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

GB/T 20257.1-2017

Replacing GB/T 20257.1-2007

**Cartographic symbols for national fundamental scale maps -
Part 1: Specifications for cartographic symbols for 1:500, 1:1
000 and 1:2 000 topographic maps**

国家基本比例尺地图图式 第1部分：1:500 1:1 000 1:2 000地形图图式

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Foreword

GB/T 20257 "National Basic Scale Map" is divided into four parts.

--- Part 1. 1:500 1:1000 1:2000 topographic map;

--- Part 2. 1:5000 1:10000 topographic map;

--- Part 3. 1:25000 1:50000 1:100000 topographic map;

--- Part 4. 1:250000 1:500000 1:1000000 topographic map. This part is the first part of GB/T 20257. This part replaces GB/T 20257.1-2007 "National Basic Scale Map Drawing Part 1. 1:500 1:1000 1:2000 topographic map. The main changes in this section compared with GB/T 20257.1-2007 are as follows:

- Added "normative reference documents", citing GB/T 13989 "National Basic Scale Topographic Maps and Numbering";
- Modify the symbol category "Measurement Control Point" to "Location Basics";
- Modify the symbolic name "swamp" to "swamp, wetland", "Ming Reef" is modified to "island, water island" not to scale, "telecom "Box" "Telecom maintenance well hole" "Telecom Bureau" was revised to "communication transfer box" "communication maintenance well hole" "communication business hall", "open-air goods" The "stack" was changed to "open-air warehouse, material field", "main road, secondary road, branch road" was changed to "main road, secondary road, branch line", etc.;
- Increased satellite positioning continuous operation site, channel above the ground, bush grass beach, reed beach, salt shoal beach, shoal, dark beach, jetty, other Type breakwaters, podiums, art buildings, tailings ponds, solar panels, construction areas, mantles (vegetables), dedicated oxygen supply points, sea rescue Station, lifeboat station, bunker, fitness, recreation facilities, observation deck, postbox, large mailbox, rooftop facilities, newsstand, kiosk, ticket sales Pavilion, automatic teller machine, paper burning furnace, car inspection platform, territorial sea point pointing monument, sun buddha, sound insulation wall (sound barrier), windproof wall (wind shield) Wall), car ramp in front of building, barrier-free access, outdoor escalator, outdoor elevator, wall, art landscape light, traffic patrol Taiwan, electronic screen, street garden landscape, elevated railway, high-speed railway, village road, sidewalk, bus stop (with platform)), parking lot, bicycle rental point, wildlife passage, heat sink, road mirror, door sign, electronic eye (monitoring Shi), traffic speedometer, traffic warning sign, street name brand (road sign), trestle wharf, approach bridge pier, road head, damaged code Head, bollard, compass correction bollard, dock, slipway, boat, radar, radio, pilot station, pilotage, hulk, helicopter Aircraft apron, submarine cable, cable, gas pressure regulating station, pipeline indicator pile, medium water maintenance well hole, public security inspection well hole, assist curve, Sketch contour, local average sea surface, dry height, wind and sand fixed grid, rock wall, debris flow, lava flow, shore ridge, ridge, white Representation of land, stubble land, bare land, etc.;
- Add or modify satellite positioning level points, hanging corner buildings, gallery rooms (rides), floating buildings, farms, door tops, rain covers, corridors, corridors, etc. Definition or description of matter;
- Modified buildings, suspended corridors, greenhouses, greenhouses, fences, stadiums, milestones, etc., adjusted the house level notes The typeface of the font and the name of the resident's place are large; the entrances and exits of the subway station and the slides are transferred from the residential facilities to the transportation category;
- Supplementary and complete the graphical representation of the symbols of rivers, houses, rafts and dykes and comprehensive indicators;

--- Deleted other roads, cable rivers and other symbols and Appendix C "topographic map framing and numbering". This part is proposed by the National Bureau of Surveying and Mapping Geographic Information. This part is under the jurisdiction of the National Geographic Information Standardization Technical Committee (SAC/TC230). This section drafted by: National Surveying and Mapping Geographic Information Bureau Surveying and Mapping Standardization Institute, Beijing Surveying and Mapping Design Institute, construction comprehensive survey Research Design Institute Co., Ltd. The main drafters of this section. Ma Xiaoping, Ma Congli, Zhang Jing, Chen Yu, Wang Dan, Huang Jian, Zhao Xin. The previous versions of the standards replaced by this section are.

