

**WHE-PAGER PROJECT: BUILDING CONSTRUCTION VULNERABILITY AND INVENTORY**

This form is divided into 3 parts:

- Part I: Contributors' Information**
- Part II: Summary of Construction Types, Vulnerability and Population**
- Part III: Colleagues Consulted, Additional Sources of Information Used**

**PART I: Contributors' Information**

1. Country or Region (if you are only responding for part of a country, please indicate which geographic region.

Note: the WHE strongly prefers national estimates, unless you have data that clearly apply to only one region):

Switzerland

2. Name(s) of Contributors

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3. Affiliation (Organization)

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5. E-mail

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6. Your self-rating of expertise or confidence: On a scale of 1=low and 5=high, please estimate your level of expertise:

2

(referring to inventory)

**Part II: Summary of Construction Types, Vulnerability and Population**

Construction Material (choose from drop-down list)	Construction Subtype (Choose from drop-down list--refer to instructions to see complete list)	Probability of collapse (%) of building type when subjected to the specified shaking intensity				Fraction of population who LIVES in this building type		Fraction of population who WORKS in this building type		Peak average # of occupants per building
		IX (-0.65-1.24g)	VIII (-0.34-0.65g)	VII (-0.18-0.34g)	VI (-0.092-.18g)	urban	rural	urban	rural	
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For other combinations, use blank fields below:										
21	Masonry	Rubble stone in mud or lime mortar or without mortar	50-100	30-60	5-15	<5	2	11	1	2
22	Masonry	Massive stone masonry (in lime/cement mortar)	35-55	5-15	<5	0	5	14	4	3
23	Masonry	Unreinforced brick masonry in cement mortar with reinforced concrete floor/roof slabs	5-15	<5	<1	0	5	14	2	2
24			20-40	2-20	<2	0	9	14	4	2
25	Structural concrete	Concrete moment resisting frames with unreinforced masonry infill walls	5-15	<5	<1	0	1	0	14	5

26	Structural concrete	Concrete shear walls cast in-situ	5-15	<5	<1	0	9	7	11	3	___
27	Structural concrete	Concrete moment resisting frame with concrete shear walls--dual system	5-15	<5	<1	0	1	0	11	5	___
	Structural concrete	Concrete moment resisting frame precast frame structure	10-20	2-10	<2	0	0	0	11	3	___
	Wood	Load-bearing timber frame post and beam frame	<5	<2	0	0	0	11	0	3	___
	Steel	Steel moment resisting frame with brick masonry partitions	<5	<1	0	0	0	0	14	5	___

**Part III: Colleagues Consulted, Additional Sources of Information Used**

1 Name   
Affiliation   
Mailing address   
e-mail

2 Name   
Affiliation   
Mailing address   
e-mail

3 Name   
Affiliation   
Mailing address   
e-mail

4 Sources of information you used (websites, publications, etc.) Please provide as much detail as possible.

Pfyl-Lang K., Zwicky P., Kind F., Zbinden A.: "Seismic Vulnerability Functions for Switzerland", Proceedings 1st Europea  
Steimen S., Fäh D., Giardini D., Bertogg M., Tschudi S.:  
"Reliability of Building Inventories in Seismic Prone Regions",  
Bulletin of Earthquake Engineering, vol. 2, pp.361-388, 2004  
Brennet G., Peter K., Badoux M.: "Vulnérabilité et risque sismique de la ville Aigle, 1ère partie: Inventaire sismique et vulnérabilité du bâti traditionnel", Institut des Structures, Laboratoire de construction en Béton, EPFL, 2001

5 Additional comments

1. Construction types that represent a very small percentage only are neglected (i.e. reinforced concrete structures with earthquake resistant design). /2. Collapse, i.e. 50% volume reduction, is interpreted as Damage Grade 4 + 5 according to EMS 98. /3. Urban areas are defined as towns with more than 50'000 rather than 400 people per km2 as in Switzer-land also in small towns and villages people live close together, i.e. have more than 400 people per km2.