

WONEN IS EEN RECHT

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Translation housing is a right

1 Universal Declaration of Human Rights Article 25

Too many citizens are left homeless or without adequate housing in Europe, in the Netherlands and even in Tilburg. Article 25 of the Universal Declaration of Human Rights states that everyone has the right to a standard of living adequate for the health and wellbeing of themselves including housing.

2 Statement

'Wonen is een recht' is a building which does not solve the housing crisis but dedicates itself in the architectural pursuit of finding a solution.

The project dedicates itself to tackling the most two pressing issues architects and the construction industry face. That is meeting the requirements of Article 25 in the Declaration of Human Rights to provide adequate housing for humans and protecting our natural habitat. The project proposes to house an existing array of biodiversity while also allowing for new growth to flourish.

Netherlands is consistently one of the top 5 countries in the European Union with the highest GDP. Despite this fact, there is a housing crisis - there is a known homeless population of around 40,000 people a night, and a staggering shortage in affordable housing and lack of student accommodation. The country should be exemplary of the goals and ambitions of the European Union.

'Wonen is een recht' aims to equalize living conditions for every individual.

A stimulant towards a world where every human is housed, no compromises. This is also the architect's responsibility.

3 Densifying Housing, Expanding Nature

People are first, but we cannot forget the land that we inhabit and co-habit with our fellow creatures. The urban strategy secures a maximum amount of area to be isolated from human contact. The interior of the project is left for nature to take back what was taken from it.

Architecture acts as a separating barrier between the natural and the human. When the natural is protected we humans also benefit. The environmental crisis is also real as the housing crisis.

Historical Dutch houses along a canal have been densifying the plot of land into thin slices. This strategy is taken on the plot, a thin and long building of 6 storeys high surrounding the natural oasis. Further the individual modules of the house are thin and long slices.



Current View from East of Site

4 Raising Housing Standards

The entire project is based on a 2310mm net width grid, this number comes from the largest minimum dimension of a bathroom for a wheelchair user multiplied by 5%. The result is a minimum width of 2310mm. This means we have centred the project from the most vulnerable in society first. Every human is worth of dignity to universal access of all spaces.

Elevators are included in every vertical public core and those with limited mobility will be housed in long apartments without any internal stairs.

All dimensions have been accounted for from the Bouwbesluit Regels and have been raised by 5%. This means that the minimum room square meters has increased, widths of rooms, and heights of rooms.

5 Structure and Systematic Modules

For this project we set ourselves the following brief for the structure: the building needs to be able to grow and expand, the ground floor needs to be lifted from the ground, the building and structure needs to be circular. Traditionally buildings transfer loads through columns and walls loaded with compression forces to the foundations. A structure that is largely in tension would result in smaller structural members. We took inspiration from the Overbeekhuis at the Marconiplein in Rotterdam. In this project the floors and facade of the building are suspended from the top of the building which is held in place with a strong central core. The core and top structure has large structural dimensions but the suspension structure which is in tension is light.

For our proposal we propose a similar structure re-configured to our site. A modular Verendeel truss suspended at the top of the building with a 12 meter structural grid. All the housing program placed on CLT floors is suspended with cables from this truss. None of the walls in the flats are structural and could easily be reconfigured, enlarged or in the future replaced to allow for a new function. Any of the suspended elements is intended to be modular so it can be reused for other projects and be part of the circular economy.



Hanging Structure Overbeekhuis at Marconplein rotterdam

The conceptual layouts of the apartments are modules. Every apartment will be made of the same modules. Depending on housing needs and number of people needed this will increase as needed. The circulation has been pushed towards the interior nature reserve side of the project. This is a gesture to the natural environment, to minimize noise and pollution.

With this system someone who is on the affordable housing spectrum will have the same dimension of living room, dining, kitchen

There are some natural smaller dimensions of starting rooms (except the living room which is defining the overall width of the entire project). The 'rooms' which are smaller will have the opportunity over time to expand outwards as needed. Perhaps overtime a family grows in size, or owners are able to afford building an addition. This will allow for longevity in the project, with inhabitants more likely to remain in the same apartment for a longer period of time and invest in the local community and their neighbours.

6 Biodiversity and Rewilding

The most striking aspect of the site is the abundance of natural environment, from the algae on the pond, the migrating geese, ducks and variety of bird species to the underwater fish.

The ecology and biodiversity of this site and it's linking to the Green Link running towards the city center is vital to protect. Although the humans cannot come into contact with the internal environment of the nature reserve. The biological species will be able to move in and out with ease through the design of specific natural corridors.

The hanging structure is lifted off of the ground allowing for 200-500mm of space for wildlife to easily flow in and out from beneath the building.

This will be connected to the green loop which surrounds the reflection site. At the moment the train tracks and bicycle paths prevent for a complete green connection. Specific urban interventions will be planned in each node such as a green corridor underneath the bicycle tunnel and a lightweight bridge over the train tracks.

