TECHNICAL DOCUMENT

BUILDING AND CONSTRUCTION AUTHORITY

Standardisation of Apertures for Residential Buildings in Malta

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Introduction

Adoption of Standards in the Construction Industry.

THe Construction and Demolition Waste Strategy for Malta outlines a number of measures intended to manage waste, generated from the construction industry, in a sustainable manner to drive the change towards a more circular economy. One of the measures included in this Strategy is the Standardisation of Dimensions of Internal and External Apertures of residential dwellings aimed at encouraging the re-use of fittings as well as reduce diversification bringing about economies of scale.

Compliance with this Standard shall be an essential requirement for the issuing of an Executable Development Permit by the Planning Authority and the scope of this document is to provide technical information (and guidance) for the standardisation of sizes for doors and windows. The benefits of standardising sizes have been summarised as follows:

- Interchangeability
- Repairs or replacements would be easier
- Re-use of fittings
- Producers would stick to standard openings to curb costs
- Designer would work to these standard sizes from initial design
- Raw materials sizes would be produced in modules that would lessen waste.

Applicability.

This Technical Document shall only focus on the dimensions of apertures in the building fabric *(Construction opening width and height)* and shall not focus on window or door fittings in anyway.

The Technical Document shall apply when a new aperture is to be constructed, either when a new building is being designed or when an existing building is being altered and apertures are to be added or be rebuilt.

This document does not in anyway waive or preclude a designer from any obligations, legal or not, so care must be taken to ensure the designs cater for said obligations.

The designer needs to ensure that any other obligations are adhered to whilst also following the guidelines in this technical Document and that the dimensions chosen observe minimum "Clear Opening Width" as required by other legislation. The Designer shall also ensure that the standard dimensions chosen are adequate for the window and door width of the fittings he/she intends to utilize.

Exceptions:

- In exceptional circumstances, these standards may not be applied on scheduled buildings, in UCAs and on buildings where the overall architectural design approach provides iconic or landmark quality as determined by the Planning Authority.

- Where an aperture constitutes more than **25%** of the façade or building structure housing it, it can be considered as part of the building fabric and the aperture can be exempt from these standards.

- If an existing aperture will not be structurally effected by the works when renovating or altering a building, it shall keep its existing dimensions.

- Apertures housing Fixed Glazed fittings and Skylights shall also be exempt from these standards.

- Apertures into small services shafts (not internal courtyards) with a footprint of less than **2** m^2 or Apertures in non-habitable rooms, except Bathrooms, Gyms, Games Rooms and Domestic Stores, shall be exempt from following the guidelines in this Technical Document.

- Apertures that existed or are in existence and that are subject to any court case, shall be exempt from these standards.

Definitions

For the purpose of this document:

door width refers to the width of the door leaf (as per the manufacturer's specifications) which is necessary for ordering purposes.

"Clear opening width" is the clear distance measured between the inside face of the frame and the face of the aperture when open at 90 degrees (or in the case of sliding doors, the inside face of the door (or window) frame and the door/window's edge when fully open)

"Construction opening width" is defined as the clear structural opening needed to enable the installation of a fitting frame and fitting leaf.

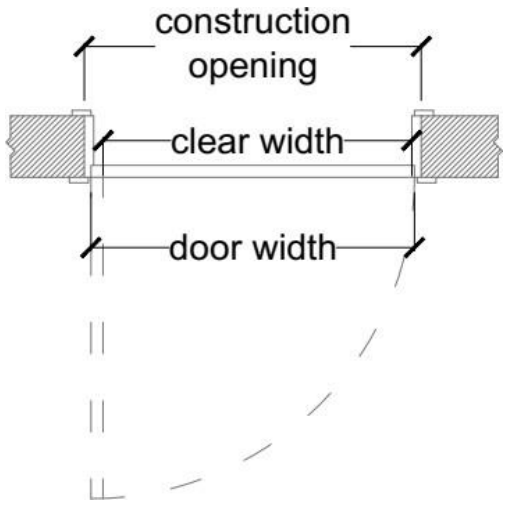

FIGURE 1 This diagram depicts the actual measurements described in the definitions section.

Standard Sizes

Apertures shall be categorized into 2 distinct types of Apertures:

a) Doors

b) Windows

All categories shall be defined by defining a minimum Construction opening width and height of the apertureand the allowable increments that these apertures shall be allowed to have.

