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## **Smart community infrastructures — Smart transportation for newly developing areas**

*Infrastructures urbaines intelligentes — Transport intelligent pour  
les territoires en développement*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 268, *Sustainable cities and communities*, Subcommittee SC 1, *Smart community infrastructures*

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

Although overall populations in developed countries have started to decrease, many cities are looking for more space for citizens to reside and locate businesses, and are developing virgin or desolate land, since convenient places are normally limited in existing cities. Developing countries whose population is sharply increasing are also in the same situation due to these population explosions and the shortage of places for comfortable city life and effective business expansion.

A newly developing area is a type of district newly planned and developed to achieve such goals where the land has never been touched but is located within commuting distance of the current main city centre. Once a small or medium-sized city is developed near a metropolis, the new city is often called a satellite city.

In order to establish a newly developing area, passenger transportation services are indispensable as an easy means of travel from place to place inside the area and between the area and established cities nearby. 24-h transportation plays a key role in supporting the sustainability of a newly developing area since transportation performance directly creates a strong bond between citizens' lives and business activities. In other words, transportation, if suitable, contributes to successful development and fostering of newly developing areas. The transportation services should therefore be carefully organized.

In most cases, the size of a newly developing area is not huge, but the population itself could be large. Thus, a relatively high frequency of transportation services rather than a high capacity per service is required. Transportation services shall be able to accommodate planned passenger numbers in expected passenger flows. The geographical features of a target site and the characteristics of the town planning will dictate specific transportation performance. It is not unusual to place newly developing areas in hilly terrain since easily cultivated land has probably already been used. Financial circumstances are likely to force transportation routing to take courses that do not require building a tunnel through a hill but instead laying tracks on hills, even if steep. Flexible track arranging hence responds to the restrictions of local policy-oriented conditions by placing ground tracks, underpasses or overpasses, viaducts and small curves alongside public roads.

In the development of this document, ISO Guide 82 has been taken into account in addressing sustainability issues.