

### WALKWAYS

WALKWAYS SHOULD BE FITTED WITH KICK PLATES MADE FROM ANGLES OR FLAT THAT RISE AT LEAST 100mm ABOVE FINISHED FLOOR LEVEL. ALL EDGES ON KICKPLATES TO BE ROUNDED.

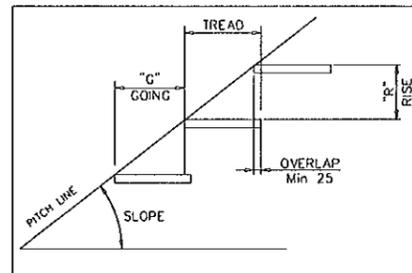
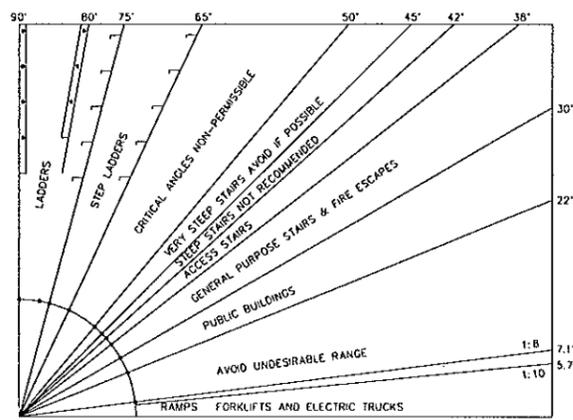
WALKWAYS MUST BE PROTECTED BOTH SIDES BY HANDRAILING.

GRATING FIXED TO SUPPORTING STEEL WORK ACCORDING TO MANUFACTURERS SPECIFICATIONS.

WW = 600mm OCCASIONAL USE (EXCEPTIONAL)  
 = 750mm MIN. FOR NORMAL USE  
 = 1000mm FOR REGULAR TWO-WAY TRAFFIC  
 = 1100mm FOR EMERGENCY ESCAPE ROUTE.

CH = 2100mm MIN. HEAD ROOM (CLEARANCE HEIGHT)

### SLOPES AND PROPORTIONS FOR LADDERS, STEP LADDERS, STAIRWAYS AND RAMPS



#### RECOMMENDATIONS FOR STAIRWAYS

'R' x 'G' = 48000 - 55000  
 'G' (GOING) 270mm IDEAL SITUATION  
 'G' NOT LESS THAN 250mm  
 'R' (RISE) 175mm FOR USE BY GENERAL PUBLIC  
 'R' 190mm IDEAL SITUATION  
 'R' NOT TO EXCEED 200mm  
 THE VARIATION IN 'R' (RISE) IN ONE FLIGHT OF STAIRS IS NOT TO EXCEED 6mm.

#### GENERAL

THE DESIGN OF A STAIRWAY SHOULD BE GOVERNED BY SUCH FACTORS AS EASE OF ACCESS, FREQUENCY OF USE, STANDARD OF SAFETY REQUIRED AS WELL AS A SUITABLE PROPORTION BETWEEN RISE AND GOING.

WIDTH  
 THE WIDTH OF A STAIRWAY IS THE CLEAR DISTANCE MEASURED BETWEEN STRINGERS:

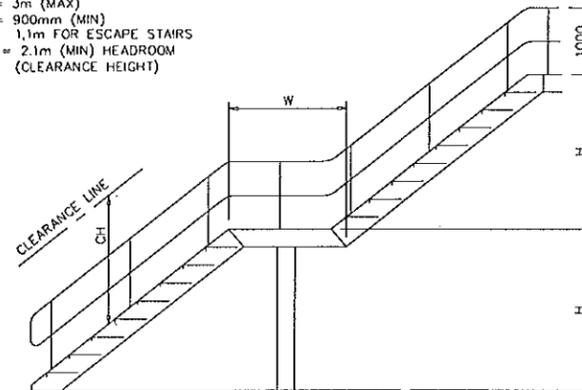
- a) 750mm FOR STAIRWAYS USED FOR OCCASIONAL ACCESS TO PLANT PLATFORMS ETC.
- b) 1000mm FOR MAIN STAIRWAYS USED FOR CONSTANT REGULAR TWO-WAY TRAFFIC
- c) 1100mm FOR STAIRWAYS USED FOR EMERGENCY ESCAPE ROUTE

SLOPE  
 THE RECOMMENDED STAIRWAY SLOPES ARE:

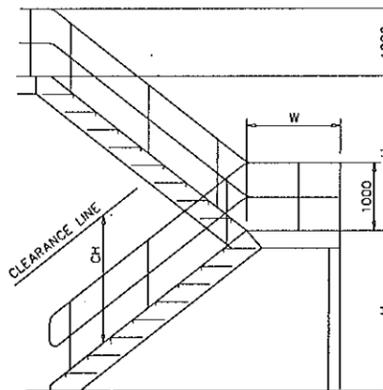
- a) 38° FOR MAIN STAIRWAYS USED FOR CONSTANT TWO-WAY TRAFFIC
- b) UP TO 42° FOR STAIRWAYS USED FOR OCCASIONAL ACCESS
- c) SLOPES BETWEEN 42° AND 50° ARE NOT RECOMMENDED FOR NORMAL USE, AND SHOULD BE ADOPTED ONLY IN EXCEPTIONAL CASES.

