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:

<table>
<thead>
<tr>
<th>Personal information</th>
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<tbody>
<tr>
<td>Name</td>
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**Problem statement**

A new approach is needed for redeveloping peri-urban railway stations in the Netherlands, like Amsterdam Lelylaan, to solve a set of pressing issues in their specific context: the monocentric character of many of our cities, the poor quality of public space around peripheral railway stations, and the disconnection between the local and the city scale. As our country is urbanising and the influence of Transit Oriented Development (TOD) is growing, the smaller station turns into an instigator for new urban developments just outside of the ring highway in cities like Amsterdam, where 50.000 new dwellings will be realised by the year 2030, in existing built environments. In the peri-urban sphere, at the urban fringe, stacked apartments next to station areas are offering the density that lets many more inhabitants benefit from living in the city, through the infrastructure network: living somewhere, travelling and working somewhere else, connected on a city scale. But at the moment, these peri-urban railway stations are small and outdated, and often unattractive. Spoorbouwmeester Eric Luiten (Spoorbouwmeester, 2018) points out how changes in the transit network through the years have especially impacted smaller railway stations in peripheral areas: gradually, increased efficiency and technology have resulted in ticket offices at
these stations going vacant. No more amenities are needed today at these stations than a ticket machine and a platform. These stations show that they have no social significance or added qualities, locally, which in turn reflects onto the quality of their surrounding public space. The station areas were designed only as a necessity. The perceived issue is that the transit oriented city diminishes local values and qualities and replaces them with infrastructure, nodes and efficiency on a non-local scale. At this moment when new urban developments focus on public transport nodes, the railway station is in the middle of this change as something that is both part of the network and part of the local built environment.

Today, contrasting developments are taking place: we are designing our cities with TOD focusing on the efficiency of the connected city, but at the same time aim to enhance the quality of local public space around station buildings and peripheral neighborhoods. We are building mixed-use buildings that are extremely well connected to amenities elsewhere in the city while also offering as much as their inhabitants need inside or near the building itself. Architects and urban planners as well as Bureau Spoorbouwmeester are looking to redevelop railway stations together with their environments as an integral master plan. This integral approach was used for the first time with the NSP program for the six largest railway stations in the Netherlands. As a result of this successful program, the interweaving of station and urban plan has become a standard in the vision of Bureau Spoorbouwmeester and the appointment of a Landscape Architect as their director ensures this new policy.

With this duality of city network and local qualities, a great challenge is taking shape for the peri-urban railway station. On one hand, there is the realisation that we need to integrate the station into its local environment to enhance the quality of the surrounding public space and liveability of the neighborhood which in many cases of post-war neighborhoods is considered an issue. On the other hand these stations and new urban developments are advertising connectivity and mobility within the city network as the new way of living, a diversification of life through the possibilities of the transit oriented city and the sharing of spaces that it offers. The station area now has these two very different perspectives, but the next step should be to study these two perspectives alongside each other, and to start blurring them: the station as the perfect mediator, offering a place that is connected to city life and at the same time extends this city life and its livelyhood into the local public sphere.

Research questions

The main question resulting from this challenge is:

- how can we use principles of the polycentric city model and social public space to design a peri-urban station that creates value for the local neighborhood and public space?

Formulated sub-questions are:

- what does the networked city mean for relations between individual (station) areas?
- what is the significance and role of the (peri-urban) railway station within its neighborhood?
- how does the station influence its surrounding public space?

Resulting design assignment

From the research, a usable framework of goals and tools for future peri-urban railway station design in the Netherlands from a public space perspective is formulated. For my graduation project of Amsterdam Lelylaan in specific, creating a
station environment that is inclusive and sensitive to both social and physical environments while also becoming future-proof in terms of size and functionality is the goal. The project will answer to the perceived non-local character of infrastructure, the railway station, and the station area, by prioritizing the creation of accessible public space and diversity of functions while densifying and urbanising as the municipality of Amsterdam requires. Openness and inclusiveness are key, and interrelation between many added and existing buildings in the area is the method that aims to foster this.

