

# Housing:

Generic dimensions:

- Light related:
  - One-sided apartments have a light zone that is around 5 meters deep (might be extended to 5,2m) The dark zone behind that is reserved for traffic space, bathroom, storage and kitchen. A walkway counts to the limit of the light zone.
  - Two sided apartments also have a 5 meter light zone on both sides of the apartment.
- Room sizes:
  - The minimal area of a using space is 5m<sup>2</sup> with a width of 1,8m and a 2,2m height. At least one room of the apartment needs to be 11m<sup>2</sup> with a width of 3m.
  - Hallways have a minimum height of 2,1m and width of 0,85m.
  - Minimal bathroom size is about 3m<sup>2</sup>
    - Minimal toilet cubicle is 1.1m<sup>2</sup>
    - Minimal shower cubicle is 1.6m<sup>2</sup>
  - Minimal kitchen size about 6m
- Disabled people:
  - Minimal bathroom size is about 7m<sup>2</sup>
    - Minimal toilet cubicle size is 2.25m<sup>2</sup>
    - Minimal shower cubicle size is 4.4m
  - Hallways Minimal height of 2.1m and a width 1.2m
  - Wheelchair must be able to rotate 360 degrees in front of the entrance of the elevator and living quarters. Minimal diameter wheelchair 1.5m

## Student housing (at least 40 unit):

demands:

- Affordable housing
- Easily accessible with both OV and bike.
- Don't want to get in trouble for being loud at night
- A safe place to store bikes, maybe inside.
- A smoking area (outside, or somewhere inside)
- Space to study
- Collective space

Group specific dimensions

- Size:
  - Min 14 m<sup>2</sup>
  - Max 30 m<sup>2</sup>
  - Aim: 25 m<sup>2</sup>
- Ideal kitchen size 4 m<sup>2</sup> with a 600 mm depth for a cooking element
- Bathroom: 4 m<sup>2</sup>

Total approx. is 1000m<sup>2</sup>

## Starter housing (at least 60 units):

demands:

- A separated living and sleeping space
- Private outside space

- Easily accessible with both OV, bike and car.
- Quiet at night time
- Good sunlight orientation

Group specific dimensions:

- Size:
  - Rent aim (68m<sup>2</sup>)
  - Buy aim (139)
- Ideal kitchen size 5.5 m<sup>2</sup>
- Toilet size ~ 2m<sup>2</sup>
  - inc. sink 1100mm by 1800mm
- Bathroom 2,2m<sup>2</sup> (small) 4,4m<sup>2</sup> (big):
  - inc. douche and sink
  - Exc. Toilet
  - (1100mm by 2000 mm) small
  - (1100mm by 2300mm) big

Total approx. is 4000m<sup>2</sup>

### **Assisted Living (at least 20 units):**

demands:

- A separated living and sleeping space
- Private outside space
- Easily accessible with OV
- Quiet at night time
- Shops close home
- Easily facilitated social interaction during the day
- No use needed of staircases
- Storage space for walking equipment near
- Good sunlight orientation

Group specific dimensions:

- Size: 80m<sup>2</sup> (bigger than this is not affordable at that location)
- 2 bedrooms
- Ideal kitchen size 7 m<sup>2</sup>
- Ideal bathroom size 5,5m<sup>2</sup>
  - MiVa has very strict dimensions: 2200mm by 2500mm
- Hallway storage closet: 3,2m<sup>2</sup>
  - ( for rollator and or other tools) 800mm by 400mm with a minimum clear space of 110mm for the rollator
  - Scootmobiel storage 1500mm by 800mm

Total approx. is 1600m<sup>2</sup>

## **Working Cluster:**

### **Workshop:**

demands:

- Should have an open feeling. Being accessible for users that live inside the block but also from users for outside of it.

