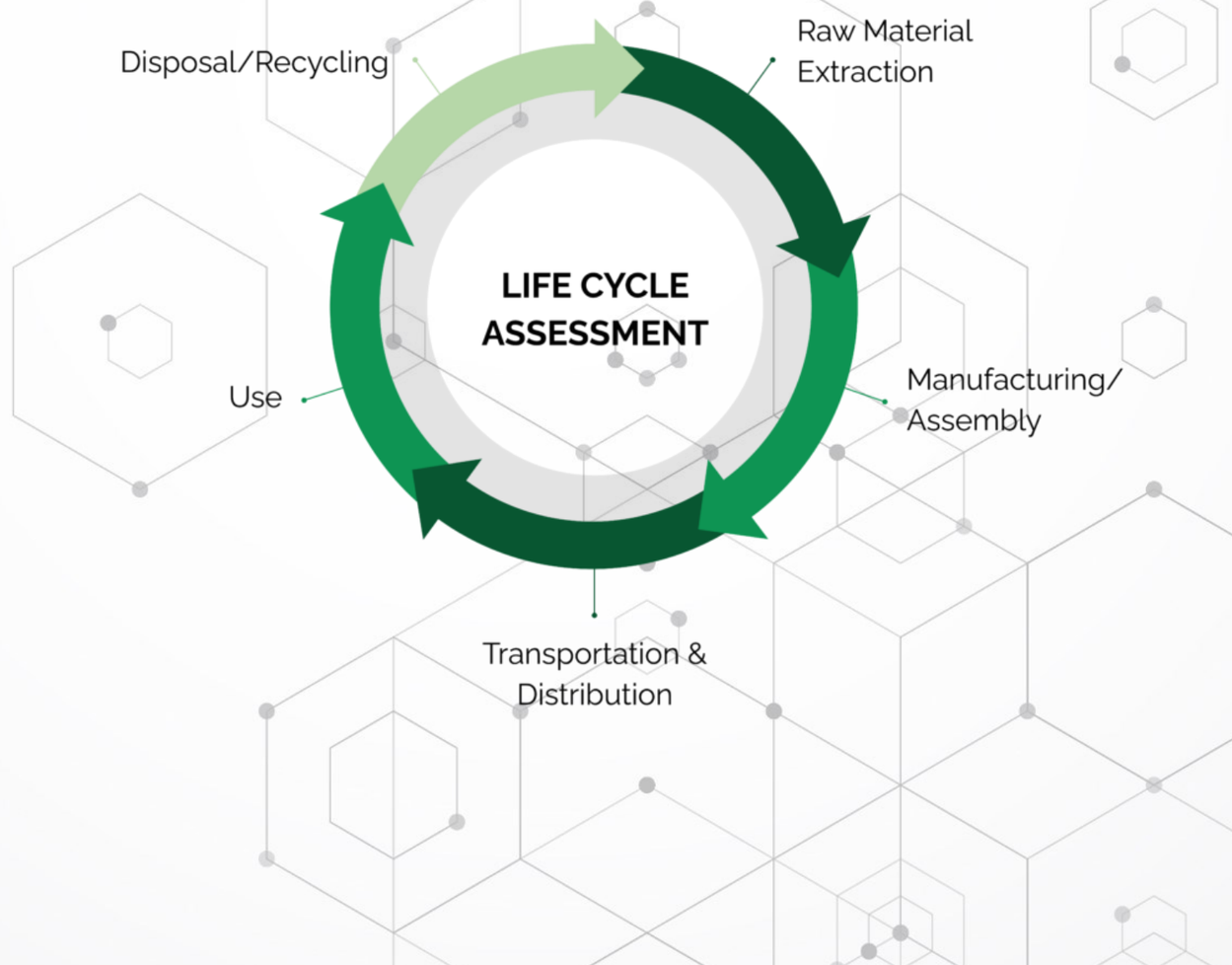
Timbeco Modular Standard is a revolutionary new approach to building. Serially prefabricated, complete living space modules made of timber frame are combined into multifunctional living units according to the “plug & play” principle. The result is buildings that not only guarantee a modern and special ambience, but also have decisive advantages in terms of health and indoor climate. Timbeco Modular Standard enables short construction times, reduces on-site emissions to a minimum and creates residential units that are almost 100% recyclable.

Timbeco Modular Standard solution for real estate development company

Our service is especially suitable for a real estate developer or a start-up real estate developer who wants to make large residential construction projects. Timbeco Modular Standard offers you a full service starting from planning the plot, fitting the suitable buildings, and maximizing the sellable m2 to delivering the turnkey modular buildings to you within 7-10 months! When using our service, customers do not need to have specialists in each field in their company because the projects of Timbeco Modular Standard products have already been solved with statics and HVAC.

LCA calculation for buildings included as standard

TMS buildings are also accompanied by an LCA calculation, which shows the size of the footprint of the activities involved in the production and construction of the TMS building. In addition, it provides an overview of the size of the Co2 footprint generated by the consumption of energy, water and heating and the impact during the life cycle of the building.



Low Carbon Footprint Modular Buildings: A Sustainable Solution with LCA Calculations

Modular buildings have revolutionized the construction industry with their efficiency, flexibility, and speed. Now, with a heightened focus on sustainability, these buildings are taking center stage once again, this time with a strong emphasis on low carbon footprint and Life Cycle Assessment (LCA) calculations.

