# **General Principles of Universal Design Policy**

July 2005



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# **General Principles of Universal Design Policy**

#### Introduction

Japan has, as a consequence of a process of modernization and industrialization that has taken place mainly in the twentieth century, become one of the world's major economic powers. During the half century since the end of World War II, it has experienced particularly rapid urbanization and industrialization and created urban and transportation systems appropriate to its new status. These were adapted to a society whose principal characteristic was growth.

But now at the beginning of the twenty-first century, Japanese society has entered a period of radical change. The simultaneous aging of the population and decline of the birth rate are bringing an unprecedented period of population decline. This society is introducing measures to support independent activities planned so that elderly people can autonomously select their own life styles. Efforts are also being made to create a gender equal participation society that lets both men and women mutually exercise their distinctive characteristics and capabilities.

It is also essential to create a symbiotic society in which handicapped people make independent choices and decisions to enter and participate fully in all social activities. Therefore, measures to help all handicapped people exercise their own capabilities to achieve self-actualization are being introduced.

Continued internationalization is deepening links between Japanese society and foreigners who come here to do business, tour Japan, and for other purposes.

We are entering an age when we must make efforts to create a society in which every person can exercise his or her own unique qualities in this way and participate freely in society to achieve self-actualization. The Ministry of Land, Infrastructure and Transport (MLIT) is now implementing national land and transportation policies based on the concept of universal design \*1 that is defined as the design of facilities, "easily and freely used anywhere, by anyone" in order to create such a society by providing social capital and transportation systems that will support society in the twenty-first century.

In October of last year, the MLIT established the Universal Design Policy Promotion Headquarters within the ministry. It has now conducted discussions a total of fifteen times. It prepared these General Principles by carrying out an overall examination of all fields of national land and transportation administration and conducting discussions with experts both inside and outside of Japan, and at the same time, has linked discussion groups formed to deal with the way to achieve barrier free \*2 conditions, to smooth the use of public transportation systems and to promote Free Mobility Project \*3.

Through this organization's activities, the Ministry of Land, Infrastructure and Transport will reform the consciousness of every one of its employees so that the entire organization will implement national land and

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<sup>\*1</sup> Universal design: This is the concept of designing cities and living environments that can be utilized without difficulty by everyone including the handicapped, people of all ages and of both genders, and of all races (From the Basic Plan for Handicapped People (Cabinet Decision of December 24, 2002))

<sup>\*2</sup> Barrier free: This is the process of removing barriers preventing elderly and handicapped people for example from participating in the life of society. It is the concept of moving all obstacles including physical, social, systemic, psychological, and information obstacles. (From the Basic Plan for Handicapped People (Cabinet Decision of December 24, 2002))

Free Mobility Project: This refers to projects that apply revolutionary ubiquitous network technologies to use Ubiquitous Location Information Systems that provide necessary information anytime, anywhere, to anyone in real time in order to provide system users with information such as travel routes, transportation methods, and destinations by voice, by a letter, and in multiple languages to allow the elderly and handicapped to travel freely to destinations they wish to reach.

transportation policies based on the concept of universal design, and it is counting on internal groups and individuals who play a variety of roles working together to undertake aggressive measures to achieve the above goals.

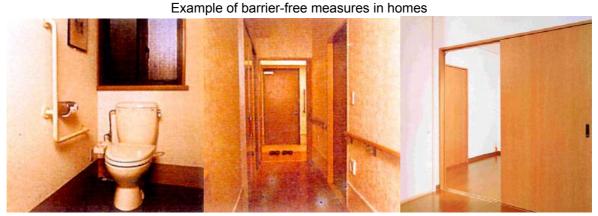
# I. Present state and challenges

#### 1. Past efforts

In the past, cities and transportation systems were provided in Japan assuming that they would be used mainly by people free of any handicaps.

The realization that Japan will soon become an aged society and the growing demand by handicapped people to participate fully in society has been accompanied by the beginning of efforts to remove barriers to the use by elderly and handicapped people of buildings, roads, public transportation systems and other spaces.

- O In 1982, building design standards that consider the use of buildings by handicapped people were enacted.
- O In 1983, guidelines to the provision of facilities for the use of handicapped people in public transportation terminals were enacted.
- O In 1991, It was stipulated that in principle, newly constructed public rental housing must be barrier-free.

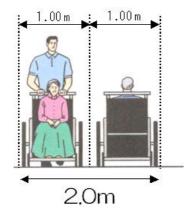


Installation of handrails

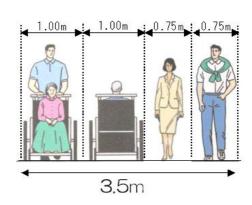
Widening corridors

Removal of level differences

O In 1993, The Road Structure Regulations were revised to permit wheelchair users to meet and pass each other safely and smoothly.

