



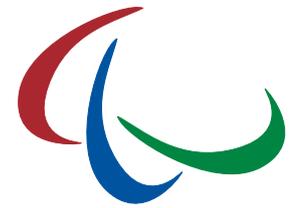
INTERNATIONAL PARALYMPIC COMMITTEE

# Accessibility Guide

SEPTEMBER 2015







International  
**Paralympic**  
Committee

## **IPC Accessibility Guide**

**An Inclusive Approach to the Olympic & Paralympic Games**

September 2015

**International Paralympic Committee**

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## IPC Accessibility Guide

September 2015

### Requirements

This Guide is part of the IOC and IPC Guiding documentation. The Operational Requirements corresponding to its contents are included in the HCC – Operational Requirements.

### Evolution of contents

Each edition of the Olympic Games and Paralympic Games brings innovation, responding to the context of the host city and host country and reflecting changing global trends. The OGGs will therefore also evolve as part of the evaluation process that follows each Games' edition. The IOC and the IPC will ensure that the latest evolutions in Games organisation are reflected in future OGG editions. These future editions will be published according to a "Publication Roadmap" provided to stakeholders on a regular basis.

### Disclosure

The material and the information contained herein are provided by the IPC to be used for the organising and staging an edition of the Olympic and Paralympic Games but also to be used as a global reference on accessibility. This material and information is the property of the IPC and its use or reproduction, in whole or in parts, requires prior notification or written approval of the IPC.



## Table of contents

I. Preamble and Background.....	7
II. Technical Presentation .....	9
III. How to Use this Guide .....	11
Introduction.....	12
1. Mission, Objectives and Role of the Guide.....	13
2. UN Convention on the Rights of Persons with an Impairment .....	17
3. Fundamental Principles of Accessibility and Inclusion .....	18
4. Requirements for Creating an Accessible and Inclusive Olympic and Paralympic Games .....	20
5. Beneficiaries of an Accessible and Inclusive Environment.....	22
6. Equitable Games' Experience for All Constituent Groups .....	24
7. Definitions and Glossary .....	27
Technical Specifications.....	29
1. Access and Circulation .....	30
1.1. Pathways and Circulation Areas.....	31
1.2. Ramps .....	35
1.3. Stairways.....	40
1.4. Surfaces, Paving and Finishes .....	42
1.5. Furniture, Counters and Service Areas .....	43
1.6. Entrances and Exits.....	46
1.7. Doors and Doorways.....	48
1.8. Elevators and Escalators .....	52
1.9. Emergency Provisions.....	56
2. Amenities .....	59
2.1. Venue Seating .....	59
2.2. Washrooms .....	62
2.3. Showers, Baths and Changing Rooms.....	66



<b>3. Hotels and Other Accommodations</b> .....	<b>68</b>
3.1. Accessible Guest Rooms .....	69
3.2. Wheelchair “Friendly” Guest Room .....	74
3.3. Other Services within Accommodation Sites .....	75
<b>4. Publications and Communications</b> .....	<b>77</b>
4.1. Publications .....	78
4.2. Web Sites Standards .....	80
4.3. Telecommunications .....	81
4.4. Signage .....	83
4.5. Assistive Hearing Aids.....	85
<b>5. Transportation Means</b> .....	<b>87</b>
5.1. Road Transportation Means.....	88
5.2. Rail Transportation Means .....	92
5.3. Air Transportation Means .....	94
5.4. Maritime Transportation Means.....	98
<b>Training for Accessibility</b> .....	<b>101</b>
<b>1. Disability Etiquette/Awareness Training</b> .....	<b>102</b>
<b>2. Games/Job-specific Training on Accessibility</b> .....	<b>106</b>
<b>3. Venue-specific Training on Accessibility</b> .....	<b>107</b>
<b>Games Requirements</b> .....	<b>108</b>
<b>1. Co-ordination Structures and Timeline for Accessibility</b> .....	<b>109</b>
1.1. Consultation for Accessible Venues’ Construction .....	110
1.2. Consultation for Accessible Operations.....	112
1.3. Co-ordination with Public Agencies for Accessibility .....	114
<b>2. Games Infrastructures</b> .....	<b>116</b>
2.1. Competition Venues .....	117
2.2. Olympic & Paralympic Villages .....	123
2.3. Non-competition Venues .....	130
<b>3. Functional Areas Considerations on Operations</b> .....	<b>140</b>
3.1. Accommodation .....	141
3.2. Accreditation .....	143
3.3. Airport Operations.....	145



3.4.	Broadcasting.....	146
3.5.	Opening & Closing Ceremony .....	147
3.6.	City Operations.....	150
3.7.	Classification .....	152
3.8.	Cleaning & Waste .....	153
3.9.	Communications.....	154
3.10.	Catering.....	156
3.11.	People’s Management .....	158
3.12.	Image & Identity .....	161
3.13.	Doping Control .....	162
3.14.	Event Services .....	163
3.15.	Medical Services .....	165
3.16.	Medal Ceremonies & Sport Presentation .....	166
3.17.	Licensing - Merchandising – Retail Operations.....	168
3.18.	NOC/NPC Relations .....	169
3.19.	Olympic & Paralympic Family Services.....	171
3.20.	Venue Development, Overlays & Site Management.....	173
3.21.	Press Operations.....	175
3.22.	Rate Card.....	177
3.23.	Risk Management.....	178
3.24.	Security .....	179
3.25.	Sport .....	181
3.26.	Technology.....	183
3.27.	Ticketing.....	185
3.28.	Transport.....	187
3.29.	Venue Operations.....	190
3.30.	Village Operations .....	192
3.31.	Torch Relay.....	193
3.32.	Mobility Services (Games Mobility).....	194

**The Journey to an Accessible & Inclusive Host City and Games .....199**

**1. Transport ..... 202**

1.1.	Definition and Scope of Accessible Transport .....	203
1.2.	Types of Accessible Transport.....	204
1.3.	Operations for Accessible Transport .....	206

**2. Public Services and Facilities ..... 207**

2.1.	Pathways, Sidewalks and Connecting Routes .....	208
2.2.	City Parks and Outdoor Recreational Areas.....	210
2.3.	Retail and Small Goods & Beverage Outlets.....	211



2.4.	Signage and Wayfinding .....	212
2.5.	Emergency Systems and Response .....	213
2.6.	Information Provision .....	214
<b>3.</b>	<b>Tourism .....</b>	<b>215</b>
3.1.	Accommodation and Hotel Services .....	216
3.2.	Restaurant Access.....	217
3.3.	Tourism Information .....	219
3.4.	Sightseeing (Tours and Tourist Points of Interest).....	220
3.5.	Attractions, Interior Spaces.....	222
<b>4.</b>	<b>Culture, Entertainment and Leisure.....</b>	<b>223</b>
4.1.	Definition and Scope of Culture, Entertainment and Leisure.....	224
4.2.	Types of Accessible Culture, Entertainment and Leisure .....	225
<b>5.</b>	<b>Sport.....</b>	<b>227</b>
5.1.	Principles and Types of Access in Sport.....	228
5.2.	Conditions for Integration in Mainstream Sport Activities.....	230
<b>6.</b>	<b>Education .....</b>	<b>232</b>
6.1.	Accessibility of Education Facilities .....	233
6.2.	Adapted Curriculums, Assessment Methods and Teaching Materials.....	234
<b>7.</b>	<b>Employment.....</b>	<b>236</b>
7.1.	Definition and Scope of Accessible Employment .....	237
7.2.	Principles for Access to Equitable Employment.....	239
	<b>Appendices: Additional Resources.....</b>	<b>241</b>
	Appendix IKey Measurement Reference Table .....	242
	Appendix IIEvent Accessibility Checklist .....	248



## I. Preamble and Background

### IPC Strategy for Legacy

Within the IPC's official objectives for the organization of the Paralympic Games it is clearly stated that IPC "aims to use the Paralympic Games as a vehicle to stimulate social development and leave a long-term sporting and social legacy with the host country".

As the owner of one of the biggest sporting events of the world, the IPC recognizes its responsibility to promote or assist in social legacy for the host communities of the Paralympic Games. Therefore, the IPC's strategy goes beyond Games' related infrastructures. The principles, solutions and practices used to make the Host City and all Games-related infrastructure and services accessible and inclusive will create a culture of inclusion, which will then influence and change in the long-term the way public facilities and services are designed, operated and delivered.

### Importance of Having a Guide on Accessibility

The topic of accessibility is a key component of the documentation related to the Games. However, until recently the lack of internationally accepted standards and the insufficient transfer of knowledge in this field have caused a lot of inconsistency in the way Games' facilities were built and operated. Very frequently, national minimum standards or local building codes were used; but, as is usually the case all over the world, minimum standards usually provide for minimum access.

### IPC Accessibility Working Group

In 2006, the IPC established the IPC Accessibility Working Group, bringing together experts from different parts of the world. The objective was to put together an Accessibility Guide, which would have a dual role:

- Respond to the need of the host cities' of Olympic and Paralympic Games (thereafter "The Games") to have a comprehensive set of standards to follow when designing venue and services. In addition, the Guide should respond to the enhanced requirements created by the scope of the Paralympic Games, an event with excessive demand on accessibility than any other event in the world.
- Create a benchmark on accessibility for a global audience and encourage as many countries as possible to adopt progressive and modern legislation, building codes and established practices in this field.



### **Aim of a Guide on Accessibility**

The development of an Accessibility Guide is a major step, in order for the IPC to set a philosophy, share best practices and establish specific technical guidelines for the design of facilities and services that need to be in place in order for a Host City to deliver an inclusive Games.

The Guide seeks to provide information and inspiration to the OCOG and the Host City authorities, charged with the responsibility of staging the Games. It provides expert guidance and detailed technical information based on tried and tested best practice, to enable the delivery of truly inclusive Games for all stakeholders.



## II. Technical Presentation

This section summarizes the structure of the Guide and the content of each chapter included in it.

### Chapter 1: Introduction

This chapter presents the main objectives, concepts and underlying principles under which this Guide is written. It includes the mission and objectives of the Guide and refers to the beneficiaries of accessibility as a significant segment of the population, including but going far beyond people with an impairment.

Three fundamental principles for inclusiveness are presented: equity, dignity and functionality, along with the main concepts of accessibility, such as barrier free environment, universal and adaptable design.

### Chapter 2: Technical Specifications

In this chapter the technical specifications for accessibility are listed in detail, to act as the reference part of the Guide. The classification of topics is according to the main elements of built environment and includes: access and circulation, amenities, hotel & other accommodations, transportation means, publications and communications.

### Chapter 3: Training for Accessibility

This chapter describes the approach to design, main content and delivery process of accessibility and disability awareness training, mainly targeting OCOG's staff members and Games volunteers.

Such training aims to address attitudinal and communication barriers and has three main phases: a) General disability etiquette training, b) Games/job specific accessibility training and c) Venue-specific accessibility training.

### Chapter 4: Games' Requirements

In this chapter the requirements about Games' Infrastructures are presented (competition venues, Olympic & Paralympic Village, non-competition venues). In addition, for each functional area of an OCOG the aspects of planning and operations that have considerations related to accessibility are discussed – overall plus Paralympic Games specific.

### Chapter 5: The Journey to an Accessible & Inclusive Host City and Games

In this chapter, the key principles and the main elements that a city which is bidding or has been selected to host the Olympic and the Paralympic Games should already have or should be committed to create in order to ensure accessible and inclusive Games for all stakeholders and lasting benefits for its citizens.



The main notion of such a commitment is to offer the opportunity to every resident and visitor to fully enable themselves to all activities that constitute the “Games experience”.

### **Appendix: Additional Resources**

The appendix contains two resource documents:

- Key Measurement Reference Table: easy to use reference document that includes the key measurements from the Technical Specifications section
- Event Accessibility Checklist: The purpose of this checklist is to provide relevant information for the planning of events that are local, national or international in scale (it is not Games-specific).

### **Use of Terms**

Within this Guide the terms, principles and technical requirements of “accessibility” encompasses the alternative terms such as barrier free, disability access or handicapped access. In most countries either barrier free or accessible are the most commonly used terms.



### III. How to Use this Guide

In order for this Guide to be successful in facilitating an inclusive approach, its contents should be reviewed and applied by a wide-ranging audience. The information within the Guide has been organized starting with the universally applicable details (Chapters: Introduction – Training for Accessibility) and then moving to the more function/user specific (Chapters: Games’ Requirements - The Journey to an Accessible & Inclusive Host City and Games).

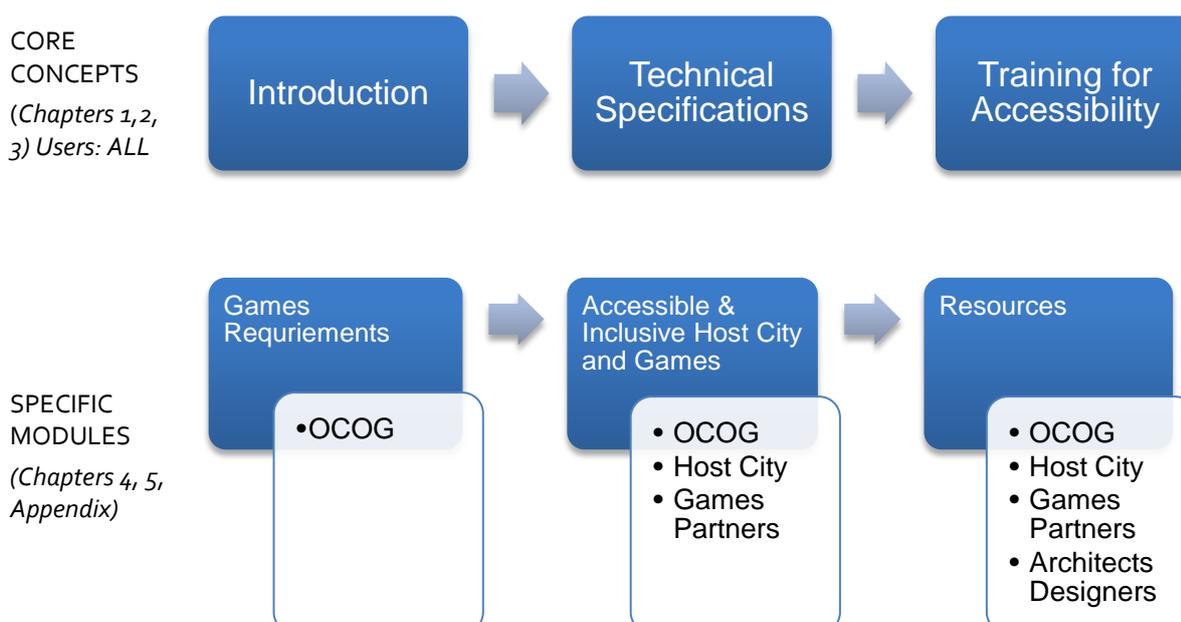
#### Users

The primary audience for the Guide are Games organizers, however in order to achieve the goal of an accessible and inclusive host city and Games multiple partners and stakeholders are involved:

- **OCOG:** Senior leadership and all Functional Areas.
- **Host City:** Government, local and regional authorities and Tourism Partners.
- **Architects / Designers:** Those involved in Games or large-scale projects.
- **Games Partners:** Business, sponsors and delivery agencies.

#### Guide Structure

The chapters of this Guide fall into two categories: core concepts and specific modules. The core concept sections are required reading for all readers (OCOG, Host City, Architects/Designers, Government Partners), while the specific modules are relevant to certain groups. This division is illustrated below.





## Introduction

This chapter presents the main objectives, concepts and underlying principles under which this Guide is written.

**This chapter contains the following topics:**

Topic	See Page
1. Mission, Objectives and Role of the Guide.....	13
2. UN Convention on the Rights of Persons with an Impairment .....	17
3. Fundamental Principles of Accessibility and Inclusion .....	18
4. Requirements for Creating an Accessible and Inclusive Olympic and Paralympic Games .....	20
5. Beneficiaries of an Accessible and Inclusive Environment.....	22
6. Equitable Games' Experience for All Constituent Groups .....	24
7. Definitions and Glossary .....	27



## 1. Mission, Objectives and Role of the Guide

The mission and objectives of this Guide drive all concepts, references, guidelines and solutions proposed.

### **Access as a Human Right**

Access is a basic human right and a fundamental pillar of social justice. Social justice is about the acceptance of people as individuals and about access to fair and equal opportunity to participate fully in social life.

A truly accessible environment is one where all people can freely express their independence, and where any impediment to integration is removed.

### **Accessibility in the International Stage**

The topic of accessibility has been widely explored internationally during the last decades. In a few countries legislation has been developed exemplifying the design standards that should apply in new buildings and facilities and setting criteria and regulations for completion. Despite all this activity and the revolutionary steps made in the recent years, a built environment easily usable by all people is still unattainable for most parts of the world, even in countries considered as “developed”.

### **Mission of the Guide**

The Guide will facilitate the full participation of all stakeholders in the Games and legacy planning, through a commitment to accessibility and inclusion.

### **Aim of the Guide**

The Accessibility Guide does not intend to be just one more design standards manual; nor is it the intention to replace the many comprehensive documents existing in this field. The aim of the Accessibility Guide lays in two main considerations which make this document a useful tool for any potential user:

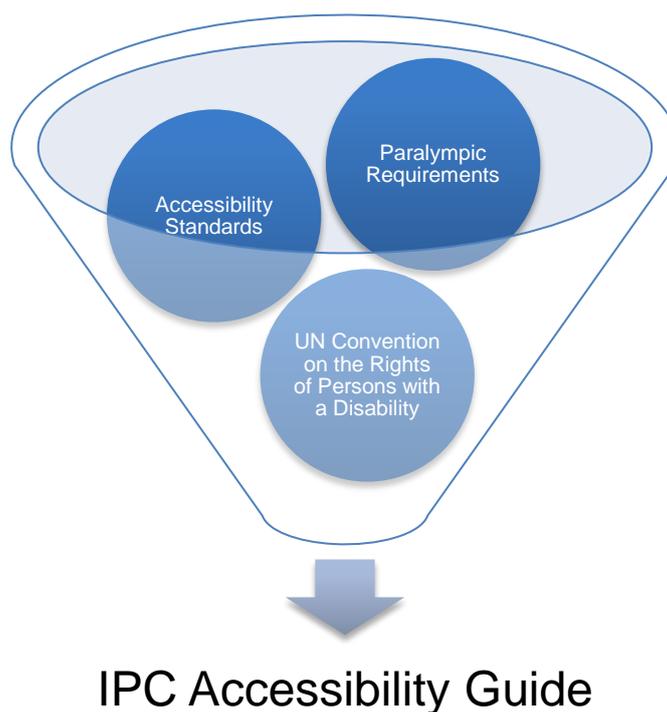


## 1) Formation of Internationally Accepted Standards

At the moment, legislation, design standards and practices vary significantly around the world, even among countries with well-developed policies and legislation regarding accessibility.

These variations produce an uncertainty on which are the “internationally accepted” standards resulting in further delays in countries and regions willing to adopt equivalent standards for the built environment in their countries, but hesitate to adopt anything except an accepted international model.

It is for that reason that while developing this Guide the IPC targeted to capture all related information around the world, assess and rationalize the differences and finally form a set of design standards and practices that will have the potential to become “internationally accepted”, through the visibility of the Games around the globe.





## 2) Address the Needs of the Paralympic Games Constituents

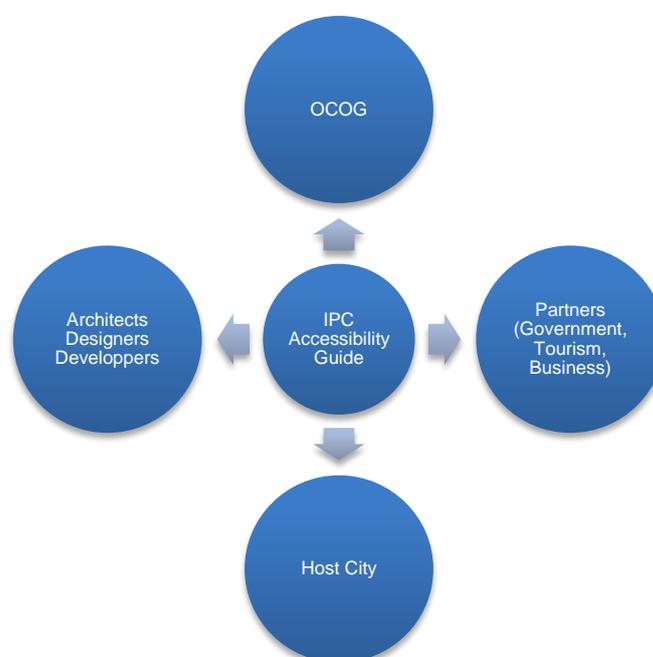
The IPC Accessibility Guide is about the constituents of both the Olympic and Paralympic Games. However, the scope of some of the client groups participating in the Paralympic Games make responding to their accessibility needs a significant challenge for Games organizers.

For example, the existence of an accessible lift with a capacity of two athletes who use a wheelchair from the warm up pool to the competition pool in an aquatic centre is an effective solution for other events. However, for the Paralympic Games this may not be an accepted solution from an operational perspective, as it could lead to delays as the limited capacity of the lift would increase the time required to run the competition schedule.

Thus, the Accessibility Guide aims to lead the host cities (or potential host cities) and the OCOG of the Games to firstly understand the needs and then design from a very early stage a barrier free environment for all participants, according to their Games related needs.

### Audience of the Guide

The audience of the Guide is primarily the Games organizers and partners. However, the Guide is also targeting an audience beyond Games context, as besides the OCOGs and cities bidding to host the Games it is also intended for use by Governments, Local and Regional Authorities, Businesses, Tourism organizations etc.





## **Role of the Guide**

This Guide seeks to provide information and inspiration to the OCOG and the Host City authorities, charged with the responsibility of staging the Games. It will provide expert guidance and detailed technical information based on tried and tested best practice, to enable the delivery of truly inclusive Games for all stakeholders. The Guide contains a comprehensive set of internationally used accessibility standards and lays down a Games Accessibility and Inclusion Benchmark (“The Benchmark”).

The Guide is not intended as a replacement for direct input from the local community of people with an impairment or the need for a qualified access professional through the planning stages of any project. It will however be an invaluable tool for management and planners developing meaningful access to facilities and events in support of the whole community.

The Olympic and Paralympic Games are a spectacular sporting festival but also provide an ideal opportunity to promote the social inclusion of all people in the Host City and leave a lasting accessible legacy for the Host City and the Host country. The Guide will assist in achieving this legacy.

## **Key Objectives of the Guide**

Based on the above, the key objectives of the Guide are to:

1. Ensure delivery of a comparable and high quality “Games experience” for all constituent groups;
2. Promote high standards of what can be achieved in terms of an accessible and inclusive Games environment;
3. Create a set of standards on accessibility and inclusion which shall act as “The Benchmark”;
4. Define a scope and vision by which accessibility can be planned to create a sustainable legacy long after the Games have finished.



## 2. UN Convention on the Rights of Persons with an Impairment

The Convention on the Rights of Persons with disability and its Optional Protocol was adopted on 13 December 2006 at the United Nations Headquarters in New York, and was opened for signature on 30 March 2007.

It is the first comprehensive human rights treaty of the 21st century and is the first human rights convention to be open for signature by regional integration organizations. The Convention entered into force on 3 May 2008.

The provisions of the Convention form an international legal framework on which this Guide is also based on.

### Universal Accessibility

Since 2006, more and more countries are becoming signatories to the United Nations Convention on the Rights of People with a Disability (153 signatories since its opening for signature). This Convention highlights the rights and responsibilities of Government and private entities as they apply to all residents. The concept of universal accessibility is a fundamental aspect of the Convention. The Convention requires countries to identify and eliminate obstacles and barriers and ensure that persons with impairments can access their environment, transportation, public facilities and services, and information and communications technologies.

### Reference

The full text of the Convention can be retrieved from the following link:

<http://www.un.org/disabilitys/convention/conventionfull.shtml>

In Chapter - [The Journey to an Accessible & Inclusive Host City and Games](#) of this Guide, in the overview section, there is a summary of the provisions of the Convention that are more closely related to the notion of an accessible and inclusive Host city.



### **3. Fundamental Principles of Accessibility and Inclusion**

There are three fundamental principles on which the Guide is based. All venue design and planning as well as Games' operations need to be carried out with these principles at the heart of the process.

All three principles need to be satisfied in order for a facility or a service to meet "The Benchmark". The three principles are: equity, dignity and functionality.

#### **Equity**

Ensure all people, regardless of their functional capacity, receive the same experience or level of service.

The design and operating plans should provide the same experience of use for all constituents. Segregation of any user or user group must be avoided. Provisions for privacy, security, and safety should be equally available to all.

#### **Dignity**

Make sure the way in which a facility is operated or a service is provided, maintains the status and respect of any person that is using it.

The design and operating plans should be able to accommodate a wide range of individual preferences and abilities. Each person should be able to choose preferred method to use, and at his/her own pace.

Use of a service that is publicly provided needs to be easy to understand, regardless of the user's experience, knowledge, language skills, current concentration level or physical condition. Accessible design should eliminate unnecessary complexity and allow for intuitive and simple use.

#### **Functionality**

Guarantee that the service or facility is "fit for purpose" meeting the specific needs of all constituent groups including people with an impairment.



The design and operating plans need to:

- Communicate necessary information effectively to the user, regardless of user's sensory abilities. A variety of different modes for the presentation of essential information should be used.
- Minimize hazards and the adverse consequences of accidental or unintended actions. Consequences of misuse should be minimal. Elements of the environment that are most used shall be more accessible. Elements that are potentially hazardous should be eliminated or isolated.
- Allow efficient and comfortable use and with a minimum of fatigue and/or using reasonable operating force.
- Provide appropriate size and space to make approach, reach, manipulation and use comfortable to all users, regardless of body size, posture or mobility.



<b>Equity</b>	• Same experience or level of service, regardless of functional capacity
<b>Dignity</b>	• Individual's status and respect maintained
<b>Functionality</b>	• Service/facility meets the needs of all constituent groups

### **Commitment to Equity, Dignity and Functionality**

Attaining “The Benchmark” is a prerequisite for holding the Games. Thus cities eventually awarded the Games should have begun to apply the fundamental principles for an accessible and inclusive Games at the bidding stage.

Potential host cities need to demonstrate a commitment to access and inclusion and exhibit detailed accessibility plans within their bid document. In these plans, the principles of equity, dignity and functionality should be applied at the highest level.

The Host City and the OCOG need to ensure that applying the fundamental principles for accessibility and inclusion are the responsibility of all functional areas and all Games’ stakeholders.



## 4. Requirements for Creating an Accessible and Inclusive Olympic and Paralympic Games

In many cases, applying local Building Code requirements in a specific city, region or country is used to define accessibility standards. Planners need to recognize that even the best local building codes represent only the minimum requirements for accessibility. The underlying assumption is that the minimum is sufficient, when in reality it is only a starting point towards developing functional, dignified and equitable accessibility. Planning for the minimum access does not address many of the barriers facing people with an impairment and other persons who need an accessible environment, especially within the Paralympic Games context. In fact, providing for a real inclusive community means going beyond the minimum requirements; people who construct or renovate buildings and facilities need to see beyond the minimum standards to encompass the needs of a widely diverse and ever ageing community.

An effective approach to accessibility and inclusion involves a strategic and operational approach, a technical approach and an organizational approach.

### **Strategic and Operational Approach**

It is essential to establish guiding principles and develop an appropriate operational model to deliver a truly accessible and inclusive Games. This will also enable a seamless transition between the Olympic and Paralympic Games.

### **Technical Approach**

#### ***Establish Access and Design Standards***

Based on the provisions of this Guide, each Host City is expected to establish its own set of access standards, applicable to infrastructure and Games operation and appropriate to country, its demographics, cultural, finances and resource capacity.

A gap analysis between national standards and the standards outlined in this guide is to take place soon after the formation of the OCOG in the host city.

In cases where the national standards of the Host country exceed requirements outlined in this Guide, the national standards shall apply.

In cases where the requirements outlined in this guide exceed national standards, it is expected that the IPC standards prevail, except if approved differently from the IPC.

#### ***Implement Design Standards***

The OCOG and constructing agencies should carry through the implementation of the design standards and adopt inclusive practices in all elements of the built environment and Games time operations. The establishment of clear standards will ensure high quality and accessible services for the Games.

Where the specific conditions described in the Guide cannot be met for technical reasons, the principles of the Guide should be met by other means



## Organizational Approach

It is vital to establish structures assigned with the responsibility to ensure accessibility and inclusion in the Host City, at all Games venues and throughout Games operations. For Host Cities, achieving high standards of access and delivering a truly inclusive event can only be realised if the technical process for delivering access and inclusion is initiated at the earliest possible date.

This process should be influenced by three separate but parallel courses of action:

1. Undertaking a consultation exercise with local organizations of and for people with an impairment to understand their aspirations and to harvest their ideas.
2. Taking expert advice from experienced access and inclusion consultants who understand the systems and pressures of delivering a world class sporting event.
3. Develop communications with the IPC to ensure the needs of both organizations are clarified and the planning and proposals are acceptable.

Achieving high standards of access and delivering a truly inclusive event can only be realised if appropriate consultation is invited to influence and advise Games planning.

## Commitment to a Consistent Consultation Process

The following actions should start from the Bid stage and continue through all planning phases:

- Consult groups for persons with an impairment in the local community to seriously address their needs and allow their ideas to influence Games planning.
- Commission expert advice from experienced access and inclusion consultants.
- Ensure that an ongoing equality and inclusion auditing process is in place to check all Games infrastructure, planning and services.

## Commitment to Cater for All

The OCOG should establish venue operations and services which afford people of any level of functional ability to access all Games venues and all services provided there.

The OCOG should impress upon all Games stakeholders, staff and volunteers that universal accessibility is a core value which should apply to all venues and services for the benefit of the whole Games and Host City's community.



## 5. Beneficiaries of an Accessible and Inclusive Environment

Why does accessibility matter? Because contrary to the assumption that it is only relevant to people with a visible impairment, research has shown that the actual percentage of people who require accessible infrastructures and services exceeds 20% of the population at any given time.

The population who can take advantage of accessible infrastructures and services is made up of people with a wide range of impairments and/or needs, all of whom are beneficiaries of an accessible and inclusive environment. The main categories are presented below:

### People Who Use a Wheelchair

There is approximately 0.6 % of the population who use a wheelchair permanently or frequently because walking is either difficult or impossible for them. This figure is higher for the elderly. Conventional design that does not embrace the needs of people who use a wheelchair can have the greatest negative impact on this group. Contrary, providing “universal accessible” transport, pathways, entrances and circulation spaces assist people who use wheelchairs as well as everyone.

### People Who Have a Mobility Impairment

This group is made up of those often referred to as ambulant people with an impairment for example those who can walk but require walking aids or those whose impairment makes covering long distances difficult. This group benefits from design that cuts down travelling distances or the need to stand for long periods.

### People Who Have a Visual Impairment

This group includes people who are totally or legally blind as well as people with visual impairments that may have some vision. These individuals benefit from clear pathways and wayfinding signage, alternative formats for printed information such as Braille, large print or audio recordings as well as tactile surfaces, colour contrasts, and non-reflective surfaces.

### People Who Are Hard of Hearing

This group includes people who are deaf (i.e. cannot hear at a functional level and often use sign language) that benefit from services such as interpreters, and TTY (TDD) telephone service. However, the majority in this group are people who have some hearing and therefore benefit from assistive hearing devices such as hearing aids, induction loop systems and passive infra-red systems.

### People Who Have an Intellectual Impairment

This group of people benefit from flexible services, documents written in plain language and logical internal layouts at venues. In addition, staff and volunteer training needs to focus on their needs particularly in connection with communication.



## **People Who Have a Psychological Impairment**

This group also benefits from a flexible approach to service provision. It is also important to provide appropriate training to all staff and volunteers.

## **Other Beneficiaries**

In addition to people with an impairment, many others derive huge benefits from an accessible and inclusive environment and flexible services including:

- People with a temporary injury (such as a sprained ankle, fractures etc.)
- Pregnant women or parents with infants
- Parents who push strollers or buggies
- Children
- Older adults and seniors
- People of different languages
- First aid and emergency service personnel
- Travellers carrying heavy luggage
- People who need to travel with a companion.

Therefore it is clear that at any given time a significant percentage of the population is a beneficiary of an accessible environment. Even more importantly, almost everybody will become a beneficiary of an accessible environment at some stage in their lives, as a result of the natural aging process and its accompanying reduction of sensory and physical function.



## 6. Equitable Games' Experience for All Constituent Groups

The Games involve many different constituent groups, each one with different function, roles, set of activities and expectations. In order to ensure accessible Games, the OCOGs need to ensure every constituent has access to a full range of services and a high quality experience.

### Games' Constituents

The constituents are a varied group including:

- Host City's residents
- Games spectators
- Tourists, prior, during and after the Games
- Athletes and Team Officials
- Technical/Games Officials
- Media representatives
- Olympic and Paralympic Families and VIPs
- Sponsors and corporate partners
- Staff of the OCOG and of municipal/regional/state agencies
- Volunteers

### Games' Experience

All Games constituents will be attending the Games for many differing reasons however all have a common requirement: To enjoy the Games experience. Ensuring that buildings, transport and venues are accessible is essential, as it is the personal experiences of the constituents and the perceived level of service they enjoyed that will finally determine the success of the Games.

Therefore a "client oriented" approach to equitable service delivery is essential and at the heart of this Guide. Under this viewpoint, each constituent will engage with almost all of the following activities during their attendance to the Games:



### ***Seek and Obtain Pre-Games Information***

This may be reading a leaflet, checking the Games website, reading a newspaper article or asking for a volunteer pack.



### ***Plan a Trip, Making Bookings, Reservations or Following Customs Procedures***

This might be finding a hotel, booking an airline ticket or making arrangements to be met at the train station.

### ***Buy Tickets for the Games***

It includes the processes by which spectators ascertain times, schedules and then purchase tickets for the Games. This may include purchasing wheelchair accessible spaces, seats for companions or easy access seats.

### ***Travel to the Games, by Air, Ground, Rail or Sea***

This refers to all constituents who travel to the Games. This may be spectators but also athletes, technical officials, media and VIPs.

### ***Enjoy the Host City (Sleep, Dine, Shopping, Sightseeing, Attend Culture)***

All constituents who attend the Games expect to enjoy the culture and life style of the Host City. This includes dining, shopping, site seeing, attending cultural events and experiencing what the city has to offer.

### ***Have a Function at the Games (Compete, Officiate, Broadcast, Describe, Work)***

Each constituent has a function that contributes, in one way or another, to the successful organization and delivery of the Games. This includes athletes coming to compete, technical/Games officials to officiate, medals and flowers presenters, media representatives writing reports etc.

### ***Attend the Events (Watch, Eat, Drink, Have Fun,)***

People of any functional ability will attend all the events of the Games and any associated festivals or activities. In addition to attending the events, people will require to use concession facilities, toilets and all ancillary services.

## **Commitment to an Equitable Games Experience**

In order to allow any constituent to perform their function and fully engage into the various Games' related activities as described before, a philosophy of inclusion should apply to all aspects of the Games including policy, operation and the built environment; Such an approach will produce far reaching social regeneration benefits.

Examples of such a philosophy of inclusion are:

- Host City and OCOG should ensure that all essential publications and the website provide information in accessible formats.
- Host City should ensure that partners in the tourism and travel sector provide information in alternative formats.
- Host City and OCOG should ensure that partners in the tourism and travel sector provide information regarding accessible transport and accommodation.
- OCOG should develop a clear ticket sales strategy for the sale of wheelchair spaces, easy access seats and access to commentary for visually impaired people.



- The Host City and the OCOG should ensure public transport is accessible.
- OCOG should ensure that all Olympic and Paralympic Games Family transport is accessible.
- Host City should work in co-operation with public authorities and the private sector to ensure that people with an impairment have full access to all the city has to offer.
- OCOGs should ensure that jobs related to the Games are open to everybody, avoiding making assumptions as to which roles/jobs people with functional limitations are capable of carrying out.
- OCOG should presume that all areas of Games operation are required to be accessible and act accordingly.
- OCOGs should ensure all facilities associated with and ancillary to sporting and non-sporting venues are also accessible.

### **Primary View Point of the Guide**

It is the sum of the experiences of all these constituents and the perceived level of service they enjoyed that will finally determine the success of the Games. Therefore it is this “customer oriented” approach that is the primary viewpoint of the Guide.



## 7. Definitions and Glossary

This section defines the main concepts and several specific terms used throughout the Guide. This Guide also uses the core terminology created by the IOC for the Olympic and Paralympic Games.

Term	Definition
Persons with a Disability	<p>The framework of World Health Organization (WHO) defines disability as the relationship between body structures and functions, daily activities and social participation, while recognizing the role of environmental factors.</p> <p>In this regard, persons with a disability are those who reported challenges with daily living activities, or who indicated that a physical or mental condition or health problem reduced or modified the kind or amount of activities they could do.</p>
Adaptable Design	<p>Adaptable Design incorporates certain fundamental accessibility features and paves the way for others to be added later, if needed. The overall philosophy is one of a contingency: if needed, accessibility can be improved without major renovation.</p>
Universal Design	<p>Universal Design is a concept or a philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities. Other definitions for universal design are quite similar and include terms such as:</p> <ul style="list-style-type: none"> <li>▪ “products and environments usable... to the greatest extend possible, without the need for adaptation or specialized design”,</li> <li>▪ “widest spectrum of users”,</li> <li>▪ “equal opportunity for use”, “... by all ages and varying abilities”, “as usable as possible by as many people as possible regardless of age, ability or situation”.</li> </ul>
Accessible Path of Travel	<p>Access encompasses both routes of physical movement and the community within a space or across distance. Provision of a path of continuous access is the fundamental requirement for an accessible environment. Accessible environments adequately reflect the diversity and varying needs of the community.</p> <p>An accessible path should not contain any barrier that would prevent it from being safely and confidently negotiated by all people. An accessible path should provide for users with intellectual, physical, sensory and mobility impairments.</p>



Term	Definition
Societal Attitudes	Societal attitudes can be as much an obstacle as any physical barrier. Fundamental element of any conscious effort to implement universal design principles and practices in a society need to be accompanied by awareness and training activities.
Accessible Environment	An accessible environment is one where there is no barrier that would prevent it from being safely and confidently negotiated by people with intellectual, physical, sensory and mobility difficulties.
Medical vs. Socio-political Model for Disability	<p>The medical definitions on disability focus attention exclusively to individuals. These definitions assume that the limitation results from medical pathology and resides within the individual.</p> <p>The socio-political model explicitly examines the architectural, socioeconomic and policy environments within which people with an impairment operate, and this shapes their experience of disability.</p> <p>According to the socio-political model of disability, the medical model fails to measure the impact of external, socially created factors in limiting people's capacity to perform "expected" social roles.</p>



## Technical Specifications

In this chapter the internationally accepted design standards are listed in detail for the most important or most used facilities, amenities and services. References to the standards listed in this chapter exist throughout the Guide.

The presentation is classified according to the various main elements of the built environment. When applicable, there is reference to variations applying for the specific topic in different settings (such as outdoor, indoor etc.).

### Contents

This chapter contains the following topics:

Topic	See Page
1. Access and Circulation .....	30
2. Amenities .....	59
3. Hotels and Other Accommodations .....	68
4. Publications and Communications .....	77
5. Transportation Means .....	87



## 1. Access and Circulation

### Principles

All users, whether they are people with an impairment or not, rely on pedestrian routes for safe, practical linkage to the venues and transport hubs. If barriers to people with an impairment are not minimized here, then improvements made in the other areas lose their significance.



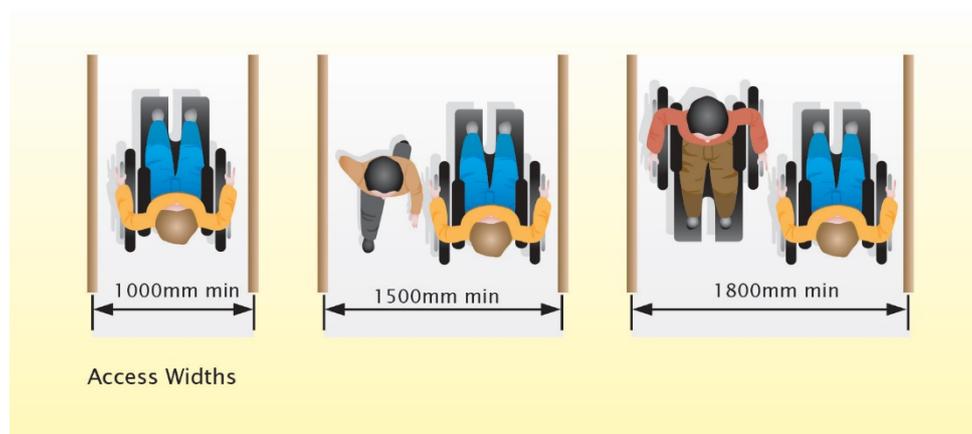
## 1.1. Pathways and Circulation Areas

### Pedestrian Routes Standards

#### *Pathways*

It is essential to maintain a clear route of travel through a facility that provides a suitable clear width, for persons using wheelchairs or scooters, those in strollers or those travelling in pairs. Therefore, a pedestrian pathway surface must have a minimum of **1,000mm width**.

In high traffic areas, areas that include turns or are longer than 30m, consideration is needed for manoeuvrability and for enough space for crossing. In this case, the minimum width is increased to **1,500mm**, allowing crossing of a wheelchair user and an ambulant person with best practice being **1,800mm** a dimension that allows two wheelchair users to cross. In a sporting venue all areas potentially used by spectators should abide to this standard of **1,800mm**.



If gradients exist in accessible routes, ideally these need to be 1:20 (5%) or smoother. In addition, level landings should be provided in regular intervals, with the distance from to the next being dependent on the gradient. A handrail is needed, to address height differences of more than 300mm.

For additional information about gradients, landings and handrails, see section about ramps later in this chapter.

At least one accessible route complying with the above shall be provided within the boundary of the site from accessible transport load zones to the main entrance to the accessible facility they serve. The accessible route shall, to the maximum extent feasible, be the main route for the general population.

There must be at least one accessible route connecting transport interfaces with buildings, facilities and spaces that belong to the same site. Best practice is to have all routes accessible.

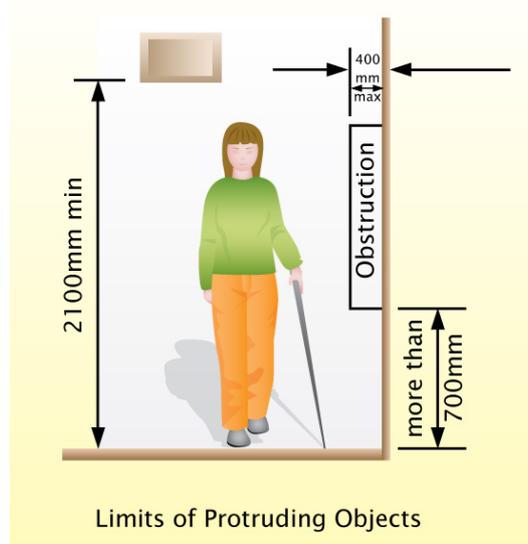


### ***Elimination of Tripping Hazards***

Pathways and circulation areas free from tripping hazards, such as protruding objects, are important to all facility users. Objects that cannot be detected by a cane can be hazardous for people with a visual as well as to any other individual whose attention is distracted.

Objects protruding into accessible routes with their leading edges between **700mm and 2,100mm** from the floor shall not extend beyond **400mm** into pedestrian pathways, including corridors, passageways or aisles.

Clear headroom space of **2,100mm** is required across the entire width and length of the pathway for the safety of people with visual difficulties.



Landscaping materials should provide a flush transition to the pathway along its entire length. Bollards, drinking fountains, and/or other fixed items located on the pathway surface should be in a contrasting colour and be cane detectable.

Light poles, signs, newspaper boxes, garbage containers, etc. should be kept off the path or at least, clearly marked with high contrast colour. Portable signage such as sandwich boards is not permitted on pathways.



### ***Regular Rest Areas***

Rest stops are extremely important for people using canes or crutches. Seating with a backrest and side arms set off the main pathway and marked with a change in surface materials needs to be provided at **50m intervals** along all external routes.

Bench seating at rest stops should have 450mm seat height and 750mm backrest height. Minimum kick space equal to 1/3 of the seat depth is also required in all bench seating.

### ***Open, Well Lit Pathways***

Where possible, fixtures mounted below eye level are to be used in addition to standard lighting approaches to provide better definition of ground surfaces. Steps and stairs need to be lit by low fixtures to highlight the stair tread and riser surface.

### ***Consistent Exterior Stair Treatments***

From the perspective of people with an impairment, exterior stairs need to be treated the same as interior installations. High contrast, non-slip nosing; tactile warning strips; and conforming handrails are required on all exterior stair designs.

### **Pedestrian and Intersection Crossings**

Crossings must be marked on both sides on the roadway and be a minimum of **1,500mm wide**. The maximum cross slope permitted is **1:50 (2%)**.

Kerb ramps must be installed on both sides of crossings to create an accessible path of travel. Kerb ramps are to provide a flush transition between ramp surface and sidewalk/roadway. The maximum slope allowed for a kerb ramp is **1:8 (12.5%)**, while best practice is **1:14 (7.14%)**.

Controlled crossings should include visual and audible crossing indicators separate from vehicle signalling.



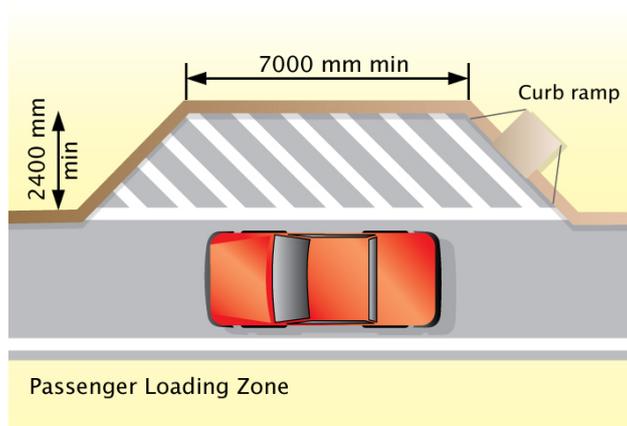
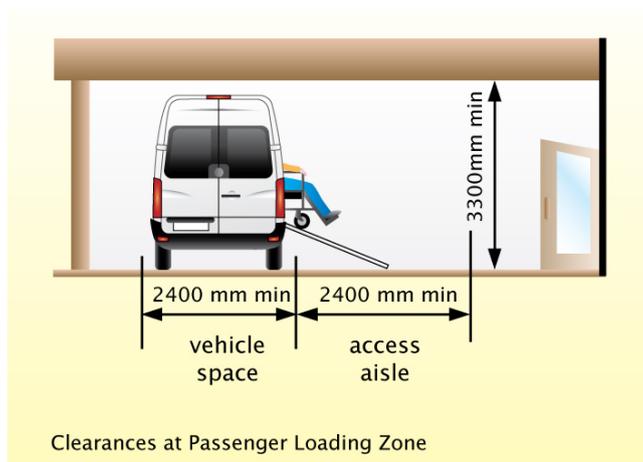
## Transport Load Zones

Transport load zones must be wide enough to accommodate wheelchair users transferring out of the car into their wheelchairs. Transfers into a wheelchair raised up on the sidewalk are extremely difficult and hazardous for many people with mobility impairment. Transport load zones also need to accommodate rear lift-equipped vans as well as side mounted lifts.

Therefore they need to provide an aisle of at least **2,400 mm** wide and **7,000 mm** long, adjacent and parallel to the vehicle pull-up space.

The minimum light level required for safe vehicle transfers by people with mobility impairment is **60lx**.

Transport load zones must be equipped with at least one kerb ramp.





## 1.2. Ramps

### Definition

For the purposes of this Guide, a ramp is an inclined plane installed in addition to or instead of stairs to allow easy access in a building or raised area.

Ramps permit wheelchair users, as well as people pushing strollers, carts, or other wheeled objects to move. Ramps come as permanent, semi-permanent and portable devices. An inclined plane less than 600mm in total length – for example in a dropped curb application – is not considered a ramp.

### Background information

Where possible, seamless access without height differences is preferred. If having a height difference is not avoidable, a ramp is the first choice to address a vertical height difference. Where possible, seamless access without height differences is preferred. A ramp allows people using a wheelchair, pushing strollers and moving heavy items etc. to move efficiently.

### Design Requirements

The best practice gradient for a ramp is **1:20 (5%)**. This standard applies for all primary entrances and facilities. However, subject to adequate justification that adherence to the 1:20 standard is impossible or presents an unjustified hazard, an exception may be allowed to set minimum standard up to **1:14 (7.14%)**, especially for secondary or ancillary facilities. The slope of a ramp shall not be less than **1:14 (7.14%)**.

Following standards for accessible pathways specified before in this chapter, the maximum cross slope of ramp surfaces shall be 1:50 (2%) and the minimum width of a ramp between handrails shall be **1,000mm**.



### **Design Requirements**

The table below reflects design specifications for ramp, classified according to the height difference they cover:

<b>Vertical Rise between Landings</b>	<b>Maximum Slope Allowed</b>	<b>Best practice</b>	<b>Variations</b>
0-75mm	1:8	1:12	
76-150mm	1:10	1:12	
151-300mm	1:12	1:14	
301-3000mm	1:14	1:20	A slope 1:14 is acceptable for secondary or ancillary facilities. Best practice 1:20 is the Paralympic standard; variations to this are to be approved by the IPC.
+3001mm	1:20		Variation to this standard may be considered exceptionally, subject to provision of full justification that prove adherence to the 1:20 standard is impossible or presents an unjustified hardship

### **Landings**

If a ramp covers a vertical height difference of more than 500mm a landing is required. A new landing is required for every 500mm of vertical height difference that the ramp covers. The horizontal length between landings is dependent on ramp's gradient:

- If gradient is 1:14, a landing is required every 7m of horizontal length
- If gradient is 1:20, a landing is required every 10m of horizontal length

If gradient is less than 1:20, the horizontal length between landings may increase proportionally, but in any case shall not exceed 20m.

Ramps shall have level landings at their top and bottom, of a minimum size of the width of the ramp by **1,500mm** length. A landing shall exist to any point a ramp changes direction.

In case of multiple ramps leading to a landing, this must at least as wide as the widest ramp run leading to it.



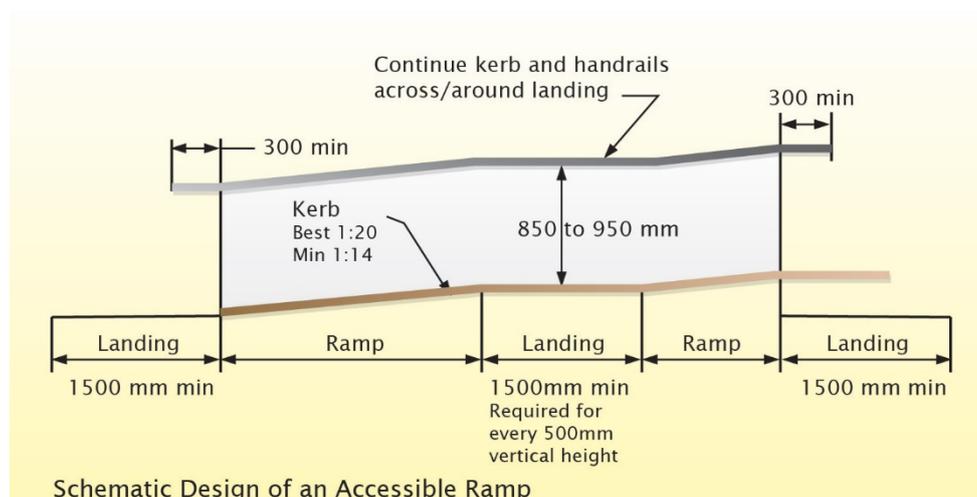
## Handrails

Handrails are required for ramps covering a vertical height of more than 300mm. In such case these handrails should:

- Be at both sides.
- Be continuous on the inside of switchback or dogleg ramps, or when not continuous extend horizontally at least **300 mm** beyond the top & bottom of the ramp and return to the wall, floor or post.
- All ramps should be set back a minimum of **300mm** from adjoining pathway to avoid the handrail to becoming a hazard.
- Handrails should be mounted with their tops **850-950mm** from ramp surface.
- Have a distance between them of **minimum 1,000mm**.

Handrails should have a circular gripping surface of **35-45mm** in diameter, have a continuous gripping surface (not interrupted by construction elements) and have a clear space of **45-60mm** from wall surfaces. All handrails should be designed so that they do not form a hazard.

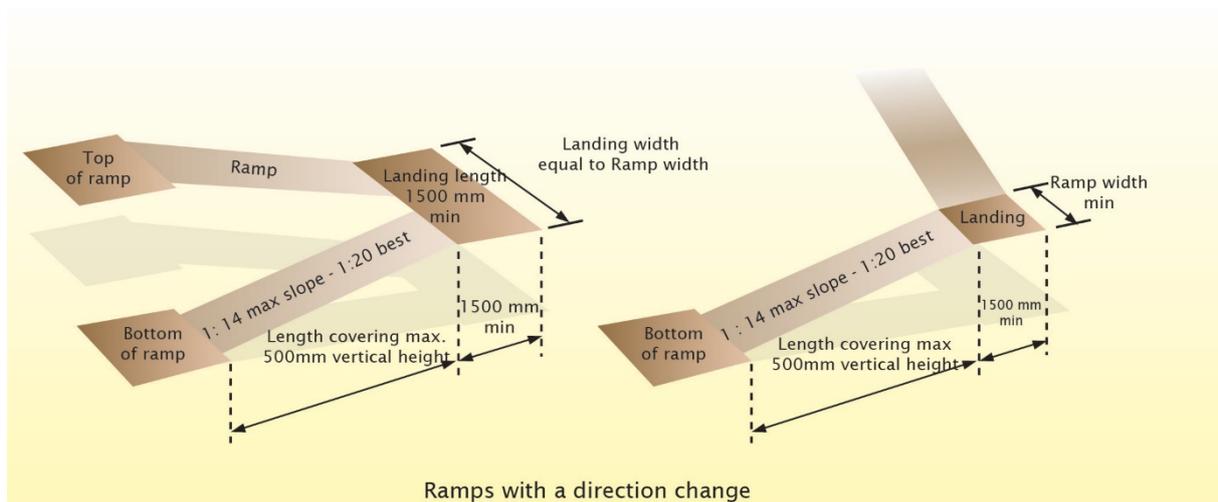
**Example: Schematic Design of an Accessible Ramp (excessive use - not in scale)**





## Other requirements

- In principle, a ramp should be the first type of entrance method considered, as it provides for universal access and emergency exit. In any case, where steps or stairs are provided, a ramp or lift shall also be provided as an accessible alternative.
- Ramp floor surfaces should be slip resistance and should have a detectable warning surface that is colour and texture contrasted to adjacent surfaces.
- Ramps greater than 6m in length should be replaced with a lift arrangement if possible. That means that for a vertical height difference of more than 3m, solutions other than ramps are preferred.



## Kerb Ramps

### Definition

A kerb ramp is a means for transferring safely and efficiently from a roadway. The design of a kerb ramp should provide for a smooth and with-no-gaps transition between the road surface and kerb ramp.

### Design Requirements

The maximum slope of a kerb ramp is 1:8 – 1:10, depending on the vertical height this covers. This has been presented in the table about design requirements of a ramp, earlier in this section.

The horizontal length of a kerb ramp shall not exceed **2,700 mm**. The max. slope of the routes immediately adjacent to the Kerb ramp shall be **1:14 (7.14%)**. The minimum width of a kerb ramp shall be **1,000mm**.

The surfaces of a kerb ramp should be slip-resistant and have a detectable warning surface that is colour and texture contrasted with the adjacent area.

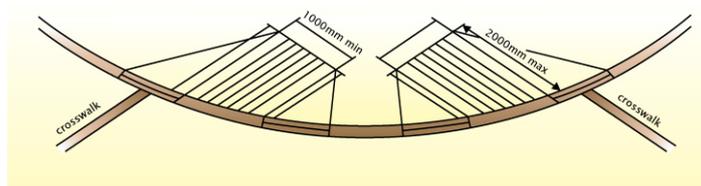


Kerb ramps shall have flare sides, as these eliminate the hazard of pedestrians stepping off an edge.

The smooth transition and minimal slope of a kerb ramp could go unnoticed by someone with a visual impairment; therefore, textured surfaces are needed.

The maximum slope of flared sides shall be **1:10**.

Kerb ramps at pedestrian crosswalks shall be wholly contained within the area designated for pedestrian use.





### 1.3. Stairways

While stairs and stairways are not considered parts of an accessible route, proper design will enable people of small stature, elderly people, children and others to use them in a safe and efficient way, thus contributing to an inclusive facility.

#### Design Elements

##### *Treads and Risers*

Stairs need to provide uniform riser heights and tread depths. Riser heights should be no more than **180mm** and not less than **125mm** high, best practice is **150mm**. Treads should run no less than **280mm** and not more than **350mm** deep, measured from riser to riser. Closed risers are essential; open risers are not permitted.

##### *Nosings*

Nosings may not project more than **38mm**. They should be high contrast to the tread and of a non-slip material. They need to be illuminated to a minimum level light level of 100lux and have no abrupt undersides.

When projecting, nosings should be sloped to the riser at less than **60 degrees** angle to the horizontal.

##### *Detectable Warnings*

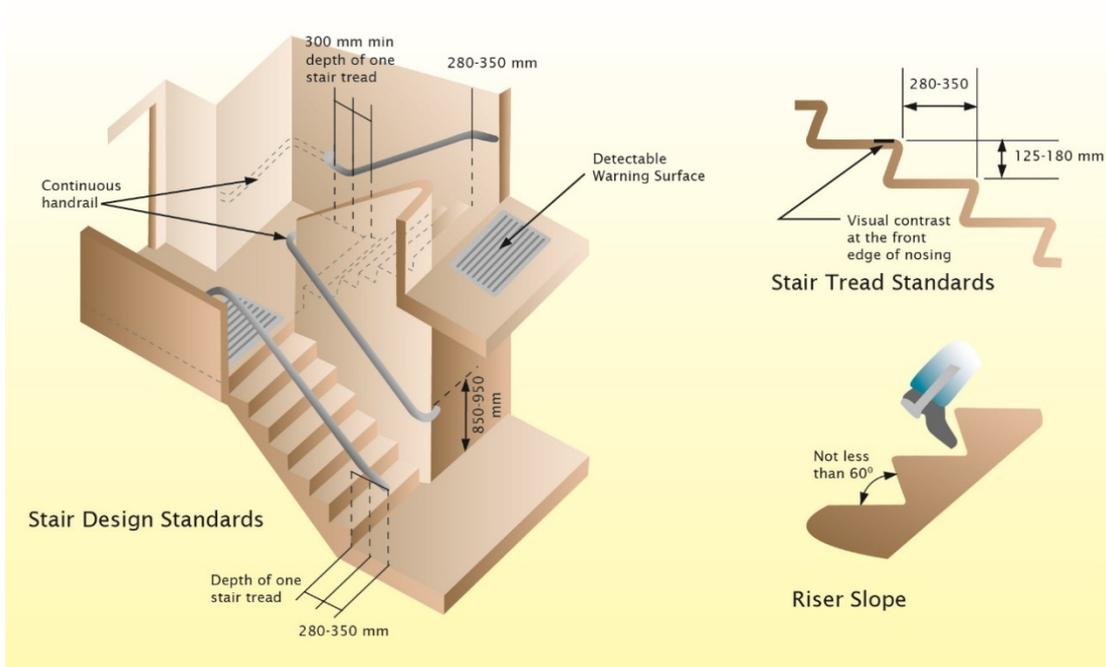
Detectable warnings must be provided at the top of each set of stairs; they should extend to the full width of the stairs for a depth of **600mm** and commence at one tread depth back from the top stair.

The warnings should be of a contrasting colour to the surrounding floor surfaces and be detectable by a cane.

##### *Handrails*

Handrails must be installed on both sides of the stairway. They need to:

- Provide a graspable surface **35-45mm** in diameter.
- Have contrasting colour to their adjoining structure.
- Have a continuous gripping surface without interruptions for posts or other construction elements.
- Have a clear space between the handrail and the wall of **45-60mm**.
- Be mounted between **850-950mm** above the stair nosing.
- Have a continuous inside handrail or if not continuous extend at the top of the stairs parallel with the floor surface to a distance of **300mm** or if at the bottom of the stairs continue at slope for a distance equal to one tread and then extend parallel to the floor surface not less than **300mm** and return to wall floor or post.
- Have a tactile message strip on exit levels of each handrail.





#### 1.4. Surfaces, Paving and Finishes

Like pathways themselves, surfaces and finishes should accommodate people with a mobility or sensory impairment. This requires designers to extend the considerations given as regards to the creation of accessible pathways to the detail surface, paving and finishing treatments of the pathways.

Pathway surfaces need to eliminate tripping hazards and obstacles; provide safe, intuitive wayfinding and offer reliable directional indicators that accommodate all users.

##### Characteristics of Accessible Surfaces, Paving and Finishes

Tree planters and/or grates in the path of travel, including sewer/drainage covers etc. should be a high contrast colour to the surrounding surfaces. Openings are to be a maximum of **15mm** in width and should be aligned in vertical way to the path of travel.

Solid, continuous surfaces such as compressed aggregate, asphalt paving or concrete are the most appropriate surface composition that avoids maintenance.

Effective drainage utilizing a **2%** cross-slope is needed to prevent pooling water/mud.

Where an accessible surface has adjacent landscaping or other drop-off, either a flush transition needs to be created by adding landscaping material to the level of the accessible surface or a kerb edge is required to prevent wheelchairs or walking aids from slipping off the pathway.

Tactile surface walking indicators are important wayfinding tools for people with a visual impairment. Three of the most important elements are:

- A minimum of **50%** colour/tonal contrast with the surrounding surfaces
- All hazards on an accessible surface should be indicated using the accepted tactile symbol indicating immediate hazards – a strip of raised, truncated domes placed across the entire length of the hazard and a minimum of **300mm** in width.
- At major decision points along a pedestrian route to help direct people with a visual impairment safely toward their destination, tactile direction indicators should be used. These are strips raised a minimum of **3mm** and **200–300mm** in length placed along the intended direction of travel to direct the user along a route.



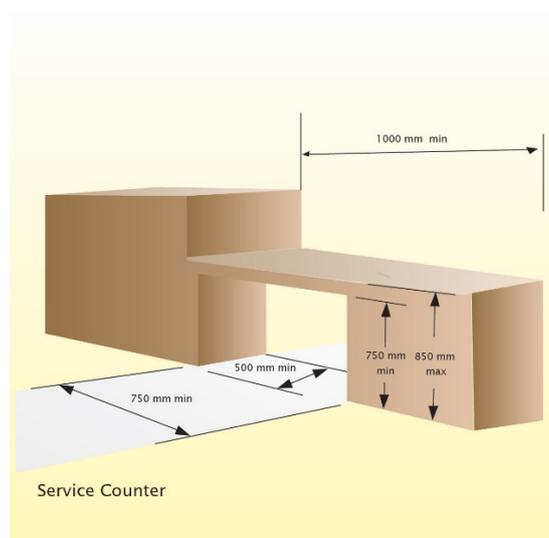
## 1.5. Furniture, Counters and Service Areas

### Reception and Service Areas

#### *Reception and Information Desks*

Reception desks, registration counters, and other common counters must provide a maximum counter height of **850mm**, knee clearance of **750mm (h) x 750mm (w) x 500mm (d)** in the main service area. Segregated cut-outs/service areas for wheelchair users are not permitted. A high service area for standing users may also be provided however the main service area must be accessible.

Where possible reception and service counters should be one height that is universally accessible to all people.



#### *Waiting and Queuing Areas*

Queuing areas for any purpose should allow all people to move safely and conveniently. Barriers at queuing areas need to allow a clear width of **1,500mm** for each line. The slope of the waiting area should be level or not exceed **1:50 (2%)**.

When the distance is anticipated to be longer than **50m** or the waiting time is expected to exceed a certain limit provision of benches is important for individuals who may have difficulty with standing for extended periods.

There should be prominent colour contrast between ropes, bars or barriers to define the queuing areas and the surrounding environment.



## Food and Beverage Outlets

### *Retail, F&B & Service Counters*

These areas should provide:

- An integrated counter design that incorporates a lowered counter surface as the main service area that is **850mm** from finished floor to accommodate all users and has a minimum **600mm** clear space at point of sale area as a pass-through area to serve wheelchair users and people with reduced reach/arm strength;
- Knee space under cash/service counters that permits wheelchair users to face the clerk and complete transactions (minimum **750mm wide x 500mm deep** with clearance under counter of **750mm** from the finished floor).

Minimum aisle widths of **1,000mm** and aisles kept clear of displays and products.

### *Cafeteria Style Services*

Requirements include:

- A tray rail that is a maximum of **850mm** from the floor, is at least **250mm** deep, provides **750mm** clearance under the tray rail and is continuous from tray pick up to cashier;
- Cooler and/or shelf doors should slide, rather than swing open;
- Cash areas must provide a maximum counter height of **850mm**, knee clearance of **750mm (h) x 750mm (w) x 500mm (d)** at each checkout;
- A clear space of at least **600mm** at the cashier/POS is required to provide a pass-through area to serve wheelchair users and people with reduced reach/arm strength.

### *Condiment Counters*

Requirements include:

- A surface height of **850mm** and a maximum reach requirement of **600mm** from the front edge;
- A minimum clear space of **300mm (w) x 200mm (d)** to provide a work surface for food preparation. Such clear space can be created with the addition of a shelf providing an **850mm** surface height with **750mm** of underside clearance. The addition of a shelf should not interfere with the maximum **600mm** reach requirement.
- Bulk condiment dispensers are preferred, as individual packaged condiments are difficult to use for many persons with an impairment;
- Stacked, loose napkins are encouraged in addition to typical napkin dispensers.

### *Waste Bins*

Requirements include:

- A maximum height of **1200mm**;
- Should require minimal hand dexterity to operate.



## Restaurants/Lounges/Food Court Seating

Specific recommendations will depend on the exact nature of the restaurant and its decor however, what follows are basic guidelines for restaurant design as it relates to accessibility requirements.

### *Design Requirements*

Fixed seating such as booths are generally difficult for people with a mobility impairment and older adults, as well as being inaccessible for wheelchair users. If booths are used, alternative seating at accessible, conventional tables should also be available.

Main pathways or aisles shall be of minimum 1,500mm, with aisles between tables need to provide at least **1,000mm** of clear width.

Accessible seating needs to be dispersed throughout the restaurant. Chairs need to be light and easy to re-position.

Corner legs on tables are preferred, however if round tables with centre posts are used for dining, the minimum required distance from the table edge to the outer edge of the pedestal base is **500mm**.

Where bar seating is provided, each bar needs to have a lowered section suitable for a minimum of two wheelchair users and/or people unable to use high stools. This requires an **850mm** surface with **750mm** of knee clearance along a minimum width of **1,600mm**.

Small tables used in lounge applications require a minimum diameter of 610mm. Knee clearance minimums is not applicable.

A mixture of chairs with arms and chairs without arms should be available in each setting - minimum one chair with arms per five chairs without arms (20%) to assist people with mobility impairment.

Bench seating should provide good back support and have a minimum kick space underneath is at least one third of the seat depth.

All seating must provide kickspace of at least one third of the seat depth. Supports or cross bracing of chairs should not interfere with the kickspace.



## 1.6. Entrances and Exits

Highlighted below are the key elements of accessibility related to entrances and exits that need to be considered to ensure they everybody can safely and appropriately enter and exit a site, building or venue.

### Entrance Design

All entrances should allow independent and safe entry points. This will require the following:

- Access to shade/shelter and water;
- A clear pathway without threshold steps at the doorway, of min.**1,500mm** width;
- Clear signage indicating the accessible route;
- Entry mats that are recessed to limit tripping by people yet still allow minimal water or dirty transfer internally;
- Easy to operate doors with appropriate door closers (up to **20N**);
- Automated door closers that use a sensor to open/close the door;
- Provision of an automated swing or sliding door where there is a revolving door.

### Entrance Operations

During an event, such as the Olympics or Paralympic Games, the structural elements of the venue entrances are:

- Waiting area prior to gates being open;
- Line up or corralling where tickets or accreditation are checked;
- A ticket scanning area;
- A security area of tent where bags and bodies are security cleared;
- An informal waiting area within the venue perimeter where people re-meet after being cleared into the venue.

In each of these areas it is essential that appropriate accessible widths, designs and spaces are provided.



## Considerations for Accessible Entrances

### *Spectators Entrances*

During the Games, entering a venue and being seated for the start of a session may take upwards of 2–3 hours depending on the event. For people with accessibility needs this may require lining up in the same line as everyone else or in a dedicated accessible line.

Elements to be considered include:

- Accessible transport drops should be placed as close as possible to venue entrances.
- Pathways to the entrances should have shade and shelter provided within close proximity of the accessible entrance and rest seating at **50m** intervals.
- All pathways to the venue entrance shall be suitable for any kind of weather conditions. They shall have a colour contrasting composition and be a minimum of **1,500mm** width.
- Line up arrangements shall ensure that at least one line up allows a minimum of **1,500mm** in width.
- Signage including the international logo for access should clearly identify the accessible entrance among others and accessible line up.
- Exit routes should allow for emergency evacuation and ensure efficient movement to evacuation points for all users.



## 1.7. Doors and Doorways

Suitably designed doors constitute an essential part of an accessible route, allowing people using a wheelchair, pushing items like strollers or carrying stuff easy access to an area.

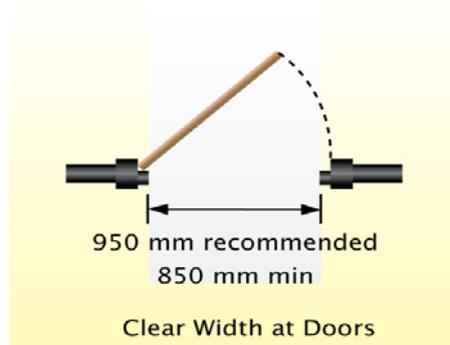
Sometimes elements such as a raised threshold at the base of the door, an excessively heavy door or wrong opening swing prevent access through a door with suitable width or present significant challenges as both an obstacle and a personal hazard.

### Design Requirements

#### *Clear Width*

The minimum clear opening of doorways shall be at min. **850mm** while best practice is considered to be **950mm** measured when the door open 90 degrees. For certain Paralympic competition venues where competition wheelchairs are used, door width of athlete preparation areas needs to increase to **1,000mm**. These are specified at the [Olympic Games Guide on Venues](#).

If doorways have two independently operated door leaves, at least one active leaf shall comply with the minimum clear opening width requirements specified above.





### **Other requirements**

Main entrances need to be equipped with power-operated doors. Power operated doors require:

- The swing path of the power door marked on the ground;
- Hands-free operators;
- A force of no more than **30N** to stop door movement;
- If on a fire exit route remain operable in emergency conditions.
- Take at least three seconds to go to a fully open position.

Non-power doors require:

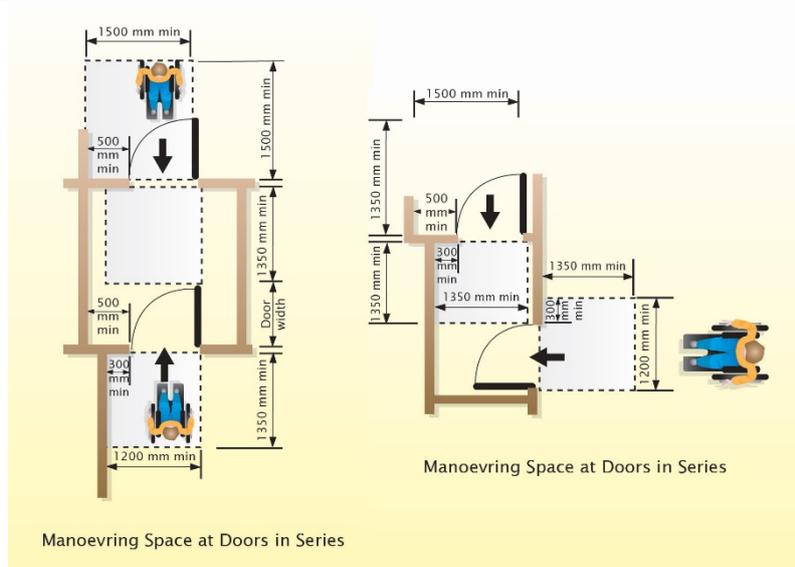
- U-shaped levered handles or D handles providing a minimum inside dimension of **150mm**. These shall be operable by one hand and not require fine control capabilities, while they should be mounted between **900 - 1,100** mm from the floor surface;
- Operating hardware on sliding doors shall be exposed and usable from both sides when sliding doors are fully open;
- Low resistance delayed action door closers shall provide for at least three seconds to go to a fully open or closed position;
- A **500mm** clear space on the pull side of the door on the latch side.
- Signage/notices should never be posted on doors such that readers would be placed in the swing path of the doors;
- Thresholds are tripping hazards and should be eliminated;
- Door leaves shall have a minimum 30% luminance contrast with the frame or adjacent wall – this includes glass doors in glass walls;
- The clear width between a series of interconnecting doors shall be 1,500 mm in addition to the width of both of the doors when open;



### Manoeuvring Space at Doors

Doorways require manoeuvring space to accommodate people with mobility impairment on both sides of the door and a clear space beside the latch. This space is presented in the table below:

Context	Depth (mm)	Width (mm)	Clear Space Beside Latch (mm)
<b>Side-hinged door</b>			
<b>Front Approach</b>			
Pull Side	1,500	1,500	500
Push Side	1,200	1,200	300
<b>Latch side approach</b>			
Pull side	1,200	1,500	500
Push side	1,050	1,500	600
<b>Hinge side approach</b>			
Pull Side	1,500	1,500	500
Push Side	1,050	1,350	450
<b>Sliding Doors</b>			
Front approach	1,200	900	50
Side approach	1,050	1,350	540





### ***Considerations for Different Types of Doors***

Sliding doors are easier for some individuals to operate and can also require less wheelchair manoeuvring space.

In general revolving doors are not suitable for persons with a mobility or visual impairment and children. When a revolving door is provided an adjacent power operated door of an appropriate width shall also be provided.

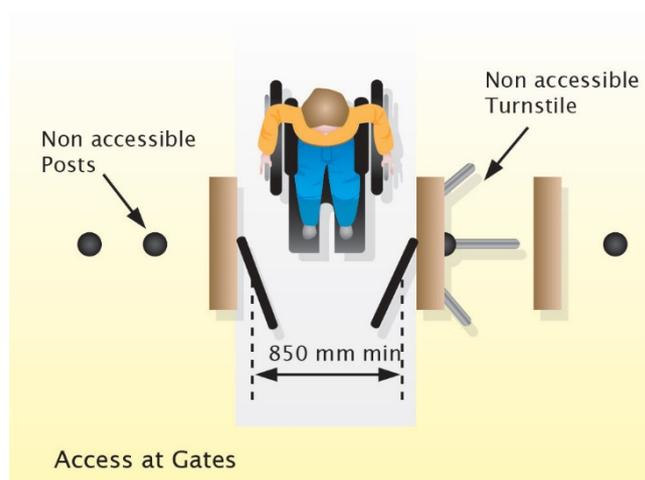
Glazed doors need to include colour-contrast strips or other indicators to become detectable from people with a visual impairment.

### **Gates and Turnstiles**

Where a gate or an access control device (e.g. a magnetometer) is provided they need to have a clear opening of no less than 850mm.

Where a gate mechanism is provided, upon operation the gate shall swing away from the user.

Where turnstiles or other ticketing control devices are provided (which are typically not wheelchair accessible) then a gate or opening which is accessible shall also be provided in immediate proximity.





## 1.8. Elevators and Escalators

### Elevators

There are three types of appropriate vertical lifting devices.

- Elevators – services multiple level and has fully automated operations with accessible control panels
- Vertical Platform Lifts – service low risers i.e. one to two floors or heights above 500mm
- Stairway Platform Lifts – service an existing building where space constraints remove the ability to provide an elevator or vertical platform lift.

Elevators are essential to cover vertical height differences in a building or a facility, when ramp or a gradient walkway is not possible. Elevators that fulfill accessibility standards shall be identified with appropriate signage. An accessible elevator shall be automatic.

### *Doors*

The doors shall be power operated and preferably sliding. They shall be provided with a door obstruction sensor device that will function to stop and reopen in case the door is obstructed while closing.

A minimum four (4) seconds is needed for doors to remain open at any call, except of when users use the door open-close buttons in the car.

The car shall be equipped leveling device to maintain the floor level to a height of not greater than **± 10mm**.

The clear width for elevator doors shall be **850mm**, but for elevators serving public spaces and sport facilities clear width of elevator door shall be at least **950mm**

### *Car*

The clear size of the car shall not be less than **1,700mm x 1,500mm**. In facilities with high public use such as sporting venues, the Paralympic Village residences or entertainment facilities, the size of the car shall not be less than **2,100mm x 1,500mm**.

Lighting levels inside the car should be maintained at ambient hallway light levels of even, flicker-free light and shall be not less than **100lux**.

Handrails that provide a round graspable surface **35-45mm** in diameter on all walls and **at 850-950mm** above floor surface are required.

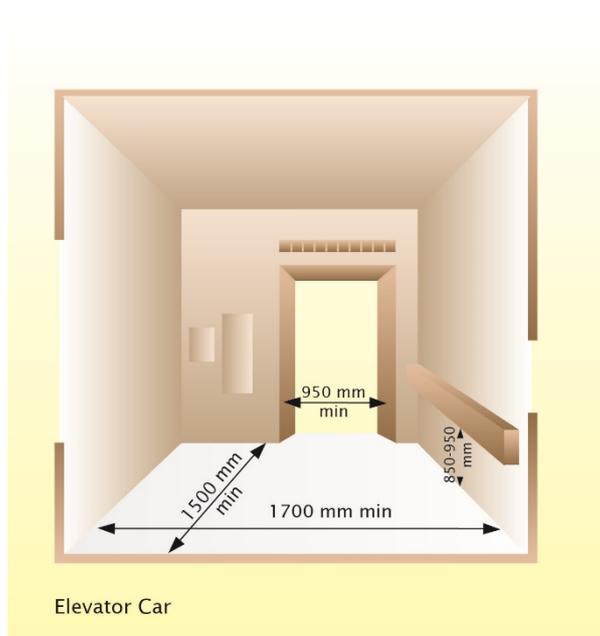
Floors inside elevators need to be easily recognizable (not a solid dark surface) for the benefit of people with visual impairments.



In elevators serving only two floors, flow through design using two doors (one front – one back) is recommended, as this eliminates the need for users to turn around to exit. This is particularly helpful during crowded conditions for wheelchair users, people who have a visual impairment and people using walking aids.

Where flow through designs is not appropriate, a mirror is required on the back wall of elevators to assist people with a mobility impairment exit the car in crowded conditions. The bottom edge of this mirror must be no higher than **1,000mm** from the finished floor and extend across the width of the elevator.

Floors need to have a slip-resistant surface. Handrails shall be installed at a height of **850-950 mm**. An indicator showing the position of the car as it moves or stops in different floors shall be provided.



### **Controls**

Controls are to be located on the side wall, approx. **250mm** from the front return panel. This makes it possible for wheelchair users to access the controls without leaning forward or twisting around backwards and risking a fall. Where two control panels are installed, one on the side wall, the other one the front return panel on the opposite side is most appropriate. Car controls shall be readily accessible from a wheelchair user upon entering an elevator.

In the control panel the emergency/alarm and door operating buttons shall be located at the bottom of the control panel, at no less than **850mm** from the floor. The highest floor button shall be no higher than **1,200mm** from the floor.

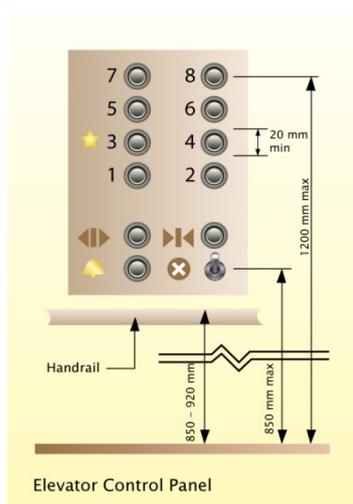


Floor buttons in elevator cabs shall have at least **20mm** diameter and be raised or tactile. They shall be provided with visual and momentary audible indicators to show when each call is registered.

All car control buttons shall have raised characters for letters and numbers as well as Braille, placed immediately to the left of the buttons to which they apply or on the buttons.

Emergency communications using hands-free, intercom systems are required in place of the use of a typical telephone style handset.

Synthesized voice floor callers are required in elevators serving more than two floors, announcing the direction and destination of the elevator. These are extremely useful to all users – in particular seniors and people with a visual impairment.



### ***Other Requirements***

An audio announcement shall be provided indicating the current floor when the elevator stops at the landing as well as when the doors open or close and for the direction of travel up or down.

In the hall leading to the elevator, the control panel shall have the same specifications as the control panel inside the car.

Each elevator shall be equipped with a 2-way communication system, which will be linked to an emergency response system. The highest part of this system shall be at a maximum of **1,200mm** above the floor and shall be identified by raised symbol or lettering.



### ***Escalators***

Escalators are not considered part of an accessible route; therefore lift access located within close proximity is required. People using service animals cannot normally use escalators. Similarly, some people with a mobility or balance difficulty may not be comfortable using an escalator.

However, as escalators may be used by people with a mobility or sensory impairment they need to comply with basic safety needs such as:

- Include tactile warnings at the top and high contrast markings (preferably signal yellow) on all nosings and side edges;
- Lighting over escalators shall be a minimum of **200lux**.



## 1.9. Emergency Provisions

In general emergency response plans need to particularly consider potential users who have mobility, sensory or mental limitations and provide adequate solutions for them. In the event of fire when elevators cannot be used, areas of rescue assistance must be available to anyone who would have difficulty traversing sets of stairs.

### Emergency Evacuation

Routes acting as “emergency evacuation routes” need to comply with accessibility standards described before in this chapter.

Routes acting as immediate egress to an open and safe area must encompass a barrier-free path of travel to an exit.

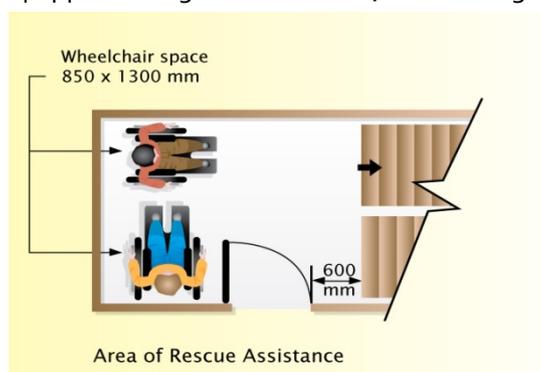
### Areas of Rescue Assistance

Areas of Rescue Assistance shall be provided in all cases where immediate egress to an open and safe area is not possible without using mechanical means. These areas should be located on an accessible route and have a minimum size of **850mm x 1,300mm** per anticipated potential user, with no fewer than two such spaces.

The Areas for Rescue Assistance must be designated as such in the facility designs and with emergency response plans. These shall be smoke protected in facilities of more than three.

Other provisions that are essential:

- Develop signage for these areas as well as emergency instructions that are low mounted, and high contrast with tactile lettering;
- Entry doors should be of a contrasting colour to the surrounding surfaces;
- Provide a hands-free intercom or other communications device
- Provide proper awareness training to staff on the appropriate use of this area;
- Exit stairs should be equipped with glow in the dark, stair nosings or handrails.





## Alarms

The needs of people who are deaf or hard of hearing are among the most often over-looked when installing alarm systems. Conventional emergency warning systems rely on an audible signal to alert occupants to a problem. For those who cannot hear, this system is of little use. While it is commonly thought that someone who is hearing would inform the individual of such an alarm, this assumes that the deaf individual is never alone. This would also assume that an employee with a hearing difficulty would never be working in isolation.

1. A visual fire alarm/strobe warning system is required to operate in conjunction with audible signals and be generally visible in public gathering areas, in all washrooms throughout the facility and in front of elevators. The maximum allowable strobe flash rate is **1-3 Hz**.
2. Emergency call buttons (along with proper staff training) should be considered in washrooms that provide facilities for wheelchair users. These devices allow people that may have fallen while making a transfer to or from the toilet to call for assistance (see Washrooms). These systems need to be monitored whenever the facility is in use. Where monitoring is not available, an alarm with both audible and visual signals that are noticeable in an adjacent hallway will suffice.
3. Fire alarm pulls and fire extinguishers should be installed at an accessible height to permit wheelchair users and others to signal trouble or utilize the safety equipment. These devices are to be mounted at a maximum operating height of **1,200mm** and be placed on an open wall free of obstructions. The same standard applies for fire and emergency alarms in button panels.

## First Aid Rooms

All first aid facilities should accommodate people with an impairment as well as people without impairment. This requires tactile/high contrast signage and connecting paths accessible to wheelchair users and people using walking aids. In addition, the typical cot used in most first aid facilities should be replaced with a variable height gurney or change bench. An accessible unisex washroom should also be located in the immediate vicinity of the first aid room.

## Building Evacuation Instructions

Easily readable emergency procedures and exit route maps are important components for everyone in the building. To ensure that people with visual impairments and others have access to this critical information, the evacuation instructions for the building need to appear in large print (minimum of 14 point) and in high contrast (red on white or vice versa preferred) and include a floor plan diagram with clearly marked exit points. These signs are to be mounted at a maximum of **1,350mm** from the finished floor and also need to highlight the accessible route to the closer exit and/or rescue assistance area.



## Other Requirements

Other accessibility conditions to improve emergency provisions are:

1. Power operated door openers must continue to operate in an alarm condition.
2. In an alarm condition, lighting must assist people to way-find out of an alarm zone. Low mounted (**480mm** above finished floor) exit signage would assist all users along exit routes – particularly people who have a visual impairment
3. Video/data monitors used in the facility should also communicate emergency messages to patrons.

## Event Considerations

While all above requirements apply generically in usual sporting or social events and settings, a particular situation exists in the case of sporting events for athletes with an impairment, such as the Paralympic Games.

