LE/02/04

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25774901 23 December, 1997

All Registered Escalator Contractors & Engineers

Dear Sirs,

Circular No. 16/97
Code of Practice on the Design and Construction of Lifts and Escalators (1993 Edition)
Amendment No. 6

Pursuant to section 27G of the Lifts & Escalators (Safety) Ordinance, Cap. 327, the Code of Practice on the Design and Construction of Lifts & Escalators (1993 Edition)(the Code) has been amended by incorporating new requirements for safeguarding escalator passengers against injuries caused by building obstacles, subsequent to a recent escalator accident involving such obstacle at floor intersection.

The above changes have been included in the Amendment No. 6 of the Code which is attached for your retention.

The requirements in the Amendment No. 6 of the Code shall come into operation on 1 January 1998 and shall be applicable to escalators tendered on or after that date.

Yours faithfully,

(LAW Yu-wing)
for Director of Electrical & Mechanical Services

c.c. AD/BS
D of Housing (Attn: TS/1)

WLC/GMWC/LYW/tlp

Code of Practice
on the Design and Construction of
Lifts and Escalators
(1993 Edition)

AMENDMENT No. 6
Obstruction Guard for Escalator
(Effective as from 1 January 1998 and applicable to escalators tendered on or after that date)

Item	Clause	Description
1	Section E Part 4 Clause 1.2	Delete the Clause 1.2.3 and substitute the following:-

"**1.2.3 Adjacent Building Obstacles and Criss-cross Escalators**

1.2.3.1 Where building obstacles and criss-cross escalators can cause injuries to passengers riding on escalators, appropriate preventive measures shall be taken.

In particular, at floor intersections and on criss-cross escalators, a set of vertical obstruction guard as shown in figures 6(i) & (ii), shall be placed above the balustrade decking and the following conditions shall be observed.

a) The exposed edge of the guard shall be rounded and have a minimum width of 6mm.

b) The vertical face (other than the deflecting part) of the guard facing the handrail shall be flush with the face of the wellway or the external wall of the adjacent criss-cross escalator.

c) The part of the wellway or external wall of the criss-cross escalator facing the handrail shall form a smooth continuous vertical surface, if it is measured less than 2.10m above the step, pallet or belt of the escalator.

d) The lower edge of the guard shall be at least 100mm below the top surface of the handrail or join with the balustrade decking.

e) The upper edge of the fixed guard shall be securely joined with lower edge of the floor intersection or the criss-cross escalator and shall not be exposed.

f) The underside of the floor ceiling at floor intersections or the bottom deck of the adjacent criss-cross escalator shall form a smooth continuous flat surface extending to a distance of at least 0.6m from the centre line of the

handrail if it is measured less than 2.10m above the step, pallet or belt of the escalator.

For vertical building obstacles or columns, unless other approved preventive measures (e.g. buffer protection surfaces) are taken, fixed guards shall be installed as shown in figures 6(iii) & (iv). The fixed guards would not be required if the vertical building obstacle or column has a radius of curvature of not less than 300mm. The part of the vertical building obstacles or columns facing the escalator shall form part or whole of a smooth continuous surface extending from at least 100mm below the top of the handrail to a height of at least 2.10m above the step, pallet or belt of the escalator.

The position of the obstruction guards shall be such that it can effectively prevent injuries to the passengers. The guards shall be of light and durable material such as plastic.

1.2.3.2 It is not necessary to comply with the above requirements when the distance b_9 between the centerline of the handrail and any obstacle is equal to or greater than 0.60m (see figure 2)."