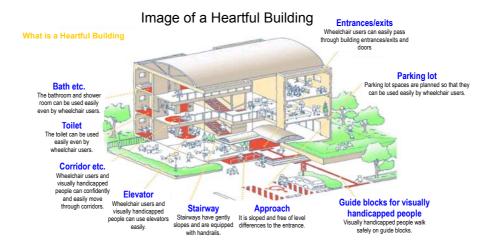


Example of a sidewalk on a road with few pedestrians



Example of a sidewalk near a hospital etc.

O The Act on Buildings Accessible and Usable by the Elderly and Physically Handicapped (Heartful Building Law) was enacted in 1994.



O In 2000, The Law for Promoting Easily Accessible Public Transportation Infrastructure for the Aged and the Disabled (below called the "Transportation Barrier-Free Law") was enacted.

# **Example of Transportation Barrier Free Measures**



Installation of elevators



Non-step busses \*4



Improvement of level differences and slopes on sidewalks and the installation of guide blocks for visually handicapped people

Non-step bus: It is a bus designed so that wheelchair users can board without assistance: busses with their floors less than 30cm from the ground, no level differences at exits/entrances, wheelchair spaces, and aisles wide enough for the passage of wheelchairs.

And social capital provision and transportation policies are implemented systematically to achieve preset goals.

Barrier Free Measures: Present State and Goals

	Barrier free measures	Barrier free rate	
Facility		Present time (2003)	Goals of social capital provision priority plans (2007)
	Elimination of level differences	44%	Above 70%
Passenger facility (1)	Guide blocks for visually handicapped	74%	Above 80%
	people		
(2)	Removing level differences, ensuring	25%	About 50%
Road (2)	width, installing guide blocks for visually		
	handicapped people		
Building (3)	Providing handrails and wide corridors	30%	About 40%
Housing	Providing handrails and wide corridors	About 3%	About 10%

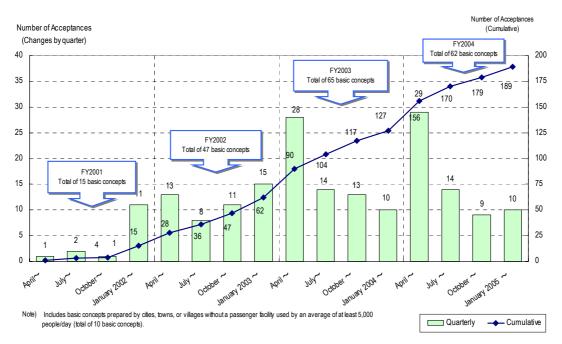
#### Notes:

- (1) Passenger facility used by an average of at least 5,000 people/day (examples: railway stations, bus terminals, etc.)
- (2) Major roads surrounding (1)
- (3) Stipulated buildings used by an unspecified large number of people (examples: hospitals, theaters, hotels, etc.)

Percentage of cars etc. in public transportation systems that are barrier free

	Present (2003)	Target of the Basic Guideline to Smooth Travel (2010)
Railway cars	24%	30%
Non-step busses	9%	20 – 25%
Passenger ships	4%	50%
Airplanes	32%	40%

# Changing Number of Acceptances of a Basic Concept in Accordance with the Transportation Barrier-Free Law



#### 2. Challenges to be overcome to achieve universal design

In order to construct a society in which all people can exercise their individuality and their capabilities and participate fully in that society to achieve self-actualization, it is important to adopt the perspectives of "fairness," that means not discriminating between users, "freedom of choice (flexibility)" that permits flexible satisfaction of individual needs, and "participation" that encourages planning with the participation of users and residents, based on the concept of universal design: designing facilities that are "easily and freely used anywhere, by anyone".

It is necessary to establish a process of staged and continued development and to strive to achieve a "more universal social environment" from a variety of perspectives (spiral up \*5) by sharing knowledge that has been obtained and reflecting this knowledge in future measures.

A review of measures taken by the MLIT based on such concepts has revealed the following challenges.

Because measures to achieve a barrier free society have, until now, focused on removing barriers to the movement of elderly and handicapped people in particular, not enough has been done to consider use by a variety of types of people.

- Measures to remove barriers to elderly and handicapped people have not considered a wide range of users including mentally handicapped and mentally ill people, foreigners, children, and adults with children.
- Because measures to remove barriers have been taken independently at each facility, continuity at
  connections between facilities has not been ensured or barrier free measures have been limited to parts
  of the living environment centered on travel facilities.
- With the priority on physical measures at facilities, support systems integrating physical and non-physical measures have not been taken and measures to provide information and remove psychological barriers have been inadequate.
- The elimination of barriers in newly constructed facilities through legal requirements has progressed, and at the far more numerous existing facilities, a certain degree of progress has been made, but overall, measures have been inadequate.

A comprehensive survey of national land and transportation administration has revealed not only these problems with efforts to remove barriers; but a number of problems related to public transportation and city planning.

