

BGC nv / Establis

Contact Vanessa Van Croonenborch
Address Industrieweg 4
2320 Hoogstraten, Belgium
Phone +32 3 420 03 80
Email vvc@bgcgroup.eu
Website www.bgcgroup.eu



Warehouse projects are under squeeze from all sides: construction costs, financial resources, available personnel, ROI. Not to mention time and space constraints. That's where BGC can help. As a general contractor, BGC carries out logistical real estate projects in Europe. Our mission is to create space for the real estate developer to add value.

Our fields of expertise are design, construction engineering, project planning, subcontracting and project management. Our clients are logistics players and investors, including distribution managers, project developers, brokers and landowners. BGC is committed to high quality of building standards, accurate timing and strict budget planning for real estate developers and investors of larger warehouse projects in Europe.



We have the know-how you need in engineering, project management, logistics processes and land availability. Moreover we have an extensive network of construction and engineering companies all over Europe. BGC's speed, efficiency and knowledge of logistical processes ensure higher satisfaction of your customers, increase your return on investment and boost your company's image. BGC enhances the flexibility and effectiveness of a real estate developer and investor in the logistic industry.

ProLogis: Warehouse and offices in Almere

Short Description

The project consists of a 27.000 square metres warehouse with a 3.500 square metres office space on the mezzanine above the loading docks. The steel construction consists of two identical units separated by a fire wall. The columns are positioned based on the racking. The general stability of the structure is insured by rigid connections of columns and beams, and this in both directions. The complete structure was developed as a 3D-model with Scia Engineer, exactly because of that bi-directional stability and to be able to exactly define the distortion and underlying forces in the connections. Because of the complexity of the project the different components were modelled as separate files. Much attention was paid to the nomenclature in order to prevent the identical definition of steel members while all similar load configurations received the same name. Eventually all components were combined in one file.

Project Information

Owner: ProLogis Realty IX B.V.
Architect: Johan de Vries Architect BV
General Contractor: BGC NV
Engineering Office: Establis NV

Construction Start: 24/11/2008
Construction End: 09/2009
Location: Almere, Netherlands

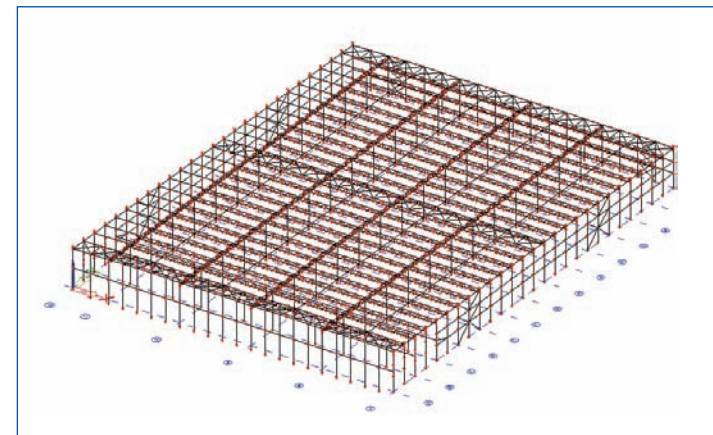
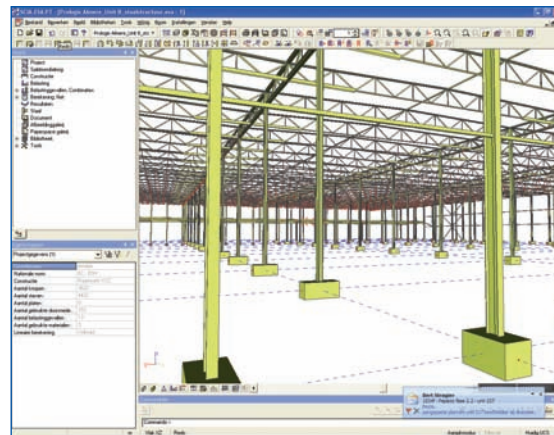
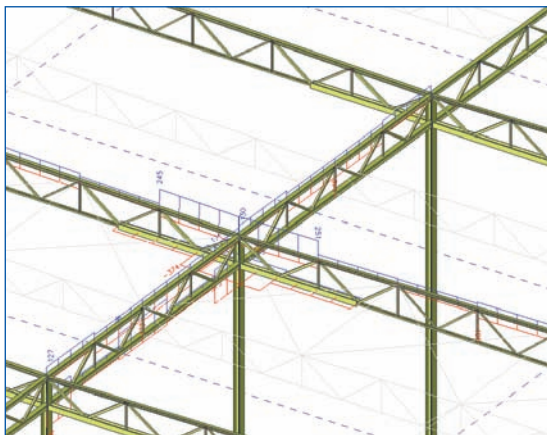


Preliminary construction works have started at the Stichtsekan in Almere for the Prologis' tenant Antalis. Considering the very restricted budgets and ambitious time frame, our customer, Prologis, based on the successful cooperation in Etten-Leur for Hollister, decided to team up again with BGC. The project consists of a 27.000 sqm warehouse with a 3.500 sqm office space on a mezzanine above the loading docks.

The steel construction consists of two identical units separated by a fire wall. The columns are positioned based on the racking. The front part of the warehouse

holds a mezzanine with pre-stressed hollow concrete floor elements on a structural steel frame.

The general stability of the structure is insured by rigid connections of columns and beams, and this in both directions. In spite of the restricted construction height (1.25 m in the middle of span) and a limited span of 22.5 m, nevertheless was opted for a roof structure with trusses in 2 directions. This simplifies the realization of the rigid nodes between the structural elements. The complete structure was developed as a 3D-model with Scia Engineer, exactly because of that bi-directional stability and to be able to



Used software: Scia Engineer

exactly define the distortion and underlying forces in the connections. Because of the complexity of the project the following work procedure was laid out: the different components (front elevation and mezzanine, rear elevation, primary and secondary porches) were modelled as separate files. Much attention was paid to the nomenclature to prevent identical definition of steel members while all similar load configurations received the same name. Then each component was optimized. Eventually all components were combined in one file. All steel members were checked again and adjusted where necessary. During 'navigation' through the model and for the output much functionality were used: grid, layers, activities (through layer, through reference plane...), shifting of reference coordinates. For the further technical elaboration of the project several documents were created: result reports, stress diagrams, foundation loads.

Our task is to realize a turnkey project in cooperation with all of the stakeholders: Prologis, Antalis, Dekker Packaging and Modo van Gelder.

Since its cooperation with Establis proved to be valuable on several recent occasions, especially for international projects, BGC again chose to team up with

Establis for the structural engineering of the project in Almere.

The municipality of Almere for the first time allowing the foundation of the floor plate with HSP-piles, is a very remarkable accomplishment and is the result of the successful cooperation between BGC and Establis.

The handover of the project is planned for September 2009.

