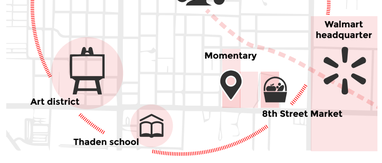
Urban Village

The Urban Village proposal takes social, ecological and economical sustainability as its key starting point. In order to create an environment that promotes social sustainability, the structure of the block is designed around the concept of an urban village providing a sense of community while also emphasizing strong links to the surrounding urban context. The scale is at once deliberately urban, yet not very high in density. The idea of the American porch representing a presence of the community in the life of the street and providing as an interface between town and community serves as an anchor for the concept. A combination of two types of buildings is specifically designed to support the sense of a safe community: Type A buildings lining the street provide a connection to the street and the rest of the city and offer spaces also for commercial activity and offices. Type B buildings in the interior part of the block provide shared facilities to the residents and tenants on the ground floor level with an open plan.

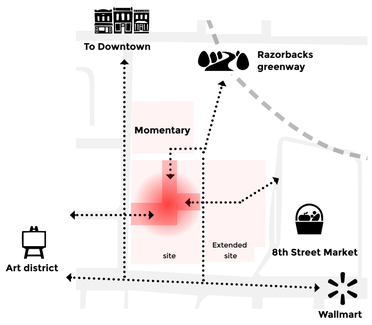
The proposed plan creates a sense of continuity with the existing urban structure and facilitates the growth of the city in a way that provides a balanced sense of community in the context of the rapid growth of the city. It maintains the small town identity of Bentonville and supports the planning goals of the city emphasizing the aspect of a pedestrian and biking friendly environment as a key to a healthy life style. It creates conditions for a socially sustainable and environmentally green community with a mix of residential and live-work spaces, shared communal facilities, commercial and office space, and open outdoor areas.

Modular structure applied in the buildings provides a framework for ecological sustainability, as well as an economically efficient model that is also efficient in terms of the time needed for construction.

Urban analysis



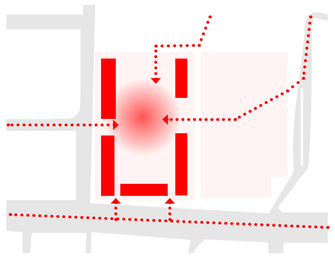
The site is strategically located offering easy access to important sites and amenities within a 2 km radius, reachable in a half an hour by foot and in 6 minutes by bicycle.



The proposal takes the advantages of the location of the site as its starting point emphasizing:

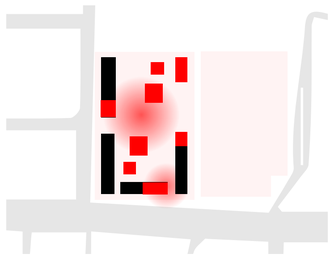
- o Continuity with the existing urban structure
- o Connections to important sites
- o Importance of a walkable and bikeable network to support the planning goals of the city:
  - Easy access by foot and bike to nearby amenities and school
  - Easy access to the Razorbacks Greenway

Site planning



Urban scale / urban network

The town house scale housing along the streets lining the block create an urban scale while providing an active connection to the urban fabric through the balconies and porches that create a sense of presence of the community on the side of the street

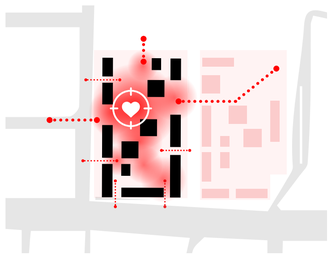


Village scale / shared space

The yard in the center provides a safe and secure space for outdoor activities and community interaction for the residents of the block, but are also open for others to enjoy

The ground floor areas of the buildings offer a variety of different types on shared spaces

- o commercial spaces are located in the buildings lining the street
- o communal shared spaces serving the residents and tenants of the block are located in the buildings with open ground floors in the interior of the block



Urban village

The spaces for shared facilities and activities have intentionally been placed in the interior part of the block so as to create a village-like sense of intensity of social interaction in the middle of the block

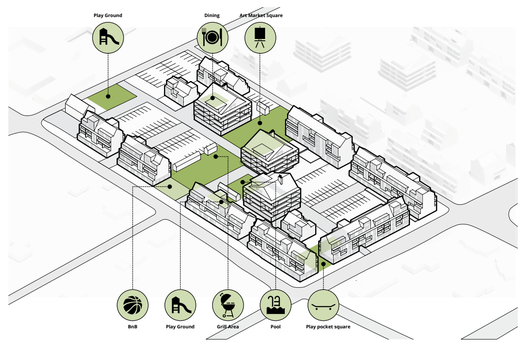
Existing trees have been taken as a starting point for locating the built elements in order to provide a green heart with grown trees to provide shade in the shared open space in the middle of the block

Siteplan Site and Extended Site 1:1000

Site section SA-SA 1:1000

Site section SB-SB 1:1000

Functions and activities



Outdoor areas

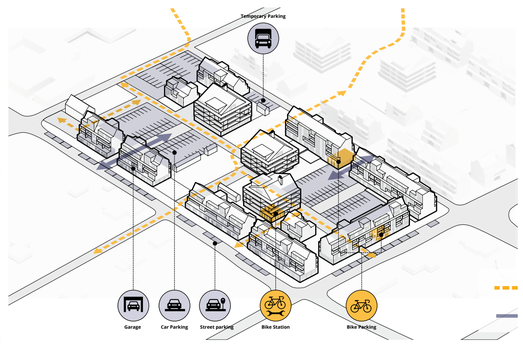
Shared outdoor spaces for the community include spaces for art related activities, sports, children's playground as well as a roof garden and an area for barbeque

Indoor spaces

Shared indoor space offer facilities for a mixture of functions:

- o Commercial functions serving the larger community of the neighborhood are placed on the corners of the buildings
- o Shared spaces for the community of residents and tenants are located in in the internal part of the block activating the ground floor level

Circulation



Parking

Compact and efficient parking is clearly separated from pedestrian ways

Bikes

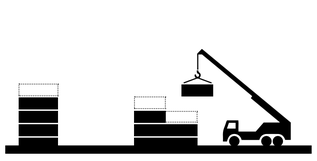
Facilities for bicycle parking, storing and repair and maintenance are offered to encourage the use of bicycles

Walkability

Pedestrian ways are smoothly connected to the surrounding urban fabric to create a walkable and bikeable network:

- o West side following the city grid to the Art District
- o North side exit leads to "Razorbacks Greenway"
- o East side to the 8th Street Market

Architecture



Modular system

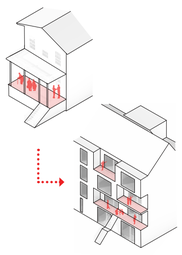
- o Cost efficient
- o Ecological
- o Flexible
- o Time efficient construction process

Human scale

- o Roofs give buildings their character and shape
- o The eaves of the buildings reach down to give the building a human scale
- o The slanted roofs also allow for light to enter between the buildings

In-between spaces

- o The porches and balconies form an intermediary zone mediating between the public and the private
- o They also provide shading that shelters the interior spaces from too much direct sunlight



American front porch - interface between Town and Community

- o The concept of the traditional American front porch as an interface between town and community serves as a starting point for the Urban Village proposal
- o The porch, or a balcony, provides an extension of the interior space
- o It also provides a connection between the privacy of the interior space and the public life in the exterior and represents the presence of the community in the public life of the street

Greenery

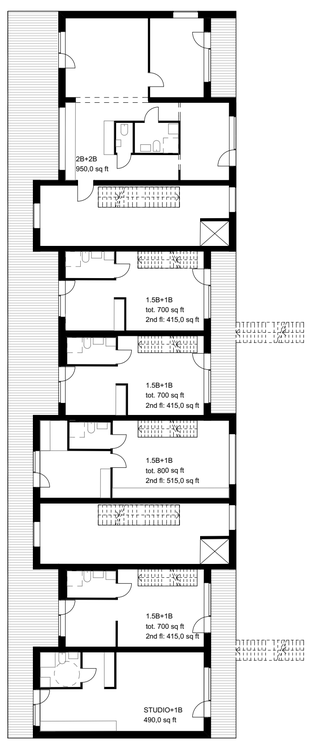
- o Open green space provides an inviting environment for a shared space for the community
- o Trees provide shading that shelters from the heat of sun in the summer

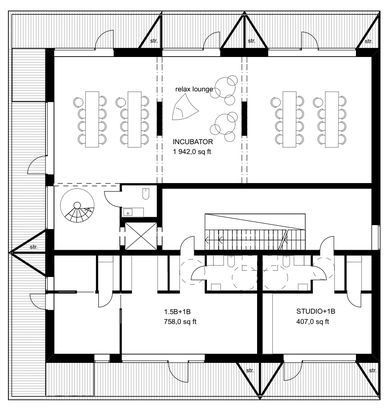
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 273,0 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 273,0 sq ft
garage or private atelier / work space
367,0 sq ft
1.5B+1B
tot. 700 sq ft
1st fl: 279,0 sq ft
garage or private atelier / work space
367,0 sq ft
1.5B+1B
tot. 700 sq ft
1st fl: 267,5 sq ft
bike racks
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
Basketball cafe
1 312,5 sq ft
parking area as temporary market place (day time)
2B+2B
tot. min. 950 sq ft
1st fl: 554,0 sq ft
2B+2B
tot. min. 950 sq ft
1st fl: 554,0 sq ft
2B+2B
tot. min. 950 sq ft
1st fl: 554,0 sq ft
B
live-work unit
tot. 582,5 sq ft
gr.fl: 273,0 sq ft
workshop / storage or additional work space
live-work unit
tot. 627,0 sq ft
gr.fl: 273,0 sq ft
workshop / storage
kitchen&dining
359,0 sq ft
live-work unit
tot. 627,0 sq ft
gr.fl: 273,0 sq ft
kitchen&dining
1 162,0 sq ft
art classes outdoors
outdoor dining
bike racks
ART RETAIL
4 721,0 sq ft
gathering
book store
and gallery shop
art retail and gallery
bike racks
shared outdoor work area
for artists
temporary
parking
6 p.
loading area
movable stage for
events or for
performances
live-work unit
tot. 582,5 sq ft
1st fl: 309,5 sq ft
gathering / working
916,0 sq ft
outdoor '
234,0 sq ft
storage for market place
234,0 sq ft
grill desk
167,0 sq ft
barbecue station
art market square
play area
working in the park
(area equipped with outdoor plugs)
bike racks
pocket gallery (art retail)
631,0 sq ft
1.5B+1B
tot. 868 sq ft
1st fl: 327,0 sq ft
garage or private atelier / work space
A
coworking
or events
flexible space:
lectures or smaller meetings
info point
coworking
INCUBATOR
3 352,0 sq ft
desk
"coworking" for individual work
1.5B+1B
tot. 706 sq ft
2nd fl: 379,5 sq ft
1.5B+1B
tot. 706 sq ft
1st fl: 326,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 706 sq ft
2nd fl: 379,5 sq ft
1.5B+1B
tot. 706 sq ft
1st fl: 326,5 sq ft
garage or private atelier / work space
1B+1B
641,5 sq ft
1B+1B
641,5 sq ft
bikes
641,5 sq ft
can be used as additional storage space if needed
bike racks
fence around
kids dayroom
1 312,5 sq ft
day care area for babies and children
"kids dayroom"
outdoor play area
"kids dayroom"
outdoor storage
pool
patio
fountains
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 285,0 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 285,0 sq ft
bikes
can be used as additional storage space if needed
1.5B+1B
tot. 800 sq ft
1st fl: 285,0 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 285,0 sq ft
1B+1B
641,5 sq ft
sharing
meditation space
learning
lab room with equipment
hanging hammocks
working together
INCUBATOR 8000 sq ft
1st floor 2 706,0 sq ft
2nd floor 1 942,0 sq ft
another building 1st floor 3 352,0 sq ft
separate storage
238,5 sq ft
bike station
881,5 sq ft
shared laundry
700,5 sq ft
bike racks
B
2B+2B
tot. min. 950 sq ft
1st fl: 554,0 sq ft
2B+2B
tot. min. 950 sq ft
1st fl: 554,0 sq ft
2B+2B
tot. min. 950 sq ft
1st fl: 554,0 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 275,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 275,5 sq ft
technical space
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
1B+1B
641,5 sq ft
bikes
can be used as additional storage space if needed
1.5B+1B
tot. 700 sq ft
1st fl: 277,5 sq ft
multifunctional shop space
1 312,0 sq ft
bike racks
parking area /
space for communal parties
or gatherings
bike racks
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
burger cafe
1 157,5 sq ft
cafe to go
286,5 sq ft
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
book sharing corner
286,5 sq ft
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
private atelier or
additional room
space
1.5B+1B
633,0 sq ft
1.5B+1B
tot. 700 sq ft
1st fl: 278,5 sq ft
flower shop
854,0 sq ft
can be used as additional storage space if needed
1B+1B
641,5 sq ft
1B+1B
628,5 sq ft
1B+1B
641,5 sq ft
2B +2B
950,0 sq ft
1B+1B
641,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 283,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 283,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 283,5 sq ft
garage or private atelier / work space
1.5B+1B
tot. 700 sq ft
1st fl: 283,5 sq ft
bikes
can be used as additional storage space if needed
1B+1B
641,5 sq ft
1B+1B
641,5 sq ft

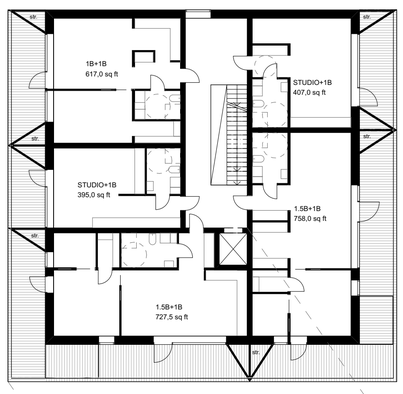
Ground floor plan 1:200

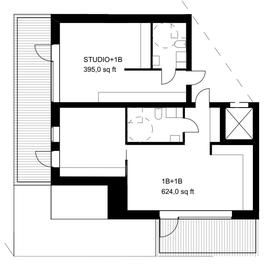
View to the art square from the art retail space

Section Elevation A-A 1:200

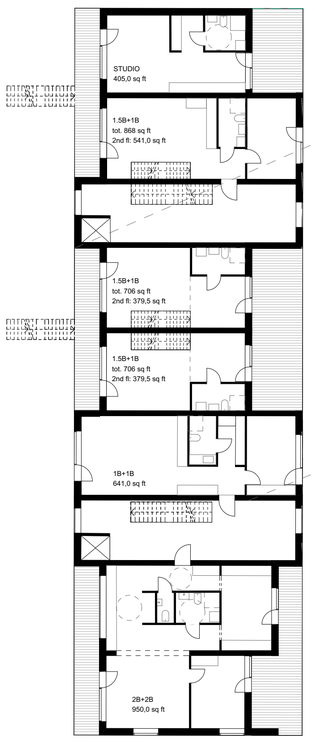


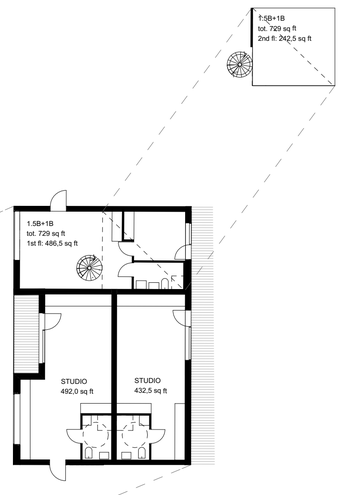






4.th floor 1:200





3.rd + 4th floor 1:200

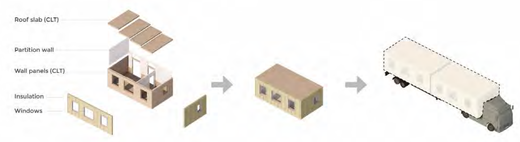
1.st floor plan 1:200

Section Elevation B-B 1:200

Building systems: Mass timber modular system x Custom toolbox

Mass timber modular system

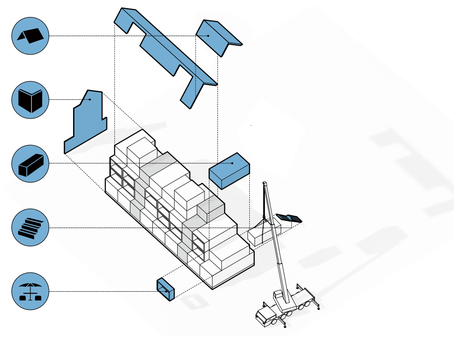
Modular structure applied in the buildings provides a framework for ecological sustainability, as well as an economically efficient model that is also efficient in terms of the time needed for construction. The CLT is a great material for modular construction, but the modular principle could naturally be tailored to work with other materials as well.



Custom toolbox

Combined with a custom tool box, the modular system opens up possibilities for easy customization that make it easily adjustable according to the context and the specific needs of the site and the community.

Roof	Beam	Ramp	Pool
Wall	Door	Elevator	Fireplace
Slab	Window	Balcony	Solar Panel
Column	Stair	Porch	Garden



Attainable

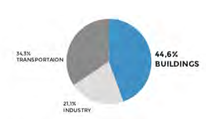
o The modular principle allows for efficient use of materials and for a cost efficient construction process making it possible to produce living and office space that is attainable and of good quality

