George Brown Polytechnic Facility Accessibility Design Standard

GBP FADS

v. March 2026

Land Acknowledgement

George Brown Polytechnic is located on the traditional territory of the Mississaugas of the Credit First Nation and other Indigenous peoples who have lived here over time. We are grateful to share this land as treaty people who learn, work, and live in the community with each other.

As we develop and implement our Facilities Accessibility Design Standards, we recognize that inclusivity is deeply rooted in Indigenous worldviews—grounded in the principles of respect, reciprocity, and interconnectedness between people and the land.

Honouring its values and Indigenous Education Strategy, George Brown Polytechnic is committed to fostering welcoming, equitable, accessible spaces. Guided by Indigenous perspectives and the Truth and Reconciliation Commission's Calls to Action, we strive to create barrier-free built environments that reflect our collective responsibility to care for the land and one another.

Through meaningful engagement and continuous learning, we seek to remove systemic barriers, promote accessibility, and uphold our commitment to reconciliation in all aspects of our work.

Preface

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Message from George Brown Polytechnic

March 2026

George Brown Polytechnic Facility Accessibility Design Standards (FADS).

We are committed to fostering an accessible and inclusive learning environment for our entire polytechnic community, including students, employees, and members of the public. The Facilities Accessibility Design Standards support the creation and maintenance of a built environment that removes barriers and ensures equitable access for all.

These standards apply to all newly constructed and renovated buildings and grounds—owned, leased, or operated by George Brown Polytechnic. The expectation is that all buildings and spaces comply with these standards, even when specific rooms or areas are not explicitly named.

To reinforce this commitment, adherence to these standards is a mandatory requirement in the operation, management, and/or augmentation of all George Brown Polytechnic spaces and in requests for proposals, tender documents, and construction contracts.

The foundation for these standards is the City of Toronto's Accessibility Design Guidelines, enhanced with additional best practices reflective of post-secondary environments and legislative requirements to ensure a higher standard of accessibility in the built environment.

We extend our sincere gratitude to the members of the George Brown Polytechnic community, including students, faculty, and staff, who generously shared their guidance, insights, and lived experiences. Their contributions were instrumental in shaping these Facilities Accessibility Design Standards (FADS) and ensuring they reflect the diverse needs of our community.

The development of these standards was a collaborative effort, guided by the FADS Steering Committee and made possible through the dedication and expertise of:

- Facilities and Sustainability
- Office of Anti-Racism, Equity, and Human Rights Services
- People and Culture
- AODA Committee

- AODA Student Sub-Committee

We recognize and appreciate the ongoing commitment of these groups in advancing accessibility, inclusion, and equity within George Brown Polytechnic's built environment. Their collective efforts help create spaces that are welcoming, functional, and barrier-free for all.

Refer to "Appendix B–Recognition, References and Resources" for a complete list of interested parties directly involved with the preparation and review of these standards.

Should you require an alternate format of the GBP FADS document please contact Campus Planning at campusplanning@georgebrown.ca .

GEORGE BROWN
COLLEGE
3 Lower Jarvis
STAND CLEAR

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Introduction

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Objective

George Brown Polytechnic (GBP) is committed to creating and continually enhancing equitable accessibility and inclusion for all members of our community, including students, employees, and visitors of differing abilities.

GBP recognizes that accessibility is experienced differently by individuals based on the many aspects of their identity and lived experience. Barriers in the built environment can intersect with social and cultural factors, such as disability, race, Indigeneity, gender, sexuality, and socioeconomic status, shaping how people engage with and move through our spaces. The FADS are guided by this understanding, committing the Polytechnic to create environments that are responsive, respectful, and supportive of the full diversity of our community, so that everyone can participate with dignity and belonging.

Using accessible, universal, and inclusive design principles helps identify, remove and prevent barriers for everyone so that dignity and independence can be achieved. Where barriers cannot yet be fully removed, accommodation should be provided to the greatest extent possible short of undue hardship. These measures ensure compliance with relevant legislation such as the Ontario Human Rights Code (OHRC) and the Accessibility for Ontarians with Disabilities Act, 2005 (AODA), including the Integrated Accessibility Standards Regulation (IASR).