In those cases, the scope of facility users who may have difficulty traversing sets of stairs or have limitation to anticipate emergency signals can be very high. As a consequence event planners and operators need to develop customized emergency response plans for the particular event, taking into account the existing facts.



## 2. Amenities

Amenities available for public use should provide equitable and dignified access to all people regardless of mobility or sensory limitations.

### 2.1. Venue Seating

#### Accessible Seating

For any sport event, outside the Olympic and Paralympic Games context, the minimum requirement for accessible seating is **0.50 %** of the total seating.

For the Olympic Games, the minimum requirement for accessible seating is **0.75 %** of the venue's gross capacity.

Especially for the Paralympic Games, the minimum requirement for wheelchair accessible seating starts from **1%** and may be as high as **1.2%** of the gross capacity of the venue (wheelchair sports events in particular), plus a specific number of wheelchair accessible seats per accredited group. This percentage is adjusted by venue for the Paralympic Games to take into account sport-specific needs. Detailed requirements for each sport are included in the **Technical Manual on Competition Venues Design Standards**.

Accessible seating should be integrated into each of the different areas of the theatre, arena or venue. Accessible seating is to be provided in different price categories, viewing ranges and constituent areas. Complimenting each area should be: unisex accessible toilets, food and beverage outlets, merchandise stores, lounges and lifts. Further to auditoria seating, this includes retail, restaurants, suites and support facilities. Therefore, grouping all the wheelchair users into one area is not appropriate. People with mobility impairment should have a choice of sitting in different areas, as do other spectators.

The designated space for people with a mobility impairment needs to be level (max. 2%) slope and have:

- An area of **800mm x 1300mm** for wheelchair users
- An area of **500mm x 1300mm** for companion or enhanced amenity

Circulation space behind needs to be **1000mm minimum**, therefore the overall space required for a wheelchair user and companion seat with a pathway behind is: **1300mm x 2300mm**.

Where sufficient accessible seating cannot be provided e.g. when the venue is a heritage structure with little access, operational solutions may be considered. For example lack of access to concessions could be overcome by providing waiter service for the affected patrons.



## **Companion Seating**

Companion seating must be provided at a ratio equal to wheelchair accessible seating (0.5-1.2% as per above ratios) and be to the side – not behind - the designated space. Easily moveable chairs permit companions to sit together and can be quickly removed to allow two or more wheelchair users to sit beside one another.

## **Enhanced Amenity Seating**

Enhanced Amenity Seats have additional space in front of and to one side to provide greater room for those with a mobility impairment who are not in wheelchairs.

At least 1% of venue's gross capacity of Enhanced Amenity Seats should be provided in addition to wheelchair and companion seating positions. These should be equitably distributed and located at the ends of rows and up or down as few steps as possible.

## **Comparable Sightlines**

Planners should remember that they must develop accessible seating that can maintain appropriate sightlines for accessible seating users if/when the crowd stands. Comparable sightlines provide the same sightline for a person seated in a wheelchair when a person in front stands up, as the person in front has when standing.

For the Paralympic Games the above rule applies for all accessible accredited seating and for the 1% of accessible seating (plus 1% companion seating) which is the minimum standard for the Paralympic Games. However, for the amount of accessible seating exceeding 1% and for sports where the likelihood of the audience standing up during the event is low and the impact on the remainder of the seating is high, an exemption may be considered. In this case the sightline for the wheelchair accessible position should be the same as the person in front has when seated.

Similarly, railings and other obstacles should not impair the sightlines of people using accessible seating.

## **Hearing Augmentation**

Large buildings need to ensure that their public address systems are designed to accommodate an aging population with progressive hearing loss. One of the most effective ways of doing this is to increase the number of speakers in each area, as when the consumer is physically closer to any given speaker, then the volume can be reduced and the clarity increased,

Anywhere that there is a group of spectators or other audience, there is a need for assistive hearing devices. Hearing loss is the most common impairment and because it is progressive over a long period, often the consumer is unaware of the extent that it affects them.



Details for the various Assistive Hearing Devices can be found in the Communications section of this chapter.

### **Additional Accessibility Provisions**

Additional accessibility provisions to enhance the experience for spectators include:

- Real time open captioning where video screens or scoreboards are used
- Sign language interpretation
- Live audio description services

Further detail on the delivery of these services can be found in the Publications and Communications section of this chapter.

### **Stage Preparation**

Areas for presentations and/or press conferences should be able to provide:

- Wheelchair access to stage
- Accessible podium – preferably a variable height unit
- Lapel microphone
- Area on stage or nearby for visual language interpretation



## 2.2. Washrooms

### Main principles

Any kind of facility where people are expected to stay even for a short period of time cannot be considered accessible if there is no provision of an accessible washroom.

Accessible washrooms should be unisex and not only be within a gender-specific washroom area. This will allow assistance from a person of a different gender e.g. carer as well as families and elderly people.

If an individual accessible washroom is not visible from the common or public use washrooms, suitable directional signage is required to exist.

### Numbers and Ratios

Every bank of gender toilets should also have a unisex accessible facility located adjacent.

Especially for the Paralympic Games, where demand for accessible toilets is greater, additional accessible toilets should be provided. Those additional accessible toilets may be provided within gender specific facilities.

In general, a ratio of 1:15 (one accessible toilet for every 15 clients who need such toilet) is considered appropriate.

### Signage

Standardized symbols should be used and have raised lettering or symbols within the sign. The raised lettering should be **1mm** in height. The sign should be mounted **1,350mm** from the floor, on the wall - on the latch side of the door where doors are present – not on the door itself. This is intended to reduce the collision hazard for people with a visual impairment using the signage. Where there is no entry door, signs should be located on the left as the user enters the washroom.

In order to further facilitate easiness of use by people with a visual impairment, colour-contrasting doorframes and door hardware may be used.

### Circulation Spaces

The clear space of a unisex accessible washroom is 2200 X 1800mm. Within that space is a toilet pan, washbasin, grab rail adjacent to the toilet pan, mirror, soap dispenser and paper towel dispenser, toilet paper dispenser.

To add to the flexibility of use and appeal to families, a fold down baby change table can also be provided in unisex accessible washroom available for public use.

For gender-specific accessible toilets, the clear space required to allow enough circulation space shall be **1,700mm x 1,800mm**.



The washroom should provide a transfer space of at least **750mm** next to toilet. Best practice is **800mm or wider**.

### **Doors**

All doors to accessible toilet and bathing rooms shall be of a minimum **850mm** while best practice is considered to be **950 mm** measured when the door open 90 degrees.

Doors shall not swing into the clear floor space required for any fixture. In unisex facilities a light operating door closer (**20Nm**) shall be provided for ease of use and self-closing.

Doors should be fitted with light action privacy bolts so that they can be operated by people with limited dexterity. All door-opening furniture should contrast visually with the surface of the door.

### **Accessible Washroom Fixtures**

Design specifications for accessible toilet are:

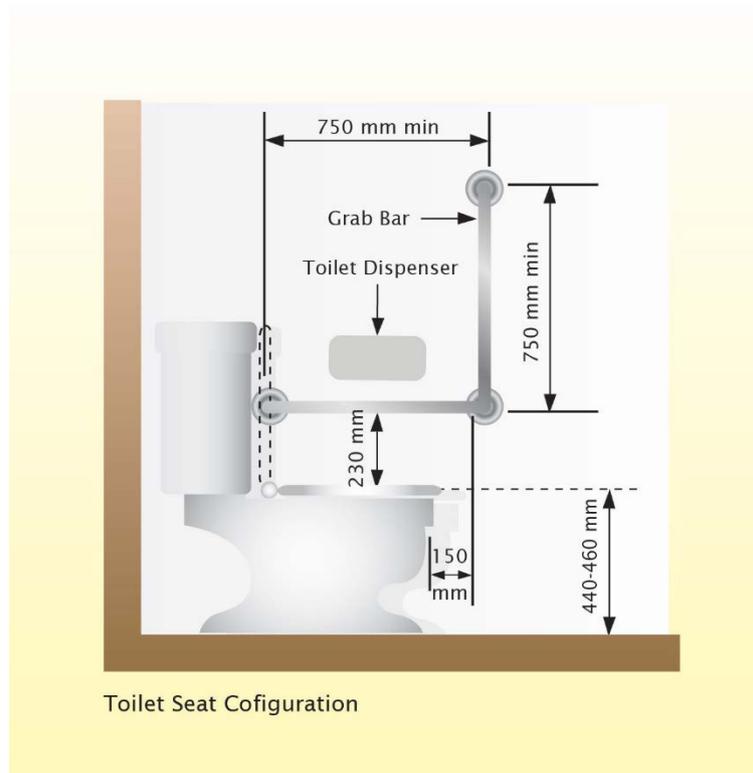
- The toilet pan should be located 450mm from the side wall
- The height of the toilet seat should be at 450mm +/- 10mm height above finished floor.
- Toilet pans should be fitted, and be supported between 10° and 15° beyond vertical, to act as a backrest. A back support must exist where there is no seat lid or tank.
- The tank top securely attached.
- Toilet flush controls are preferred to be electronically automatically controlled or be of within easy reach from the transfer side of the toilet or else the side opposite to the wall.



## Accessible Washroom Fixtures

Toilets shall be equipped with grab bars that shall be L-shaped with 750mm long horizontal and vertical components mounted with the horizontal component 230mm above the toilet seat and the vertical component 150mm in front of the toilet seat;

In the following design main design requirements are specified:



Toilet paper dispensers should be within easy reach from the sitting position not less than **600mm** above the floor and contrasting in colour to the wall.

Further, conventional open roll dispensers are preferred since they require only minimal dexterity to operate.

## Sink Area

In the sink area accessories (such as soap dispenser, paper towel) should be located within an operating height of between **900–1100mm** above finished floor and approximately **750mm** from the centre of the sink. This is best achieved on sinks closest to the corner wall. This technique is known as “clustering”.

Garbage cans or other obstacles should not block access to the paper towel dispensers, or the required **500mm** pull space beside the exit door.



Washroom sinks must include a counter or adjacent shelf.

The paper towel dispensers should be of a lever operated type or be a hands free design and be mounted between **900–1100mm** above finished floor and approximately **750mm** of the sink, not on an opposite wall.

Within unisex accessible toilets provide a mirror with its base immediately above the basin to a height of 1800mm.

A hands-free automatic tap is preferred – particularly in unisex facilities. The minimum requirement is for a single, thermostatically controlled and lever operated tap. Separate controls for hot water and cold water are not permitted.

An AC outlet should be located in close proximity to the toilet to accommodate adaptive devices.

Maximum basin depth should be 150mm

Basin height clearance of 680mm

Within a unisex accessible toilet the minimum distance between basin and toilet pan is 1000mm

### **Other requirements**

Where baby change facilities are provided, they should be mounted at **850mm** and provide a minimum of **750mm** of clearance underneath and **500mm** depth.

All unisex washrooms should have feminine napkin disposals located on the sidewall under the grab bar and near the front edge for the toilet.

Each type of washroom accessory provided shall have operable controls mounted **900mm–1,100mm** from the floor.



## 2.3. Showers, Baths and Changing Rooms

Within shower facilities at least one shower in each area should be made accessible.

### Accessible Shower Features

Accessible showers must:

- Have a lever operated faucet with a maximum operating force of **13N** and is operable with a closed fist; from the seated position;
- Have the water control mounted on the wall at a maximum of **750mm** from the floor and **750mm** from the end wall;
- Have a portable or wall mounted folding seat that is located at **440-460mm** from the finished shower floor and. This seat should be a minimum of **480mm** deep and **850mm** long (+/- 10mm per illustration) its edge be maximum 100mm to the adjacent wall; be capable of supporting a minimum load of **135Kg** and be waterproof, padded and easily cleaned;
- Have a hand-held shower with mounting points located so that it is within easy reach of the seated position. The hose on this shower head needs to be at least **1,500mm** in length;
- Have recessed soap holders or shelves located within easy reach from the seated position;
- Have conforming grab bars that are not less than **750 mm x 900mm** set horizontally with the centre line of the grab bar **850mm** above the shower floor with the **750mm** length located on the same wall as the shower seat;
- Have a scald guard or other thermostatically controlled valve to protect users.





## Changing Rooms

There are many configurations of changing rooms. Some facilities are open plan without much personal privacy while most changing rooms allow for toilets and showers in individual cubicles.

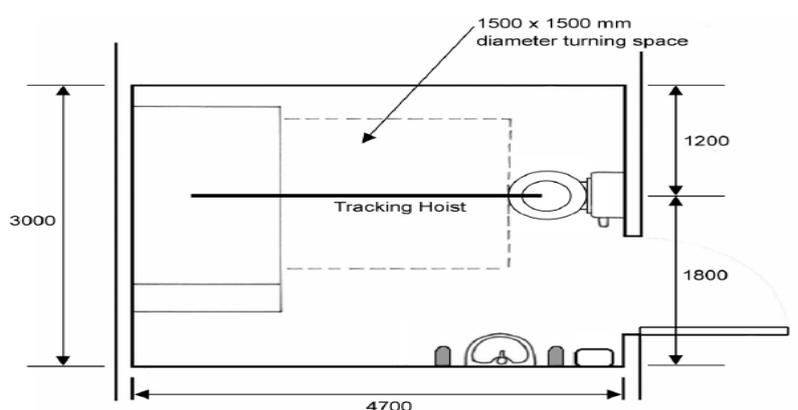
Regardless of the type of changing room, there are a number of key considerations of accessible changing rooms which include:

- Provide an adult accessible change bench.
- Easy entry with minimal airlock type arrangements as these create difficult use by people who use mobility aids;
- Provision for easy to reach locker and storage areas;
- Provision of accessible toilet within each gender changing room;
- Provision of accessible shower adjacent to the gender showers;
- Ensure treatment/first aid, coaches, referees, officials rooms also consider provision of accessible changing rooms. For these areas a combined unisex accessible changing room with toilet can be provided rather than providing one unit for each area.

For teams sports such as Wheelchair Basketball a shower and toilet combined unit provides the preferred solution. Many showers provide open plan layouts. For people with an impairment this is the least preferred as it is difficult to transfer onto a shower seat and have their mobility aids far enough away so as to not get wet.

### Example of a Medical Facility Adult Changing Facility

This is a unisex accessible peninsular toilet for assisted use and changing facilities. It is used by people who require assistance to reach a changing bed. The room should be **3,000mm x 4,700mm** and requires a ceiling mounted hoist and a changing bed.





### **3. Hotels and Other Accommodations**

#### **Principles**

Providing accessible accommodation is not merely an act of political correctness. Today, in every big city of the world tourist accommodation facilities compete with each other on quality, price and the provision of services and attractions. However, a big market segment, represented by the beneficiaries of an accessible and inclusive environment and their friends and families, is currently excluded by the majority of tourist accommodation facilities due to existing variations in access levels and not adequate information provision.

Accessibility in hotels, not only responds to the needs of an expanding market share, as the average age of the population increases but also other potential clients, for example parents with pushchairs, people with injuries, and tourists with heavy luggage.



### 3.1. Accessible Guest Rooms

Instead of designating accessible guest rooms, taking a universal design approach guest rooms' design and layout in all rooms means that the standard rooms and suites will be able to accommodate guests of a broader range of physical and sensory abilities.

This in turn would reduce the demand for the designated accessible guest rooms. It is therefore recommended new facilities to apply the same basic access to standard room features.

#### Responding to Individual Guest's Needs

##### *Description & Considerations*

The height of thresholds, door widths, and clear circulation space are essential for wheelchair users. Equipment, such as cupboards, switches, etc. should be within reach from a wheelchair.

The requirements of customers with hearing impairments should be discussed on their arrival and they should be informed of any procedures that may impact on their privacy/safety e.g. housekeeping, room service, fire drills, etc. a TV with teletext will be of benefit to people with a hearing impairment, to provide subtitles, and an induction loop connected to the TV output will help hearing-aid users.

If a person with a visual impairment is occupying a room alone, staff should offer to orientate the guest on the position of furniture and facilities in the accommodation.

##### Entry Door

The door shall provide a minimum clear width of **850mm**, while best practice is **950mm** and should be equipped with 'U' shaped levered handsets.

Automatic door closers should be adjusted to provide a maximum of **20 N** force. Where possible, conventional closers should be replaced with delayed action, low resistance closers.

Safety chains, locks and other hardware must be operable by one hand, not require good dexterity to operate and be mounted a maximum of **1,200mm** above finished floor.

There needs to be security viewers in door should be mounted at **1,000mm–1,200mm** above finished floor. The outside area must have at least **10lux** of flat, even light for the benefit of people who have a visual impairment and people who are hard of hearing or deaf (to facilitate visual languages and/or lip reading).

The door should have low mounted, large format/high contrast evacuation information/route signage.



## Circulation & Transfer Space

The room needs to provide at least one space for circulation and change of direction. This space must be at minimum **1,200 mm x 1,200mm** (or diameter 1,200mm) with best practice being at **1,500 mm x 1,500 mm** (or diameter 1,500 mm).

Transfer Space of minimum **800mm** must be provided in all areas where the guest who uses a wheelchair is expected to move from it for example toilets, beds, desk seating, etc.). Best Practice is **915mm** or wider.

Existing paths and passageways should be at least **1000mm** wide with best practice being **1,500mm**.

## Switches and Controls

Controls, switches, including those for heating/air conditioning should be within the range of **850 mm-1,200mm** from the floor. Electrical outlets and data connections are to be located at 450mm above finished floor.

Lamp switches need to be easy to locate and operate by people with minimum dexterity. Wall switches for general light and touch switches on bedside lamps are recommended.



## Beds

Bed top height shall be **450–500 mm**.

An aisle of at least **800mm (with best practice being 915mm)** along at least one side of the bed is required.

The bed frame needs to permit a minimum 100mm x 100mm kick-space between the floor and the bottom edge of the bed.

Beds that are on fixed pedestals prevent users from utilizing common lift equipment and therefore are not recommended in accessible rooms.

## Closets

A manoeuvring space of **1,500mm** should be provided in front of closets.

Closets shall have a low mounted hanger rod at 1,200mm above finished floor. Split closets with both high a low mounted hanger rods is recommended.

Closets should be equipped with hangers that can be easily removed and re-hung. Closet interiors need to be well lit.

Hangers attached to fixed rings are very difficult for many people with mobility impairment to use and are not appropriate in an accessible room.

Preferably, doors should be equipped with 'U' shaped levered or other accessible handle.

## Furniture and Finishes

Furniture needs be easy to access and operate. Hardware should be capable of being 'hooked' with a finger rather than grasped to operate.

If the access aisle to the bed is less than 1200mm, then the bedside tables need to provide a minimum toe space of **225mm high x 300mm deep**. Other tables should provide a minimum knee clearance of **700mm** underneath to a depth of **450mm**.

Carpeting needs to be low-pile, high density closed loop glued directly to the floor.

Thresholds should be totally avoided or be flush (0mm). If unavoidable, then they should not be higher than **25mm**.



## Window and Patio Doors

Patio doors (if existing) need to meet requirements for Doorways (above) for clear width, threshold, and hardware.

Furniture arrangement should allow wheelchair users access to window/curtains, the operators of which must extend to at least 1,200mm above finished floor.

## Other Equipment

At least one telephone needs to be located within easy reach of the bed. Telephones need to be compatible with hearing aids (contain a flux coil) and have a message-flash light.

A telephone in the bathroom with a 600mm cord is recommended as a safety measure.

Televisions need to be equipped with remote controls and with closed caption decoders.

Clock radio should have large, high contrast displays.

## Bathroom Elements

Overall, the provisions about washrooms described in the previous section apply for individual bathrooms at hotel accommodations.

Sinks should be equipped with levered or automatic faucets and scald guard technology as well as with offset traps or have insulated drains

A minimum knee clearance under the counter is **750mm** to a depth of **500mm**. The top height of the counter should be no more than **850mm**.

Mirrors are to be mounted with the bottom edge mounted a maximum of **1,000mm**

A telephone or other communication device or alarm needs to be located within easy reach of the toilet in case assistance is required after a fall or other emergency. Where handsets are used a **1,500mm** cord is required.

## Showers/Tubs Elements

While a shower is considered a more accessible solution, people of different mobility or sensory capacity prefer bathtubs as well. An equal number of rooms with roll-in showers and accessible bathtubs are recommended. However, rooms considered accessible must be equipped with a shower.

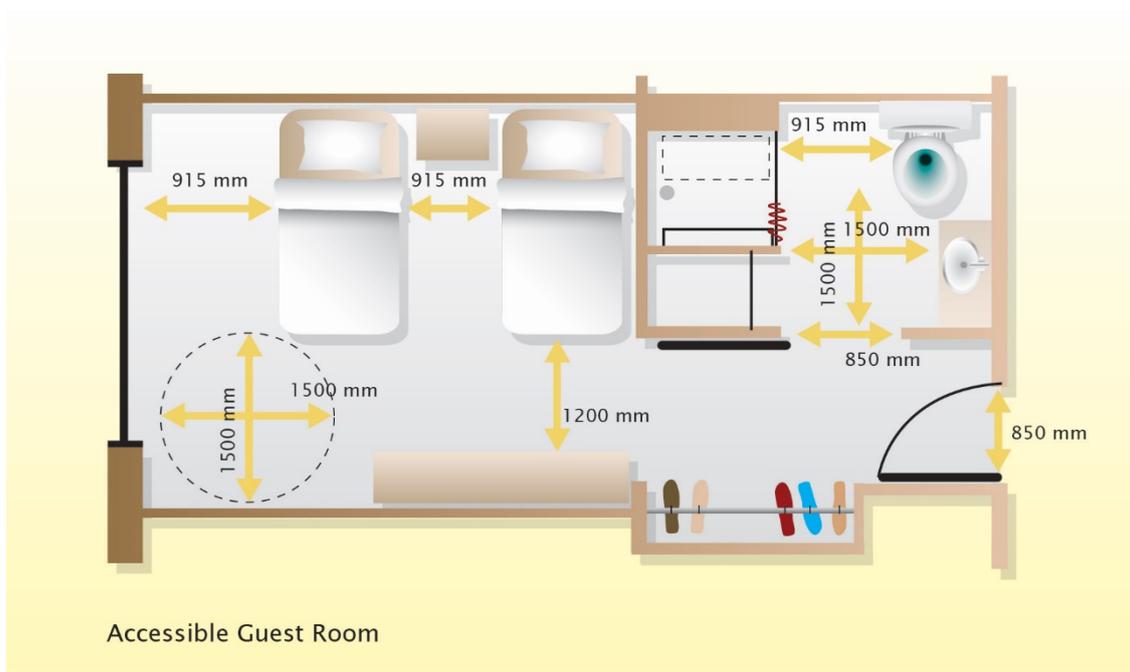


All tubs and showers need to be equipped with an offset, single lever-mixing valve, and a hand-held shower held on a minimum **1,500mm** hose.

Accessible showers should be equipped with curtains, rather than doors.

Overall lighting should be maintained at a minimum of **30lux**. Lighting at the counter/sink should be a minimum of **70lux**.

In the following diagram, the main features of an accessible guest room are displayed:





### 3.2. Wheelchair “Friendly” Guest Room

In the previous sections, the conditions for creating accessible guest rooms and bathrooms were specified.

However, limitations especially in older establishments may have as a result several of those provisions not to be technically feasible.

On the other hand, many times easy-to-make provisions can make a guest room usable by a person with certain mobility or sensory limitations, even if not being accessible according to the standards.

In order to provide guidance to hotel owners and other accommodation providers, The IPC has introduced the notion of “wheelchair friendly” room, that may allow providers to serve more customer or allocated limited available accessible rooms in the most appropriate way, especially when accommodating groups.

#### Definition

For a Hotel Room to be considered wheelchair friendly, some of the most essential provision of a “fully accessible” need to apply, in combination with the existence of simple features and amenities that will allow the guest to use the room. Such provisions are:

- Door widths minimum **800mm**, for both entry to room and entry to bathroom;
- At least one spot within the room with a diameter of **1,200mm x 1,200mm** (to allow for a change of direction);
- Transfer space of min. **800mm** in at least one of the sides of the bed;
- Toilet seat of **450mm** height with transfer space in one side. A handrail should exist or other suitable solid item for a person to lean on;
- Height of controls lower than **1,400mm** or provision a suitable “handling stick” for those above this height;
- Provision of a long stick, with suitable edge, to allow mounting and demounting of hangers in cupboards. Hangers attached to fixed rings are not appropriate in an accessible room;
- Portable bath amenities (shampoo, shower gel, etc.);
- Shower chair with back. If a shower is not available and bath tube exists, handrails should exist in the bath tube to allow entry and exit, as well as a bath chair.



### **3.3. Other Services within Accommodation Sites**

While essential, access to a bed and a bathroom is not the only service accommodation sites offer to their guests. Providing functional and dignified access to all other services available to other guests is a condition for an inclusive accommodation site.

#### **Parking**

Accessible car parking spaces need to be larger than other parking spaces, so that people have enough space to allow transfer between a wheelchair and the car. These larger parking spaces should be indicated by a wheelchair symbol. The width of each designated parking spot should be a minimum of **3.20m**, best practice is **3.60m**.

The distance between the parking and accommodation site entrance be at max. 100m. Further detail can be found in Parking Area Requirements.

#### **Reception**

An accessible path should exist between parking, site entry and the reception, according to the provisions of previous sections of this Guide.

If the facility has more than one entrance, information should be given on the most accessible entrance, which should be easy to find. Pathways should be wide enough to let people pass easily and should be kept free of obstacles.

The reception counter should be accessible or have an accessible segment according to the standards.

Main information about the hotel should be readily available in alternative formats, for guests with sensory limitations.

#### **Restaurants, Cafés and Bars**

In restaurants, cafés and bars, the aisles should be wide enough to allow visitors to move around easily when the tables and chairs are in use, according to the standards described in section about Furniture, Counters and Service Areas.

Service dogs should be allowed into catering facilities. Menus should be available in alternative formats (Braille, large print, etc.).



## **Shops**

The ability of visitors with mobility impairment (such as limited reach) to access goods on shelves and display racks should be considered. A good practice is to distribute goods vertically instead of horizontally.

Space between the aisles should abide to the provisions about circulation areas and be no less than **1,000mm**.

## **Emergency Planning**

Specific equipment and planning to evacuate people with an impairment is an important part of serving guests with impairments. Appropriate disability awareness training for staff will help facilitate safe exiting of people with an impairment.

Refer to the Emergency Provisions section for further detail on the following:

- Areas of rescue assistance
- Alarms
- Building evacuation instructions

## **Temporary Solutions**

Several temporary solutions may be employed in order to provide a better service to guests of any level of mobility, sensory or mental capacity. Few examples:

- Installation of a low hanger rod;
- Reversing swing of bathroom door to increase useable space inside;
- Removing bathroom door (with guest permission);
- Lift bed or replace pedestal with finished landscaping ties or blocks to accommodate bed lifts;
- Provide cordless telephone in rooms where telephones are not beside the bed;
- Provide valet parking service for over height vehicles.

## **Support Services and Equipment**

Several support services and/or equipment can be used to further enhance the experience of all guests of an accommodation site. Few examples:

- Braille and large print versions of restaurant menus;
- Audio tape and Braille versions of hotel services information;
- Raised toilet seats, upon request;
- Shower bench seats;
- Provide or be able to access a portable personal lift to assist guests transfer to bed;
- TTY (TDD) machines for the telephones of guests who are deaf;
- Telephones with volume controls and/or oversized buttons;
- Vibrating or talking devices such as alarm clock, door signallers, and telephone signallers.



## 4. Publications and Communications

### Principles

Access to information available publicly as well as efficient and easy communications constitute fundamental human rights.

Accessible publications and communications allow for sufficient and unobstructed participation in social and professional life.



#### **4.1. Publications**

Readability should not be an afterthought when producing materials. It should be the first step in making an event, service, location or information accessible to everyone.

All documents intended for public use need to be produced in either large print or audio formats.

##### **Clear Print Guidelines**

In order to reach a wider audience, publishers of any kind of documents should consider the “Clear Print Guidelines” as they design their publications. These are:

###### ***Contrast***

Use high contrast colours for text and background. Good examples are black or dark blue text on a white or yellow background, or white/yellow text on a black/dark blue background.

###### ***Type Colour***

Printed material is most readable in black and white. If using coloured text, restrict it to things like titles, headlines or highlighted material.

###### ***Point Size***

Bigger is better. Keep your text large, preferably between 12 and 18 points, depending on the font (point size varies between fonts). Consider your audience when choosing point size. Where 12 point fonts and smaller are used, alternate format versions of the document using 14 or larger point sizes should be made available.

###### ***Leading***

Leading is the space between lines of text and should be at least 25-30% of the point size. This lets readers move more easily to the next line of text. Heavier typefaces will require slightly more leading.

###### ***Font Family & Font Style***

Avoid complicated or decorative fonts. Choose standard, sans-serif fonts with easily recognizable upper and lower-case characters. Arial and Verdana are good choices.

###### ***Font Heaviness***

Select fonts with medium heaviness and avoid light type with thin strokes. When emphasizing a word or passage, use a bold or heavy font. Italics or upper-case letters are not recommended.

###### ***Letter Spacing***

Do not crowd your text: keep a wide space between letters. Choose a mono-spaced font rather than one that is proportionally spaced.



### ***Margins & Columns***

Separate text into columns to make it easier to read, as it requires less eye movement and less peripheral vision. Use wide binding margins or spiral bindings if possible. Flat pages work best for vision aids such as magnifiers.

### ***Paper Finish***

Use a matte or non-glossy finish to cut down on glare. Reduce distractions by not using watermarks or complicated background designs.

### ***Clean Design & Simplicity***

Use distinctive colours, sizes and shapes on the covers of materials to make them easier to tell apart.

### **Braille**

Some people with a visual impairment receive training to read Braille language. For these people, Braille versions of documents which are unlikely to change (e.g., mission statements) should be made available upon request. However, since most people with a visual impairment do not read Braille, it should not be the only format targeting people with vision loss. Both audio and large format documents are good alternatives. Braille provided needs to be produced at Level 2 or higher.

In the case of events where a lot of people who are blind or have a visual impairment are expected to attend (such as the Paralympic Games), informative material could be pre-printed in a limited number of copies and/or be available for printing using a suitable printer that can print a document written in a word processor to Braille format.

### **Audio Recordings**

Audio versions of publications can be simple recordings done in-house and released via W3C compatible websites, Podcasts or distributed as MP3 files.

### **Electronic Documents**

Documents released in .PDF formats are NOT readable by most computer screen reader software used by people with a visual impairment. Electronic documents need to be text, rich text or Word documents with a minimum of formatting and graphics.

### **Video/DVD/CD Releases**

All of these formats need to contain captioning for people who are hard of hearing. Where possible, Descriptive Video Service (DVS) should also be supplied.



## 4.2. Web Sites Standards

Internet forms a fundamental element of search and dissemination of information as well as an effective means for daily life transactions and service acquisition.

Internet is a privileged means of communication and work for people with sensory or mobility limitations. However, in order to be usable, internet need to comply with web content accessibility guidelines that enable all potential users to benefit.

In the Games context, for many athletes, visitors and family, the internet plays a key role in ensuring people are able to communicate about their training, results, safety, family happiness/sadness or simply just keeping in touch. The role of internet cafes within venues, athletes' villages, common domains and shopping precincts is crucial to the planning of any Games.

### Guidelines

All web sites should be developed to include all users and therefore all web sites must meet W3C Accessibility Guidelines.

These can be found at <http://www.w3.org/TR/WAI-WEBCONTENT/#Conformance>

Main elements of these guidelines are:

1. Provide equivalent alternatives to auditory and visual content.
2. Do not rely on colour alone.
3. Use mark-up and style sheets and do so properly.
4. Clarify natural language usage
5. Create tables that transform gracefully.
6. Ensure that pages featuring new technologies transform gracefully.
7. Ensure user control of time-sensitive content changes.
8. Ensure direct accessibility of embedded user interfaces.
9. Design for device-independence.
10. Use interim solutions.
11. Use W3C technologies and guidelines.
12. Provide context and orientation information.
13. Provide clear navigation mechanisms.
14. Ensure that documents are clear and simple.



### 4.3. Telecommunications

#### Telephones

In every bank of public telephones at least one telephone should be wheelchair accessible, clearly identified by the international symbol.

To allow a person using a wheelchair to be located side on to the accessible telephone, this shall be no closer than **300mm** to an obstruction at the sides.

Accessible public telephones shall be mounted at a maximum operating height of **1,200mm** above finished floor. They need to be equipped with a volume control and have at least **600mm** cord on the handset.

At least one telephone in each bank of pay/public telephones needs to be equipped with a TTY (TDD) for the benefit of people who are deaf or hard of hearing.

#### Internet Cafés

Internet cafes are considered to be the equivalent to a telephone as regards to communication through internet for the public. It is therefore important for the internet cafes to be physically accessible and offer computer features that allow appropriate use to all people.

The key physical requirements include:

- Wide and easy access entrances – entrance of at least **850mm**, with pathways at least **1,000mm** wide;
- Lower height information and cashiers counters – **850mm** in height and **1,000mm** in width;
- Lower level lockers for bags – not lower than **450mm** nor higher than **1,200mm** to the operable point;
- Pathway widths around seating and tables – **1,000mm**;
- Height of computer tables – height not greater than **850mm** with knee clearance of 750mm. It should be noted that a number of computer desks should be height adjustable;
- Computer seating – **450–500mm** with height and lumbar adjustability;
- Circulation space beneath the table for guide dogs or mobility aids to be placed so as to not cause an obstruction.

In addition to the above, there are of technology provisions that are essential and need to be provided to an adequate percentage. These are:

- **Screen readers:** This technology allows text on the screen to be read to a person who is blind using the computer.
- **Magnifying windows:** Allows any area of text or images to be magnified for easier reading.



Finally, in the market there are more technological solutions which are strongly recommended, such as:

- **Spoken word interpreters** e.g. Dragon "Easy speak": These programmes allow directly spoken words to be translated into text without typing on a keyboard.
- **Adaptive keyboards** e.g. Short cut keys: Alternative keyboards that allow minimal keystrokes to effective programmes or actions.
- **Adaptive mice and keyboards:** There are alternatively shaped keyboards and mouse that allow people with minimal dexterity to be able to effectively type or operate a keyboard.



#### 4.4. Signage

The use of wayfinding, descriptive and task specific signage that uses pictograms, directional arrows and written terms, allows people of any nationality and of any level of physical capacity to move with freedom, predictability and most importantly safely.

For many people with an impairment seeing the international logo for access on signage boards and directional boards provides confidence that they heading in the right direction to facilities that are accessible.

Accessible signage becomes more critical when the accessible pathway is different from that which the majority of spectators or visitors are using.

##### Main Elements

The key principles of signage include:

- The use of international symbols is encouraged in all signage. As regards to people with an impairment the respective international symbol, a directional arrow and a written explanation as to the feature it highlights are required.
- Signage highlighting specific areas e.g. toilets (male/female/accessible) shall be installed on the entry door at a height of **2,500mm** to alleviate visual sight lines above a crowd of people.
- All toilet door signage shall include Braille and raised lettering
- Directory and information boards shall include identification of accessible features highlighted by the international logo for access.
- Use only Arabic numerals and sans-serif lettering. Serif lettering styles such as Times Roman are difficult to read because the thin portion of the letter often disappears to people with a visual impairment.
- Have a glare free surface. Signs mounted on reflective backgrounds or Plexiglas are ineffective for people with a visual impairment.
- Overhead signage is also ineffective for most people who have a visual impairment. Signs need to be mounted so that a person using a wheelchair as well as people with a visual impairment can see them more easily.
- Signs have characters and symbols in colours that highly contrast with the background of the sign. Single colour backgrounds are preferred.
- Signs should have characters with a stroke width-to-height ratio of from 1:6 to 1:10 and a character width-to-height ratio of 3:5 to 1:1.
- Wayfinding markers along pathways should combine colour, texture and common mounting/location along the route to direct users.
- Networked or active signage is highly desirable because they offer complete control of the sign's font, point size, colour and contrast, as well as easily controlling sign content as required.



## Locations of Accessible Signage

Appropriate external locations for accessible signage include:

- Accessible transport stops for buses
- Accessible car parking (if provided)
- Accessible pathways to accessible venue entries
- Accessible pathways to accessible seating in the venue
- Accessible path to accessible toilets
- Major crossover areas

## Symbol Sizes

Symbol size shall be the following according to viewing distance:

Distance	Symbol Size (mm)
< 7m	60 x 60
> 7 < 18m	110 x 110
> 18m	200 x 200

## Letter Sizes

Letter size shall be the following according to viewing distance:

Distance	Letter Size	Distance	Letter Size
2m	6mm	15m	50mm
4m	12mm	25m	80mm
6m	20mm	35m	100mm
8m	25mm	40m	130mm
12m	40mm	50m	150mm

## Examples

In the photos below, there are few examples of appropriate signage:





#### **4.5. Assistive Hearing Aids**

Hearing loss is by far the largest single impairment group and the one often overlooked when designing facilities to accommodate people with an impairment. Organizers staging major events need to provide assistive hearing aids for people who are hard of hearing in addition to sign language interpreters for people who are deaf.

##### **Types of Assistive Hearing Aids**

Providing appropriate service to people who are hard of hearing is simple if organizers remember that like deafness, this is just a language barrier that can be overcome using similar approaches to overcoming any language barrier, such as translating in a foreign language. Assistive Hearing Aids are required at all major ceremonies, awards presentations, community activities and/or other official events.

The most common and easily utilized assistive hearing aids are:

##### ***FM Loops***

Used in both large venues and in one on one service counter applications. Literally a low output FM radio signal broadcast through a specific area. The voice/signal is picked up through a conventional microphone and transmitted through the FM loop. Users can access the signal via a special receiver, FM radio or via the 'T' switch available on most modern hearing aids. Since these are RF units, line of sight to the FM Loop device is not required by the user.

Note: FM Loops are radio frequency signals and therefore are affected by other RF and atmospheric conditions. In addition, since these signals are available through the public FM radio band, they do not provide a secure communication to people who are hard of hearing.

##### ***Passive Infrared Emitters***

Best used indoors since they can be affected by direct sunlight. These are placed strategically around the room to provide line of sight service to the user. Any line level signal can be distributed via this system. Users typically need to pick up a receiver for this device for an event service counter to access the signal.

Note: These units are commonly used in the delivery of simultaneous language translation in other spoken languages. For the purposes of people who are hard of hearing, providing a receiver in the appropriate language is all that is required to accommodate users with hearing loss.

##### ***Captioning***

Text versions of all spoken words/audible content displayed on the main video displays or via dedicated screens located throughout the audience.



Note: Closed captioning refers to a captioned signal that requires a decoder to view E.G. a television or video screen. Open captioning is simply text displayed on screen for all to see. Open captioning is recommended for most IPC event requirements.

### **Sign Language Interpretation**

Sign language interpretation benefits people who are deaf and hard of hearing, and should be considered for major ceremonies, community activities, and/or other official events.

Interpreters can either be positioned on the stage, or broadcast from backstage on to video screens (preferably in front of a plain light background). If interpreters are backstage a large monitor should be provided so that interpreters can accurately portray what is happening onstage.

In the case of meetings, seminar and other kind of activities for small audiences, when it is known that a specific person who is deaf or hard of hearing, sign language interpretation for the individual concerned should be either be allowed (if brought in by the individual who has applied to attend) or arranged for the individual (in case he/she is invited by the organizers).

### **Live Audio Description Services**

Live audio description is a service where narrators describe the event for participants who are blind or visually impaired. The user hears the audio description through earphones connected to a receiver. The same receivers can be used as those for assistive hearing devices, provided they have multiple channels.



## 5. Transportation Means

### Principles

Accessible transport is the single most important aspect for creating an inclusive urban environment. While every type of transport is examined individually in this section, all of these types together form an interconnected network which links the various accessible facilities and creates what we call a “seamless chain of accessible facilities” or a “Universal Accessible Transport System”, where accessibility is inbuilt in the system rather accessible solutions are provided as a solution or an aftermath.

The transportation means explored in this section include road, rail air and maritime.



## 5.1. Road Transportation Means

### Cars & Taxis

In order to be accessible a car/ minivan or taxi, needs to fulfil certain conditions to allow easy access and use by people with mobility impairment. These are:

- Have side or rear access to allow a wheelchair user to remain in their mobility aid while being transported;
- Have a front passenger seat which swings out towards the user to ease entering the vehicle;
- Have enough height clearance to allow a tall person seating in own wheelchair to be safely and conveniently transferred;
- Have a balance between space available for wheelchair users' and standard seating, so that escorts, colleagues and companions can sit together.

#### Infrastructure required

- A kerb linking to an accessible pathway
- Adjacent kerb ramp access when unloading onto the roadway
- Clear lighting
- Rest seating

#### Types of loading mechanisms

- An external hydraulic hoist – this is the most used mechanism for smaller vehicles for wheelchair access. Often they are installed at the back of the Van or bus and the raise and lower a height of approximately **1,000mm**.
- A rear-loading ramp - it allows direct access for a wheelchair (sometimes two) into the rear of the vehicle. The rear ramp lowers between the wheel arches hydraulically. Unfortunately due to the ramp gradient, driver should often assist a person who uses a wheelchair into the vehicle.
- A side-loading ramp – A number of taxis and small commercial vehicles now have a side loading mechanism. This type of vehicle has had its chassis lowered, which allows a ramp to automatically, or manually link to the pathway.

Note: some wheelchair users prefer to transfer from their wheelchair into the passenger seat. If this is the case a sedan is preferable to a larger vehicle.



## Coaches

In order to be considered accessible, coaches need to have a loading ramp that allows entry of a person in the vehicle without having to move out of their wheelchair.

The internal hydraulic hoist is most often used for motor coaches. They are often positioned in the mid-section of the bus and they rise up heights of at least **2,000mm**. Due to the size and shape these types of mechanisms do necessitate a loss of seating in the bus.

## Public Buses

In order to be considered accessible, public buses need to fulfil certain conditions. These are:

- Have a low floor chassis and lowering mechanism that allows them to link with a pedestrian kerb without steps being negotiated;
- Have suspension lower on one or all sides to allow the bus to lower to the same height as the kerb;
- Have at least one door accessible. Two accessible doors are best practice, provided that the internal corridor linking the two doors has min. width of **800mm**;
- Have a small ramp either automatically placed on the kerb or a manual ramp is folded out from the bus, to provide the link. This type of mechanisms allows direct access through the front door of the bus.

Infrastructure required:

- A set down area with a kerb linking to an accessible pathway
- Adjacent kerb ramp access when unloading onto the roadway
- Accessible pathway to the loading/unloading area
- Clear lighting
- Rest seating

## Accessible Vehicles Technical Specifications

The main technical specifications of any accessible vehicle are as follows:

- Door clearance height shall be at minimum **1,400mm**;
- Internal clearance height shall be at minimum **1,500mm**;
- Doorway width shall be at minimum **800mm**;
- Loading platform shall be at minimum length of **1,300mm**;
- Loading platform shall be at minimum width of **800mm**;
- Weight operation shall be at minimum of **200kg**;
- Loading time is recommended to be less than one minute;
- Use of active and passive restraint systems is recommended.



## Load Zones and Public Bus Stations

- All accessible public transport stops should provide lighting, shade/shelter and rest seating with side arms and backrests.
- All set-down and pick up areas shall have a kerb height that appropriately interfaces with an Ultra-Low Floor Bus – typically **150mm** in height.
- The minimum width at a transport set-down or pick up is **1,800mm**. This will allow two wheelchairs to pass.
- All transport set-downs and pick-ups have kerb ramp access to the adjacent pathway from the roadway to allow direct access by people who use wheelchairs – 1 in 8 maximum with a length of **1,520mm** maximum.
- Rubbish bins, seating, lighting, timetables and similar should be placed away from the pathway so as to not cause an obstruction to pedestrians.
- Place tactile hazard indicators the length of the set down area, **300mm** from the kerb edge with an overall width of not less than 300mm (600mm preferred).
- Where tactile hazard indicators are installed, the colour of the tactile should be a minimum of 50% contrast with the adjoining surface.

## Parking Areas Requirements

In car parking areas, a minimum of **2%** (**best practices is 3%**) of car spaces should be provided for people with an impairment. These spaces shall be located at the most convenient point for the users taking into account proximity to:

- Pedestrian entries and exits;
- Lifts and ramps;
- Accessible toilets; and
- Pay stations.

As a general principle the parking space for an accessible vehicle corresponds to 1.5 times the size of a parking space for a standard vehicle (i.e. three standard parking spaces provide for two accessible parking spaces). Parking spaces should be at least **3.20m** wide. Best practice is **3.60m**.

Other requirements are:

- Parking bays to be of a gradient not greater than **1:50 (2%)**.
- Underground parking station should provide a minimum of **2,300mm** clearance (best practice is 2,500mm) throughout, to ensure wheelchair roof mounted vehicles can operate.



### **Signage for Accessible Parking**

Clear arrival, exit and directional signage legible in all light conditions should be provided. The signage shall start outside the car park so that constituents are advised in good time which lane they should be in for accessible parking. Signage shall be provided at every internal change in direction. All ground surfaces, including painted signs, shall be slip resistant.

An international symbol of access shall be provided on both the ground (benchmark size **750mm<sup>2</sup>**) and vertically in front of each car space, no lower than **1,500mm** so that it can be seen over a car.

Access provisions for the car park exit shall be similar to, and consistent with, those for the car park entry.



## 5.2. Rail Transportation Means

Means of standard route, such as metro lines, light rail and trains are critical for effective transport in a Host City.

In order to provide high level services to all potential passengers, railways authorities need to work with transport operators to create the widest possible number of journey opportunities for all sections of the community visiting the Games, by enhancing and improving access to information, infrastructure, carriages and staff training. Especially for the Games, transport planning and design should examine the question of the impact on access for all sections of the community.

The key objective is to develop an Accessible Transport Strategy, which will address the needs of Games Family and encompass spectator and workforce travel from home all the way to venue and return.

### Accessible Stations

Railway stations should include infrastructures and services that are accessible to the widest range of potential users. Main elements are:

- Step free access to platforms from surrounding roads, parking lots etc.;
- Low counters with induction loop facility and alternative formats of printed information;
- Accessible toilets
- Textured paving on platform edges;
- Portable ramps for access onto trains;
- Have a platform that allows the train to directly link to it without the need to negotiate steps (or/and an additional ramp to bridge the gap between the train and the platform maybe required) or/and
- Have a wheelchair platform lift that raises to the floor level of the train (an additional ramp to bridge the gap between the train and the platform may be required);
- Have a permanent or temporary ramp that links directly to the floor level of the train.



## Accessible Carriages

Train carriages should include features that make them accessible to the widest range of potential users. Main elements are:

- Have entry door to the train of an appropriate width to allow a wheelchair to enter;
- Provide at least one wheelchair space per carriage or at least two wheelchair spaces per train (1,300mm x 800mm);
- Provide an accessible pathway within the train that links to an area where a person who uses a wheelchair can remain in their wheelchair, with adjacent space for a companion to sit in a passenger seat;
- Have wheelchair spaces that are located or have access to food and beverage;
- Provide information in both audio and text format about next stations, journey information, etc.;
- Interstate, country or out of metro area trains need to ensure there is a unisex accessible toilet available;
- Have contrasting colours on all handrails;
- Have automated doors.

## Light Rail and Tram

Provisions for light train, tram or metro stations and carriages are in general the same as for the trains.

Exceptions to these are the toilets (typically not provided for passengers in such means), access to food and beverage, adjacent companion seat.

## Other Provisions

Availability of a sophisticated web-based solution for transport information, on line booking etc. will help a lot of passengers of any kind of ability, but it is critical for a passenger who needs to ensure an accessible chain of transport.

Existence of well-trained staff is fundamental.



### 5.3. Air Transportation Means

Ability to travel by air is a key parameter for equal opportunities and inclusion in professional and social activities. People with an impairment and other individuals with accessibility needs, very often experience challenges when they try to travel by air.

For an airport to be accessible it needs that all passengers going through the departure and arrivals procedures receive an equivalent level of service and are able to proceed to the aircraft door or leave the airport in an independent way. For this to be realized a number of provisions need to apply as regards to the pathway of a passenger in and around the airport.

Other to physical barriers, frequently existing, passengers who declare their special needs may have to address extra costs, availability of seats etc. from some airlines. It is important for the airlines to understand that conventional ingress and egress on and off airplanes is problematic for many users. As the population continues to age and people with mobility impairment are increasingly common, this will become an even greater challenge that they need to address.

#### Accessible Airports

##### *Parking Areas*

Designated parking spaces must be a minimum of **3,200mm wide while best practice is 3,600mm**. Two spaces can share the transfer zone to help minimize the space requirements for designated parking. Such parking spaces shall be level - have a maximum cross-slope of 2% in any direction – and have a firm, slip resistant surface and be located as close as possible to an accessible entrance. 1 in 8 designated spaces need to accommodate side lift vans. Van parking requires a total width of **4,600mm** (expanding the transfer area by **700mm** to accommodate the lift).

Wheelchair users are at risk in parking lots because they travel in the seated position, making them more difficult to see when wheeling behind vehicles. Also, people with reduced agility are unable to react as quickly to danger and get out of the way of traffic. Therefore, exit routes should be located in front of the parked cars.

Where designated parking is not directly connected to the sidewalk, it is important to minimize the need for people with mobility impairment to travel behind parked cars. Where travel behind cars is unavoidable, a marked pedestrian route should be provided to the closest exit or accessible sidewalk.

Exit doors serving designated parking areas should be accessible to people with mobility impairment. This requires 'U' Shaped levered handsets or "panic bar" hardware. Automatic door closers should be low resistance, delayed action closers.



Designated parking spaces for people with an impairment should be clearly marked with the international symbol in a high contrast colour on the pavement (**750mm<sup>2</sup>** in size) – either signal yellow or white against a blue background and on a vertical sign mounted at the front of the space, at a height of no lower than **1500mm**. This also helps to discourage unauthorized use.

### ***Parking Ticket Vending Machines***

All ticket machines should be located on a firm, flat surface that is directly connected to the vehicle path of travel without a level change (e.g. kerbs) and machines should require only a minimum amount of dexterity to operate.

### ***Drop Off Zones***

The provisions described before about road transportation means load zones apply. The minimum light level required for safe vehicle transfers by people with mobility impairment is **60lux**. Also train/metro stations serving the airport need to comply with the accessibility standards described before.

### ***Ticket/Check-in Counters***

Service counters need to provide universal access to all users (see service counters section of this Guide). Where automated kiosks are used to generate tickets or boarding cards, these units must provide basic access in terms of an operating height of **900–1,200mm** and be on an accessible route.

Special check-in and boarding assistance needs to be provided for all people with an impairment that request it.

### ***Terminal Amenities***

Terminal facilities including washrooms, retail, service counters, kiosks, restaurants, lounges, etc. should meet the same requirements for similar facilities and services as described earlier in this document. Hold rooms require clear space to allow wheelchair users an area to park out of the flow of traffic and designated seating reserved for use by people with an impairment.

### ***Information/Communications***

Ensure Flight and Gate Information Displays and Baggage Information Displays are mounted at heights accessible to wheelchair users and seniors.

Provide large print and audio versions of schedule and route information. Provide TDD telephone service for the benefit people who are hard of hearing or deaf. Ensure websites are W3C compliant for accessibility.

### ***Security Screening***

For persons using a wheelchair common practice is the use of portable magnetometer devices, exactly as it happens when any other passenger goes through the magnetometer and this “beeps”. Touching the person is OK, given that the screening is performed by a person of same gender and preserves dignity (as for every other person).



The fact alone that a person uses an artificial limb is not enough for the person to be asked to remove the limb, in order that this goes through magnetometer. There should be additional conditions (i.e. the person to be considered suspicious) for such request to be made. In such case, removal of a prosthetic device must be done in the privacy of an accessible change area. It should be stressed that this should be a rare exception since to remove and replace a device can be arduous and time consuming.

Overall, security screening should be performed in a way that maintains a person's dignity at all times.

### **Accessible Aircrafts**

For an aircraft to be accessible – and for an airline to provide good services – the following conditions apply:

#### ***Embarkation/Disembarkation***

Best practice is that persons with an impairment embark the aircraft first – before the other passengers and disembark last – after all other passengers have left the aircraft.

#### ***Aircraft Gates***

Gate ramps gradient should not exceed 8%.

#### ***Aisle Chairs***

An aisle chair needs to be available on board in every aircraft, able to move passengers up and down the corridor(s) as needed. These chairs should have well-padded seats with armrests and seat belts supporting both the upper and lower body.

#### ***Staff Awareness***

All crewmembers need to have the disability awareness training, experience and willingness to assist passengers that request assistance. This includes physically lifting people into aisle chairs and airline seats.

#### ***Storage of Walking Aids***

An important part of aircraft access is appropriate storage of wheelchairs and walking aids. Whenever possible, assistive devices such as these should be stored in the cabin. Where space is not available inside, wheelchairs should ride in the 'belly' of the aircraft as the last item in – first item off. Wheelchairs and walking aids must NEVER be sent through as stowed baggage items. Wheelchair and walking aids must meet their owner at the aircraft gate, in order to allow for independent travel through the airport.

#### ***Seating***

It needs to be recognized that people with mobility impairment have difficulty in seating with cramped legroom. Even more importantly, there is a need to reduce the potential for blood clots and cramping (unlike other individuals who can stand, stretch or even go for a walk).



Therefore, people with mobility impairment shall be allocated an aisle seat - the only practical seat for a people with mobility impairment. Preferably, they should be placed in the bulkhead seats whenever possible.

### ***Access of Guide Dogs***

Guide dogs assisting people who are blind or have mobility impairment with more support needs should be allowed in the aircraft. The best practice for the staff on how to handle them is just to do nothing! It is better to leave the guide dog alone; they know what to do.

### ***Portable Hoist***

Some airlines use a portable hoist that allows those people unable to transfer without assistance onto and off the aircraft e.g. quadriplegics.

## **Safety and Other Provisions**

### ***Alternate Formats for Printed On Board Safety Material***

Operators need to offer alternate formats of materials generated for passenger use on-board the aircraft. Alternate formats may include:

- Large print (minimum 14pt sans serif with dark characters on a light background), non-formatted text and electronic versions of all materials intended for public consumption;
- Audio recording of material;
- Grade Two Braille of all materials intended for public consumption.

### ***Passenger Briefing Cards***

A specific passenger-briefing card intended to inform passengers with an impairment to self-identify important safety features, procedures and aircraft announcements affecting them should be provided. The card should include a recommendation that passengers make sure they receive a personal briefing from a Flight Crew member covering procedures and aircraft layout as they affect the three main impairment groups (from an operators point of view): Mobility; Vision Loss and Hearing Loss. Cards should carry the accepted international symbol of the impairment group, set in a broad field of colour. For example:



Consistent colour coding of these user groups on all ticketing and dashboard displays could support operations, evacuation and loading efforts later.

An additional passenger-briefing card addressing for seniors is also advised.



#### **5.4. Maritime Transportation Means**

In order to be considered accessible Ports and Terminals as well as the vessels and ferries need to provide a seamless series of amenities and services that enable every individual regardless of sensory, mobility or mental difficulty to embark, disembark and use the services provided to the public.

Main elements of such series are the following:

##### **Port Services**

###### ***Parking***

Provisions for accessible parking specified before in the Guide apply also for parking at ports and terminals

###### ***Ticket Sales***

Ticket booths need to provide universal access to all users (see service counters). Drive through sales booths should not require a side reach in excess of 450mm for service.

###### ***Terminal Amenities***

Terminal/Port facilities including washrooms, retail, service counters, kiosks, etc. should meet the same requirements for similar facilities and services as described earlier in this document.

###### ***Information/Communications***

Provide large print and audio versions of schedule and route information. Provide TDD telephone service for the benefit people who are hard of hearing or deaf. Ensure web sites are W3C compliant for accessibility.

###### ***Infrastructure Required***

Provide a wharf or pier that allows the vessel to directly link to it without the need to negotiate steps (an additional ramp to bridge the gap between the vessel and the wharf or pier maybe required).

Have a permanent or temporary ramp that links directly to the floor (and additional ramp to bridge the gap between the wharf or pier and the vessel) of the vessel.

##### **Vessel Services**

###### ***Access to Vessel***

Conventional ingress and egress on and off vessels can be problematic for many users. As the population continues to age and people with mobility impairment are increasingly common, this problem will become an even greater challenge that needs to be addressed.



Conditions that affect independent ingress/egress – particularly on smaller vessels where passengers enter and exit off car decks need special attention. The crew and maritime company need to minimize tripping hazards, reduce gradient and cross-slope and provide better marked pedestrian routes on and off vessels.

All crewmembers working in these areas of a vessel need to have the disability awareness training, experience and willingness to assist passengers that requests assistance on and off the vessel.

### ***Alternate Formats for Printed Material***

Operators need to offer alternate formats of materials generated for passenger use on-board the vessels. Alternate formats to include:

- Large print, non-formatted text and electronic versions of all materials intended for public consumption;
- Audio recording of material.

### ***Vessel Amenities***

All on-board facilities including common and unisex washrooms, retail, service counters, kiosks, restaurants, lounges, etc. should meet the same requirements for similar facilities and services found elsewhere as described earlier in this document.

### ***Passenger Seating***

Universal design principles need to apply to the fullest extent possible. All seating on board needs to accommodate a broad range of individuals. Vessels should not only offer high stools with no back; or bench seating with no armrests or kick space, etc.

Accessible seating needs to be integrated into different areas of the vessel. Grouping all the wheelchair users into one area is not appropriate. People with mobility impairment should have a choice of seating in different areas, as do other passengers therefore seating areas need to integrate open spaces that can be used by wheelchair and scooter users. Further, 5% of the total designated accessible seating should accommodate guide and service dogs - extra floor space of **500mm x 1,300mm** per seat will need to be allotted.

Where there are passenger lounges on a ferry, at least 5% of the seating in each lounge should have a design and an adjacent clear floor space that permit easy transfer of a person to and from a wheelchair. The floor space should be large enough for a service animal to lie down. This seating should be designated by signage for use by persons with an impairment.

Seat height should be a maximum of **480mm** from floor, approximately **420mm** deep & **420mm** wide.



## Safety Provisions on Board

A specific passenger-briefing card intended to inform passengers with an impairment about important safety features, procedures and vessel accessories affecting them should be provided. The card should include provisions for persons with mobility, vision and hearing impairments; it shall also recommend that passengers may receive a personal briefing from a Crewmember covering procedures and vessel layout. Cards should carry the accepted international symbol of the impairment group, set in a broad field of colour. For example:



Consistent colour coding of these user groups on all ticketing and dashboard displays could support operations, evacuation and loading efforts later.

An additional passenger-briefing card addressing for seniors is also advised.



## Training for Accessibility

This chapter describes the character, content and delivery process of accessibility and disability awareness training, which constitutes a fundamental factor for successful service provision, as it is recognized that attitudinal and communication barriers, as well as misconceptions and stereotypes may form barriers and obstacles even more difficult than architectural ones.

The main recipients of such training are OCOG's staff members and Games volunteers. The delivery of the training involves three main phases:

1. General disability etiquette training
2. Games/job specific disability etiquette and accessibility training
3. Venue-specific accessibility training

For each of these phases there is a description of the content items, the organization of the training programme and of the delivery process.

### Aim of Training

The aim of accessibility and disability awareness training is to enhance the understanding of all Games workforce to the implications of this area of work and to demystify the issue of disability for all customer-facing staff.

Training should be set within the context of other mainstream customer care training and furnish participants with the tools and confidence to transfer basic Disability Awareness and Etiquette knowledge to their roles.

Training should be effective, culturally appropriate and focus on practical improvements, which can ensure a high quality Games experience for all persons with an impairment.

### Contents

**This chapter contains the following topics:**

Topic	See Page
1. Disability Etiquette/Awareness Training .....	102
2. Games/Job-specific Training on Accessibility.....	106
3. Venue-specific Training on Accessibility.....	107



## 1. Disability Etiquette/Awareness Training

The OCOG needs to organize and deliver high quality, well delivered training to all Games workforce which ensures that stereotypes and misconceptions do not create attitudinal and communication obstacles which in turn form barriers to access and inclusion.

### Scope of the Training

All staff has contact with either members of the public and colleagues with impairments or elite athletes with an impairment. Therefore all of the Games workforce (paid and volunteer) should have some disability etiquette training, regardless of their post.

If staff has previous experience of similar training, they should still attend as a refresher course.

### Content of the Training

People with an impairment require the same customer services as people without an impairment. Disability etiquette training is about good customer service and delivering what you've been asked for. Understanding exactly what your customer wants requires you to concentrate on the person rather than their impairment.

### Training Themes

The main themes of an effective training are:

#### ***Concentrate on the person rather than his or her impairment.***

People who have an impairment are foremost people, then anything else. The emphasis should always be about the person rather than their impairment.

#### ***See the person first and foremost***

Be aware in your Games environment that you may encounter people with an impairment as athletes, spectators, paid staff, other volunteers or members of the public. Their needs may be different, your approach should not!

#### ***Do not feel sorry for people with an impairment.***

The people with an impairment you meet are either colleague here to work, spectators here to have a great time or athletes here to compete. They are not people worried about their impairment who require your pity.

#### ***Remember that not all people with an impairment are wheelchair users.***

Although 10% of the population has an impairment, only about 4% are permanent wheelchair users. People with an impairment could have any one of a range of other impairments. For example, there will be people with a visual impairment, people with mobility impairment who may use a walking frame or crutches, or people with a learning impairment. In addition, there are many more people with an "invisible" impairment, such as arthritis or a hearing impairment.



## ***Communicating***

Good communication is important when assisting any customer. However, this is particularly important for some people with an impairment, such as those with a visual or a hearing impairment.

### ***When you meet a person with an impairment:***

- Always address the person directly.
- Do not speak to somebody accompanying a person with an impairment about an issue concerning the person with an impairment.
- Ensure that the manner in which you address a people with an impairment is respectful.

### ***When you are listening:***

- If the person has a learning impairment or speech impairment, be aware that it may be necessary to wait longer than you are used to for them to get their point across.
- Never finish someone's sentences for them, even if they have a speech impairment or learning impairment.
- Take a step back, so that a person in a wheelchair doesn't strain their neck when they are looking up at you.
- Always listen carefully and patiently to what the person is saying.
- If you have not understood them the first time, do not be afraid to ask them to repeat themselves for you. Alternatively, repeat back to them what you think they have said to make sure that you've heard them correctly.

### ***When you are talking:***

- People with a hearing impairment, they may need to lip read. If so, face the customer directly and do not conceal your face when you speak (i.e. keep your hand away from your mouth).
- Be aware that bright sunlight or shadow can obscure expressions, making lip-reading difficult.
- Speak clearly at your normal speed and tone of voice, unless the person specifically asks you to speak louder or slower. Move to a quieter location – or shut the doors – if necessary.
- Use straightforward, short sentences.
- If the person has not understood you, do not be afraid to repeat what you have said. Try re-phrasing and check if the customer understands you.
- It particularly helps some hearing impaired people, and people with learning difficulties, to use hand gestures to clarify your message. Using a map to show directions also helps
- If you have not been understood, offer to communicate with a pen and paper instead.
- Use positive sentence construction, such as "Are you looking for the seating area?" rather than "You're not looking for the seating area are you?"



### ***Assisting a person with an impairment***

- There are few instances where this will be necessary but it is vital to understand what to do and what not to do when called upon.
- Do not assume that a person with an impairment needs assistance because they have an impairment.
- What looks like a struggle to you, may simply be someone managing perfectly adequately at their own pace, in their own way. Always ask first, and if help is not required then simply accept the response. Do not impose your assistance and do not take offence if your offer is refused.
- Never touch a person with impairment, or their mobility aid, without their permission. It is impolite and may affect their balance.
- Be proactive and offer assistance if you think it is required.
- If someone needs assistance to the seating area or other facilities in the venue you can call on your Team Leader for assistance if you are unable to leave your position.

### ***Assisting wheelchair users***

- If a wheelchair user requests assistance ask where the person wants to go, then inform the person that you are about to push them.

### ***Assisting people with a visual impairment***

- When escorting somebody with a visual impairment, allow them to grip your elbow & walk beside you. (If they have a guide dog they may prefer to walk free from contact).
- Always describe where you are walking, e.g. "Another few feet and we will be walking down a ramp", "We are approaching some stairs".
- When you reach your destination, let the person know where they are. You may need to ask another staff member to take over.
- If the person has a guide dog, do not pat it as this distracts from its work.

## **Terminology**

It is important to give clear guidance and information regarding terminology. The aim should be to have a "corporate" approach where all staff uses the same terminology that is modern and respectful.

In conjunction with experienced equality trainers develop a Games wide approach to this subject.

## **Training Delivery Method**

It may be difficult to train tens of thousands of people with seminars and lectures.

A "train the trainer" programme that will create local educators who will be able to provide the training to all workforce is strongly recommended.



In addition to a “train the trainers” programme, remote individual training packages should be devised. This should devise training which can be accessed by individuals in their own time, such as web based training or DVD and could include training via a website or utilizing DVDs which can be watched at home.

Such initiatives should be supplemented by written handouts or other material for all staff.



## 2. Games/Job-specific Training on Accessibility

This session should be for all staff that has direct and frequent contact with either members of the public, colleagues or athletes who have an impairment.

If staff has previous experience of similar training, they should still attend as a refresher course.

### ***Content of the Training***

This session should continue the themes found in the general disability etiquette training. However, this session should encourage interaction and question sessions on key themes.

This interaction could take the form of role-play, quizzes or question and answer sessions, which address key themes with a relevance to the Games. Particularly encourage managers and team leaders to ask questions relating the Games time service delivery.

### ***Organization of Training Programme***

Attendance in organized sessions with physical presentations and demos is an optimal method.

For this experienced “equality trainers” should devise a “Training the Trainers” session for FA managers and Team Leaders or a group of “purpose-made” educators for this task. This session can then be cascaded down to staff via team leaders and managers, potentially also using DVD and handouts.

This way the training will get a consistent and reliable message across to all Games workforce.



### **3. Venue-specific Training on Accessibility**

This session should be for all venue-based staff regardless of whether they have direct contact with either members of the public, colleagues or athletes with an impairment.

If staff has previous experience of similar training, they should still attend as a refresher course.

#### **Content of the Training**

This session should continue the themes found in the general disability etiquette training. However, this session should cover in detail accessibility to mainstream facilities and also the additional venue facilities and services for people with an impairment and other persons with reduced mobility.

This session should incorporate a tour of accessible features and services; advice on protocols for using services; evacuation of people with an impairment in emergency situations; likely venue specific scenarios.

#### **Organization of Training Programme**

FA managers and Team Leaders should work alongside experienced access auditors to assess venue services and facilities. Then a short session regarding accessible facilities and services should be provided by FA managers and Team Leaders to all relevant staff.



## Games Requirements

In this part of the Guide there is a detailed presentation of the design standards, operational considerations and practices that the Host City and the OCOG needs to have in place in order to successfully deliver the Olympic and the Paralympic Games.

The organization of the Games require that the facilities directly or indirectly related to the Games and the services scoped need to be accessible for all constituent groups of the Olympic and Paralympic Families as well as for Games' workforce.

### ***A Games Wide Issue***

Although the number of persons with an impairment in some of these client groups (such as the athletes) is higher at Paralympic Games, it needs to be stressed that responding to accessibility needs is a Games' wide issue, affecting both Olympic and Paralympic Games.

### ***Operationally Sound***

Accessibility for the Games is not to be static but responding to the operational needs. For example, at the Opening Ceremony of the Paralympic Games additional temporary accessible toilets at athletes' assembly and waiting areas and in close proximity of the stadium ceremony areas are required due to the scope of potential users.

## Contents

This chapter contains the following topics:

Topic	See Page
1. Co-ordination Structures and Timeline for Accessibility .....	109
2. Games Infrastructures .....	116
3. Functional Areas Considerations on Operations .....	140



## 1. Co-ordination Structures and Timeline for Accessibility

The work of an OCOG towards the organization and hosting of the Games is not simply a matter of following guidelines or precedents from previous Games; rather, it is a long learning curve, with knowledge and awareness gained through time and transferred to the workforce that delivers the Games.

In a similar way, ensuring accessibility is not simply a matter of following guidelines and tick boxes in checklists. For having really accessible and inclusive Games is a continuous process of extensive consultation and multiple reviews is needed.

This process needs to take place in one hand within the OCOG throughout the Games planning process, and on the other hand between the OCOG and the related city and public authorities and other agencies.

This process includes:

- Expert review in venue development process as well as during operational planning and implementation by knowledgeable resources (such as establishment of a dedicated resource team within OCOG with potential involvement of external experts);
- Community a user groups' consultation (such as an access committee);
- Independent approval by accessibility experts.



### **1.1. Consultation for Accessible Venues' Construction**

The accessibility assurance process starts already from the conceptual phase for the Games' infrastructures. The OCOG and the city authorities should seek and acquire adequate resources and expert advice on accessibility and utilize these resources throughout the venue development stages.

#### **Inclusion in the Tender Process**

The OCOG and/or the responsible city/public authorities should include those provisions in the tenders for venue constructing or renovating agencies. In order to do this, they should seek for:

- Internationally best practice examples for accessibility in sporting venues;
- Venue designs from previous Games;
- Expert advice from knowledgeable sources;
- Manuals and publications about accessibility (such as the current Guide).

The specifications identified in these sources should be part of the quality criteria for the assessment of various bids, and should be included as a requirement within the final contracts.

#### **Concept and Draft Designs Review**

Upon creation of the concept designs for the construction and/or renovation of the various venues, and before construction and renovations starts, the review process should involve consultants and experts to ensure and enhance accessibility compliance of the various projects.

This review process is not to be one-off; contrary, revision from an accessibility compliance standpoint should be a paramount aspect of every revision stage. Any amendments to a venue design should be signed-off from the accessibility compliance perspective, in order to be considered as "approved".

Preceding the development of the concept designs, consideration should also be given to developing a kind of "model venue on accessibility" that highlights the venue accessibility components that are common across all venues

#### **Project Implementation Monitoring**

During venue construction, and in accordance to the operational planning process that is ongoing in an OCOG, the implementation of the approved designs in construction should be closely monitored frequently. In many cases, implementation of accessibility provisions has not been followed as in the plans, especially in contexts with poor legislation about accessibility.

For this reason, OCOG should hire or acquire the services of experienced experts or activate an Accessibility Working Group (see next paragraph), with the task that, among other duties, perform on-site visits at the venues under construction or renovation.



### **User-groups Walk-through and Testing**

It is important that testing for adequacy of accessibility provisions, able to accommodate users of any kind and level of physical, sensory and intellectual condition is conducted via walkthroughs by real users, representatives of different categories of people with an impairment.

This testing should be conducted in a way that simulates the flow of the various constituent groups acting in a venue, and early enough that issues identified can be solved by either a structural or operational solution.

### **Final Approval for Accessibility**

Following the testing and after implementation of any corrective actions deemed necessary, final sign-off of venue's suitability in terms of accessibility should be done from independent accessibility experts.



## 1.2. Consultation for Accessible Operations

The operational planning process is a lasting process, as it starts three years before the Games, which transforms the OCOG from the function-based structure to a venue-based one, ensuring organization's readiness for effective delivery of the Games.

### Paralympic Planning Vs. Accessibility Planning

Paralympic operational planning is not only accessibility planning. Planning to accommodate the needs of persons with impairments is an Olympic issue as much as a Paralympic issue. Thus, accessibility planning must be addressed in all phases of operational planning. However, accessibility needs for the Paralympic Games are significantly higher than for the Olympic Games. So, effective planning for accessibility should predominantly be based on the needs of the Paralympic Games' constituents, as it there where the peak demand exists.

### Accessibility Working Group

Throughout this process a dedicated resource team within OCOG with potential involvement of external experts, called for the purpose of this Guide as "Accessibility Working Group" (AWG), should be established and involved in the operational planning process, ensuring accessibility provisions are observed in emerging plans. The AWG should be led by accessibility expert(s) and involve representatives of Overlays/Site Management, Venue Operations, Event/Spectator Services, Sports and Paralympic functions.

### Role during Operational Planning

The AWG's task is to ensure operational accessibility of Olympic and Paralympic Venues. Its role may include:

- Evaluating emerging designs and plans of venues regarding access of "customer groups" with an impairment;
- Developing and suggesting specific guidelines, solutions and considerations to the Venue Planning Teams.

Promote the implementation of all necessary changes and overlays identified in the operational planning process for both Olympic and Paralympic Games.



### **Paralympic Operations Working Group**

For Paralympic Games operational planning, a Resource Group should be formed, called for the purpose of this Manual as "Paralympic Operations Working Group (POWG). It should involve knowledgeable resources on Paralympic operations and accessibility and representatives of Venue Operations, Overlays/Site Management, Protocol Services, Sports, Press Operations, and Event/Spectator Services.

### **Integration within Operational Planning Process**

The expert resources for Accessibility and Paralympic Operations may lead the AWG and POWG respectively, and be members in both groups. The same applies for FA representatives of function that participate in the two groups.

The AWG and the POWG (or the respective hired or contracted experts, in case those groups are not formed) should have a distinct role during the various operational planning cycles, such as: model venue exercise, resources' planning, detailed venue planning, contingency planning, transition planning, operational readiness exercises etc.



### **1.3. Co-ordination with Public Agencies for Accessibility**

Accessibility at the Games is not only about venues; a complete network of interrelated services and infrastructures in the Host City need to fulfil the criteria and standards set in this Guide. This way, all participants of any function (including spectators, visitors and Host City residents) can freely participate in and enjoy the events, the festive atmosphere, the friendliness and hospitality of the Host City.

Therefore, ensuring accessibility is not a task solely for the OCOG. Extensive co-operation is needed with the entire related city and public authorities and the OCOG, in order activities and tasks to have consistency and continuity and sustainability.

#### **Structure of Co-ordination**

Planning and implementation of accessibility works and policies requires a structure of responsible bodies, with clear tasks and decision-making authority. For each Host City, as different public administration structures apply, the composition of these bodies will vary. However, regardless of the exact situation in a Host City, there are three kinds of bodies that are needed:

##### ***Control Group for Accessibility Compliance***

This group is responsible for key decisions and sign-off of deliverables. It consists of senior officers from the government, Host City and the OCOG and performs this role for all critical aspects of the Games.

##### ***Working Group for Accessibility Compliance***

This group consists of the people in charge to plan, coordinate and monitor the implementation of accessibility works. It may include accessibility experts and consultants of the OCOG, the appropriate city authority and the governmental agencies responsible for accessibility in the urban domain.

##### ***Reference Group for Accessibility Compliance***

This group will provide consumer/user advice and feedback. It should consist of users of any impairment group and meet at key points within the implementation of the plans, in order to review progress and advice accordingly.



## **Accessibility Committee**

An accessibility advisory group may be created, in order to engage all agencies and authorities and OCOG's key functions to the scope and needs of accessibility compliance of the Host City.

Members of this committee should be the appropriate executives of the stakeholders who are able and authorized to exemplify the plans of the Working Group (see above) to specific activities for each single agency.

Such committee may involve representatives of:

- OCOG Departments and functions: Paralympic, Overlays, Sports, Transport, Villages;
- City Authorities: Welfare, City Transport, Local Councils;
- Government agencies: Transport, Public Works, Health, Welfare, Security, Sport, Culture, Development, etc.;
- Unions representing people with an impairment;
- The National Paralympic Committee.

The role of the Accessibility Committee should be:

- To identify and recode all sectors where intervention is required, in order to ensure a chain of accessible infrastructures and services;
- Evaluate progress of interventions and suggest priority areas, linked with staging of the Games;
- Allocate tasks and actions to the various agencies and suggest interactions, so that activities are well defined.



## 2. Games Infrastructures

This section includes a description and discussion of the standards and considerations related to the construction of the venues that will host the Games.

In this regard the venues are classified as follows:

1. Competition venues (indoor, outdoor, road)
2. Olympic & Paralympic Village
3. Non-competition venues (Official hotels, MPC, IBC, Accreditation venues, Airport etc.)

In this section a venue is assessed as a whole. There may be reference to characteristics and differences related to existing and new venues as well as to permanent and temporary facilities and overlays.

It should be noted that the design standards specified for each of the venues are not to be compromised or altered in existing or temporary facilities. However, as cases of an unjustifiable hardship may occur in existing or temporary venues and overlays, it will be up to the access advisory structures and ultimately the IOC and the IPC who will assess and sign off alternative solutions or exemptions as a last resort.



## 2.1. Competition Venues

The main elements of a competition venue need to provide for every constituent group to effectively perform their role and/or enjoy the competition without obstacles. The technical design standards (specified in Chapter - [Technical Specifications](#)) applied in any competition venue shall make it suitable to host the Olympic and Paralympic Games competition of any sport. The main venue areas described below follow the flow of the members of any constituent group through the Olympic/Paralympic Venue. For each venue area the principles that apply for accessibility are provided.

### Operational Accessibility

Accessibility for the Olympic and Paralympic competition venues is not to be static but responding to the operational needs. For example, during the finals of the Wheelchair Basketball, additional spectating athlete accessible seating is required to allow all same sport (Wheelchair Basketball only) athletes to sit together. To use the seating in other areas of the stadium places too much reliance on lift capacity and removes seating from paying spectators and different sport spectating athletes.

### Transport Drop-offs

Transport drop-offs for all constituents shall be located as close to seating areas as possible in order to minimize travelling distances. In the case that this distance is higher than **500m** or the route has steep ramps, provisions need to be in place for people with mobility limitations for transfer to/from venue entry. Such provisions may be golf carts, low floor shuttle buses etc.

For people with visual impairments or blind a means of enabling independent travel shall be provided (e.g. tactile indicators), connecting the main transport access points to at least one public entrance to each venue, preferably the principal entrance.

### Parking & Loading Zones

Parking on site and/or loading and unloading zones are scoped to all competition venues according for every constituent group function.

Typically, parking for spectators is not provided. However, for the Paralympic Games controlled parking for persons with an impairment should be scoped, especially in the case of venues not adequately served by accessible transport means. For this purpose, a booking system may be arranged.

### *Car Parking Areas*

In car parking areas provided for each constituent group, adequate space should be reserved for accessible vehicles, according to the needs, fulfilling the respective design standards in Chapter - [Technical Specifications](#).



In car parking areas for spectators, a minimum of 3% of car spaces should be provided for people with an impairment. These spaces shall be located at the most convenient point for the users taking into account proximity to:

- Pedestrian entries and exits
- Lifts and ramps
- Accessible toilets
- Pay stations

### ***Loading Zones***

Loading and unloading zones should be in areas with zero or low inclination (up to 2%). If low-floor accessible buses are to be used, provisions for suitable pavements with associated kerb ramps or temporary ramps and landings should be made. Loading zone design should follow the requirements in Chapter - [Technical Specifications](#).

### ***Signage***

Clear arrival, exit and directional signage legible in all light conditions shall be provided. The signage shall start outside the car park so that patrons are advised in good time which lane they should be in for accessible parking. Signage shall be provided at every internal change in direction. Ground finishes, symbols and location details can be found in Chapter - [Technical Specifications](#).

Access provisions for the car park exit shall be similar to, and consistent with, those for the car park entry.

### ***Venue Entry***

In the context of the Games, different entries are scoped for each constituent group. All these entries shall be accessible, taking into account the operational needs. Special consideration is required for athletes' entry as for the Paralympic Games the demand may be significantly high. In the venue planning process, suitable athletes' entry needs to provide for both Olympic and Paralympic Games, therefore it should provide primarily for the needs of the Paralympic Games in terms of access.

### ***Ticket Box Offices***

As outlined in Chapter - Technical Specifications ([Access and Circulation](#)), the following provisions should be made:

- Accessible queuing areas
- Accessible counter height and length;
- No step or other obstacle should prevent a wheelchair user to approach the counter;
- An assistive hearing device should be installed at every group of ticket box offices, to assist people who have limited hearing capacity.



### **Entrances**

Controlled entries may include the following:

- Staff check-in and check-out points
- Ticketed spectators entry points
- Accreditation points (other constituent entry points)
- Exit points

The route to and from the staff check-in and checkout areas or points should be accessible. The configuration of the staff check in and checkout areas should allow for a staff member, who uses a wheelchair to enter, manoeuvre and exit the area.

All controlled spectator entries and exits should be accessible. In all spectator entry points at least one gate should be at least **1000mm** wide and without a magnetometer device. Security check in this gate will be performed via a portable magnetometer.

In the case that not all entries and exits are accessible, those that are should be clearly indicated with the international symbol for access and be visible from a distance. In that case, directional signs to the closest accessible entry are required in all non-accessible entries.

### **Circulation Areas**

All principal footpaths and circulation paths, and those that are expected to cater for a large number of people, should be a minimum of **1,800mm** wide (to allow two wheelchairs to pass) and have a maximum of 1:20 (**5%**) inclination (i.e. **120m path** including landings is required to get **5m** higher).

All elements of Chapter - Technical Specifications ([Access and Circulation](#)) should be met, particularly in the following areas:

- Elimination of tripping hazards
- Surfaces that are slip resistant and not reflective
- Pathways in areas catering to a large number of pedestrian traffic are at least **1,800mm** in width to allow at least two wheelchairs to pass when crossing
- Ramps (and kerb ramps) should meet the best practice design requirements, which is 1:20 (5%). This standard is obligatory for all primary entrances and facilities. Variations to this standard may be considered as an exception, subject to provision of full justification that adherence to the 1:20 standard is impossible or presents an unjustified hazard. Such exception is subject to approval by the IPC, as far as the Paralympic Games venues are concerned. For secondary or ancillary facilities a slope of 1:14 is acceptable as minimum, again if 1:20 standard is not attainable.
- Where ramps are provided, adjacent stairs should also be provided for those who have difficulty walking up or down ramps
- Stairways should meet best practice design element requirements



## Function & Service Areas

Each constituent group has a wide range of functions to perform within a competition venue. While these functions differ among the groups, several or all of the following functions are performed by all groups: work, officiate, relax, warm up, compete, change clothes, have a shower, watch the competition, buy products, access services (food, medical, information, toilets) and more. In order to be able to use all these, there needs to be provisions that allow access to the respective areas and services. These are:

### *Doorways and Doors*

- The clear width of doors should meet the accessible design requirements. For certain competition venues, door width of athletes' preparation areas needs to increase at 1,000mm in order to allow trespass for athletes in competition wheelchairs (please refer to the [Olympic Games Guide on Venues](#)).
- All doors shall be capable of independent operation except where this conflicts with building codes or fire regulations. Push plates shall be provided on push open doors.
- For further design details see Chapter - Technical Specifications [Doors and Doorways](#) section.

### *Elevators & Lifts*

Lifts are required to access venue areas the vertical differences of which cannot be addressed with ramps. These lifts need to fulfill the minimum criteria but also respond to the needs of the facility. Therefore, while minimum clear floor area required is 900mm x 1,200mm for a lift of occasional use, the best practice for elevators is 1,700mm x 1,500mm, while for facilities with high public use such as sporting venues it should be even higher: 2,100mm x 1,500mm. For other accessibility criteria (regarding controls, operation of doors, audible indicator etc.) see Chapter - Technical Specifications section about [Elevators and Escalators](#).

### *Toilets*

At least one accessible toilet shall be provided in every bank of toilets and be unisex. If this provision is met, any toilets in excess of this number can be in gender specific areas. All such toilets shall fulfill certain minimum criteria (see Chapter - [Technical Specifications](#)).

### *Service Counters*

All service counters should fulfill the design requirements in Chapter - Technical Specifications section on [Furniture, Counters and Service Areas](#).

### *Signage*

All accessibility related signage should be clear and legible and incorporate the appropriate international symbol and pictograms, in addition to words. This signage shall be provided at regular intervals but at least at every major change of direction and have a minimum 30% luminance contrast. Signage specifications including height and character size are provided in Chapter - Technical Specifications section on [Publications and Communications](#).



### **Telephones**

In order that public telephones are accessible by all members of the public, a standard accessible height for all users should be identified i.e. **1,200mm** to the key pad and telephone handset or in every bank of telephones at least one telephone should be wheelchair accessible, clearly identified by the international symbol. Further specifications are provided in Chapter - Technical Specifications section on [Publications and Communications](#).

### **Emergency Provisions**

Either accessible emergency egress or a fire evacuation area shall be provided in every area of the venue. Fire evacuation areas shall be either:

- Located within an exit;
- Adjacent to a path of travel to an exit;
- External to a building;
- Open space on the roof of a building.

The members of the Venue Team in charge for emergency evacuation should become aware of such provisions. Accessible emergency egress or a fire evacuation should be specifically planned and tested prior to the events. The fact of the high number of people with mobility impairments that will be present for Paralympic Games needs to be incorporated into the emergency evacuation plans. Event-specific emergency evacuation plans may be required especially for the Paralympic Games, depending on the actual configuration of the venue and applying safety regulations.

A suitable visual system shall be provided in principal areas to allow people who are deaf/hearing impaired to respond to emergencies. This shall include the use of scoreboards or video screens where provided or appropriate.

### **Seating & Standing Areas**

Provision for wheelchair accessible seating should be made at an overall rate of not less than **0.5%** of venue's gross capacity and in all different categories of tickets' prices, to allow for free and wide choice. For the Paralympic Games the rate is 0.75% of gross capacity. In certain competition venues, that will host Paralympic sports with athletes who use a wheelchair, this rates increases to **1.2%** of venues' gross capacity. Companion seating should be provided next to the accessible seating positions in the same rate.

Enhanced Amenity Seating (EAS) is seating that allows greater width in front of or at the side of the seat to allow use from people with reduced mobility, such as those who use guide dogs or have crutches or walking frames. An amount of at least 1% on net capacity of EAS should be provided in addition to wheelchair positions and companion seating. These should be equitably distributed and located at the ends of rows and up or down as few steps as possible. These can also be used as contingency for pregnant woman of people with medical conditions or unusual body size, where their ticket seating is not appropriate due to safety reasons



Comparable sightlines shall generally be provided to all wheelchair positions<sup>1</sup>. For full seating specifications consult Chapter - Technical Standards in the [Venue Seating](#) section.

### **Accredited Seating**

A specific area in the stands is reserved as seating for accredited groups (athletes/team officials, technical/Games officials, Olympic/Paralympic Family, press and broadcasters).

At the Olympic Games at least 0.5% of this seating should be wheelchair accessible.

For the Paralympic Games instead of a ratio a definite amount of accessible accredited seating per sport per client group is specified in the [IOlympic Games Guide on Venues](#).

### **Event Experience & Communication**

A hearing augmentation system, catering for seats in all ticket price categories, shall be provided in public areas so that people who are deaf or have a hearing impairment be able to equally enjoy the event and its presentation and participate in all activities.

Any scoreboard or video screen capable of displaying public announcements should be capable of supplementing the public address system.

People with an impairment should have equal access to publications addressed to the public, such as daily programmes etc. Alternative formats of such publications (example: Braille, audio) should be available upon request at the Venue's Spectators' Information Points.

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<sup>1</sup> Comparable sightlines provide the same sightline for a person seated in a wheelchair when a person in front stands up, as the person in front has when standing. However, where the likelihood of the audience standing up during the event is low and the impact on the remainder of the seating is high, an exemption may be considered. In this case the sightline for the wheelchair accessible position should be the same as the person in front has when seated.



## 2.2. Olympic & Paralympic Villages

An accessible Olympic and Paralympic village(s) allows the athletes and other residents to prepare for the Games, without any limitation or impediment.

In addition, it creates an opportunity and a real life example of a type of community that can be inclusive for all its members.

### Main Principles

The development of the Olympic and Paralympic Village(s) needs to deliver an accessible site without excessive cost and without compromising its appeal to potential investors following the conclusion of the Games.

In order for the Village to achieve the aforementioned goal it should contain both accessible and adaptable components of accessibility:

- Accessible features are included in the base building works and generally cannot or do not need to be changed during the Games.
- Adaptable features allow additional elements such as handrails, shower seats, visual alarms and communications to be installed “as required” during the Transition period. These elements may be removed following the conclusion of the Games, but they can be re-installed should future residents require them.

The requirement then is to seek to maximize accessible features for all types of residents as well as to minimize short- and long-term costs.

It should also be noted that other villages applicable in the Games context, such as villages for remote sports (e.g. Sailing, Equestrian), the technical officials village and the media village should consider accessible and adaptable elements of village design to ensure all people can use and enjoy the facilities appropriately.

### Life Time Design

A solution to this challenge can be the adoption of a planning strategy called “life-time design”.

“Life Time Design” refers to a concept for designing long-term infrastructure (such as residences) whose key planning parameter is to be able to meet the needs of its users throughout their life cycle (from infants to the elderly).

### When to Install Accessibility Features

Best practice has established that the vast majority of accessibility features required for the Paralympic Games should be already installed prior to the Olympic Games to minimize transitional operations.



## Beneficiaries

The types of people who will benefit from accessibility at the village will include but not be limited to

- Athletes
- Team Officials
- VIPs (international zone)
- Media (international zone)
- Games Workforce
- Games Officials (potentially, for Paralympic Games only)

Accessible villages should be able to accommodate

- People in wheelchairs (manual or electric) or scooters;
- People who use guide dogs or canes;
- People who cannot stand or sit or walk long distances and may use crutches or walking sticks;
- People who use a hearing aid or listening device;
- People who travel with a companion.

## Paralympic Village Capacity

Although all villages should be accessible, athletes' village planning should be based in the needs of the Paralympic Village, as the demand for accessibility provisions and operations is high.

The Paralympic Village is expected to host over 4,000 athletes and 2,500 team officials for Summer Games, and 1,350 athletes and team officials for Winter Games.

Indicatively, in Beijing 2008, the breakdown of Paralympic Village's residents as regards to kind of impairment was as below (approximate figures):

- 400 athletes using an electric wheelchair (generally high needs);
- 1,500 athletes using a manual operated wheelchair for daily living;
- 500 blind/visually impaired athletes;
- 1,200 athletes with other mobility impairments.

## Principles of an Accessible Village

An accessible village should provide:

- Pathways and circulation spaces of appropriate width to allow wheelchairs to pass;
- Adequate street lighting to allow people with a visual impairment to move with safety;
- All building and housing main entrances that are accessible to wheelchair users;
- Roadway crossings and kerb ramps that allow wheelchair users to transverse street crossings to key facilities and internal transport, following the natural pedestrian flows;
- Accessible internal transport stops with appropriate pathways to housing;



- Housing and accommodation that allows wheelchair users with and without carers to have fully functional and independent access;
- Lift access with appropriate capacity to ensure wheelchair users can efficiently move into and out of the accommodation at peak periods;
- Kitchens that allow wheelchair users to access hot and cold water, refrigeration and access to a snack/meal preparation area;
- For every location of stairs ensure an alternative ramped option is available;
- Accessible transport links to external transport;
- Accessible transport links with the sites;
- Staff and volunteers who are aware of the accessible operations and infrastructure.

### **Village's Accessible Accommodation Types**

There are three types of accommodation at the Olympic and Paralympic Village as regards to accessibility:

- Accessible housing – built housing that allows all differing impairments to fully access the house with little adaptation required;
- Adaptable housing – housing that with minor modification can be created as accessible;
- Non-accessible housing – housing that has either an upstairs component without provisions for vertical transfer without stairs or is provided without accessible or adaptable bathrooms.

Indicatively, the key elements of Adaptable Housing are:

- Limited or no threshold steps at the entry door;
- Appropriately graded pathway from the street;
- Doorways of suitable width with enhanced latch side clearance for exiting;
- Bathrooms that have studs in the walls, where - if needed - a grab rail could be installed. Basins and vanities that can have the cupboards underneath to allow appropriate knee clearances;
- If in a house-type accommodation, all rooms on the ground floor are accessible;
- Open plan circulation to the kitchen and lounge area;
- No threshold steps leading to the outside entertainment area;
- Access to the clothesline and laundry appliances.



Indicatively, the key elements of Accessible Housing include the above and:

- Doorways with enhanced latch side clearance for exiting;
- Open plan bathrooms that have the toilet pan, step-less shower and basin in one room and the studs are pre-placed in the walls;
- The kitchen benches are at the appropriate height and could have the doors removed to allow for circulation underneath it by a wheelchair;
- Power points are raised above the floor level to allow enhanced reach by people with mobility impairment.

Additional aids that can be employed on “as needs basis” include

- Commodes (wheelchair seats on wheels);
- Raised toilet seats;
- Grab rails that connect to the toilet pan for bathrooms without knoggings.
- Bathtub seats, when a bath is provided instead of a shower

More information on accessible accommodation can be found in Chapter of this Guide, in the section about [Hotels and Other Accommodations](#).



## **Village's Service Areas**

Accessibility provisions for some of the main service areas of the Village are:

### ***Dining Areas***

- Main and secondary entries that are accessible including emergency evacuation routes;
- Staff assistance for bag storage;
- Storage for sporting wheelchairs and equipment in close proximity;
- Appropriate serving and food display heights (**850mm**);
- Volunteer assistance with carrying food and drinks;
- Provision of accessible toilets (1 to 25 ratio);
- Tables that are of appropriate height (**850mm** height with **750mm** knee clearance);
- Main pathways and aisles of a minimum of **1,500mm** wide.

### ***Entertainment Areas (e.g. Cinema, Dance Hall)***

- Ramped or lift access to the foyer;
- Wheelchair seating spaces with an adjoining companion seating place as near to the middle of the cinema as possible;
- Hearing augmentation system to enhance the soundtrack.

### ***Wheelchair, Prosthetic and Orthotic Repair Centre***

- Rest seating for wheelchair users who have to transfer from their chairs;
- Shade and shelter;
- Follow the reception desk requirements outlined in Technical Specifications.

### ***Welcome Centre***

- Low counter or lower part of a counter at welcome desk for wheelchair users;
- Rest seating within the foyer for waiting visitors.

### ***Team Welcome Ceremonies Area***

- Wheelchair seating spaces within the auditorium;
- Hearing augmentation system to enhance public announcements;
- Ramped access to stage areas and flag raising areas;
- Ramped access to performance stages for performers with an impairment;
- A reasonable amount of shelter at the welcome stage.



### ***Village Plaza Areas (e.g. Shops, Internet cafes, Recreation Centres)***

- Accessible alternative to turnstiles at the entries;
- Appropriate width of aisles;
- Distribute goods vertically, and have staff assistance for high sections of displays;
- A wider check out aisle for wheelchair users.
- Appropriate circulation spaces and pathways;
- Desks with height adjustable;
- Computers with accessibility provisions e.g. large font, screen readers;
- Gym will have sport specific equipment such as hand ergometers.

### **Other Accessible Operations**

The residents of the Olympic and Paralympic Village(s) during their stay, will engage in a series of tasks that need to be performed with ease and independence regardless of any type and degree of impairment. These tasks include:

- Preparing mentally and physically for competition (e.g. access weight training, attend team meetings, get equipment maintenance and repair);
- Dine;
- Wash clothes;
- Socialize;
- Transfer;
- Interact with friends, family or others;
- Sleep and rest.

The following highlights a number of operational considerations that will strengthen the accessible components of the Olympic and Paralympic Village:

### ***Staff Assistance***

An integral element of the village is the assistance of staff and volunteers. Services range from

- Set up of accessible housing to ensure residents are comfortable;
- Security scanning at main transport mall entry and the international zone;
- Assistance at main and casual dining with food service, delivery to tables;
- Assistance with storage of equipment and bags;
- Within residence centre, assist with washing, drying;
- Within the international zone such as at an Internet café.



***Communication Means***

Develop communication mediums e.g. websites and telephone hotlines that are accessible.

***Information Provision***

Develop a Village Manual for all residents to ensure they are aware of the infrastructure provided within the village.



### 2.3. Non-competition Venues

In a similar way as the competition venues and the villages, the non-competition venues need to allow their users to fully perform their duties at the Games, regardless of physical or sensory limitations.

The design standards for accessibility for public areas and buildings, presented before for the competition venues and the Villages apply for the non-competition venues as well. These standards are described in detail in Chapter - [Technical Specifications](#).

Non-competition venues are the life-blood of the games and critical to a successful Games and Host City legacy. Good access to these facilities will benefit the whole community and in many cases become a lasting legacy.

#### Presentation

The presentation of the accessible design of the non-competition venues is based on the various functions and services that they offer to the various client groups.

The non-competition venues presented are:

- The Main Press Centre (MPC)
- The International Broadcasting Centre (IBC)
- The Accreditation Centres
- The Official Hotels
- The Main Airport

#### Main Press Centre (MPC)

This is the main workplace for the accredited press and photographers covering the Games and is seen by them as their “home away from home”. The basic services, facilities and telecommunications needed to cover the Games are located within the MPC.



The main services provided in the MPC for the media are:

- Working space and telecommunications, including workstations, INFO system terminals, results distribution;
- Separate workstations for photographers, including digital disks services laboratory;
- Help Desk, providing information, providing transport schedules, handling accreditation issues etc.;
- Press Conference Rooms;
- Other services, such as a bank, travel agent, general store, technology store, pharmacy, post office, newsagent with foreign papers, coffee bars and a catering area with both fast food and restaurant services.

### Characteristics of an Accessible MPC

An accessible MPC should provide:

For the Workstations

- Pathways and circulation areas of appropriate width to allow wheelchairs to pass;
- Adequate internal and external lighting to allow people with a visual impairment to move with safety;
- Main entrances that are accessible to wheelchair users;
- For every location of stairs ensure an alternative ramped option or a lift is available;
- Staff and volunteers that are aware of the accessible operations and infrastructure;
- Accessible furniture and equipment throughout the workplace(s);
- Visual fire/emergency alarms in public areas, washrooms and in front of elevators;
- Evacuation planning and equipment that includes people with an impairment;
- Temporary drop off parking spaces designated for people with an impairment;
- Telephones with adjustable volume control and has a flux coil to assist hearing aid users;
- Telephones equipped with TTY devices located in the workplace seated configurations. Directional signage indicating the presence of TTY (TDD) equipped phones utilizing the international symbols for identification;
- One printer able to print in Braille linked to one INFO terminal.

For the Help Desk

- Service Areas, for each individual service, with lower part of the counter for at least **1,000mm** and at a height of **850mm**, with **750mm** knee clearance, above the floor;
- Availability of standard information elements (such transport schedules) in alternative formats (e.g. Braille, large print, audio), upon request.



For the Press Conference Areas

- Accessible ramp leading to the elevated press conference table;
- Hearing augmentation system, for press representatives who have hearing difficulties.

For other services and areas

- Shops should fulfil accessibility standards for entrances, corridors, service counters, displays;
- At least one unisex accessible toilet in every bank of toilets, with appropriate signage;
- Loading and unloading zones should be in areas with zero or low inclination. Reserved parking area for customers with an impairment, at a minimum of 3% of total car spaces;
- Clear arrival, exit and directional signage legible in all light conditions shall be provided.

### **International Broadcasting Centre (IBC)**

The International Broadcasting Centre is the hub of the Games image to the world. The international and/or multilateral signal generated at each venue is produced by the host broadcaster and transmitted from the venues back to the International Broadcast Centre. From there it is transmitted to the world via optical fibres or satellite earth stations. With this signal, radio and television Rights Holding Broadcasters (RHBs) can tailor the picture and sound to fit their requirements and spread the message and images of the Games to the global audience.

Further than the technical installations, necessary for the production and transmission, services of the IBC include:

- Unilateral studios, bookable by RHBs
- Bookable announce positions
- Daily Briefing Room
- Broadcast Services office
- Guest Pass and Information Offices
- Support services, such as food court, restaurant, ATM, courier services, medical centre, language services.



## Characteristics of an Accessible IBC

- Pathways and circulation areas of appropriate width to allow wheelchairs to pass;
- Adequate internal and external lighting to allow people with a visual impairment to move with safety;
- Main entrances that are accessible to wheelchair users;
- For every location of stairs ensure an alternative ramped option or a lift is available;
- Staff and volunteers that are aware of the accessible operations and infrastructure;
- Visual fire/emergency alarms in public areas, washrooms and in front of elevators;
- Evacuation planning and equipment that includes people with an impairment;
- Temporary drop off parking spaces designated for people with an impairment;
- Telephones with and has a flux coil to assist hearing aid users;
- Telephones equipped with TTY and adjustable volume control devices located in the workplace seated configurations;
- One printer able to print in Braille linked to one INFO terminal.

### For the Broadcast, Guest Pass and Information Service Offices

- Service Areas, for each individual service, with lower part of the counter for at least **1,000mm** and at a height of **850mm**, with **750mm** knee clearance, above the floor;
- Availability of standard information elements (such transport schedules) in alternative formats (e.g. in Braille, large print or audio), upon request.

### For the Daily Briefing Area

- Hearing augmentation system, for broadcasters' staff that has hearing difficulties.

### For the support services and other areas

- Shops should fulfil accessibility standards for entrances, corridors, service counters, displays;
- At least one unisex accessible toilet in every bank of toilets, with appropriate signage;
- Loading and unloading zones should be in areas with zero or low inclination; Reserved parking area for customers with an impairment, at a minimum of 3% of total car spaces;
- Clear arrival, exit and directional signage legible in all light conditions shall be provided;
- Accessible pathway to the medical areas.



## Accreditation Centres

The entire Olympic and Paralympic Families as well as the Games Workforce (which constitutes 75% of the total accredited people of the Games) will need to go through the various accreditation centres in order to receive their credentials that will allow them access to the appropriate venues and areas to perform their roles.

This operation occurs at the various accreditation centres, which are:

- Main Accreditation Centre may also be referred to as Uniform Distribution & Accreditation Centre (known as UDAC). The workforce accreditation and the distribution of the uniforms to workforce and Technical Officials occur there;
- The Village(s) Accreditation Centres, for delegations registration and credentials validation;
- The Airport Accreditation Centre, for validation of the pre-issued accreditation cards;
- The Media Accreditation Centre, for press and broadcasters, typically located close to the MPC;
- The Olympic/Paralympic Family Accreditation Centre usually located within or next to the IOC/IPC Family hotel(s).

## Characteristics of an Accessible Accreditation Centre

- Car parking area reserved for people with an impairment, fulfilling accessibility standards;
- An accessible pathway link from surrounding pedestrian pathways, including appropriate signage;
- Entry and exit points wide enough to allow two wheelchair pass while crossing each other;
- Pathways and circulation areas of appropriate width, including the internal routes leading to the various service stations;
- Configuration in the ground level, for all clients;
- Service Areas at a height of **850mm**, **750mm** knee clearance, above the floor, for each individual service, or at least with a lower part of each counter for at least **1,000mm**;
- Availability of standard information elements (such staff guide) in alternative formats (e.g. Braille, large print, audio), upon request;
- Tactile Ground Surface Indicators marking the route to the service counters;
- At least one unisex accessible toilet in every bank of toilets, with appropriate signage;
- Clear arrival, exit and directional signage legible in all light conditions.

## Considerations for Specific Accreditation Centres

For the Main Accreditation Centre (or UDAC)

- Accessible uniform testing rooms, self-handled;
- Staff assistance for uniform items collection when required;
- Low counter throughout the uniform pick-up areas;
- At least one unisex accessible toilet at the waiting area.



For the Airport Accreditation Centre

- Accessible route from/to the baggage claim area;
- Pathway in front of the service counters of at least **1,800mm**, to allow easy passage of wheelchair users;
- Staff assistance for handling baggage while being served.

For the Village(s) Accreditation Centre

- Wide waiting area to accommodate enhanced space demand (for Paralympic Village period);
- Accessible doors and doorways allowing access to NPC Officials for the delegation registration meetings;
- Staff assistance for baggage security screening and loading/unloading to buses.

### **Official Hotels**

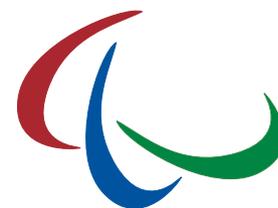
The senior officials of the Olympic and the Paralympic Family are accommodated in the official hotels. Further than serving as accommodation sites, there is one hotel that serves as the IOC Family and/or the IPC Family hotel, for the Olympic and the Paralympic Games respectively.

The Official Hotels need to fully comply with the accessibility standards set in this Guide, as several members of Olympic Family and many Paralympic Family members use a wheelchair for daily living, or have other physical or sensory limitations (see section about [Accommodation and Hotel Services](#) and in Chapter for [Technical Specifications](#)).

### **Olympic Family Hotel/ Paralympic Family Hotel**

The Olympic Family Hotel/Paralympic Family Hotel, further to providing accommodation for the Olympic and Paralympic Family, are the hub of the IOC/IPC operations at Games-time and host various events and meetings in the context of Games co-ordination. In addition to the standard hotel services, there are numerous other functions, such as:

- Accreditation Centre
- Information Desk
- Transport Desk
- T<sub>1</sub>, T<sub>2</sub>, T<sub>3</sub> load zones and shuttle buses
- Meeting Facilities
- Working Offices for the IOC and the IPC staff



## **Additional Accessibility Needs for Olympic/Paralympic Family Hotels**

In addition to the accessibility features specified for the Official Hotels (and hotels in general), the IOC/IPC HQs Hotel(s) require the following additional provisions:

- Accessible pathways linking hotel's main lobby and other areas to the services desks (accreditation, transport, information), the transport loading zones, the meeting rooms and the IOC/IPC offices;
- Service counters at the information desks fulfilling accessibility standards;
- Publications (such as Olympic/Paralympic Family Guides, Transport schedules etc.) available in alternative formats;
- Meeting Rooms' configuration allowing unobstructed access to all;
- One printer able to print in Braille may be linked to one INFO terminal located in the main lobby or other prominent area of the hotel in order to be used upon request from people who are blind.

## **Airport**

The principal airport of the Host City, although being already an existing operational facility, is considered a non-competition venue because of the increased demand put on its operations because of the organization of the Games.

### **For the Olympic Games**

- Significant increase in arrivals prior and during the event;
- Mass arrivals and departures of NOC delegations and Olympic Family members;
- Additional operations (Accreditation, Olympic Protocol, dedicated transportation);
- Massive departures after the closing ceremony.

### **For the Paralympic Games**

- Mass arrivals and departures of people with an impairment (scope much higher than for any airport);
- Additional operations, same as for the Olympic Games.

## **Principles for Accessible Airport Operations**

The airport design and operation should allow for maximum possible independent circulation of travellers regardless of physical or sensory limitations. For this to be feasible the design model used for modern terminal design should be expanded to include the facilities required for excessive use by people with an impairment.

Accessible airport terminals require operators to challenge their assumptions about the range of motion and sensory capabilities of their customers. Signage and wayfinding are critical because they have the ability to shorten distances travelled in large facilities by directing users along direct routes with fewer wrong turns.



## Characteristics of Accessible Terminal Facilities

- Disability awareness training for all front line employees;
- Access to staff areas as well as public areas to encourage employment opportunities for people with an impairment;
- Paths of travel serving the terminal including connecting pathways to all parking that is accessible, safe and well signed;
- Pathways and parking areas that are well lit.
- Reduction of background noise for the benefit of people who are hard of hearing;
- Accessible furniture and equipment throughout the terminal(s);
- Visual fire/emergency alarms in public areas, washrooms and in front of elevators.
- Evacuation planning and equipment that includes people with an impairment;
- Dog relief station for use by certified service dogs, guide dogs for the blind;
- Tenants that are leasing space within terminal facilities should maintain minimum access requirements as a condition of the lease;
- Temporary drop off parking spaces designated for people with an impairment on each level of the terminal buildings adjacent to the main doors. These 15 minute zones are intended to allow wheelchair users and other people with a mobility impairment time to more easily check-in or pick up their baggage without trekking to/from the longer term parking;
- The use of "visual pagers" - essentially dedicated video monitors, that will carry written messages to notify people who are deaf, or persons with hearing difficulties of important information and audible pages;
- The development of a video override system that, in the event of an emergency, can display a bold type message to all entertainment television/video screens/data monitors and visual paging monitors in the terminal buildings, indicating the type of emergency and a course of action to be carried out by the public. This message should be delivered in both audio and video modes in appropriate languages;
- The inclusion of closed captioning on all entertainment televisions in the facility;
- Each pay telephone in the terminal provides adjustable volume control and has a flux coil to assist hearing aid users;
- TTY (TDD) telephone equipment and dedicated number for TTY calls incoming to terminal operations;
- Low volume public address system utilizing speakers placed approximately six meters apart throughout the terminal. This reduces the noise pollution and encourages hearing aid use;
- Braille and/or tactile lettering on service rooms (washrooms, holding rooms, etc.) and elevator signage;
- Audible, bilingual synthesized voice 'floor callers' in elevators -- not just tones.
- Tactile maps of terminal area (available at Customer Services or through local organizations);
- High contrast, tactile hazard warnings on all stairs and drop offs;
- High contrast/tactile floor wayfinding to assist users navigate through key areas.



- Distinct and consistent floor treatments to assist users identify their location within the terminal by flooring material (E.G. carpet = gate, tile/terrazzo = exit, other surfaces = retail),
- Low mounted information displays throughout the terminals;
- Low mounted, prominently located courtesy phones that connect directly to operations for detailed information;
- Use of screen walls and the elimination of entrance doors on all common washrooms;
- Accessible check in and service counters with writing surfaces and toe clearances for persons using wheelchairs;
- Lowered fire alarm call buttons so that wheelchair users, little people and those with poor range of motion or balance can trigger an alarm;
- Special consideration in the elevators such as:
  - Front and rear doors in elevators (allows flow through instead of having to turn around to exit)
  - Handrails for stability
  - Side wall mounted operating panels, and
  - Accessible emergency communications in elevator cabs;
- The use of carpet in the terminal needs to be minimized. Where it is used, it is to be a low pile style that is glued down directly without underlay, to reduce resistance for wheelchairs;
- Terminal seating that provides arm and back rests with appropriate kickspace underneath. Space should be provided for a wheelchair to park in these rest areas;
- Minimum aisle widths are maintained at **1,000mm** with **1,500mm** turnaround in foods & beverage outlets;
- Bars in lounges and VIP areas that have lowered sections for wheelchair users and/or people unable to use high stools;
- Restaurant and food court seating provides chairs with arms, and chairs without arms;
- Faucets and paper towel dispensers in the terminals are equipped with hands free operators;
- At least one urinal in each washroom is being installed with a lowered rim height of **500mm** above the floor to accommodate little people and children and is equipped with vertical grab bars;
- All accessible toilet stalls have an emergency call button in case of falls or other problems.
- Most banks of pay telephone units include a unit equipped with a seat for persons unable to stand for long periods, or persons using the TTY (TDD) features;
- Shuttle service (golf carts, etc.) for travel over long distances;
- Adequate number of aisle chairs available to each airline (with adequate training on their use);
- Detailed plan for fast loading/unloading of flights with many wheelchair users (typically NPC delegations), using appropriate light weight aisle chairs and relevant handling agencies staff training.



## Hospitality Centre

The OCOG sets up a showcase/hospitality area within the public domain adjacent to venues. Most of these areas are temporary overlay. The requirements of access are generally the same as for permanent venues.

Indicatively, accessible infrastructure required are:

- Where turnstiles are provided, an alternative accessible entry should also be provided;
- Appropriate internal aisle widths and reach ranges for merchandise;
- Ramped access to display, tasting or interactive equipment;
- Ramped access to stage and interview areas;
- Wheelchair accessible serving counters;
- Clear lighting;
- Unisex accessible toilet facilities located adjacent to all gender toilets.



### **3. Functional Areas Considerations on Operations**

This section includes a detailed presentation of all OCOG's Functional Areas (FAs) aspects of planning and operations that have considerations related to accessibility. When applicable, liaison with related public authorities is mentioned

For each FA three aspects are presented:

1. A functional area overview, so that the reader becomes familiar with its role and responsibilities;
2. The Accessibility Provisions required by the FA, in a Games-wide basis;
3. The Paralympic-specific considerations, based on the excessive scope of Paralympic constituents who have an impairment.



### 3.1. Accommodation

Accommodation is responsible for the development and execution of accommodation planning for certain categories of clients, prior to and during the Games. The department focuses on the procurement, contracting and distribution of hotels and rooms to various constituent groups.

The Accommodation FA in an OCOG ensures the provision of accommodation services articulated within the Host City Contract for various categories of the Olympic and Paralympic Families and other clients and is responsible:

- For the planning and administration elements (contracts, guides, etc.);
- To manage the demand of the individual clients (contractual obligations) and the supply within the given environment, including managing the reservations;
- To facilitate the accommodation of certain visitors/spectators during the Games period;
- To resolve issues of accommodation during the Games period.

#### Accessibility Provisions

Accommodation needs to supply rooms to various Games constituents: Olympic and Paralympic Family, Broadcasters, Press, Sponsors, NOC/NPC Officials, International Federations, Technical Officials and Workforce. The main categories of such sites are:

- The Olympic & Paralympic Family Hotel(s)
- The Media Accommodation
- The Supplementary Accommodation (for Technical Officials, Broadcasters, Workforce)

Each one of these sites needs to fulfil the accessibility criteria for hotels, as specified in Chapter - [Technical Specifications](#). In this regard, not only the rooms but also the services and entertainment areas of the hotels need to be accessible to all potential users. The arrangements need to take into account the access needs for the residents to perform their duties (meeting rooms, communication devices, information materials etc.)

The Accommodation Department shall include in the specifications for acquiring the hotel rooms all necessary provisions specified in this Guide regarding accessibility in hotels. It is an expectation that all hotels in the Olympic and Paralympic network are to have a capacity of at least 1% accessible rooms.

Especially for the hotels contracted for the Paralympic Games, at least 2% of their room inventory must be fully accessible or “wheelchair friendly”.

In addition to the above, the Accommodation Department may undertake initiatives to promote and educate hotel owners and service providers about the market value of providing accessible rooms and services and about best practices to achieve this.



## Paralympic Considerations

The demand in fully accessible and/or adaptable rooms in the Paralympic Family Hotel(s) is higher than any other hotel may ever encounter. The selected hotel needs to provide this number or commit to this during the tender phase.

Through the accreditation process, accurate data regarding demand in accessible rooms need to be captured for all constituent groups for which the OCOG needs to provide (or arrange for) accommodation. These data shall form the basis for allocation of available rooms to the clients that need them.

Among other tasks accommodation needs to undertake the following tasks related to accessibility:

- Seek and book accessible accommodation for Pre-Games visits when required (CoComs, NOC/NPC visits, IPC visits etc.);
- Seek information and contribute to the development of the Pre-Games Training Guide, as regards to accessible accommodation linked to training sites.

Provisionally, the number of clients requiring accessible rooms from the Accommodation Department is as in the following table:

Table: Accessible accommodation needs (in client numbers)

	Olympic Games		Paralympic Games	
	Summer	Winter	Summer	Winter
Olympic & Paralympic Family Hotels	50	15	50*	30*
Media Hotels	10	5	20	10
Technical/ Games Officials Accommodation sites	2	2	40	6
Workforce accommodation	N/A	5	N/A	5

Two thirds (66%) of the needs specified in the table above may be accommodated by wheelchair-friendly hotel rooms (see Chapter - Technical Specifications - [Hotels and Other Accommodations](#) for definition).

\*: Figure includes clients residing in the Paralympic Family Hotel.

## Reference

[Chapter – Technical Specifications](#)

Chapter – The Journey to an Accessible & Inclusive Host City and Games - ([Accommodation and Hotel Services](#))



### 3.2. Accreditation

The Accreditation department is responsible for identifying and registering in the accreditation system all individuals involved in the staging of the Olympic Games and the Paralympic Games. It should then produce, validate and deliver appropriate accreditation cards to all eligible participants, displaying their Olympic function and the venue access rights required for the performance of such function.

Accreditation works in the closest co-operation with the Security Functional Area, especially in regard to card security components, clearances and access points.

Overall accreditation policy is determined by the IOC and the IPC (i.e. which applicants and participants are eligible, what access rights their function requires), and is applied by the OCOG. Workforce policy is generally established by the OCOG, based on recurring need for access, dependent on function and job type.

At Games-time Accreditation operates all facilities necessary to ensure the registration of all participants and the production, validation and delivery of accreditation cards. For this purpose, a Main Accreditation Centre is established (usually also acting as the Uniform Distribution Centre) plus Accreditation sub-centres (for media centre, at the airport, at the Olympic & Paralympic Family hotels) and also at venue-based accreditation offices.

#### Accessibility Provisions

In all Accreditation Centres accessibility is essential so that workforce members and the Olympic and Paralympic Families' members who have mobility or sensory limitations can be fully served. Elements of such an environment include:

- Signage with big letters and strong contrast in colours;
- The path leading the clients towards the various stations needs to be wide enough to accommodate the flow of a person who uses a wheelchair;
- Where photos are taken, cameras should be able to tilt down and backgrounds be low enough to accommodate wheelchair users;
- Entry points should be at the ground level and/or having adequate provisions (ramps, etc.) to facilitate independent access;
- Service counters should be according to accessible standards;
- Parking on-site in a pre-booking basis may be provided for members of the workforce who have an impairment, as the Main Accreditation Centre may not be very close to transport means.



## **Paralympic Considerations**

The Athletes' Accreditation Centres, at the Airport and at the Paralympic Village(s) need to have wider passageways and low service counters throughout, in order to serve the peak demand of the arrivals' days.

The Accreditation Application Form shall have specific fields for applicants to indicate whether they are users of a wheelchair for daily living purposes. This information is essential for many other functions (Accommodation, Airport Operations, Village Operations, Transportation, Sports and others).

## **Reference**

[Chapter – Technical Specifications](#)

Chapter – Games Requirements ([Non-Competition Venues](#))



### 3.3. Airport Operations

The Host City airport is the main gateway to the Games and the start of the Games experience. This will bring a considerable inflow of Games-related air passengers in addition to normal tourists or other passengers. Optimal airport operations are aimed at providing a seamless flow from airside through the terminal buildings, with accreditation, customs, luggage recovery and transfer to appropriate Games' transport services on the landside.

A critical component of Airport operation is the communication with various Airline carriers to ensure the airport is aware of the numbers and types of passengers they should expect at various times in peak operations.

The Airport operations function in the OCOG will work with the management of the airport and the Arrivals and Departures function of the OCOG to exemplify the demand and facilitate the Games related operations.

#### Accessibility Provisions

As described in the Games Infrastructure section of this Chapter, the flow of the members of the Olympic and Paralympic Family through the airport in its Games time operation need to allow unobstructed, independent access for all. For this purpose a "constituent flows" planning exercise needs to take place to ensure that all pathways are according to the standards.

#### Paralympic Considerations

The demand in accessible operations during the arrivals and departures days of the Paralympic Games are far beyond the usual scope of any airport in the world. In just two or three days more than 1,800 passengers who use a wheelchair will go through the airport. This fact presents a significant challenge for the airport in terms of resources and scheduling.

The Airport Operations function is responsible to provide constantly up-to-date information (after liaising with the suitable Functional Areas within the OCOG, such as Arrivals & Departures and NPC Services and Protocol) regarding numbers of wheelchair and mobility aid users, arrivals and departures of NPC delegations and Paralympic Family members.

Also, it needs to interact adequately with Transport Operations so that the type of vehicles and the transport schedule reflect the anticipated needs.

#### Reference

Chapter – Technical Specifications ([Transportation Means](#))

Chapter – Games Requirements ([Non-Competition Venues](#))



### 3.4. Broadcasting

The Host Broadcaster is responsible for producing and distributing comprehensive and unbiased radio and television coverage of the Olympic Games and of the Paralympic Games. The coverage is provided as a service to Broadcasters who have acquired the Broadcast Rights to broadcast the Games in their respective countries.

The International Signal produced by the Host Broadcaster includes the camera, audio signals and graphics generated at each venue.

This international, or multilateral, signal is transmitted from the venues back to the International Broadcast Centre (IBC) and from there to the world via optical fibres or satellite earth stations.

#### Accessibility Provisions

The IBC needs to fulfil accessibility criteria, as specified in the Games Infrastructure section of this Chapter. Access is required to the various services and amenities of the venue.

The Host Broadcaster needs to make every effort so that the graphics are readable by people with a visual impairment.

The commentators part of the media stand should have unobstructed access to media areas. Also, at least two spots in the commentators' positions should be scoped in the venue planning process ("accredited seating planning cycle") as being required to be accessible and kept reserved for broadcasters in every competition venue. This number may reach four for the opening and closing ceremony. The actual allocation of these spots will finally be made upon actual requests.

#### Paralympic Considerations

In venues where athletes compete in a wheelchair, the mixed zone needs to be modified for the Paralympic Games in order to allow cameramen to shoot the athletes in optimum conditions. This may be facilitated with lower barricades (up to **60cm**) or a different setting of the mixed zone area.

The Host Broadcaster needs to make a conscious effort to educate the production crews about the differences of the Paralympic sports so that they can produce excellent footage, capturing the unique spirit of excitement and inspiration of the Paralympic Games.

#### Reference

Chapter – Games Requirements ([Non-Competition Venues](#))



### 3.5. Opening & Closing Ceremony

The importance of an Opening Ceremony is paramount in defining and building the image of each Olympic and Paralympic Games, the Host City and host country.

The Closing Ceremony is the celebration of successful Games. Far more celebratory and less formal than the Opening Ceremony, it is a festive event to herald the Olympians and Paralympians, thank the Host City and its people, and symbolically link the Olympic and Paralympic Movements to the next Games.

The task of the Opening & Closing Ceremony unit is to manage the balancing, creative, budgetary and spatial considerations in planning, in close co-operation with the management of the Olympic Stadium or other ceremonies' venues.

#### Accessibility Provisions

All elements of accessibility for the competition venues, as specified in the Games Infrastructure section of this Chapter apply for the site of the Opening and Closing ceremony. All participants, especially spectators, members of the Olympic and Paralympic Families and the athletes should fully enjoy the experience of the ceremonies, which is made possible through the following provisions:

- Adequate accessible seating is needed for the Olympic and Paralympic Family;
- In addition, at least 0.75% of the gross capacity of the venue needs to be accessible seating, with 0.75% more reserved as companion seating;
- Adequate transfer capacity for elevator/lift access should be established for the egress period to allow for the timely exit of spectators wheelchair users following the Ceremony in less than 15min.
- The official programme should be made available in alternative formats (audio and/or Braille at the Spectators Info Points);
- Concurrent translation in sign language and/or text on the videoboards is needed during the protocol part and other artistic elements (for people who are deaf or hard of hearing);
- A hearing augmentation system providing in addition to higher volume a live audio description of the various artistic elements will further enhance the experience for people with sensory limitations (hearing difficulties, deaf, blind and visually impaired);
- Outdoor ceremonies (for Winter Games) can be cold, particularly for people with mobility impairments and other circulatory issues. A stock of blankets and/or space heaters should be kept on hand, particularly in accessible seating areas.



## **Paralympic Considerations**

The Paralympic Opening and Closing ceremonies present many challenges, as the scope of participants with an impairment is huge. The main areas include: transfer of the athletes to/from the Village to the stadium, the scope of Paralympic Family members with an impairment, the athletes parade, the athletes' holding areas and the participation of performers with an impairment.

### ***Transfer of Athletes & Team Officials***

All the athletes entered to compete in the Paralympic Games and all the Team Officials have the right to participate in the Opening and the Closing Ceremonies of the Paralympic Games. The OCOG needs to allocate adequate resources (suitable types and adequate number of accessible vehicles – preferably low floor buses) for the transfer of approximately 1,900 athletes who use a wheelchair for the Summer Games and of approximately 400 athletes for the Winter Games.

The drop off and pick up zones in the Paralympic Village(s) and the Olympic Stadium (or other ceremonies' sites) should be suitable for independent, safe and quick loading and unloading of the athletes. This may require the use of temporary kerbs for the low floor buses to allow efficient and effective egress.

The flow from the drop off zone to the holding areas as well as the flow from the Stadium to the pickup zone should be accessible according to the standards specified in this Guide (see Chapter - [Technical Specifications](#)) and also be wide and long enough to accommodate the scope of the athletes with an impairment.

The provisions in vehicles, loading zones and paths should allow all athletes to depart for the Paralympic Village(s) within 75min (Summer Games) or 45min (Winter Games) after the end of the Closing Ceremony.

### ***Scope of Paralympic Family members with an impairment***

Adequate number of accessible seating needs to be secured in the accredited seating area for the Paralympic Family. Although the exact need will only be determined after accreditation applications processing, the OCOG should plan for 150 spots (Summer Games) or 70 spots (Winter Games).

There should be independent, safe and quick flow between the Paralympic Family Lounge (and a Reception Area, if existing) and the Paralympic Family seating.

An operational plan for elevator/lift access should be established for peak egress periods to allow for the timely exit of wheelchair users following the Ceremony in less than 15min.

A key consideration is that there is no segregation among members of the same subgroup of the Paralympic Family in the basis of their physical condition, e.g. whether they use a wheelchair or not.



### ***Athletes' Parade***

The flow from the holding area to the main stadium, the ingress and egress from the Field of Play or the Stage must be accessible according to standards and operational needs.

All the athletes of each NPC delegation must parade together. After the end of the parade, the NPC delegation members should remain together. In case that a separation between ambulant and wheelchair users is required, this needs to be kept in minimum and be invisible to the audience at the highest extend possible.

Additional temporary accessible toilets should be provided at the transport drop off/waiting area and also close to the field of play to allow athletes to use a toilet close to the field of play during the ceremonies.

Where live audio description services are being provided, receivers should be made available to athletes with visual impairments (distributed through the NPCs) for use during the Ceremonies.

### ***Performers with an impairment***

It is desired (and common practice) that performers with an impairment are included in the artistic groups participating in the Opening and/or Closing Ceremony. Therefore accessible flows are needed for at least a part of the performers holding areas and to/from the necessary stages and settings.

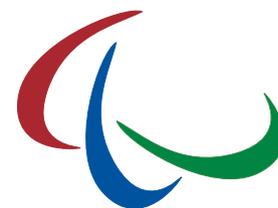
### ***Spectators with an impairment***

For the Paralympic Ceremonies, at least 1% of the net capacity of the venue needs to be accessible seating, with 1% more reserved as companion seating; The transfer capacity for elevator/lift access should for the egress period should be designed having in mind Paralympic ceremonies needs.

## **Reference**

[Chapter – Technical Specifications](#)

Chapter – Games Requirements ([Competition Venues](#))



### 3.6. City Operations

City Operations is about the City working as a pleasant and enjoyable place, as successful Games is measured not only by the performance of venues and events but also by the qualities of the broader urban domain, including atmosphere, ambience, access and easy movement, security and amenity.

Effective City Operations enable Olympic and Paralympic stakeholders and the public to move around reasonably freely, including travelling to and from the venues. It seeks to involve the general public, beyond those attending the events, in the spirit and excitement generated by the Games.

Integrated operations of accommodation sites, vehicle movements, pedestrian movements and gathering places and car parking/deliveries are fundamental.

The City Operations function of the OCOG has the task to work together with City and other public authorities, make them aware of the Games-related requirements that fall under the responsibility of the OCOG and transfer the plans of these authorities to the suitable OCOG functions.

#### **Accessibility Provisions**

The notion of universal design should be implemented from the very early stages of the bid process and OCOG's creation to the last-moment fitting of overlays as regards to Host City's preparation for the Games. This way the widest range of Host City residents' and visitors will be able to fully engage in the context of Games activities and enjoy the Games.

The city should consider creating a network of accessible routes to key city attractions. In Chapter - [The Journey to an Accessible & Inclusive Host City and Games](#) of this Guide all elements of an accessible and inclusive Host City are presented in detail.

The co-ordination between the OCOG and city/public authorities is critical for accessible and inclusive city operations. For Games spectators, the end-to-end experience should be considered (from their home to their venue seat) to ensure accessible routes and transportation options exist for their entire journey to the venue.



## Paralympic Considerations

Accessibility provisions for the Host City apply for both the Olympic and Paralympic Games. Additional aspects for the operations for the Paralympic Games-time are:

- Enhanced accessible transport means (e.g. low floor buses) from the main competition venues and the Paralympic Village to the city centre, due to the increased demand of participating athletes;
- Adequate signage and assistance for access to dedicated parking spaces for person with an impairment next to the venues;
- Accessible pathways from the drop-off/pick up points for “other sports’ spectating athletes” at the competition venues;
- Enhanced accessible spots in city entertainment and/or live sites set up for the Paralympic Games, because of expected attendance of high numbers of athletes and Paralympic Family members, who have an impairment.

## Reference

[Chapter – Introduction](#)

[Chapter – The Journey to an Accessible & Inclusive Host City and Games](#)



### 3.7. Classification

Classification is a Paralympic-specific function. It is an integral component of the Paralympic Games and is conducted by authorized Games Officials called classifiers. Classification is an ongoing process which takes place at all major competitions, including the Paralympic Games, prior to and during competition.

Classification takes place prior competition commences, soon after the beginning of the arrivals of the delegations until two days prior to the Opening Ceremony. It takes place at Classification sub-centres in the various competition venues as well as in the Polyclinic of the Paralympic Village for athletes with a visual impairment.

#### Accessibility Provisions

All Classification areas need to fulfil accessibility criteria. The waiting area, the width of the doors, the width of the corridors, need to allow athletes with any kind and level of functional ability to move freely.

The Classification Assessment room in the Polyclinic (for the assessment of athletes with a visual impairment) should have signage strictly fulfilling respective criteria for visibility.

The Classification Manual and the Classification Evaluation Schedule of an NPC delegation should be available upon request in alternative formats (e.g. large print, Braille etc.).

Exact design standards for the classification areas per sport may be found in the [Olympic Games Guide on Venues](#).

#### Reference

[Chapter – Technical Specifications](#)



### 3.8. Cleaning & Waste

Cleaning and Waste is responsible for the collection, removal and disposal of all waste types generated from all areas throughout all Olympic and Paralympic competition and non-competition venues during the Games, as well as the ultimate clean presentation of the assets under OCOG's control.

#### Accessibility Provisions

The tenders for appointment of the contractors, should contain strict requirements about elements such as size, colour and signage of the waste bins so that they:

- Are visible by those with visual limitations;
- Do not obstruct or limit pathways to less than accessible standards;
- Are detectable by people using sticks.

The height of the waste bins should be at a max. **1,200mm**, to allow people using a wheelchair to put their disposals.

The OCOG FA venue manager should ensure that the above are set up and positioned correctly prior the Games and stay like that during the Games.

Additional accessible toilets will be used and it is critical to ensure they have an appropriate level of cleaning to ensure hygiene levels are maintained.

Special consideration is to ensure that accessible toilets are used for no other purpose than the original.

#### Paralympic Considerations

The OCOG FA venue manager should reassess the position and look of waste bins, especially in areas for athletes and Paralympic Family, in view of the enhanced use from people with an impairment.

#### Reference

Chapter – Technical Specifications ([Access and Circulation](#), [Amenities](#))



### 3.9. Communications

Communications addresses the content of the media (from newspaper reporting to spectator publications or the web site) as the majority of people do not experience the Olympic and the Paralympic Games in a physical sense but rather they perceive them as consumers of various forms of media.

Through Communications the OCOG actively attempts to communicate institutional values, in a consistent manner, throughout the event, thus enhancing awareness for and branding of the Games. Also, it aims to address any adverse publicity, occurring from preconceptions, expectations or incidents before, during and after the Games.

A key task of the Communications function is to assist media representatives in their efforts to run the stories behind and around the performances, in a way that reflects the values of the OCOG, the IOC and the IPC.

#### Accessibility Provisions

As the messages of the OCOG strive to reach the broadest audiences, it is required that media representatives or interested individuals who have sensory limitations have access to these messages; in all forms they may take. Communications should also take into consideration the changing nature of technology as its communication means. All should consider accessibility as an integral component. Therefore, for the various means of communication, solutions as in the list below should be implemented:

- Publications (in alternative formats)
- Press conferences (with interpretation in sign language)
- Media workshops (alternative formats of material, sign language interpretation, subtitles in video commenting, etc.)
- Web-site (with built-in accessibility provisions following the W3C guidelines)
- ONS/PNS (availability in alternative formats)
- INFO system (with built-in accessibility provisions).



## Paralympic Considerations

Although same principles as above apply for the Paralympic Games, there are two elements that present a difference in the scope of accessible means of communications:

- As the local and global audiences identify the Paralympic Games as the elite competition for athletes with an impairment, it becomes an expectation that any means of communication will fulfill the strictest accessibility standards. Adherence to this expectation becomes essential for the OCOG.
- The percentage of media people with an impairment attending the Paralympic Games will be higher than during the Olympics; the same applies for the general public. As a result OCOG needs to proactively plan for increased availability of resources able to produce publications and other data in alternative formats to the expected demand.

## Reference

Chapter – Technical Specifications ([Publications and Communications](#))



### 3.10. Catering

Catering (or Food Services) is responsible for:

- The main (and secondary if existing) dining area(s) in the Olympic & Paralympic Villages;
- The provision of food & beverages in the lounges of the competition venues (for athletes, officials, Olympic/Paralympic Family, media);
- The operation of Food Concessions for spectators at the competition venues;
- The provision of snacks, refreshments etc. at the training sites, for athletes use;
- The provision of meals, water etc. for the workforce of the Games.

The majority of those services are provided via contractors. The management of the functional area is responsible to set the requirements and conduct the respective tenders and then oversee the operations at Games time.

#### Accessibility Provisions

Catering needs to ensure that all necessary accessibility provisions are clearly included and specified in the tender documents. Compliance to these specifications needs to be part of the assessment criteria of the various tenders; non-compliance should be a factor for rejection.

The accessibility standards and specifications for dining areas apply in all dining areas for the Olympic and Paralympic Family, media, workforce and spectators.

- The corridors among tables need to be at least **1,500mm** wide;
- Allocation of the various beverages, deserts etc. in vertical (rather than horizontal) configuration;
- Table heights of **850mm with 750mm** knee clearance;
- Cutlery items located at a height up to **1,200mm**;
- Signage and menus are displayed by signs with high-contrast colours;
- Serving Counters should have at least a section that is up to **850mm** high, **1,000mm** in length;
- No step or other obstacle should prevent access in front of or in queuing area of the serving area.

#### Paralympic Considerations

All dining areas should have accessibility features already installed prior the Olympic Games. However, the scope of accessibility needs for the Paralympic Games (especially for the athletes) require additional consideration and provisions. These are the following:



In the Village(s) Dining Areas the width of doors for the athletes and the workforce need to be at a minimum **1,800mm**, allowing for the flow of wheelchair users crossing.

- The corridors among tables need to be at least **1,800mm** wide;
- All Serving Counters should not be greater than **850mm** high;
- Clearance of **750mm** underneath all counters;
- 25% of each group of chairs are removed, to allow seating for wheelchair users;
- Cafeteria trays should be made available to make transporting multiple items easier for people using a wheelchair;
- In the lounges at the venues the provisions specified above apply. Further to those, it is required that both low and high tables are provided.

## Reference

Chapter – Technical Specifications ([Furniture, Counters and Service Areas](#))

Chapter – Games Requirements ([Competition Venues, Non-Competition Venues](#))



### 3.11. People's Management

People's Management (also known as Games Workforce or Human Resources People's management (Human Resources or Games Workforce) is responsible for the planning, delivery, retention and care of the paid staff, volunteers, and contractors necessary to stage the Games.

The scope of the people's management requirements are huge, as years of efforts are needed in quantifying, identifying, recruiting, training, scheduling, accrediting, uniforming, integrating, managing, and sustaining a workforce of over 175,000 people.

#### ***Games-time responsibilities of Games Workforce include:***

- Uniform Distribution (centralized)
- Training Support (general and venue training)
- Workforce Check-In
- Break/Meal Management
- Scheduling Support
- Workforce Relations and Recognition
- Workforce Communications
- Incident Reporting.

#### **Accessibility Provisions**

The OCOG needs to ensure that people with an impairment have equitable access to work as paid and/or volunteer staff at the Games as any other member of the local or international workforce. In order to achieve that, the OCOG needs to consider the following aspects:

#### ***Workforce Recruitment***

- Undertake initiatives in order to encourage and attract applications to work from persons who have an impairment.
- Set specific and measurable targets for the percentage of persons with an impairment among each type of workforce, make managers accountable to achieve and conduct periodical reviews to assess progress and undertake corrective actions where needed
- Ensure that recruitment policies and practices do not discriminate against applicants with an impairment but rather encourage them to apply (e.g. guarantee an interview if a person with an impairment meets required qualifications for the job).
- Identify the few job positions (especially at Games-time) for which a job offer for a person with limitations in mobility or sensory capacity is not recommended and make clear that ALL other job positions are equally available to all people with the necessary skills, regardless of impairment.
- Work with local organizations to identify and recruit individuals with an impairment.



### ***Workforce Policies***

Establish policies that enable easier access to work for persons with higher support needs. Such policies may be:

- Secure 3-4 parking spots in the operational parking of each venue for members of the workforce with an impairment, no matter of their job title and function.
- Establish flexible and/or suitable working hours, check-in and checkout processes, in cases where public transport or venue configuration limitations prevent access (or make it extremely difficult) to the venue on early or late hours or in certain areas of the venues.

### ***Workforce Areas***

During operational planning the OCOG needs to ensure that all workforce areas of all venues are accessible according to the standards of this Guide. These areas include:

- Staff Check-In and Check-out
- Staff Break Area
- Staff Meeting Room(s)
- Staff toilets including unisex accessible toilets

The Uniform Distribution Centre should fulfil all accessibility criteria as described in this Guide. Essential aspects of such provisions include entry and exit, waiting areas width of corridors, service counters, dressing rooms,

### ***Workforce Training***

Equitable access to training material needs to be available for persons with an impairment who are members of the workforce. For this reason OCOG should make available the generic training material upon request in alternative formats (Braille, large print, audio etc.) to those members of the workforce that express such need.

In addition to that, Human Resources need to have a process in place for the other Functional Areas or Venue Teams to produce job specific and/or venue training material in alternative formats.

All workforce members must receive disability and accessibility awareness training. The content, modules and delivery methods of such training may be found in Chapter - [Training for Accessibility](#) of this Guide.



## Paralympic Considerations

As the Games Workforce is considered as one for both Olympic and Paralympic Games, all the above guidelines equally apply for the Paralympic Games. However, it is expected that higher numbers of volunteer workforce who have an impairment will prefer to offer the services for the Paralympics. In this view some more provisions may be made, such as allocating more parking spots for workforce members with mobility impairments at the venues.

In addition to the above, the existence of many persons with an impairment among the client groups of the Paralympic Games, makes it necessary to schedule a more focused disability awareness training for certain groups among the volunteer and contractor workforce that may include as well the operational parameters of the Paralympic competition in the given venue.

It is also recommended to consider a targeted recruitment of former Paralympians for job positions related to their profile and experience has successfully been used in past Games.

## Reference

Chapter – Technical Specifications ([Furniture, Counters and Service Areas](#))

[Chapter – Training for Accessibility](#)

Chapter – The Journey to an Accessible and Inclusive Host City and Games ([Employment](#))



### **3.12. Image & Identity**

Image & Identity is responsible for the visual and thematic representation of the Games, the Host City and the Country. It is an integrated communication platform that starts with Games emblems (Olympic and Paralympic) and related secondary emblems (for the Torch Relays, Cultural, Environmental and Volunteer programmes, etc.), the Mascots, themes or slogans etc.

The Look of the Games supports and extends the Host City identity and Olympic and Paralympic image. The Look of the Games design responsibilities include: tickets, medal stands, banners, field-of-play graphics and sport pictograms. It lifts the presentation of the Olympic and the Paralympic Games in the competition venues, the common domain, non-competition venues and throughout the Host City for the global broadcast audience, the spectators, the athletes, visitors, and the general community.

#### **Accessibility Provisions**

Image & Identity should always consider that all elements of the Look of the Games should be as visible as possible for people with visual impairments. Therefore, accessibility standards included in this Guide regarding signage (colour contrast, size of letters, position of signs and posters, etc.) should be taken into account upon designing graphic elements and wayfinding signage.

It is recommended that during the creation of the primary and secondary graphics manual, Functional Areas management and staff should consult and interact with the accessibility audit structures and/or experts of the OCOG in order to ensure that graphics suggested fulfil accessibility standards.

#### **Paralympic Considerations**

The Look of the Games changeover from the Olympic to the Paralympic Games during the transition period is a demanding and big scale task. Paralympic look elements and additional signage should be of same standards as the existing ones, with no compromises in terms of accessibility.

Especially for the design and graphic elements for the Paralympic Games (tickets, uniforms, banners, backdrops, etc.) the factor of optimum visibility should be considered as even more important at the creative phase.

#### **Reference**

Chapter – Technical Specifications ([Publications and Communications](#))



### 3.13. Doping Control

Doping Control plans and manages the infrastructure to implement a comprehensive doping control programme under the jurisdiction of the IOC and the IPC (respectively for the Olympic and the Paralympic Games) and in accordance with the Anti-Doping Rules and in conformity with the World Anti-Doping Code and its accompanying International Standards.

Doping Control is responsible for developing a Test Distribution plan, outlining the number, selection methodology, and timing (in competition; out-of-competition (OOC) and type of sample required for each sport, e.g., urine, blood, breath). This plan determines the location and size of each Doping Control Station and the workforce required to be recruited and trained.

The planning and delivery of the OOC programme is done in conjunction with the World Anti-Doping Agency (WADA).

#### Accessibility Provisions

Accessibility provisions are required in the Olympic/Paralympic Village doping control station as well as to the doping control stations of the venues that host a Paralympic sport in which athletes who use a wheelchair for competition or for daily living may compete.

In those venues access to the area should be accessible with a door width of min. **1000mm**. Using an accessible toilet for all doping control stations in the Olympic and Paralympic venues will allow easier access by supervisory staff and a carer or companion if the athlete is less than 18 years of age, as well as assisting accessibility for athletes who use wheelchairs.

At least one fully accessible toilet needs to be provided in the station fulfilling accessible design standards as described in [Chapter – Technical Specifications](#), of this Guide.

#### Paralympic Considerations

It is recommended that doping control stations of the competition venues are already accessible prior the Olympic Games. However, if for any reason this is not feasible, necessary adaptations and overlays need to be installed during transition, based on a tight schedule, as the stations need to be ready as soon as the opening of the Paralympic Village and the start of training in a competition venue.

Doping control information materials need to be available in alternative formats (Braille, large print, etc.), and be provided upon request.

#### Reference

Chapter – Technical Specifications ([Washrooms](#))



### 3.14. Event Services

Event (or Spectator) Services provides crowd management, customer service and overall venue operational support at all competition and selected non-competition venues. It is the largest and most visible workforces of the Games. It is operational at all competition and selected non-competition venues, such as the Main Press Centre, IBC and Sponsor Hospitality.

Operational activities of Event Services include:

- Pedestrian Flow and Crowd Management — assist spectators to and from transportation terminals, on approaches to venue entrances, security screening areas, queuing areas, venue concourses, seating and standing areas;
- Ticket Taking — collecting, reading, recognizing, validating and ripping different tickets for each session;
- Ushering — providing assistance to spectators in the seating and viewing areas of the venue;
- Access Monitoring — implementing the accreditation scheme during “on” hours;
- Public Information and Olympic/Paralympic Experience — enhances the Games Experience by ensuring that spectators are properly informed before and during their visit to the venues. Tasks include Spectator Guide, on-venue public address announcements and video-board messaging, Public Information Booth operations and Spectator Lost & Found operations.

#### Accessibility Provisions

Accessible Operations Support is a fundamental task for Event Services. It provides assistance to persons with an impairment, e.g., mobility, sight, hearing, etc., as part of OCOG’s overall accessibility plan. Typically, the Event Services role is restricted to pedestrian movement and seating assistance within the venue perimeter.

In order to perform this task, training about servicing customers with an impairment is required, in an enhanced level than the typical disability awareness training for the rest of the workforce. This training may involve experts, lectures and hands-on experience, especially for the team leaders.



Other accessibility considerations include:

- Spectator information materials made available in alternative formats (Braille, large print);
- Distribution of assistive hearing devices to spectators;
- Provision of Games Mobility services (e.g. wheelchairs and electric scooters loan and storage);
- Assisting with elevator access and use, and facilitating priority loading for wheelchair users as required;
- Monitoring and maintaining accessible pathways for spectators.

As the largest part of the workforce, Event Services provides opportunity for active participation of persons with an impairment, as volunteers. In each venue all suitable service provision spots should be identified, allowing for an enjoyable and equitable experience for staff with an impairment as for the rest of the staff of Event Services.

### **Paralympic Considerations**

All provisions described above equally apply for the Paralympic Games.

When a “Day Ticket” scheme applies for the Paralympic Games, Event Services need to ensure an accessible path of travel between the various individual venues within a complex. In this regard, the design standards specified in Chapter - [Technical Specifications](#) about accessible pathways, ramps etc, as well as the provisions of this chapter about competition venues should be taken into account and/or implemented.

### **Reference**

Chapter – Technical Specifications ([Access and Circulation](#), [Amenities](#), [Publications & Communications](#))

[Chapter – Training for Accessibility](#)

Chapter – Games Requirements ([Mobility Services](#))



### 3.15. Medical Services

Medical Services is responsible for co-ordinating all aspects of medical/health services measures to athletes, team and technical/Games officials, Olympic/Paralympic Families, and other accredited persons for all medical conditions occurring during their stay in the Games.

The service is designed to provide first aid and an advanced first response in all competition and training sites and the majority of non-competition venues. In addition a comprehensive range of medical specialties are provided within the Polyclinic of the Olympic/Paralympic Village. This service is linked to a designated Olympic hospital network by a dedicated ambulance transport service that supports the venue-based medical teams.

#### Accessibility Provisions

All venue based medical facilities (one dedicated to athletes and one for Olympic/Paralympic Family and spectators) need to fulfill accessibility criteria specified in this Guide (see Chapter - [Technical Specifications](#)). Special consideration is required for the existence of an accessible pathway for the respective constituent groups. At least one fully accessible toilet should be provided in each medical station of a venue. Medical staff should be trained in techniques for safely removing athletes from their equipment (such as sit skis, sleds, etc), relevant to each applicable sport.

Village Polyclinic needs to be fully accessible. All elements of an accessible indoor facility should be implemented (entry and exit, pathways and corridors, door widths, lifts (if existing), service counters etc. Accessible toilets, in every bank per gender, should be in place. It is recommended that all service areas of the Village Polyclinic be in the level floor, to facilitate easy access for all.

The OCOG may issue and distribute to the Olympic hospital network, guidelines on accessibility provisions in view of the upcoming Games.

#### Paralympic Considerations

Athletes Medical Areas in competition and training venues that host Paralympic sports with athletes who use a wheelchair for competition or daily living need to fully comply with accessibility provisions. Doors should have a minimum width of **1000mm**.

At least one medical bench in those areas should be adjustable in height, in order to allow for athletes with a more severe impairment to access it.

#### Reference

Chapter – Technical Specifications ([Access and Circulation](#), [Amenities](#), [Publications and Communications](#))

[Chapter – Training for Accessibility](#)



### 3.16. Medal Ceremonies & Sport Presentation

Medal Ceremonies are a core element of Olympic and Paralympic tradition and protocol. The ceremonies teams of an OCOG are responsible for creating Olympic and Paralympic Medal Ceremonies that celebrate the greatest athletic achievements.

Sports Presentation creates the atmospherics for sports competitions. By providing the announcers, music, videos, and live cultural performances, it enlivens the venues and competition, and educates spectators. Operationally, Sports Presentation also manages the flow of sports competition sessions. Under the direction of International Federations and the OCOG Sport Functional Area, Sports Presentation scripts, produces and directs the competition and spectator experience.

#### Accessibility Provisions

In order for the spectators to enjoy the experience of the Games, it is important to have access to what sport presentation has to offer. The OCOG needs to provide a hearing augmentation system in public areas of the competition venues so that people who are deaf or have a hearing impairment be able to equally enjoy the event and its presentation and participate in all activities. The system should cater for seats in all ticket price categories.

Any scoreboard or video screen capable of displaying public announcements should be capable of supplementing the public address system.

#### Paralympic Considerations

The design of the podiums for the Paralympic Medal Ceremonies needs have a ramp of no more than **1:12 (8.33%)** gradient for all Paralympic sports with athletes who use a wheelchair for competition or daily living.

In order to allow for medal presenters who are wheelchair users to efficiently and safely perform their duty, the height of the podium for the 1st place should not exceed **300mm**.

Athletes' staging area should be located in an area within the venue that allows access for both athletes and medal presenters of any functional ability.

The route from athletes' staging area to the podium needs to be accessible. This is particularly important for the skiing sports of Winter Paralympic Games, where ground gradient may be a challenge.

A Paralympic-specific script for announcers is required for each Paralympic sport. In addition, announcers should be re-trained on this plus in the proper terminology used for Paralympic sport and when referring to athletes with an impairment.



## Reference

Chapter – Technical Specifications ([Access and Circulation](#), [Venue Seating](#))

[Chapter – Training for Accessibility](#)



### 3.17. Licensing - Merchandising – Retail Operations

Licensing oversees the Games-time merchandise sales and operations at retail points of sales which are located within competition venues, the Villages, the Olympic Superstore(s), selected airports and e-commerce web sites. The concessionaires appointed by the OCOG typically manage the outlets.

#### Accessibility Provisions

As specified previously merchandising outlets service counters should be at a height of **850mm** with **750mm** of knee clearance underneath. If this not possible or practical, at least **1,000mm** of counter shall be accessible.

No step or other obstacle should prevent access in front of or in queuing area of the merchandising outlets.

In self-service outlets or stores, items should be allocated vertically rather than horizontally, in order to allow pick-up from both seating and standing customers.

It is recommended that licensees are encouraged to create a range of products for minority user groups, such as the left-handed. Whenever possible, items should be able to be used by persons who use only one hand.

#### Paralympic Considerations

Merchandise items with the Paralympic trademarks should be usable by the widest range of users.

All accessibility provisions as above for the retail stores equally apply for the Paralympic Games.

#### Reference

Chapter – Technical Specifications ([Access and Circulation](#), [Furniture, Counters and Service Areas](#))

Chapter – The Journey to an Accessible & Inclusive Host City and Games ([Retail](#))



### **3.18. NOC/NPC Relations**

The function is the official channel of communication between the OCOG and the National Olympic Committees (NOCs) and the National Paralympic Committees (NPCs) for the Olympic and Paralympic Games respectively.

It aims to create a positive and professional communication platform for the NOCs/NPCs and the OCOG in order to facilitate a consistent and correct level of service to all. Among other tasks, NOC/NOPC Relations is responsible for:

- Issues resolution in the pre-Games period;
- Organization of the Chefs Seminars and production of the Chefs de Mission Guides;
- Management of NOC/NPC visits to the host country and the OCOG;
- Delegation Registration Meetings;
- Allocation and management of NOC/NPC Assistants;
- Management of the NOC/NPC Services Centre(s) in the Olympic/Paralympic Village(s);
- Management and follow up of the NOC/NPC Chefs de Mission meetings.

#### **Accessibility Provisions**

It is recommended that all areas of Games-time operations are designed and built as accessible or adaptable, in order to serve the needs of the NPCs (see below).

#### **Paralympic Considerations**

The Chefs de Mission Guides and other publications addressed to the NPCs should be made available in alternative formats for those with a visual impairment upon request.

The location and the reference material of the Chefs de Mission Seminar should be made available in alternative formats for participants with a visual impairment upon request.

Delegation Registration Meetings should be conducted in areas that fulfil accessibility standards.

All areas of the NPC Services Centre and the Chefs Meeting Hall should fulfil accessibility standards as specified in this Guide.

In order to perform their role, NPC Assistants should receive training about servicing customers with an impairment, in an enhanced level than the typical disability awareness training for the rest of the workforce. This training may involve experts, lectures and on-hands experience.



## Reference

[Chapter – Technical Specifications](#)

[Chapter – Training for Accessibility](#)



### 3.19. Olympic & Paralympic Family Services

Olympic & Paralympic Family Services Functional Area is responsible for the development and execution of protocol and other services for the Olympic and Paralympic Family, and for the management of the Dignitary programmes and the Observers' programmes.

Among other tasks, the FA is responsible for:

- The Venue Protocol, including airport protocol; Protocol Assistants Programme; Meetings and Guest programmes and Olympic/Paralympic Family Hotels management;
- The protocol policy and implementation elements, including flag and anthem programme; Olympic/Paralympic Village protocol; Dignitary programme (Sovereigns, Heads of State and Government and Ministers responsible for Sport) and the Observers' Programme.

#### Accessibility Provisions

During the operational planning process, the FA represents the entire Olympic and Paralympic Families. In this planning process, an accessible pathway needs to ensure connecting the following venue areas: T1/T2/T3 drop off, Olympic/Paralympic Family Lounge and Accredited Seating. Pathways, lifts, staircases etc. need to fulfil accessibility standards.

The Olympic/Paralympic Family Lounge should have accessible entry; the service counters at a height of **850mm**, with **750mm** of knee clearance underneath, for at least **1,000mm**, and accessible toilets according to standards (see Chapter - [Technical Specifications](#)).

At least one accessible toilet should exist in each Lounge.

There needs to be adequate accessible seating, at least at a rate 1% of the total seats allocated for the Olympic Family and according to the specified amount for the Paralympic Family.

OCOG should seek to be informed if any of the participants in the Observers' programme uses wheelchair and, if so, plan for suitable transport means.

The Olympic/Paralympic Family Hotel(s) should be accessible according to the provisions of this Guide (see Chapter - [Technical Specifications](#) for design standards). Accessibility compliance is a critical factor for candidate hotels evaluation in the tender phase. Exactly as in the venue areas, the FA needs to ensure that accessibility is observed in the operational planning of the hotel(s).



## Paralympic Considerations

The scope of members of the Paralympic Family who require accessible amenities and services is significantly higher than during the Olympic Games. Additional requirements compared to those recorded above are:

- In the accredited seating area for the Paralympic Family much more accessible spots need to be provided. The number of required spots varies from venue to venue, depending on the sport. The exact minimum requirements per sport can be found in the “Technical Manual on Venue Design Standards”.
- The Presidential Box for the Opening and Closing Ceremonies needs to be made accessible in a way that the 1st row of seating (to be used by the Head of State of the host country and the President of the IPC) is accessible with the other rows of this VIP seating located above this 1st row.
- Both low and high tables should be provided in the Paralympic Family Lounge.
- Accessible pathways should be identified from the Seating area and the Lounge to the staging area for the Medal Ceremonies.
- At least two accessible toilets should exist in the Paralympic Family Lounge for Athletics, Wheelchair Basketball and Swimming.
- Where assistive hearing devices are provided, or live audio description services offered, these receivers should be made available to Paralympic Family members.
- The Paralympic Family Guide should be made available in alternative formats, upon request.
- In order to perform their role, Protocol Assistants assigned to members of the Paralympic Family who have an impairment should receive training about servicing customers with the particular impairment, in an enhanced level than the typical disability awareness training for the rest of the workforce. This training may involve experts, lectures and on-hands experience.

Overall, when considering adequacy of provisions for the Paralympic Family, realistic estimation is required, as there is often an over allocation of seating and accessible toilets in one instance and in other instances not enough capacity of lifts to ensure efficient vertical movement. Communication with the IPC and the NPCs should assist the planning process.

## Reference

Chapter – Technical Specifications ([Access and Circulation](#), [Furniture, Counters and Service Areas](#), [Hotels and Other Accommodation](#), [Venue Seating](#))

[Chapter – Training for Accessibility](#)

Chapter – Games Requirements ([Non-Competition Venues](#))



### **3.20. Venue Development, Overlays & Site Management**

Venue Development and Overlays is responsible for the temporary installations at competition and non-competition venues for the Games, as all venues require some level of additional temporary development to meet the unique requirements of the Olympic and Paralympic Games.

The extent of overlay at each venue varies depending whether the venue is a) an existing permanent structure requiring permanent and/or temporary modification for Games use b) a permanent structure purpose-built for the Games or c) a temporary structure purpose-built for the Games.

At Games-time Venue Development and Overlays turn into Site Management, which is responsible in the venue level for the instalment of the overlay elements, venue maintenance and technical issues resolution, in co-operation with potential venue owners, state agencies, etc.

#### **Accessibility Provisions**

The role of Overlays FA on accessibility is absolutely critical, as it is this FA that needs to lead the recording and planning of the additional overlays features that are required in order for the venues to be accessible for all constituent groups.

In order to fulfil this role, Overlays need sufficient expertise (either within the FA or via external consultants) with experience in accessibility planning. Also, an accessibility review should be incorporated into every overlay drawing revision stage.

The Site Managers at Games-time need to ensure proper instalment of accessibility features. A thorough assessment of accessibility compliance needs to take place in every venue, in co-operation with the venue management and the FAs that represent the various client groups, in order to verify adequacy of provisions.

#### **Paralympic Considerations**

The Accessibility Manager or appointed expert should be part of an audit team, which will oversee the Paralympic operational planning, in the pre-Games period.

The assessment of accessibility compliance needs to be repeated during the transition period, in view of the enhanced expected demand and the profile of the various client groups for the Paralympic Games.



At Games-time the accessibility experts or other resources, should have a central role for accessibility issues resolution. Such resources may have a role in an “Accessibility Call Centre Service” that should operate throughout the Games period.

## **Reference**

[Chapter – Technical Specifications](#)

Appendix I: [Key Measurement Reference Table](#)



### 3.21. Press Operations

Press Operations co-ordinates the facilities and services needed by the written and photographic press accredited to cover the Games. Among other tasks the FA is responsible for:

- Planning, staffing and operating the Main Press Centre;
- Operate the Venue Media Centres in the competition venues. ;
- Set up the Olympic and the Paralympic News Service (ONS and PNS) to provide the editorial content of INFO system;
- Plan and over-see key media services such as accreditation, accommodation, press rate card and transport.

#### Accessibility Provisions

There are persons with an impairment among the written and photographic press who cover the Games. Therefore a) press facilities need to comply with accessibility standards and b) equitable media services are needed for media representatives who have an impairment.

During the operational planning process, the FA represents media. In this planning process, an accessible pathway needs to ensure connecting the following venue areas: Media Drop Off, Media Work Areas, Media Lounge, Media Seating, Press Conference Room, Mixed Zone and Photo Positions. Pathways, lifts, staircases etc. need to fulfil accessibility standards.

The Main Press Centre must be an accessible facility according to the provisions of this Guide (see also the Non-competition section of this chapter as well as Chapter - [Technical Specifications](#) for technical design standards).

The Venue Media Areas should have accessible entries. The height of some (if not all) of the tables in the working stations should have clearance **750mm** underneath; the service counters at a height of **800mm**, with **750mm** of knee clearance, above the floor for at least **1,000mm**; accessible toilet needs to exist next to the lounge according to standards (see Chapter - Technical Specifications, section about [Washrooms](#)).

There need to be three to five accessible spots in the press tribunes, with full service provision.

OCOG should identify via the media accreditation process journalists and photographers with accessibility. For those individual it is recommended that OCOG plans for suitable services, such as:

- Accessible transport in a customized basis;
- Accessible accommodation, in selected accommodation sites, which offer a variety of price selection.

The INFO system should comply with accessibility standards for web-based applications.



## Paralympic Considerations

For the Paralympic Games the number of accredited media who have an impairment may increase compared to the Olympic Games. Therefore, the resources and bookings may be adjusted to this fact.

In venues where there is a Paralympic sports with athletes who use a wheelchair for competition or daily living, the Mixed Zone should be adapted as follows:

- The width of route should be at least 2,200mm to allow move of athletes while a fellow athlete is being interviewed.
- The barricades for separation between media and athletes should be up to **600mm** high, to allow for interviewing at same level, for both athletes or press who are wheelchair users.
- For Winter Games, considerations will need to be made in sports where athletes stay in their sport equipment (such as ice sledge hockey) that an alternate surface will need to be used for the mixed zone, or an operational solution to allow athletes to return to their wheelchairs.

The exact min. requirements of accessible press tribune spots per Paralympic Sport can be found in the [Olympic Games Guide on Venues](#).

## Reference

Chapter – Technical Specifications ([Access and Circulation](#), [Furniture, Counters and Service Areas](#), [Publications and Communications](#))

Chapter – Games Requirements ([Non-Competition Venues](#))



### **3.22. Rate Card**

Rate Card works closely with Accounting, Material Planning, Procurement and Logistics to establish a solid Rate Card that will meet the needs of its key customers. These customers include the Olympic/Paralympic Family, NOC/NPC Delegations, Press Agencies, Broadcasters and other Olympic/Paralympic Partners.

The Rate Card team should begin as early as Games - two years to establish the needs of its customers, sourcing of rate card items and market rates, a user friendly ordering system and an integrated delivery and recovery system with Logistics to all Competition and Non-Competition venues.

#### **Accessibility Provisions**

Rate Card should be made available in alternative formats, upon request from a customer. If Rate Card is in a web-based application, this should fulfil the respective accessibility requirements.

#### **Paralympic Considerations**

Rate Card should investigate for potential specific needs related to accessibility, especially for the Paralympic Games. In past Games, items such as electric scooters and mobility aids were requested and offered via the Rate Card.

#### **Reference**

Chapter – Technical Specifications ([Publications and Communications](#))



### 3.23. Risk Management

Risk Management Functional Area has two core responsibilities:

- To identify and address potential risks, to ensure that the highest standards of safety are maintained at all times for all those involved in the Games including spectators, Olympic/Paralympic Family, broadcasters, contractors, volunteers and staff;
- To manage the insurance aspects of any incidents including injury, death, property loss or damage as well as other insurable events such as interruptions to competition or other causes of lost revenue.

#### Accessibility Provisions

Risk management in every venue needs to ensure that all areas to be used (even potentially) by people using a wheelchair should have immediate pathway to a secure assembly area.

Evacuation plans need to be developed having in mind this parameter.

In the case of already existing facilities that do not provide such solution:

- Usage should be avoided if adequate alternatives exist;
- Suitable area needs to be identified, providing the maximum duration of safety, where people with a mobility impairment may stay until help is provided.

Visual emergency signal should be available in spectators' area and sport presentation texts, for people with hearing limitations.

Staff assigned with evacuation responsibility need to be fully aware of this area and direct people accordingly.

Evacuation for people with mobility and sensory impairments need to be tested by the venue team in the pre-Games phase.

#### Paralympic Considerations

The fact of the high number of people with a mobility impairment in the athletes' area as well as the Paralympic Family areas, require special attention. In these cases, provisions that are considered adequate in other circumstances are not enough. A dedicated planning exercise is required in the detailed operational planning phase, in order to identify optimum solutions.

#### Reference

Chapter – Technical Specifications ([Access and Circulation](#))



### 3.24. Security

Security's role is to ensure that the Games can be conducted in an atmosphere of safety, free from the risk of disruption by hostile elements. Security forces should be able to counter the threat or consequences of terrorist or anarchist acts of violence; deal with outbreaks of public disorder and other crimes intended to disrupt the Games and manage the consequences of any natural disaster threatening the population as a whole.

One of the most visible activities of security at Games-time is the control of every individual and item carried in a venue via magnetometers and visual checking, without exceptions.

#### Accessibility Provisions

Persons who have an impairment are equally subject to security screening as any other constituents of the Games.

As measures that apply to other populations are not effective in cases such as wheelchair users or people who use a prosthetic limb, an adapted control protocol is required. For this reason, special training needs to be provided to security personnel (police, volunteers) in order to perform this task with both dignity (for the customer) and efficiency (for security).

Immediately adjacent in every venue entry where there are magnetometers, an operational gate should exist, without a magnetometer with a width of **1,000mm**, for entry of wheelchair users. Security control in these gates should be performed by portable magnetometers.

The protocols for vehicles carrying people with an impairment going through a vehicle check point can allow a wheelchair user to stay in the car, and be scanned with a hand held magnetometer. Other occupants of the vehicle will be scanned as per standard operation

If scanning ports for accreditation cards exist, they should be lowered to allow wheelchair users who have it hanging around their neck to easily scan as would anyone else.

#### Paralympic Considerations

The level of security for the Paralympic Games is determined after a threat assessment study made from the security forces of the Host Country. The provisions specified above apply for the Paralympic Games.



Due to the composition of the residents of the Paralympic Games (up to 1,900 may use a wheelchair), the operational gates in every village entry should be doubled, compared to those existing for the Olympic Games.

### **Reference**

Chapter – Technical Specifications ([Access and Circulation](#))

[Chapter – Training for Accessibility](#)



### 3.25. Sport

Sport is the central focus of the Games. The priority for all Functional Areas is to provide the necessary support for the Athletes and the Sports Competitions at the Olympic and the Paralympic Games. Sport is a key function within the venue team. Sport embraces competition for all sports in co-operation with the IFs plus training and other support services, e.g., ORIS/PRIS, Sports Equipment, Sports Publications, Competition Schedule, Technical/Games Officials and Sport Volunteers.

#### Accessibility Provisions

It is recommended that Sport should make every effort that planning for sport areas takes into account Paralympic competition requirements from the early phases, in order to minimize or even eliminate transition needs.

#### Paralympic Considerations

During the entire operational planning process, Sport represents key client groups of the Paralympic Games, such as the Athletes, Team Officials, Technical Officials, and the IPSFs.

In the competition venues, an accessible pathway needs to ensure connecting the following venue areas: Athletes drop off, Locker Rooms, Warm-Up Areas, Field of Play, Mixed Zone, Doping Control, Medal Ceremony, Press Conference, Athletes Lounge and Athletes Seating. Elements such as pathways, lifts, staircases etc. need to fulfil accessibility standards.

Other requirements include:

- The accredited seating area dedicated to Athletes and Team Officials is a significant challenge, as enough accessible spots need to be provided. The number of required spots varies from venue to venue, depending on the sport. The exact min. requirements per sport can be found in the Technical Manual on Venue Design Standards. In the same manual, alternative solutions are also presented for athletes seating.
- Both low and high tables should be provided in the Athletes' Lounge in venues with sports that include athletes who use a wheelchair for competition or daily living.
- Accessible pathways should be identified from the Seating area and the Lounge to the Athletes' staging area for the Medal Ceremonies.
- Sport publications addressed to the NPCs and the IPSFs should be made available in alternative formats, upon request.

Detailed Design Standards and provisions for the sport areas of the Paralympic competition venues can be found in the "[Olympic Games Guide on Venues](#)". These include provisions for accessible toilets, lounges, seating, dressing & locker rooms, Field of Play, Warm Up Areas, Training Sites, IPSF and Games Officials work areas.



Sport is responsible, in co-operation with the IPC, to provide information to the other OCOG Functional Areas regarding estimated numbers of para athletes per sport and per type of impairment as of the qualification systems that apply for the Paralympic Games.

### ***Mobility Aids Repair Service***

A Mobility Aids Repair Service will operate in the Paralympic Village and in several competition venues. Access to those areas need to be unobstructed by any physical barrier, including ground configuration. In the Paralympic Village, the internal transport system needs to serve this facility. In the competition venues the service should be positioned within the Athletes' Preparation area.

### **Reference**

Chapter – Technical Specifications ([Access and Circulation](#), [Amenities](#))

[Chapter – Training for Accessibility](#)



### 3.26. Technology

Technology is typically composed of four functions:

- Information Technology (IT),  
It includes timing, scoring and results systems for each sport competition, gathering and distribution of information to the media, the broadcasters and the Olympic/Paralympic Family, specialized software programmes and/or interfaces to support the Games, computer infrastructure and support, reprographic services.
- Telecommunications (TELE)  
Its role is to provide wire line and wireless telecommunication systems to support the organization and operation of the Games.
- Energy  
Its role is to provide energy (power, gas) to support the operation and includes evaluation of the energy required, and provision of backup generators and UPS
- Venue Technology  
Its role is to prepare and manage the deployment of technology on all venues  
It includes building the concept of operations for technology on the venues and planning per venue.

#### Accessibility Provisions

Technology needs to provide the solutions that will enable access to the information, the event experience and communication means. In co-operation with the appropriate OCOG FAs, Technology should cater or assist for:

- Production of publications in alternative formats (audio, large print etc.);
- Accessible telephone booths and telephones with typing capability;
- Websites and web applications fulfilling accessibility standards (INFO System, OCOG web site);
- Hearing augmentation systems;
- Live audio description services;
- Audio information at Spectators Info Points;
- Availability of printing in Braille language (upon request);
- Facilitation of software or hardware needs to allow effective work for OCOG staff with mobility or sensory limitations.



## **Paralympic Considerations**

Implementation of all the above accessibility provisions at the Paralympic Village, as the scope of accessible technology needs there are significantly higher than during the operation of the Olympic Village (such as screen reading software for computers in the internet café).

It is strongly recommended that the basic infrastructure for these provisions is already installed prior the opening of the Olympic Village, in order to minimize the scope of transition.

## **Reference**

Chapter – Technical Specifications ([Publications and Communications](#))



### 3.27. Ticketing

Ticketing is responsible for the sale and distribution of all tickets to Olympic and Paralympic events. Ticketing will affect the overall image of the Games, as it is the most tangible link between the Games and the public at large. Ticketing is one of the main outlets for the general public to obtain an Olympic and Paralympic Experience. It is therefore essential that this functional area has a client service orientation.

#### Accessibility Provisions

Access to the Games and an equitable event experience should be available for every individual that wishes to attend the Games. Ticketing to plan processes and procedures so that this principle is observed for all.

Therefore, Ticketing needs to implement inclusive policies and practices that will allow this access. These are:

- In the pre-Games period ensure that ticket applicants who have an impairment can indicate the exact and accurate needs via the ticket application documents and processes, in all phases.
- Ticket Guides should be made available upon request in alternative formats, for people with visual impairments. A ticketing web site needs to fulfil the respective accessibility standards.
- It is recommended that printed tickets have the data about session, venue etc in tactile format, to allow identification of data by people who are blind or have a visual impairment.
- Ticket Box Offices should have at least one service counter at a height of **850mm** with knee clearance of **750mm**, above the floor, for at least **500mm** of counter. No step or other obstacle should prevent access in front of or in queuing area of the merchandising outlets.
- In co-operation with other OCOG FAs (Overlays, Venue Operations etc.) Ticketing needs to secure wheelchair accessible seating at an overall rate of not less than 0.50% of venue's gross capacity and in all different categories of tickets' prices, to allow for free and wide choice. Companion seating should be provided next to the accessible seating positions in the same rate.
- Venue Ticketing Management needs to identify a number of enhanced amenity seats in addition to wheelchair positions. These should be equitably distributed and located at the ends of rows and up or down as few steps as possible. These seats may be used for the needs of people with a temporary injury, elderly, pregnant women or other beneficiaries of an accessible environment. Such seats should be kept out of the sales system.
- Venue Ticketing Management needs to be aware of the seats where a hearing augmentation system operates, in order to properly direct who are deaf or have a hearing impairment.

As the FA that has a leading role in the planning for Accredited Seating, Ticketing needs to co-ordinate related FAs in accessible seating allocation for each accredited group.



Ticketing needs to take adequate measures in order to ensure that there is no discrimination among ticket holders based on impairment. In past Games complaints that attracted adverse Media included:

- Lack of a ticket booklet produced in alternative format;
- Accessible seating not provided across the whole range of ticket categories;
- Lack of a free ticket to a carer (not a companion) who was essential to assist a person with an impairment with enhanced support needs who paid full price.

### **Paralympic Considerations**

The wheelchair accessible seating needs to rise in a rate of up to 1.2% of venue's gross capacity in competition venues for Paralympic sports with athletes who use a wheelchair for competition or daily living.

The demand in accessible seating in the Accredited Seating areas is much higher than in the Olympic Games, especially for the Athletes/Team Official, Games Officials and Paralympic Family.

For both the sport-by-sport definition of spectators' accessible seating rate for the Paralympic Games and the demand for accessible seating for each constituent group please refer to the [Olympic Games Guide on Venues](#).

The Paralympic Opening and Closing Ceremony is considered as a high demand event for accessible seating. For these events, accessible seating needs to be maximized.

### **Reference**

Chapter – Technical Specifications ([Access & Circulation](#), [Venue Seating](#))

Chapter – Games Requirements ([Competition Venues](#))



### 3.28. Transport

Transport is responsible for land transport planning and operations for the Olympic and the Paralympic Games. Its primary mission is to provide safe, efficient, reliable and on-time movement of all members of the Olympic and Paralympic Family (athletes, media, IOC/IPC, NOC/NPC, IF officials, sponsors, invited guests, staff, workforce and volunteers) during the Games period. This responsibility includes the transport of all these user groups to and from all competition and non-competition venues.

Typically a different transport system is used for various client groups:

- Athletes and Team Officials (buses)
- Technical Officials (vans and buses)
- Olympic/Paralympic Family (cars and vans – usually called T1 and T3)
- Media (buses)
- Workforce (dedicated buses and public transport).