In the public transportation sector, adequate measures to link different transportation companies and to provide information have not necessarily been taken, and the framework of past polices concerning the introduction of new public transportation services does not necessarily guarantee the ability to effectively take barrier-free measures.

It is difficult to implement city planning that guarantees services that users require and people remain susceptible to disasters, because of the deterioration of city centers and the great distance from city centers to residential districts.

And processes permitting the staged and continuous implementation of measures from varied perspectives have not always been established.

<sup>\*5</sup> Spiral up: It is a staged and continuous process in which users and residents participate actively from the preliminary study stage to the post-project evaluation stage and share knowledge obtained through their participation process to apply it to other projects.

# II. Basic concept of the general principles of universal design policy

The Ministry of Land, Infrastructure and Transport will, as stipulated by the concept of universal design that means design of facilities that are "easily and freely used anywhere, by anyone", implement policies in line with the following concepts in order to realize the ideal of providing and improving living environments and interconnected travel environments through both physical and non-physical measures, in order that regardless of their physical condition, age, or nationality etc., the character and individuality of all people will, to the greatest degree possible, be respected, enabling them to participate freely in society and enjoy exciting, safe, and abundant lives.

#### 1. Constructing a participation society from the perspective of users

Future policies must be implemented from the perspective of users with their focal point on users.

#### (1) Diverse participation by users, residents, NPO etc.

In order to take measures that consider the use of facilities by a wide range people, it is important to seek the participation of users, residents, and NPO and many other concerned parties at every stage beginning at the hypothesis stage through facility construction and extending to its operation and maintenance in order to reflect their needs in the policies.

### (2) Taking continuous staged measures (introduction of the spiral up approach)

To realize the ideal of creating a society in which all people can exercise their individuality and unique abilities and participate freely in society to achieve self-actualization, it is essential to implement policies by establishing a staged and continuous implementation process and working to continuously achieve a more universal social environment from diverse perspectives (spiral up).

#### (3) Strengthening links and cooperation between concerned people of all kinds

To satisfy the needs of a variety of users, diverse concerned parties must join forces and act cooperatively, but because there are cases where, because of a lack of conciliation of different opinions and the sharing of the cost burden, links are inadequate, an environment in which concerned parties can join forces and work cooperatively while appropriately sharing responsibilities must be established.

### 2. Integrating barrier free policies

Past barrier free measures have achieved some degree of success, but beginning with both physical measures and organizational measures, information barriers and psychological barriers remain. Barrier free measures are one of the most important policies among policies based on the concept of universal design, and in the future, integrated barrier free measures must be completed and strengthened. It will be important to take measures considering a diverse range of users based upon the most recent trend in measures for handicapped people: providing them with greater independence and ability to participate in society.

#### (1) Continuous removal of barriers for uninterrupted movement by users

When removing barriers, it is important to remove them continually to support uninterrupted movement from the perspective of users.

Therefore, a comprehensive perspective is necessary, and basic concepts and plans for the removal of barriers must be enacted through harmony and cooperation of a wide range of concerned parties from the perspective of overall urban renewal.

### (2) Expansion of target areas

The target areas must be made as broad as possible, by including transportation services, public facilities, and other public spaces (for example, taxis and other individual transportation services, schools and similar public facilities, etc.).

#### (3) Expanding non-physical measures

Removal of barriers must not be limited to physical measures, but include non-physical measures such as greater personal service and the provision of suitable information to users to be implemented as comprehensive measures that integrate physical and non-physical measures.

It is important to carry out activities to increase public awareness and to train personnel to meet the need for elimination of psychological barriers: an achievement requiring that every citizen view the difficulties faced by the elderly, handicapped people, and families with children as their own problems and cooperate actively to ensure that such disadvantaged people can participate fully in society.

### (4) Encouragement of responsive and flexible measures to achieve steady implementation

Spatial and physical restrictions etc. have resulted in insufficient removal of barriers from existing facilities. The continued use of facilities where adequate barrier-free measures have not been taken is a factor slowing the removal of all barriers from society, requiring that knowledge be applied and innovations introduced to achieve further progress in the removal of barriers from such existing facilities.

To do so, it is necessary to make necessary improvements and to study flexible and rational improvements according to the size of each facility and the way it is used.

An effective approach is to improve the overall level by sharing and disseminating knowledge and experience gained from past model measures and cases of successful measures. Accordingly, model measures applied to pioneering projects must be effectively supported at the same time as market mechanisms are applied to spread the application of universal design. It is also vital to consider the characteristics of each region.

#### 3. Public transportation that all people can use safely and smoothly

Public transportation plays a big role in creating an environment in which all people can move freely and safely, but one problem remains in this area: inadequate efforts to realize seamlessness\*6 that guarantees highly convenient smooth overall travel including transferring between public transportation systems.

