



INTERNATIONAL ORIENTEERING FEDERATION

ISInOM

International Specification for Indoor Orienteering Maps

January 2026

DRAFT

INTRODUCTION

Indoor Orienteering is rapidly becoming a popular event. Due to the fast growing activity IOF now acknowledges the need for a common set of symbols.

As there is not yet a defined discipline for indoor orienteering, this document will act as a guide to mapping and course setting.

1.1 Conventions

Several words are used to signify the requirements in this specification:

- Must / Shall / Required mean that the definition is an absolute requirement.
- Must not / Shall not mean that the definition is an absolute prohibition.
- Should / Recommended mean that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
- Should not / Not recommended mean that there may exist valid reasons in particular circumstances
- when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour / action described with this label.
- May / Optional mean that an item is truly optional.

2 PRINCIPLES

2.1 Map legibility

Map legibility depends on the chosen map scale and a well-chosen set of symbols as well as the application of generalisation rules. The ideal representation would be realised if every feature could be represented in true shape. Obviously, this is impossible, and an effort to draw each feature true to scale would result in a map impossible to read. Depending on the chosen map scale, some symbols must represent features and be exaggerated in size, often far beyond the actual ground limits of the feature represented. In addition, not all features are essential for the purpose of the map.

Features that are important for navigation indicate runnability, or which are uncrossable in indoor orienteering, have been listed in Chapter 4. Features that are not important for a competitor taking part in a indoor orienteering event should not be mapped. Examples of this are waste baskets, single chairs, and small movable items.

2.2 Barriers - black line width is used to show passability

It is impossible to declare an exact height when an obstacle becomes uncrossable. Passability largely depends on the physical characteristics of the competitors such as body height and strength.

- Barriers, such as high walls and disallowed fences, affect route choices and shall be represented unambiguously. Therefore, these features shall be represented with a prominent thick black line.

- Obstacles which can be crossed, are represented with a significantly thinner black line than the barrier features.
- Areas that are closed off for competitors are shown in dark grey color or they may be marked with course symbols to indicate disallowance.

2.3 Different floor levels have separate map sections

Each floor shall be represented in a separate section of the map. Each section must clearly be divided from other floors. All segments of the same floor shall be represented within the same segment, to clearly show they are on the same building level.

Semi-levels, such as a stage/podium, landing or similar, shall be represented in conjunction to the main floor level. Such semi-floors shall clearly be indicated to show their level deviation from the main floor.

2.4 Stairs make the connection between floor levels

Every staircase that leads to another floor level up or down shall be clearly marked on the map. In case of more than two staircases, each staircase that connects two or more floors shall have a staircase indicator present on each level section.

3 BASIC ELEMENTS

3.1 Scale

Base map scale for indoor orienteering is 1 : 700. When a map is enlarged, all lines, symbols and screens shall be enlarged proportionally. This also applies to the course planning symbols.

When scaling the map, all symbols should retain their original dimensions, i.e. no symbols should be scaled down to a smaller size if the map scale is reduced (e.g. to 1:1,500). When scaling up (e.g. to 1:500), the symbols may be photographically scaled (up) in line with the enlargement. In short: the symbols may only be enlarged, not reduced.

Buildings or levels shown in different parts of the same printed map sheet have the same scale.

3.2 Contour interval

For indoor orienteering contour intervals known from outdoor orienteering have no meaning.

Steps should be represented by brown lines to indicate level differences.

For stairs not leading to a new floor level, there is a separate symbol for general visualization of a staircase, but not for each step.

3.3 Dimensions of map symbols

No deviations from the given dimensions within these specifications are permitted. It is however accepted that due to limitations in printing technology the final map symbol dimensions may vary up to +/- 5%.

Dimensions in this book are given at the printed scale of 1 : 700.

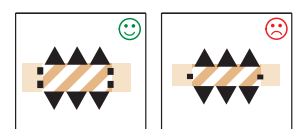
Map shall be scaled to fit paper prioritizing legibility and according to instructions given in 3.1 Scale.

All images in [this document](#) are enlarged to 200% to enhance reading.

All line widths and symbol dimensions must be kept strictly to their specified value. Certain minimum dimensions must also be observed. These are based on both printing technology and the need for legibility.

