



SACO CONSTRUCT SRL

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Trade Registry Number J40 / 9077/1993
Share capital 100,000 lei



SR EN ISO 9001: 2015
CERTIFICATE NO.1083 /
2/3/1



Name of the project:

BUILDING Ug + Gf + 8F + At

Building: 218 Calea Victoriei, District 1, Bucharest

Specialty: Strength structure

Contract: 22/2020

Phase: Technical Exec.

Beneficiary: THE "ELIE WIESEL" NATIONAL INSTITUTE FOR
THE STUDY OF THE HOLOCAUST IN ROMANIA

LIST OF SIGNATURES

Director: Dr. Eng. Tudor Andrițoiu

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MTCT certified technical expert: Dr. Eng. Tudor Andrițoiu

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SYNTHETIC REPORT



Name of the work:	Building Ug + Gf + 8F + At Technical expertise report of the existing building	
The purpose of the expertise:	- seismic performance evaluation of the current building; - Substantiation and proposing the necessary intervention decision so as to reduce seismic risk and to fix other categories of damage.	
Date of the expertise:	June 2020	
Technical expert:	Dr. Eng. Tudor Andrițoiu MTCT Certificate: series B, no. 6772/2005	
Address:	218 Calea Victoriei, District 1, Bucharest	
Category of importance (GD 766/1997)		B
Importance class and earthquake exposure (P100-1 / 2013)		II
Construction period:	Unit A: 1943-1946 Unit B: 1967-1968	
Building function:	Offices	
Total above-ground height (m):	36.60 Number of levels: Ug + Gf + 8F + At	

Built area (sq.m.): 1311.16		Built area (sq.m.): 8918	
Structural system:	<p>Foundations: of the “isolated” type under the pillars and “continuous” type under the brick walls. Basement: reinforced concrete frames and brick walls, arranged in a perimeter. Superstructure: reinforced concrete frames and reinforced concrete floors (consisting of main beams, secondary beams and slabs) and mixed frames (consisting of reinforced concrete beams, ceramic blocks and probably a reinforced over-concreting). Roof: attic type (made of a wooden frame and a sheet metal cover) and a walk-on terrace (consisting of a reinforced concrete floor). Vertical traffic: two reinforced concrete stairs (GF. ÷ F5, Ug ÷ F5 and F5 ÷ At) and two elevators (Gf. ÷ F5 and Ug. ÷ F8) - Unit A, as well as a reinforced concrete staircase (Ug ÷ F6) - Unit B.</p>		
Non-structural components:	<p>Partitions: brick walls, wooden walls and metal walls (with windows). Enclosures: brick walls.</p>		
Seismic action (probability of exceeding in 50 years) SLS: 70% SLU: 20%			
Check at Ultimate Limit Status (SLU):			
Used assessment methodology (P100-3 / 2019):		1 2 3	
Degree of fulfillment of seismic composition conditions, R ₁ :		55 - Unit A 57 - Unit B	
Degree of structural damage, R ₂ :		70 - Unit A 70 - Unit B	
Degree of seismic structural assurance, R ₃ :		45 ÷ 55 - Unit A 45 ÷ 55 - Unit B	
Seismic risk class that the construction was classified into, R _s :		I II III IV	
Description of the seismic risk class:		Buildings prone to major damage due to the design in case of earthquake, corresponding to the Ultimate Limit State, which endangers the safety of users, but under which total or partial collapse is unlikely.	
Check of the Service Limit Status (SLS)		Relative level displacements are higher than the admissible values (5 ‰) in both directions: “X” (parallel to Calea Victoriei) and in the “Y” direction (perpendicular to Calea Victoriei).	
Conclusions:	<p>The building is included into the RsII seismic risk class. The reduction of the seismic risk of the building can be done only by measures meant to increase the strength and rigidity of the structural system, respectively by changing the structural system from reinforced concrete frames to a dual structure with predominant walls. The proposed measures are described in chapter 15 of the technical expertise report. After performing interventions upon the strength structure, the building could be included in the seismic risk class RsIV, thus “belonging to a class of buildings where the expected seismic response, under the effect of the</p>		

	design earthquake, corresponding to the Ultimate Limit State, is similar to that expected for buildings designed on the basis of technical regulations in force”.				
The need of intervention works:		Yes		No	
Seismic risk class after carrying out the intervention works (estimated) Rs:	I	II	III	IV	