GBP's Facility Accessibility Design Standards (FADS) incorporate legislated accessibility requirements, best practices, and universal design principles to advance an equitable, inclusive, and intersectional built environment across all GBP campuses.

Context

Background

In 2011, Ontario enacted the Integrated Accessibility Standards Regulation (IASR) into law, under the Accessibility for Ontarians with Disabilities Act (AODA). The IASR outlines requirements for the design of public spaces and specific features to be implemented to make these spaces more inclusive of people who have disabilities. In response, GBP's Office of Anit-Racism, Equity and Human Rights Services (OAREHRS) created the Accessibility and Inclusion Multi-Year Plan (MYAP). The MYAP aims to address accessibility challenges faced by our polytechnic community including students, employees, and members of the public. The primary objectives of this plan are to support GBP's goal of being an institution free of barriers in compliance with legislative requirements and to maintain a leading position in advocating for accessibility within Ontario's polytechnic sector.

The GBP Facility Accessibility Design Standards (FADS) have adopted the Toronto Accessibility Design Guidelines and comply with the AODA and 191/11 Integrated Accessibility Standards Regulation (IASR). They also reflect the updates in the 2024 Ontario Building Code (OBC) Section 3.8 Barrier-Free Requirements, the AODA's Design of Public Standards Development Committee's proposed standards, and AODA Recommendations for the Post-Secondary Education Standard. "Appendix B– Recognition, References and Resources" includes an extensive list of references used to create and update the GBP FADS.

Accessibility is fundamental to GBP's core values of excellence, accountability, diversity, and respect. As a polytechnic, we are committed to creating an inclusive environment for everyone: employees, students, and our community members.

As an organization we recognize that all employees have a role in creating an accessible and inclusive community in compliance with the AODA. This commitment to accessibility is a shared responsibility across the entire polytechnic. More information about our commitment can be found on our website.

Guiding Legislation

Current accessibility-related legislation and George Brown Polytechnic (GBP) policies are considered when developing and updating the Facility Accessibility Design Standards (FADS).

Ontario Human Rights Code

Under the Ontario Human Rights Code (OHRC), persons with disabilities have the right to be free from discrimination in employment, services, goods, facilities, and housing. The Code promotes and protects the right to full participation of persons with disabilities in society. This human right is often hindered or prevented by barriers created during the planning, design, and development process. These design barriers can result in discrimination and lack of access to services, goods, and facilities.

If GBP cannot remove barriers to ensure full participation in its services and facilities, the Polytechnic has a duty to provide alternate methods to access same or similar services and to accommodate persons with disabilities, short of undue hardship to the Polytechnic.

Accessibility for Ontarians with Disabilities Act

The Accessibility for Ontarians with Disabilities Act, 2005 (AODA) aims to make Ontario accessible by 2025 through the development, implementation, and enforcement of standards to identify, remove, and prevent barriers for people with disabilities in key areas of daily living.

AODA standards apply to private and public sector organizations across Ontario. Under the AODA, Ontario post-secondary institutions are identified as “large designated public sector organizations”. Polytechnics and universities are required to “incorporate accessibility design, criteria and features when procuring or acquiring goods, services or facilities, except where it is not practicable to do so” (O. Reg. 191/11, s. 5 (1); O. Reg. 413/12, s. 4 (1).).

There are five accessibility standards contained in one regulation under the AODA called the Integrated Accessibility Standards Regulation 191/11 (IASR).

The following sections are particularly relevant to the FADS regarding new and redeveloped facilities and services.

