

# Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



## Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners ([Examencommissie-BK@tudelft.nl](mailto:Examencommissie-BK@tudelft.nl)), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Maxime Spapens
Student number	4658310

Studio		
Name / Theme	Architectural Engineering	Graduation Studio
Main mentor	Stephan Verkuijlen	Architecture
Second mentor	Paddy Tomesen	Building Technology
Third mentor	Andy Jenkins	Research
Argumentation of choice of the studio	I chose the Architectural Engineering chair because I like the set up and freedom of the studio. It gives me a place to explore my fascinations on social aspects. Furthermore, I believe that a technical approach can give societal, sustainable, and innovative solutions, whilst also benefitting the individual. These are challenges within the Architectural Engineering that can be tackled by experimenting and envisioning.	

Graduation project	
Title of the graduation project	Healthy Urban Neighbourhoods Within Green Infrastructures
Goal	
Location:	Boerhaavewijk, Haarlem
The posed problem,	The world is getting increasingly urbanised and as a result unhealthier because of social and surrounding features, which gives higher risks on mental health problems such as depression and anxiety. Because of the lack of space within these urban areas, important factors such as green infrastructures are lacking which is important to improve the mental health of the users and to be able to adapt to climate change. Furthermore, because of the lack of space within these urban areas and with the look on sustainability, improvements should be

	<p>facilitated within the existing urban context, such as existing buildings and public spaces.</p>
<p>research questions and</p>	<p><b>Thematic research question:</b>          What strategies are needed for decreasing depression/anxiety levels and -risks in the urban context of Boerhaavewijk, with the focus on green infrastructures and the facilitation of passive and active care?</p> <p><b>Sub questions:</b></p> <ul style="list-style-type: none"> <li>• What are interventions within the urban context to decrease depression/anxiety levels and -risk?</li> <li>• What problems and opportunities are there within Boerhaavewijk in relation to health, with the focus on depression/anxiety levels and -risks?</li> <li>• Where and how can the interventions be implemented within the existing urban context of Boerhaavewijk and how effectively can this improve mental wellbeing in Boerhaavewijk?</li> </ul>
<p>design assignment in which these result.</p>	<p>The renovation of a post-war flat and its immediate surrounding in Boerhaavewijk combined with an add-on. This building and immediate surrounding will include improved existing dwellings, guided-living facilities and dwellings, collective/public functions, and the facilitation of green infrastructures. With these interventions this building will try to be an environment to positively benefit mental wellbeing in a passive and active way and to be an example of healthy densification.</p>
<p>[This should be formulated in such a way that the graduation project can answer these questions.          The definition of the problem has to be significant to a clearly defined area of research and design.]</p>	

## **Process**

### **Method description**

#### **Section 01**

To be able to answer the research question, this paper will be split into two sections. The first section will consist of the review of existing literature and the chosen location Boerhaavewijk. This section will be related to the following sub questions: 'What are interventions within the urban context to decrease depression/anxiety levels and -risk?' and 'What problems and opportunities are there within Boerhaavewijk in relation to health, with the focus on depression/anxiety levels and -risks?' The interventions will be focused on passive interventions such as green infrastructures and the facilitation of functions within buildings and outside space, and active interventions such as the facilitation of therapy facilities within buildings and outside space. By answering the two sub questions, diverse interventions will be found that afterwards will be systemized on aspects of efficiency, costs, implementation time and passive or active character. This data then will be used in the second section of this paper.

#### **Section 02**

The second section will be related to the following sub question: 'Where and how can the interventions be implemented within the existing urban context of Boerhaavewijk and how effectively can this improve mental wellbeing in Boerhaavewijk?' This will be done by ranking the existing neighbourhood of Boerhaavewijk and implementing the found interventions and ranking them within a short term and a long term urban plan for Boerhaavewijk. Both the existing as the new urban plan will be ranked on efficiency and amount of functions, and the new plan will also be ranked on cost and long- or short term solution. Furthermore, to get a human insight on the existing and new urban plan, residents of Boerhaavewijk and people with depression/anxiety that receive therapy in a facility in Rotterdam will answer a survey on their opinion on the existing neighbourhood and the long term urban plan for Boerhaavewijk.

## Literature and general practical preference

### Literature:

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- Federatie Landbouw en Zorg. (n.d.). Zorgboerderij zoeken. Zorgboeren. Retrieved January 22, 2023, from <https://www.zorgboeren.nl/zorgboerderijen>

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### **Images:**

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### **Practice:**

I did various interviews and surveys: with someone from the municipality, residents and people being treated for depression/anxiety.

### **Reflection**

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

The topic I could chose within my studio was very broad. However, my graduation project topic relates to the studio because it is about open building,

which is one of the design programmes within this studio. Also, I chose one of the given contexts within the studio, namely Boerhaavewijk, however this was not needed. The graduation project relates to the master track of Architecture and the overall master programme, because these have a focus on the building scale and its immediate surroundings, the wider urban context, and building engineering. All of these have an important aspect within my graduation project topic.

**2. What is the relevance of your graduation work in the larger social, professional and scientific framework.**

The densification of cities have a negative impact on the mental health of people. Regarding urban cities and mental health, a broad range of research already has been done. However, within this graduation project an essential element of finding strategies to facilitate better mental health within an existing urban context and building, could be a valuable addition. Even though a specific programme of requirements is in mind for the design assignment, the outcome can be used for other target groups and functions as well, because green and healthy environments has an important benefit on all people. The specific context of Boerhaavewijk as a testcase does not mean that it is only valuable for this site. The interventions and ranking found can be used for different contexts as well, taking the specifics of these contexts in mind. Furthermore, there are 847.000 post-war flats to be found in the Netherlands and therefor the outputs of this research can be used in a wide context. Lastly, doing more in depth research on mental health, specifically on depression and anxiety, has a big social importance.