

TransnetBW SONEX®-T keeps residential areas quiet

Transformer substations in residential areas must be especially quiet in operation. At the transformer substation in Weier, two SONEX®-T screening walls from G+H Noise Control provide noise control.



Insulation

Fire Protection

Noise Control

Low-frequency noise emissions from transformer substations are a special challenge for noise control. Suitable noise control is essential in the vicinity of residential areas. Retrofitting of the Weier transformer substation was required due to the transformers installed in the 1970s. The transmission grid operator TransnetBW chose SONEX®-T screening walls for noise control.

CUSTOMER
TransnetBW GmbH

PROJECT
Erection of two screening walls for the transformer substation in Weier.

CONSTRUCTION PERIOD
06/2021–09/2021

DEPLOYED SOLUTIONS
SONEX®-T screening walls



To improve noise control, two SONEX®-T screening walls from G+H Noise Control, with an overall length of 33 metres and a height of 8.5 metres, were installed at the transformer substation in Weier. The deployed screening wall elements are integrated into a special support structure, allowing them to be adapted to every local situation. This enables fast and easy assembly of the solid-wall elements. They are 120 mm thick and conform to a weighted sound reduction index (DW) of 47 dB.

The outside – a smooth metal trough profile lined with heavy inserts and filled with highly absorbent mineral wool – consists of sheet steel band-coated in RAL 9002, while the inside consists of perforated sheet aluminium. The G+H team was easily able to meet the tight schedule for assembly of the screening walls, so the transformers only had to be shut down for one week.



TASK

- Transformer substation noise control in Weier near Offenburg
- Control of low-frequency sound
- Fast installation without long substation downtime

SOLUTION

- Sound level measurements
- Structural calculation and wall orientation
- Foundation construction
- Preparation and installation of SONEX®-T elements
- Screening wall and foundation can easily be dismantled and erected at a new location

ADVANTAGES

- Solid wall elements with a sound reduction index (DW) of 47 dB
- No additional transformer ventilation necessary
- Sufficient room for maintenance activities
- Easy transformer replacement thanks to fast wall disassembly and reassembly