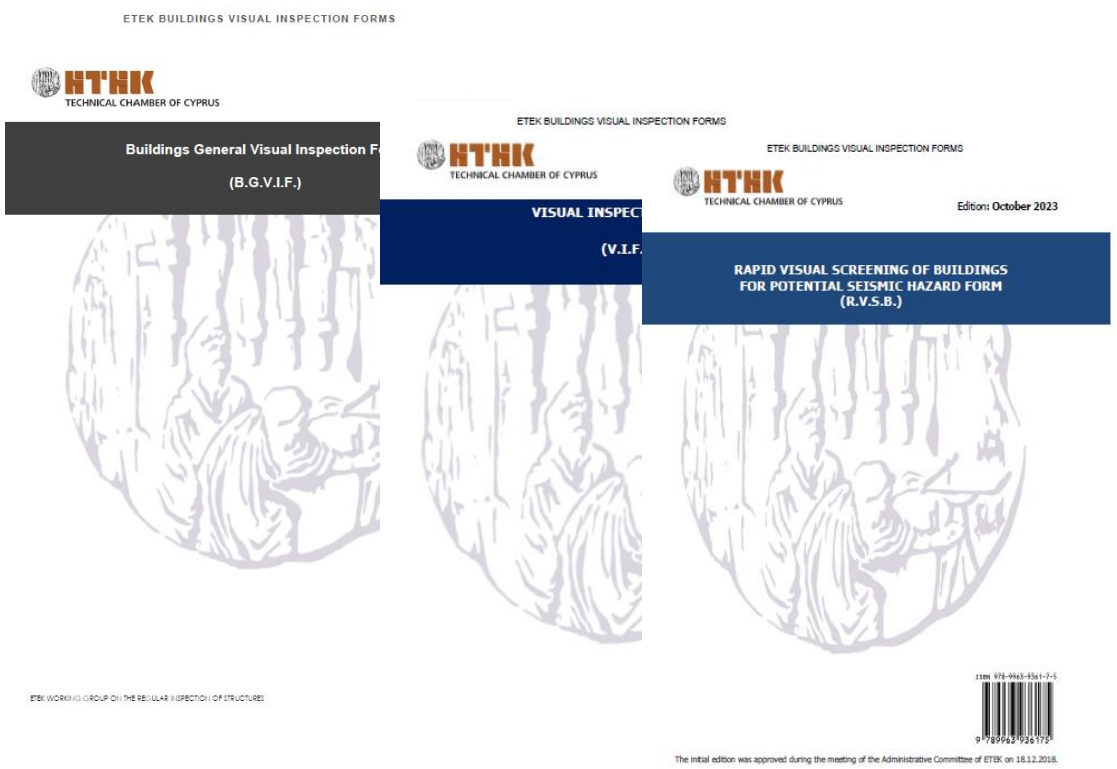
European Council of Civil Engineers

Scientific and Technical Chamber of Cyprus (ETEK)
Visual Inspection of Buildings – The Cyprus way



Platonas Stylianou
ECCE Vice President/President elected

78th ECCE General Meeting, Riga, Latvia, May 2024

Forms for the Visual Inspection of Buildings

The Regular Inspection of Buildings Committee of the Scientific and Technical Chamber of Cyprus (ETEK) has prepared and published a series of **methodologies and forms for the visual inspection of buildings** with the scope of:

a. **Identifying and addressing visually apparent problems** in buildings that may pose a safety risk to its users and passers-by.

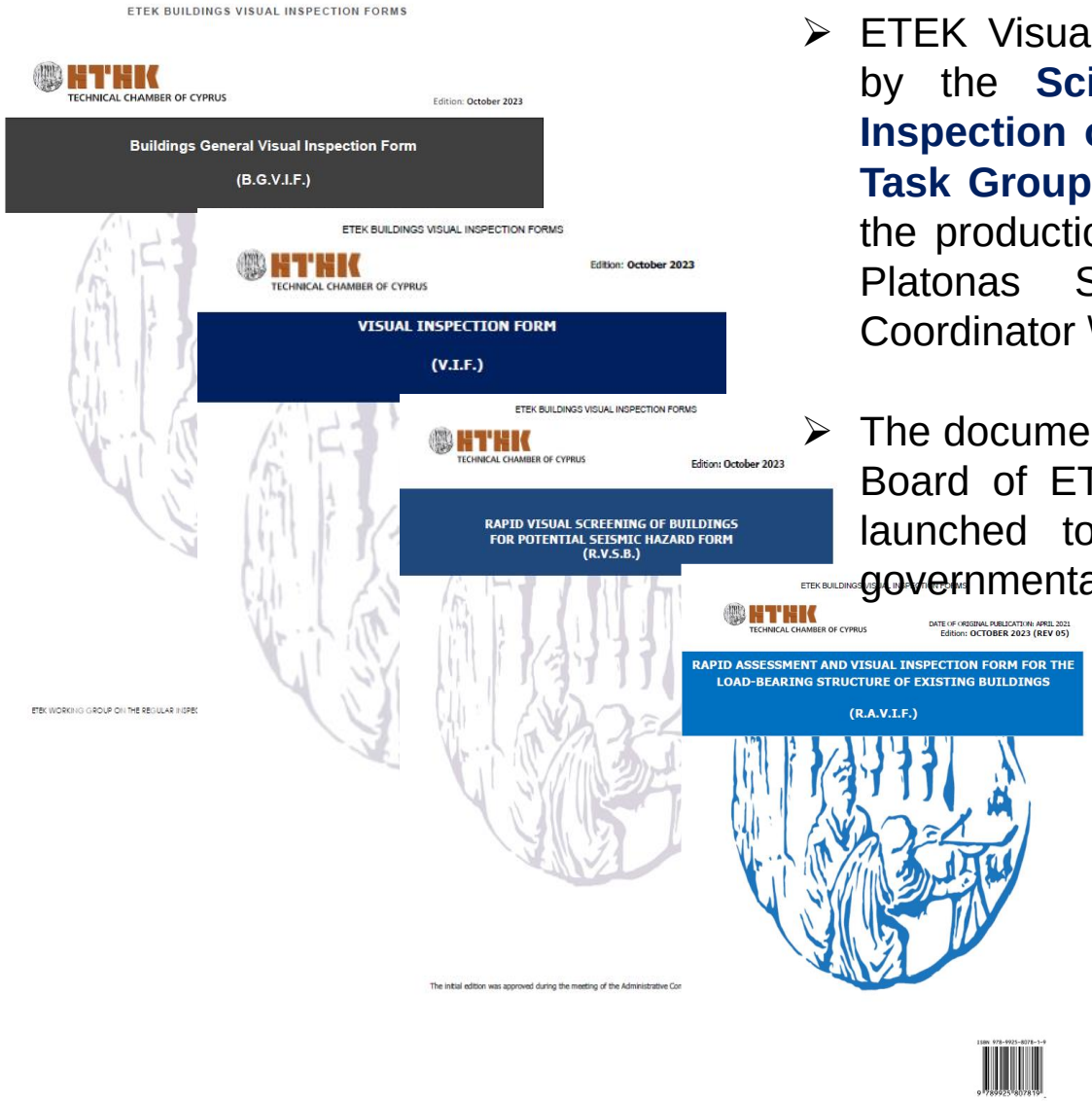
b. Producing an easy to use tool to be used by Engineers.

c. Ensuring the **safety of building users and the general public.**

d. Encouraging the **regular visual inspections of buildings**.

e. providing a **common methodology** for the visual inspections of buildings

f. Serve as tool for the development of an **Electronic Buildings' Identity Registry**



- ETEK Visual Inspection Forms have been prepared by the **Scientific Committee for the Regular Inspection of Structures (TEK)** and by **an Ad Hoc Task Group** appointed by ETEK executive board for the production of R.A.V.I.F. forms. For both of them, Platonas Stylianou was the Working Group Coordinator \ Chair person.

