

ICS 91.040.30

CCS P 33



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

GB 50180-2018

Replacing GB 50180-1993

Standard for urban residential area planning and design

Issued on: July 10, 2018

Implemented on: December 1, 2018

**Issued by: Ministry of Housing and Urban-Rural Development of the
People's Republic of China;
State Administration for Market Regulation**

Table of Contents

- 1 General
- 2 terms
- 3 Basic Regulations
- 4 Land use and building
- 5 supporting facilities
- 6 roads
- 7 living environment

1 General

1.0.1 This standard is formulated in order to ensure a livable and moderate living environment, to use land and space scientifically, rationally, and economically and effectively, to ensure the quality of planning and design of urban residential areas, and to standardize the planning, construction and management of urban residential areas.

1.0.2 This standard applies to the compilation of urban planning and the planning and design of urban residential areas.

1.0.3 The planning and design of urban residential areas should follow the development concepts of innovation, coordination, greenness, openness and sharing, and create a safe, hygienic, convenient, comfortable, beautiful, harmonious and diverse living environment.

1.0.4 The planning and design of urban residential areas shall not only comply with this standard, but also comply with the current relevant national standards.

2.0.1 urban residential area

The area where residential buildings are relatively concentrated in the city is referred to as residential area.

2.0.2 15-min pedestrian-scale neighborhood 15-min pedestrian-scale neighborhood The scope of the residential area is divided based on the principle that residents can meet their material and living cultural needs within a 15-minute walk; it is generally enclosed by urban arterial roads or land boundaries, with a residential population of 50,000 to 100,000 (approximately 17,000 to 32,000 units) sets of residences), areas with complete supporting facilities.

2.0.3 10-min pedestrian-scale neighborhood 10-min pedestrian-scale neighborhood The scope of the residential area is divided based on the principle that residents can meet their

basic material and living and cultural needs within a ten-minute walk; it is generally surrounded by urban arterial roads, branch roads or land boundary lines, with a residential population of 15,000 to 25,000 (about 5,000) sets to 8,000 sets of residences) and an area with complete supporting facilities.

2.0.4 5-min pedestrian-scale neighborhood 5-min pedestrian-scale neighborhood The residential area is divided based on the principle that residents can meet their basic living needs within a five-minute walk; it is generally surrounded by branch roads and higher-level urban roads or land boundary lines, with a residential population of 5,000 to 12,000 (about 1,500 units to 4,000 residences), an area equipped with community service facilities.

2.0.5 Residential neighborhood block

Residential land surrounded by urban roads such as branch roads or land boundaries is the basic residential unit formed by the combination of residential buildings; the scale of the resident population is 1,000 to 3,000 (about 300 to 1,000 houses, and the land area is 2hm² to 4h m²), and equipped with convenient service facilities.

2.0.6 residential area landuse

The general term for residential land, land for supporting facilities, public green space and land for urban roads in urban residential areas.

2.0.7 public green landuse

It is a park and green space for the supporting construction of the residential area, which can be used for residents' recreation or sports activities.

2.0.8 average storey number of residential buildings

Within a certain land use range, the number of floors obtained from the ratio of the total area of residential buildings to the total area of residential building bases.

2.0.9 supporting facilities neighborhood facility

Living service facilities that correspond to the hierarchical planning and construction of residential areas and match the size of the resident population or the size of the residential building area; mainly include grassroots public management and public service facilities, commercial service facilities, municipal public facilities, traffic stations and community service facilities, Convenience service facilities.

2.0.10 Community service facility 5-min neighborhood facility

In the residential area of the five-minute living circle, living service facilities corresponding to the size of the resident population will be built, mainly including childcare, community

services, cultural and sports activities, health services, elderly care and assistance for the disabled, commercial services and other facilities.

2.0.11 Convenient service facility neighborhood block facility

The basic living service facilities provided by residential buildings in residential neighborhoods, mainly including property management, convenience stores, event venues, domestic garbage collection points, parking lots (garages) and other facilities.

3 Basic Regulations

3.0.1 The planning and design of residential areas should adhere to the basic principle of people-oriented, follow the applicable, economical, green and beautiful architectural guidelines, and should meet the following regulations.

- 1 It should conform to the overall urban planning and regulatory detailed planning;
2. It should conform to the local climate characteristics and environmental conditions, economic and social development level and cultural customs;
- 3 The principles of unified planning, rational layout, land saving, adapting measures to local conditions, supporting construction and comprehensive development should be followed;
4. Provide convenient conditions and places for the life and social activities of the elderly, children and disabled persons;
- 5 The historical context of the city should be continued, the historical and cultural heritage should be protected, and it should be coordinated with the traditional style;
- 6 The construction method of low-impact development shall be adopted, and effective measures shall be taken to promote the natural accumulation, natural infiltration and natural purification of rainwater;
- 7 It shall meet the relevant control requirements of urban design for public space, building groups, garden landscape, municipal and other environmental facilities.

3.0.2 Residential areas should be constructed in safe and livable areas, and should meet the following requirements.

- 1 Construction shall not be carried out in areas threatened by natural disasters such as landslides, mudslides, and mountain torrents;
- 2 The distance from dangerous chemicals, flammable and explosive materials and other dangerous sources must meet the relevant safety regulations;
- 3 In areas with noise pollution and light pollution, corresponding protective measures to reduce noise and light pollution should be taken;

4 In the area where the soil is polluted, effective measures must be taken for harmless treatment, and the requirements for the soil environment quality of the residential land shall be met.

3.0.3 The planning and design of residential areas should take into account the emergency shelters and evacuation channels for residents, and should meet the national safety management and control requirements for emergency disaster prevention.

3.0.4 According to the principle that residents can meet their basic living needs within a reasonable walking distance, residential areas can be divided into four levels. 15-minute living circle residential areas, 10-minute living circle residential areas, 5-minute living circle residential areas and residential neighborhoods. Its hierarchical control scale should meet the requirements in Table 3.0.4.

Table 3.0.4 Scale of hierarchical control in residential areas

01-Table 3.0.4 Residential area hierarchical control scale 3.0.5 Residential areas should be controlled according to their hierarchical scale, corresponding to the planning and construction of supporting facilities and public green spaces, and should meet the following requirements.

1 New residential areas should meet the requirements of overall planning, simultaneous construction, and simultaneous use;

2 The old districts can be transformed following the principles of planning matching, construction filling gaps, comprehensive compliance, and gradual improvement.

3.0.6 Residential area planning and construction projects involving historical urban areas, historical and cultural blocks, cultural relics protection units and historical buildings must abide by the relevant national planning protection and construction control regulations.

3.0.7 Residential areas should effectively organize the collection and discharge of rainwater, and should meet the requirements of surface runoff control, waterlogging disaster prevention, non-point source pollution control and rainwater resource utilization.

3.0.8 The development and utilization of underground space in residential areas should be moderate, and the impermeable area of the land should be reasonably controlled and the soil ecological space required for natural infiltration and purification of rainwater should be reserved.

3.0.9 The planning and design of engineering pipelines in residential areas should comply with the relevant provisions of the current national standard "Code for Comprehensive Planning of Urban Engineering Pipelines" GB 50289; the vertical planning and design of residential areas should comply with the current industry standard "Code for Vertical Planning of Urban and Rural Construction Land" CJJ83 the relevant regulations.

3.0.10 The building climate zoning of the residential area shall comply with the current