

## SURVEY FORM INSTRUCTIONS

General notes: all measures must be expressed in meters. The level of reliability must be expressed for each session according to the following: H (high reliability: if the parameter has been measured or directly observed), M (medium reliability: if the parameter has been observed, but not measured), L (low reliability: if the parameter has been assumed). All requested percentages to be expressed in decimals.

### 1 URBANISTIC DATA

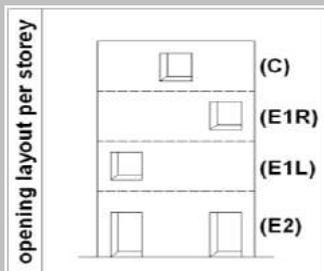
1-1 Type of use: **R=residential**; Co=commercial; A= administration; Cu= cultural; V= vacant;O=Other  
G=good, M=medium, B=bad

### 2 GEOMETRIC CHARACTERISTICS OF FAÇADE

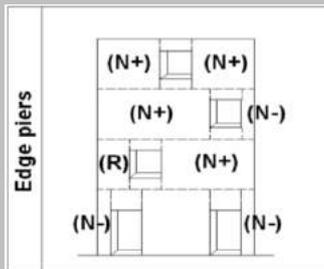
2-1 S=south,N=north, E=east, W=west, SE=south east; NE= north east, SW=south west, NW=north west  
2-2 Façade position: Int=Internal façade, Ext=external façade

### 3 GEOMETRIC CHARACTERISTICS OF OPENINGS

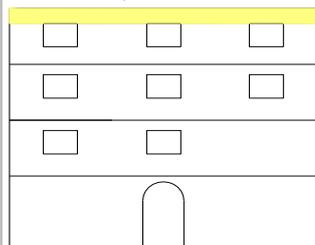
3-1 Enter the number of openings  
3-2 Enter the width and height of each opening  
3-3 E2 (or E2 C) = two (or more) openings located on both edges of the facade  
E1-L (or E1-L C)= one (or more) opening(s) on the left edge of the facade  
E1-R (or E1-R C)= one (or more) opening(s) on the right edge of the facade  
C= openings located in central position  
O=other dispositions  
NA=not applicable



3-4 R = regular pier (pier width = opening width), N- = not regular pier (pier width < opening width), N+ = not regular pier (pier width > opening width)



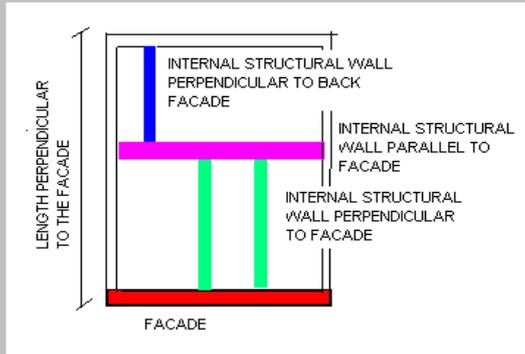
3-5 average height of upper horizontal spandrel



3-6 Type: FA =Flat Arch; **B=Beam**, A=Arch, **NO= no lintels**  
Material: S=Stone, **B=Bricks**,**T=Timber**, St=STeel

#### 4 PLAN GEOMETRIC CHARACTERISTICS

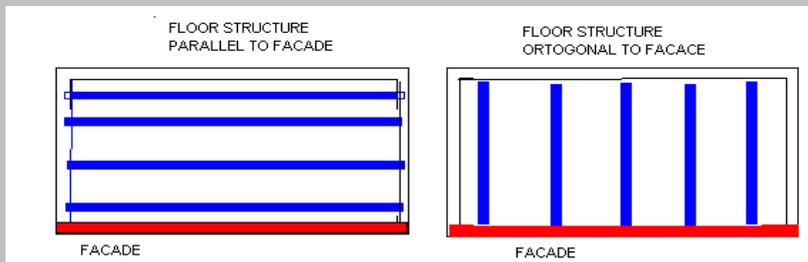
4-2  
4-3  
4-4  
4-5



#### 5 STRUCTURAL CHARACTERISTICS

5-1  
5-2

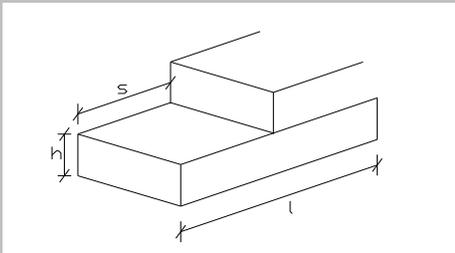
A1 = timber joist with mud and thatch, A2= timber joist with scrid, A3 = timber joist with corrugated metal sheet, B = lightweight vaults and steel beams, C = lightweight tiles and steel beams, D = O=orthogonal to the facade P=parallel to façade na=not applicable, because it is not visible