This requires measures to further improve public transportation so that all people can use public transportation systems without difficulty.

#### (1) Greater convenience and smoother transfers at transportation system connections

It is necessary that railway stations and other connection points between transportation systems be more convenient and that it be easier to transfer at such connection points in order to achieve overall public transportation that everyone can use smoothly, but there are cases where, because various companies and other management organizations that are in mutually competitive relationships provide and manage these connection points, their failure to cooperate sufficiently severely delays the improvement of such connection points. It is, therefore, necessary to encourage cooperative efforts by these diverse concerned parties.

#### (2) Encouraging cooperation between transportation companies and regional residents

Regional residents have begun to independently view increasing the convenience of public transportation as their responsibility and to undertake measures to achieve this goal through cooperation between public transportation companies. Because such active involvement by regional residents encourages them to use public transportation, it is essential to provide further encouragement to measures undertaken cooperatively by transportation companies and regional residents.

# (3) Need to provide information about public transportation

To improve the overall level of public transportation, administrators must promote the provision of a wide range of information concerning model measures. In addition, systems to objectively evaluate whether or not the public transportation services that transportation companies provide conform to the perspectives of users are needed, and the provision of information including that applying IT must be improved and expanded.

### (4) Promoting comprehensive measures

To achieve smoother use of public transportation in a region, it is essential for all concerned organizations in that region to work cooperatively to undertake comprehensive projects linked to the provision of public facilities, traffic regulations, revitalization of city centers, and urban renewal planning, and other projects.

<sup>\*6</sup> Seamlessness: Seamlessness when applied to public transportation means that taking both physical and non-physical measures to eliminate "seams" where passengers transfer between transportation systems and "seams" where passengers walk and get on and off vehicles inside transportation terminals lets them travel from their departure points to their destinations very smoothly and extremely conveniently.

### 4. Creating communities where everyone can live safely and comfortably

A community is the foundation of people's daily lives, and community planning must consider creating communities where people of all kinds can live comfortably.

#### (1) Promoting efforts to create pedestrian communities

Measures must be taken to create "pedestrian communities": that are compact communities on a pedestrian scale where all facilities necessary for the residents' daily lives are nearby, freeing them from excessive dependence on automobiles, encouraging them to extend their daily lives to surrounding streets, and allowing them to obtain all the goods and services they need to meet their daily basic needs within walking distance.

#### (2) Encouraging measures incorporating entire communities

It is necessary to smooth all the various activities people conduct in their communities, and this must be done considering not only specified facilities, but a wide variety of facility uses and smooth travel to and from these facilities. It is important for regional governments that conduct community improvement projects to respond to the views of a wide range of concerned groups by incorporating the perspective of entire communities and presenting basic guidelines for community improvements based on the concept of universal design, and to provide planned, staged, safe, and comfortable pedestrian space according to the need for and the importance of their improvement.

# (3) Creation of daily life functions including residential, welfare, and shopping district functions through the renewal and redevelopment of communities.

Taking the opportunities provided by the renewal of urban districts and new towns etc. developed during the period of high speed economic growth, welfare bureaus and other concerned bureaus must cooperatively support the provision of a variety of residential districts and the improvement of neighborhoods etc. at the now inadequate number of facilities needed by elderly people, handicapped people, and families with children, to create residential, welfare, shopping district, and other daily life functions in each region.

#### (4) Safe and worry-free community improvement

Disaster protection measures and day-to-day accident prevention measures for buildings that consider the elderly, handicapped people, and children etc. must be undertaken so that all people can live safely and free from worry.

# 5. Providing for diverse activities based on technology, methods, etc.

Measures must be undertaken to provide for diverse human activities, tourism and others that are not parts of people's daily lives and the activities of foreigners that are expected to continue to increase, while measures are taken to meet new needs resulting from the advance of IT for example. Measures must be taken guided by predictions of a variety of human activities based on the concept of universal design.

#### (1) Measures to support tourism and other activities not part of people's daily lives

In tourist regions, at tourism facilities, and in hotels, barriers must be removed and other measures taken to provide for tourism and other activities that are not part of people's daily lives.

And because tourists are not aware of the geography of the regions they visit, it is important to create environments where they can travel smoothly by easily finding out where they are and how to reach their destinations.

#### (2) Providing environments to accept foreigners

Along with measures intended to make Japan a tourism power visited by 10 million foreign travelers per year by 2010, environments foreigners can visit must be created by providing information to foreigners and completing signs in foreign languages.

# (3) Using IT to provide universal information (constructing Ubiquitous computing environment \*7 etc.)

Ubiquitous computing environments is being constructed thanks to the advance of IT, but it is also counted on to permit the provision of needed information to many kinds of people anytime and anywhere to contribute to the creation of a society in which every person can exercise his or her individuality and capabilities and participate fully in society to achieve self-actualization. For this reason ubiquitous network technology \*8, GIS \*9 etc. must be applied to implement measures to complete the provision of information.