LCA is a comprehensive analysis that evaluates the environmental impact of a product or process throughout its entire life cycle. In the context of modular buildings, LCA calculations allow for a thorough understanding of the environmental implications from raw material extraction and manufacturing to transportation, use, and end-of-life disposal. By quantifying the carbon emissions and energy consumption associated with each stage, LCA enables informed decision-making and the development of strategies to reduce environmental impact.

Low carbon footprint modular buildings are designed with sustainability in mind from the outset. The selection of materials takes into account their embodied carbon, durability, recyclability, and overall environmental performance. Sustainable options such as recycled content materials, responsibly sourced timber, and low-impact finishes are incorporated to minimize environmental impact.

During the manufacturing process, modular buildings are assembled in controlled factory environments, optimizing resource usage and waste reduction. By leveraging standardized components and efficient production methods, manufacturers can minimize energy consumption and emissions associated with the manufacturing stage. LCA calculations provide insights into the environmental impact of these processes, highlighting areas for improvement and driving innovation towards more sustainable practices.

Transportation is another key consideration in the quest for low carbon footprint modular buildings. By designing modules that are compact and lightweight, manufacturers can maximize transportation efficiency, reducing the carbon emissions associated with shipping. LCA calculations help identify the most sustainable transportation methods, taking into account factors such as distance, mode of transport, and fuel consumption.

Once in use, low carbon footprint modular buildings continue to demonstrate their sustainability benefits. These buildings are often equipped with energy-efficient systems, including insulation, lighting, and HVAC (heating, ventilation, and air conditioning) technologies. By minimizing energy consumption during occupancy, these buildings further contribute to carbon reduction goals and operational cost savings.

LCA calculations not only inform the design and construction stages but also extend to the end-of-life phase of modular buildings. By assessing the recyclability and potential for material reuse, LCA helps identify strategies for responsible disposal or deconstruction. This emphasis on circular economy principles ensures that modular buildings have a minimal impact on landfill waste and promote the efficient use of resources.

Low carbon footprint modular buildings, backed by LCA calculations, offer a sustainable solution that aligns with environmental goals and promotes a circular economy. These buildings exemplify the potential to reduce carbon emissions throughout their entire life cycle, from manufacturing to transportation, use, and end-of-life. By embracing this approach, we can create buildings that not only meet our functional needs but also contribute to a greener and more sustainable future for all.

Timbeco LCA calculation

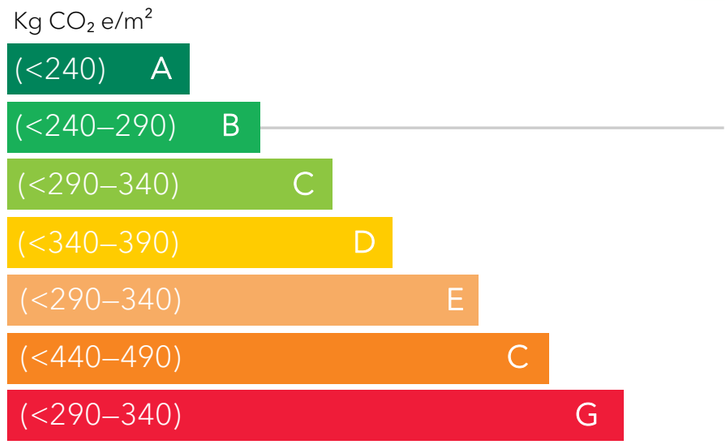
Carbon heroes Benchmarking

The comparative data is based on the region and destination countries. For example, for a project in Sweden or Norway, the sample included 217 similar objects from Finland, Norway and Sweden. Projects showing deviant values or inconsistencies are excluded from the sample.

The sharing and storage of information is anonymous

Checked by experts

Checked by algorithms



Most of the buildings manufactured and erected by Timbeco belong to class **B** according to LCA calculations.

Performance metrics (A-G)

1. The range is divided into 7 levels
2. The average of the results falls in the “D” range.
3. A, B and C are better than average results
4. E, F and G are worse than average results

Country-specific solutions for carbon footprint calculations

BREEAM is an internationally adaptable sustainability standard recognized and implemented in 89 countries. In Norway, the carbon footprint calculations are made according to the NS 3720 standard and TEK17 environmental declaration, and in Sweden BREEAM SE NC 2017.

BREEAM® NOR NS 3720 TEK17

BREEAM® SE NC 2017

BREEAM® NL

Advantages of modular construction

Financial cost control

Lowers hard costs, soft costs, financing costs, out of service costs, and proovides a fasr return on investment.

Craft

The factory setting allows for the improvement of building craft.

Technology

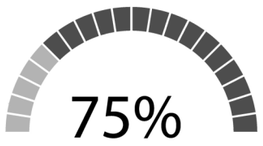
Greater ability to manufacture components with a high degree of technical complexity.

Factory efficiency

Methods of production reduce task time.

Disturbance

Minimizes disruptions to adjacent buildings and occupants and increases cleanliness.



shorter building time

reusable

for whom and why the TMS service is suitable

CONSTRUCTION COMPANIES

Standardization instead of optimization

In a world of growing regulations and hyper price-oriented market, construction firms push into saving costs at the expense of delivery. TMS standardizes the work and the quality, making you tackle more ambitious challenges.

REAL ESTATE DEVELOPERS

Big deeds don’t require big doers.

The service is especially suitable for a real estate developers or a start-up real estate developer who wants to make large residential construction projects. TMS enables them to grow their business and also ensures the smooth flow of the project.

The company wants to keep the team small, but grow the volume of real estate developments significantly.

The service is suitable for companies engaged in residential real estate development with a small team

The company has a desire for rapid growth. Has capabilities related to real estate development and construction project management.