5-3  
5-4  
5-5

A = stone, B = Fired brick, C = rubble stone, D = stones and bricks, E = sundried brick (unbunt), F= Hollow brick, G= Studs and lath. Note: These need to be classified in 1= good quality, 2=medium quality, 3=low quality (Ex. A1, A2.. Depending on the quality of the material)

M = Mud; L = Lime, C = Cement, LB = Lime with Bricks; MC = Mud with Cement; LC = Lime Cement  
Average size of units l\*h\*s

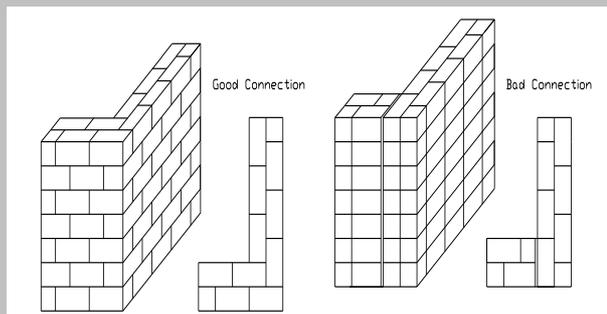


5-6  
5-7  
5-8

B=Bad, M=Medium, G=good

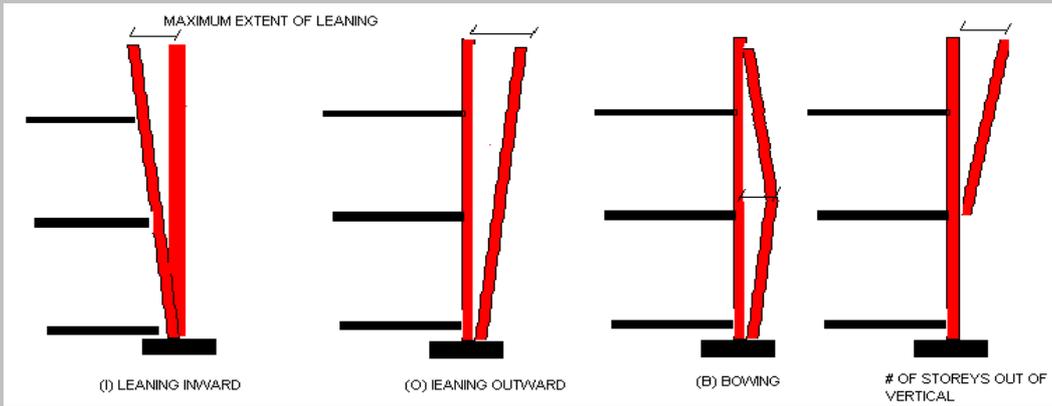
B=Bad (>50% of mortar loss); M=Medium (25-50% of mortar loss); G=Good (<25% of mortar loss)

