



Program Details

ART.-No.

ggu-01-108

OPERATING SYSTEM

Windows 95/98/ME, NT/2000/XP

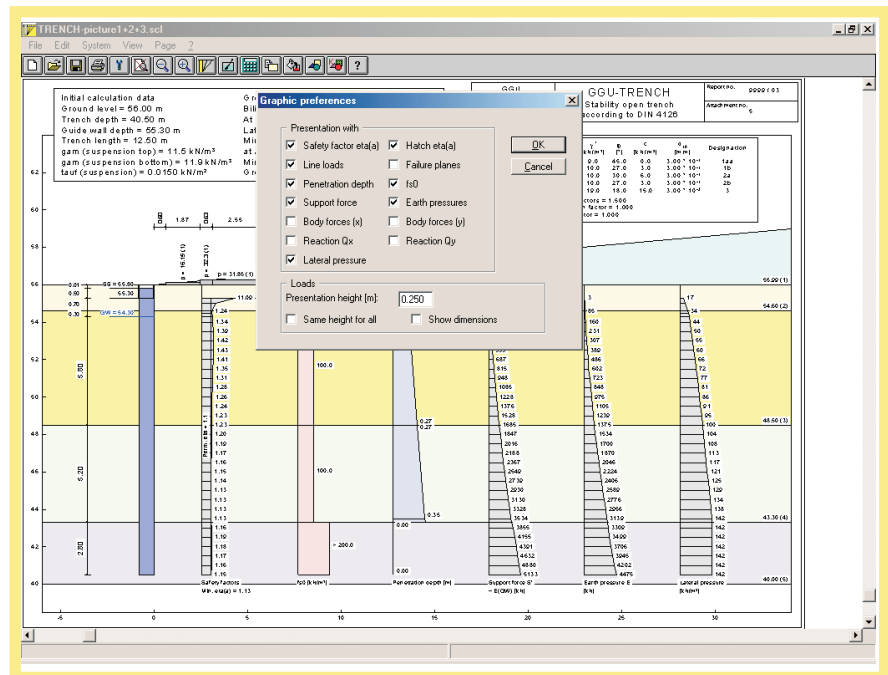
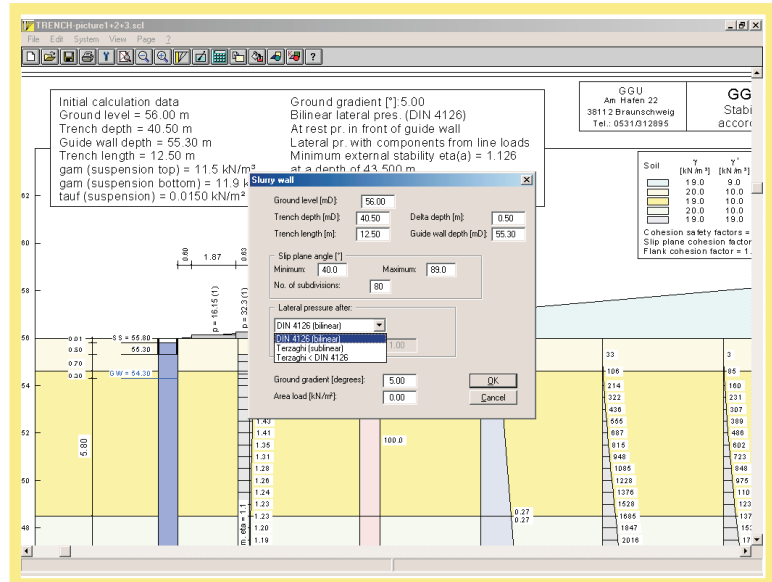
Description

GGU-TRENCH - stability of retaining wall laminae

The GGU-TRENCH program allows the calculation and presentation of inner and outer stability of retaining wall laminae. For proof of stability of retaining wall laminae the following factors are calculated:

- Safety against groundwater ingress into the retaining wall trench
- Safety against slippage of single grains or grain groups
- Safety against subsurface slip planes endangering the retaining wall trench

As data input is in accordance with Windows conventions it can be learnt almost without the use of a handbook. True-type fonts, colour output and bitmaps are supported.



PROGRAM GGU-TRENCH
 GEOTECHNICAL COMPUTATION

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Report no. 9999 / 03
Attachment no. 5

Initial calculation data
Ground level = 56.00 m
Trench depth = 40.50 m
Guide wall depth = 55.30 m
Trench length = 12.50 m
gam (suspension top) = 11.5 kN/m³
gam (suspension bottom) = 11.9 kN/m³
tauf (suspension) = 0.0150 kN/m²

Ground gradient [°]: 5.00
Bilinear lateral pres. (DIN 4126)
At rest pr. in front of guide wall
Lateral pr. with components from line loads
Minimum external stability eta(a) = 1.126
at a depth of 43.500 m
Minimum inner stability eta(i) = 2.548
Groundwater ingress eta = 1.297

GGU-TRENCH
Stability open trench
according to DIN 4126

Soil	γ [kN/m ³]	γ' [kN/m ³]	φ [°]	c [kN/m ²]	d ₁₀ [mm]	Designation
1	19.0	9.0	45.0	0.0	3.00 · 10 ⁻¹	1aa
2	20.0	10.0	27.0	3.0	3.00 · 10 ⁻¹	1b
3	19.0	10.0	30.0	6.0	3.00 · 10 ⁻¹	2a
4	19.0	10.0	27.0	3.0	3.00 · 10 ⁻¹	2b
5	20.0	10.0	18.0	15.0	3.00 · 10 ⁻³	3

Cohesion safety factors = 1.500
Slip plane cohesion factor = 1.000
Flank cohesion factor = 1.000