### LAYOUT OF TYPICAL STAIRWAYS

H = 3m (MAX)  
 W = 900mm (MIN)  
 1.1m FOR ESCAPE STAIRS  
 CH = 2.1m (MIN) HEADROOM (CLEARANCE HEIGHT)



(A) STAIRWAY WITH STRAIGHT LANDING



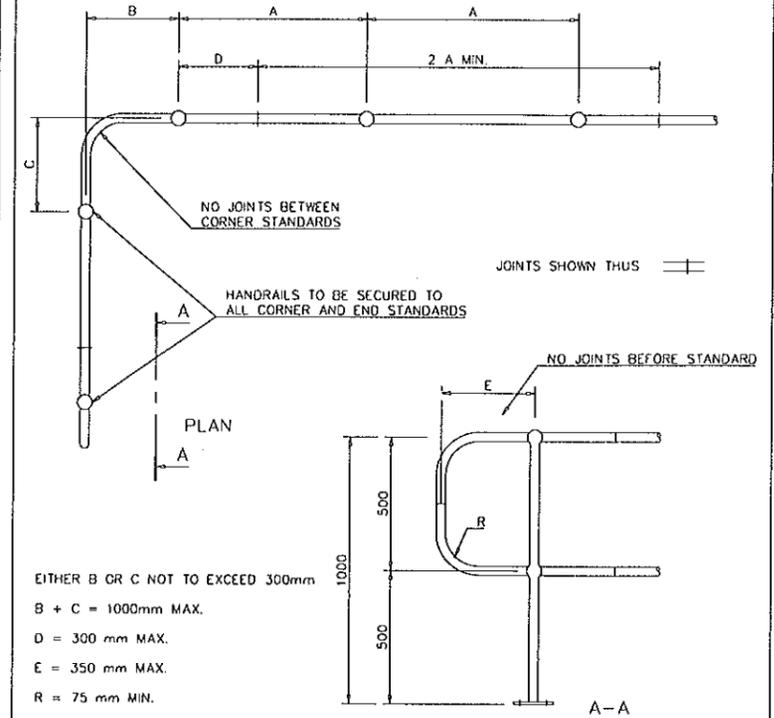
(B) STAIRWAY WITH 180° LANDING

#### TREADS

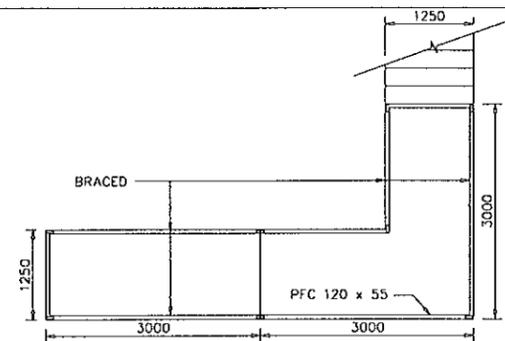
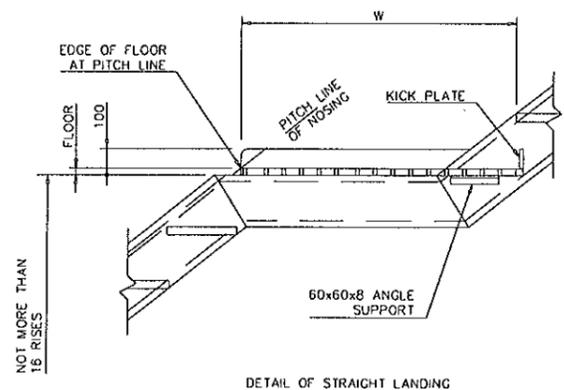
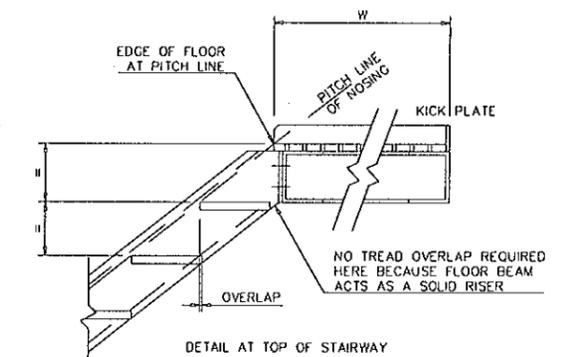
TREADS SHOULD HAVE A NON-SLIP SURFACE THAT WILL RETAIN ITS EFFECTIVENESS DURING CONSTANT AND PROLONGED USE. TREADS FOR STEEL STAIRS ARE TO BE MADE FROM RAISED PATTERN PLATE OR OPEN GRATING. GRATING-TYPE TREADS ARE NOT SUITABLE FOR USE BY WOMEN WEARING SMALL HEELS, (E.G. OFFICE FIRE-ESCAPE STAIRWAYS)