---GB 7929-1987, GB/T 7929-1995;

1 Scope

China's national symbol specification for large-scale topographic maps - the legend, in the fullest sense, for every 1:500, 1:1 000 and 1:2 000 map made in the country. It is Part 1 of GB/T 20257 and specifies the symbols, the annotations and the outlines representing the features and landform elements on topographic maps at those scales, together with the methods and basic requirements for using them. It applies to the mapping of such topographic maps, and geographical base maps and similar-scale mapping may refer to it. These are the largest scales of the national series and the ones on which real work is done: at 1:500 a building is drawn to its true plan, a kerb is a distinct line, and an individual manhole has its own symbol. The maps are the basis of municipal engineering, cadastre, utility records, planning applications and construction setting-out, and they are produced by hundreds of separate survey organisations. A common symbol specification is what makes their output a single national dataset rather than a collection of local conventions. The document accordingly defines the graphical form, the dimensions, the colour and the placement rules for the symbols of every feature class - control points, residential and industrial structures, transport, pipelines and utility infrastructure, hydrography and its works, boundaries, landform and soil and vegetation - together with the annotation rules, the fonts and sizes for names and figures, and the priority and displacement rules that decide what happens when two symbols cannot both occupy the same place. That last part is what makes a symbol specification a technical document rather than a picture book, since on a large-scale urban map conflict between features is the normal case. Issued on 14 October 2017 and in force since 1 May 2018, it replaces GB/T 20257.1-2007.

This part of GB/T 20257 specifies various features and geomorphological elements represented on the topographic maps of 1:500, 1:1000, and 1:2000. Symbols, notes, and outlines, and the methods and basic requirements for using them. This section applies to the mapping of 1:500, 1:1000, 1:2000 topographic maps. Prepare a geographical base map or map a similar scale map Can be used for reference.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 13989 national basic scale topographic map framing and numbering

3.1 Classification of symbols

3.1.1 Scale symbol. The scale symbol of the feature can be scaled according to the scale symbol.

3.1.2 Semi-scale symbol. After the scale is reduced by the scale, the length can be scaled and the width cannot be expressed by the scale. number. Only the width dimension values are marked next to the symbols in this section.

3.1.3 Not according to the scale symbol. After the scale is reduced by the scale, its length and width cannot be expressed by scale. Beside the symbol in this section Dimension symbol length and width size values.

3.2 Symbol size

3.2.1 The size values marked with numbers next to the symbols are in millimeters (mm).

3.2.2 Only one dimension value is placed next to the symbol, indicating the diameter of the circle or circumcircle, the length of the equilateral triangle or the square; the two size values are For the column, the first number indicates the height of the main part of the symbol, the second number indicates the width of the main part of the symbol; the number of one end of the line symbol Word, single line refers to its thickness, and two parallel lines refer to the width of the line (the street refers to the width of the blank part). Special symbol on the symbol The size value of the note is indicated by a dotted line.

3.2.3 The thickness of the symbol line, the length of the line segment and the angle of the intersecting line segment, etc., are not marked with the symbol of this figure. general In the case, the line is thicker to

0.15 mm, the diameter of the point is

0.3 mm, and the line length of the non-main part of the symbol is

0.5 mm, and the non-vertical intersecting line segment The angle is 45° or 60°.

3.3 Symbol positioning

3.3.1 There is a point in the symbol graph, which is the physical center position of the feature.