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Version Française
Deutsche Fassung

Eurocode 7 - Geotechnical design - Part 2: Ground investigation and testing

Eurocode 7 - Calcul géotechnique - Partie 2: Reconnaissance des terrains et essais

Eurocode 7 - Entwurf, Berechnung und Bemessung in der Geotechnik - Teil 2: Erkundung und Untersuchung des Baugrunds

This corrigendum becomes effective on 2 June 2010 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 2 juin 2010 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 2.Juni 2010 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Rakennustuoteteollisuus. Käyttö sallittu vain standardien laadintaan. 11.06.2010

1) Modifications to "Contents"

Under Section 1 General, immediately after the line dedicated to Subclause 1.7, add a line about Subclause 1.8, "Symbols and Units", with the page where it can be found.

Line dedicated to Annex H, replace the page number "134" with the correct one.

2) Modifications to 1.2

Title of EN ISO 22476-1, replace "Electrical CPT and CPTU" with "Electrical cone and piezocone penetration tests".

Bottom of pages with the references EN ISO 22476-6, EN ISO 22476-8, EN ISO 22476-9, EN ISO 22476-12 and EN ISO 22476-13, insert the following footnote:

"6 to be published".

Just after the reference EN ISO 22476-6, add the following reference:

"EN ISO 22476-7⁶ Geotechnical investigation and testing – Field testing – Part 7: Borehole jack test".

Reference to EN ISO 22476-12, delete footnote mark "6".

3) Modification to 1.6

Replace footnote number "6" with "7", in the text (i.e. at the end of Paragraph (2)) and at the bottom of the page.

4) Modifications to 1.8

Paragraph (1), Latin letters, between K_{DMT} and I_L , add:

" k coefficient of permeability".

Paragraph (1), Greek letters, definition of α , replace " E_{OED} " with " E_{oed} ".

Paragraph (1), Greek letters, definition of σ'_p , replace "effective pre-consolidation pressure" with "effective pre-consolidation pressure or effective vertical yield stress in situ".

Paragraph (1), Greek letters, definition of σ_{v0} , replace "total vertical stress" with "initial vertical total stress".

Paragraph (1), Greek letters, definition of σ'_{v0} , replace "effective vertical stress" with "initial vertical effective stress".

Paragraph (1), Abbreviations, definition of CPT, replace "cone penetration test" with "electrical cone penetration test".

Paragraph (1), Abbreviations, between the definition of CPT and that of CPTU, add:

"CPTM mechanical cone penetration test".

5) Modification to 4.2.2

Paragraph (1)P, replace "EN ISO 22476-1, EN ISO 22476-8, EN ISO 22476-9" with "EN ISO 22476-1 to EN ISO 22476-9".

6) Modification to 4.3

Title of the subclause, replace "(CPT, CPTU)" with "(CPT, CPTU, CPTM)".

7) Modification to 4.3.2

Paragraph (1)P, replace "mechanical CPT" with "CPTM".

8) Modification to 4.8.3

Replace:

"(2) The following influences can affect the evaluation of the results."

with:

"(3) The following influences can affect the evaluation of the results."

9) Modification to 4.8.4

Paragraph (4), NOTE 2, replace:

"NOTE 2 An example of a correlation to estimate the angle of shearing resistance (ϕ) of quartz and feldspar sands is given in Annex H."

with:

"NOTE 2 Examples for correlations to estimate the drained (long term) Young's modulus of elasticity (E') and the angle of shearing resistance (ϕ) of quartz and feldspar sands are given in Annex H."

10) Modification to 5.4.2

Paragraph (4), replace "(4)" with "(4)P".

11) Modification to 5.9.2.3

Paragraph (3), last sentence, replace "compression curves" with "test curves".

12) Modification to 5.12.5.2

Paragraph (1), replace "(1)P" with "(1)".

13) Modification to Annex A

Table A.1, 2nd column Test results, replace "Value of organic content" with "Loss on ignition".