Transport of spectators to and from Olympic and Paralympic competition venues is an additional operation, as hundreds of thousands of spectators and accredited persons have to be transported every day of the Games, generating huge concentrations of traffic.

#### Accessibility Provisions

With the exception of the athletes all other constituent groups of the Olympic Games include people with an impairment. For this reason accessible transport must be offered in all the “systems” mentioned above.

However, as the demand for accessible transport is expected to be higher in all categories at the Paralympic Games it is recommended that Transportation procures resources and plans according to the higher demand of the Paralympic Games (see below).

Accessible transport for spectators is mainly a responsibility of the respective public authorities. For such provisions please refer to Chapter The Journey to an Accessible & Inclusive Host City and Games of this Guide ([Transport](#)) and Chapter Technical Specifications (design standards for [Transportation Means](#)). However, OCOG Transportation should liaise closely with public authorities in terms of accessible public transport and transfer information related to Games constituents.

It should be noted that low floor buses should be the main type of bus considered for both Olympic and Paralympic Games as these type of buses are not only universally accessible, but also allow large amount of passengers to get onto and off of the bus efficiently and safely without negotiating steps.



## **Paralympic Considerations**

The OCOG needs to procure and organize adequate resources in order to provide effective accessible transportation to the constituent groups. For each one of these group that means:

### ***Athletes and Team Officials (buses)***

For individual sports where athletes who use a wheelchair for competition or daily living may compete, all vehicles should be accessible. From past Games experiences it is recognized that the use of low floor buses is an excellent solution that allows flexibility and adequate capacity for Games time operation. The number of buses required depends on the capacity for passengers in a wheelchair and the profile of the sport.

For team sports where athletes who use a wheelchair for competition or daily living may compete, accessible dedicated buses should be allocated in each team. The number of buses allocated per team may be more than one, depending on bus' capacity for passengers in a wheelchair.

In both cases, co-operation between Transport and Sport is required in order to determine the actual demand, according to factors such as the training and competition schedules, the profile of the sport, data on participating athletes etc.

### ***Games Officials (vans and buses)***

Transport, in co-operation with Sport, should determine the number of Games Officials that use a wheelchair and allocate adequate resources. Although it is preferred that all system is accessible, OCOG may decide to allocate customized resources according to needs, subject to approval by the respective IPSF and the IPC.

### ***Olympic/Paralympic Family (cars and vans – usually called T<sub>1</sub>, T<sub>2</sub> and T<sub>3</sub>)***

For accredited individuals with T<sub>1</sub> and T<sub>2</sub> entitlements, a survey is required to determine whether an accessible car needs to be allocated.

For accredited individuals with T<sub>3</sub> entitlements a pool of accessible cars/vans is required, in a ratio 1 for every four individuals. Data for number of this category should be captured via the accreditation system.

### ***Media (buses)***

Ideally, all media transport system (typically called TM) should be accessible. Alternatively, a car/van pool of dedicated accessible vehicles should be arranged for those media representatives that use a wheelchair.

### ***Workforce (dedicated buses and public transport)***

A total of 3-4 parking spots should become available in the operational parking of each venue for members of the workforce with an impairment, no matter of their job title and function. In case of venues not being adequately served by public transport and OCOG sets in place a workforce transport system, part of the resources needs to be accessible.



In the venue level, in all transport stations, and load zones, parking areas, signage etc. easy loading and unloading of passengers who use a wheelchair should be provided. Such standards may be found in Chapter - [Technical Specifications](#) of this Guide plus in the [Olympic Games Guide on Venues](#) about transportation in a competition venue.

## Reference

Chapter – Technical Specifications ([Access & Circulation](#), [Transportation Means](#))

[Chapter – Training for Accessibility](#)

Chapter – Games Requirements ([Competition Venues](#), [Non-Competition Venues](#))

[Chapter – The Journey to an Accessible & Inclusive Host City and Games](#) (Transportation)



### **3.29. Venue Operations**

Venue Operations manages the venue-level integration of internal OCOG functions and all external party involvement at all competition and key non-competition venues.

Venue Operations leads the planning process and the implementation of the plans and policies, ensuring quality and consistency in line with the OCOG's policies and requirements.

The venues are ultimately managed by the venue-specific Venue Managers who is accountable for coordinating the overall operation of the venue.

#### **Accessibility Provisions**

Planning for accessibility is not identical to planning for the Paralympic Games. Effective planning to accommodate the needs of persons with an impairment is an Olympic issue as much as a Paralympic issue. Thus, accessibility planning should be addressed in all phases of venue design, development and operational planning.

The role of Venue Operations in planning for and finally implementing accessibility is critical, as they lead the operational planning and all the resources of the venues.

A key consideration is to ensure in the planning phase that CAD drawings adequately depict accessibility elements. This will allow operational planning to monitor the constituent flows and ensure that access for people with an impairment is efficient throughout the venue and also assist in identifying the accessibility overlay requirements as highlighted in this Guide.

The Venue Managers at Games-time need to ensure that plans are properly implemented. Under their leadership a thorough assessment of accessibility compliance needs to take place with the FAs that represent the various client groups, in order to verify adequacy of provisions.

#### **Paralympic Considerations**

Although as said before, accessibility is a Games-wide issue, the organization of the Paralympic Games presents unique challenges because of the scope of constituents with an impairment that participate, especially athletes and Paralympic Family members.

For this reason, an effective operational planning process for the Paralympic Games includes a thorough evaluation of the adequacy of the accessible infrastructures. For example, ensuring that venue evacuation plans adequately address the evacuation of the large number of wheelchair users that will be present during the Paralympic Games. For this task OCOG may seek sufficient expertise (either within the FA or via external consultants) with experience in Paralympic integration and accessibility planning.



It is recommended that Venue Operations lead an audit team, which will oversee the Paralympic operational planning, in the pre-Games period, with operational accessibility according to real demands as a primary focus. Venue Operations will also have to work closely with Overlays & Site Management as well as the IPC to facilitate an assessment of accessibility compliance during the transition period.

## **Reference**

Chapter – Technical Specifications ([Access and Circulation](#), [Amenities](#))

[Chapter – Training for Accessibility](#)

Chapter – Games Requirements ([Competition Venues](#), [Non-Competition Venues](#))



### **3.30. Village Operations**

Villages Operations is responsible for planning and operating the housing of athletes and team officials in the Olympic and Paralympic Village (providing accommodation, catering and leisure facilities). Other villages may be established if needed to accommodate other constituent groups, which typically might include media villages, technical official villages and/or a grooms' village.

Villages Operations ensures that the athletes and team officials have a great Village experience and live in safe, well protected, comfortable residential accommodation, with excellent services, so that they have every chance of giving their best in competition.

#### **Accessibility Provisions**

Accessibility planning should be addressed in all phases of Village design, development and operational planning. Village Operations will lead the operational planning and all the resources of the venues, thus its role is critical for first plan for and finally implement all necessary accessibility features in the Village.

Although the accessibility in the Village is mainly needed for the Paralympic period, it is important that the vast majority of infrastructures and overlays are already installed prior the opening of the Olympic Village, in order to minimize transition changes.

#### **Paralympic Considerations**

Planning for accessibility for the Paralympic Village presents unique challenges because of the scope of constituents with an impairment that will be accommodated there, namely Athletes, Team Officials and potentially Games Officials.

Effective operational planning process for the Paralympic Village requires sufficient expertise (either within the FA or via external consultants) with experience in Paralympic residents' needs.

In the section for the Olympic and Paralympic Village of the current chapter, there is detailed information about accessibility provisions for the Village(s).

#### **Reference**

Chapter – Technical Specifications ([Access and Circulation, Amenities](#))

[Chapter – Training for Accessibility](#)

Chapter – Games Requirements ([Olympic and Paralympic Villages](#))



### 3.31. Torch Relay

Torch Relay is responsible for the planning and implementation of the Olympic Torch Relay (domestic part) and for the Paralympic Torch Relay.

It aims to make the torch relay a tool that will enhance awareness and excitement about the Games, promote the Olympic values and engage the whole of the Host Country to the Games.

#### Accessibility Provisions

Torch Relay needs to ensure that persons with an impairment of any kind and level are equally eligible to participate in the torch relay as torchbearers. In order to do that, provisions need to be made in both the application/selection process and the operational period.

Considerations include:

- Applications should be open to all citizens without discrimination of any kind. During selection and nomination, citizens with an impairment should be selected as torchbearers, to demonstrate equal rights and integration society.
- Torchbearers should have the opportunity to make any necessary modifications to the uniform prior to their segment, if so required due to physical condition
- Some torchbearers may require the assistance of a guide and/or assistant in order to participate.
- Route considerations for torchbearers with an impairment should include gradient (to allow a person in a wheelchair or other mobility difficulty to perform their duty independently and with dignity), as well as access to kerb cuts.
- Holding devices need to be created for torchbearers in a wheelchair, so that the torchbearer is able to independently push the wheelchair, while carrying the torch.
- An accessible van should be available throughout the journey of the flame, to facilitate distribution of torchbearers with an impairment for their segment.

An enhanced level of disability awareness training is recommended for Torch Relay staff to enhance the experience and ensure the most positive participation of people with impairments in the Relay.

#### Paralympic Considerations

The above provisions equally apply for the Paralympic Torch Relay. As the percentage of persons with an impairment among the total of torchbearers will increase, adequate resources (e.g. holding devices, accessible vans) should become available.

#### Reference

Chapter – Technical Specifications ([Access and Circulation](#), [Amenities](#), [Publications and Communications](#))

[Chapter – Training for Accessibility](#)



### **3.32. Mobility Services (Games Mobility)**

The mission of Mobility Services is to deliver a high quality access and mobility service for spectators with permanent or temporary mobility impairments to use in the Common Domain and selected venues at Games-time enabling them to have full independent access to the Games experience.

#### **Objective**

To provide a bridging service designed to provide assistance with the movement of spectators with limited mobility from transport drop off points, through the large public circulation areas and around Olympic and Paralympic venues.

#### **Potential Service Users**

Games Mobility provides services to a wide range of people with an impairment, including people who use wheelchairs, people who have a visual impairment, people who have a hearing impairment and people who have a mobility impairment.

Games Mobility also provides this service to other groups, in particular people with a temporary injury, (sprained ankle, and fractures) pregnant women, people with unusual body size and older people.

So as not to exclude certain spectators from using this service, it may be useful to describe the whole customer group as people with reduced mobility.

It should be noted that Games Mobility will not be used by all spectators who have an impairment (e.g. it is likely that the majority of spectators that have booked wheelchair spaces and bring their own wheelchairs will not require the service).

#### **Recommendations**

- OCOGs should provide this service to all people with a mobility impairment.
- OCOGs should promote the use of the service by all people with a mobility impairment not just those who consider themselves to have an impairment.

#### **Scope of Services**

While the service is useful in every venue, it is essential to be provided where it is most needed, such as at venues where the distance from public transport stations and parking areas to the venue is significant. This is the case that applies in an Olympic Park, its main stadium, the common domain and adjacent sporting venues. The OCOG needs to determine in which additional venues mobility services are to be provided at other or all venues. It is therefore essential to carry out research and consultation in order to determine whether other additional services are required to make both the Olympic and Paralympic Games truly inclusive.



It is important to offer a range of mobility services to customers with reduced mobility. The following services are the core services, which are integral to a successful Games Mobility service.

#### ***Loan of Manual Wheelchairs***

This service provides for the short-term loan of manual wheelchairs on the day of event only, to enable ticketed spectators to move around the Common Domain and to get to their seats more easily. It is presumed that spectators will self-propel or be assisted by friends or family members. Where necessary, volunteer staff can assist.

#### ***Loan of Power Wheelchairs or Powered Scooters***

This service provides for the short-term loan of power wheelchairs or scooters on the day of event only, to enable ticketed spectators to move around the Common Domain and get to their seats more easily. Volunteer staff may provide training in the safe use of the equipment.

#### ***Guide for Visually Impaired Spectators***

This service provides volunteer staff, trained in guiding techniques and disability awareness, who can guide ticketed spectators with a visual impairment to their seats.

#### ***Guide for People Loaning Manual Wheelchairs***

This service provides volunteer staff, trained in guiding techniques and disability awareness, who can guide ticketed spectators using wheelchairs to their seating positions.

#### ***Golf Buggy Transfer***

This service provides all potential customer groups with easy transfer from the "Games Mobility Centre" to venue entrances and return by golf cart. Trained volunteers drive the golf buggies.

#### ***Recommendations***

- OCOGs should ensure a Games Mobility service is provided to serve, the common domain and adjacent sporting venues.
- OCOGs should ensure Games Mobility provides the five core services to enable an inclusive Games experience for all mobility impaired spectators.
- OCOGs should carry out research and consultation to determine whether any additional services are required.

#### **Staff**

Games Mobility staffing levels should reflect the anticipated number of services to be provided and the size of the geographical area covered and should include Games Mobility Assistants, Games Mobility Team Leaders and Games Mobility Managers

#### ***Recommendations***

- OCOGs should ensure Games Mobility is provided with sufficient staff numbers and an appropriate reporting and management structure.



## **Equipment**

It is vital to ensure that there is a variety of mobility equipment for customers to use. This should include a variety of powered units (scooters and powered wheelchairs) and also self-propelled manual wheelchairs.

Golf buggies, driven by trained Games Mobility staff, are an essential tool for this service. A dedicated fleet of golf buggies enable the speedy transportation of large numbers of spectators with reduced mobility and are preferred by many customers who are uncomfortable with the idea of using a wheelchair.

In addition to the above, self-reliant use of equipment, such as electric scooters, should be available to hire.

### ***Recommendations***

- OCOGs should carry out research to determine appropriate service equipment is procured for the personal hire/loan service.
- OCOGs should also ensure Games Mobility has its own dedicated fleet of golf buggies.

### ***Staff Training***

- Equipment Training – The different types of equipment provided & how to operate; Showing customers how to operate; Health and Safety of equipment use; Physical practice session;
- Escorting People with a Visual Impairment – How to provide a guide service for people with a visual impairment;
- Escorting People Using Wheelchairs - How to provide a manual wheelchair escort service;
- Games Mobility Procedures Familiarisation - How the booking system works; Checking in; Service Procedures and process; Communications; Unloading/storage of kit;
- Games Mobility Terminology and Etiquette – Disability Awareness; Appropriate terminology; guidance on accessible facilities etc.;
- Generic Training – Introduction to Event Services; Health & Safety; Accreditation; Customer Care; Radios; Golf Carts.

### ***Recommendations***

- OCOGs should ensure Games Mobility establishes a comprehensive training package for all staff.
- OCOGs should ensure all Games Mobility training is set within the context of other Games wide training modules.



## **Exclusions**

Games Mobility equipment is not for use for any activity other than those related to a spectator visit to the Games. Therefore the service should operate within a clearly identified secure geographical area.

Games Mobility staff does not physically lift spectators who have an impairment into or out of wheelchairs or seats for insurance and health and safety reasons.

Games Mobility is not a personal care service and cannot provide assistance with spectators' personal hygiene, feeding or medication.

Games Mobility is not a substitute for functional areas implementing inclusive operational procedures. Rather, this service complements the operational procedures that Event Services put in place to assist people with reduced mobility of any kind.

Games Mobility is not a service for medical emergencies.

## ***Recommendations***

- OCOGs should be clear about those areas where Games Mobility cannot offer a service and this should be conveyed to all potential service users as well as to all other functional areas.

## **Location and Parking**

The Games Mobility Centre should be located close to the main spectator transport hub to enable smooth and easy transition from public transport to Games Mobility services. Integrating Games Mobility into mainstream transport planning ensures a seamless service for spectators and is the hallmark of an inclusive approach.

This will ensure that potential customers do not have to travel far from transport drop to the Games Mobility Centre and that Games Mobility Assistants can be prompt in providing a temporary transfer service through Mag & Bag.

It is important to ensure that Games Mobility has its own dedicated parking close by. Parking can be pre booked along with equipment or assistance and allows for a complete, seamless service to operate enabling mobility impaired spectators to arrive comfortably and without travelling excessive distances.



It is essential for the Games Mobility service to be located within the Common Domain inside the secure zone of the area it serves. This ensures:

- That the equipment is not used for any activity other than those related to a spectator visit to the Games.
- Security of expensive equipment during and outside event times.
- Security of management staff when in the office during early and late hours.
- Proximity to mains electricity, which is needed for re-charging equipment and lighting storage container.
- A reduction in trips times, as equipment and Games Mobility Assistants providing escorts, do not need to continually pass through Mag & Bag.
- Proximity to potential Games Mobility customers who have already entered the Common Domain and have realised that they need some assistance.
- A fixed Games Mobility Centre removes the need to pack and un-pack the office and reception area each day, which would lengthen shift times and put more physical exertion demands on an already physically demanding service.

#### ***Recommendations***

- OCOGs should ensure that Games Mobility has permanent, readily identifiable location, within the secure perimeter.
- OCOGs should ensure that Games Mobility has its own dedicated parking for its customers.
- OCOGs should ensure that Games Mobility parking is within 50m of its location.

#### **Accreditation**

Although based in the Common Domain, Games Mobility services also operate inside venues, taking customers to their seat where necessary. Therefore, it is essential that all Games Mobility workforces be provided with appropriate accreditation (with multi-venue access or infinity).

While the main operation of the Games Mobility service will be in public areas, there will be occasions where back of house access and access into other accredited areas will be needed for the rapid transfer of equipment/staff or to accompany spectators in wheelchairs through areas when access via the official spectator channels is unavailable for any un-scheduled reason.

#### ***Recommendations***

- OCOGs should provide Games Mobility staff with adequate number of upgrade passes to allow for flexible, fast and efficient service.



## The Journey to an Accessible & Inclusive Host City and Games

In this part of the Guide there is a detailed presentation of the key principles and the main elements that a city which is bidding or has been selected to host the Olympic and the Paralympic Games should already have or should be committed to create in order to ensure accessible and inclusive Games for all stakeholders and lasting benefits for its citizens.

There are two main notions underlying this chapter:

### **Equitable Games Experience**

The Games is not only about the venues and the events. The Host City needs to ensure that every resident of the city and every visitor have the opportunity to participate and enjoy the “Games experience”. In order for this to be possible the conditions that form barriers need to be removed. Such barriers may not be only architectural; attitudinal, political, economical and educational barriers may as well affect an individual’s chances to enjoy the Games experience. Ensuring the principles of this Guide are met will go a long way towards eliminating these barriers before they arise.

### **A Culture of Inclusion**

The principles, solutions and practices used to make the Host City accessible will create a culture of inclusion, which will be reflected in the way all Games-related infrastructure and services are to be designed and implemented.

### **Commitment to Creating an Accessible and Inclusive Environment**

This chapter will set objectives to be reached in the lead up to the Games for any city that wishes to stage the Games. In the middle term these objectives may be completed by a set of related indicators.

The potential Host City will need to demonstrate a commitment in creating an accessible and inclusive urban environment for all. This commitment may have the form of a strategic or action plan for accessibility, describing how global targets related to accessibility and inclusion will be reached.



## References in the UN Convention on Rights of Persons with a Disability

The UN Convention for the Rights of Persons with a Disability includes several articles that are related with the guidelines provided in this chapter. The most important among them are the following:

- Persons with impairments should be able to live independently, to be included in the community, to choose where and with whom to live and to have access to in-home, residential and community support services (Article 19).
- Personal mobility and independence are to be fostered by facilitating affordable personal mobility, training in mobility skills and access to mobility aids, devices, assistive technologies and live assistance (Article 20)
- Access to information must be promoted by providing information intended for the general public in accessible formats and technologies, by facilitating the use of Braille, sign language and other forms of communication and by encouraging the media and Internet providers to make on-line information available in accessible formats (Article 21)
- Equal access to primary and secondary education, vocational training, adult education and lifelong learning must be provided. Education is to employ the appropriate materials, techniques and forms of communication. Pupils with support needs are to receive support measures, and pupils who are blind, deaf and deaf-blind are to receive their education in the most appropriate modes of communication from teachers who are fluent in sign language and Braille. Education of persons with impairments must foster their participation in society, their sense of dignity and self-worth and the development of their personality, abilities and creativity (Article 24)
- To enable persons with impairments to attain maximum independence and ability, countries are to provide comprehensive habitation and rehabilitation services in the areas of health, employment and education (Article 26)
- Persons with impairments have equal rights to work and gain a living. Countries are to prohibit discrimination in job-related matters, promote self-employment, entrepreneurship and starting one's own business, employ persons with impairments in the public sector, promote their employment in the private sector, and ensure that they are provided with reasonable accommodation at work (Article 27)
- Countries are to promote participation in cultural life, recreation, leisure and sport by ensuring provision of television programmes, films, theatre and cultural material in accessible formats, by making theatres, museums, cinemas and libraries accessible, and by guaranteeing that persons with impairments have the opportunity to develop and utilize their creative potential not only for their own benefit, but also for the enrichment of society. Countries are to ensure their participation in mainstream and para sports (Article 30).



## Contents

This chapter contains the following topics:

Topic	See Page
1. Transport .....	202
2. Public Services and Facilities .....	207
3. Tourism .....	215
4. Culture, Entertainment and Leisure.....	223
5. Sport.....	227
6. Education .....	232
7. Employment.....	236



## 1. Transport

This section highlights the main elements of a public transport system that allows seamless transportation for all residents and visitors of the city. In the context of the Games such system will enable spectating athletes, team officials, technical/Games officials, members of the Olympic and Paralympic Families, visiting spectators and domestic spectators to move freely among the venues and experience to the full extent what the city has to offer.

The main notion of a truly accessible transport system is to be a “Universal Accessible Transport System”, where accessibility is inbuilt in the system rather accessible solutions are provided as a solution to serve certain citizens or visitors. In such system the majority of vehicles are accessible and use of specialized type of vehicles is minimized.

Accessible transport should also provide links from the main area of the city to and around key tourist and visitor attractions and shopping areas.

Accessible transport encompasses all forms of transport and requires each to provide a clearly defined link to the other.



## 1.1. Definition and Scope of Accessible Transport

### Definition of Accessible Transport

Accessible transport allows ALL people who require transport to be able to use it with equity, functionality and independence. Where this cannot be achieved communications must be provided to detail the specific operations that are accessible e.g. every second bus is accessible.

### Modes of Accessible Transport

Accessible transport encompasses all modes of transport within the city and its surrounding area, such as:

- Road transportation (buses, taxis, cars)
- Rail transportation (light rail/trams, trains, train stations)
- Air transportation (airports, Domestic and International airlines)
- Maritime transportation (ports, ferries, water taxis, cruise-liners)

Accessible transport must encompass state owned and private transport providers to ensure complete coverage.

### Principles of Operation

Accessible transport providers must operate so that

- Accessible transport timetables are clearly available.
- Communication mediums e.g. websites and telephone hotlines are accessible.
- Transport staff is trained in the needs of people with an impairment and are aware of their needs and limitations of some services.
- Differing transport providers who link with each other are able to get a person with an impairment to their destination seamlessly.



## 1.2. Types of Accessible Transport

The following highlights the differing types of accessible transport and the characteristics they need to have in order to be considered accessible. The technical specifications for doorway width, heights, corridors, toilets, signals, signage etc are highlighted within the technical specifications of this Guide in Chapter - [Technical Specifications](#).

### Cars & Taxis

An inventory of accessible cars and/or mini vans is required to become available for the needs of the Olympic Games and, in a much greater scope, for the needs of the Paralympic Games.

The Host City needs to ensure availability of a pool of accessible taxis and accessible passenger vehicles/vans are available for hiring.

The accessible cars for the Games and the public should fulfill the standards specified in Chapter - [Technical Specifications](#).

### Buses & Coaches

The transport systems for the constituents of the Games need to be accessible, to a scope appropriate for the needs of each event.

The accessible buses fleet for the Games and the public should

- Have a low floor chassis and lowering mechanism that allows them to link with a pedestrian kerb without steps being negotiated (Primary type of vehicle).
- Have a small number of buses that have a wheelchair platform lift that takes the person from the pathway up into the coach or bus (Secondary type of vehicle).
- Have an accessible seating capacity that fits the needs of the client groups indented to serve.

The accessible buses and coaches for the Games and the public should fulfil the standards specified in Chapter - Technical Specifications of this Guide, section about [Transportation Means](#).

### Trains, Light Rail and Tram

The transportation means of standard route trains of the city are critical for the efficient delivery of the Games.

Every individual must be able to use such transport means. For this to be achieved stations, platforms and carriages need to be accessible.

The conditions and technical specifications that make transport with train, light rail and tram accessible are specified in Chapter - [Technical Specifications – Transportation Means](#).



### **Water Ferries/Cruise lines**

The Water ferries/Cruise line services (if existing) of the city should cater for all potential passengers. Such requirements extends to infrastructures and amenities provided at the ports and terminals, as well as at the vessels.

The conditions and technical specifications that make maritime transport accessible are specified in [Technical Specifications – Transportation Means](#), of this Guide.

### **Airlines and Airports**

Ability to travel by air is a key parameter for equal opportunities and inclusion in professional and social activities. People with an impairment and other individuals with accessibility needs, very often experience challenges when the try to travel by air. These can include:

- Lack of an aisle wheelchair on board the aircraft;
- Accessible toilet on board the aircraft;
- Staff with no knowledge as to how to appropriately assist a person;
- Poor mobility aid storage that limits efficient retrieval.

No barriers, physical or procedural, should prevent any person from travelling.

The conditions and technical specifications that make air transport accessible are specified in [Technical Specifications – Transportation Means](#), of this Guide.



### **1.3. Operations for Accessible Transport**

The following highlights a number of key operational considerations for accessible transport. The majority relate to how people with an impairment are able to gain information prior to travel, ensure they use the right accessible transport for their travel and get appropriate assistance from the transport operators. Below, the key initiatives are presented:

#### **Clear Timetable**

Where existing (inaccessible vehicles) are still in operation with accessible rolling stock ensure the timetabling of accessible transport is clearly marked.

#### **Define Capacity**

Definition and optimization of the transport capacity for wheelchair users is important for any planning activity.

#### **Communication Means**

Develop communication mediums e.g. websites and telephone hotlines that are accessible. Websites need to be assessed to ensure they are compliant to W3C guidelines and telephone operators need to be able to accept calls from people with a hearing impairment e.g. availability of a TTY.

#### **Staff Training**

All transport staff should be trained in the needs of people with an impairment and are aware of their needs and limitations. Services should include:

- Accessibility terminology
- Accessibility categories
- Accessible vehicle summaries
- Proper use of mobility-specific equipment (such as lifts, tie-downs, etc)
- Appropriate service delivery to people with an impairment

#### **Information Provision**

Develop a “one stop shop” for accessible transport information to ensure the differing transport providers are able to link with each other to ensure a person with an impairment can efficiently and seamlessly get to their destination.



## 2. Public Services and Facilities

Public services and facilities include Live sites, tourist attractions, public spaces, shopping areas and mobility centres. These Services and other resources provided to the broader community should be available to the all citizens and meet the needs of the widest possible array of potential users regardless of age, size, educational levels, functional abilities etc.

For a city to be ready to host the Games access to public services and related provisions should be an asset available to all people.

It is not enough that a given Venue is accessible to people with an impairment, seniors and older adults. The Games' Experience relies on a positive connection to the Host City both as a facilitator of all things and as a destination in its own right.



## 2.1. Pathways, Sidewalks and Connecting Routes

### Key principles

All users of public services and facilities, whether they are people with an impairment or not, rely on connecting pathways/sidewalks for safe, practical linkage to the venues and features of the city. An accessible path of travel is required to provide an uninterrupted route to or within a building, providing access to all facilities. An accessible path cannot contain any barrier that would prevent it from being safely and confidently negotiated by people with an impairment.

If barriers to people with an impairment are not minimized here, then improvements made in the other areas lose their significance. Pathways, sidewalks and connecting routes should be accessible to people with physical, sensory and/or intellectual impairments

### Accessible Pathways/Sidewalks

Pathways should meet the needs of all users including people with a mobility impairment and/or people with a visual impairment. Exterior routes should provide:

- Kerb ramps at every intersection that includes tactile wayfinding information and common identifying features;
- Audible crossing technology high volume intersections to assist people with visual loss;
- An accessible path of travel that has appropriate widths, gradients, surfaces, lighting and signage.

Interior aisles should be maintained at accessible widths and clearances and be free of obstacles.

### Characteristics of an Accessible Pathway

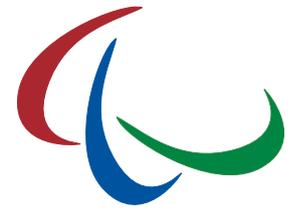
The main characteristics of an accessible pathway are:

- Wide enough in high volume areas to allow two wheelchair users to pass; provide flush transitions along its entire length; exclude any obstacle including portable signage, steps, stairways, turnstiles, revolving doors, escalators or other impediment that could prevent it from being safely and independently negotiated by people with a mobility impairment;
- Minimize tripping and falling hazards. Paths are separated from adjacent landscaping features by small kerbs or other barrier to prevent people using canes, crutches or wheelchairs from inadvertently slipping off the pathway into gardens etc;
- Have rest stops, which are extremely important for people using canes or crutches. Bench seating set off the main pathway and marked with a change in surface materials needs to be provided along all exterior routes.
- Any fixed items located on the pathway surface are in a contrasting colour and be cane detectable;
- Have clear headroom space across the entire width and length of the pathway for the safety of people with vision problems;



- Have textural, high contrast wayfinding treatments on pathways, which are very beneficial for people with visual impairments (among many others) and therefore need to be incorporated in the pathway design as a part of the signage package/approach;
- Use fixtures mounted below eye level, in addition to standard lighting approaches. This will provide better definition of ground surfaces and minimize glare. Steps and stairs need to be lit by low fixtures to highlight the stair tread and riser surface;
- Have any exterior stairs treated the same as interior installations. High contrast, non-slip nosings, tactile warning strips, and conforming handrails are required on all exterior stair designs.

Detailed specification and design standards of the various elements of an accessible pathway can be found in Chapter - [Technical Specifications](#) of this Guide.



## 2.2. City Parks and Outdoor Recreational Areas

### Key Principle

Outdoor recreational areas are a key component of what a city has to offer to its visitors and residents. The city needs to ensure that parks and outdoor areas respond to the needs of extended families and those where one or more family members are a person with an impairment. Very frequently it is difficult for most such families to find accessible, family recreation. Inclusion of people with an impairment in outdoor spaces, activities and events is an integral part of the design. Access to outdoor areas needs to come from accessible pathways, appropriate kerb ramps at each intersection and an expectation by planners that parks and outdoor facilities will be used by the whole community. This includes accessible play equipment, drinking fountains, Barbeque areas and access to seating and tables.

### Parks and Outdoor Recreation

Parks and outdoor recreational areas need to provide at least basic physical access. Basic physical access to parks includes consideration for people with a mobility impairment as well as support for people with a visual impairment. Intuitive wayfinding techniques will assist people with a cognitive or other intellectual impairment as well as assist all other users, everyday.

### Characteristics of an Accessible Park or Outdoor Recreation Facility

- Pathways need to meet the requirements for pathways laid out in Pathways, Sidewalks and Connecting Routes referenced before.
- Playground equipment/areas accommodate both children with an impairment and a supervising adult with an impairment.
- Concession stands and other service counters meet universal design principles for counters.
- Swimming and wading pools safely accommodate people with an impairment with transfers, change facilities, wayfinding and emergency evacuation and procedures.
- Bleachers or other view/seating areas provide basic physical access for people with a mobility and people with a visual impairment as a minimum.
- Washroom facilities include at least one unisex accessible washroom.

Detailed specification and design standards of the various elements of an accessible outdoor recreation facility can be found in Chapter - [Technical Specifications](#) of this Guide.



### 2.3. Retail and Small Goods & Beverage Outlets

(Excluding Restaurants)

#### Key Principle

Retail and food & beverage outlets outside of venues are an integral part of the visitor's Host City experience. Welcoming environments are created with clear menu displays (including a number of hand held versions) counters that are accessible to wheelchair users, aisles that are wide enough for people with a mobility impairment and disability awareness training for front line staff.

#### Retail and F&B Outlets

Access for people with mobility impairment should be provided in all outlets from kiosks to large storefront locations (see also Tourism – Restaurants).

#### Characteristics of Accessible Retail and F&B Outlets

- Minimum aisle and line up widths for wheelchair users;
- Aisles kept clear of displays, clutter and turnarounds at the end of each aisle;
- An integrated counter design that incorporates universal design principals at the point of sale as part of the main service area to accommodate all users;
- Knee space under cash/service counters that permits wheelchair users to face the clerk and complete transactions;
- Stocking shelves vertically to ensure that some of each product is available to all levels of range of motion;

Disability awareness training for all front line staff.



## 2.4. Signage and Wayfinding

### Key Principle

Appropriate signage and wayfinding is critical to all people. Wrong turns, missed locations and the absence of distance indicators can conspire against people least able to travel long distances. Good directional signage and wayfinding can help overcome access problems.

### Signage and Wayfinding

Effective signage and wayfinding needs to be legible for people with visual impairments and others people with an impairment and carry key pieces of information for people with an impairment such as distance indicators. Using internationally recognized pictograms as well as plain English language (in addition to the local one) is a necessity. Consistent floor treatments can provide people with a visual impairment with important information. For example, bleacher seating and rest areas should share common surface colour and texture.

Tactile and colour/tonal wayfinding information in the flooring/ground surface is an inexpensive, low tech – low maintenance way of guiding people to and around a site.

In recent years tactile hazard are being widely used. However, such indicators should be used at places of hazard only i.e. roadway crossing, train platforms, vehicle set downs. It should be noted that lighting, grip and colour indicative striping on stairs and colour and texture use are just as important.

In addition to people with mobility and/or visual impairments, this type of wayfinding can be very helpful to people whose language skills may not include the local language and therefore get little help from conventional signage. Utilizing this technique in a creative and attractive way will provide important information to users and assist those people who are unable to effectively use signs/directory maps.

### Design Standards of Accessible Signage & Wayfinding

Detailed specification and design standards of the various elements of an accessible signage can be found in Chapter - Technical Specifications - [Publications and Communications](#), of this Guide.



## 2.5. Emergency Systems and Response

### Key Principle

The key to accessible emergency services is planning. Service providers should recognize that there is a steadily increasing number of active people with an impairment in the community and ensure that all emergency planning includes an analysis of how best to serve them. Planning for evacuation, first aid and emergency procedures should include specific consideration for people with an impairment.

### Characteristics of Effective Emergency Preparedness for Everyone

Emergency planning of a facility needs to include all elements listed below:

- A visual fire alarm/strobe warning system that operates in conjunction with audible signals. This needs to be generally visible in public gathering areas, in all washrooms throughout the facility and in front of elevators.
- Fire alarm pulls and fire extinguishers are installed at an accessible height to permit wheelchair users and others to signal trouble or utilize the safety equipment.
- Doors on designated emergency exit pathways are to be equipped with power-operated doors that continue to operate in an alarm condition.
- Video/data monitors used in the facility should also communicate emergency messages to patrons.
- First Aid Rooms are able to accommodate people with an impairment as well as clients without impairments. An accessible unisex washroom should also be located in the immediate vicinity of the first aid room.
- Evacuation plans include areas of Rescue Assistance equipped with locating signage, entry doors of a contrasting colour to the surrounding surfaces and intercom or other communications device.
- Exit stairs are equipped with glow in the dark, stair nosings.
- Specific equipment is available if required to evacuate people with a mobility impairment.
- Existence of easily readable, low mounted emergency procedures and exit route maps.
- Delivery of disability awareness training for staff to facilitate safe exiting of people with an impairment.
- Response teams are aware of common health issues and conditions faced by people with an impairment and are able to provide the appropriate response.



## 2.6. Information Provision

### Key Principle

Everyone in the community has a right to all the information that is publicly available including people with a sensory and/or an intellectual impairment.

People with a sensory impairment are routinely excluded from print materials, public meetings and community events because of a lack of alternative mediums. Appropriate visual language interpreting services alternate formats for print materials (e.g. audio files or CDs), TYY telephone service etc. are cost effective ways of ensuring more people with an impairment have access to the information needed for a full Games' experience.

### Information Services for People with an Impairment

Providing information for people with sensory loss and seniors is a fundamental requirement of inclusive services and events. People with an impairment should have appropriate access to all events and information is a key element in that goal.

### Characteristics of Inclusive Information Distribution

- An accessible internet site for the Host City and OCOG activities;
- Alternative formats for all printed materials (e.g. large print or audio files);
- Appropriate visual language interpreters available for the main public events and community meetings;
- Appropriate assistive hearing devices available to support people with hearing loss at all public events and community meetings;
- TTY (TDD) service on dedicated telephone lines to main reception, operations and other key centres as required;
- Networked signage capability via video or data connection;
- Regular submissions to newsletters and magazines targeted at the community of people with an impairment.



### 3. Tourism

#### Introduction

For all Games' constituents, tourism is at the heart of their journey. Destination cities need to recognize that as the population continues to age, old assumptions about the capabilities of the average tourist should change too: tourism travel by people with an impairment and the elderly is significantly increasing. A key consideration is that people with an impairment travel with at least one or two other people as well. This further reinforces the significance of this growing market.



### 3.1. Accommodation and Hotel Services

#### Key Principle

Accommodation is a fundamental need of the whole tourist population. In the Games context, availability of adequate numbers, affordable and quality accommodation is always a challenge.

Hosting the Paralympic Games presents additional challenges as regards to accessible accommodation. At the same time though, this is matching the fact worldwide that an aging population is asking quality tourism accommodation.

Hoteliers and other providers should anticipate the needs of a steadily increasing number of people with mobility/agility impairments, people with vision loss and people with hearing loss in their facilities as part of a regular, older client base which are much more active than in the past.

#### Applying a Universal Design Approach

It is recognized that some existing facilities may not be able to meet all of the recommendations because of the costs and limitations of retrofitting an existing structure. Where guidelines cannot be fully met, individual facilities are expected to meet the intent of the guidelines by other means. Adopting a universal design approach to all furniture/fixture purchases and guest room layouts as a policy for all hotel guest rooms will allow the standard rooms and suites to accommodate a broader range of guests through routine upgrades and maintenance over time. This use will reduce the demand for the designated accessible guest rooms therefore encourage a policy of applying universal design principals in all renovations, upgrades, purchases and operation planning improving access to the facilities at every opportunity.

#### Reference

Detailed specification and design standards for guest rooms and other hotel sites and services can be found in Chapter - Technical Specifications of this Guide, in the [Hotels and Other Accommodations section](#).



### 3.2. Restaurant Access

#### Key Principle

Dining in a restaurant is an integral part of the visitor's Host City experience. A commitment to developing access for people with an impairment should be a part of leasehold, tenant, and permit agreements in all outlets from kiosks to large storefront locations connected to the Games.

Further to that, provision of adequate access for all is a significant asset for all restaurants, as beneficiaries of an accessible environment – and their families and friends - constitute a large part of potential clientele.

#### Restaurant Accessibility

Access here comes from a universal design approach to furniture and equipment purchases combined with superior customer service via appropriate disability awareness training.

#### Characteristics of Accessible Restaurants and F&B Outlets

- Accessible pathways and table with seating that can be removed for persons with an impairment is dispersed throughout the restaurant.
- Fixed seating such as booths are generally difficult for people with a mobility impairment and older adults, as well as being inaccessible for wheelchair users. If booths are used, alternative seating at accessible, conventional tables are also available.
- Chairs need to be light and easy to re-position.
- Has clearance under a food service table to accommodate wheelchair users.
- Corner legs on tables are preferred, however if round tables with centre posts are used for dining, the minimum distance from the table edge to the outer edge of the pedestal base will accommodate wheelchair users.
- Where bar seating is provided, each bar provides a lowered section suitable for a minimum of two wheelchair users and/or people unable to use high stools.
- All seating provides kickspace - supports or cross bracing of chairs may not interfere with the kickspace.
- Minimum aisle widths for wheelchair users; aisles kept clear of displays, clutter and turnarounds at the end of each aisle.
- An integrated counter design that incorporates universal design principals at the point of sale (POS) as part of the main service area to accommodate all users.
- Cafeteria-style server counters have a continuous tray rail from tray pick up to cashier and products on shelves within reach of a wheelchair user.
- Cooler and/or shelf doors should slide, rather than swing open.
- Cash desk/counters adhere to universal design principals.
- A clear space at the cashier/POS is provided as a pass-through area to serve wheelchair users and people with reduced reach/arm strength.
- Disability awareness training for all front line staff.



Detailed specification and design standards for Restaurants, Lounges and/or Food Court Seating can be found in Chapter - Technical Specifications of this Guide, within the [Furniture, Counters and Service Areas](#) section.



### 3.3. Tourism Information

#### Key Principle

Everyone in the community has a right to all the information that is publicly available including people with sensory and/or intellectual impairments. Frequently, people with a sensory impairment are routinely excluded from tourism programmes and promotion because of a lack of support.

Tourism information materials, both real and virtual, as well as facilities (such as Tourism Information Centres) should be accessible to people with an impairment.

A key Games time consideration is to ensure accessible tourist information is made available early, so people with an impairment can plan and make informed decisions.

#### Tourism Information for People with an Impairment

Providing equal access to information for people with sensory loss and seniors requires alternative formats to be an automatic and well understood part of all standard communications and/or event planning. This includes preparing materials explicitly for the community of people with an impairment as readily as other constituents. No printing of materials intended for public release should proceed until the requirements for alternative formats has been established. Appropriate visual language interpreting services at all official events, alternative formats for all print materials distributed to the public and dedicated TYY telephone service are examples of providing the community of people with an impairment with the information needed to provide the full Games' experience.

#### Characteristics of an Inclusive Tourism Information Policy

- An accessible internet presence for the Host City and the OCOG's activities;
- Physically accessible information centres;
- Alternative formats for all printed materials;
- Captioning and Descriptive Video Service (DVS) on all video materials and formats.
- Appropriate visual language interpreters available at main public events;
- Appropriate assistive hearing devices available to support people with hearing loss at main public events;
- TTY (TDD) service on dedicated telephone lines to event organizers, info centres, ticket outlets and other key tourism features as required;
- Networked signage capability via video or data connection;
- Disability awareness training of all front line staff;
- Regular submissions to newsletters and magazines targeted at the community of people with an impairment.



### 3.4. Sightseeing (Tours and Tourist Points of Interest)

#### Key Principle

Visiting the main Host City's tourist destination is an integral part of the visitor's Host City experience. It is important that these destinations are accessible to all visitors and Host City residents.

In recent years, few of the greatest monuments of humanity, such as the Acropolis in Athens and the Great Wall of China, have become accessible on the occasion of the Paralympic Games coming to the city.

An access strategy begins by developing an access audit of the facility or service to identify all of the various barriers to people with an impairment using access professionals with direct input from local organizations of and for people with an impairment. With this inventory in hand providers can seek to eliminate or at least minimize access concerns in a cost effective, fiscally responsible manner over time.

#### Accessible Sightseeing Tours and Points of Interest

A majority of the vacation travelling public is already over the age of 55. Age related impairments can only increase the already significant impact that serving people with an impairment has had on the operations of tourist destinations. Therefore, an access strategy will also help to accommodate the changing community demographics as regards to these tourist destinations.

