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

<table>
<thead>
<tr>
<th>Name</th>
<th>Vera (Lisa) van Wijk</th>
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<tbody>
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### Studio

<table>
<thead>
<tr>
<th>Name / Theme</th>
<th>De Veldacademie</th>
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| Teachers / tutors     | Cecile Calis | Architecture  
                         Machiel van Dorst | Research 
                         Otto Trienekens | Veldacademie  
                         Paddy Tomesen | Building Technology |

### Argumentation of choice of the studio

What attracted me to the studio of the Veldacademie was the hands-on approach and the chance to really work in the field during my graduation project. This studio gives you the chance to really interact with your project location, the stakeholders involved and your target group(s). It gives you the chance to not only gain feedback from teachers and other professionals, but also from real people currently influenced by the issues you are researching and trying to find a solution for. It gives the whole project an additional dimension and asks of you to look at your design project slightly differently than most other graduation studios.

### Graduation project

| Title of the graduation project | Mind the Gap.  
A research on how to design affordable and sustainable housing for the lower-middle income class to close the gap between social housing and the private sector. |

### Goal

<table>
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<tr>
<th>Location:</th>
<th>Larenkamp, Menenkamp, Palsterkamp – Zuidwijk, Rotterdam.</th>
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<td>The posed problem,</td>
<td>Especially in the larger cities it is getting more and more difficult to find suitable and affordable housing. Because of the (growing) gap between the social housing sector and private housing sector, a growing group of people</td>
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falls between two stools. They do not qualify for social housing since they earn too much, but do not earn enough to find a suitable home in the private sector. Buying a house is also not an option since it has become more difficult to get a loan with the tightening of the regulations. There’s a scarcity of suitable housing as well, and when one comes on the market a large group of people flock towards it. This problem does not limit itself to a certain age group or stage of life, but a diverse group that for one reason or the other do not fit the existing housing market.

This same issue also prohibits other people to grow and move forward in their housing career. Right now they live in low-income housing, but in the near future they would like to move somewhere bigger and/or better. They saved a small amount of money or started earning more. The gap between social housing and the private sector often prevents them from making this step.

The municipality of Rotterdam thinks they can solve this issue by lowering the amount of low-income housing (in particular social housing) and increase the amount of middle-income housing. They believe there are too many low-income dwelling, even though the waiting time for such a house is still 4 years. While there is definitely a need for more middle-income housing. There current plan has a lot of issues and could potentially worsen the current situation on the housing market.

<table>
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<tr>
<th>research questions and design assignment in which these result.</th>
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<tr>
<td><strong>Main Question</strong>  How to design affordable and sustainable housing for the lower-middle income class to close the gap between social housing and the private sector?</td>
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<td><strong>Sub-Questions</strong>  Who are the target groups, what can they afford and what are their housing needs?</td>
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<td>How can you design dwellings that stay affordable, not only now, but in the future as well?</td>
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<td>How can sustainability contribute to the affordability and (spatial) quality of the dwellings?</td>
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<tr>
<td>The renovation of social housing buildings in Zuidwijk, which are now in bad condition and unsustainable. This will include a densification of the area by designing new dwellings that fit in with the current ones.</td>
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By Renovating a current social housing building I do not only get the chance to improve the sustainability of the current housing stock, but it also gives me the chance to explore the combination of social housing with lower-middle income housing. The municipality of Rotterdam wants to sell a lot of social housing buildings and it seems interesting to explore the possibilities of such buildings. How can we make sure these dwellings stay accessible for the current residents and those in need of affordable housing, instead of driving them away and replacing them with higher income groups (gentrification).

Process

Method description

Literature Study
Collecting existing information on the subjects of interest for my own graduation project. This can vary from books, articles, reports by the municipality or other organizations, websites, etc. The following subjects are of interest when looking for literature:

- Target groups: who are they, what are their needs, lifestyle, household situation, who are the people that already live in Zuidwijk and who are the people that fall between two stools, etc.
- Current housing market in Dutch cities (Rotterdam): what are the current issues, how did they came to be, current solutions for the issue (why do(n’t) they work), etc.
- Sustainable and affordable architectural design: these key words can either be used together or separately. How can sustainability contribute to the affordability of a building project. What kind of (management) structures could be used to not only design affordable dwellings, but also keep it affordable. How can sustainable design be integrated and how can it contribute to for example social or qualitative aspects.
- Zuidwijk: what is the history of the neighbourhood Zuidwijk. What do we already know about the neighbourhood. What are the current issues and what is going well. Are there any future plans for the neighbourhood and if so how does this influence my project/problem and Zuidwijk itself.

Analyzing the existing building and its surroundings
By knowing what is already there, you can identity the strength, weaknesses and opportunities of the building and the neighbourhood in which it is located. Are there certain functions missing and in which departments is the building lacking? Especially when designing for certain target groups, it is important to know whether the location/building is already suitable for these people or whether certain issues need to be resolved.