14) Modification to B.2

Replace Table B.1 with the following table:

"Table B.1— Example of the selection of ground investigation methods in different stages

Preliminary investigations		Design investigations		Control investigations		
Desk study of topographical, historical, geological and hydrogeological maps Mineral extraction Aerial photo-interpretation Archives of previous construction works and investigations Site inspection Preliminary geophysical surveys Preliminary intrusive investigations	Fine soil CPT, SS, DP, SE FVT or SPT OS TP, PS, OS GW	Preliminary choice of foundation method Preliminary choice of foundation method Preliminary choice of foundation method	Pile foundation	SS, CPT, DP, SR FVT, SPT, PIL PS, OS, CS, PMT GWC	Verification of choice of foundation method and design procedure, control of ground improvement works and stability during construction	PIL, Pile driving tests, Stress wave measurements GWC, settlements, Inclinometers
			Shallow foundation	SS or CPT, DP FVT, DMT or PMT, BJT PS, OS, CS, TP GWC		Check of the soil type Check of the stiffness (CPT) Settlements, Inclinometers, GWC Volume change potential due to water content change
	Coarse soil SS, CPT, DP, SR SPT AS, OS, TP		Pile foundation	CPT, DP, SR SPT, DMT, PIL OS,, TP GWO		PIL, Pile driving tests Stress wave measurements GWC, settlements Inclinometers
	GW		Shallow foundation	CPT,DP SPT, PMT, BJT, DMT, PLT OS, TP GWO		Check of the soil type Check of the stiffness (CPT, DP, SPT) Settlements
	Rock SR, CPT, MWD PLT CS, AS, TP GW		Pile or shallow foundation	SR, MWD, mapping of discontinuities RDT, PMT, BJT TP, CS GWO	Check inclination and discontinuities in the rock and its surface Check contact between pile toe/ foundation and rock surface Verify water conditions of flow and pressure	

Abbreviations		
Field testing		Sampling
BJT	Borehole jack test	PS Piston sampler
DP	Dynamic probing	CS Core sampler
SR	Soil/rock sounding	AS Auger sampler
SS	Static sounding (e.g, weight sounding test, WST)	OS Open sampler
CPT(U)	Cone penetration test (with pore pressure recording)	TP Test pit sampling
SPT	Standard penetration test	
PMT	Pressuremeter test	Groundwater measurements
DMT	Dilatometer test	GW Groundwater measurements
FVT	Field vane test	GWO Groundwater measurements with open system
PLT	Plate load test	GWC Groundwater measurements with closed system
MWD	Measuring while drilling	
SE	Seismic measurements	
PIL	Pile load test	
RDT	Rock dilatometer test	
Notes:		
Soils include naturally deposited and anthropogenic deposits		
Surveying and logging are not included in this chart		
Laboratory tests are not presented on this table		

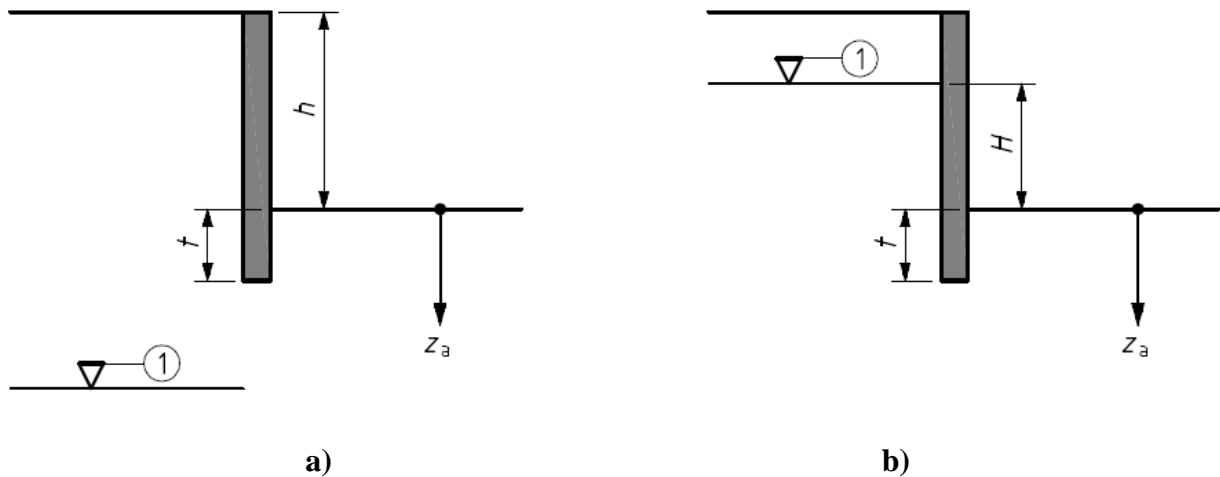
".