yes=good connection, no=bad connection, na=not applicable

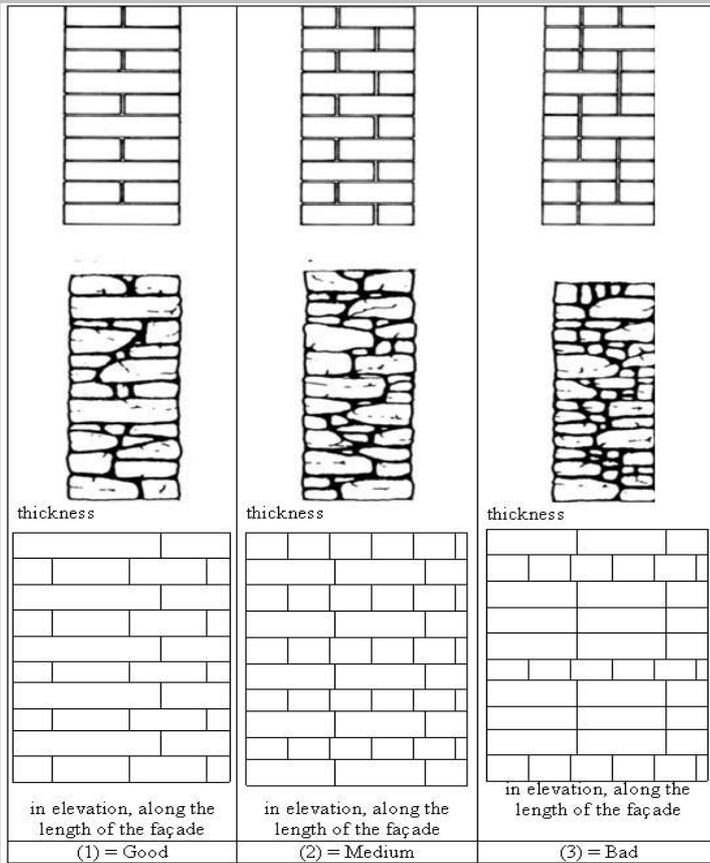


5-9

Enter number of storeys for which the wall is out of vertical - I = inward leaning, O= outward leaning, B = bowing. Indicate maximum out of verticality in metres



5-10



5-11

Retaining wall type: D=drystone wall, M=stone wall with mortar, B=brickwall with cement, C=concrete wall. Extension W=whole façade, EL=left end of façade, ER=right end of façade, C=partial at the centre

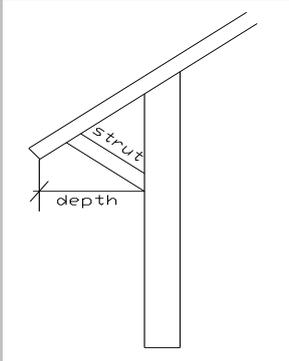
5-12

Specify for each storey: RB= ring beam; A2=Anchors on both sides of facade (left and right); A1=anchor on just one side of facade, M= anchor/s in the middle of the facade; A3= anchors on both sides of facade and in the middle; AM= anchors/s on one side of facade

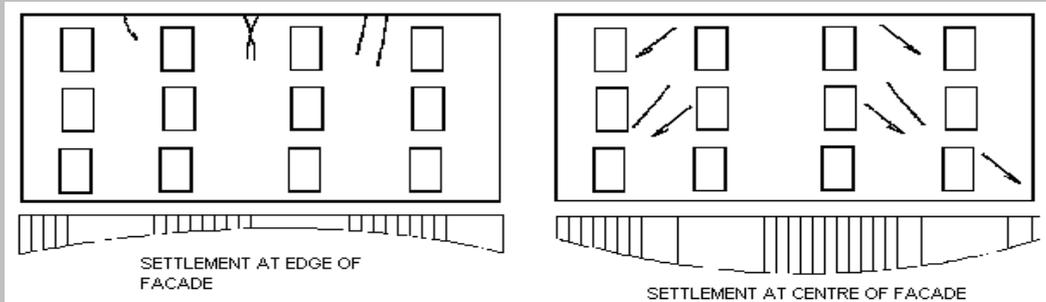
	(RB)	(A3)	(A2)	(A1)	(M)	(AM)
5-10	RING BEAM	ANCHOR ON BOTH SIDES AND 1 IN THE MIDDLE OF FAÇADE	ANCHORS ON BOTH SIDES OF FAÇADE	ANCHORS ON ONE SIDE OF FAÇADE	ANCHOR ON MIDDLE OF FAÇADE	ANCHOR ON 1 SIDE AND 1 IN THE MIDDLE OF FAÇADE
TIES/RING BEAMS						

## 6 VULNERABILITY ENHANCING ELEMENTS

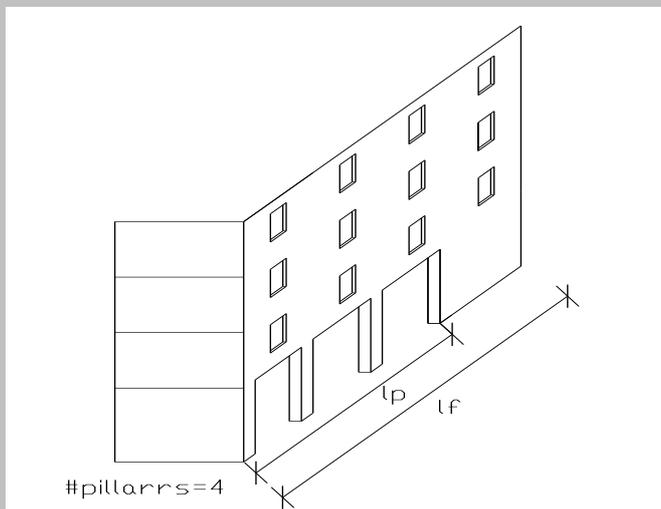
6-1 L= length of overranging perpendicular to façade ; # struts = number of supports of the overranging on the façade;