+300%

project plan

FEASABILITY STUDY

- General site planning
- Preliminary price calculation
- Evaluation of project profitability
- Drawing a time schedule
- Preparing drawings for the building permit

ENGINEERING AND PROJECT MANAGEMENT

- Developing project documentation for production and construction.

TRANSPORT

- Logistics plan
- Transport of the modules to the site according to the plan

SALES SUPPORT

- Customer-based design of sales materials for TMS products, marketing support.
- LCA analysis and Co2 footprint calculation for the building.

TECHNICAL CONSULTATION

- Detailed site planning
- Fire analyses
- Sound analyses
- Description of MEP systems

PRODUCTION

- Supply of materials
- Production plan and logistics
- Module production and quality control
- Furniture Installation
- Packing for transport

CONSTRUCTION WORK

- Construction resource planning
- Construction site logistics and erection plan
- Installation of modules
- Finishing work

AFTER SERVICE

- Handing over complete project documentation
- Yearly inspections and warranty works during warranty period

Partner competencies in the local market

CONSTRUCTION COMPANIES

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The company wants to keep the team small, but grow the volume of real estate developments significantly.

REAL ESTATE DEVELOPERS

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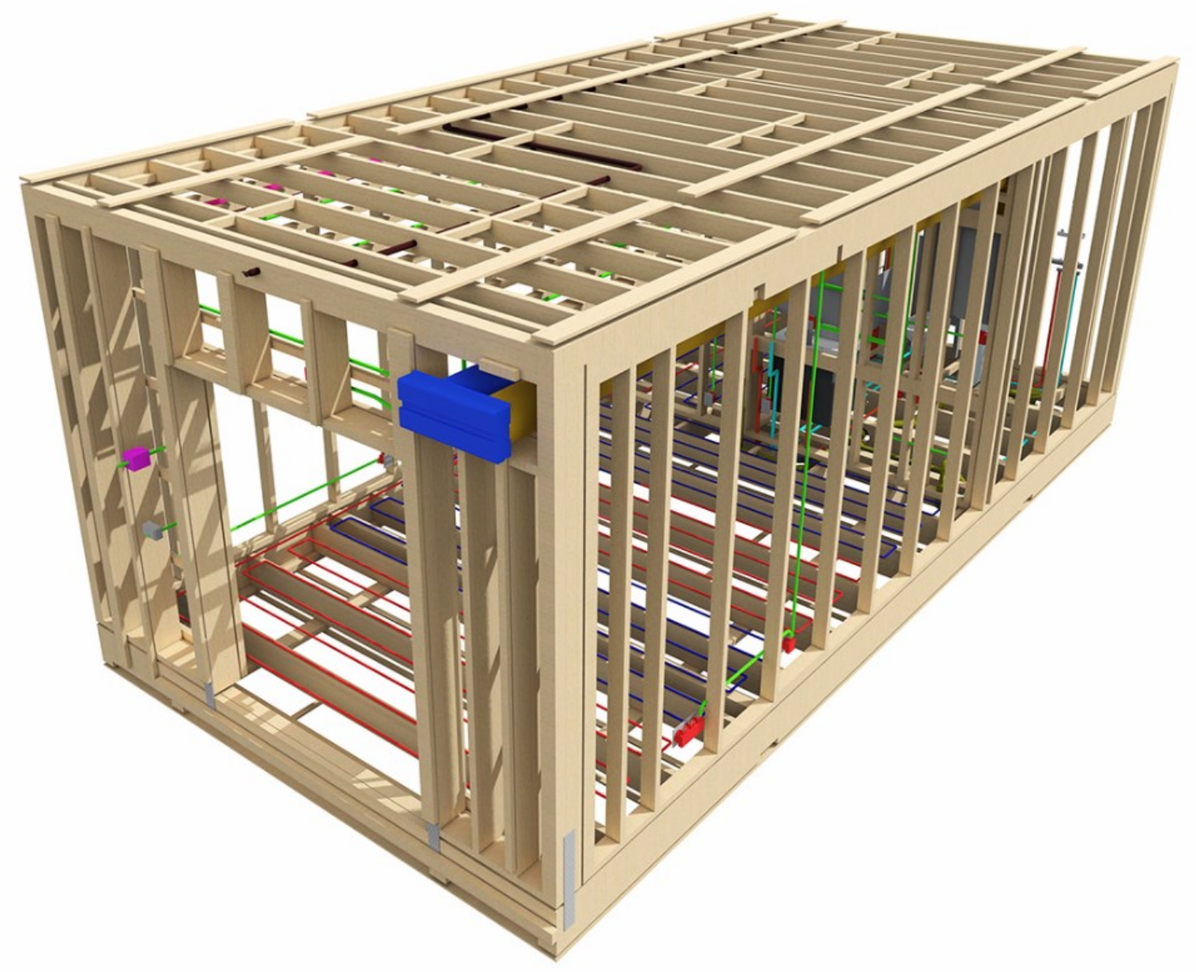
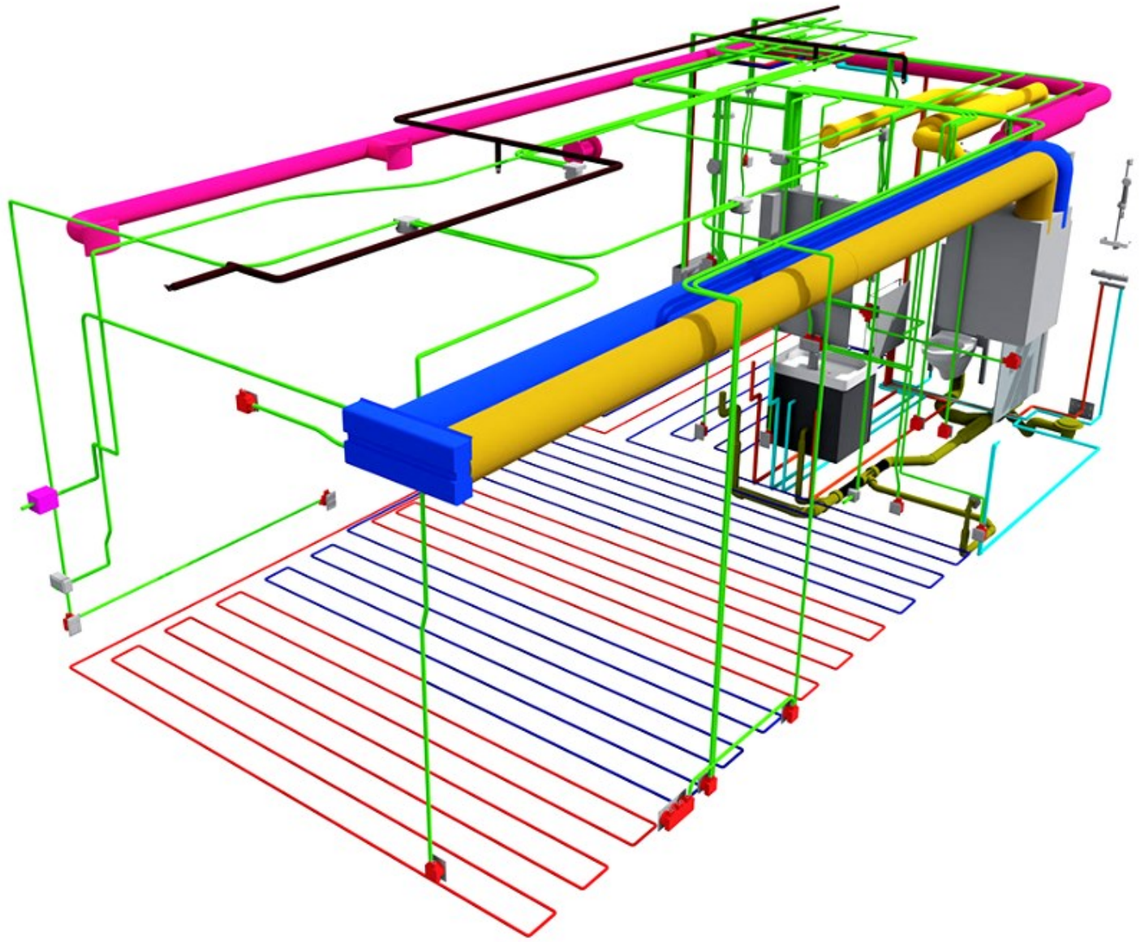
project schedule