TREADS SHOULD HAVE NON-SLIP SIGHTING EDGES OR NOSES AT LEAST 25mm WIDE WITH A RAISED PATTERN NO HIGHER THAN 3mm. SIGHTING EDGES ARE ESSENTIAL FOR TREADS MADE FROM GRATING. NOSING EDGES SHOULD HAVE SHARP CORNERS GROUND OFF TO A RADIUS NOT EXCEEDING 5mm.

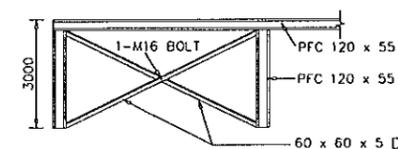
### TYPICAL HANDRAIL LAYOUT



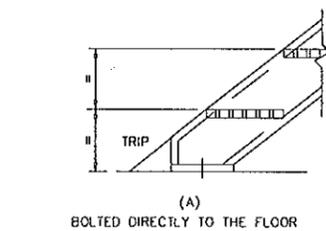
### TYPICAL STRINGER LANDING AND BASE DETAIL



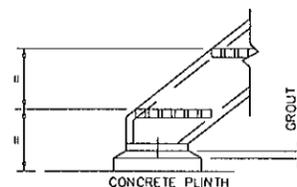
PLAN: TYPICAL WALKWAY



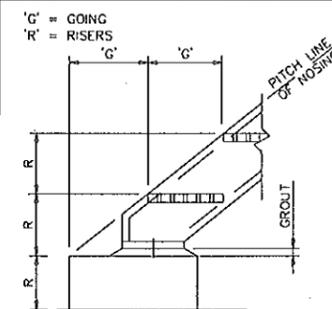
ELEVATION A-A: TYPICAL BRACING



(A) BOLTED DIRECTLY TO THE FLOOR



(B) BOLTED TO CONCRETE PLINTH



(C) BOLTED TO CONCRETE PLINTH FOR CORROSIVE CONDITIONS

#### STRINGER

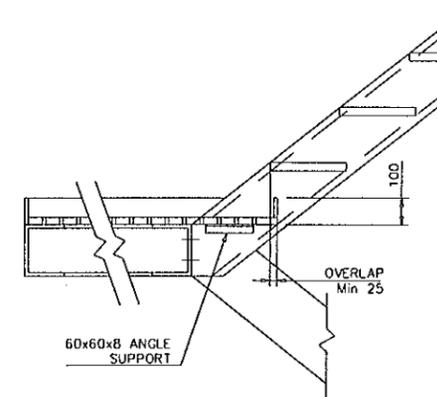
THE STEEL SECTIONS MOST COMMONLY USED FOR STAIR STRINGERS ARE 180x70mm CHANNELS AND 180x10mm FLATS. FOR LARGER SPANS THE SECTIONS SHOULD BE DETERMINED BY STRUCTURAL REQUIREMENTS

#### LANDINGS

LANDINGS SHOULD BE FITTED WITH KICK PLATES MADE FROM ANGLES OR FLATS THAT RISE AT LEAST 100mm ABOVE FINISHED FLOOR LEVEL.

LANDINGS AND WALKWAYS MUST BE PROTECTED BOTH SIDES BY HANDRAILING.

GRATING FIXED TO SUPPORTING STEEL WORKS ACCORDING TO MANUFACTURERS SPECIFICATIONS.



DETAIL OF 180° LANDING

W = 900mm MIN. OR 1100mm FOR ESCAPE STAIRS

STAIRWAY STRINGER BASE DETAIL



GENERAL STRUCTURAL STANDARDS FOR WALKWAYS, STAIRWAYS AND PLATFORMS

A 06/01 BRACING DETAIL ADDED			
REVISIONS			
PROJECT NAME			
DRAWN	P.J.S.	REF.	
TRACED	CAD	DATE	198-09-03
CHECKED		APPROVED	
SCALE	N.T.S.		
DRAWING No.	PL SK. No. 2139		
REV.	JA		