o All piping for water, air and electricity is built into the walls of the hallway, with the prefabricated apartment units prepared ready to be just plugged in. This makes the construction process efficient and allows for easy maintenance and repair.

Flexible

o Easily modified from the needs of one block to the needs of another in a different context

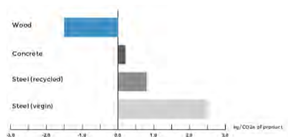
o Easy to move, alter, and repair



U.S. CO_2 emissions by sector

Sustainable

o Wood is a renewable material with a great capacity to provide CO_2 storage and reduced emissions

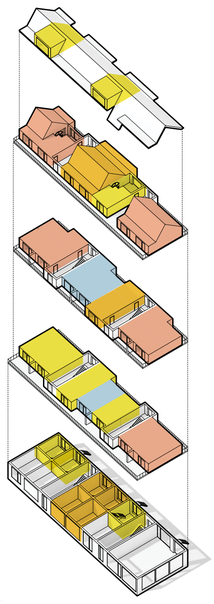


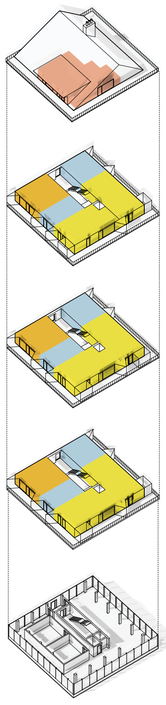
CO_2 emission and carbon storage

Building types

Type A

o A combination of two modules arranged in four-story high segments forming a longer row-like of building with balconies and porches opening up to the street and creating an interface between the community of residents and the town around them
o On the ground floor level there is either a parking place of a work space serving the apartment located on the second floor
o On the third and fourth floors there are separate apartments with access through a stairwell placed between the segments in such a way that each stairwell serves two such segments of units
o Each apartment has a balcony of its own
o Space for public and shared uses is placed in the corners of the buildings and in crucial axis in the structure of the block as a whole