- Located away from the residential functions due to the high sound levels that can be produced by the gear used.
- Located on ground level. (the size of projects might be constrained by the use of a staircase or elevator)
- Easily accessible with,OV, bike, car and small truck/bus.
  - Maybe a small cargo loading bay is a must
- Daylight entry is a big plus
- Connect to the FabLab

Group specific dimensions:

- Ideal Size(s) :
  - Work area: 70m<sup>2</sup>
  - Ideal Bathroom Size: 4 Toilets: 14m<sup>2</sup> (might be shared with the FabLab)
  - Ideal storage space Size: 25m<sup>2</sup>

Total approx. is 150m<sup>2</sup>

### **FabLab:**

demands:

- Should have an open feeling. Being accessible for users that live inside the block but also from users for outside of it.
  - FabLab format, the same format as a part of the Stadslab at the Wijnhaven.
  - Easily accessible with,OV, bike, car and small truck/bus.
- Space for 3D printers, Laser Cutter, vinyl cutter, CNC machine and high power desktop computers.
- A connection between the Stadslab would be preferable due to the multi purpose nature of the Stadslab (SensorLab,Open DataLab & FabLab) and the leading position of the Open DataLab in the world.
  - The Stadslab is only accessible on Tuesday and Thursday, the other days are reserved for students of the Hogeschool van Rotterdam Only. Our Fablab should be able to take the loads of those days.
- Daylight entry is a big plus (but no direct sunlight)
- Connect to the Workshop space(s)

Group specific dimensions:

- Ideal Size(s): 280 m<sup>2</sup> (storage included)
- Ideal Bathroom Size (might be shared with the Workshops)

Total approx. is 280 m<sup>2</sup>

### **Co-working Space and Start-up Offices:**

*Combining the start up offices with the co working spaces to facilitate the interaction between students, start up's and flex workers.*

*To facilitate the use by students the co-working spaces need to have a very casual feeling, more like a living room than an office (inspiration from coffeehouse/café). Still it is important to differentiate it from "free" space. The working spaces should only be used for actual work or study.*

demands:

- Easily accessible with both OV and bike.
  - Maybe a couple of dedicated parking spaces for cars.
- Casual and open feeling

- Lots of daylight and green in the rooms

Group specific dimensions:

- Reception & Greeting area:
  - Size Approx. 32m<sup>2</sup>
- Meeting and conference room
  - Private offices and Conference rooms are approx. 14 m<sup>2</sup> for 4 people per conference room. Comes down to about 70 m<sup>2</sup>
  - Overall size ratio is approx. 8m<sup>2</sup> per person for traditional working spaces, for 20 people this comes down to 160 m<sup>2</sup>
- Storage space
  - Size 20 m<sup>2</sup>
- Communal kitchen (might be combined with a starbucks style operator, gives a more free feeling, but costs money)
  - Size 15m<sup>2</sup> with small seating area
  - Based on a 60x60cm grid system (regular kitchen system)
  - Minimal free space 90 cm
    - If oven on ground floor level 120 cm
- Toilet space 2 mens and 2 females. inc. sink 1100mm by 1800mm
  - Total space 8 m<sup>2</sup>

Total approx. is 305 m<sup>2</sup>

Reference:

<https://www.coworkingresources.org/blog/how-big-should-my-coworking-space-be>  
<https://uniland.com/resources/space-calculator/>

## Public Cluster:

### Library:

demands:

- Easily accessible for both building residents and neighbours
  - Easily accessible with Public transport and Bike
- Open and Casual feeling
- Daylight entry is a pre but not a must
- Quiet during opening time
- Close to the other business and study-oriented facilities within the community centre

Group specific dimensions:

- Size: 140m<sup>2</sup> (minimal):
  - For both the books and seating space
  - Shelves are approximately 200 to 300 mm deep and the height and length depends on personal preference
- Ideal Bathroom Size 8 m<sup>2</sup> (2 toilets)
- Storage Size 20 m<sup>2</sup>
- Breakroom Size 14 m<sup>2</sup>