\*8 Ubiquitous network technology: It is information communication technology (ICT) that forms an environment for the use of a network linking everything and everybody at any time, anywhere (ubiquitous network) by forming a wide area network of all kinds of information systems.

<sup>&</sup>lt;sup>\*7</sup> Ubiquitous computing environment: Ubiquitous is a Latin word that means "exists everywhere". so this term means an environment in which information systems of all kinds are linked in a network, allowing everyone to exchange information safely at any time and in any place.

<sup>\*9</sup> GIS: This is an acronym for Geographic Information System. It is technology that permits users to perform advanced analysis and make instant judgements by performing integrated control, processing, and visual display of data including information about a location (spatial data) by entering a geographical location.

# III. Specific measures

The Ministry of Land, Infrastructure and Transport is implementing the following specific measures to expand past efforts by various organizations in line with "II. Basic concept of the general principles of universal design policy."

# 1. Construction of systems for the participation of diverse concerned people based on the concept of universal design.

- O To provide public facilities etc. and to develop new national land plans, systems are being created to obtain the participation of users, residents, and NPO etc. in order to reflect their views at every stage from the concept stage through the preparation and implementation of the plan and to the management stage
- O At the same time as systems that allow residents, NPO etc. to make proposals to organizations implementing plans are established, support is being given to the residents and NPO that conduct diverse activities in such regions.
- O The Ministry of Land, Infrastructure and Transport itself is taking the lead in undertaking projects under its jurisdiction. (When constructing or improving government offices etc., it holds workshops \*10 etc. to link residents and concerned parties including those in the surroundings.)

# 2. Creation of systems for assessments and information sharing based on the concept of universal design (universal design assessments)

- O Systems are being established to assess the effectiveness of facility construction and similar projects and of the implementation of non-physical measures with the participation of a variety of concerned parties, and to reflect the results of these assessments in the planning of future projects and measures (spiral up).
- The Ministry of Land, Infrastructure and Transport itself is taking the lead in implementing spiral up at projects undertaken under its jurisdiction (implemented through MLIT projects and introduced as sample cases).
- O In order to objectively assess the degree of satisfaction with the effectiveness of measures from the perspective of users, "Universal Design Indices" are prepared.
- O Information about cases with a high (or low) level of universal design is collected, accumulated, and announced.

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# (Specific cases)

- O In order to deepen people's knowledge of the Arakawa River and to protect and improve the Arakawa River in the downstream region, the Arakawa River is being improved so everyone can visit it safely based on opinions from the Arakawa River Citizen's Meeting that consists of local governments and publicly recruited citizens and on opinions of the Round-table Conference for Development of the Arakawa River for Welfare formed by representatives of hospitals, welfare organizations, and educators.
- O The Kumamoto District Joint Administrative Office was improved by establishing the New Kumamoto District Joint Administrative Office and Surrounding District Improvement Consultation Committee to exchange views at every stage of design and execution with the participation of scholars, local governments, representatives of shopping street associations, railway companies, and other private corporations, the prefecture, city and facility managers. Additionally,

<sup>\*10</sup> Workshop: Activities including joint projects and discussions conducted to deal with a specified challenge by people concerned with the challenge.

the opinions of welfare related organizations were obtained and the diverse needs of users reflected at the same time as close links were formed with the surrounding region including the nearby Kumamoto Station, and studies were conducted considering facility improvement policies and specific design issues.

O The international passenger terminal at Haneda Airport was improved by asking construction and management contractors submitting bids to participate in the project to submit proposals based on the concept of universal design (this year) at the same time as a variety of views and proposals were obtained from users and concerned organizations beginning at the design stage that will be reflected in the improvement and operation of the facility (FY 2006).

And after use of the new terminal begins, they will be reflected in the operation of the terminal through monitoring and customer satisfaction (CS) surveys etc.

#### 3. Promotion of integrated and comprehensive barrier free measures

O In order to remove barriers from buildings and public transportation systems and to promote integrated and continuous barrier free space in stipulated districts around railway stations etc. to implement comprehensive removal of barriers, a legal system intended to integrate the Heartful Building Law and the Barrier Free Law will be constructed.

