

“And for a hospital, there is a
lot of energy going on”

Jörgen Pell

Jörgen Pell, Construction Engineer,
White Arkitekter, Sweden

Sustainability showcase or showdown?

With an increasing need to consider future generations, creating sustainable buildings, designed for tomorrow as much as for today, needs to be a priority for the whole industry. When designing a building we must consider all the elements that need to come together to meet the needs of both the occupants and the environment.

The New Karolinska Solna Hospital (NKS) in Sweden has been designed to meet strict high environmental targets – the gold Miljöbyggnad standard in Sweden, which translates into a gold LEED certification. This could be seen as a tall order for a hospital. Jörgen Pell, engineer at White Arkitekter, told us that the difficulty lies in how much energy a hospital requires, and how functionality has to be optimum. This means that the validation lies largely in what materials, and how much of them, are used in the hospital, and how energy efficient the building is.

Equipment and lighting need a constant supply of energy. By ensuring the lighting systems are all LED and having high specification standards for where lights should be Pell and his team have made lighting very efficient. Thinking about how to retain the heat and energy within the building has been another primary target. Making sure facades are well

insulated, and choosing to install double entry entrance systems - with either two sets of sliding doors, or a revolving door and a sliding door - has limited energy and heat loss through the walls and entrances of the buildings. And in the event of a citywide loss of power, the hospital has a self-sufficient energy supply in the form of an underground energy system designed to keep the hospital ‘online’.

Using the right manufacturers has also helped the NKS achieve this goal. One of the primary ways the hospital has met its energy requirements is by using the right materials – materials that are healthy for people and the environment. Using suppliers such as ASSA ABLOY Entrance Systems Pell and his team were able to monitor every material that went into the building and keep the environmental standards high.

Designing and building such a large hospital, and managing to achieve such high certification is a huge success for White Arkitekter, and the architecture profession as a whole. As Pell says, “We have taken responsibility for showing people that it’s achievable to build in this way.” And hopefully they have set the bar for the future.

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