1. Design of Public Spaces

   a. Sections 80.6 through 80.44
2. General
   a. Sections 3, 4, and 7 – Establishing accessibility policies and plans and providing accessibility training
   b. Section 5 – Procuring or acquiring goods, services, or facilities
   c. Section 6 - Self-service kiosks
3. Information and Communications
   a. Sections 9 through 18 – Providing accessible information and communications, including emergency and safety information, educational information, accessible formats and communication supports, and information in alternate formats
4. Employment
   a. Sections 22 through 32 – Recruitment, accessible formats and supports, individual accommodation, and return-to-work requirements
5. Customer Service
   a. Sections 80.45 - 80.51
6. Transportation
   a. [Reserved]

When designing, renovating, or procuring any goods, services, or facilities that may fall under any of the AODA Standards, section "5.2.1 Accessibility Design Review and Approval Process " is followed.

The AODA requires organizations to provide accessibility policies, plans, and procedures related to carrying out AODA regulations. This includes the need to train employees and volunteers on the organization's policies and procedures. It also includes the need to provide information and communication to ensure that current and potential students and others are aware of:

- How to access accessible services and facilities;
- Disruptions to access of accessible services and facilities;
- How to request accommodations;
- How to request information in alternate formats; and
- How to provide feedback on accessibility, in various accessible formats.

Information regarding training and raising awareness on how to use the FADS and how to inform employees, volunteers, students, and others of changes to accessible services and facilities is included in "Appendix–C: Road Map".

During the development of these FADS, the AODA's Design of Public Spaces Standards Development Committee released a review of the accessible built environment standards and the barrier-free accessibility requirements under the Ontario Building Code. Their recommendations have also been reviewed and factored into the development of these FADS.

AODA Recommendations for Post-Secondary Education Standard

While the AODA Post-Secondary Education Standard Recommendations are not currently legislative requirements (as of initial FADS publication date), GBP has committed to the ongoing reference and incorporation, where possible, of these standards. GBP's accessibility activities will continue to aim for an early achievement of these emerging standards.

As such, the AODA Post-Secondary Education Standard Recommendations related to the built environment (recommendations 127 through 159) are incorporated in the FADS where applicable.

Specifically, to the built environment recommendation 127, minimum accessibility technical specifications of the following have been reviewed and implemented in the update of the FADS:

1. OCADU Facility Accessibility Design Standards, 2017
2. The design of public spaces standards
3. Checklist for Making Science Labs Accessible for Students with Disabilities, 2014
4. CNIB Clearing Our Path Guidelines

Additions to these requirements also include for service animals, neurodiversity, environmental sensitivities (e.g. air quality, chemical sensitivity, noise, and light), and mental wellness. To appropriately incorporate these considerations, such standards should be co-designed with person lived of experience of these disabilities and organizations that serve their interests.

Ontario Building Code

The Ontario Building Code (OBC) is the formal mandatory legislation governing the construction of all new buildings in Ontario. At the municipal level, the OBC requirements are administered and enforced by the Building Division of the Urban Development Services Department. The OBC addresses accessibility under a variety of requirements as follows:

- By governing the construction of new buildings, as well as repairs, renovations and additions to buildings; and
- By stipulating the minimum requirements for building property elements such as parking, entrances, public accessible routes, ramps, stairs, elevators, washrooms, signs, and exits.

Note that compliance with the OBC does not constitute compliance with the Ontario Human Rights Code. The GBP FADS meet or exceed the minimum requirements of the OBC and apply a best practice methodology to providing universal and accessible design.

Guiding Principles and Policies

AODA Guiding Principles

The four key principles of accessibility outlined in the Accessibility for Ontarians with Disabilities Act (AODA) Integrated Accessibility Standards are grounding principles for the Facility Accessibility Design Standards (FADS). The AODA principles are:

- Dignity – all services provide respect and dignity for persons with disabilities;
- Independence – freedom from control or influence of others and the freedom to make one's own choices;
- Integration – persons with disabilities may benefit from the same services, in the same place, and in the same or similar way as other customers; and
- Equal Opportunity – persons with disabilities have the same access as others to obtain, use, and benefit from goods or services.

George Brown Polytechnic's (GBP) Values

FADS content is developed in accordance with GBP values:

- Learners & Learning
    - We prioritize the needs, successes, and well-being of our learners.