2 Section E Part 4 Clause 1.2 Delete the Clause 1.2.5 and substitute the following:-

"**1.2.5 Distance between the Outer Edge of the Handrail and Adjacent Wall/Building Obstacles/Escalators**

The horizontal distance b_{10} (see figure 2) between the outer edge of the handrail and walls, adjacent criss-cross escalators or other building obstacles shall not be less than 200mm and shall be maintained to a height of at least 2.10m above the steps, pallets or belt of the escalator. The distance may be reduced to 80mm:

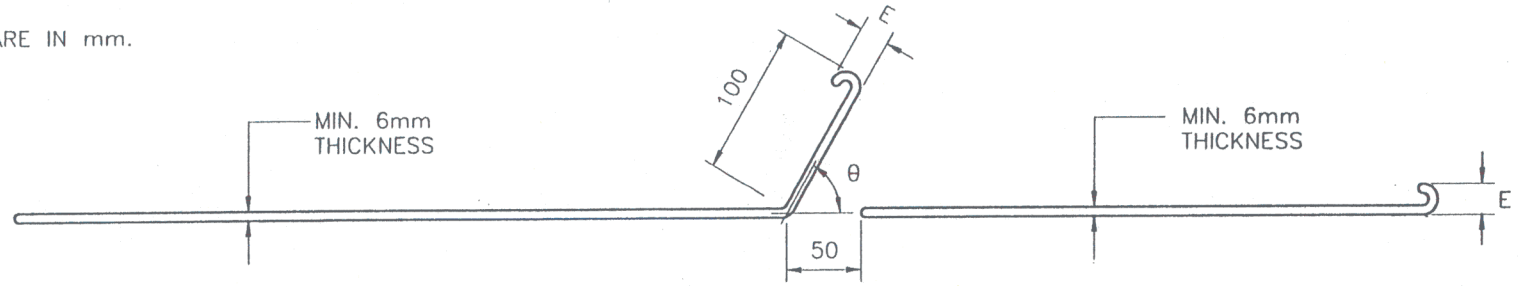
(a) for any guard rail/wall (of not more than 1.10m high) erected adjacent to the escalator at the landing (see clause 1.2.4), or

(b) in the situation where a smooth continuous wall of at least 2.10m high above the steps, pallets or belt is formed extending alongside the escalator for at least the distance between its newels to avoid injuries caused by collision.