Minimum gaps and dimensions

- Passages between symbols representing uncrossable features should be 0.4 mm
- Opening of outer walls (doors) and impassable fences
- Opening of inner walls (doors) and passable fences
- Gap between two line symbols of the same colour: 0.15 mm
- Gap between minor objects and walls
- Gap for runnable area
- Shortest dashed line: at least two dashes



3.4 North alignment

An indoor map does not need to be north oriented.

3.6 Format of the map

The map format should not exceed DIN A3.

4 DEFINITION OF SYMBOLS

Definitions of features to be mapped and specifications of map symbols are given in the following sections.

Symbols are classified into six categories:

- **Construction** – building and necessary objects to fulfill a useful building, such as fences and pillars.
- **Floors** – floor surfaces, staircases, ramps and landings.
- **Water** – any object made for handling water, such as pool, shower, toilet and sink.
- **Furniture** – movable object that are mainly stationary. Other movable objects should be omitted.
- **Directions** – symbols on the map being added for the specific event, telling competitors where to run or not. Dark purple or orange.
- **Course planning symbols** – any symbol that gives information about the runner's course.

For area symbols, colour percentages are given in the text (“green 50%”) and the illustrations (“50%”).

1100 Construction symbols



521 Building body (A)

Black 50-65 %. Color 11.

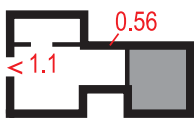
Building body is any part of building not accessible for runners. As for sprint orienteering maps, these areas are drawn in grey and must have an outline, either 1102 Outer wall or 1103 Inner wall.



1101 Temporary building body (A)

Black 50-65 %. Color 902.

Color must be the same percentage as color 11 used for 521. This symbol enables disabling of part of map temporary.

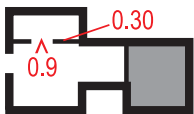


1102 Outer wall (L)

Black 100%. Color 46.

Outer wall is the outline of a building, weather accessible to runners or not.

For passable openings (doors), the outer wall shall have a gap of 1.1 mm to clearly show the entrance.



1103 Inner wall (L)

Black 100%. Color 46.

Inner wall is the outline of a room inside the building.

For passable doors, the inner wall shall have a gap of 0.9 mm to clearly show the entrance.



1103.1 Temporary hidden inner wall (L)

Black 100%. Color 2.

This optional symbols can be used to maintain walls in an area that is temporary hidden below 1101, but may occasionally be open to race.



516 Passable fence or railing (L)

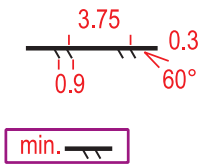
Black 100%. Color 2.

As for sprint orienteering maps, such fences or railings may be crossed, but will act as a speed reducing feature.

If the fence or railing is dangerous to cross, use 1108 Uncrossable fence or railing.

If fence or railing is caught within a set of stairs, tag line may be omitted, or use 1103 Inner wall.





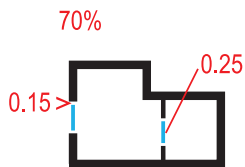
518 Uncrossable fence or railing (L)

Black 100%. Color 2.

If not permittent to cross, or if dangerous to cross, use this symbol for railing.

If the minimum length is shorter than 3 mm, it must be presented with the symbol 1103 Inner wall (or 1103.1 Temporary inner wall).

If fence or railing is caught within a set of stairs, tag line may be omitted, or use 1103 Inner wall.

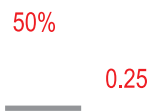


1104 Automatically closing doors (L)

Blue 70%. Color 17.

This symbol represents doors that are passable to runners, but may close automatically due to electronic control or spring retainer.

Runners are allowed to open door to pass.



1105 Retaining wall (L)

Black 50-65%. Color 11.

Minor wall not necessarily reaching ceiling level.



1106 Curtain or flexible wall (L)

Black 50-65%. Color 11.

Curtain or flexible wall that may be pushed aside or which is possible to open for runners..



1107 Small pillar (P)

Black 100%. Color 2.

Symbol represents small round pillars with diameter less than 50 cm.



1108 Larger pillar (P)

Black 100%. Color 2.

Symbol represents small round pillars with diameter above 50 cm.



1109 Square pillar (P)

Black 100%. Color 2.

Symbol represents pillars with not round shape.



520 Area that shall not be entered (A)

Olive green. Color 24.

Area forbidden to enter for all participants.

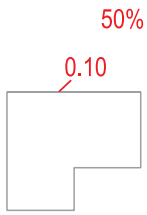
Area must be separated from other objects or areas by symbol 520.2.



520.2 Area that shall not be entered (outline) (L)

Black 100%. Color 2.

Symbol shall divide forbidden area (520) from other objects or areas on the map.

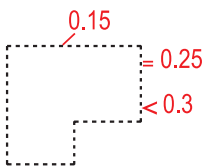


1110 Building outline of floor below (L)

Black 50%. Color 11.

This symbols is optional.

Symbols is used for outlining the shape of a below floor that may be visible from the floor above to help runners navigate in building.



1111 Building outline of floor above (L)

Black. Color 2.

This symbols is optional.

Symbols is used for outlining superstructure (floor above), that may be visible from the floor below to help runners navigate in building.

1200 Floor



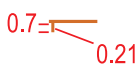
1201 Step (L)

Brown. Color 15.

This symbol shall be used for single steps or large steps, e.g. stair-shaped amphitheatre.

If steps are part of a set of stairs, including landing, leading to another floor, use 1206 or 1207.

If more than two steps, but not leading to new floor, consider using 1205.



1201.1 Ramp fall line (P)

Brown. Color 15.

Small tag to indicate falling direction of ramp.

A minimum of 1 shall be used.



1202 Stage edge or steep stairway (L)

Brown. Color 15.

Use this symbol to mark passable edge of stage or steep stairway.

Tags indicate falling direction.

25%



1203 Indoor runable area (A)

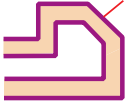
Brown 15-25%. Color 901.

Any area permitted for runners.

Out of bound areas are mapped white.

15-25%

0.30



1204 Outdoor passage (A)

Brown 15-25%. Color 901,
or Yellow 50%. Color 34.

Dark purple. Color 903.

Outdoor passage, clearly marked in terrain.

Color of outdoor passage can be Brown 15-25% (1203) or Yellow 50% of area is not paved. If surface is an area that shall not be entered, then use 520.

Outer wall leading to outdoor passage must have a gap to show exit/entrance, see 1102.

50%



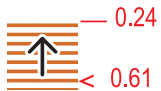
1205 Stair not leading to another floor (A)

Brown. Color 15.

This symbol needs to be corrected in order to set steps perpendicular to running direction.

Symbol 1212 Stairway direction (small) or 1213 Stairway direction (large) *may* be added to show elevating direction.

If steps are part of a total set of stairs, even with landing somewhere on the way, these steps shall not be used, unless an exit to current floor exists from the landing.



0.24

< 0.61

1206 Stairway leading to next floor up (A)

Middle red. Color 904.

This area symbol shows a stairway, or ramp as part of stairs, leading to next floor up. This symbol shall only be used for ordinary stairs with a maximum step height of 30 cm, not for stair-shaped amphitheatre.

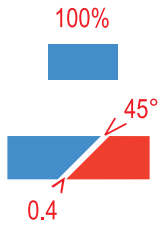
No boundry line shall surround the object.

At the back, where the stairs continue at the next floor, there shall be a white line (1222.1) or white area telling that the stairs continue, but are not accessible from this side for current floor.

See separate explanation for «How to understand drawing stairs» at the back of this document.

100%





1207 Stairs connecting to next floor down (A)

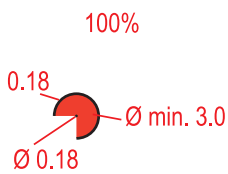
Middle blue. Color 907.

This area symbol shows a stairway, or ramp as part of stairs, leading to next floor down. This symbol shall only be used for ordinary stairs with a maximum step height of 30 cm, not for stair-shaped amphitheatre.

No boundary line shall surround the object at the entrance.

At the back, where the stairs continue at the next floor, there shall be a white line (1222.1) or white area telling that the stairs continue, but are not accessible from this side for current floor.

See separate explanation for «How to understand drawing stairs» at the back of this document.

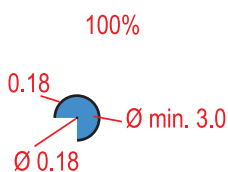


1208 Spiral stairway leading to next floor up (P)

Middle red. Color 904.

Spiral stairs leading to next floor up.

Gap shall be rotated so that entry of steps is in open sector.

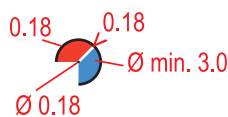


1209 Spiral stairway leading to next floor down (P)

Middle blue. Color 907.

Spiral stairs leading to next floor down.

Gap shall be rotated so that entry of steps is in open sector.

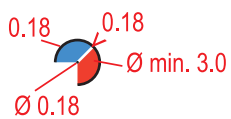


1210 Spiral stairway to next floor up and down (P)

Middle red. Color 904.

Middle blue. Color 907.

Spiral stairs leading to next floor up and down.

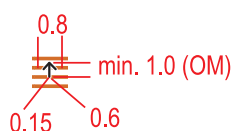


1211 Spiral stairway to next floor down and up (P)

Middle blue. Color 907.

Middle red. Color 904.

Spiral stairs leading to next floor down and up.



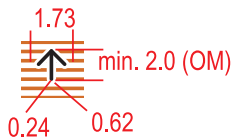
1212 Steps direction (up) (L)

Black 100%. Color 2.

White. Color 57.

This symbol (or 1213) may be added to show upwards direction for steps.

This symbol shall only be used in conjunction to 1201 or 1205.



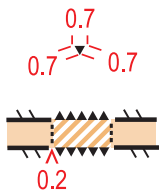
1213 Wide steps direction (up) (L)

Black 100%. Color 2.

White. Color 57.

This symbol (or 1212) may be added to show upwards direction.

This symbol shall only be used in conjunction to 1201 or 1205, and optionally with 1218.

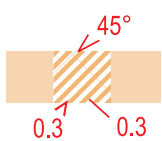


512 Bridge or underpass (L)

Black 100%. Color 2.

This symbol indicates runnability area in two levels both included in the same floor mapping.

Symbol must be used in conjunction with symbol 512.311 and with 512.2 if enough space.



512.311 Area accessible in two levels in same floor (A)

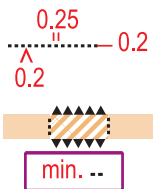
Brown 50%. Color 19.

White. Color 45.

This symbol indicates accessible areas both mapped via the same floor, e.g. high ramp or landing where area below is accessible for runners with a minimum height of 2.20 m.

This symbol shall not be part of a staircase.

If accessible area is mapped at different floor, do not use this symbol.



512.2 Underpass or tunnel walls (L)

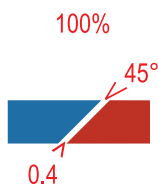
Black 100%. Color 2.

Underpass or tunnel below a mapped surface at the same floor.

Line symbol indicates a passage at the lower level.

Leave a gap at the start and end of symbol.

If too short a passage, leave this symbol out.



1214 Escalator to floor above (A)

1215 Escalator from floor below (A)

Dark red. Color 905.

Dark blue. Color 908.

This area symbol shows an escalator connecting to next floor up (1214) or down (1215).

Red and blue colors are slightly darker than for similar stairs symbols (1206/1207).



1216 Escalator moving direction arrow (L)

The escalator may have a white arrow (1216) showing escalator *moving direction* (up or down) if this differs from the logic view, e.g. if stairs lead to down but is moving up towards runner's viewpoint.



1217 Lift (A)

Yellow. Color 911.

This area symbol indicates a lift going up and/or down.
The entrance must be shown as an automatically closing door (1104).

If the lift does not stop at the floor, the lift area must be drawn as Building body (1101), hence no door.



1218 Ramp (A)

Brown 50%. Color 8.

This symbol is used for changes in level within the same floor where there are no steps, but a smooth rise or fall. The symbol can optionally be combined with symbol 1212 or 1213.

If ramp goes all the way to next floor up or down, use 1219 or 1220.



1219 Ramp to next floor up (A)

Red ramp for indoor up. Color 906.

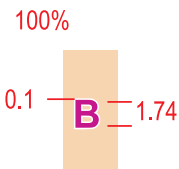
This symbol shows a ramp that goes all the way up to the next floor.



1220 Ramp to next floor down (A)

Blue ramp for indoor down. Color 910.

This symbol shows a ramp that goes all the way up to the next floor.



1221 Stairway identity letter (T)

Purple. Color 54.

White. Color 55.

This letter shall be present next to all stairs if building contains more than 2 staircases. Purpose of letter is to ease reading of map and connecting stairs between floors.

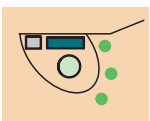
Letter shall be located clearly visible.

1222 Out of bounds area (A)

White. Color 57.

This symbol (white) is used to mark non-runnable, out of bounds, areas.

0.10



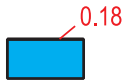
1223 Distinct floor marking (L)

Black 100%. Color 2.

Symbol is only to be used where floor marking is distinct and will aid runners navigation, otherwise leave out.

Symbol shall not be used to show steps, then use 1201.

1300 Water



301 Uncrossable body of water

Blue. Color 14.

Black. Color 2.

Body of water other than elements shown with separate symbols.

An area of deep water which may constitute a danger to the competitor. Dominant areas of water may be shown with 70% fill color.

The black outline (301.002) emphasises that the feature is uncrossable.



302 Shallow body of water (A)

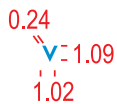
Blue 30%. Color 3.

Blue. Color 14.

Body of water other than elements shown with separate symbols.

An area of shallow water that can be crossed. The body of water should be less than 0.5 m deep and runnable.

The blue outline (302.004) signals that the feature is crossable.

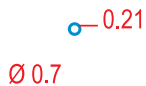


1302 Toilet (P)

Blue. Color 14.

Toilet accessible to runners.

Symbol shall not touch other objects.

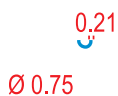


1303 Shower (P)

Blue. Color 14.

Shower accessible to runners.

Symbol shall not touch other objects.



1304 Sink (P)

Blue. Color 14.

Sink accessible to runners.

If sink is embedded into a bench it shall be omitted.

Symbol shall not touch other objects.



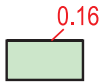
1305 Prominent water feature (P)

Blue. Color 14.

Prominent water feature not owning a separate symbol.

Symbol shall not touch other objects.

1400 Furniture

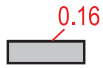


1401 Table (A)

Light green. Color 912.

This symbol represents any surface mainly 110 cm or lower meant to put things on, like a table, bar table or bench.

Symbol shall be represented surrounded by 1404 Furniture outline.



1402 Cupboard or tall shelf (A)

Black 20%. Color 12.

This symbol represents any item used to store goods, such as bookshelf or cupboard with a total height mainly of above 110 cm.

Item may have doors or it may be open shelves.

Symbol shall be represented surrounded by 1404 Furniture outline.

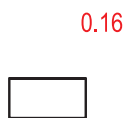


1403 Couch / sofa (A)

Bottle green. Color 913.

This symbol represents any item ment for sitting comfortable, that means not ordinary chairs.

Symbol shall be represented surrounded by 1404 Furniture outline.



1404 Furniture outline (L)

Black 100%. Color 2.

This symbol shall outline any furniture symbol.



418 Tree or plant (P)

Green. Color 6.

White. Color 57.

Plant or tree.

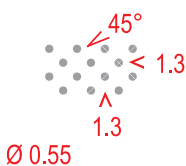


417 Large tree or plant (P)

Green. Color 6.

White. Color 23.

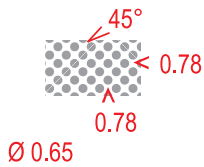
Plant or tree being significantly larger than other plants.



1407 Area with obstacles (A)

Black 50-65%. Color 11.

This symbol may be used in a room where furniture may be moved and thus making it hard to map exactly, e.g. desks in a classroom or apparatus in a gym.



1408 Area with dense obstacles (A)

Black 50-65%. Color 11.

This symbol may be used in an area of dense obstacles making it very difficult to move around.

0.16

Ø 0.14

526 Sculpture or small monument (P)

Black. Color 2.

Ø 0.8

0.16



Ø 0.8

530 Prominent feature – ring (P)

Black. Color 2.

Location is at the centre of gravity of the symbol.

The definition of the symbol must be given on the map.

0.22

531 Special feature – cross (P)

Black. Color 2.

Any item not being described by other dedicated symbols.

1.2 (OM)
1.2 (OM)

1700 Directions and map layout

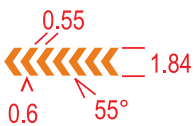


1771.1 One way passage - one large arrow (P)

Orange. Color 914.

This symbol will change according to courses made for the specific event. Symbol shows legal running direction.

Symbol must be accompanied by clear markings showing running directions. Such marking may be either on floor or by signs no less than A3 size.

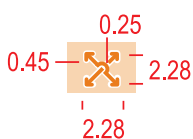


1771.2 One way passage - line symbol, small arrows (L)

Orange. Color 914.

This symbol will change position on the map according to courses made for the specific event. Symbol shows legal running direction.

Symbol must be accompanied by clear markings showing running directions. Such marking may be either taped on floor or by signs no less than A3 size.

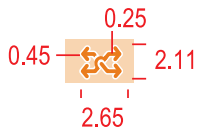


1772 Compulsory crossing (P)

Orange. Color 914.

White. Color 51.

Point where runners can pass straight ahead, but not turn sideways.

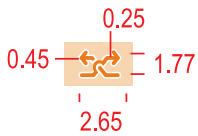


1773 Compulsory diagonal switch (P)

Orange. Color 914.

White. Color 51.

Point where runners must change diagonally to opposite lane. Runners may not turn back or switch lanes other than arrows indicate.



1774 Compulsory diagonal one way switch (P)

Orange. Color 914.

White. Color 51.

Point where runners must change diagonally to opposite lane. Runners may not turn back or switch lanes other than arrows indicate.

0.7



1775 Impassable border (L)

Dark purple. Color 903.

Funnel tapes forbidden to cross.

This symbol must be printed with a distinct darker purple to avoid markings being mixed up with course symbols.

Text 2.4

1781 Text (T)

Black 100%. Color 2.

Important information about map etc.



1782 Floor level number (T)

Middle blue. Color 907.

Number telling which floor is mapped within the marking lines made with 1774 Floor level separation line on map print.



1783 Building identity (T)

Green. Color 6.

Optional identity, number or letter, identifying the building from other buildings.

2.5



1784 Floor level separation line on map print (T)

Middle blue. Color 907.

Separation line on map print to distinguish and group floor levels.

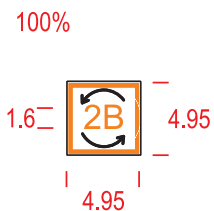
1.25



1785 Thin level separation line on map print (T)

Middle blue. Color 907.

Thinner separation line on map print to distinguish and group floor levels.



1720 Map flip point (T + P)

Orange. Color 914.

White. Color 51.

Black. Color 56.

The map flip point is optional for course planner to give runners a quick way of finding a location after map flip. Multiple objects may appear on the one map, e.g. to recognise different route choices.

700 Course print



701 Start (P)

Purple. Color 50.

0.48



702 Map issue point (P)

Purple. Color 50.

0.28



703 Control point (P)

Purple. Color 50.

Ø 4.8

0.28



1703 Alternate control point (P)

Purple. Color 50.

Control point showing exact location of control. This may be used to avoid misunderstandings about localisation among narrow passages.

Ø 4.8

Ø 0.4



704 Control number (T)

Purple. Color 50.

0.28



705 Course line (L)

Purple. Color 50.

0.28



706 Finish (P)

Purple. Color 50.

Ø 5.6

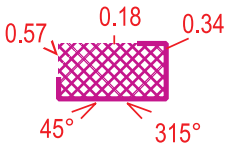
Ø 4.0

0.28

707 Marked route (L)

Purple. Color 50.





709 Out of bounds area (A)

Purple. Color 54.

Area forbidden to runners.

Area should be shown clearly in terrain by funnels tape borders.

0.34



709.4 Out of bounds boundry (L)

Purple. Color 54.

Forbidden area border line.

If not forbidden on either side, then use 1775 Impassable border.

Specific indoor control description symbols



7.119 Pillar (P)

Purple. Color 52.

or black 100%, color 2.



7.132 Toilet (P)

Purple. Color 52.

or black 100%, color 2.



7.133 Shower (P)

Purple. Color 52.

or black 100%, color 2.



7.134 Sink (P)

Purple. Color 52.

or black 100%, color 2.



7.141 Table (P)

Purple. Color 52.

or black 100%, color 2.



7.142 Cupboard / shelf (P)

Purple. Color 52.

or black 100%, color 2.



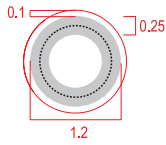
7.143 Couch / sofa (P)

Purple. Color 52.

or black 100%, color 2.

4.2 Precise definition of symbols

417



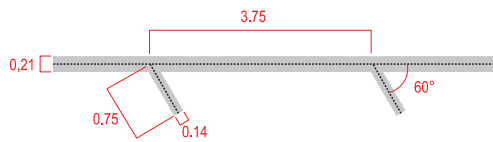
418



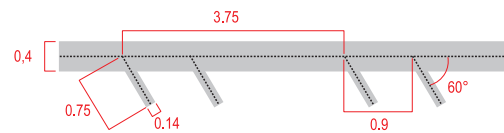
512.1



516



518



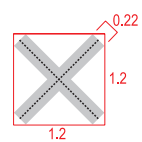
526



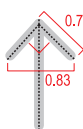
530



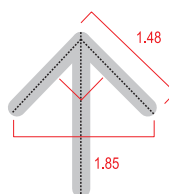
531



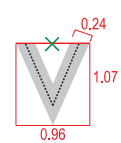
1212



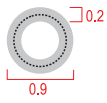
1213



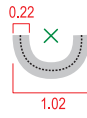
1302



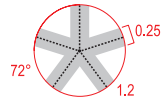
1303



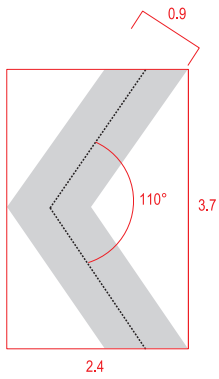
1304



1305



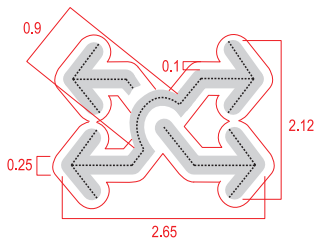
1771



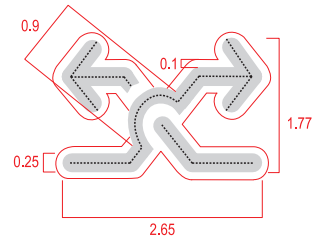
1772



1773



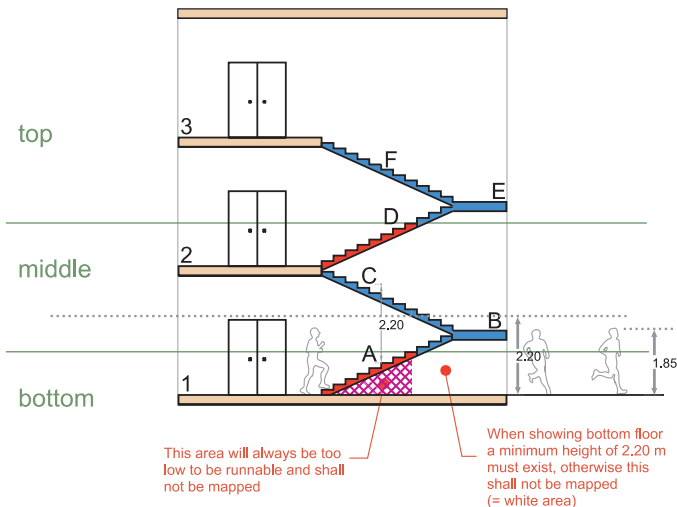
1774



Floors and stairs explained

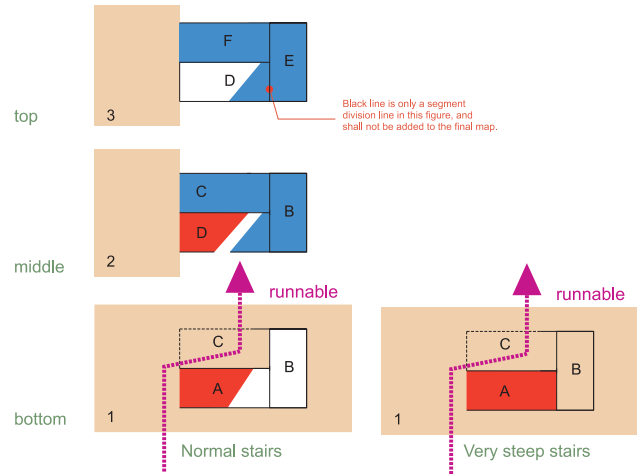
Below figures show some common stairway types and how to divide floors.

Example 1

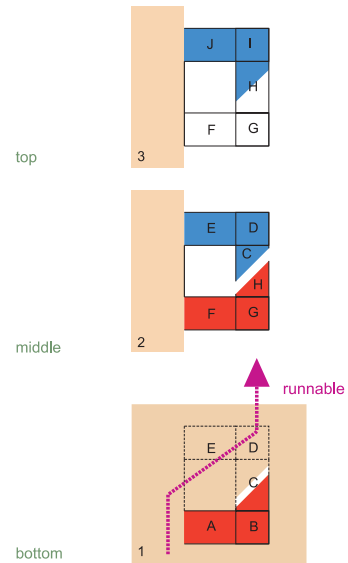
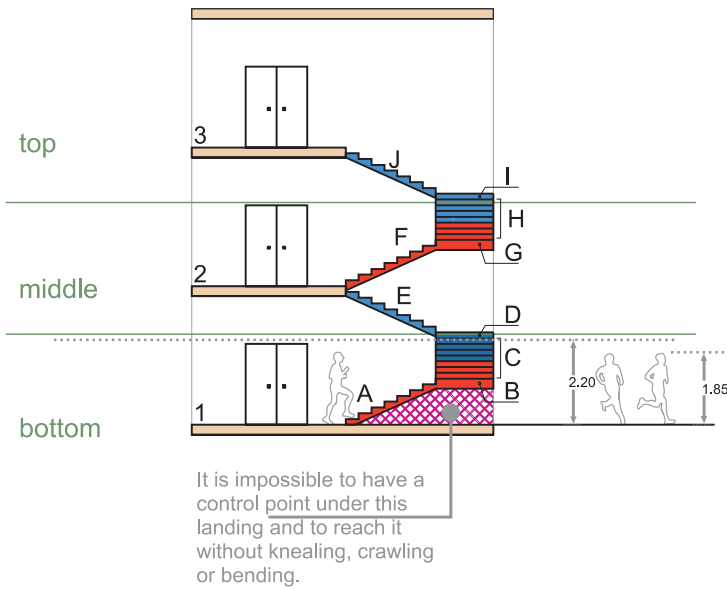


Letters on these stairs only serve the purpose of finding part of stairway. This should not be confused with the Stairway lettering (1212)

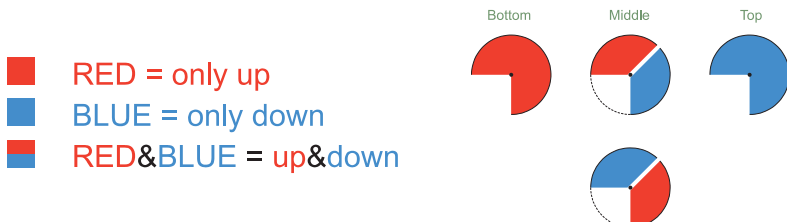
A - F
Each part of stairs is represented only ONCE on the map, that means that e.g. a landing must belong to one floor only.



Example 2



Example 3 – Spiral stairs



NOTE: Spiral stairs make more than one full turn reaching the upper level.