The many biotopes of the sandy Tilburg area must be protected to prevent future natural disasters. Toads, butterflies, amphibians, reptiles, birders, mammals, flora and fauna all welcome.

7 Urban Connections

The bicycle paths around the site are clearly vital for quick connection to the train station. We believe that the bike path on the east should be rerouted as it currently creates an unsafe situation at the southern east corner of the project site where bicycles are turning onto oncoming traffic and pedestrians are at this corner as well.

Along the perimeters of the building there will be adequate walking lanes for pedestrians. On the western site of the project site there is a walkway across the pond to better connect the residents on the existing Northern residential buildings towards the train station.



Bicycle Connection Rerouted

8 The Woonwagenbewoners Community

On the South end of the reflection site there is an existing community of Caravan Dwellers. Historically this community of people have been discriminated against and have been moved from their living spaces. The intention of the reflection site is to provide more space to them as reparations for previously taking away their spaces of inhabitation. It is a violation to move these residents.

9 The Student Accommodation

The housing crisis does not spare students. This demographic is one of the most vocal about their position in lacking housing. Tilburg has a large student population and perhaps one which will grow. Within the building there is possibility to house students. At the two southern nodes there are student housing accommodations. Each student has one single bedroom and shares a bathroom with 2-3 students.

These clusters then share a communal kitchen/dining/living space with 4-8 students. They are located at the south for easy access to the university and the train station. They are separated by a module of vertical egress from the permanent apartments, this will help in noise isolation and allow the students to live communally. The Corners of the site are reserved for public functions. The southern corners near the student accommodation will as a minimum have eating and cleaning and studying facilities.

11 The Emergency Accommodation and the Social Support Public Buildings

The emergency shelters are modules of three blocks, a double bedroom, a bathroom and a kitchen function. This is the minimum that someone without shelter deserves to be housed in. These temporary spaces are for housing vulnerable populations such as homeless youth, people recently out of prison, domestic abuse survivors, refugees, or other people immediately seeking shelter.

The typical shelter format houses many people in one single room. This is not ideal for those struggling with mental and physical illnesses. Privacy is important for dignity. Finland has a housing first policy and has now eradicated the homeless population. There are wide studies based on evidence that a private dwelling is the basis of all else. First comes housing then comes support for anything from finding a job, to addiction recovery and mental health support.

These modules are dispersed throughout the building to bring diversity of people in the shared vertical cores. The dispersing of the modules will promote informal interactions between members of the community who are coming and going.

12 The Public Corners

Each of the public corners will support the Kenniskwartier and be focused around the housing and environmental crisis. For the people in the emergency shelters there can be food banks, laundry, canteen, social support services, shared outdoor terrace spaces, child care spaces, unemployment support networks and a community cafe.

This is a great opportunity for start up and scale up businesses to rent or purchase property on the corner. But the only rule is that the business is involved in hiring people from the emergency shelters or be actively involved in the housing/environmental crisis.

13 The Circular Building Solution

The building is constructed in order to be easily demounted. The building system will be bolted and thus easily demountable and reused on a new building in the future. We aim to take advantage of the innovative suspended structural system which allows for the floors, walls and ceilings to be: light, easy to assemble, configure and disassemble. The modular grid allows for repetition of elements and it will be likely that the living units will be constructed off site and lifted into place,

which allows for additional advantages in relation to prefabrication: precision, safety for works, construction time saving opportunities.

The heavy structure truss at the top of the building that is used to suspend the housing program could in the future be used to lift other types of programs as societal demand changes over time. The system could suspend office spaces or retail units.

14 The Phasing

At the beginning there will be community workshops to better understand all the stakeholders involved in the project. The caravan dwellers, the existing housing residents, the students, the cyclists, the new arrivals, the vulnerable citizens affected by the housing crisis, the new businesses wanting to move or expand.

First will be light structure to cordon the natural area off from humans. Although the neighborhood seems to enjoy using the pond, they will have space on the adjacent site to the west to site by the pond.

The corner building at the site nearest to the train station will be erected with the one module of 10 structural frames and subsequently the housing blocks will be hung. This process will continue until the entire 'border' is complete.

As needed, the residents will be able to expand their units outwards and not be concerned of the structural integrity as it will all be able to be hung by the existing frame and cables.

15 The Community Garden

The community garden must be relocated with this strategy. We have actively decided to place a biodiverse natural environment and densifying housing above maintaining the community garden in its current state. It is vital to keep the precious local residents who currently care for the garden as a part of the community, there will be extensive workshops with the people of the community garden to work through the relocation of them in the reflection site and the public corner buildings.

The people who are currently part of the garden will be actively involved in the development of the project.

This is a decision that was not taken lightly and must weigh the impact between different actions.