6-2 Specify whether is settlement of W= wall, P= pillar, F=floor, R=roof; settlement entity =estimate amount of settlement in meters, negative if swelling; settlement position: C= centre of façade, EL=left edge of façade, ER= right edge, EB= both edges, refer to drawing below for position and revers form if swelling



6-3



## DAMAGE LEVEL AND FAILURE MODES

7-1

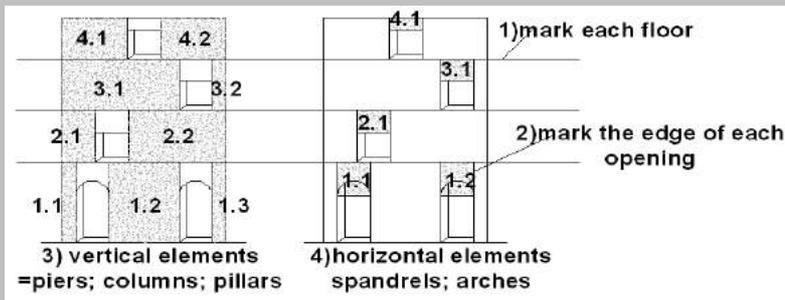
Crack pattern: define type and level damage of piers and spandrels, if damaged

Maximum number of piers : 7

Maximum number of spandrels: 6

Each structural element (pier and spandrel) is located by two digits (nf; i) where nf=floor number of the element and i=position of the element at the nf floor

Localization of the structural elements: 1) mark every floor; 2) mark the edge of each opening; 3) piers are the vertical elements; 4) spandrels are the horizontal elements



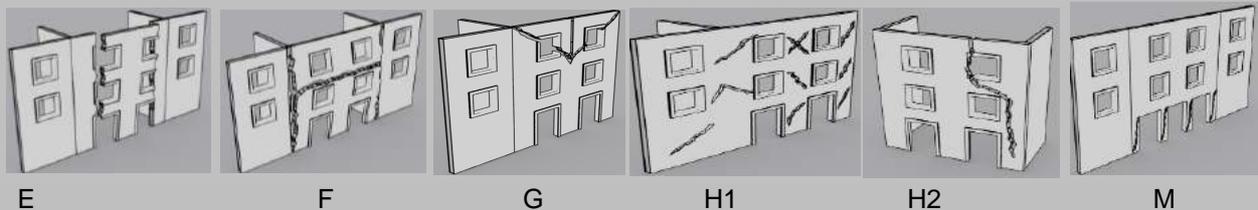
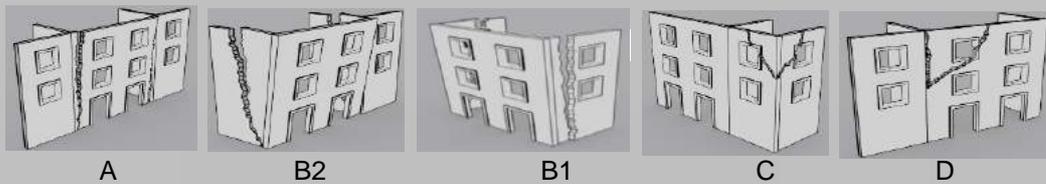
### Type Damage

V = Vertical Crack	H = Horizontal Crack	D1 = Diagonal Crack	D2 = Diagonal Crack	X = X Shape Crack	S = Spalling	Cr = Crushing

Level Damage: DL=Damage Limitation (Moderate damage); SD=Structural Damage (heavy structural damage); NC=Near Collapse (very heavy structural damage); C=Collapse (fail)

7-2

Select the observed failure modes as Partial or Total, if required. For each identified failure, express the damage level (DL; SD; NC; C) as defined above.



7-3

Roof collapse: P=Partial; T=Total

Sagging Roof: P=Partial; T=Total