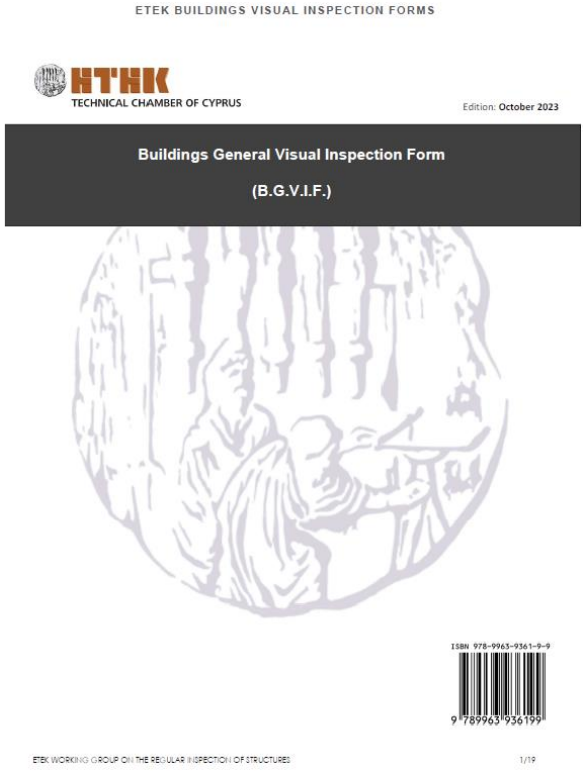
- The documents have been approved by the Executive Board of ETEK and are officially published, openly launched to the public and disseminated to all governmental departments.

ETEK Forms for the Visual Inspection of Buildings

A. Visual Inspection Form (V.I.F.)

- Guidelines for the **Visual Inspection** of **Load-Bearing and other non-load bearing elements of buildings,** by Civil Engineers identifying, recording and addressing apparent problems in a building's structure, as a means of **ensuring the safety of buildings' users and of public safety.**

B. Buildings General Visual Inspection Form (B.G.V.I.F.)



Guidelines for the **Visual Inspection** of:

- **B.1: Architectural and other non-load bearing elements**
- **B2: Load Bearing / Structural Elements**
- **B3: Electrical Installations**
- **B4: Mechanical Installations**




FORM No.: .....

VISUAL INSPECTION FORM (V.I.F.) (October 2023)

SECTION A: IDENTITY OF BUILDING

1. DISTRICT: .....
2. MUNICIPALITY/COMMUNITY: ..... Sheet/Plan: ..... Block: ..... Parcel: .....
3. ADDRESS: .....

.....P.C. ..... Tel.: .....

4. COMPLEX: ..... 4a. BUILDING: .....

4a. GEOGRAPHICAL POSITION OF BUILDING (COORDINATES): X:..... Y:.....

5. BUILDING USE: Initial: ..... Current: .....
6. USER: .....
7. OWNER: .....
8. CONTRACTING AUTHORITY: .....
9. MAXIMUM NUMBER OF PERSONS OCCUPYING THE BUILDING:

UP TO 10 ☐ 10 - 100 ☐ >100 ☐ Estimated number of occupants ☐

SECTION B: TECHNICAL INFORMATION OF THE BUILDING

10. NUMBER OF FLOORS: ..... NUMBER OF BASEMENTS: .....

11. FLOOR PLAN AREA: .....

12. TOTAL BUILT AREA: .....

13. YEAR OF DESIGN: .....

14. YEAR OF CONSTRUCTION: ..... 14a. YEAR OF LAST ADDITION/ EXTENSION: .....

15. AVAILABILITY OF STRUCTURAL DESIGN / STRUCTURAL DRAWINGS: YES ☐ NO* ☐

15a. AVAILABILITY OF GEOTECHNICAL STUDY OR OF THE GEOTECHNICAL CHARACTERISTICS OF THE SUBSOIL: ..... YES ☐ NO ☐

16. HAS THE STRUCTURAL DESIGN BEEN USED FOR THE INSPECTION? YES ☐ NO ☐

17. IS THE BUILDING CLASSIFIED AS LISTED? ..... YES ☐ NO ☐

18. HAS THE BUILDING UNDERGONE REPAIR/STRUCTURAL UPGRADING? YES ☐ NO ☐

IF YES, FOR WHAT REASON AND WHEN: .....

.....

18a. IMPACT IN RELATION TO ADJACENT STRUCTURES: YES ☐ NO ☐

IF SO, PLEASE SPECIFY: .....

FORM No.: .....
(V.I.F.)

VISUAL INSPECTION FORM (V.I.F.)

SECTION C: ELEMENTS OF INSPECTION

20. EXTERIOR	YES	NO	IF YES, PLEASE ASSESS ** I	II	III
i. Damage to beams, slabs, cantilevers	☐	☐	☐	☐	☐
ii. Deflection of beams, slabs, cantilevers.....	☐	☐	☐	☐	☐
iii. Damage to columns / shear walls	☐	☐	☐	☐	☐
iv. Damages to load bearing walls	☐	☐	☐	☐	☐
v. Damages to non-load bearing walls.....	☐	☐	☐	☐	☐
vi. Settlement /Displacement	☐	☐	☐	☐	☐
vii. Damages to glazing units/ windows/ doors	☐	☐	☐	☐	☐
viii. Damages to cladding	☐	☐	☐	☐	☐
ix. Damages to awnings (canopies)	☐	☐	☐	☐	☐

x. Condition of Concrete: Good ☐ Moderate ☐ Poor ☐

Observations/Notes:

.....

.....

.....

.....