SAMPLE SCHEDULE OF A BUILDING WITH 25 MODULES

	2023																																																			
Month	January				February				March					April				May				June					July				August				September					October				November				December				
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
Deadlines:																																																				
Feasibility study (if required)																																																				
Building permit application process																																																				
Detailed price offer																																																				
Technical consultation																																																				
Contract price offer																																																				
Contract signing																																																				
Final choices made by the client																																																				
Engineering and project management																																																				
Production																																																				
Transport																																																				
Construction works																																																				
Final hand over																																																				
Payments																			10%				10%				20%						20%					20%			10%			5%			5%					

the core of modular
construction

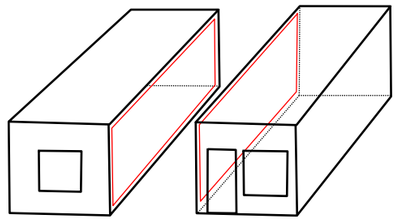


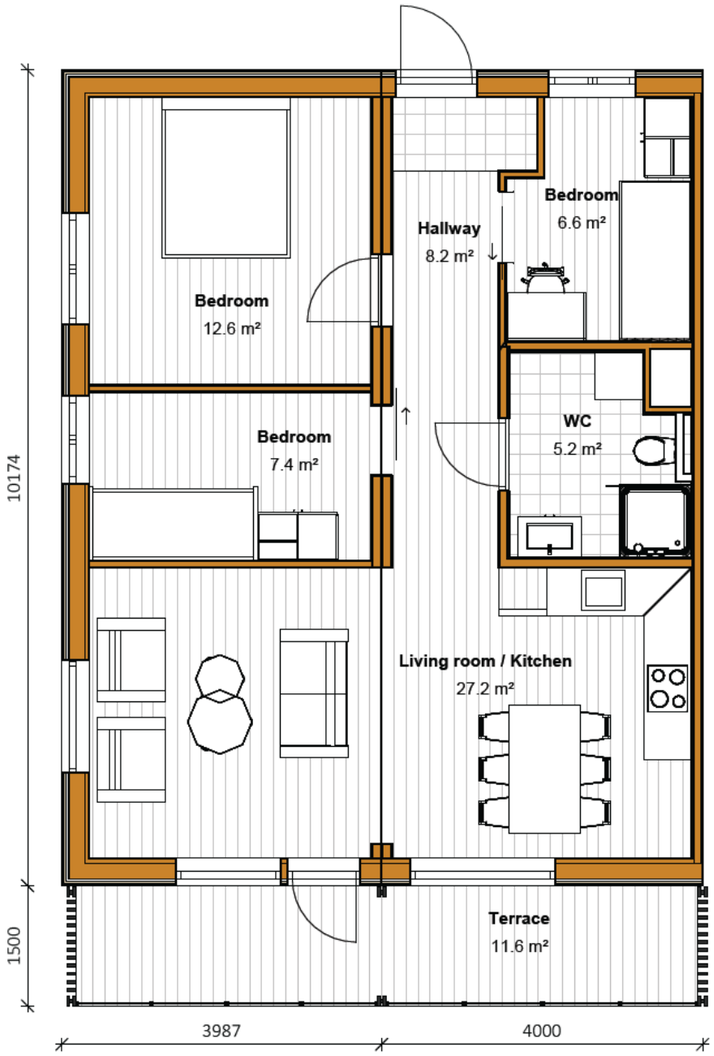


3 and 4-room apartments

4-ROOM APARTMENT 67,2m²

2 MODULES

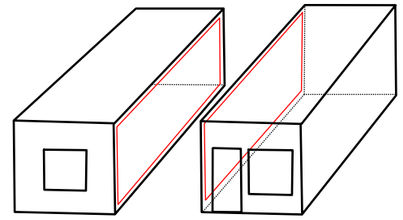


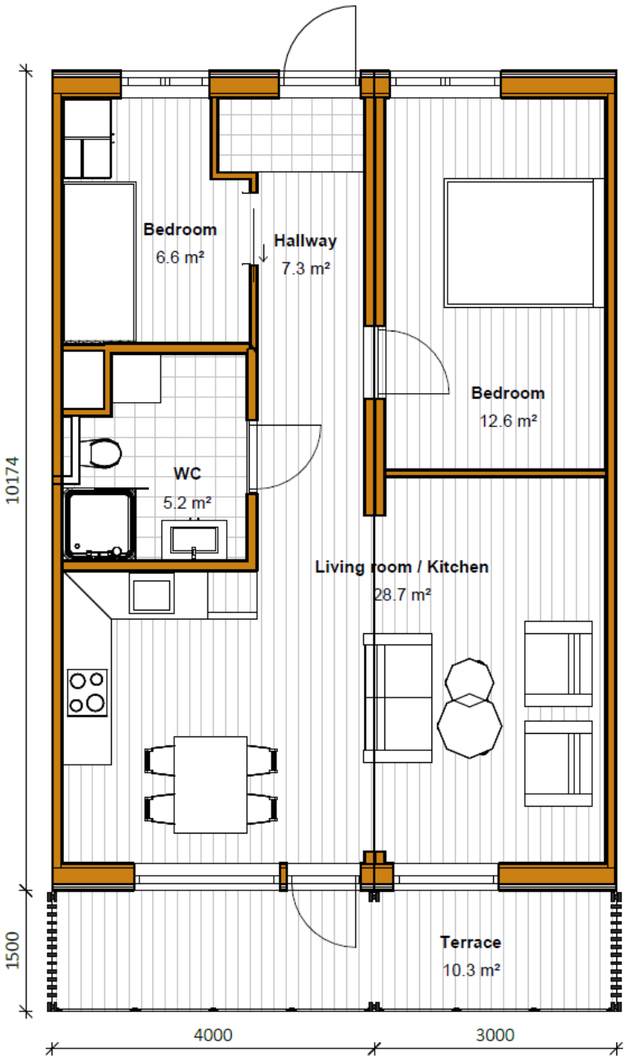


APARTMENT TYPE 1

3-ROOM APARTMENT 60,4m²

2 MODULES



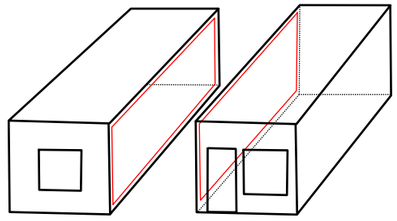


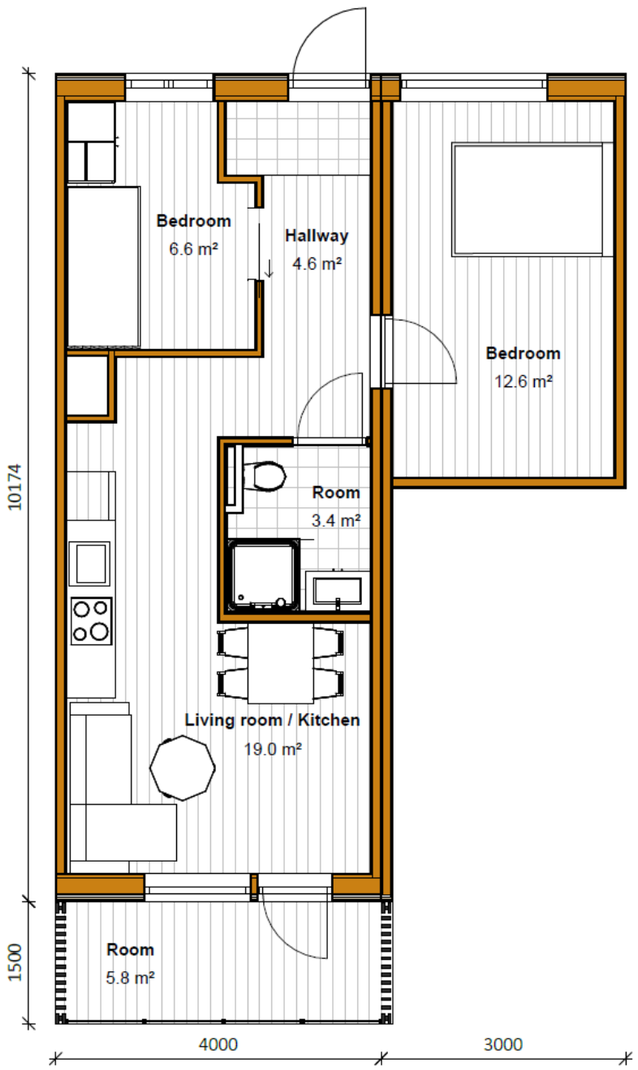
APARTMENT TYPE 2

3-room apartments

3-ROOM APARTMENT 46,2m²

2 MODULES

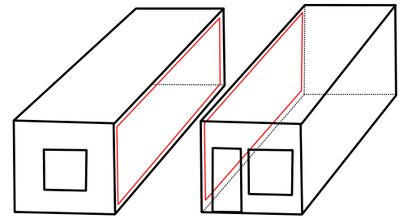


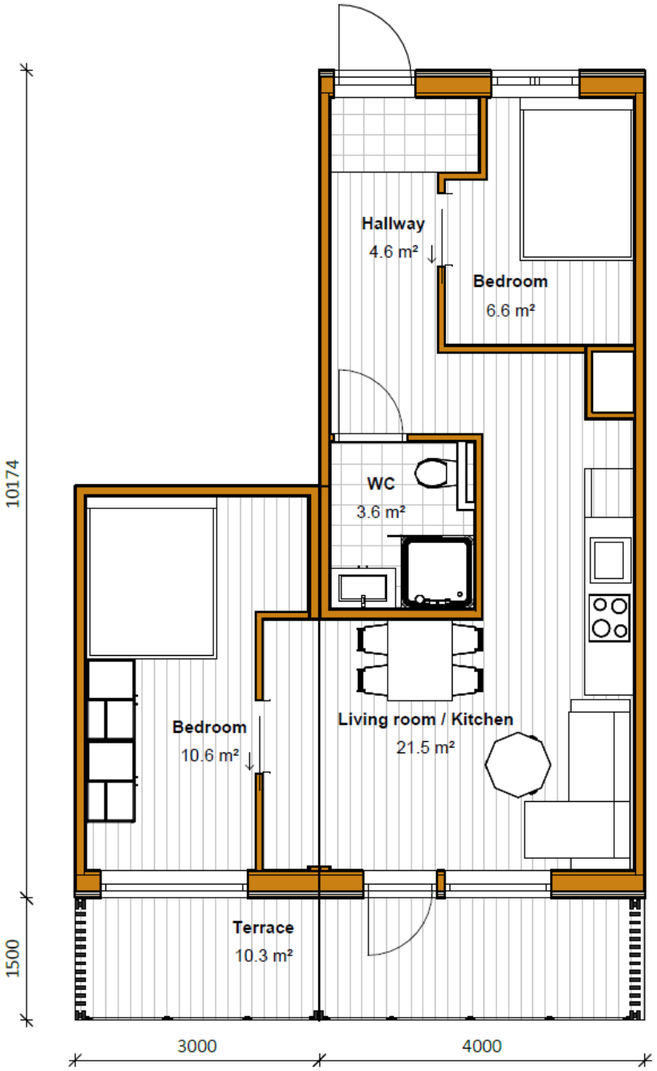


APARTMENT TYPE 3

3-ROOM APARTMENT 43,3m²

2 MODULES



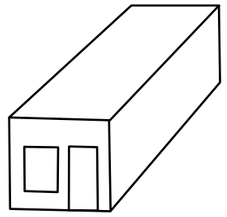


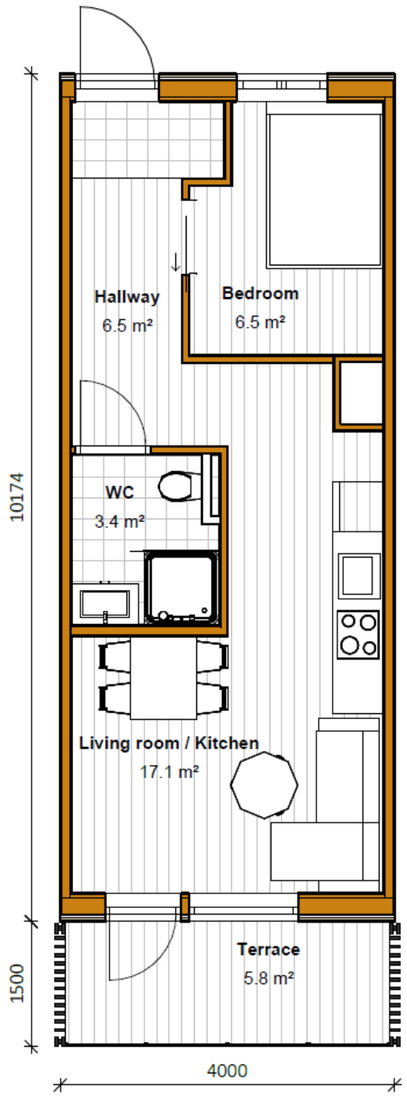
APARTMENT TYPE 4

2 and 4-room apartments

2-ROOM APARTMENT 33,5m²

1 MODULE

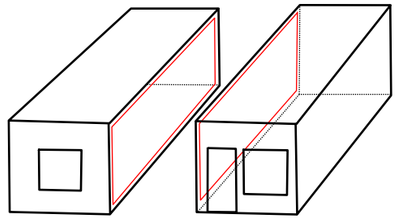


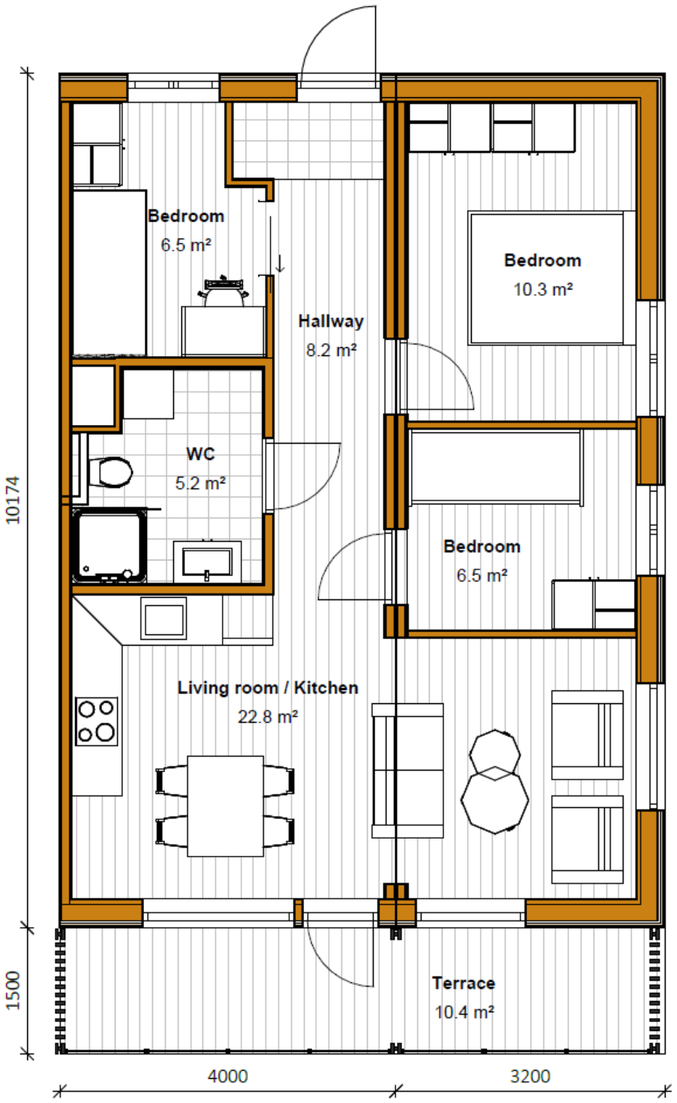


