

## RSS® Flüssigboden as foundation slab

Replacement of a concrete road by a "floating substructure" made of RSS® Flüssigboden

### The challenge

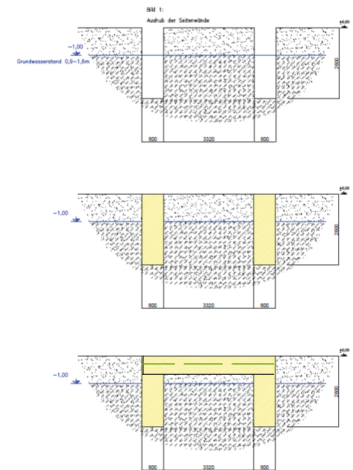
**Starting-point:** Damaged concrete road which, due to the rigid properties of concrete, is breaking more and more due to the impact of dynamic loads from vehicle traffic and is consequently subject to different settlements. High groundwater level and sewers carrying water on both sides of the road.

**Soil structure:** Soft plastic peat and marine clay under a layer of sand.

**Objective:** Technical solution for minimizing settlement by the targeted prevention of lateral compensation movements of the soil and the creation of a state of equilibrium.



Technology of a framed foundation slab with RSS® Flüssigboden



### Construction project

Project: Westoverledingen foundation slab under road

### Client

Straßenbau Prüfstelle GmbH (StraPs)

### Construction period

2016

### Technical planning

LOGIC Logistic Engineering GmbH

### The solution

**Type of foundation:** Flat foundation in the form of a pontoon made of RSS® Flüssigboden with appropriately adjusted properties and the appropriate thickness.

**Technology:** Construction of a "floating foundation slab" according to the technological concept of the engineering office LOGIC

Step 1: Creation of two trenches (slots) on both sides of the intended "floating" foundation slab made of RSS® Flüssigboden  
Step 2: Backfilling of the two lateral slurry walls, normally carried out at the same time as the excavation

Step 3: Construction of the foundation slab between the two slurry walls with a support of the foundation slab on the 2 slots.

Once the intended filling height has been reached, the gravel is immediately placed on the RSS® Flüssigboden

### Properties of RSS® Flüssigboden

- vibration damping when exposed to dynamic loads
- settlement-free and self-compacting
- quickly resistant to loads
- no compaction works required and therefore no vibrations occur
- strength and load-bearing capacity according to specification of technical planning