21. INTERIOR

		YES	NO	IF YES, PLEASE ASSESS ** I	II	III
i.	Damage to beams, slabs, cantilevers	☐	☐	☐	☐	☐
ii.	Deflection of beams, slabs, cantilevers	☐	☐	☐	☐	☐
iii.	Damage to columns / shear walls	☐	☐	☐	☐	☐
iv.	Damages to load bearing walls	☐	☐	☐	☐	☐
v.	Damages to non-load bearing walls	☐	☐	☐	☐	☐
vi.	Damages to suspended ceilings	☐	☐	☐	☐	☐
vii.	Damages to balustrades (railings)	☐	☐	☐	☐	☐
viii.	Settlement /Displacements.....	☐	☐	☐	☐	☐
ix.	Condition of Concrete: Good ☐ Moderate ☐ Poor ☐					

Observations/Notes:

.....

.....

.....

** **I: Insignificant II: Not concerning III: Concerning**

Note: A Successful Visual Inspection Certificate is not issued in cases where damages are deemed to concerning (III).

FORM No.: .....
(V.I.F.)

VISUAL INSPECTION FORM (V.I.F.)

SECTION D: ROOF INFORMATION **

22. ROOF TYPE	Timber n ☐	Steel ☐	Reinforced Concrete ☐	Other ☐
23. BEARING OF ROOF STRUCTURE	Satisfactory ☐	Non Satisfactory* ☐		
24. NODES / CONNECTIONS	Satisfactory ☐	Non Satisfactory* ☐		
25. DEFLECTION	NO ☐	YES* ☐		

* A Successful Visual Inspection Certificate is not issued. Further Checks required.
** Ensure that adequate and safe access is provided to the Inspecting Engineers.

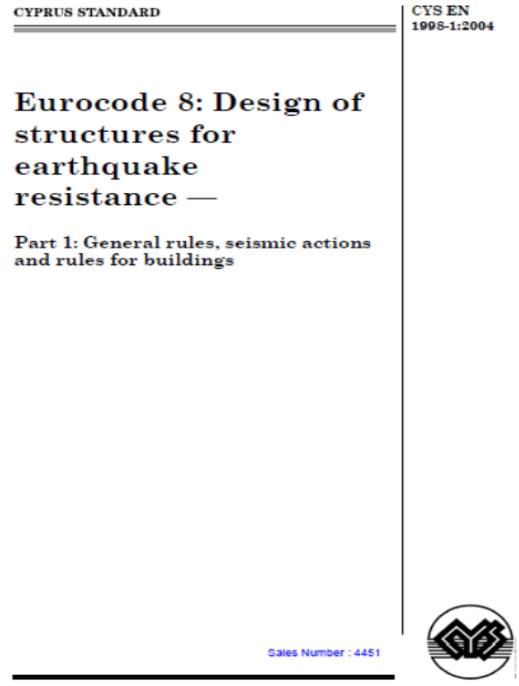
SECTION F: FINDINGS

Based on all of the above sections there are / there are no visually apparent areas of concern in the building and a "Successful Visual Inspection Certificate"/ "Visual Inspection Certificate with Observations – Re-inspection Required"/ "Unsuccessful Visual Inspection Certificate" is issued.

26. DETAILS OF INSPECTING ENGINEERS:

1. SIGNATURE:	2. SIGNATURE: .....
NAME:	NAME: .....
ETEK Member Register Number:	ETEK Member Register Number: .....
Civil Engineer	Architect

27. DATE OF INSPECTION: .....


CYPRUS STANDARD

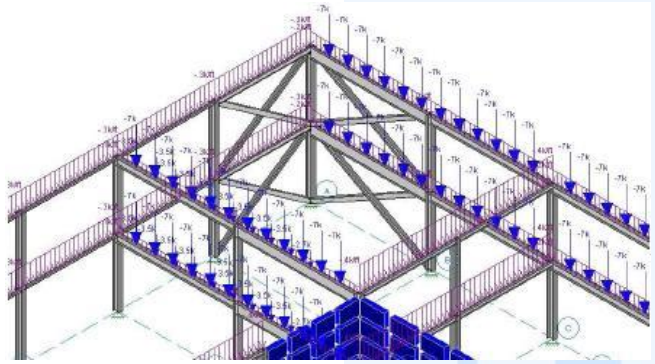
CYS EN 1998-1:2004

Eurocode 8: Design of structures for earthquake resistance —

Part 1: General rules, seismic actions and rules for buildings

Sales Number : 4451

Note: **It is highlighted that by carrying out inspections and visual checks of a building using the V.I.F. form, is not equivalent to assessing the load-bearing capacity and/or structural capacity of the building, which, if required, should be carried out in accordance with the requirements of Eurocode 8, Part 3 (CYS EN 1998-3:2005).**



Section: Dangerous Buildings

Is the building or part of it deemed dangerous to public safety?

YES ☐ NO ☐

- **If the building is considered dangerous to public safety, the competent authority is informed**, so that the necessary actions pursuant to Articles 15, 15A and 15B of the Regulation of Streets and Buildings Law are taken.

3 types of Certificates Issued, following Visual Inspection

78th ECCE general meeting

SUCCESSFUL VISUAL INSPECTION CERTIFICATE

(Certificate no. 1)

We, the undersigned .....with ETEK Member Registration no: ....., Civil Engineer and ....., ETEK Member Registration no: ....., Architect, declare that on ..... (dd/mm/yyyy) the building ..... located in the Municipality/Community of ....., at the address .....

.....

has been inspected and after visual inspection (refer to Visual Inspection Form (V.I.F.) No. .....), no apparent problems were observed in the structure.

Signature: ..... Signature: .....

Name of Inspecting Engineer: ..... Name of Inspecting Engineer: .....

Seal/Stamp: ..... Seal/Stamp: .....

Note: It is highlighted that the carrying out of inspections and visual checks on the load-bearing structure of a building using the V.I.F. form is not equivalent to rapid visual screening of buildings for potential seismic hazard nor to assessing the load-bearing capacity and/or structural capacity of the building, which if required should be carried out in accordance with the requirements of Eurocode 8, Part 3 (CYS EN 1998-3:2005).

VISUAL INSPECTION CERTIFICATE WITH OBSERVATIONS – RE-INSPECTION REQUIRED

(Certificate no. 2)

We, the undersigned ..... with ETEK Member Registration no.: ..... Civil Engineer and ....., with ETEK Member Registration no.: ....., Architect, declare that on ..... (dd/mm/yyyy) the building ..... located in the Municipality/Community of ....., at the address .....

.....

has been inspected and after visual inspection (refer to Visual Inspection Form (V.I.F.) No. .....), apparent problems to the load-bearing structure have been observed, which are recorded on the form and for which remedial measures and subsequent re-inspection are required.

Date of re-inspection (to be determined by the Inspecting Engineers that carried out the inspection): .....

Signature: ..... Signature: .....

Name of Inspecting Engineer: ..... Name of Inspecting Engineer: .....

Seal/Stamp: ..... Seal/Stamp: .....

Note: It is highlighted that the carrying out inspections and visual checks on the load-bearing structure of a building using the V.I.F. form is not equivalent to rapid visual screening of buildings for potential seismic hazard nor to assessing the load-bearing capacity and/or structural capacity of the building, which if required should be carried out in accordance with the requirements of Eurocode 8, Part 3 (CYS EN 1998-3:2005).