APARTMENT TYPE 5

4-ROOM APARTMENT 59,5m²

2 MODULES

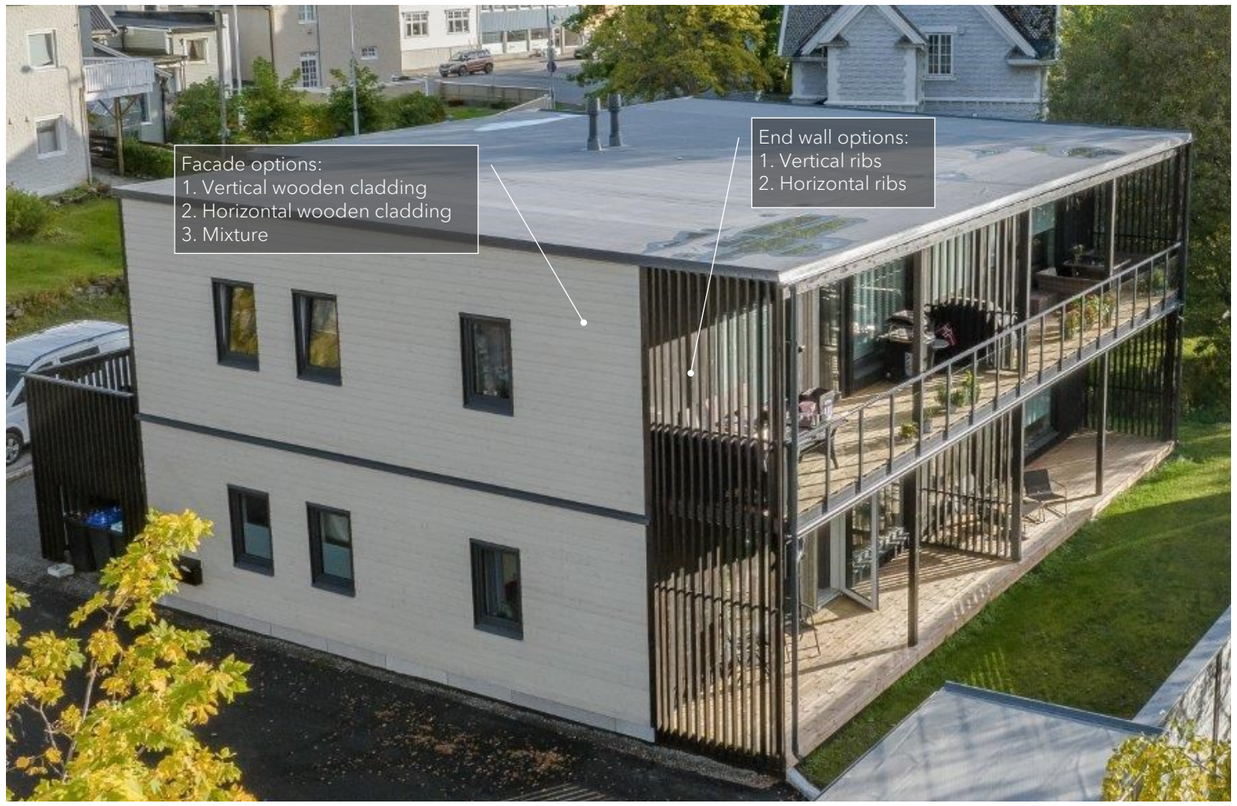




APARTMENT TYPE 6

terraced house with external terrace and staircase gallery

external terrace

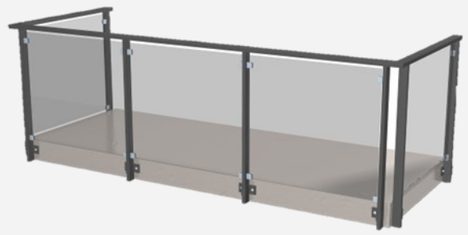


external staircase

standard exterior finishing
materials

Facade: vertical or horizontal timber cladding, painted

Windows and balcony doors PVC, inward opening, inside white, outside anthracite



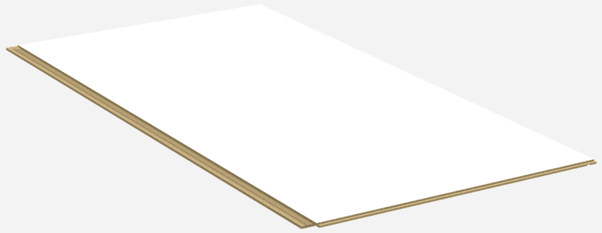
Aluminium or glass-aluminium railings
Dark grey, safety glass

Exterior doors Swedoot Function Bering
11X21 DARK GREY

External rainwater system and metal flashings
Dark grey

standard interior finishing materials

WALLS AND CEILINGS



Ceilings
Painted gypsum, white

Suspended ceilings
Forestia OneStep, white

Walls
Painted gypsum, white

FLOORS

Laminate parquet
CLASSEN Impression 4V WR
Bassano oak 56582

Ceiling mouldings
Shadow moulding 21x33 mm, white

Floor mouldings

FLOORS

Natural parquett
Meister Lindura HD 400
Natural polar white oak 8920

Natural parquett
Meister Lindura HD 400
Natural champagne oak 8922