Total approx. is 184 m<sup>2</sup>

## **Community Centre:**

demands:

- Has to be financially sustainable.
- A large space to gather.
- Can be combined with other facilities, such as:
  - Library
  - Gym
  - Cinematique
  - Co-cooking
  - music school

Group specific dimensions:

- Size: 80m<sup>2</sup>
- Ideal Kitchen Size: 40m<sup>2</sup>
- Ideal bathroom Size: 4 toilets: 17m<sup>2</sup>

Total approx. is 140 m<sup>2</sup>

## **Cinematheque:**

*A similar cinematheque is located 800m away from our block. Combine it with a theatre to make it more dynamic and less reliable on movies alone. This also makes it possible to facilitate the NAS theatre and some average size presentations of in the block located companies.*

demands:

- Easily accessible with, OV, bike and Car
  - Some dedicated parking spaces might be necessary
- Able to produce noise in the late evening and night

Group specific dimensions:

- Size screening room: 160 m<sup>2</sup>
  - Screen:
    - height: the top and bottom of the beam are allowed a maximal 5° angle from the projector.
    - Width: the sides of the beam are allowed a maximal 19° angle from the projector.
    - The projector should always be positioned in the middle of the screen.
  - Seating:
    - The first row of seats is not allowed to have a viewing angle that is bigger than 30°.
    - Rows are allowed to be have a height difference of 16cm (or an angle of 10%)
    - Seating should be 50cm or wider
    - Leg space should be 45cm or bigger
- Office space size: 15m<sup>2</sup>
- Ideal bathroom size: 4 toilets: 17 m<sup>2</sup>
- Size entrance/waiting space: 100 m<sup>2</sup>
- Backstage size:
  - Changing rooms size: 5 changing rooms: 7 m<sup>2</sup>
  - Back bathroom size: 2 toilets: 9 m<sup>2</sup>

Total approx. is 310 m<sup>2</sup>

## **Café/pub:**

demands:

- Easily accessible for all customers.
  - Easily accessible with OV and bike
- Able to produce noise in the late evening and night
- Also facilitate study space
  - Closely placed to the co-working spaces
- Clean and modern aesthetic

Group specific dimensions:

- Main room size: 60m<sup>2</sup>
  - Supports up to 55 seats
- 4 toilets: 17 m<sup>2</sup>
  - 2 women
  - 1 male and 1 urinary
- Office size: 10m<sup>2</sup>
- Employee space size: 12 m<sup>2</sup>
- Pantry size: 7 m<sup>2</sup>
- Kitchen size: 20 m<sup>2</sup>

Total approx. is 140 m<sup>2</sup>

## **Restaurant**

Demands:

- Located on the ground floor, with a main entrance that is easily accessible and adjacent to a road/walkway with traffic.
- Easily accessible with OV and bike
- Able to produce noise in the late evening and night

Group specific dimensions:

- Dining room size: 60m<sup>2</sup>
  - Supports up to 40 seats
- 4 toilets: 17m<sup>2</sup>
  - 2 women
  - 1 male and 1 urinary
- Kitchen size: 20m<sup>2</sup>
- Storage and deliveries size: 20m<sup>2</sup>
- Staff space 18m<sup>2</sup>
  - 2 toilets
  - Communal space
- Office size: 14m<sup>2</sup>

Total approx. is 150 m<sup>2</sup>

## **Grocery shop**

*The closest grocery store (of decent size) is around 600m away. So, there is no need for a store on the block. Something like a little spar might suffice. (<300m<sup>2</sup>, attend supermarket formula)*

demands:

- Favours a loading entrance behind the building that is easily accessible by cargo trucks and busses.

