Nydal Heights building A

On top of an already existing underground car park, completing the Vedal contractor these days a new office building for Avantor in Nydalen in Oslo.

Alphabetical order notwithstanding, the first of the three buildings, completed in 2005, is building B and is home to the Norwegian Police Security Service. The building that now stands completed, the building units A, and is located next to the building B. Building C, the last of the trilogy, is being projected and will be even further west.

There are not many areas in Oslo in a couple of decades has undergone such a transformation as it Nydalen has done. From to house heavy industry, with Christiania Spigerverk and Nydalen Compagnie at the head, was much of the area purchased by Avantor. Nydalen is omregulert to industrial and housing, as well as residents have given Nydal city so far 8,000 jobs and 10,000 pupils and students. Residents, jobs and students have failed to do Nydal town to a sleeping kontorby. It is most vital, not least thanks to this diversity.

- Avantor stands for all development and manages most of the buildings, and we further developed for other major owners. Vedal Project was partner for us also on BI, so for the good cooperation where it was natural to negotiate a new cooperation contract with Vedal for this site, "says project manager Frøydis Rørtveit in Avantor.

- Construction was started without tenants. There was a modest free area in Nydalen, and we felt it was a potential for new buildings. So, we have also in this period had several major tenants, confirming Rørtveit.

IT & Media
IT sector is strongly represented in Nydalen, but there are also media companies, The Norwegian Bokklubbene, home Mortensen, the printing of Schibsted, recording premises for TV2, Nordisk Film and keeps all here. TVNorge adds to the list, they use two and a half floor, is the largest tenant in the building A.

- When we began planning the challenge was to create a building that can provide both light and air, as required by the modern office buildings today, but which have optimal energy efficiency. It is built commercial buildings

Location: Oslo

Project Type: Commercial

Kontraktsum items. VAT:
350 million

BTA: 20,000 sqm

Client: Avantor AS

Totalentreprenør:
Vedal Contractor AS
(in co-operation contract)

Architect:
Kosberg Arkitektkontor AS

Advisors: RIB: Ramboll Norway - Interior SATS: NSW Architects & Planners - Interior TVNorge: Kristin Jarmund Architects - Interior DNK: Zinc - RIV for Avantor: Erichsen & Horgen - RIE for Avantor: Elgenius - RIV, RIE: Norconsult - LARK: Cowi - RIBR , RIAKU, RI Energy: Multiconsult - Adviser lock / security: Tradeco

Subcontractors and suppliers: Total Technical contractor: YIT - Rental: UCO / Stavdal Rental Center - Crane Foundation: Smefa - Rental staffing: Marbre Estate - Prov. sealing and roofing: Hesselberg Tak - Waste: Franzefoss Recycling - Scaffolding: ThyssenKrupp Xervon - Demolition: Romerike Machine - Concrete and fire insulation steel: Contiga - Lev. gypsum: Scandico - Facade Plates: Steni - Climate Wall:

that are as clean glass, we shall architects in Nydalen compete with. We chose to use a high gloss plating the parapet fields to illudere a glass fields, frames and beams of molded items and steniplater, says Ragnvald Halset, an architect in Kosberg Arkitektkontor. During the construction was also made a facade change. Mon walked away from the intended brick facade, and chose instead a climate wall with glass and steniplater.

- In a collaboration contract we have to implement changes underway. It was not all decisions taken when we should start building, the tenants have come to after the building was erected.

In the middle zone between the two wings were planned open canteen in one floor. Along the way we projected about, pulled the roof up and established thereby a large Ski. It gave fewer exterior surfaces and more light, while it was energetically profitable and not involving cost-wise substantially larger expenditures, explains project manager in Vedal contractor, Ole Vestersjø. In addition, it must be taken into account that there were tenants in place throughout the construction period in the existing basement parking under the building.

Foiltec
The roof was raised is about. 300 sqm and has a Foiltecløsning. It consists of four with plastic, which ensures isolation. Using kompres-sorer kept pressure constant.

- The German company even came and set up support system. It was in January, and during the actual assembly of the plastic pads could not be colder than 5 degrees Celsius. It was resolved in that we put a tent over the structure during assembly. Foiltec provides minimal visual bearing and intrusive profiles, and thereby release the amount of light. In addition, washing systems for cleaning unnecessary, everything is self-cleaning, "says Vestersjø.

