

ICS 35.240.01

CCS L 77



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

GB/T 46255-2025

**Urban public facilities - Electronic fence system - General
requirements of construction**

城市公共设施 电子围网系统 建设通用要求

Issued on: October 5, 2025

Implemented on: May 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
4.General Requirements	1
5 System Overall Architecture	1
6.System Functions	2
6.1 Front-end Perception Layer	2
6.2 Information Transmission Layer	3
6.3 Business Processing Layer	3
7 System Construction	5
7.1 Basic Requirements	5
7.2 Investment Decision Period	5
1.Stages and Tasks of Electronic Fence System Investment Decision-Making and Construction Phases	5

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying these patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Urban Public Facilities Services (SAC/TC537). This document was drafted by: China Electronics Engineering Design Institute Co., Ltd., Beijing Institute of Standardization, and Fuzhou Municipal Planning and Design Research Institute. China Academy of Building Research Institute Co., Ltd., Zhuhai Dahengqin Technology Development Co., Ltd., Zhongguancun Lejia Smart Residential Area Industry Technology Alliance, Peking University, Inspur Group Smart City Technology Co., Ltd., China Survey and Design Association, China Power Investment Engineering Research, Testing and Evaluation Center Co., Ltd., and State Development & Investment Corporation Aviation Technology Development Co., Ltd. Exhibition (Beijing) Co., Ltd., Beijing University of Science and Technology, China Scenic Area Association, Tongfang Weishi Technology Co., Ltd., and Hefei University of Technology jointly designed the exhibition. China Academy of

Information and Communications Technology (Group) Co., Ltd., Beijing Daxing International Airport Group Co., Ltd., Shiyuan Technology Engineering Co., Ltd., and iFlytek Zhiyuan Information Technology Co., Ltd. Information Technology Co., Ltd., Huawei Technologies Co., Ltd., China Mobile (Hangzhou) Information Technology Co., Ltd., China Academy of Building Research Co., Ltd. Company, Beijing Taihao Science and Technology Innovation Co., Ltd., Beijing Shiyuan Xida Engineering Technology Co., Ltd., Daopu Information Technology Co., Ltd., China Construction West South China Architectural Design & Research Institute Co., Ltd., Guangzhou Metro Design & Research Institute Co., Ltd., East China Architectural Design & Research Institute Co., Ltd., Shenzhen Construction... Architectural Design & Research Institute Co., Ltd., Beijing Zhongke Huiwei Information Technology Co., Ltd., Capital University of Economics and Business, Shanghai Architectural Design & Research Institute Limited Liability Company, China National Machinery Industry Construction Group Co., Ltd., Sichuan Chuantou Zhisheng Digital Technology Co., Ltd., Green Building Smart Technology (Beijing) Co., Ltd. Limited Company, China Architecture Design & Research Institute Co., Ltd., and Beijing Urban Construction Design & Development Group Co., Ltd. The main drafters of this document are. Lou Yu, Tian Chuan, Zhai Chuanming, Tang Lihong, Chen Guohua, Li Hongpeng, Fan Qiang, Yi Tiantian, Su Jianli, and Hu Xiaoxue. Lu Xi, Sun Yue, Ba Quanlong, Yu Junzhi, Wang Yanbo, Wang Shiyong, Li Da, Tang Lingxiao, Wang Jiexiang, Wang Weiping, Zhang Hongji, Bie Fenglei, Li Kejian Liu Guan, Shi Xin, Li Jie, Zhou Qiang, Han Yuzhong, Ji Ao, Zhang Li, Xue Rui, Hu Jian, Wan Guizhong, Tao Rui, Cheng Xiaogen, Tang Wei, He Yongfeng, Li Xiao, Rui Xin Han Xiaolong, Wang Zhi, Lin Shan, Guo An, Cai Danque, Yao Cuiyou, Chen Xuwen, Guo Weidong, Chen Jiefu, Qiu Jifeng, Bai Mingmei, Cheng Weidong, Gang Yijin Wang Chunpeng, Fu Dongdong, An Weihua. Electronic fence system for urban public facilities General Construction Requirements

1 Scope

GB/T 46255-2025 is the Chinese national standard covering the electronic perimeter around a public facility - the detection technology and its coverage, the false alarm rate that decides whether the guards keep believing it, the integration with video and access control, and the installation and commissioning. First edition, in force from 1 May 2026. Issued on 5 October 2025, it has been in force since 1 May 2026.

This document specifies the general requirements, overall system architecture, system functions, and system construction requirements for the electronic fence system. This document applies to the construction of electronic fencing systems in urban public facilities.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For

references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 28181 Technical requirements for information transmission, exchange and control of public security video surveillance network systems

GB/T 43993 Operation Specifications for Electronic Fence Systems of Urban Public Facilities

3 Terms and Definitions

The following terminology definitions apply to this document.

3.1 By comprehensively applying information technology and using intelligent sensing devices, multi-level collaborative processing of various management and service objectives within the service area is achieved. A city public facilities management system with functions such as management and administration.

Note. Typical scenarios for electronic fence systems include city squares, commercial streets/districts, parks/green spaces, urban rivers/lakes/reservoirs, industrial/technology parks, and residential areas. Areas such as designated areas and shared bicycle parking areas need to balance openness with service management requirements. [Source: GB/T 43993-2024, 3.1, with modifications]

3.2 The collective term for vehicles and/or unmanned intelligent instruments and equipment that intelligently perceive the service area.

4 General Requirements

4.1 The electronic fence system should be seamlessly integrated with other areas of the city, without spatial fragmentation. The boundaries of the management area should be clearly defined, and the service affiliation should be clearly defined. clear.

4.2 The electronic fence system should rely on technologies such as the Internet of Things and artificial intelligence to detect and monitor targets such as people, vehicles, and goods crossing the boundary. It can recognize and identify data such as out-of-bounds location and trajectory through standard interfaces.

5 System Overall Architecture

5.1 The overall architecture of the electronic fence system includes a front-end perception layer, an information transmission layer, and a business processing layer. The overall architecture of the electronic fence system is as follows: