

CYS National Annex to CYS EN 1998-5:2004

Eurocode 8:

Design of structures for earthquake resistance

Part 5: Foundations, retaining structures and geotechnical aspects

Prepared by: Eurocodes Committee, Scientific and Technical
Chamber of Cyprus under a Ministry of Interior's Programme



NATIONAL ANNEX

TO

**CYS EN 1998-5:2004 Eurocode 8: Design of structures for
earthquake resistance**

**Part 5: Foundations, retaining structures and
geotechnical aspects**

**This National Annex has been approved by the Board of Governors of the Cyprus
Organisation for Standardisation on 11/06/2010.**

INTRODUCTION

This National Annex has been prepared by the Eurocodes Committee of the Technical Chamber of Cyprus which was commissioned by the Ministry of Interior of the Republic of Cyprus

NA 1 SCOPE

This National Annex is to be used together with CYS EN 1998-5:2004

This National Annex gives:

- (a) Nationally determined parameters for the following clauses of CYS EN 1998-5:2004 where National choice is allowed (see Section NA 2)
- 1.1(4)
 - 3.1(3)
 - 4.1.4(11)
 - 5.2(2)c)
- (b) Decisions on the use of the Informative Annexes A, C, D, and F (see Section NA 3)
- (c) References to non-contradictory complementary information to assist the user to apply CYS EN 1998-5:2004. In this National Annex such information is provided for the following clauses in CYS EN 1998-5:2004 (see Section NA 4)

NA 2 NATIONALLY DETERMINED PARAMETERS

NA 2.1 Clause 1.1 (4) Scope of CYS EN 1998-5:2004

Annexes A, C, D and F are informative and can be used in the design of geotechnical aspects.

NA 2.2 Clause 3.1 (3) Partial factors for materials

The partial factors for the following soil strength parameters are:

1. Undrained shear strength c_u is $\gamma_{cu} = 1,4$.
2. Cyclic undrained shear strength $\tau_{cy,u}$ is $\gamma_{tcy} = 1,25$.
3. Unconfined compressive strength q_u is $\gamma_{qu} = 1,4$.
4. The tangent of the angle of shearing resistance in terms of effective stress $\tan\phi'$ is $\gamma_{\phi'} = 1,25$.

NA 2.3 Clause 4.1.4 (11) Reduction factor at damage limitation state

To achieve a safety factor of 1,25, the earthquake induced shear must not exceed $\lambda = 0,8$ of the critical stress known to have caused liquefaction in previous earthquakes.

NA 2.4 Clause 5.2 (2)c) Reduction of peak ground acceleration

If it is justified by an appropriate study, the value of the peak ground acceleration $\alpha \cdot S$ can be decreased to $p \cdot \alpha \cdot S$. The value of p can not be lower than $p = 0,65$.

NA 3 DECISION ON USE OF THE INFORMATIVE ANNEXES A, B, C, D, E AND F

NA 3.1 Annex A

Annex A may be used.

NA 3.2 Annex C

Annex C may be used.

NA 3.3 Annex D

Annex D may be used.

NA 3.4 Annex F

Annex F may be used.

NA 4 REFERENCES TO NON-CONTRADICTIONARY COMPLEMENTARY INFORMATION

None

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