Accessibility consideration examples:

- Lift equipped tour buses should be available through each tour provider
- Pick-up and drop-off points need accessible drop off zones and connecting pathways, appropriate lighting, access to ticket and concession booths and site access for people with a mobility impairment, as a minimum
- Signage needs to consider the needs of all users
- Plaques on statues or information stands need to include tactile/raised lettering



## Characteristics of Inclusive Sightseeing Tours and Attractions

- The main characteristics of inclusive sightseeing tours and attractions are:
- Physically accessible site;
- Alternate formats for all printed materials;
- TTY (TDD) service on dedicated telephone lines to event organizers, info centres, ticket outlets and other key tourism features as required;
- Networked signage capability via video or data connection;
- Disability awareness training of all front line staff;
- Lift equipped vehicles;
- Information signage and directional signage packages accessible to people with a sensory impairment.

Detailed specification and design standards of the various elements of a tourist destination site can be found in Chapter - [Technical Specifications](#) of this Guide.



### 3.5. Attractions, Interior Spaces

#### Key Principle

A common approach to accommodating persons with an impairment is to perhaps ramp an entrance, create an accessible washroom and consider the facility accessible. However, it is not enough that people with an impairment can just get into any given attraction; they should be able to fully participate in the activities, information and purpose of the Attraction.

#### Interior Spaces

An effort to include persons with an impairment in all aspects of the displays, features and opportunities is a critical component in providing meaningful access to museums, exhibits and other public attractions. People with visual impairments, hearing loss, mobility impairments and/or intellectual impairments should be able to participate in all aspects of the attraction. Owners and operators should look for opportunities to create displays that engage more than just the eyes (e.g. a sculpture that can be touched to create a tactile experience for people with a visual impairment). All posted information should also be available via audio playback.

#### Characteristics of Accessible Attraction and Interior Spaces

The main characteristics of accessible attractions and interior spaces are:

- Minimum aisle widths; aisles kept clear of displays, clutter; and turnarounds at the end of each aisle for wheelchair users;
- An integrated service counters design that incorporates wheelchair access and service for people with an impairment at the main service counter;
- Alternative formats for printed materials;
- Alarm, evacuation and safety consideration that cater for people with an impairment;
- Accessible displays and features;
- Accessible signage and wayfinding;
- Visual paging system to act in conjunction with audible public address pages;
- Disability awareness training for all front line staff;
- Public Telephones are equipped with volume-controlled handsets and be mounted at an accessible operating height;
- Each bank of public use telephones provides at least one telephone with TTY (TDD) service.



## 4. Culture, Entertainment and Leisure

This section highlights the cultural, entertainment and leisure requirements for the city to allow athletes, Games' officials, VIPs, Olympic/Paralympic Family, media and spectators with accessibility needs to seamlessly access the city's key cultural, entertainment and leisure precincts.

All Games visitors wish to enjoy all the city has to offer. Athletes in particular can spend more than a month in the city while training or competing. It is essential that key attractions are accessible to allow for a social outlet and enjoyment.

Culture, entertainment and leisure includes public and private infrastructure and assets such as sponsors showcasing, art galleries, cultural venues, concert halls, movie cinemas, restaurants, displays, festival sites and shopping centres.

It may be difficult to ensure all areas are accessible; however it is essential that a reconciliation of accessible assets is established before the Games so they can be appropriately communicated to all people prior to travel.

Some of the Olympic and Paralympic cultural events seek to highlight the talents, skills and expertise people with an impairment have in the area of Arts, entertainment and leisure. It is important that 'back of house' areas are accessible to allow full participation and enjoyment for all.



#### **4.1. Definition and Scope of Culture, Entertainment and Leisure**

##### **Definition of Accessible Culture, Entertainment and Leisure**

Accessible culture, entertainment and leisure allows people with an impairment to enjoy a show, display, event, concert, feature or symposium in an equitable, functional and independent manner to those people without an impairment.

All Games cultural events should be accessible for the widest range of people, including people who have an impairment and should include wheelchair pathways, seating spaces with companion access, hearing systems, viewing ranges and toilets.

It should also be noted that particular attention should be made to ensure venues, stages, halls and stadiums allow accessibility for performers, artists or organizers with an impairment.

##### **Types of Cultural, Entertainment and Leisure Activities**

The types of cultural, entertainment and leisure activities include but should not be limited to:

- Sponsors showcases, including athlete interaction
- Art galleries, including artists
- Cultural venues, including performers
- Concert halls, including performers
- Displays, including performers
- Festival sites, including performers
- Cinemas and theatres
- Shopping centres
- Restaurants
- Games halls
- Amusement centres
- Gaming and sporting venues

##### **Principles of Accessible Cultural, Entertainment and Leisure Areas**

The key principles of accessible entertainment and leisure areas are very similar to the requirements of sporting venues. Even when the general public requirements for accessibility are provided for, there is also strong reliance to ensure performers with impairments are encompassed as well.



## 4.2. Types of Accessible Culture, Entertainment and Leisure

The following highlights the key components of cultural, entertainment and leisure precincts and how accessibility is provided within each of them. The technical specifications for doorway width, heights, corridors, toilets, signals, signage etc are highlighted within the technical specifications of this Guide in Chapter - [Technical Specifications](#).

The key principles of access include:

- Pathways and circulation spaces from transport and parking areas that are of an appropriate surface, gradient and width, there should also be appropriate lighting and rest seating;
- Main entrances that are accessible through the use of lifts or ramps;
- A concession and merchandise area that allows an accessible entrance, pathway and check out area wide enough for a wheelchair;
- Seating and or viewing areas that have appropriate wheelchair spaces with adjacent companion seating at the same level;
- Loose seating shall also be provided to allow people with a mobility impairment to sit in an accessible area;
- All pathways should also be free from obstructions and allow a person using a cane to use the building line for orientation;
- Back of house change rooms, warm up and stage areas that are accessible to performers with an impairment;
- Staff and volunteers are aware of the accessible operations and infrastructure.

### Art Galleries, Cultural Venues, Concert Halls, Displays, Festival Sites

Cultural venues provide a unique and complimentary element to the sporting events of the Games. As with the Games venues the following requirements are required:

- Lower counter at welcome desk for administration purposes by people who use wheelchairs;
- Rest seating within the foyer area for people with a mobility impairment
- Wheelchair seating spaces within the auditorium;
- Hearing augmentation system to enhance public announcements;
- Ramped access to stage areas and flag raising areas;
- Ramped access to performance stages for performers with an impairment.

### Shopping and Leisure Facilities

All Games constituents enjoy the city in particular the shopping and leisure facilities as it allows them to gain a break from the pressure of the Games. The following highlights some of those facilities, along with key principles for their design and operation:



### ***Cinemas***

- Wheelchair accessible seating with adjacent companion seating on the same level (it should be noted that some people who use wheelchairs also like to transfer out of them and use a standard cinema seat);
- Enhanced amenity seating with additional space at the front or side for a guide dog or mobility aids e.g. crutches;
- Hearing augmentation system for people with a hearing impairment.

### ***Shopping Centres***

- Accessible alternative to turnstiles at the entry;
- Appropriate width shopping aisles;
- Staff assistance for high sections of food or goods displays;
- A wider check out aisle for wheelchair users.

### ***Internet Cafes/Amusement Centres***

- Appropriate circulation spaces and pathways;
- Desks with height adjustable;
- Computers with accessibility characteristics e.g. large font, screen readers.

### ***Gaming and Sporting Venues (non Games specific)***

- Main and secondary entries that are accessible including emergency evacuation routes;
- Tables and gaming equipment that are of appropriate height (750–850mm).

### **Staff Assistance and Communication**

Training in the needs of people with an impairment and in the use of appropriate language and physical assistance, allows all staff to feel confident when communicating with people with an impairment. This will enhance staff and Games family experiences.

In Chapter - [Training for Accessibility](#) of this Guide there is detailed description on the content and delivery of such training.

### **Information Provision and Communication**

Most cities have organizations that promote accessible facilities through newsletters, or develop publications or websites that contain accessible information. Identifying key entertainment and leisure areas that are accessible allows Games family members to better plan their holidays or Games' attendance.



## 5. Sport

Participation in sport and physical activity is a human right and should be available to all people. A Host City needs to encourage and promote the participation of persons with an impairment in mainstream sporting activities at all levels, either this be recreational, therapeutic, competitive and elite. It should be a matter of talent, determination, need and free choice the level at which a person with an impairment will engage to sport.



## 5.1. Principles and Types of Access in Sport

### Key Principles

Sport organizations operating in the Host City and country need to provide equitable access to sport and overall physical activity to all citizens, regardless of functional abilities. To achieve this goal the Host City and country needs to ensure that persons with an impairment have an opportunity:

- To organize, develop and participate in para sport and adapted recreational activities, and to this end, encourage the provision, on an equal basis with others, of appropriate instruction, training and resources;
- To organize, develop and participate in integrated sport programmes, along with sportsmen and sportswomen without impairments, and encourage adequate level of facilities, equipment as well as information and training of instructors and trainers;
- To use existing or new sporting and recreational venues and facilities which are accessible, for training or competition;
- To attend sporting events as spectators, in a dignified way, along with their families and friends;
- To have access to services from those involved in the organization of recreational, tourism, leisure and sporting activities;
- To ensure equal access to participation in play, recreation, and leisure and sporting activities, including those activities in the school system as regards to children with an impairment.

### Access to Adapted Physical Activity/ Adapted Sport

All persons with an impairment, regardless of severity of condition, should be provided with opportunities to experience and practice sport throughout their lifespan. These experiences, when appropriate, should be the same as those of others in the mainstream populations.

In order for this to be feasible, however, it needs that when a person (with or without an impairment) needs help in achieving their participation goals in sports, then adaptation (change strategy) is applied to one or more of the variables that may act as barriers to participation in sporting activities or success in competitive sports (e.g., rules, method of instruction, equipment, facilities, size of participating group).

Educational institutions, sport clubs, sport authorities etc. which provide sport and physical activity programmes, need to ensure that adequate consideration is given so that such programmes are inclusive and that adaptation as needed are in place.

In addition to integrated programmes, specific programmes for sportspersons with an impairment should be provided to address specific needs.



## **Access to Competitive Sport**

Persons with an impairment who have the talent, will and determination to pursue elite performances and participate in competitive sport, should be provided with adequate opportunities to do so.

For this purpose, local and national structures of para sports need to be in place and adequate training and competition opportunities are required. In the main part, such structures should focus on sport – not impairment – and should be organized so that they integrate para athletes into mainstream sporting organizations. Para athletes may share the same coaches, sporting fields, change rooms and in some cases the competition programme with athletes without impairment.

In addition to the above, organizational structures specifically for competitive sports for para athletes should exist, under the auspices of a National Paralympic Committee, which is the body entitled to select and organize participation at the Paralympic Games, for those few among the para athletes who reach the elite level and qualify for those Games.



## 5.2. Conditions for Integration in Mainstream Sport Activities

### Accessible Venues

Existing sporting venues and facilities may need modification to encompass para athletes. Overall, sporting facilities should comply with the technical specifications outlined in Chapter - [Technical Specifications](#) of this Guide, in order to be accessible for use by any member of the community.

Main elements of such provisions are:

- Athlete entrances should have a ramp or lift access to the change rooms, training fields and competition fields.
- Medical and treatment rooms should be accessible as a priority.
- Access is needed to sporting equipment storage areas, with staff assistance (where required).
- Accessible toilets and showers within each of the gender change rooms.
- Spectating athletes viewing areas that are accessible.

### Adapted Sport Equipment

In adapted physical activity programmes, instructors and coaches may need to acquire and use equipment suitable to a wide range and kinds of impairments.

In competitive sports, often special equipment is being used. Some examples:

- In track and field athletes may use specialized racing wheelchairs and throwing frames or specialized prosthesis.
- In wheelchair basketball and wheelchair tennis, athletes need specially designed and very light wheelchairs.
- Also, several sports need special equipment designed specifically for the sport, such as use a tandem bicycle to allow a sighted driver in cycling or special balls in Boccia.

### Adapted Sport Rules

Most sports can be adapted or modified to encompass people with an impairment. Several sports have incorporated such adaptations within their rules. For example, in wheelchair tennis the rules allow the ball to bounce twice before it needs to be hit over the net.

Depending on the performance level and the purpose of the activity (e.g. in therapeutic or recreational ones) the adapted physical activity instructor or the coach may modify the rules in order to provide optimum conditions for the athletes.



## **Educated Professionals**

The sport professionals who have the knowledge and skills to facilitate integration in sport activity or competitive para sport, is a major factor affecting the actual access of people with an impairment in physically activity and in sports. Such participation is crucial for physical rehabilitation, sporting success and social inclusion and recognition.

Local universities should have courses specifically designed to provide suitable skills and qualifications for professional with expertise in adapted physical activity. Along with the courses, regulatory provisions should exist, ensuring that such professionals have priority in providing services in sport and physical activity to persons who have an impairment.

In the area of competitive sports, seminars, courses and workshops are required to ensure that technical personnel are aware of the needs, variations and characteristics of coaching para athletes in each specific sport discipline. Sport coaches should recognize the similarities between sport for athletes who are able bodied and para athletes. The sporting rules may have slight variations; however the inherent skills of the sport remain the same.

Relevant coaching courses or material, specific to the needs of para athletes are available worldwide. In addition, many coaching courses in a particular sport now have a component on the corresponding Paralympic sport. Within this section the following details should be highlighted:

- Appropriate terminology
- Differing impairment consideration
- Understanding of special/adapted sporting equipment
- Sporting rules differences
- Junior development
- National and international sporting bodies relevant to the sport
- Developing comparable expectations of training and performance
- Drug testing
- Details of sporting events available for para athletes

## **Competition Opportunities**

Para athletes need adequate number and level of competition opportunities, in order to develop their skills, acquire experience and achieve elite performances; exactly as any other athlete. National and regional sport structures need to ensure a rich, reliable and repetitive competition programme that is available for para athletes in a regular - usually annual - basis.

It should also be stressed that access to competitive sport for para athletes requires junior development actions, like any other sport. Sport structures at all levels should not underestimate this need.



## 6. Education

Access to equitable education is a fundamental factor for social inclusion, personal and community development. Without equitable access to education no society can be considered as providing equal opportunities to all its members.

Although not directly related to hosting the Games, providing equitable education supports the positive direction a Host City needs to take to ensure that all its members, including people with an impairment, have same access to education at all levels as anybody else in the community.



## 6.1. Accessibility of Education Facilities

### Key Principle

Integrated educational institutions (schools, universities, vocational training centres etc.) that include people with an impairment as staff and students are the beginning of a greater social understanding and inclusion of people with an impairment in the workforce.

Developing accessible schools first requires an access audit to provide an inventory of all issues affecting people with an impairment within the school facilities. Access can be developed as part of routine maintenance and purchasing programmes as well as through renovation and new construction. This process may include professional access consultants and direct input into from the community of people with an impairment throughout the process.

### Characteristics of Accessible Schools and Educational Facilities

The main characteristics of accessible schools and educational facilities are:

- Accessible staffroom/staff washrooms/office - including reception;
- Size and layout of areas to include accessibility - including all academic, sporting, play, social facilities, classrooms, assembly halls, cafeterias, libraries, gymnasium/out-door sporting facilities, playgrounds and common rooms;
- Providing access to computer technology appropriate for students with an impairment;
- An accessible environment for students with mobility impairments;
- Paths of travel around the school site and parking arrangements that is safe, intuitive and well signed;
- Student areas which are well lit;
- Reduction of background noise for the benefit of people who are hard of hearing;
- Accessible furniture and equipment.

Detailed specification and design standards for the various elements included in education facilities and related services can be found in Chapter - [Technical Specifications](#) of this Guide.



## 6.2. Adapted Curriculums, Assessment Methods and Teaching Materials

### Key Principle

An integrated classroom does require some special adaptations for students with an impairment. It is worth noting that equal treatment does not necessarily mean the same treatment. Sometimes extra effort is required to ensure the goal of equal opportunity is achieved.

Many Host cities now also integrate a comprehensive Olympic and Paralympic Education component and curriculum as a part of the Games Experience. It is essential that any Education programme include adapted curriculums, assessment methods and teaching material. This will ensure all students are able to participate in the Games, in particular “Special schools” and students with an impairment who have been integrated in mainstream schools.

### Adapted Curriculums and Assessment Methods

Teachers and administrators should have the support they need if integrating the classroom is to be effective. Simple changes in the delivery approach, teaching materials and learning environment can be the difference between success and failure at integrated classrooms.

General disability awareness training for all staff is needed with teachers also receiving support in the form of impairment-specific training as well as classroom support via teacher’s assistants. Caution should be taken to ensure students without an impairment are well informed about what to expect from classrooms integrated with fellow students with an impairment.

### Characteristics of Accessible, Inclusive Curriculum & Assessments Methods

- Staff providing alternative ways of giving access to experience or understanding for pupils who have an impairment that cannot engage in particular activities, for example some forms of exercise in physical education;
- Staff recognizing and allowing for the mental effort expended by some pupils with an impairment, for example using lip reading;
- Staff recognizing and allowing for the additional time required by some pupils with impairments to use equipment in practical work;
- Educational visits and field trips made accessible to all pupils irrespective of attainment or impairment;
- Ensuring that information is presented to groups in a way that is user friendly for people with an impairment, e.g. by reading aloud overhead projections and describing diagrams;
- Teachers that have disability-related resources to support classroom issues and integration problems.



## **Alternative Formats of Teaching Materials**

People with a visual impairment or learning difficulties cannot access print materials in the way that the rest of the community can. Producing the same teaching materials in alternative formats can help overcome this critical barrier to education. Such practice allows those students to participate in a conventional educational setting when combined with a teacher's support in ancillary areas.

Alternative formats include Braille, tactile graphics, large print, electronic text (ASCII, text file, PDF), audio (tape, CD, mp3), and Digital Accessible Information System (DAISY). Electronic text may be accessed using adaptive technology such as screen reading software or refreshable Braille display.



## 7. Employment

Providing access to equitable opportunities for employment to people with an impairment is essential factor for personal development, self-determination and full inclusion in social life.

The hosting of the Paralympic Games in particular can bring many legacies; one of the most important among them is to enhance their independence, motivation and integration into society as full members of their community. Increase of the level of employment of people with an impairment is a key element of such legacies.

Numerous international studies have highlighted the benefits of the employment of people with an impairment, in particular

- Higher work respect and diligence
- Lower sickness and illness ratios
- Comparable work efficiencies
- Increase employment loyalty.

In general, people with an impairment bring unique skills to a workplace such as adversity management, lateral thinking and body awareness and capabilities.

The largest limiting factor to the employment of people with an impairment is the employer's attitude. Many employers significantly change their negative attitude to a positive attitude after the employment of people with an impairment.



## 7.1. Definition and Scope of Accessible Employment

### Definition of Accessible Employment

Accessible employment integrates people with an impairment into mainstream volunteer and employee workplaces. A vast majority of people with an impairment are able to work the same hours, in the same workplace, with the same efficiencies and same outcomes. The only difference is matching a person's skills to their job and ensuring the workplace is accessible. People with an impairment are expected to finish high school, potentially attend university and/or receive professional training and gain employment, as would any other person.

### Adaptations in the Workplace

Some people will require the workplace to be adapted to their individual needs to ensure they are able to comfortably and efficiently work. It should be noted that all people have different requirements even if they have a similar kind of impairment. Each individual should have his or her needs assessed individually. The following highlights generalized indicative examples of infrastructure required, which includes:

#### ***People who use wheelchairs or mobility aids***

- Accessible transport links including car parking
- Accessible entrance and pathways within the workplace
- Accessible unisex toilet
- Benches and workstations that have an adjustable height and appropriate circulation space
- Accessible break rooms
- Accessible emergency evacuation routes

#### ***People with a visual impairment or who are blind***

- Clearly defined pathways and workstations
- Computers or machines that can show large print
- Minimization of obstructions in the work environment
- Lifts that have Braille and auditory indicators
- Emergency alarms that are also auditory besides having visual indicators

#### ***People with a hearing impairment or who are deaf***

- Emergency alarms that are visual as well as auditory
- Visual indicators of lift buttons

#### ***People with dexterity impairments e.g. arthritis***

- Door handles and operations panels that allow minimal gripping
- Ability to sit while at work for rest (depending on the industry)



***People with an intellectual impairment***

- Clear and simple direction as to the work required to be undertaken
- Often repetition allows clear concentration and effective working (up to a certain period of time)
- Develop a buddy system that ensures they receive additional support (if needed)



## 7.2. Principles for Access to Equitable Employment

### Eligible Employment Positions

People with a physical impairment are generally easier to incorporate into the workplace as once their physical limitation is encompassed by the workplace; their employment is no different than for anyone else. Therefore no job should be ruled out unless the inherent requirements of the job cannot be met e.g. a wheelchair user who wants to become a roofing contractor.

### Principles for Equity in Employment

Accessible employment is not different from general employment processes aside from having to consider an individual's physical or intellectual impairment.

The key principles of successful access to employment include:

- Workplace evaluation for accessibility
- Management and staff awareness of accessibility
- Identification and recruitment of people with an impairment that suit identified roles
- Ongoing, on-site training and evaluation
- Communication of workplace success or limitations
- External support for issues of accessibility employment

### Support Policies for Employment

In several countries there are established policies that aim to support employment of people with an impairment.

Examples of positive measures and policies which support employment of persons with an impairment are:

- Set a minimum percentage of persons with an impairment among the workforce of any medium to big organization
- Subsidize (partly or fully) the cost of adaptations required in a workplace, to accommodate the individual needs of a person with an impairment working there
- Finance part of the salary (or part of social security charges) for a new employee who has an impairment for a period of time, with an obligation of the employer to maintain the employee for double that time at least.
- Consider Paralympic sponsors of the OCOG or the NPC to develop employment programmes within their workforce for people with an impairment and in particular athletes who are aiming to compete at the upcoming Paralympic Games.

It is out of the scope of this Guide to investigate and present such policies in detail. But, it is important to note that such policies can assist in enhancing employment opportunities and in having accessible workplaces.



A best practice example of an OCOG implementing a strategy to support equitable employment opportunities is LOCOG for 2012 Games, which established a staff diversity strategy, including relevant targets, actions and corrective measures to ensure a diverse and inclusive staff.



## Appendices: Additional Resources

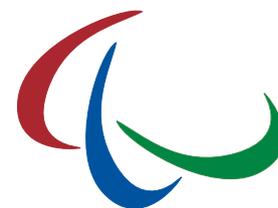


## Appendix I Key Measurement Reference Table

### Presentation

The following table refers to the key sections and measurement references from the Technical Specifications chapter. This table should be referenced in conjunction with the chapter, as it does not provide the same level of detail and includes only the key measurements most often referenced.

Area	Key Item	Measurement	Comments
Pathways and Circulation Areas	Pathways	Width: <b>1,000mm</b> (minimum) <b>1,500mm</b> (standard) <b>1,800mm</b> (best practice) Clear headroom space: <b>2,100mm</b>	<ul style="list-style-type: none"> <li>Pathway width measurements are applicable to ramps, queuing areas, aisles, etc.</li> </ul>
	Gradient	<b>1:20 (5%)</b> best practice recommended <b>1:14 (7.14%)</b> maximum grade allowed <b>1:50 (2%)</b> maximum cross slope	<ul style="list-style-type: none"> <li>A landing is required after a ramp covering <b>500mm</b> of height difference</li> </ul>
	Rest stop benches	<b>50m</b> intervals	
Ramps	Slope	<b>1:20 (5%)</b> max. grade best practice <b>1:14 (7.14%)</b> max. grade for height up to 3000mm <b>1:12 (8.33%)</b> max. grade for height up to 300mm <b>1:50 (2%)</b> maximum cross slope	<ul style="list-style-type: none"> <li><b>1:20</b> applies as max. grade for ramps serving primary entrances or busy facilities, long or crowded walkways or for covering more than 3000mm height difference</li> <li><b>1:14 (7.14%)</b> max. grade is acceptable for secondary or ancillary facilities</li> <li>Ramps should not exceed 60m in length</li> </ul>
	Width	<b>1,000mm</b> (minimum)	<ul style="list-style-type: none"> <li>Measured between handrails</li> </ul>
	Landings	Landing every time ramp covers a vertical height difference of <b>500mm</b> Width: same as ramp width Length: <b>1,500mm</b>	
	Handrails	<b>850-950mm</b> above ramp surface <b>35-45mm</b> grip surface <b>45-60mm</b> from wall surface <b>300mm</b> extension beyond start and end of ramp	<ul style="list-style-type: none"> <li>Handrails applicable for height difference of more than 300mm and on both sides</li> </ul>



Area	Key Item	Measurement	Comments
	Kerb ramps	<b>2,700mm</b> max horizontal length <b>1:8 max.</b> grade for height up to 75mm <b>1:10 max.</b> grade for height up to 150mm <b>1:12 (8.50%)</b> grade for height +150mm <b>1,000mm</b> minimum width <b>1:10</b> maximum slope of flared sides	<ul style="list-style-type: none"> <li>Slip resistant surfaces</li> <li>Detectable warning surface (colour/texture contrasted)</li> </ul>
Stairways	Treads and risers	<b>125-180mm</b> height of risers <b>280-350mm</b> depth of treads	
	Nosings	38mm maximum	<ul style="list-style-type: none"> <li>Non slip, high contrast</li> </ul>
	Detectable warnings	Depth: <b>600mm</b> Width: width of the stairs	
	Handrails	See handrails section above	
Furniture, Counters and Service Areas	Reception Desks / Service Counters	<b>850mm</b> height <b>750mm</b> knee clearance <b>500mm</b> depth <b>750mm</b> width (minimum)	<ul style="list-style-type: none"> <li>Main service area should be accessible – avoid segregated cut-outs/service areas for wheelchair users</li> </ul>
	Waiting and Queuing Areas	<b>1,500mm</b> min width for each line <b>1:50 (2%)</b> maximum slope allowed	<ul style="list-style-type: none"> <li>Rest benches needed where line is longer than 50m</li> </ul>
	Condiment Counters	<b>850mm</b> surface height <b>600mm</b> reach requirement (from front edge) <b>300mm (w) x 200mm (d)</b> min clear space for food preparation	
	Restaurant / Lounges / Food Court Seating	<b>1,500mm</b> min. main pathway width <b>1,000mm</b> minimum aisle width <u>Bar seating:</u> include lowered section <b>850mm</b> height, <b>750mm</b> knee clearance, <b>1,600mm</b> minimum width <u>Bench seating:</u> provide back support, with mx. 450mm seat height and 750mm backrest height plus minimum kick space of 1/3 seat depth	<ul style="list-style-type: none"> <li>Mix of chairs should be provided – 20% with arms</li> </ul>



Area	Key Item	Measurement	Comments
Doors and Doorways	Door width	<b>850mm</b> minimum <b>950mm</b> best practice <b>1,000mm</b> required for specific sports' athletes preparation areas	<ul style="list-style-type: none"> <li>Measured when door is open 90 degrees</li> </ul>
	Door requirements	<b>150mm</b> min inside handle dimension <b>900-1,100mm</b> handle height from floor <b>500mm</b> clear space on pull side <b>300mm</b> clear space on push side	<ul style="list-style-type: none"> <li>Handles operable by one hand</li> <li>Sliding doors are preferable</li> <li>Revolving doors are not considered accessible</li> </ul>
Elevators	Doors	<b>850mm</b> minimum clear width <b>950mm</b> minimum clear width for elevators serving public spaces and sport facilities	
	Car	<b>1,700mm</b> x <b>1,500mm</b> min clear size <b>2,100mm</b> x <b>1,500mm</b> best practice for high public use (sport, entertainment)	<ul style="list-style-type: none"> <li>For handrail information see above (ramps section)</li> </ul>
	Controls	<b>250mm</b> from front return panel on side wall <b>850-1,200mm</b> button height range from floor <b>20mm</b> button diameter	<ul style="list-style-type: none"> <li>Buttons shall have raised characters for letters and numbers and Braille (immediately to the left of buttons)</li> <li>Synthesized voice floor callers for direction and destination</li> </ul>
Emergency Provisions	Areas of Rescue Assistance	<b>850mm</b> x <b>1,300mm</b> min space per anticipated user (no fewer than 2 spaces)	<ul style="list-style-type: none"> <li>See Emergency Provisions section for further detail on provision and use of these spaces</li> </ul>
	Alarms	Visual fire alarms maximum allowable strobe flash rate: <b>1-3 Hz</b>  <b>1,200mm</b> maximum operating height of alarms pulls and safety equipment	<ul style="list-style-type: none"> <li>Visible in all public gathering areas, washrooms, and in front of elevators</li> <li>Emergency call buttons recommended for washrooms with facilities for wheelchair users</li> </ul>
	Evacuation Instructions	<b>1,300mm</b> maximum mounted height	<ul style="list-style-type: none"> <li>Large print (min 14pt font)</li> <li>High contrast (red on white)</li> </ul>



Area	Key Item	Measurement	Comments
Venue Seating	Accessible Seating	<p><b>0.50%</b> minimum requirement for any event</p> <p><b>0.75%</b> minimum requirement for Olympic Games</p> <p><b>1% - 1.2%</b> minimum requirement for Paralympic Games</p> <p><u>Space requirements:</u></p> <p><b>800mm x 1,300mm</b> wheelchair user</p> <p><b>500mm x 1,300mm</b> companion/enhanced amenity</p> <p><b>1,000mm</b> minimum circulation space behind</p>	<ul style="list-style-type: none"> <li>Percentages of total gross seating</li> <li>Companion seating to be provided at an equal ratio, next to (not behind) each space</li> <li>Additional enhanced amenity seats should be provided at end of rows at a min. ratio of 1% of gross capacity</li> <li>See venue seating section for complete requirements</li> </ul>
	Sightlines	<p>Sightlines of accessible seating provide the same sightline for a person seated in a wheelchair when a person in front stands up, as the person in front has when standing.</p> <p>For Paralympics, this rule applies for all accredited seating and for spectators' seating up to 1% of venue's gross capacity.</p> <p>Accessible seating in excess of this percentage may have same sightline as the person in front when also seated.</p>	<ul style="list-style-type: none"> <li>Railings and other obstacles should not impair the sightlines of people using accessible seating.</li> </ul>
Washrooms	Numbers and Ratios	<b>1:15</b> (one toilet for every 15 persons who need one) minimum ratio for accessible toilets	<ul style="list-style-type: none"> <li>Every bank of toilets has one unisex accessible facility adjacent</li> </ul>
	Signage	<b>1,350mm</b> mounted from the floor on the wall (on the latch side of the door, not on the door itself)	<ul style="list-style-type: none"> <li>Standardized symbols used with raised lettering 1mm in height</li> </ul>
	Circulation Spaces	<p><b>2,200mm x 1,800mm</b> clear space of a unisex accessible washroom</p> <p><b>1,500mm x 1,500mm</b> clear space of a gender-specific accessible toilet</p> <p><b>850mm</b> min. door width (950mm best practice)</p> <p><b>750mm</b> transfer space next to toilet lid, with <b>800mm</b> being best practice</p>	<ul style="list-style-type: none"> <li>Unisex accessible washroom includes toilet pan, wash basin, grab rail, mirror, soap, paper towel, toilet paper dispensers</li> <li>light operating door closer (<b>20Nm</b>) and self-closing</li> </ul>



Area	Key Item	Measurement	Comments
	Fixtures	<b>450mm</b> toilet pan from side wall <b>440-460mm</b> toilet seat height <b>750mm</b> long L-shaped grab bars, mounted: <b>230mm</b> above toilet seat, <b>150mm</b> in front of toilet seat <b>600mm</b> min. height of toilet paper	<ul style="list-style-type: none"> <li>• Back support should exist where there is no lid or tank</li> <li>• Tank lid securely attached</li> <li>• Toilet flush controls electronic or within reach on transfer side (opposite the wall / grab bar)</li> </ul>
	Sink Area	<b>900-1,100mm</b> height of accessories, <b>750mm</b> from the centre of the sink Mirror immediately above the basin at a height of <b>1,800mm</b> <b>150mm</b> maximum basin depth <b>680mm</b> basin height clearance	<ul style="list-style-type: none"> <li>• Accessories include: soap dispenser, paper towel, etc.</li> <li>• Hands-free tap is preferred</li> <li>• AC outlet should be located close to toilet for adaptive devices</li> </ul>
Showers, Baths and Changing Rooms	Accessible Shower Features	<u>Water control:</u> mounted <b>750mm</b> from the floor and <b>750mm</b> from end wall <u>Folding seat:</u> <b>480mm</b> deep, <b>850mm</b> long, mounted <b>440-460mm</b> from floor, 135kg load capacity <u>Hand held shower:</u> <b>1,500mm</b> hose <u>Grab bars:</u> <b>750mm</b> (along folding seat wall) x <b>900mm</b> (along shower wall) set horizontally, <b>850mm</b> above the floor	<ul style="list-style-type: none"> <li>• Lever operated faucet with <b>13N</b> operating force</li> <li>• Recessed soap holders or shelves within easy reach</li> <li>• Scald guard or thermo controlled valve</li> <li>• See diagram in Shower section of Chapter - Technical Specifications</li> </ul>
Transportation	Transport load zone	Aisle: <b>2,400mm</b> (w) x <b>7000mm</b> (l) <b>3,300mm</b> height allowance	<ul style="list-style-type: none"> <li>• To be equipped with at least one kerb ramp</li> </ul>
	Parking Area Requirements	<b>2%</b> (best practice is 3%) of spaces should be accessible <b>2,300mm</b> minimum height clearance ( <b>2,500mm</b> best practice) for underground parking	<ul style="list-style-type: none"> <li>• Spaces should be located in the most convenient point based on entries and exits, lifts and ramps, accessible toilets and pay stations</li> </ul>
	Accessible parking spaces	<u>Width:</u> <b>3,200mm</b> (minimum) <b>3,600mm</b> (best practice) <u>Signage:</u> <b>750mm<sup>2</sup></b> size of international symbol on ground, <b>1,500mm</b> height of vertical international symbol sign	<ul style="list-style-type: none"> <li>• See Pathways, Circulation Areas, Ramps and doorways for information regarding access provisions</li> </ul>



Area	Key Item	Measurement	Comments
Accommodation Sites	Room	Circulation and change of direction: one space 1,500 mm x 1,500 mm Transfer Spaces: <b>min. 750mm</b> , best 800mm Paths and passageways: at least <b>1000mm</b> Controls/switches: <b>850 mm-1,200mm</b> Electrical outlets and data connections: at <b>450mm</b> Manoeuvring space in front of closets: <b>1,500mm</b>	<ul style="list-style-type: none"> <li>• Bed top height: 450–500 mm</li> <li>• Bedside tables: min. toe space of 225mm high x 300mm deep</li> <li>• Operators of window/ curtains: extend to at least 1,200mm</li> <li>• Mounted hanger rod: 1,200mm</li> </ul>
	Wheelchair Friendly Room	Door widths minimum <b>800mm</b> One spot within the room with a diameter of <b>1,200mm x 1,200mm</b> Transfer space of min. <b>750mm 800mm</b> in at least one of bed sides Height of controls lower than <b>1,400mm</b> or provide “handling stick” Toilet seat of min. <b>450mm</b> height with transfer space in one side	<ul style="list-style-type: none"> <li>• Long stick, to allow mounting and demounting of hangers in cupboards</li> <li>• Portable bath amenities</li> <li>• Shower chair with back and/or handrails in the bath tube</li> </ul>



## Appendix II      **Event Accessibility Checklist**

### **Presentation**

The Event Accessibility Checklist is a general reference tool for the key accessibility elements to incorporate in an event. The purpose of this checklist is to provide relevant information for the planning of events that are local, national or international in scale (it is not Games-specific). For Olympic and Paralympic Games specifics consult the Games Requirements section. Further detail on the accessibility criteria referenced below can be found in the Technical Specifications chapter and Key Measurement Reference Table.

### **Accommodation**

- Accessible rooms available in hotels / lodging fulfilling the accessible criteria detailed in this manual (Technical Specifications – Hotels and Other Accommodation).
- Services and entertainment areas of the hotels are accessible to all users.

### **Accreditation**

- Capture relevant mobility information (daily wheelchair users) and specific needs (request for materials in alternative formats) as part of the registration of event participants.
- Accreditation centres meet the accessibility criteria for signage, pathways, entry points, washrooms, service counters and parking.

### **Airport Operations**

- Flow through the airport allows unobstructed, independent access for all.
- Airlines are prepared (through shuttles, aisle chairs, luggage assistance) for an increase in the demand for accessible operations.
- Accessible transportation options available for event participants to and from the airport.

### **Broadcasting**

- Accessible commentators positions, and accessible access to all media services.



## Catering

- Pathways, aisles and queuing areas meet accessible pathway requirements.
- Allocation of products (beverages, desserts, etc) in a vertical (rather than horizontal) configuration.
- Serving counters and cafeteria style services incorporate lowered counter surface (**850mm**) with knee clearance (**750mm**).
- Serving trays are provided.
- Condiment counters are accessible (see Furniture, Counters and Service Areas section) with a maximum reach requirement of 600mm from front edge and clear space for food preparation.
- Seating area: accessible seating options including tables that allow for knee clearance (**850mm** height, **750mm** knee clearance), chairs provide kick space of one third of seat depth, mix of chairs with and without arms available.
- Where high top / bar tables are being used, lowered section for wheelchair users is available.

## Ceremonies / Stage Presentations

- Concurrent translation in sign language and/or text on the video boards.
- Hearing augmentation system (provision of assistive hearing devices) and live audio description services for people with sensory limitations.
- Programs available in alternative formats (large print, Braille).
- Wheelchair access to stage (following accessible ramp criteria).
- Accessible podium (preferable a variable height podium) and lapel mic.

## Cleaning and Waste

- Waste bins are visible to those with visual limitations, do not obstruct pathways (less than accessible standards), detectable by people using sticks, of a maximum height of **1,200mm** and require minimal hand dexterity to operate.

## Communication / Publications

- Accessible services and operations for the event and host community are communicated through information materials (brochures, online, etc).
- Media services provide alternative formats of material, sign language interpretation of press conferences, available upon request.
- Website meets W3C accessibility provisions.
- Publications in alternative formats (large print, Braille, etc).

## Doping Control

- Unisex accessible washroom is available.
- Information materials provided in alternative formats (large print, Braille, etc).



## Event Services

- Monitoring and maintaining accessible pathways for spectators.
- Spectator information materials made available in alternative formats (Braille, large print, etc).
- Distribution of assistive hearing devices to spectators.
- Provision of wheelchair loan and storage services.
- Assisting with elevator access and use; facilitating priority loading for wheelchair users as required.
- Event services staff provided adequate training on service to customers with an impairment.

## Medal Ceremonies and Sport Presentation

- Medal podium ramped for athletes that are wheelchair users, at a maximum grade of 1:12 (8.33%) and up to 300mm height for 1st place.
- Announcers trained in specific sport terminology and proper language for referring to athletes with an impairment.

## Medical Services

- Medical areas comply with accessibility provisions.
- Where competition includes specialized equipment (such as sport chairs) provide access to specialized repair services.

## Merchandising / Retail Operations

- Pathways, aisles and queuing areas meet accessible pathway requirements.
- Allocation of products in a vertical (rather than horizontal) configuration.
- Service counters are accessible, incorporating a lowered counter surface (**850mm**) with knee clearance (**750mm**).

## Overlays and Site Management

- Complete thorough assessment of accessibility compliance needs for every venue; identify areas where temporary overlay is required for accessibility solutions.
- Ensure proper installation and maintenance of accessibility features.

## Press Operations

- Accessible access to all press facilities, including; pathways, communication materials, seating, food services, and washrooms.
- Where transportation and accommodation are being provided to media, ensure accessible services are available upon request.



## Security

- Where security controls are applicable, ensure an operational gate (width of **1,000mm**) without a magnetometer is available for screening using a hand-wand screening device.
- Security personnel require special training to ensure screening of people with an impairment allows for dignity (for the customer) and efficiency (for security).
- Ensure security perimeters do not impede accessible pathways and routes.

## Signage and Wayfinding

- Graphic elements comply with accessibility standards (colour contrast, size of letters, position of signs).
- Wayfinding signage complies with accessibility standards (use of international symbols, use of Braille and raised lettering, glare free, high contrast, Arabic numerals and sans serif lettering).
- Wayfinding signage to highlight accessibility pathways and services.

## Sport

- Where applicable, the competition requirements specific to adaptive / Paralympic sports are met.
- Accessible criteria, including accessible connecting pathways, are met for all athlete areas: locker rooms, warm-up areas, field of play, mixed zone, doping control, medal presentation, press conference, athletes lounge, seating areas.
- Adequate accessible seating for athletes and team officials.
- Sport publications available in alternative formats.
- Specific sport equipment (such as hand ergometers) made available.
- Accessible transportation and accommodation provided to athletes as required.

## Ticketing

- Ticket guides available in alternative formats (large print, Braille, audio etc).
- Ticketing website fulfils accessibility requirements (W3C) including an alternative to 'human test' image capture for visually impaired users.
- Ticket Box Offices meet accessibility requirements for counter height and queuing.
- Provide multiple seating options: accessible, companion and enhanced amenity seats, in the range of locations and ticket price categories.
- Identify seats that are within the range of the hearing augmentation system.



## Transportation

- Where transportation services are being provided to event participants:
  - Ensure buses can meet the accessible seating capacity required, through low floor accessible buses (preferable), or those equipped with a wheelchair platform lift;
  - Define capacity and timetable for efficient service.
- A pool of accessible taxis and passenger vehicles / vans are available for hiring.
- Accessible parking spaces that meet the accessibility criteria (space size, signage, location, pathways, height of underground parking lots).
- Transportation load zones meet accessibility criteria (size, availability of kerb ramp).
- Accessible connecting pathways available from transportation load zones to the venues.

## Venues

- All main footpaths and circulation areas are accessible (**1,800mm width**, with stairways, elevators and ramps following the accessibility criteria)
- Doors are at a minimum **850mm**.
- Seating requirements:
  - Wheelchair accessible seating provided at a minimum 0.50% (0.75% for Olympics, 1% for Paralympics) of the venue's gross capacity
  - Companion seats provided next to the accessible seating positions (with same ratio)
  - Enhanced amenity seating (greater width for people with guide dogs, crutches or walking frames) to be provided, at min. 1% of gross capacity.
  - All wheelchair accessible seating provides comparable sightlines and be available in a range of locations and ticket price categories.
- Accessible unisex washrooms available that meet the accessibility criteria.
- All service counters, merchandising and food and beverage services meet the accessibility criteria.
- Change-rooms meet the accessibility criteria for showers and change spaces.
- Emergency provisions:
  - Evacuation plans that have an immediate pathway for wheelchair users to a secure assembly area;
  - Visual emergency signals located in public areas.

## VIP Services

- VIP lounges meet accessibility criteria for service counter height and seating options (where high top tables are used, lower seating options for wheelchair users are made available).
- Accessible seating provided for VIPs as required, provided in the same location as all other VIP seating.
- Information materials available in alternative formats (large print, Braille, etc).



## **Volunteers / Workforce**

- Recruitment that encourages applications from persons with an impairment.
- Policies that enable easier access to work for persons with higher support needs
- Ensure all volunteer/staff areas meet accessibility criteria:
  - Check in areas: accessible counter heights, seating
  - Break/Meeting Areas: accessible counter heights, seating, food services
  - Staff toilets: including accessible unisex washroom
- Disability/Accessibility awareness training for all staff and volunteers.