      We embrace innovation and curiosity to discover potential.
- Equity & Belonging
    - We foster a culture of inclusion and respect.

      We honour Indigenous knowledge and practices.

      We advance anti-racism, anti-oppression, and accessibility.
- Collaboration & Community
    - We create supportive and co-operative spaces.

      We listen to and learn from each other.
- Accountability
    - We take responsibility for our decisions.

      We act with integrity, respect, and compassion.

- Sustainability
    - We strive to ensure that the social, environmental, and economic impacts of our actions benefit future generations.

GBP Statement of Commitment to Accessibility

GBP is dedicated to promoting an equitable environment for students, employees and members of the community that encourages everyone to access and participate in all aspects of polytechnic life.

One of the core values of GBP is its dedication to equity and belonging, ensuring that as a polytechnic community we show mutual respect in all our behaviour. This assurance to a polytechnic culture of inclusion is necessary in fostering a rich learning and working environment.

GBP Multi-Year Accessibility Plan and Status Reports

Under the AODA, GBP is considered a large designated public sector organization. As such, GBP is required to ensure its compliance with the standards and regulations of the AODA. These requirements include the need to develop a Multi-Year Accessibility Plan (MYAP) that identifies goals and actions to be taken to identify, remove, and prevent barriers to accessibility.

Barriers are to be considered and addressed for individuals who identify as D/deaf, deafened, or hard of hearing, disabled, or neurodivergent who engage with GBP as students, employees, or in any other capacity. The MYAP is required to be updated and published, in an accessible format, a minimum of every five years.

AODA legislation also requires GBP to prepare and publish an Annual Report related to the MYAP and its identified goals. This report is intended to document the planning and implementation activities and their status related to the various accessibility goals for the reporting period.

The following activities are required during preparation of the MYAP and annual updates of GBP accessibility goals:

- Review of relevant legislation and compliance requirements;
- Review of accessibility-related GBP policies, standards, and guidelines, including the FADS: and

- Consultation with persons with lived experience, including members of the GBP Accessibility Advisory Committee.

To review the current GBP MYAP, visit The George Brown Polytechnic Accessibility and Inclusion Multi-Year Plan.

To review the current and previous GBP AODA Status Reports (annual MYAP status reports) and AODA Compliance Reports (submitted to the Government of Ontario), visit College AODA Reports.

To request any AODA policies or reports in an alternate format, contact:

Manager, Accessibility and Inclusion

Office of Anti-Racism, Equity and Human Rights Services (OAREHRS)

George Brown Polytechnic

200 King Street E. Office 264D

Toronto, ON, M5A 3W8

Email: AODA@geogebrown.ca

Related GBP Policies and Procedures

The following are AODA and accessibility-related policies and procedures helpful for review. Many of these documents are incorporated in the GBP Accessibility Design, Review and Approval Process found in “Appendix A–Application, Exceptions and Approvals”.

- AODA Accessibility Policy
- Accessible Learning Services Policy
- Captioned Media and e-Text Policy
- Emergency Evacuation Planning and Procedures
- Human Rights Discrimination and Harassment Policy
- Procurement Policy and Toolkit
- Workplace Accommodation Policy and Return-to-Work policy and procedure

Universal Design

Principles of Universal Design

Universal design is the design of products and environments to be usable by all persons, to the greatest extent possible, without the need for adaptation or specialized design. The intent of the universal design concept is to simplify life for everyone by making products, communications and the built environment more usable by more persons, while emphasizing dignity and independence by providing those features that will allow persons to function in their day-to-day setting without assistance, at little or no extra cost. The universal design concept considers persons of all ages, sizes, and abilities (NC State University, The Centre for Universal Design, 1997).

The seven principles of universal design are:

1. Equitable Use: The design is useful and marketable to persons with diverse abilities.
2. Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.
3. Simple and Intuitive Use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
4. Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient condition or the user's sensory abilities.
5. Tolerance for Error: The design minimizes hazards and the adverse consequences of accidental or unintended actions.
6. Low Physical Effort: The design can be used efficiently and comfortably with minimal fatigue.
7. Size and Space for Approach and Use: Appropriate size and space are provided for approach, reach, manipulation and use, regardless of the user's body position, size, posture or mobility.