15) Modifications to B.3

Paragraph (10), entry b), replace "If no stratum which is slightly permeable to groundwater is encountered" with "If no stratum of low permeability is encountered".

Replace Figure B.5 with the following one:

"



".

16) Modification to D.3

Paragraph (2), replace:

" t is the time, in years"

with:

" z_i is the depth influenced by the foundation pressure and width, respectively, in m".

17) Modification to D.4

Paragraph (1), replace Table D.2 with the following table:

"

Soil	q_c	α
Low-plasticity clay	$q_c \leq 0,7 \text{ MPa}$	$3 < \alpha < 8$
	$0,7 < q_c < 2 \text{ MPa}$	$2 < \alpha < 5$
	$q_c \geq 2 \text{ MPa}$	$1 < \alpha < 2,5$
Low-plasticity silt	$q_c < 2 \text{ MPa}$	$3 < \alpha < 6$
	$q_c \geq 2 \text{ MPa}$	$1 < \alpha < 2$
Very plastic clay	$q_c < 2 \text{ MPa}$	$2 < \alpha < 6$
Very plastic silt	$q_c > 2 \text{ MPa}$	$1 < \alpha < 2$
Very organic silt	$q_c < 1,2 \text{ MPa}$	$2 < \alpha < 8$
Peat and very organic clay	$q_c < 0,7 \text{ MPa}$	
	$50 < w \leq 100 \text{ (}\%)$	$1,5 < \alpha < 4$
	$100 < w \leq 200 \text{ (}\%)$ $w > 200 \text{ (}\%)$	$1 < \alpha < 1,5$ $0,4 < \alpha < 1,0$
Chalks	$2 < q_c \leq 3 \text{ MPa}$	$2 < \alpha < 4$
	$q_c > 3 \text{ MPa}$	$1,5 < \alpha < 3$
Sands	$q_c < 5 \text{ MPa}$	$\alpha = 2$
	$q_c > 10 \text{ MPa}$	$\alpha = 1,5$

".

18) Modifications to D.5

Paragraph (1), formula, replace " σ'_{v0} " with " σ'_v ".

Paragraph (2), replace twice "(range of validity: $5 \leq q_c \leq 30$)" with "(range of validity: $5 \text{ MPa} \leq q_c \leq 30 \text{ MPa}$)".

Paragraph (2), replace "(range of validity: $0,6 \leq q_c \leq 3,5$)" with "(range of validity: $0,6 \text{ MPa} \leq q_c \leq 3,5 \text{ MPa}$)".

19) Modifications to D.7

Paragraph (2), key to the formulas, replace " $F_{\text{max;shaft;z}}$ " with " $p_{\text{max;shaft;z}}$ ".

Paragraph (3), replace:

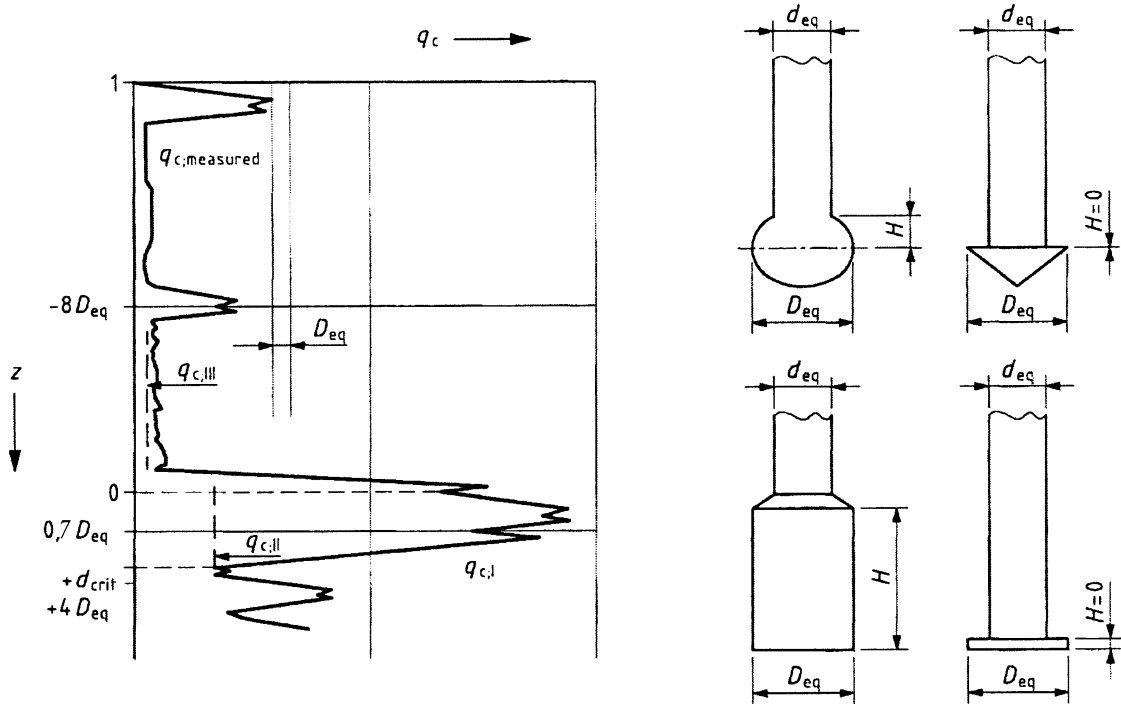
$$"0,8D_{\text{eq}} < d_{\text{crit}} < 4D_{\text{eq}}"$$

with:

$$"0,7D_{\text{eq}} < d_{\text{crit}} < 4D_{\text{eq}}"$$

Paragraph (4), replace Figure D.2 with the following figure:

"



"

20) Modifications to E.2

Paragraph (1), formula for the calculation of s , replace "a" with " α " as exponent.

Paragraph (1), Table E.3, 3rd column (E_M/p_{LM}), 3rd row (Clay - Over-consolidated), replace "<16" with ">16".

21) Modification to F.1

Paragraph (3), replace Table F.1 and the following line immediately under it:

"

	Very loose	Loose	Medium	Dense	Very dense
$(N_1)_{60}$	0 – 3	3 – 8	8 – 25	25 – 42	42 – 58

I_D 0 % – 15 % 15 % – 35 % 35 % – 65 % 65 % – 85 % 85 % – 100 %

For $I_D > 0,35$ it corresponds to $(N_1)_{60}/I_D^2 \cong 60$."

with the following table:

"

	Very loose	Loose	Medium	Dense	Very dense
$(N_1)_{60}$	0 – 3	3 – 8	8 – 25	25 – 42	42 – 58
I_D	0 % – 15 %	15 % – 35 %	35 % – 65 %	65 % – 85 %	85 % – 100 %

".

22) Modifications to I.5

Paragraph (3), formula, replace "1,5" with "-0,15" as exponent of the second factor.

Paragraph (4), formula, replace $\mu = \left(\frac{0,43}{w_L} \right) \times \left(\frac{c_{fv}}{0,585w_L \times \sigma'_{v0}} \right)^{0,15}$ with

$$\mu = \left(\frac{0,43}{w_L} \right)^{0,45} \times \left(\frac{c_{fv}}{0,585w_L \times \sigma'_{v0}} \right)^{-0,15}.$$

Paragraph (4), NOTE, replace:

"NOTE This equation stems from Hansbo. (1957). For additional information see X.3.6."

with:

"NOTE The equation $c_{fv} = 0,45 \times w_1 \times \sigma'_p$ stems from Hansbo (1957). For additional information see X.3.6."

23) Modification to Annex J

Paragraph (1), replace " $3,0 \geq I_{DMT} \geq 10$ " with " $I_{DMT} \geq 3$ ".

24) Modification to K.2

Figure K.1, just above the figure number and title, delete:

"Error! Unknown switch argument."

25) Modification to X.3

Title of the clause and footnote, replace footnote number "7" with "8" in the title and in the footnote at the bottom of the page.