**Table S1.** Building code design and construction requirements on masonry buildings' storey number, materials, measures and openings, with respect to building code era, where n designates number of storeys;  $h_{tot}$  total height of the structure from the top of the foundation; h clear height of a masonry wall;  $h_{ef}$  effective height of the wall;  $h_{1,h_2}$  clear height of an openings (door, window);  $h_{wp}/l_{wp}$  height to length ratio of a wall part between the openings, where height is measured from the top of the floor or parapet up to the opening upper edge; l length of the wall;  $l_o$  opening length;  $t_{min}$  minimal thickness of a wall;  $t_{ef}$  effective thickness of the wall;  $f_{b,min}$  and  $f_{bh,min}$  minimum normalized compressive strength of masonry units normal and parallel to the bed face, respectively;  $f_m$  minimum compressive strength of mortar;  $\rho_{A,min}$  minimum sum of cross-sectional areas of horizontal shear walls in each direction, as percentage of the total floor area per storey; n/a not acceptable.

Building Code Time- Period		19	965-1981 [38]		1981 [	-1998 39]		199	99-2012 [40-42]		2013 an	d ongoing [35-37]
					N	umber o	f Sto	reys:				
a) Buildings with		VII	n = 5 (h <sub>tot</sub> = 18 m)		VII	n = 3		<0.20	$n = 3 \ (\rho_{a.min} = 3.0\%)$		≤0.10	$n = 3 (\rho_{a.min} = 5.0\%)$
elements and RCslabs		VIII	n = 4 (h <sub>tot</sub> = 15 m)		VIII	n = 2		≥0.20	$n = 2 (\rho_{a.min} = 5.0\%)$		≤0.15	$n = 2 \ (\rho_{a.min} = 5.0\%)$
[44])	°MCC	IX	n= 3 (h <sub>tot</sub> = 11 m)	°MCC	IX	n/a	PGA	≥0.30	$n = 2 \ (\rho_{a.min} = 6.0\%)$	PGA	≤0.20	n/a
b) Buildings with	- MC3	VII	n = 5 (h <sub>tot</sub> = 20 m)	MCS	VII	n = 4	(g)	<0.20	$n = 4 \ (\rho_{a.min} = 2.0\%)$	(g)	≤0.10	$n = 4 \ (\rho_{a.min} = 5.0\%)$
horizontal and vertical confined elements and		VIII	n = 4 (h <sub>tot</sub> = 20 m)	-	VIII	n = 3	_	≥0.20	$n = 3 (\rho_{a.min} = 4.0\%)$	_	≤0.15	$n = 3 (\rho_{a.min} = 4.0\%)$
class D [44])		IX	n = 3 (h <sub>tot</sub> = 18 m)	-	IX	n = 2	_	≥0.30	$n = 2 \ (\rho_{a.min} = 5.0\%)$	_	≤0.20	$n = 2 (\rho_{a.min} = 3.5\%)$
						Mate	rials:					
c) Min. mortar quality		VII	limo	cement-lime; M25								
(note: use of cement mortar n/a for 1965-	°MCS	VIII	nine	(2	(2,5 N/mm <sup>2</sup> )		M5; f <sub>m,min</sub> = 5.0 N/mm <sup>2</sup>					
1981 [38])		IX	cement-lime	ceme (5	ent-lin 5,0 N/r	ne; M50 nm²)	_					
d) Min. masonry units' quality		S	olid bricks	M07	5 (7,5	N/mm²)	f <sub>b,mi</sub>	<sub>in</sub> = 2.5 N	/mm <sup>2</sup> ; f <sub>bh,min</sub> = 2 N/mm <sup>2</sup> ; Groups 1, 2	f <sub>b,min</sub>	= 5 N/mr	$n^2$ ; $f_{bh,min} = 2 \text{ N/mm}^2$

Measures:										
e) Min. structural wall thickness, max. slenderness and min. aspect ratio		t <sub>m</sub>	<sub>in</sub> ≥250 mm	tm	<sub>iin</sub> ≥19(	) mm -	$\begin{array}{c} t_{ef,min} \geq 300 \text{ mm; } (h_{ef}/t_{ef})_{max} \leq \\ (l/h)_{min} \leq 2 \text{ in case of a} \\ t_{ef,min} \geq 240 \text{ mm; } (h_{ef}/t_{ef})_{max} \leq \\ (l/h)_{min} \leq 3 \text{ in case of b} \end{array}$	:12; :15;	t <sub>ef,min</sub> ≥240 mm; (h <sub>ef</sub> /t <sub>ef</sub> ) <sub>max</sub> ≤15; (l/h) <sub>min</sub> ≥0.3	
						Openir	igs:			
f) Min. wall measures between openings		VII	$64 \text{ cm; } h_{wp} / l_{wp} = 4/1; l_{wp,min} = 1/3l_o$		VII	1/3l <sub>o</sub>		$1/10(h_1+h_2) \ge t$		
(note: can be reduced by 25 cm in case	°MCS	VIII	77 cm; h <sub>wp</sub> / l <sub>wp</sub> = 3/1 l <sub>wp,min</sub> =1/2l <sub>o</sub>	°MCS	VIII	2/3l₀	1			
elements present for 1981–1998 [39])		IX	90 cm; $h_{wp} / l_{wp} = 2/1 l_{wp,min} = 1/2 l_0$		IX	2/3l <sub>o</sub>				
g) Min. length of a	t	for wa	alls intersection							
structural wall beyond openings	38 cm	n + f) f	or building's corner walls	n	ot def	ined		> h/5		
h) Max. opening measures (note: l₀ can					VII	l <sub>o</sub> = 3,0 m				
be increased by 30% if vertical confining	not e incre	explicies ased in the second s	itly defined; can be if vertical confining		VIII $l_0 = 2,5 \text{ m}$		$A_0 < 1.5 \text{ m}^2$ without opening confinement: with opening confinement			
elements added along opening edges over the entire height of the wall for 1965–1981 [38]and 1981–1998 [39])	eleme	ents a s over	dded along opening the entire height of the wall	°MCS	IX	l <sub>o</sub> = 2,5 m	ex	xplicitly d	efined	

