

# ACO Surface Water Management

AVIA Świdnik football stadium, 2013



## AVIA football stadium, Świdnik, 2013

### Surface water management

Works related to the reconstruction of the AVIA stadium are in progress. Works related to the reconstruction of the AVIA stadium in Świdnik started in October 2012. After renovation, the stadium will be adapted to the requirements of the Polish Football Association regulations for teams playing in the 2nd league.

The town of Świdnik will spend EUR 4.5 million for the new football arena, 2.5 million of which is financed from the European funds. The main pitch and all the buildings – changing rooms, sanitary accommodations and social area – will be modernized. A full-size training pitch with an artificial playing surface will be also provided.

The stadium will hold 2.8 thousand people. If the town decides to extend the facility in future, it will be possible to extend the stands up to four thousand seats. The stadium will have new lighting and space for several dozen of cars in front of it.

The stadium was designed according to the guidelines of the Polish Football Association regarding the possibility of playing second league matches.

Optimal rainwater management is as essential feature when implementing such type of project, which influences the future problem-free operation of the facility. In cooperation

with the designer of the sanitary systems, ACO prepared the surface water management concept for the project site.

The site intended for drainage is divided into three separate catch basin areas, each of them having an independent rainwater management system. The catch basin area was divided into the part of the sports venue closed with a boom gate (catch basin area No. 1), the part intended for a car park (catch basin area No. 2) and the part intended for an vehicle access and parking next to the social building (catch basin area No. 3). The system for catch basin area No. 1 consists of a rainwater collecting and handling system, rainwater storage and infiltration. Rainwater collected in a retention system will be used for pitch watering in dry weather periods. The system for catch basin area No. 2 and No. 3 consists of a rainwater collecting and handling system, rainwater pre-treatment systems and infiltration.

Favorable soil conditions on the project site allowed ACO to present a new product from its range – ACO Stormbrixx – to be used for rainwater retention and infiltration. This product gained the Technical Approval of the Building Research Institute in Warsaw in November 2012. Due to the approval, the

Visualization of the AVIA Swidnik stadium

first deliveries of goods were made in January 2013 to the construction site in Świdnik. ACO delivered a total of 450 m<sup>3</sup> of the surface water management system. The infiltration systems amounted to approximately 270 m<sup>3</sup> and the retention system was approximately 180 m<sup>3</sup>.

In the course of the project, ACO submitted to the contractor detailed technical drawings describing the method of laying individual system components. Trainings were also held at the construction site concerning the method of installation of individual system units. All of the infiltration and retention systems planned for the facility are already installed, and car parks made of paving stone were provided and the site surface was cleaned up in places described in the design. The facility is planned to be put into operation at the beginning of 2014.

ACO. The future of drainage





ACO Stormbrixx delivered to the construction site – first batch of goods.



ACO Stormbrixx – assembly – as a tie-in to the access chamber system



Current status of construction (August 2013)



## Reference at a glance

**Project:** AVIA football stadium  
**Location:** Świdnik, ul. Sportowa  
**Investor:** Town of Świdnik  
**Designer:** Hydros Maciej Sawicki  
**Contractor:** Saltex Europa

**Year of construction:** 2013

**ACO Products delivered:**  
450 m<sup>3</sup> – ACO Stormbrixx

**On the project:**  
ACO XtraDrain X100C  
+ composite grating C 250

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