It is imperative that when new structural components are added to an existing building, there is a continuation in design, while adhering to this standard.

Doors Construction Opening Width and Height

Doors

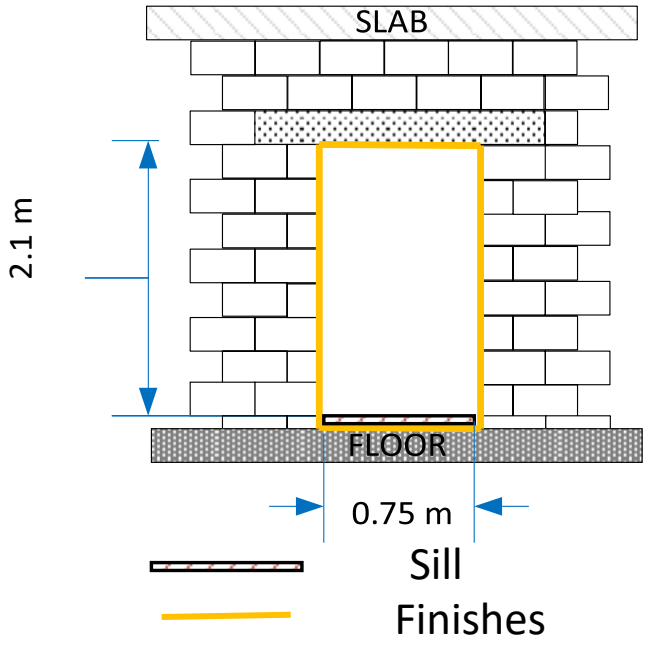


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FIGURE 2 Indicates the minimum Construction opening Width and Construction opening height for Internal and External Door Apertures.

**The minimum allowable width and height** for a Door aperture are 0.75 m from the finished surfaces and 2.1 m from the finished floor level (including the Sill) to the finished top aperture surface, respectively.

**The allowable increments in width and height** for a Door aperture are 0.05m and 0.05m respectively. The table below shall give an indication of allowable aperture sizes in Construction Opening dimensions. Any combination in line with the increments on the minimum defined values is allowed.
```

Construction opening width (in m) Overall Tolerance ± 0.01m	Construction opening height (in m) Overall Tolerance ± 0.01m
0.75	2.1
0.75	2.15
0.75	2.20
0.8	2.25
0.85	2.30
0.9	2.1

TABLE 1 Shows examples of allowable Construction opening Width and Construction opening Height for Door Apertures

Windows

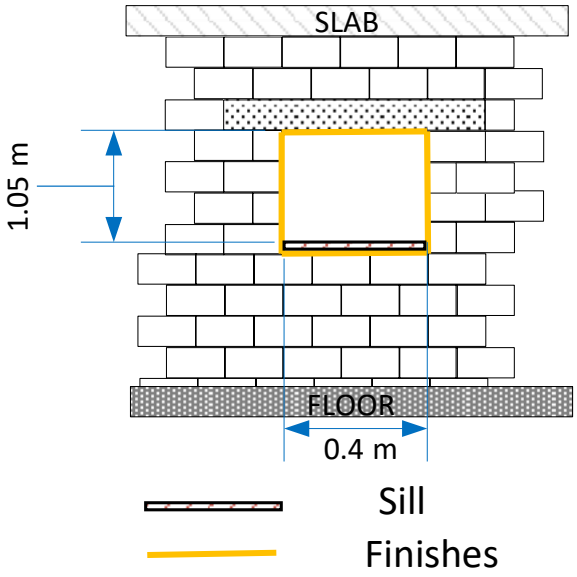

FIGURE 3 Indicates the minimum Construction opening Width and Construction opening height for Internal and External Window Apertures

The minimum allowable width and height for a Window aperture are 0.4 m from the finished surfaces and 1.05 m from the sill to the finished top aperture surface, respectively.

The allowable increments in width and height for a window aperture are 0.05m and 0.05m respectively. The table below shall give an indication of allowable aperture sizes in Construction Opening dimensions. Any combination in line with the increments on the minimum defined values is allowed.

Construction opening width (in m) Overall Tolerance ± 0.01m	Construction opening Height (in m) Overall Tolerance ± 0.01m
0.4	1.05
0.4	1.10
0.45	1.15
0.55	1.20
1	1.70
2	2.70

TABLE 2 Shows examples of allowable Construction opening Width and Construction opening Height for Internal and External window apertures