(Examples of measures based on legal systems)

- Enactment of a basic national policy for comprehensive removal of barriers that will form barrier free spaces not only in transportation facilities, but continuous space including buildings.
- Introduction of the following measures to implement comprehensive barrier removal measures
  - Promoting the expansion of the areas where barrier free measures are planned and the removal of barriers not only from transportation facilities, but from facilities surrounding them.
  - Creation of systems to remove barriers from buildings linked to barrier free routes stipulated by the basic concept (in existing buildings, the promotion of partial and staged barrier free measures).
- Introduction of the following measures to encourage the enactment of basic concepts
  - In a case where an agreement has been reached on fundamental policies to remove barriers, basic
    policies concerning part of the concepts of the basic concept are established in advance, permitting
    the later establishment of specific improvement plans.
  - Prefectures can contribute to the removal of barriers from large transportation facilities and from routes spanning multiple cities, towns, and villages.
- To reflect the views of a variety of types of users, the participation of responsible officials through the formation of a cooperative committee at the time of the enactment of a basic concept and obtaining proposals from NPO and residents concerned with the drafting of the basic concept are systematized.
- O In order to encourage integrated and continuous removal of barriers through links between concerned organizations, agreements concerning management by facility managers and methods of creating corporations to operate and manage barrier free facilities are established.
- O Greater removal of barriers from transportation facilities, vehicles, and from homes etc. is encouraged through the following measures
  - Regarding existing railway stations where it is difficult to remove barriers because of problems with the structure of the stations and ensuring introduction space, support is given to improvement measures based on these factors.

- Encouragement is given to the removal of barriers from all busses including the introduction of more non-step busses and community busses \*11, tourist busses, etc. And barriers are removed from taxis etc. by introducing welfare vehicles etc., and the provision of STS (special transport services \*12) is encouraged.
- Financial support for the construction of public rental housing and for private housing encourages the formation of a barrier free housing stock.

#### 4. Enacting standards and guidelines based on the concept of universal design

- O Various standards and guidelines are reviewed according to the concept of universal design with the participation of a variety of people.
  - Enactment of guidelines to the removal of barriers from existing buildings in order to encourage the comprehensive removal of barriers based on the basic concept.
  - As necessary, reviews of design standards applied as reference material for the removal of barriers from private buildings and of guidelines to smooth movement in passenger facilities of transportation companies are carried out.
  - Enactment of guidelines to the correct provision of passenger facilities with fewer than 5,000 users.

# 5. Completing non-physical measures (realization of a "psychologically barrier free" society

- O To contribute to the creation of a society in which all people can exercise their individuality and unique abilities and participate freely in society to achieve self-actualization, diverse human resources are developed among users, students, and businesses and efforts made to stimulate people's consciousness. (preparation of personnel development programs for public transportation company employees and junior and senior high school students, presenting lectures on barrier free transportation services, etc.)
- O The widespread deployment of barrier free volunteers to assist the elderly, handicapped people, and adults with children in and around railway stations etc. is promoted to encourage a human response in addition to physical measures.
- O Improvement of route guidance by using route guidance numbers.
- O Support is provided to guarantee availability of homes linked to residential support services operated by welfare organizations at the same time as information provision and consultation systems are established so that they can move to these dwellings without difficulties.

<sup>\*11</sup> Community busses: Bus systems serving small districts operated mainly by regional government bodies in order to improve the welfare of regional residents by eliminating districts without access to transportation or with inconvenient access to transportation to encourage elderly people to go outside their homes, and to promote the use of public transportation. The vehicles are compact so the can run on narrow streets, and they often operate with innovative rates, schedules, and bus stop locations.

<sup>\*12</sup> STS (Special Transport Service): Individual transport services for people whose ability to move is restricted because they cannot use normal public transportation services unaided: mainly people requiring nursing care or physically handicapped people.

# 6. Realization of public transportation that all people can use safely and smoothly

- Expanded support is given to measures to improve the convenience of using transportation systems through cooperation between users, regional residents, and transportation companies. Additionally, the opinions of concerned persons are appropriately reflected at the same time as measures to smooth consultations between transportation companies and organizations of regional residents are introduced.
- At transportation connection points such as terminals where passengers transfer between railway lines, bus services etc., consultative committees including transportation companies, facility managers, and other concerned organizations are established to promote the formation of a consensus concerning efforts to provide uniform and easily understand guidance to transfer procedures and to improve transfer routes. Additionally, expanded assistance is given to transportation companies to help them establish systems and implement specific improvement measures that comply with the results of the consultations.
- Expanded support and prioritization are carried out to promote transfer smoothing measures such as introducing transfer discount fees for transfers between railways, busses, and other transportation modes and between different transportation companies, and efforts to improve the provision of information about public transportation including unified information provision by improving transfer information guidance systems.
- O The provision of new forms of transportation services such as community busses, taxi-sharing \*13 welfare taxes \*14 and so on that are closely adapted to regional conditions is promoted.

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#### (Specific cases)

O Promotion of measures taken by regional residents and NPO such as planning of bus operations by regional residents and NPO, measures to realize bus transport with support such as assistance by regional corporations (Examples include "Citizen Bus Yokkaichi"), and so on.

#### 7. Planning communities where everyone can live safely and comfortably

O To create communities where people can lead their daily lives on foot, incentives are established to encourage the concentration of dwellings and facilities needed for daily life in neighborhoods while comfortable pedestrian spaces are established by comprehensively and systematically providing new related facilities. Advanced cases are accumulated as models for implementation nationwide.