Goals of Universal Design

The goals of universal design shift the focus from product usability to a more person-centric lens to include human performance, health and wellness, and social participation. The goals define the outcomes of universal design practice in ways that can be measured and applied to all design domains within the constraints of existing

better practice resources. They encompass functional, social, and emotional dimensions. Each goal is supported by an interdisciplinary framework of anthropometrics, biomechanics, perception, cognition, safety, health promotion, and social interaction (Steinfeld and Maisel, 2012, University of Buffalo).

The eight goals of universal design are:

1. Body Fit: Accommodating a wide range of body sizes and abilities.
2. Comfort: Keeping demands within desirable limits of body function and perception.
3. Awareness: Ensuring that critical information for use is easily perceived.
4. Understanding: Making methods of operation and use intuitive, clear, and unambiguous.
5. Wellness: Contributing to health promotion, avoidance of disease, and protection from hazards.
6. Social Integration: Treating all groups with dignity and respect.
7. Personalization: Incorporating opportunities for choice and the expression of individual preferences.
8. Cultural Appropriateness: Respecting and reinforcing cultural values and the social and environmental contexts of any design project.

In addition to the principles and goals of universal design, George Brown Polytechnic (GBP) expects the provisions of an equivalent level of life safety for everyone, including accessible methods of leaving a building and communicating in an emergency.

Universal Design for Learning

Universal design for learning (UDL) is a teaching and learning framework designed to help break down structural barriers that may exist in traditional educational practice.

UDL is based on the principles of universal design, applied more specifically to learning environments. UDL asserts that learners who are traditionally pushed out of classroom environments – including but not limited to learners with disabilities – deserve to be supported in an equitable and inclusive learning experience.

GBP incorporates UDL in its onboarding and training material for GBP instructors and provides numerous resources to work towards accessible and inclusive learning. In addition to working with Accessible Learning Services to meet student accommodation requests, instructors are encouraged to apply UDL principles and practices when designing and delivering courses.

The following three UDL principles help promote greater equity and inclusion for all learners:

- Provide multiple means of representation (e.g., text, audio, video, online);
- Provide multiple means of engagement (e.g., individual, group, in person, online); and
- Provide multiple means of action and expression (e.g., written, oral, video, poster).

UDL plays a crucial role in George Brown Polytechnic's practice at the Teaching and Learning Exchange (TLX), serving as a cornerstone framework that guides the TLX in embodying its core values. It also serves as a significant instrument for achieving the objectives outlined in the 2024-2030 Academic Plan, the GBP Multi-Year Accessibility Plan (MYAP), and the strategic vision laid out in A Roadmap to the Future: Vision 2030, Strategy 2026.

Standards Application and Scope

Application and Compliance

The George Brown Polytechnic (GBP) Facility Accessibility Design Standards (FADS) is the mandatory, guiding accessibility standard for all GBP renovations and newly constructed buildings and public spaces. The application of these standards is intended for new construction and development, as well renovations and replacements of GBP-owned buildings and grounds. It also extends to all other non-GBP-owned, leased, or operated facilities, whether new or retrofitted. Refer to "Appendix A–Application, Exceptions and Approvals" for additional information.

All GBP divisions managing capital construction projects shall ensure compliance with these guidelines during the pre-planning, design, construction documents, preparation, construction, and occupancy phases.

All GBP divisions issuing requests for proposals, requests for quotations, tenders, and informal quotation requests for any good and/or design and construction services shall ensure compliance with these standards.

If the proposed work cannot meet the requirements of GBP FADS and a suitable Renovation Compliance Alternative could not be applied after exhausting all possible options, GBP staff must follow the technically infeasible compliance alternative approval process noted in "Appendix A–Application, Exceptions and Approvals" and request the approval through the appropriate governing body under the GBP's Accessibility Governance Structure. Refer to "Appendix A–Application, Exceptions and Approvals" for additional information.