Kosberg Architects has designed a sjuetasjers building with wings of varying depths. That in itself contributes to the flexibility in land use solutions and rominndeling as Avantor wanted to achieve. Originally it was an internal division of 30/70 in relation to offices and open landscape. The technical system is to some extent dimensioned based on this. The solutions are thought out in advance with the generality of the infrastructure. During the construction process TVNorge wanted to change their plans for larger, open areas. The technical facility bear this amendment - the flexibility of the building comprised the sample.

Gates Construction - Internal walls, ceiling, tiles, moldings, computer flooring, linings: SLS Assembly - Data Floors: Sana Construction - Glass Facades: SG Bøckmann - Gulvavretting: Perras Floor Services - Facade Cleaning System: AMV Koltek - Elevator : Uniheis - Windows: NorDan - Storkjøkken: Metos - Skylights / plasttak: Vector Foiltec GmbH - Solavskjerming: Denorma Krone - Painting: Celander - Steel Stairs: Stokke Steel - Non-Hatches: Overlys - Flooring / carpets / parquet: Intep - Fire Sealing: Thermax - Blikkenslager : Viggo Sand Pit - Lock and hardware: Dorma Norway - Tiles: BBM in Norway - Carousel Doors: Boon Edam - Windows to the atrium and steel doors: Land Construction - Concrete Floor: Tiller-Vimek - Concrete Cutting: Betotec - Glass / system walls: Moelven Nordia - Folding Walls: Saxi Products - Avuditoriestoler: Skeie - Epoxy Flooring: BAS 2 - Masonry: XK Mur & Brush - Steel Stairs and railings: Odd Aronsen Mek. Ind. - Folding Port: Norport - Roller Jealousy: Haby Norwegian Jealous Says - outdoor work: Dublin Road - Internal doors: SSC Joinex - Interior: C & D Snickeri - Grouting, Epoxy: Haavard Dark Drift - Sykkelbod: Gunnebo Troax - Cranes: Kranor - Facade boxes lining: Alvdal Skurlag - Bicycle Rack: Haniss

TV studio
But TVNorge also had other requirements that had to be satisfied. The most important thing was to adapt the premises for two TV studios. The calculations were made to remove some columns to create a studio two floors. But they were the already oversized for the loads that would come, so it was not possible to exchange these new weights, then had to come.

- The ground floor has a half meters higher ceiling height than the rest of the floors. The challenge is the making a good climate in the studio when we should relate to the actual

ceiling height. The energy supplied with studio lights, will be evacuated, while the air is cooled. Separate ventilation units supplying the studio with a continuous cold air. In addition, the system will be virtually silent.

Norconsult projections and YIT built a studio that undoubtedly will manage these challenges, "said Vestersjø.

- The design of an office building made of course a superior choice, in that in a sensible way is trying to guide future tenants by explaining the opportunities that exist. And at the same time point out the limitations, if any, will lie in the technical facility. The drawing and to build a modern office building without tenants and their needs are clarified, is a challenge, confirms the architect Halset.

Energy and environment
Building A has classes walls of 30 cm, and three-layered windows with values of 0.7.

- To provide its own building with its own energy is vital for our environmental profile. Since all the tenants have not yet been built, are the calculations depending on what their activity is like. The energy calculation is carried out "a value of 131 kWh per. per sqm. year. Then it is not taken into account that the energy obtained from our energy center, "said Rørtveit.

Energy Central was built in 2002/2003, and is the largest in Northern Europe of its kind. 50 percent of the energy produced to the associated buildings are environmentally friendly, recycled energy, derived from geothermal technology. It is 170,000 square meters of heated buildings and 135,000 square meters of cooled based on heat pumps and the waste heat from building the plant.

Once the Nydalen is fully developed will Avantors energy center in full operation could save 4,500 tonnes of CO2 a year.

But TVNorge is not alone in building A. SATS has chosen to put its headquarters there. IMG, Academic Work and the Directorate for emergency communication will also use larger areas there.

- The adjustments along the way with new tenants who came late into the process, is demanding. But a professional developer who Avantor know what is required in such a building for it to have the necessary flexibility, quality and reliability to meet the tenants requirements. In addition to having experience and knowledge to undertake such demanding adaptation processes with success, "concludes Vestersjø.

Text and photo: Trond Joelson