Reference Projects
By looking at similar projects it is possible to compare what works and what doesn’t. You can learn from past achievements or failures as to not re-invent the wheel. It could inspire new solutions or new combinations of different measures. Not only Dutch, but also international reference projects could be of use. How do they solve this issue in other countries and are such management structure, design elements and technical implementations applicable in this specific graduation project.
Interviews and focus groups
For this project it is of interest to both consult experts and (current) residents. Experts could help with more specific issues on different topics (sustainability, affordability, housing structures, etc); questions that cannot always be answered by literature. Talking to current residents and possible future residents of this project location could provide a more in-depth insight in their needs and wishes. Literature research can form the basis, but to get a more holistic view for whom I am designing.

Maximization method
During the research and design stage it could be of interest to implement the maximization method. Since there are multiple aspects to be considered - such as sustainability, affordability and the (future) residents (people, planet, prosperity) – it could be helpful to find out what would be the best possible design for each of these subjects. This way you can identify contrarieties, similarities and opportunities. When making design decision, this method could help integrate and combine design measures.

Literature and general practical preference


Wageningen UR (2012). Woongemeenschappen in een spanningsveld van privé-eigendom en gemeenschappelijk gebruik. Centraal wonen voor iedereen [rapport 290b]. Wageningen: Wageningen UR.


Reflection

An important focus of the veldacademie at the moment is the resilient city; How can we make Rotterdam and its residents strong and resilient. This is a very broad subject and touches a lot of themes such as sustainability, community and many others. With my graduation project I believe I will touch multiple of these themes, albeit on the smaller scale. A resilient city, is a city where everyone has the chance to live and grow, and not just those people that are convenient for improving the statistics of the city. With my design project I hope to create dwellings that will not alienate the current residents, but create a space where both them and the “new comers” are welcome and able to grow within their own neighbourhood. The issue that I address in my graduation project is not limited to the city of Rotterdam. In contrary, it is an issue that many larger cities in the Netherlands – and in other countries – deal with. The problems are only growing. It is no longer only the poorest of all that can’t afford to live in the city, but also those who are stuck in the middle.

Timeplanning

Week 1.1 Introduction Veldacademie
Week 1.2 Start of fieldwork for Veldacademie exercise (vakoefening)
Week 1.3 Working on Veldacademie exercise (vakoeefening) and exploring research topic.
Week 1.4 Further exploring research problem, question and preparing literature research and neighbourhood analysis.
Week 1.5 Excursion to Berlin.
Week 1.6 Working on Veldacademie Exercise (vakoeefening) and preparing for Interviews.
Week 1.7 Interviews for Veldacademie exercise (vakoeefening)
Week 1.8 Narrowing down the topic, examine current literature and further explore possible research methods. Define target groups
Week 1.9 Evaluate: what do I have and what do I still have to do
Week 1.10 Preparing for P1

Week 2.1 **P1**: first findings and further insights on research topic.
Week 2.2 Working on Veldacademie exercise (vakoeefening).
Week 2.3 Working on Veldacademie exercise (vakoeefening) and handing in draft. Research and choose project location.
Week 2.4 Working on proposition paper (research methods)
Week 2.5 Finalizing location research an further read into literature concerning target groups
Week 2.6 Working on target group profiles. Visit Stadsarchief Rotterdam for plans.
Week 2.7 Working on design measures base on previously done research, first draft design. Preparing for P2
Week 2.8 **P2**
Week 2.9 Evaluate and process feedback of the P2. Feedback on Veldacademie exercise (vakoeefening)
Week 2.10 Finishing vakoeefening

Week 3.1 Improve and add design measures. Preparing focus group (target groups) concerning design measures.
Week 3.2 Preparing focus group (target groups) concerning design measures. Contact experts on sustainability, affordability and housing structures.
Week 3.3 Focus group / interviews with target groups
Week 3.4 Evaluate results from focus group / interviews. How does this influence my design? Make changes in the current design.
Week 3.5 Implement results in the design. Combine results from focus group / interviews with that of the literature.
Week 3.6 Work on design: plans, elevations, sections, details, etc.
Week 3.7 Work on design: plans, elevations, sections, details, etc.
Week 3.8 **P3**: present design. What is good and what needs to be improved?
Week 3.9 Implement comments form P3 presentation and work on design.
Week 3.10 Work on design and theoretic support

Week 4.1 Work on design: plans, elevations, sections, details, etc.
Week 4.2 Work on design: plans, elevations, sections, details, etc.
Week 4.3 Prepare P4 presentation
Week 4.4 **P4**
Week 4.5 **P4**
Week 4.6 **P4**
Week 4.7 focus on the final products: floor plans, elevations, sections, details, models and presentation.
Week 4.8 see week 4.7
Week 4.9 see week 4.7
Week 4.10 **P5**
Week 4.11 **P5**: -
Week 5.1 **P5**: -