Type B

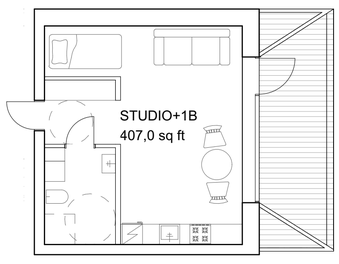
o An apartment building placed in the interior part of the block
o The ground floor is open and used for shared communal activities and public functions
o A central stairwell grants access to all apartments in the building
o Balconies opening to each direction around the building
o Each apartment is formed of one or two modules and modules can be combined according to the needs for smaller or larger units
o In the upper floors there is an opportunity for creating special apartments to address specific needs of the tenants through a variation in the application of the modular system

Mix of unit types

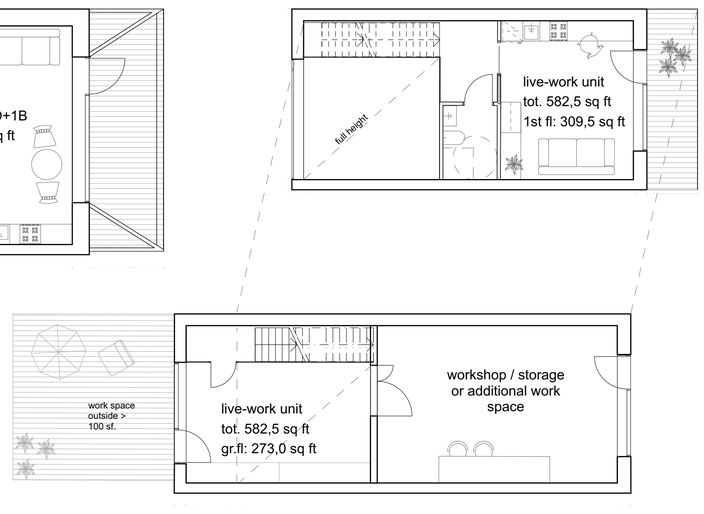
Studio- Efficiency	26
Live-work units	6
1Bedroom+1Bath	45
1.5 Bedroom+1Bath	79
2 Bedrooms+2Bath	36
Total units	192
Density (units/acre)	39.2/acre

Unit Plans 1:100

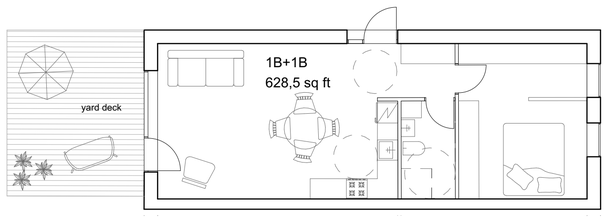
Studio- Efficiency unit
min. 400 sq. f.



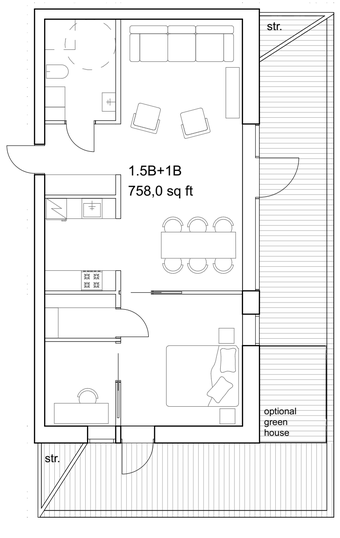
Live-work unit (Artists-in-Residence)
min. 500 sq.f.
580 sq.f - 630 sq.f



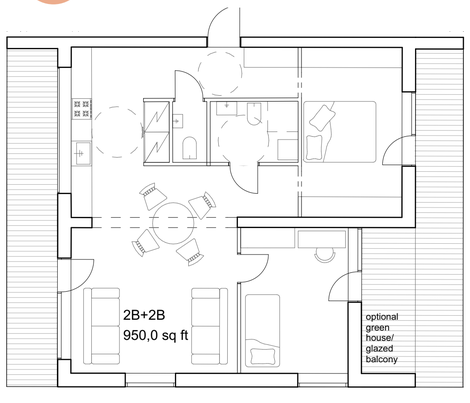
1 Bedroom + 1 Bath
min. 625 sq.f.