The design project will consist of a **Master Plan** that aims to turn the evasive nature of the car-oriented infrastructure into a functional part inside the identity of Amsterdam Nieuw West as valuable area within the city of Amsterdam. The Master Plan will highlight some interventions in public space and the built environment that help to achieve this.

Next, the **Architectural project** will focus on the railway station and two adjacent buildings, or rather the section of their shared public space, where and how the buildings meet and interact with each other. Engagement with other functions and spaces is the top priority.

### Process

**Method description**

The perceived issue is that the transit oriented city diminishes local values and qualities and replaces them with infrastructure, nodes and efficiency on a non-local scale. At this moment when new urban developments focus on public transport nodes, the railway station is in the middle of this change as something that is both part of the network and part of the local built environment. In the introduction I argue that instead, we should use this opportunity of TOD to reinstate public quality on the local scale through the influence of the station area: diversification of the city network should mean diversification and added value of individual areas within this citywide network. The perceived functional transition the peri-urban station is facing creates a duality of two themes for my research:

- the polycentric city network
- the peri-urban station and public space

Through literature review into this duality, I explore how the station’s balance between the network and the neighborhood can be turned into opportunity. Different scales of relations and significance of infrastructure and public space around railway stations are discussed, supported with some thematic case studies. A framework is created for the next part of the research, where analyses of relevant case studies of Dutch railway stations show the relationship between station, public space and wider neighborhood. Through these analyses, I investigate how the potentials for social public space around the railway station can be used and maximized. A mixture of theory and practice will thus argue how station, public space and neighborhood should work together to create viable and attractive peri-urban areas in our cities of the future. Finally, the thematic research is concluded with two products: a graphical advice for public spaces around stations, and a textual manifesto for the significance of these future station areas on different scales. For my graduation project of Amsterdam Lelylaan in specific, I will continue with site specific research and design that is based on the thematic research and its results.
Literature and general practical preference

literature:
- Alexander, Christopher (1965). *A city is not a tree.*

**Case studies:**
- Amsterdam Bijlmer ArenA
- Amsterdam Zuid
- Leiden CS
- De Vink
- Den Haag CS
- Den Haag HS
- Additional architectural reference projects

**Observational survey:**
- Supplementing case studies with photographic material taken on-site at case study locations and project location. Specificity of this survey is derived from the theoretical framework.

**Reflection**

**Relevance**
The city of the future in the Netherlands is more and more concerned with the interconnectedness of our city network. Mobility is changing, and on top of this city centres are getting congested. We are in a transition period towards a healthy and car-free city and transit hubs are vital to make this transition a success: to keep the city accessible, inclusive, green and future-proof. These challenges all come together in a defined space, that of the building(s) and its direct environment. Good architecture is proven more and more vital in this process.

In recent years a lot of precedents have been set in the Netherlands and abroad and studying these and general discourse about transit hubs is more important than ever, because challenges keep becoming larger and so does the impact of the design. The long-term aspect of designing future-proof is also vital to this.
**Time planning**

**P1:**
Present thematic exploration of the project, set the scope of the research and design.

Next:
Theoretical research into themes.
Develop method for analysing case study projects.
Survey / analysis of case studies, develop results and visualize them.
Analyse the project-specific site in the same manner, investigate values and opportunities for the project. Develop program of requirements.

**P2:**
Present results gained from the performed research and show how this translates to a workable design framework. Illustrate with preliminary design: proposed interventions in Master Plan and architectural design on scales 1:1000 or 1:500, and how these interventions derive from the research.

Next:
From research to design: develop the master plan and program of requirements. Translate concept and program into Architectural project.

**P3:**

Next:
Finish design, zoom in to sections 1:20 and details 1:5.
Integrate structure, climate, material into detail.

**P4:**
Complete research booklet. Present research and analysis results, Master Plan, Architectural design 1:200/1:100, building part 1:50, sections 1:20, details 1:5.