



References

## Bahnhofpark, Sargans

### Uponor involvement



8.000 sqm

## Bahnhofpark, Sargans

A modern approach to working, living and shopping - Bahnhofpark in Sargans, Switzerland has it all.

### Project Facts:

Location

Sargans, Switzerland

Completion

2012

Building Type

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Product systems

Ground Energy

Address

7320 Sargans

Website

<http://www.sargans.ch/portal/>

Project Type

New building

## Partners

### Architect:

Giubbini Architekten ETH SIA AG,  
Bahnhofplatz 7 CH-7001 Chur,  
Switzerland

### Commercial Builders:

Bauengineering.com AG, Ringstrasse  
34 CH-7004 Chur, Switzerland

### Installer:

Lippuner-EMT/Engineering,  
Werdenstrasse 84+86 CH-9472  
Grabs, Switzerland

### Designer:

Swissbuilding Concept AG,  
Schuppisstrasse 7 CH-9016 St.  
Gallen, Switzerland

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The town of Sargans has attracted a great deal of attention with the "Bahnhofpark Areal Ost" project. Located directly at the point where Central, Eastern and Southern Switzerland meet, the complex accommodates a variety of uses, from education and shopping, to work and residential developments. The park is located right next to the train station in Sargans, so that it is also easily accessible from Zurich, Chur and St. Gallen.

### A sustainable quality of life in Sargans

The new development is also intended to offer a sustainable quality of life. Some of the buildings opposite the train and bus station in the Bahnhofpark development are designed to screen the residential blocks that face onto the square. There is a green recreation area in the nearby nature park. The plans include around 8,000 m<sup>2</sup> of office and retail space in three buildings, while seven further buildings will include 40 rental apartments and 40 exclusive owner-occupier homes.

### Close to surface ground energy technology

The Bahnhofpark development is currently the largest project in Switzerland to use close to surface ground energy technology (2010). Construction commenced in April 2010 and the development should be complete by April/May 2012. The general contractor is Bauengineering.com AG from Chur, while the project was developed by Swissbuilding Concept AG from St. Gallen, with Lippuner-EMT from Grabs acting as fitters and Chur-based Giubbini, ETH SIA AG providing special architectural services.

### Uponor provides site services

The entire train station project is based on an ingenious building automation concept involving the environmentally friendly use of ground energy. In order to ensure long-term sustainability, the client and planner have focused particular attention on the choice of high-quality system solutions. Uponor was chosen as partners for ground energy technology. Hans Jörg Schwarz, CEO of Uponor AG, acted as consultant on behalf of Uponor.

### Thermo-active piles used

The client decided to use close to surface ground energy technology, involving thermo-active piles. Approx. 38,000 m of Uponor PE-Xa pipes were used to harvest the ground energy. The thermo-active piles have already been installed on site and the foundations will then be excavated. Not only do heavy concrete components make suitable supporting elements, but can also be used effectively to store heat. Foundation piles can be used for this purpose. Each concrete surface can be designed with this in mind. The heat exchangers can only be installed while the building is under construction.

### Effective and efficient use of heat

The economic benefits mainly derive from the fact that it is only necessary to use components that would have been necessary for structural engineering purposes in any case. This means that there is no need for additional drilling or installation work for ground energy collectors or probes. Close to surface ground energy technology uses the energy stored in the topmost layers of the soil to a depth of up to 400 m or in the groundwater. The temperatures of 8 to 12 degrees that apply here can be used in a variety of ways and can provide warmth and cold in order to heat and cool the building. This is an ideal solution for the design of the Bahnhofpark complex in Sargans.

### Bahnhofpark, Sargans



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