UNSUCCESSFUL VISUAL INSPECTION BUILDING CERTIFICATE

(Certificate no. 3)

We, the undersigned ..... with ETEK Member Registration no.: ....., Civil Engineer and ....., with ETEK Member Registration no.: ....., Architect declare that on ..... (dd/mm/yyyy) the building ..... located in the Municipality/Community of ....., at the address .....

.....

has been inspected and after visual inspection (refer to Visual Inspection Form (V.I.F.) No.....), apparent concerning damages to the load-bearing structure have been observed, which are recorded on the form and for which, an Unsuccessful Visual Inspection Certificate is issued for the building.

Signature: .....

Name of Inspecting Engineer
Firm/ Designer: .....

Seal/Stamp: .....

Note: It is highlighted that the carrying out inspections and visual checks on the load-bearing structure of a building using the V.I.F. form is not equivalent to rapid visual screening of buildings for potential seismic hazard nor to assessing the load-bearing capacity and/or structural capacity of the building, which if required should be carried out in accordance with the requirements of Eurocode 8, Part 3 (CYS EN 1998-3:2005).

Part of ETEK forms for the Visual Inspection of Buildings is the **Methodology / guidelines for the completion of the forms:**

For instance, guidelines are provided for the visual assessment of the condition of the concrete elements (Good / Moderate / Poor). Special care must be given since the assessing relies on the judgement and experience of the Inspecting Civil Engineer.

TYPICAL EXAMPLE OF A 2-STOREY BUILDING

ΕΡΓΑΣΙΑ **ΕΝΤΥΠΟ ΟΠΤΙΚΟΥ ΕΛΕΓΧΟΥ Ε.Ο.Ε.**

ΗΜΕΡ. ΕΛΕΓΧΟΥ **23.06.2021**

ΕΝΟΤΗΤΑ Γ: ΑΝΤΙΚΕΙΜΕΝΟ ΕΠΙΘΕΩΡΗΣΗΣ

20. **ΕΞΩΤΕΡΙΚΑ**		ΝΑΙ	ΟΧΙ	ΑΝ ΝΑΙ ΑΞΙΟΛΟΓΗΣΤΕ **		
				I	II	III
I.	Βλάβες σε δοκούς, πλάκες, προβόλους	☐	☒	☐	☐	☐
II.	Βέλος κάμψης σε δοκούς, πλάκες και προβόλους	☐	☒	☐	☐	☐
III.	Βλάβες σε υποστυλώματα / τοιχεία	☐	☒	☐	☐	☐
IV.	Βλάβες σε τοιχοποιία Φέρουσα ☐ Μη φέρουσα ☒	☐	☒	☐	☐	☐
V.	Καθιζήσεις / Μετακινήσεις	☐	☒	☐	☐	☐
VI.	Βλάβες σε υαλοστάσια / παράθυρα / θύρες	☐	☒	☐	☐	☐
VII.	Βλάβες σε επενδύσεις	☐	☒	☐	☐	☐
VIII.	Βλάβες σε σκίαστρα	☐	☒	☐	☐	☐
IX.	Κατάσταση σκυροδέματος	Καλή☐		Μέτρια☒		Κακή☐

Παρατηρήσεις:

****ΠΑΡΑΠΟΜΠΗ ΣΤΟ ΠΑΡΑΡΤΗΜΑ -Η- ΓΙΑ ΦΩΤΟΓΡΑΦΙΚΗ ΤΕΚΜΗΡΙΩΣΗ****

21. **ΕΣΩΤΕΡΙΚΑ**		ΝΑΙ	ΟΧΙ	ΑΝ ΝΑΙ ΑΞΙΟΛΟΓΗΣΤΕ **		
				I	II	III
I.	Βλάβες σε δοκούς, πλάκες, προβόλους	☐	☒	☐	☐	☐
II.	Βέλος κάμψης σε δοκούς, πλάκες και προβόλους	☐	☒	☐	☐	☐
III.	Βλάβες σε υποστυλώματα / τοιχεία	☐	☒	☐	☐	☐
IV.	Βλάβες σε τοιχοποιία Φέρουσα ☐ Μη Φέρουσα ☒	☐	☒	☐	☐	☐
V.	Βλάβες σε επενδύσεις	☐	☒	☐	☐	☐
VI.	Βλάβες σε σκίαστρα	☐	☒	☐	☐	☐
VII.	Καθιζήσεις / Μετακινήσεις	☐	☒	☐	☐	☐
VIII.	Κατάσταση τηλεσκοπικών κερκίδων (εάν υπάρχουν)	Καλή☐		Μέτρια☐		Κακή☐
IX.	Κατάσταση σκυροδέματος	Καλή☐		Μέτρια☒		Κακή☐

Παρατηρήσεις: **ΑΡΙΣΤΗ ΚΑΤΑΣΤΑΣΗ ΕΣΩΤΕΡΙΚΑ ΤΟΥ ΚΤΗΡΙΟΥ / ΑΝΑΚΑΙΝΙΣΗ ΠΡΟ 3 ΜΗΝΩΝ**

Σημείωση: Τις περιπτώσεις βλαβών που κρίνονται ανησυχητικές και για τις οποίες δεν θα εκδοθεί πιστοποιητικό επιθεώρησης τοποθετήστε αστερίσκο (*).

** **I: Ανεπαίσθητες, II: Μη ανησυχητικές, III: Ανησυχητικές**

ΕΝΤΥΠΟ ΟΠΤΙΚΟΥ ΕΛΕΓΧΟΥ (ΕΟΕ)

ΕΝΟΤΗΤΑ Δ: ΣΤΟΙΧΕΙΑ ΟΡΟΦΗΣ **

22.	ΤΥΠΟΣ ΟΡΟΦΗΣ	Ξύλινη ☐	Μεταλλική ☐	Οπλισμένο Σκυρόδεμα ☒	Άλλος ☐
23.	Συμβατότητα οροφής με στατική μελέτη	ΟΧΙ ☐	Ικανοποιητική ☒	ΝΑΙ ☒ Μη ικανοποιητική ☐	*
24.	Έδραση φορέα οροφής		Ικανοποιητική ☒	Μη ικανοποιητική ☐	*
25.	Κόμβοι / Ενώσεις		Ικανοποιητική ☒	Μη ικανοποιητική ☐	*
26.	Βέλος Κάμψης		Ικανοποιητική ☒	Μη ικανοποιητική ☐	*

* Δεν εκδίδεται Πιστοποιητικό Επιθεώρησης. Απαιτείται η εκπόνηση Μελέτης.