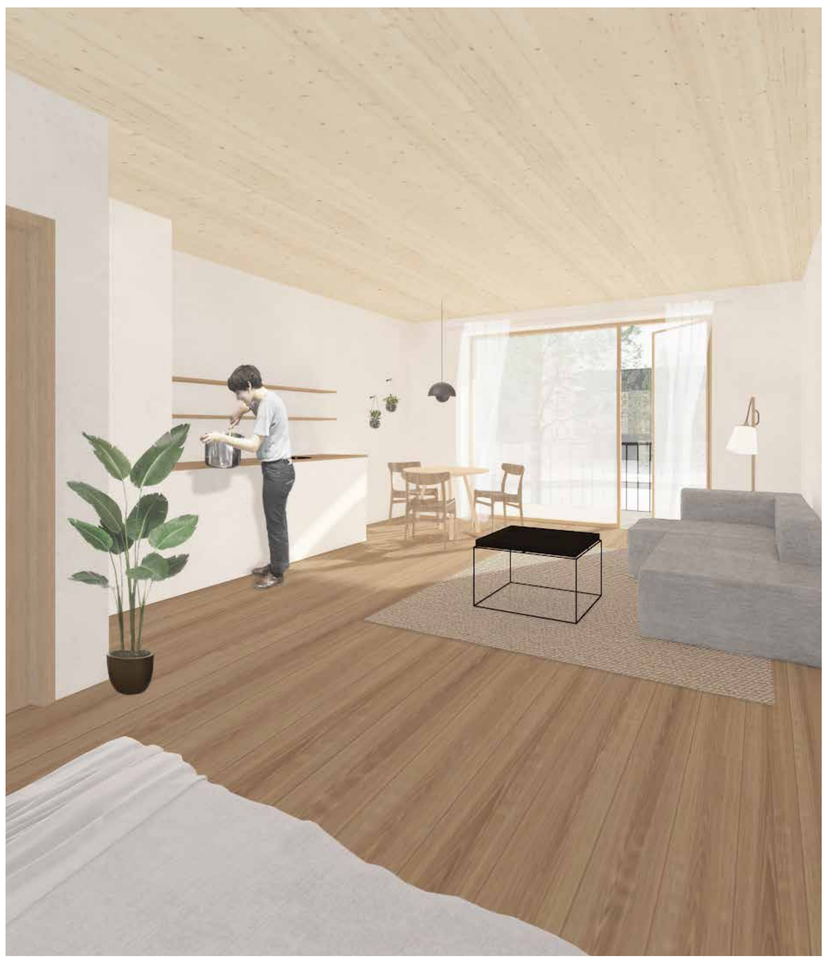


1.5 Bedroom + 1 Bath
min. 700 sq.f.



2 Bedroom + 2 Baths
min. 950 sq.f.





Section Detail 1:25

H1
apartment floor structure:
parquet finishing layer
concrete screed layer + integrated underfloor heating
insulation
CLT structural panel
acoustic insulation 50 mm
air gap
CLT structural panel

H2
apartment floor structure:
(2. floor, above garages' storey)
parquet finishing layer
concrete screed layer +
integrated underfloor heating
insulation
CLT structural panel
acoustic insulation 50 mm
air gap
adjustment cast layer
prefabricated concrete slab

E1
Exterior wall:
Fireproof panel
CLT structural panel
insulation
air gap
cement fiber siding