

Restoration of GKB railway embankment

IMPULSE COMPACTION »SYSTEM TERRA-MIXTM«

_Building site
report

- _ Execution: **September 2013**
- _ Contractor: **Graz-Köflacher Bahn und Busbetrieb GmbH**
- _ Length: **384 running meter**

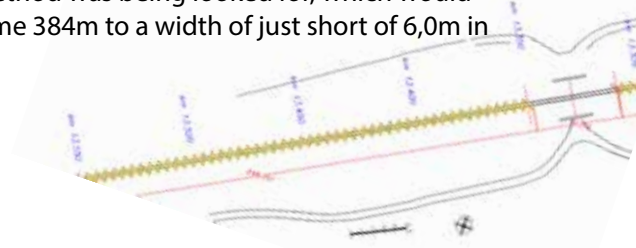


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Job description:

Due to water ingress into the substructure, the some 150 year old railway embankment experienced a very large differential settling between the two rails. Hence, the maximum speed had to be reduced to 30km/h!

For the restoration of the embankment a suitable method was being looked for, which would be capable of compacting the required length of some 384m to a width of just short of 6,0m in a time frame of max. 40 hours.



Solution:

The responsible geo-engineer suggested Impulse Compaction as the most suitable method. In the course of a calibration area two transitions with maximum penetration depth (800mm) were determined as stop criterium.

After having removed the tracks and the wooden sleepers and having lowered and distributed the ballast to some 50cm above the substructure base grade the company TERRA-MIX could start the Impulse Compaction using two machines!

Results:

After barely 30 hours the track superstructure could be re-established, and the restoration of this track section could be wound up in good time before the end of the track blockade!

Compaction grid:

