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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Configuration requirement for mountain trail system

登山健身步道配置要求

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1 Scope

The document establishes the classification and general rules for mountain trail systems and specifies their requirements for site selection, design, construction, technical parameters, ancillary facilities, guide sign system, smart system, environmental protection system, safety and rescue system, and acceptance.

It applies to the classification, design, construction and acceptance of mountain trail

systems of all kinds.

2 Normative references

GB/T 10001.1 Public information graphical symbols - Part 1: General symbols; GB/T 10001.2 Public information graphical symbols - Part 2: Symbols for tourism and leisure; GB/T 10001.4 Public information graphical symbols - Part 4: Symbols for sport and fitness.

Dated references apply in the edition cited; undated references apply in their latest edition, including any amendments.

3 Terms and definitions

3.1 mountain trail system: a walking route built on mountainous land, using climbing as the basic activity and fitness as its purpose.

3.2 wildland: a wild natural environment dominated by natural processes, a natural landscape least disturbed by human activity.

3.3 wildland trail: a mountain trail route lying within wildland.

3.4 environment capacity: the maximum load of pollutants that a given environment can take, and the upper limit of the number of organisms it can carry, without harming human survival or the natural ecosystem.

3.5 flow control: the limit placed, on ecological grounds, on the total number of people passing along a mountain trail in unit time.

3.6 buffer zone: the strip of land on either side of a mountain trail that safeguards the safety of users and reduces the effect of the trail on the ecological environment around it.

3.7 shoulder: the strip of a certain width from the outer edge of the mountain trail to the edge of the subgrade, which keeps the trail working, protects the stability of its main structure, offers visitors a place to stop for a moment and acts as the lateral support of the trail surface. The note states that the term covers both hard shoulders and protective shoulders.

3.8 shoulder cleanliness: the state in which the surface of the shoulder is free of encroaching shrubs and trees.

4 Classification

Mountain trails are divided into three classes, A, B and C, according to the degree of development. Table 1 gives the classification principles.

Setting of the trail: class A usually runs from town to suburb; class B usually from suburb to natural wildland; class C usually lies in natural wildland.

Degree of construction: class A is largely new build, with newly built area accounting for 70 percent or more of the total; class B is partly new build, with newly built area accounting for between 30 percent and 70 percent of the total; class C has local, minor new build that does not alter the form of the ground, with newly built area accounting for less than 30 percent of the total.

Surface hardening: class A is mainly hardened; class B is mainly unhardened, hardened where necessary; class C is mainly unhardened.

Public infrastructure provision: class A has water supply, electricity, communications, road access and levelled ground; class B has water supply, electricity, communications and road access; class C has water supply, communications and road access.

Trail system facilities: class A is fully made up, class B partly made up, class C has minor works. All three classes have a trail service centre and staging posts. Class A has both fixed campsites and staging campsites; class B has fixed or staging (temporary) campsites; class C has staging (temporary) campsites. Class A has fully formed rest points; class B has rest points; class C has the rest points needed. Class A has several car parks at the entrances and exits, at key nodes and along the trail; class B has car parks at the entrances, exits and other key nodes; class C has a car park at the entrance and exit. Class A has an activity preparation area; classes B and C have an activity preparation area and a cleaning area at the entrance and exit. Classes A and B have roadside convenience facilities.

5 General rules

5.1 The trail is to let users reach their fitness goal and enjoy climbing.

5.2 It is to comply with the safety principles of mountain outdoor sport.

5.3 It is to maintain the original character of the natural environment, ecology, history, culture and landscape of the area it passes through.

5.4 The planning of a mountain trail is to be consistent with the higher level plans of the place where it lies, including the overall territorial spatial plan, natural ecological protection areas, cultural and heritage protection areas, scenic areas, national parks and the land use plan.

5.5 The classification of a mountain trail is to be configured to suit local conditions, taking account of the local geographical environment and actual needs.

5.6 Construction may start only after the design scheme of the mountain trail has passed review.

6 Site selection requirements

6.1 The trail is to be sited in mountains below 3500 m above sea level.

6.2 On the Qinghai-Tibet plateau it is to be sited in mountains below 5000 m above sea level.

6.3 It is to avoid dangerous areas that are geologically unstable or prone to natural geological disasters, such as landslides, flash floods, debris flows and wind and snow disasters.

6.4 It is to avoid areas where the ecological environment is fragile, where resources are easily damaged, and areas for the protection of wildlife.

6.5 It is to be accessible and convenient for people taking exercise.

7 Design requirements

7.1 Existing routes are to be used and adapted, such as original mountain paths, old roads, farm tracks and firebreaks. The note states that this is not to damage the natural environment and is to let the natural landscape show its value.

7.2 Each trail in the network is to be designed differently according to the area, the terrain, the landform, the intended use and the resources available, and is to connect with other paths and with points of interest so as to form a loop.

7.3 The alignment of a mountain trail is to be set so that rescue and first aid can be carried out easily and users can be evacuated conveniently.

7.4 An activity preparation area is to be provided at the start of the trail.

7.5 The design of the trail and its ancillary facilities is to comply with the environment capacity and flow control requirements of the area.

8 Construction requirements

8.1 Materials are to be obtained on site and construction is to use the terrain and the materials of the site itself, keeping construction waste to a minimum.

8.2 The trail surface is made up of the main trail and the buffer zones on either side. The main surface is chiefly a path of the original earth and stone, supplemented by other auxiliary types such as boardwalks, gravel paths, stepping stone paths, steps and bridges. The minimum width of the buffer zone is 0.3 m and it is to be covered by vegetation.

8.3 The use of stone steps and hard surfaces is to be kept to a minimum, the surface being chiefly of soft and somewhat springy materials such as earth, grass and humus.

8.4 The trail is to have a certain gradient. Where the gradient exceeds 35 percent and cannot be reduced by lengthening the alignment, steps are to be provided, made of stone, of timber or of earth and timber combined.