**Table S2.** Building code design and construction requirements on masonry buildings' horizontal and vertical confining elements with respect to building code era, where  $A_c$  cross-sectional area of the confinement;  $A_o$  opening area;  $A_s$  cross-sectional area of the reinforcement; b width of the confinement cross-section; d depth of the confinement cross-section; GA 240/360, i.e.,  $f_{yk}=240 \text{ N/mm}^2/f_{uk}=360 \text{ N/mm}^2$ , where  $f_{yk}$  and  $f_{uk}$  are characteristic yield and ultimate strength of reinforcement, respectively; h clear height of a masonry wall; n number of storeys above ground; t thickness of the wall.

Buildin I	ıg Code Time Period	19	65-1	981 [38]	19	81-1	998 [39]	1999	9-201	2 [40-42]		2013	and ongoing [35–37]
					H	orizo	ntal confini	ng elei	ments	5:			
a) Manda	atory		у	es		у	es		ye	es			yes
							along and	above	all loa	ad-bearing w	alls		
b) Placen	ment	in 1/2	or 1/ h if h	/3 of the wall 1>6 m		not d	efined			i	n the	wall if h	> 4 m
			d≥15	0 mm	d≥20 than	00 mr slab	n (not less thickness)		d≥15(	0 mm			d≥150 mm
c) Min. n	neasures	max	(b≥15	50 mm or t)	b = indent	t (car due plac	n be 5 cm to insulation cing)	ma	x (b≥1	150 mm)		]	max (b≥150 mm)
d) Min. ld reinforced (note: dep no. of stor length and h > 3.25 m elements strengthe 1981 [38]	ongitudinal d steel content pendent on the reys, wall d seismicity; if n confined should be ened for 1965– ])	°MCS	VII VIII IX	4 ø 10 mm 4 ø 10 mm 4 ø 12 mm	4ø12	2 mm mi	(A <sub>s,min</sub> ≥452 m²)	As	, <sub>min</sub> ≥2≀	40 mm²			A <sub>s,min</sub> ≥200 mm²
aterial	Concrete	MB≥1	160 (a	pproximatel with	y C12/ ۱[X])	15 in	compliance				≥	C 16/2	0
e) Ma	Reinforcing steel			≥ GA 2-	40/360	)					Class	s B or C	[36]
						Vert	ical confining	g eleme	ents:				
f) Mand	O Maradatarra		VII	yes, if n>2	°MCS-	VII	yes, if n>3	PGA	< 0.20	yes, if n>3	PGA	≤0.10	yes, if n>3
	ator y	MCS	VIII	yes, if n>2	MCS	VIII	yes, if n>2	(g)	≥0.20	yes, if n>2	(g)	≤0.15	yes, if n>2

		IX ye	es IX yes	≥0.30 yes, if n>1	≤0.20	yes				
	at building's corners	yes	yes	yes		yes yes				
	at walls' intersection	yes	yes	yes						
gui	at walls' free ends	no	yes	yes		yes				
g) Placi	at opening edges (note: large open. not defined)	yes, in ca	ase of large openings		yes, if $A_0 \ge 1.5 \text{ m}^2$					
	min. distance between confined elements	7 m	5 m		5 m					
h) Min	mansuras	d ≥ 150 mm	d ≥ 190 mm	d ≥ 150 mm	d ≥ 1	50 mm				
iij Mill. measures		b ≥ 150 mm oi	t $b \ge 190 \text{ mm or t}$	b ≥ 150 mm	b ≥ 150 mm					
i) Min. reinforo	ced longitudinal	4ø16 mm at n 4ø14 at n > 2	$ \leq 2 \qquad 4 \neq 14 \text{ mm (could be} \\ 2 \qquad \qquad \text{designed)} $	A <sub>s,min</sub> ≥240 mm <sup>2</sup>	$A_{s,min} \ge 240 \text{ mm}^2$ max. of $A_{s,min} \ge 300 \text{ mm}^2$					
steel <u>content</u>	transversal	ø 6 mm / 250 n	nm not	defined	ñned ø ≥5 mm / 150 mm					
j) Con wall	nection to the	toothed	toothed	not defined	toothed					