#### (Related facilities)

• Funds are invested to support Special Purpose Corporations (SPC) that are corporations established especially to supply housing in a neighborhood and residence in the neighborhood is encouraged to restore its population.

- The concentration of public facilities and utilities in downtown is encouraged by applying incentives in city planning.
- Support is provided to encourage regional measures such as removing barriers from pedestrian spaces in neighborhoods and establishing regional medical treatment centers and public housing \*15 with nursing care through links with welfare bureaus etc.

\*14 Welfare taxis: Specialized taxis designed with lifts etc. that can load and unload people in wheelchairs or in stretchers provided to transport the elderly, handicapped, and other people who cannot move without difficulty.

Shared taxis: Taxis that are shared by passengers in vehicles that can only carry up to 10 people.

<sup>\*15</sup> Public housing with nursing care: Housing designed for elderly households by combining barrier-free public housing with daily life support services by daily life support personnel (life support advisors) (Silver Housing Project).

- O In order to announce the principles and measures for community planning based on the concept of universal design in city planning, Planning Policy Guidance is formed.
- O Support is given for integrated and continuous improvements of roads, parks, and private land etc. from the perspective of community creation to provide safe and comfortable pedestrian spaces. This is done by helping landowners, residents, corporations, and other regional bodies improve, manage, and operate their regions.
- O Communities are created based on the concept of universal design through the integrated and comprehensive removal of barriers from transportation facilities and other buildings used by many people by removing level differences and electric power poles from sidewalks and by ensuring bicycle parking areas to create safe and comfortable pedestrian space.
- O In addition to restoring urban districts based on the concept of universal design by comprehensively and strategically reconstructing public and public benefit facilities that had deteriorated and declined in new towns and other existing planned redevelopment urban housing districts, when public housing developments are reconstructed, also constructing welfare facilities etc. to provide welfare bases.
- O Communities that are safe and worry-free for elderly and handicapped people and children are promoted by encouraging the seismic retrofitting of housing, establishing information provision systems to support evacuation during disasters, preparing guidelines to prevent people from accidentally falling down inside buildings, and by designing environments considering the prevention of crime in public facilities and in housing.

#### (Specific examples)

O Funds are invested to support SPC established by landowners to supply housing in city centers where the population has declined in order to promote residence in urban neighborhoods by the private sector. Applications of such methods as Special District Plan for Redevelopment or revising land use zone are promoted to induce the concentration of such facilities as medical and welfare facilities in douwntown.

The creation of neighborhoods with housing and daily life related facilities concentrated in a range accessible by walking is promoted by constructing pedestrian decks (pedestrian space constructed above automobile roads) linking stations with public and public benefit facilities, transforming streets lined by shops into arcades, and by offering neighborhood improvement subsidies to supply housing in neighborhoods and providing comprehensive support to urban redevelopment projects.

O In residential districts such as Tama New Town or Senri New Town that were developed between 30 and 40 years ago, facilities have deteriorated and declined, the population has aged, and the period of overall redevelopment is approaching. Therefore, this situation is taken as the opportunity to redevelop multi-function cities based on the concept of universal design as places where diverse people can live, work, and relax.

#### 8. Flexible response to various people and activities

- O The removal of barriers from tourist regions is promoted by preparing basic concepts suited to tourist regions and removing barriers from hotels and other lodging facilities.
- O The creation of an environment in which people unfamiliar with the local geography or foreigners can walk alone is supported by encouraging the provision of guide signs designed considering the needs of foreigners and other people unfamiliar with the local geography, introducing information provision systems using foreign languages at public transportation facilities, training and ensuring guide-interpreters \*16 knowledgeable about regional tourism in Japan, supporting activities by volunteer guides, and training tourist facility personnel.
- O The stimulation of tourism based on the concept of universal design is comprehensively encouraged by accompanying the creation of environments that are barrier free so people can walk alone with support for activities of NPO that work to create tourist regions based on the concept of universal design and for the production of travel products usable by foreigners, elderly people and handicapped people.

# 9. Application of IT and other new technologies

- O Systems that use "Ubiquitous Location Information System" based on ubiquitous network technology that consists of IC tags \*17 and other communication equipment and of portable information terminals etc., to help elderly people and handicapped people move freely and independently and to provide sightseeing information to foreign tourists visiting Japan by supplying users with information such as "travel routes," "transportation methods," and "destination" and other information by voice, by a letter, and in multiple languages are, with cooperation with regional governments and so on, expanded throughout Japan based on the results of corroborative testing.
- O The conversion of geographical information into electronic form is promoted, information provision systems incorporating GIS technology are constructed, and map guidelines based on the concept of universal design to create tactile maps for visually handicapped people for example are prepared, so that anyone can easily and effectively use geographical information.
- O Standardized IC card systems \*18 that allow a user to use a single card to travel on railways, busses, and other transportation modes will be introduced nationwide to improve convenience to users, diversify services, and improve information provision.