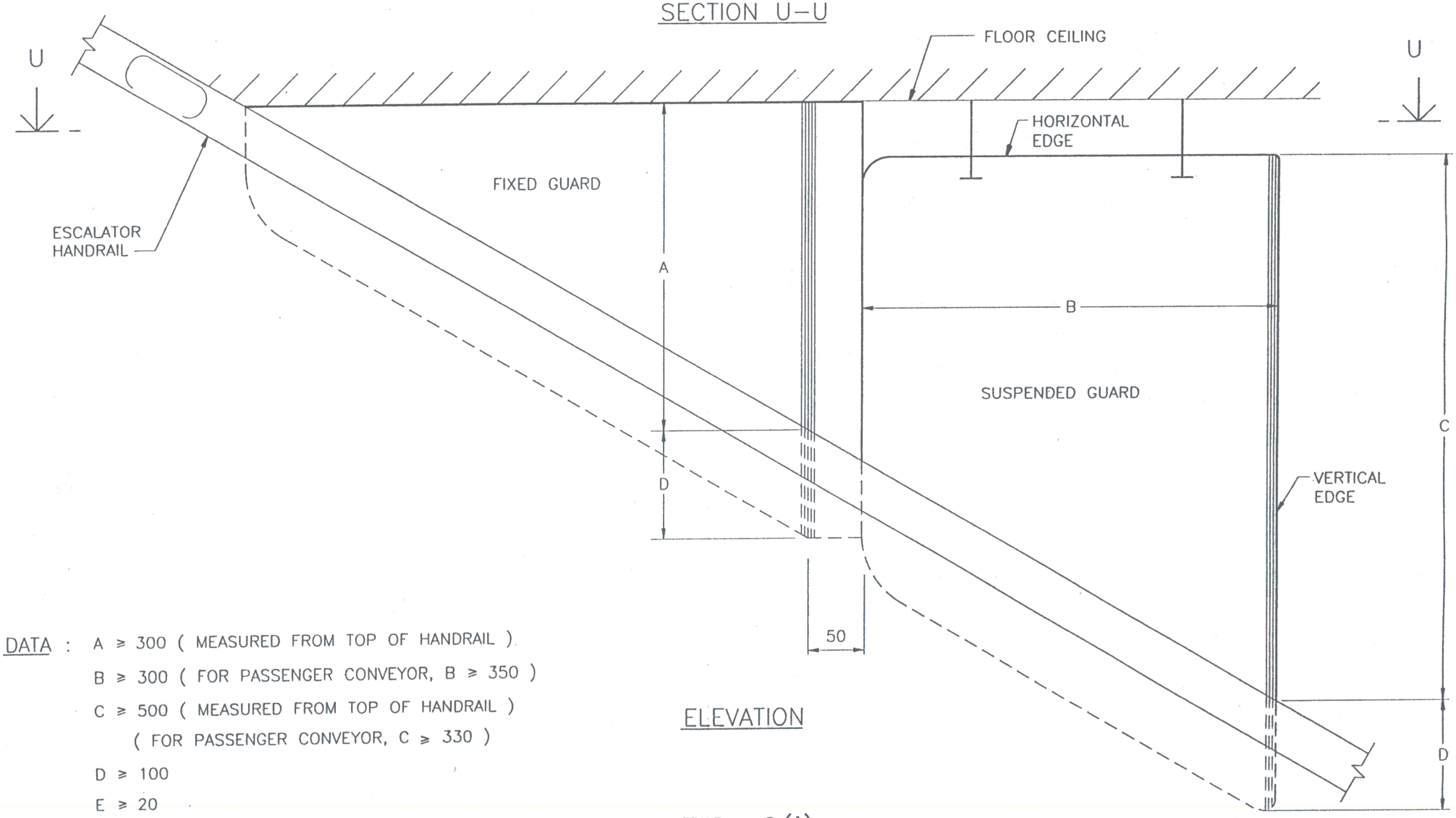
For escalators arranged in parallel to one another the distance between the edges of the handrails may be reduced to 120mm."

3 Section E Part 4 Replace **Figure 6** by **Figures 6(i), (ii), (iii) & (iv)** attached.

NOTE : ALL DIMENSIONS ARE IN mm.



SECTION U–U



ELEVATION

DATA : A ≥ 300 (MEASURED FROM TOP OF HANDRAIL)

B ≥ 300 (FOR PASSENGER CONVEYOR, B ≥ 350)

C ≥ 500 (MEASURED FROM TOP OF HANDRAIL)
(FOR PASSENGER CONVEYOR, C ≥ 330)

D ≥ 100

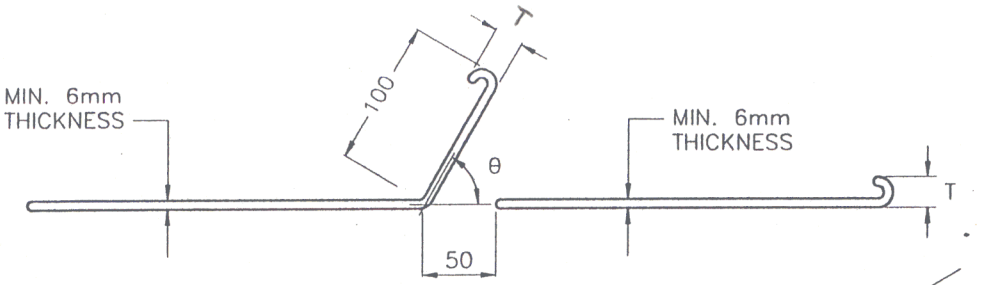
E ≥ 20

θ = 60° (±10°)

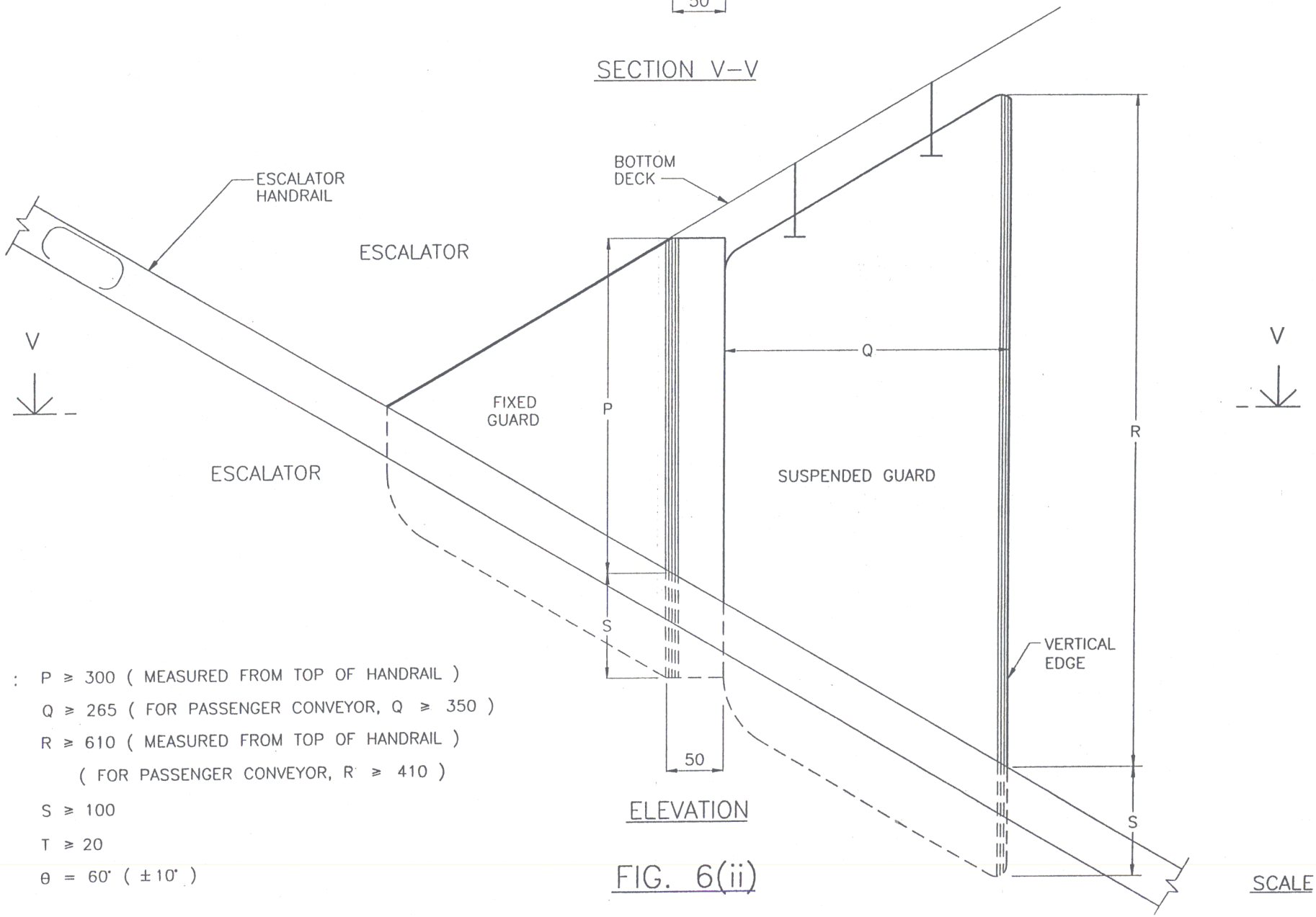
FIG. 6(i)

SCALE 1 : 5

NOTE : ALL DIMENSIONS ARE IN mm.



SECTION V–V



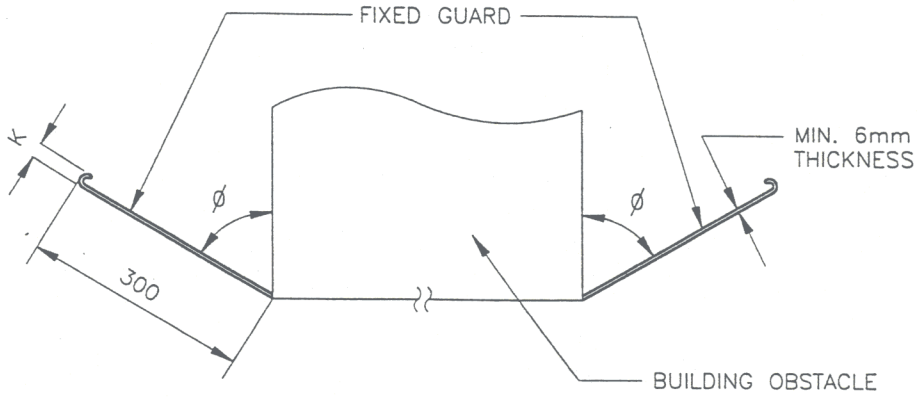
ELEVATION

DATA : P ≥ 300 (MEASURED FROM TOP OF HANDRAIL)
Q ≥ 265 (FOR PASSENGER CONVEYOR, Q ≥ 350)
R ≥ 610 (MEASURED FROM TOP OF HANDRAIL)
(FOR PASSENGER CONVEYOR, R ≥ 410)
S ≥ 100
T ≥ 20
θ = 60° (±10°)

FIG. 6(ii)

SCALE 1 : 5

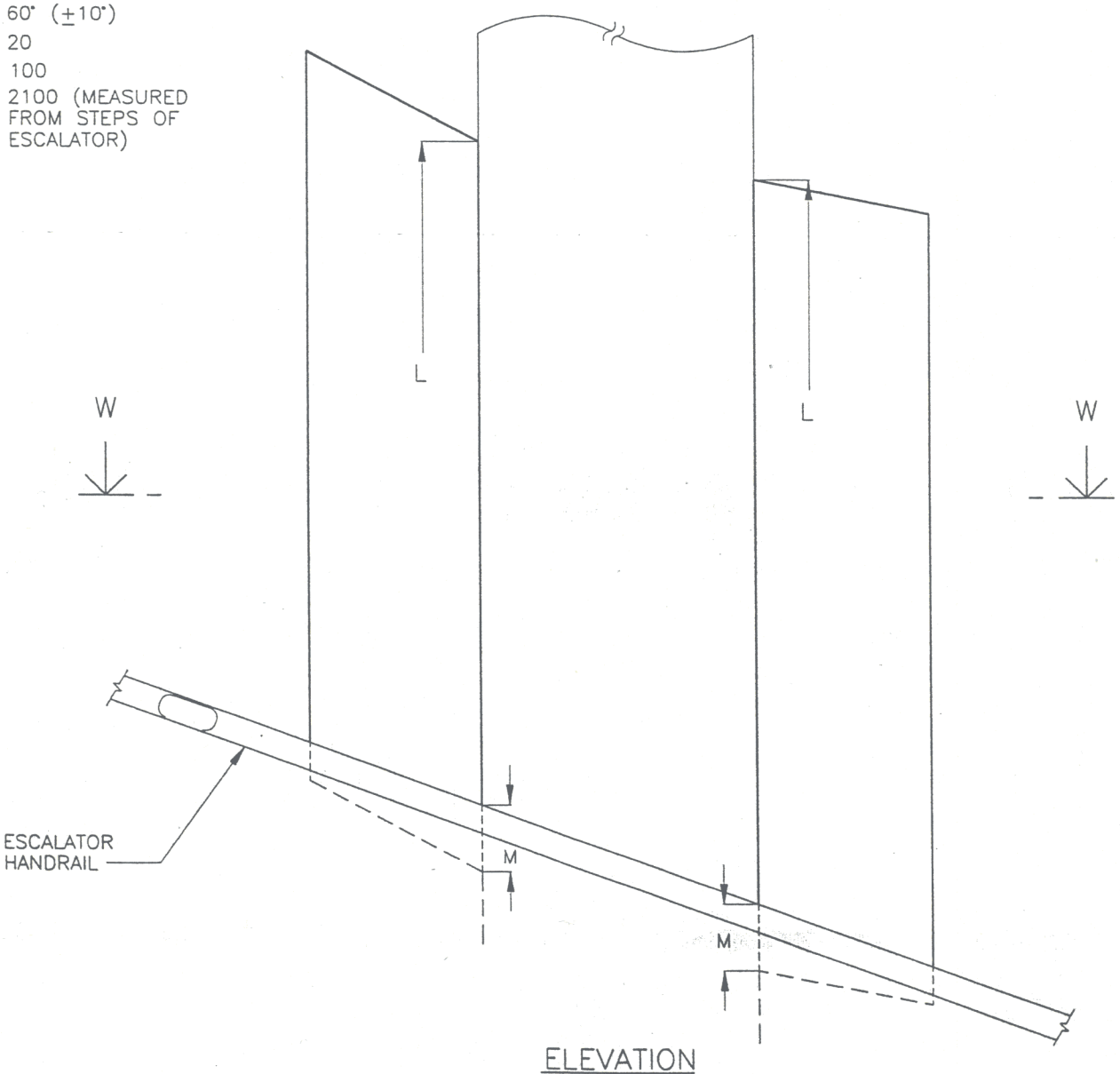
NOTE : ALL DIMENSIONS ARE IN mm.



SECTION W–W

DATA

Ø = 60° (±10°)
K ⩾ 20
M ⩾ 100
L ⩾ 2100 (MEASURED FROM STEPS OF ESCALATOR)

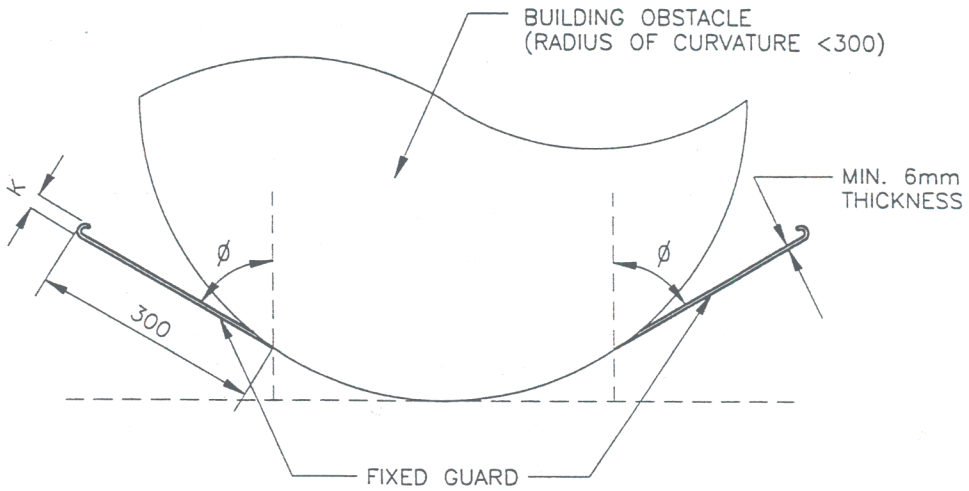


ELEVATION

FIG. 6(iii)

SCALE 1:10

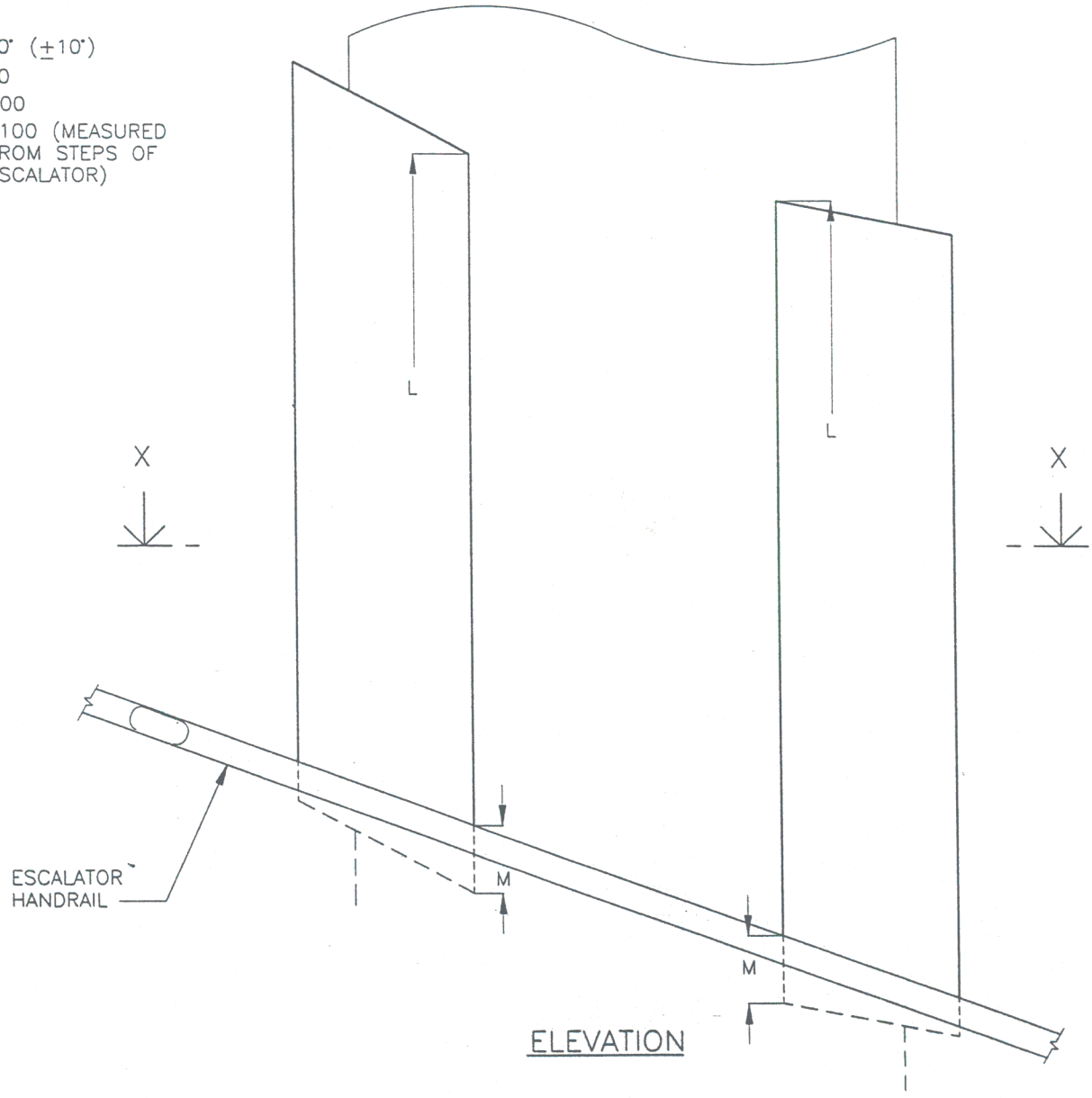
NOTE : ALL DIMENSIONS ARE IN mm.



SECTION X–X

DATA

ø = 60° (±10°)
K ⩾ 20
M ⩾ 100
L ⩾ 2100 (MEASURED FROM STEPS OF ESCALATOR)



ELEVATION

FIG. 6(iv)

SCALE 1:10