** Να εξασφαλίζεται επαρκής και ασφαλής πρόσβαση στους Ελεγκτές Πολιτικούς Μηχανικούς

ΕΝΟΤΗΤΑ Ε: ΠΑΡΑΤΗΡΗΣΕΙΣ

1. ΤΟ ΚΤΗΡΙΟ ΕΧΕΙ ΑΝΑΚΑΙΝΙΣΤΕΙ / ΣΥΝΤΗΡΗΘΕΙ ΠΡΟ 3 ΜΗΝΩΝ ΑΠΟ ΤΟΝ ΟΠΤΙΚΟ ΕΛΕΓΧΟ (1Ο ΤΡΙΜΗΝΟ 2021). ΣΤΙΣ ΕΡΓΑΣΙΕΣ ΣΥΝΤΗΡΗΣΗΣ ΠΕΡΙΛΑΜΒΑΝΟΝΤΑΙ: ΥΓΡΟΜΟΝΩΣΗ ΣΤΕΓΗΣ, ΒΑΦΗ ΕΣΩΤΕΡΙΚΑ – ΕΞΩΤΕΡΙΚΑ Κ.Λ.Π.

   ΩΣ ΑΠΟΤΕΛΕΣΜΑ, Η ΚΑΤΑΣΤΑΣΗ ΤΟΥ ΚΤΗΡΙΟΥ ΦΑΙΝΕΤΑΙ ΚΑΛΗ.
2. Η ΜΟΝΑΔΙΚΗ ΒΛΑΒΗ ΠΟΥ ΚΑΤΑΓΡΑΦΗΚΕ ΚΑΤΑ ΤΗΝ ΔΙΑΡΚΕΙΑ ΤΟΥ ΟΠΤΙΚΟΥ ΕΛΕΓΧΟΥ, ΕΙΝΑΙ ΜΙΑ ΡΩΓΜΗ ΜΕΓΑΛΟΥ ΜΗΚΟΥΣ ΣΕ ΣΤΗΘΑΙΟ ΑΠΟ Ο.Σ. ΣΤΗΝ ΟΡΟΦΗ (ΤΟΙΧΑΡΑΚΙ ΥΨΟΥΣ 50 cm ΣΥΜΦΩΝΑ ΜΕ ΤΑ ΑΡΧΙΤΕΚΤΟΝΙΚΑ ΣΧΕΔΙΑ, ΣΤΟ ΒΑ ΤΜΗΜΑ ΤΗΣ ΟΡΟΦΗΣ).

   Η ΣΥΓΚΕΚΡΙΜΕΝΗ ΡΩΓΜΗ ΔΕΝ ΚΡΙΝΕΤΑΙ ΩΣ ΑΝΗΣΥΧΗΤΙΚΗ, ΩΣΤΟΣΟ ΣΥΝΙΣΤΑΤΑΙ Η ΑΜΕΣΗ ΕΠΙΔΙΟΡΘΩΣΗ ΤΗΣ ΩΣΤΕ ΝΑ ΑΠΟΦΕΥΧΘΕΙ ΠΕΡΑΙΤΕΡΩ ΕΠΙΔΕΙΝΩΣΗ ΤΟΥ ΠΡΟΒΛΗΜΑΤΟΣ (ΕΠΕΚΤΑΣΗ ΤΗΣ ΡΩΓΜΗΣ, ΥΓΡΑΣΙΑ ΣΤΗΝ ΟΡΟΦΗ, ΟΞΕΙΔΩΣΗ ΟΠΛΙΣΜΟΥ ΚΛΠ).

   ΦΩΤΟΓΡΑΦΙΕΣ ΤΗΣ ΡΩΓΜΗΣ ΕΠΙΣΥΝΑΠΤΟΝΤΑΙ ΣΤΟ ΠΑΡΑΡΤΗΜΑ Α.
3. ΟΙ ΕΡΓΑΣΙΕΣ ΥΓΡΟΜΟΝΩΣΗΣ ΤΗΣ ΟΡΟΦΗΣ ΚΡΙΝΟΝΤΑΙ ΩΣ ΙΚΑΝΟΠΟΙΗΤΙΚΕΣ.
4. ΣΥΜΦΩΝΑ ΜΕ ΤΟΝ ΟΠΤΙΚΟ ΕΛΕΓΧΟ ΠΟΥ ΔΙΕΝΕΡΓΗΘΗΚΕ ΚΑΙ ΔΕΔΟΜΕΝΟΥ ΤΟΥ ΕΤΟΥΣ ΚΑΤΑΣΚΕΥΗΣ ΤΟΥ ΚΤΗΡΙΟΥ, ΚΡΙΝΕΤΑΙ ΩΣ ΚΑΛΗΣ ΚΑΤΑΣΤΑΣΗΣ. ΩΣΤΟΣΟ, ΣΗΜΕΙΩΝΕΤΑΙ ΟΤΙ ΔΕΝ ΕΙΝΑΙ ΔΥΝΑΤΟΝ ΝΑ ΕΝΤΟΠΙΣΤΟΥΝ ΒΛΑΒΕΣ ΣΕ ΣΗΜΕΙΑ ΠΟΥ ΔΕΝ ΕΙΝΑΙ ΟΡΑΤΑ, ΜΕ ΑΥΤΟ ΤΟ ΕΙΔΟΣ ΕΛΕΓΧΟΥ.
5. ΣΥΜΦΩΝΑ ΜΕ ΤΟ ΕΤΟΣ ΑΝΕΓΕΡΣΗΣ, ΠΡΟΚΕΙΤΑΙ ΓΙΑ ΜΙΑ ΚΑΤΑΣΚΕΥΗ ΠΟΥ ΕΧΕΙ ΜΕΛΕΤΗΘΕΙ / ΚΑΤΑΣΚΕΥΑΣΤΕΙ ΠΡΟ ΤΗΣ ΧΡΗΣΗΣ ΑΝΤΙΣΕΙΣΜΙΚΩΝ ΚΩΔΙΚΩΝ / ΚΑΝΟΝΙΣΜΩΝ.

ΕΝΤΥΠΟ ΟΠΤΙΚΟΥ ΕΛΕΓΧΟΥ (ΕΟΕ)

ΕΝΟΤΗΤΑ Στ: ΠΟΡΙΣΜΑ

Με βάση όλες τις πιο πάνω ενότητες και την φωτογραφική τεκμηρίωση, δεν υπάρχουν εμφανή ανησυχητικά σημεία / βλάβες / αστοχίες στην κατασκευή. Το κτήριο εσωτερικά δεν εμφανίζει οποιαδήποτε μορφής βλάβη, ενώ εξωτερικά υπάρχει μόνο ένα σημείο που καταγράφεται αστοχία, η οποία κρίνεται ως τοπική, επιδιορθώσιμη και μη ανησυχητική. Ως εκ τούτου **εκδίδεται «Πιστοποιητικό Επιθεώρησης».**

Όπως τονίζεται στις παρατηρήσεις, συνίσταται η επιδιόρθωση της καταγεγραμμένης ρωγμής εντός 2 – 3 ετών, ώστε να αποφευχθούν φαινόμενα υγρασίας ή διάβρωσης του οπλισμού.

27. ΣΤΟΙΧΕΙΑ ΕΛΕΓΚΤΩΝ ΠΟΛΙΤΙΚΩΝ ΜΗΧΑΝΙΚΩΝ:

1. ΥΠΟΓΡΑΦΗ: .... 2. ΥΠΟΓΡΑΦΗ: .....

ΟΝΟΜΑΤΕΠΩΝΥΜΟ: **ΠΛΑΤΩΝΑΣ ΣΤΥΛΙΑΝΟΥ** ΟΝΟΜΑΤΕΠΩΝΥΜΟ: **ALBERTO FARINOLA**

Αριθμός Μητρώου ΕΤΕΚ: Αριθμός Μητρώου ΕΤΕΚ:

28. ΗΜΕΡΟΜΗΝΙΑ ΕΛΕΓΧΟΥ: **23/06/2021**

ΕΝΟΤΗΤΑ Ζ: ΔΗΛΩΣΗ ΙΔΙΟΚΤΗΤΗ / ΕΞΟΥΣΙΟΔΟΤΗΜΕΝΟΥ ΑΝΤΙΠΡΟΣΩΠΟΥ ΙΔΙΟΚΤΗΤΗ

Εγώ ο υποφαινόμενος ....., ιδιοκτήτης/εξουσιοδοτημένος αντιπρόσωπος του ιδιοκτήτη, δηλώνω ότι έλαβα αντίγραφο του εν λόγω εντύπου, το έχω μελετήσει και αντιληφθεί το περιεχόμενο του και τα διάφορα ευρήματα θα ληφθούν υπόψη στο πρόγραμμα συντήρησης του κτηρίου.

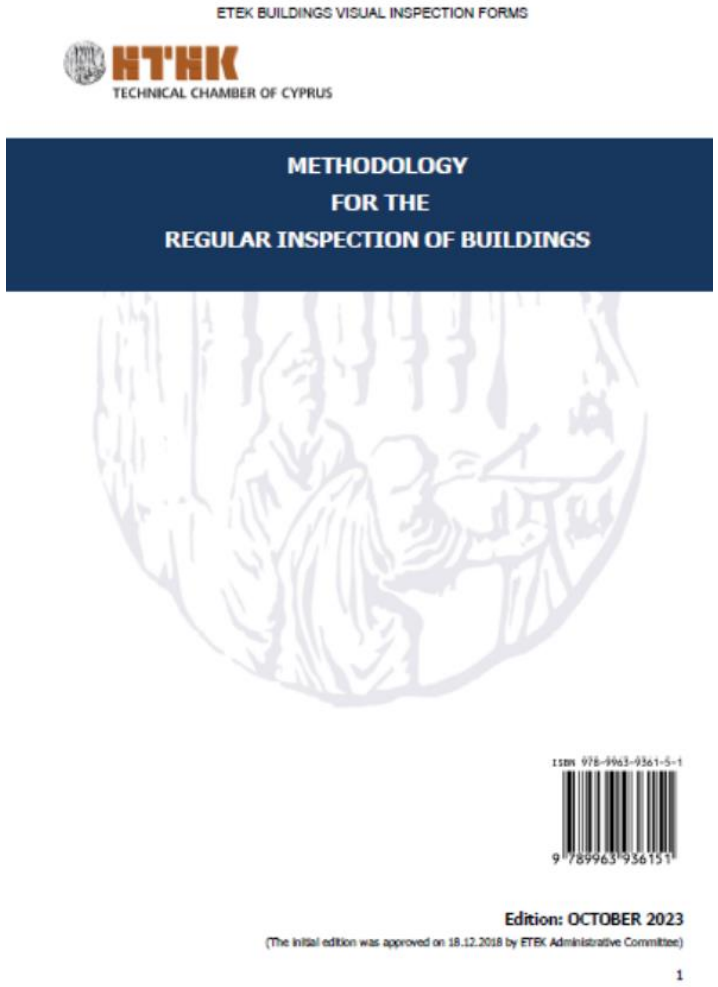
Υπογραφή .....

(Ονοματεπώνυμο) .....

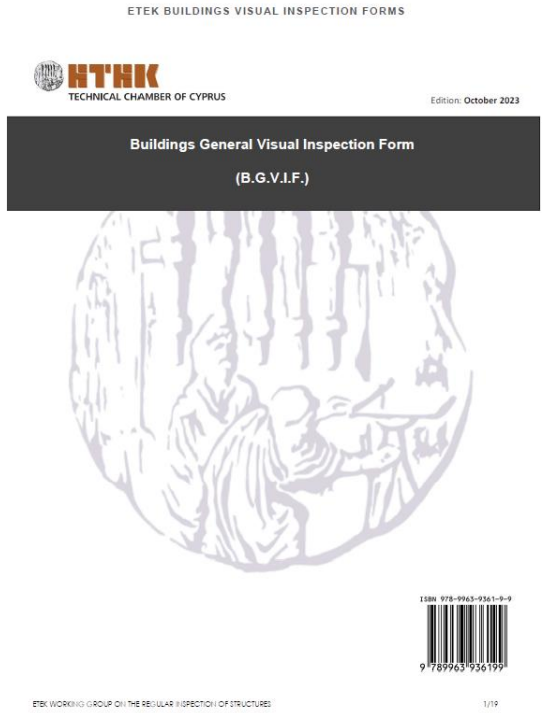
Σφραγίδα

Η επιθεώρηση και συμπλήρωση του Ε.Ο.Ε είναι αναγκαία για Δημόσια Κτήρια και για ιδιωτικές περιουσίες για μεταβίβαση, ενοικίαση, πώληση ή μίσθωση.

Methodology for the Regular Inspection of Buildings



- **A. V.I.F. and B. B.G.V.I.F. Forms,** form part of the "**Methodology for the Regular Inspection of Buildings**" also prepared and published by ETEK.



The **Methodology for the Regular Inspection of Buildings** also includes guidelines for **the frequency of visual inspection of buildings**, depending on the seismic code the building was designed (for the case of Cyprus) and the category (use) of the building, in relation to the Importance Class and according to Eurocode 8.