<sup>\*16</sup> Guide – interpreter: A person who is paid to travel with foreigners to provide them with travel guidance in a foreign language. To become a guide interpreter, a person must, in accordance with the provisions of the Guide Interpreting Business Law (will change to the Guide-Interpreter Law in April 2007) pass a national test and receive a license from the prefectural governor (registration after the enforcement of the revised law). Beginning in April 2007, a new qualification will be established; that of Regional Guide-Interpreter who will be able to perform this work only in a prefecture, under the provisions of the Law for the Stimulation of International Tourism by Encouraging the Improvement of Regions Visited by Foreign Tourists.

<sup>\*17</sup> IC tag: An electronic tag housing an IC that is attached primarily in order to provide advanced real time control of the state of movement of objects and of people. Also called wireless tags and RFID tags, each is a module consisting of a wireless communication IC and antenna, and their special features are that they are compact, light and their information can be rewritten. (ICT = Integrated Circuit Tag).

<sup>\*18</sup> IC card system: A system using cards, each housing an integrated circuit. They can record far more data than an electromagnetic card and provide enhanced security.

#### (Specific cases)

- O A "Ubiquitous Location Information System" that is a new social infrastructure that uses revolutionary ubiquitous network technology to supply needed information "at any time, anywhere, to anyone," will permit elderly and handicapped people to move freely and independently to places they wish to go. And it will provide needed sightseeing information to towns first visited by foreign tourists coming to Japan. Corroborative testing of free mobility assistance and sightseeing information provision are now being carried out in Kobe, Asakusa, and at the site of the Aichi Expo 2005, and, this system will be prepared for introduction nationwide, with cooperation with regional governments and so on, based on the knowledge obtained through the corroborative testing.
- O IC card systems will be introduced nationwide as, for example, in the Kanto (7 prefectures) where common IC cards are scheduled to be gradually introduced by bus companies and railway companies starting in 2007, a transfer fee discount system and a point premium system based on links with commercial and cultural facilities will be introduced and measures taken to use common IC cards to enhance the convenience of users will be promoted.

#### 10. Comprehensive spread of pioneering efforts (leading projects and leading areas)

O The entire Ministry of Land, Infrastructure and Transport will develop more advanced measures based on the concept of universal design and introduce the successful results nationwide by effectively supporting efficient and pioneering efforts by project and by region based on the characteristics of problems encountered according to conditions in each region in order to encourage such pioneering efforts that contribute to the widespread introduction of universal design.

#### (Specific cases)

# [Redevelopment of new towns]

O In residential districts such as Tama New Town or Senri New Town that were developed between 30 and 40 years ago, facilities have deteriorated and declined, the population has aged, and the period of overall redevelopment is approaching. Therefore, this situation is taken as the opportunity to redevelop multi-function cities based on the concept of universal design as places where diverse people can live, work, and relax.

#### [Realization of airports that anyone can use easily]

O Taking the Sendai Airport that will be accessible by rail beginning in 2007 as a model, the Universal Design Promotion Committee was established to undertake comprehensive measures including gathering opinions from a wide range of people including airport users, taking steps to achieve continuous barrier free state between the railway station and the airport terminal, completing information provision systems, and establishing a personnel training system. Efforts will be made to introduce the results at other airports nationwide.

#### [Smoothing transfers at large scale terminals]

O By forming consultative committees of railway and bus service operators and facility managers (regional governments etc.) and at the same time by providing concentrated support in cooperation with related business such as contractors that perform station improvement work or that construct bus terminals or pedestrian decks in front of railway stations at large-scale terminals where passengers transfer between many busses and trains, measures such as providing integrated easily understood transfer guidance and improving transfer routes are undertaken to smooth the use of public transportation systems at transfer points (beginning this year, at Sannomiya (City of Kobe), studies will begin to form a concrete consensus).

#### [Tourist regions]

O Several locations in Japan have been selected for a study of the needs of tourist regions based on the concept of universal design—the construction of a basic concept, the provision of uniform guide signs, standardized equipping of toilets for handicapped people, deploying volunteers, and so on—in order to create tourist regions that elderly and handicapped people can tour safety and comfortably.

#### [Roads]

O The establishment of Daily Life Street Zones (in Matsuyama City in Ehime Prefecture for example) is promoted to create high quality living environments by prioritizing the safe and convenient use by pedestrians over use by automobiles by preventing through traffic and at the same time, planting trees along roads linked to the road side vegetation, removing power poles etc.

#### [Parks]

O At the Showa Kinen Park and similar parks, physical measures such as providing pathways and playgrounds and removing barriers from toilets are accompanied by non-physical measures such as training volunteers to assist handicapped people and preparing barrier free maps to create urban parks that anyone can enjoy without anxiety.