Floor mouldings

Floor mouldings

standard interior finishing materials

DOORS

INTERIOR DOORS
Swedrood Easy GW white

DOOR HANDLES

DOOR MOLDINGS
16x42 white

BATHROOM FLOOR
MARS GREY 10X10

ENTRANCE FLOOR
MARS GREY 30X60

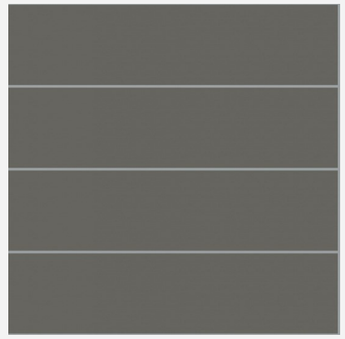
OR

BATHROOM FLOOR
STAR IVORY 10X10

ENTRANCE FLOOR
STAR GREY 30X60

BATHROOM WALLS

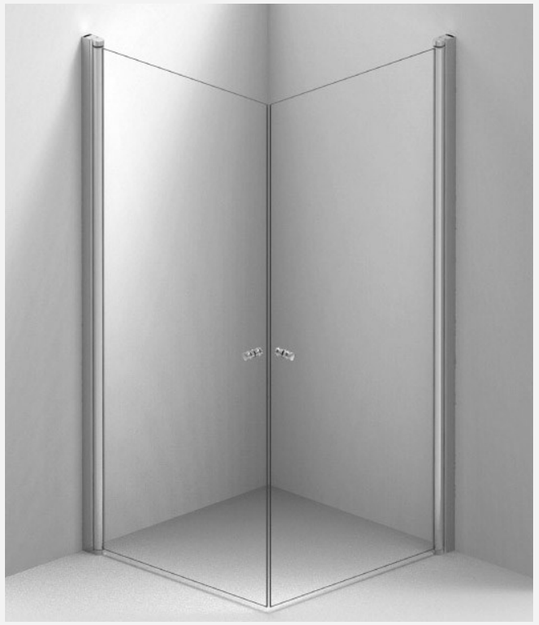
FIBO FORTISSIMO F25, 15X15CM



EXTRA: FIBO FORTISSIMO 4054-F24, 60X15 CM

Interior finishing materials

BATHROOM



GLASS SHOWER WALL
BALTECO MODE 900X900

WALL HUNG TOILET
GUSTAVSBERG NAUTIC 5530 +
CHROME FLUSH BUTTON

SHOWERSET
ORAS NOVA 7495+
APOLLO 520

MIXER
ORAS
SAFIRA 1010F

MIRROR WITH LIGHT
BALTECO CA 60

BATHROOM CABINET
BALTECO NOVA 60CM -
WHITE OR DARK GREY

Interior finishing materials

LIGHTING AND SOCKETS

ENTRANCE

OZONE KOH K50112, white + GU10 LED

TOILET

LED 8W/670lm/3000K, IP44, white

LIVING ROOM, KITCHEN,
BEDROOM
DCL LIGHT SOCKET, WHITE

SOCKETS AND SWITCHES
ABB IMPRESSIVO, WHITE

DESIGNING
THE FUTURE LIVINGSPACES
TOGETHER

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TIMBECO