Royal HaskoningDHV
Enhancing Society Together

Curriculum Vitae

Joël van Herwaarden

Mobility & Infrastructure
Structural Design Engineer

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I am an enthusiastic civil engineer who has a background in structural design and a fascination for automation. My main job is the design of civil structures and the integration of innovations in the AEC within my projects.

On the side I grew an interest for parametric design methodologies and programming. I have a first-hand experience in seeing the benefits of parametric design and automation.

I like to take on technical challenges and finding the best solutions.

Degree
Civil Engineering bachelor's degree
Nationality
Netherlands
Years of experience
7
Years with Royal HaskoningDHV
6
Special skills
Structural Design
Computational Design
BIM Integration
Design Coordination
Languages
Dutch - Native Speaker
English - Excellent conversational

Design software skills

Autodesk Revit + Dynamo	■■■■■
Autodesk Autocad	■■■■□
Autodesk Civil 3D	■■■□□
Tekla Structures	■■■□□
Rhino 3D + Grasshopper	■■■■□
SOFiSTiK FEA	■■□□□

Programming languages

Python	■■■■□
C# (C Sharp)	■■■■□

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Professional experience

FRP Pedestrian Bridge Bijlmerdreef

2018 – 2021, Municipality Amsterdam

- Final structural design for a fibre re-inforced polymer pedestrian bridge.

Underpasses for vehicles and pedestrians Nunspeet

2019 – 2020, Municipality Nunspeet

- Spatial integration and the structural design for two underpasses beneath a railway station
- One highspeed traffic underpass, one pedestrian/cyclist underpass with connection to the existing railway station
- Both underpasses made with a parametric approach

Pedestrian Bridge Fonnes Norway

2018 – 2019, Statens Vegvesen

- Final structural design for a fibre re-inforced polymer pedestrian bridge.
- Complete design and structural analysis from one integrated model.

Quay wall Herengracht Amsterdam

2017 – 2018, Municipality Amsterdam

- Final structural design for the demolition and rebuilding of a quay wall in the centre of Amsterdam.

Structural re-inforcement design for a utility well

2016, Municipality Amsterdam

- Final structural and re-inforcement design for an utility well for high pressure pipes.

Virtual Reality Design Kwadijkerbrug

2019

- Translating a sketch design into a virtual reality model for stakeholder presentation.
- Guiding the VR experience during the presentation

Full Design cycle of Brug2125 IJBURG

2020 - Present day, Ballast Nedam

- Using parametric modelling to generate design variants for the bridge throughout every phase of the project.
- The use of a fully rendered interactive model to communicate with stakeholder.
- Complete responsibility for maintaining the 3D model and the drawing production throughout the project.

Prelimanary and final design of serveral bridges

2019 - 2020, Waterschap Noorderzijlvest

- Full design for bridge decks which needed replacement on the existing foundations.
- Full design for new bridges in the existing site.
- Coordinated the integration between Road design and Structural design.

Final design of the "Nieuwe-Wercksbrug"

2021 - 2022, Municipality Amsterdam

- Using parametric modelling to generate design variants for the bridge throughout every phase of the project.
- Complete responsibility for maintaining the 3D model and the drawing production.
- Managing and integrating design decisions within the project and coordinating back to stakeholders.

Reinforcement Design Automation Diapraghm walls

2022 - 2023, ROCO

- Automated 3D reinforcement modelling using in Tekla based on analysis with Grasshopper.
- Full Automation of the drawing production of reinforcement drawings in Tekla Structures

Previous employers

Witteveen + Bos (Amsterdam) – (FTE 7 months)

- Structural design in civil structures

The Municipality of Zaanstad (Zaandam) – (FTE 5 months)

- Checking and verifying structural design documents for permit applications

Qualifications

2013-2017 bachelor's degree Civil Engineering - Hogeschool Inholland

2014 – 2024 VCA-vol – Aboma certification

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