Regular Inspection of Buildings Table
(October 2023)

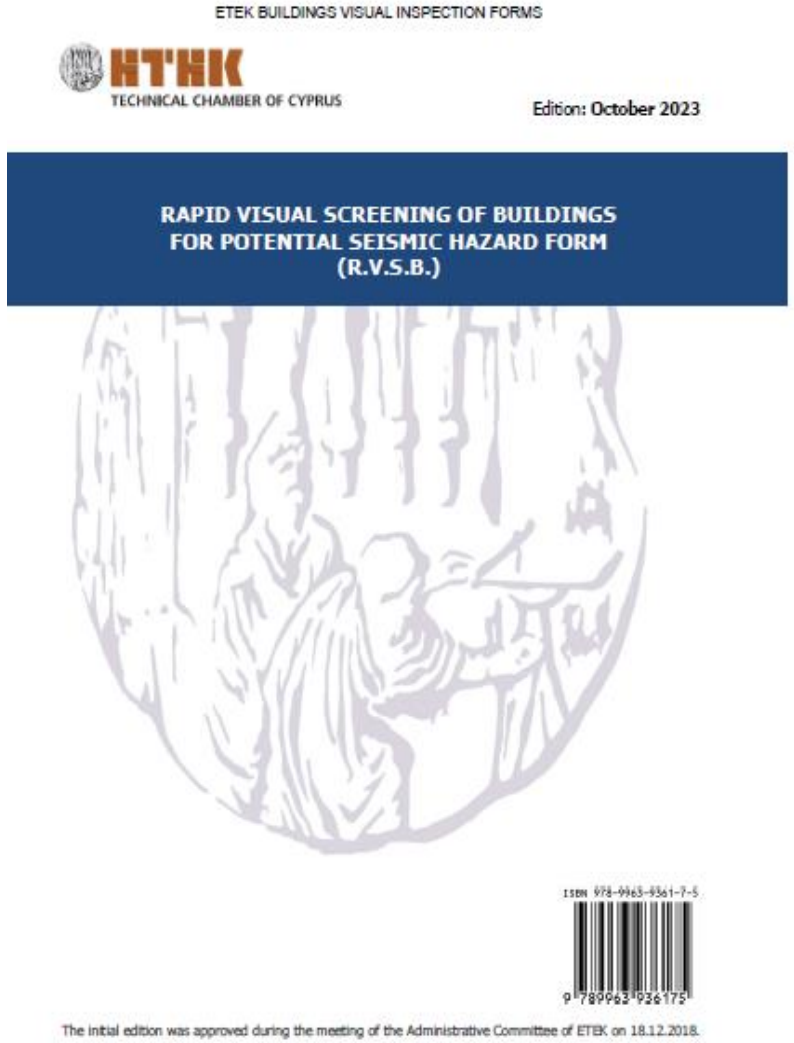
Importance class according to Table 4.3, Clause 4.2.6, EN 1998 (Eurocode 8) (1)	Type of building (2)	Frequency of inspection (in years) / First inspection (3)	Code on the basis of which the Structural/ seismic design of the structure was carried out			
			No seismic code applied (structural design before 1/1/1984) (4)	Design with Cyprus Anti-Seismic code (K.A.K.) (1/1/1984 to 31/12/2011) (5)	Design in accordance with the Eurocodes (after 1/1/2012) (6)	Initial Design prior to 01.01.2012 and seismic upgrade / additions and conversions based on the Eurocodes and seismic upgrade (7)
Public Buildings *(It is understood that public buildings have the meaning attributed to them in the Basic Regulations of the Regulation of Streets and Buildings Law)*						
III	Public Building (not including categories A.2 and A.3), Educational institutions as defined in the Basic Regulations of the Regulation of Streets and Buildings Law, Nursing Homes, Day Centres for adults and minors, Areas of public assembly and similar type Buildings	Regular inspection (in years)	5	5	15	15
		First inspection (in years following the implementation of the legislation)	2	3	10	8
IV	Buildings whose integrity during earthquakes is of vital importance for civil protection, e.g. fire stations, hospitals, clinics, power plants, etc.	Regular inspection (in years)	5	5	5	5
		First inspection (in years following the implementation of the legislation)	2	3	10	8
III (Shopping Centres) & IV (Airports)	Shopping Centres/ Airports	Regular inspection (in years)	5	5	10	8
		First inspection (in years following the implementation of the legislation)	2	3	7	8

A/A	Importance class according to Table 4.3, Clause 4.2.6, EN 1998 (Eurocode 8) (1)	Type of building (2)	Frequency of inspection (in years) / First inspection (3)	Code on the basis of which the Structural/ seismic design of the structure was carried out			
				No seismic code applied (structural design before 1/1/1984) (4)	Structural Design according to Cyprus Anti-Seismic Code (K.A.K.) (1/1/1984 to 31/12/2011) (5)	Structural Design according to the Eurocodes (after 1/1/2012) (6)	Initial Structural Design prior to 01.01.2012 and seismic upgrade and / or additions and conversions and seismic upgrade according to the Eurocodes (7)
B	**Building that do fall within category A**						
B.1	III	High rise buildings (over 12 storeys)	Regular inspection (in years)	5	7	10	10
			First inspection (in years following the implementation of the legislation)	5	7	10	10
B.2	II	Terraced buildings and buildings within special character areas /historic centres or other areas with buildings tangent to the road border or in close proximity to the road border (closer than one meter from the road border)	Regular inspection (in years)	5	7	15	15
			First inspection (in years following the implementation of the legislation)	2	5	8	8
B.3	II	Multi-storey residential buildings (Apartment blocks) (up to 12 storeys)	Regular inspection (in years)	10	10	15	15
			First inspection (in years following the implementation of the legislation)	5	5	10	10
B.4	Varies	Factories/ Craft industries with an area (of the building/premises/installations) of more than 1000 sqm.	Regular inspection (in years)	7	10	20	20
			First inspection (in years following the implementation of the legislation)	5	5	10	10

Notes:

1. In cases of buildings that fall into to more than one category, the category which requires the most frequent inspections applies.
2. Buildings built before 1/1/2012 but which were designed according to the Eurocodes (i.e. during the co-existence period of the two codes), are inspected as provided for buildings designed according to the Eurocodes.
3. The first inspection of buildings built after the implementation of the legislation for the regular inspection of buildings, shall be carried out in the time period specified in the above table, depending on the category of the building, from the date indicated in the Completion Certificate of Construction Work.
4. It is understood that the inspection of a building is carried out within a shorter time frame than that specified in the above Table for the following inspection, if this is deemed necessary for the purpose of ensuring safety issues.

ETEK has also prepared and published a methodology and Form for the **C. Rapid Visual Screening of Buildings for Potential Seismic Hazard (R.V.S.B.)** with the scope of:



- providing a **standardized methodology** for the rapid visual screening of buildings for potential seismic hazard and the **categorization with a pointing system of buildings into priority categories for further checks\ assessment**.

The development of a **Methodology for the Rapid Visual Screening of Buildings for Potential Seismic Hazard** was considered as a necessity in Cyprus, considering that:

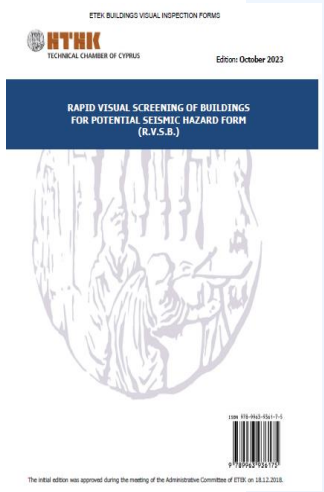
A. significant number of buildings in Cyprus has been built in time periods during which:

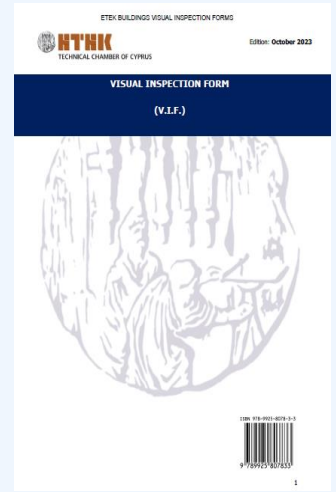
- No seismic code or less demanding seismic codes were implemented for the design of buildings.
- The mandatory supervision of construction works on site by a competent Engineer was not enforced.
- There was lack of good quality construction materials,

and **B,** that a large number of buildings is:

- of a significant age / aging building stock,
- Not regularly inspected.
- not being maintained at regular intervals
- Sometimes buildings are abandoned or not maintained at all.
- There is lack of records regarding additions and/or alternations.

1st ASSESSEMENT LEVEL - Rapid Visual Screening of Buildings for Potential Seismic Hazard



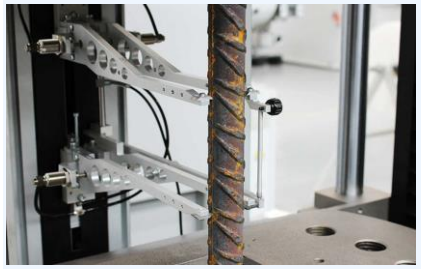


➢ **V.I.F. & R.V.S.B. forms**

2nd ASSESSMENT LEVEL - Preliminary Assessment of Vulnerability of Buildings

Includes:

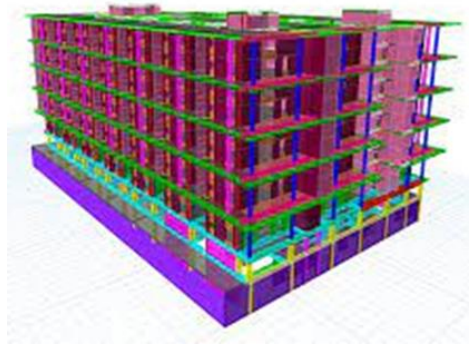
- ❑**Preliminary tests on structural elements materials** (i.e. for establishing the compressive strength of concrete / tensile strength of steel reinforcement)
- ❑**Preliminary calculations**



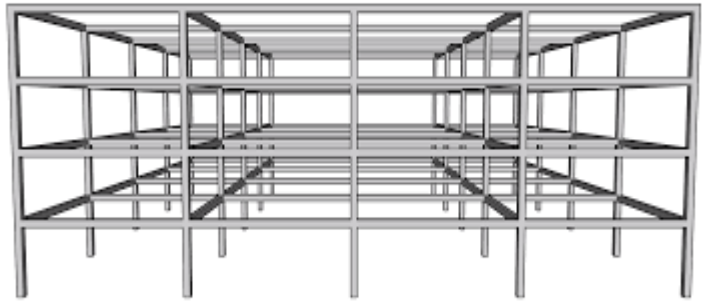
3rd ASSESSMENT LEVEL - Assessment and Retrofitting of Buildings in accordance to Eurocode 8 Part 3

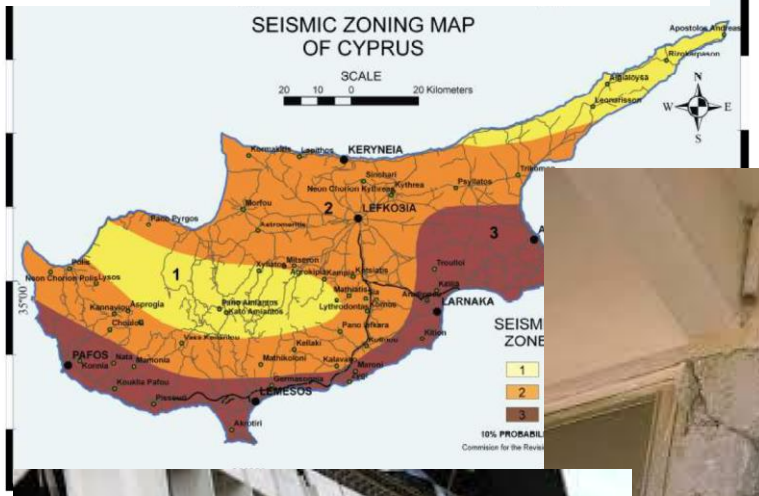
Includes:

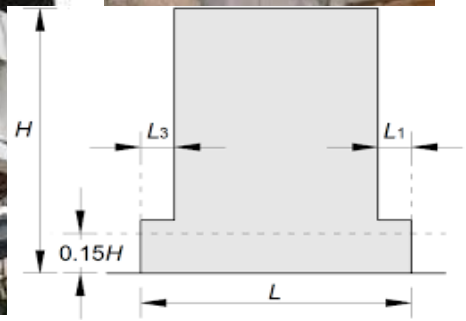
- ❑**Structural Analysis of the buildings seismic capacity** (Eurocode 8, Part 3)
- ❑**Further testing of materials properties**
- ❑**Design of the buildings structural/seismic upgrade and retrofit (if deemed necessary).**



C. Rapid Visual Screening of Buildings for Potential Seismic Hazard (R.V.S.B.) Form







Includes guidelines for the structural scoring of buildings (for categorization into priority categories for further checks), taking into account, amongst other parameters:

- The building's **Structural System**
- The **Seismic Code** implemented for the design of the building (including the case of no seismic code being implemented)
- The **Seismic Zone** in which the building falls into according to Eurocode (CYS EN 1998-1:2004)
- The **Importance Class** the building falls into (according to Eurocode 8 ((CYS EN 1998-1:2004))
- The **Ground Type** of the Building according to Eurocode 8 (CYS EN 1998-1:2004)
- The existence of e**lements related to the seismic vulnerability of the building**, such as **among others**:
  - The existence of **soft storey**
  - The existence of **short columns**
  - **Irregularity in Plan**
  - **Irregularity in Elevation**
  - **Previous Damages from Earthquakes or other dynamic events**
  - **Poor condition due to lack of maintenance or bad workmanship**

ETEK Forms for the Visual Inspection of Buildings

- The regular inspection of buildings and the aforementioned ETEK methodology are currently recommended documents (not yet legally enforced).
- Lately, the Public Work Department (PWD) started a campaign to use them for all public and governmental buildings.

- **Closing Remarks:**

a) **The lack of a common European Legislation for the Regular Inspection of Buildings is a tragic fact.**

b) **We, as ECCE must create awareness on this issue and demand for immediate actions.**

c) **Each one of us should try to help in every possible way….**

…We need your help … Safety comes first!!!

Thank you for your attention

Eur. Ing. Platonas Stylianou, B.Eng. (Hons), MSc, MCS, CEng, FICE, FCA, FCIArb.