- Due to the local nature of an Asda style supermarket there is no direct requirement for visitor parking, but it might be preferable to have a small amount of them.
- Located on the ground floor, with a main entrance that is easily accessible and adjacent to a road/walkway with a lot of traffic.
- Clear view over the store (translates in no L shapes, or worse. Probably a nearly equal width and length would be preferable)

Group specific dimensions:

- Central shopping floor: 300m<sup>2</sup>
  - Walkways: 1.80m (with cart), 0.90 - 1.20m (without cart).
  - Turning space for wheelchair: 1,5m - 1,5m
  - Average shelf depth: 60cm
  - Minimal height 2,6m
- Stock room size: 30m<sup>2</sup>
- Office size: 15m<sup>2</sup>
- Employee space size: 42m<sup>2</sup>
- Minimal employee bathroom size: 4m<sup>2</sup>

Total approx. is 400 m<sup>2</sup>

### **Tools and craft store**

*Not really a tools and/or craft store, but there is a little recycle company (SCRAPXL) located in the existing block with a little store. This might be used in the new block.*

- Located on the ground floor, with a main entrance that is easily accessible.
- Being adjacent to a road/walkway with a lot of traffic might be less important than by grocery store.

Group specific dimensions:

- Central shopping floor: 60 m<sup>2</sup>
  - Walkways: 1.80m (with cart), 0.90 - 1.20m (without cart).
  - Turning space for wheelchair: 1,5m - 1,5m
  - Average shelf depth: 60cm
  - Minimal height 2,6m
- Stock room size: 8m<sup>2</sup>
- Office size: 14m<sup>2</sup>
- Employee space size: 12 m<sup>2</sup>

Total approx. is 95 m<sup>2</sup>

### **Music School**

demands:

- Easily accessible with bike, OV and car (might need some dedicated parking places, although it might be possible to share them with the supermarket due to the different peak using hours)
- Really good sound isolation (which makes it also a great buffer)
- Near the community centre to facilitate a festival stage for the school
- practice rooms can be completely windowless

Group specific dimensions:

- Multiple practice and lesson rooms
  - Sizes range from 7m<sup>2</sup> (solo practice rooms) to 25m<sup>2</sup> (big band practice rooms)
- Communal space with kitchen for teachers

- Size: 15 m<sup>2</sup>
- Small office space size: 10 m<sup>2</sup>
- Small communal space for visitors: 25 m<sup>2</sup>
- Bathrooms: 4 toilets: 17 m<sup>2</sup>

Total approx. is 120 m<sup>2</sup>

## Collective Cluster:

### Gym

*Due to the fact that the block is surrounded by two gyms this gym facilitates only the habitants of the block, the office users and the users of the NAS (except the medical users, only). This might improve social cohesion in the block. But is at the cost of limiting the social cohesion of the area.*

demands:

- Easily accessible by inhabitants of the block.
- Daylight in the rooms is a pre
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Group specific dimensions:

- Size main exercise room 100 m<sup>2</sup>
- Size smaller lesson room (Yoga lessons): 10 people: 20 m<sup>2</sup>
- Size changing rooms with shower and bathroom: 60 m<sup>2</sup>

Total approx. is 180 m<sup>2</sup>

### NAS (de thuishaven)

demands:

- Safe feeling
- Direct sunlight is a pre
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Total approx. is 100m<sup>2</sup>

### Underground Parking (60 units minimal):

Demands:

- Easily accessible (Vijverhofstraat or Teillingerstraat entrance favorable)
- Not near the loading bay of any store (possible obstruction by trucks and busses)

Group specific dimensions:

- One car parking space: 25 m<sup>2</sup>
- One mobility scooter parking space: 3 m<sup>2</sup> (total approx. is 60m<sup>2</sup>)

Total approx. is 1500 m<sup>2</sup>

### Vegetation

Total area small: 11173m<sup>2</sup>, minimal vegetation: 1118m<sup>2</sup>



Total area big: 22005m<sup>2</sup>, minimal vegetation: 2201m<sup>2</sup>  
Only 50% of the ground floor can be built.

### **Voxel sizes**

Length: 1,2m (size of a normal hallway)

Width: 1,2m

Height: 3m