Compliance

All work must comply with the list below:

Ontario Human Rights Code (OHRC)

The OHRC protects persons from discrimination and supersedes all provincial laws such as the Ontario Building Code. The Ontario Human Rights Commission ultimately determines how to apply the OHRC, the "duty to accommodate," and the point of "undue hardship."

Integrated Accessibility Standards Regulations (IASR), Accessibility for Ontarians with Disabilities Act 2005 (AODA)

The IASR establishes the accessibility standards for information and communications, employment, transportation, the design of public spaces, and customer service. The AODA is a law that sets out a process for developing accessibility standards. The goal of the Act is to improve the identification, removal, and prevention of barriers faced by persons with disabilities and to make related amendments to other Acts.

Building Code Act, Ontario Building Code (OBC)

The OBC describes a minimum mandatory level of design standards for accessibility within the Province of Ontario. Compliance with the OBC does not constitute compliance with the OHRC.

A series of other legislative acts, standards, and guidelines have been referenced in the making of the GBP FADS. The complete list can be referred to in "Appendix B–Recognition, References and Resources" and represents the application of a best practice standard to achieve the highest level of accessibility possible that meets or exceeds the minimum requirements of the OBC, AODA Accessibility Standard, CSA B651-23, and other related post-secondary accessibility or inclusive design references.

Conflicts, Acceptable Levels, and Technically Infeasible

In addition to these standards, designers must also refer to the minimum requirements of the current OBC and the AODA Design of Public Spaces Standard (DOPS).

Where conflicts exist between the requirements of these standards and legislation enacted by the federal or provincial government, the highest level of accessibility requirements must apply.

The GBP FADS does not release the design professional from liability or the need for a comprehensive investigation in the design and construction process.

The term technically infeasible refers to the renovation or replacement of a building element that cannot meet the requirements of GBP FADS and where a suitable Renovation Compliance Alternative, noted in "Appendix A–Application, Exceptions and Approvals", cannot be applied based on:

- Existing structural conditions that would require altering parts of the structural frame, such as a load-bearing member; and/or
- Other existing major physical or site constraints prohibiting the necessary modification or addition of elements, spaces, or features for compliance with GBP FADS.

If the proposed work is technically infeasible and the renovation compliance alternative noted in "Appendix A–Application, Exceptions and Approvals" cannot be achieved after exhausting all possible options, GBP staff must follow the alternative solutions process.

This process requires extensive documentation and justification by GBP staff with the support of their consultant/vendor team. Furthermore, the process requires the approval of the appropriate Accessibility Governance Body within GBP, such as the Accessibility Working Committee or the GBP FADS Steering Committee.

Renovations, Retrofits and Alterations

The GBP FADS shall be applied to all renovations and replacements of existing facilities and properties, regardless of size or scope of the project.

These standards recognize multiple categories of renovation, retrofits, and alterations to existing facilities and properties that vary in size and scope. Note that requirements for compliance are limited to the scope of alteration. Refer to "Appendix A–Application, Exceptions and Approvals" for additional information.

Building Additions

Additions to existing facilities are considered to be new construction and expected to meet all of the recommendations in the GBP FADS and must comply with the OBC requirements of Section 3.8. Barrier-Free Design. Refer to "Appendix A–Application, Exceptions and Approvals" for additional information.

Historical and Heritage Properties

As such, any work on historic sites or heritage properties must be assessed on an individual basis to determine the most effective and least disruptive means of renovation or replacement and the extent to which the property can be made accessible. Refer to "Appendix A–Application, Exceptions and Approvals" for additional information.

How to Read this Standard

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Document Composition

The George Brown Polytechnic (GBP) Facility Accessibility Design Standards (FADS) are broken into five parts:

- 1. Exterior;
- 2. Interior;
- 3. Systems and Controls;
- 4. Exterior and Interior Maintenance; and
- 5. Appendices.

Each part presents a summary of the information contained in the section and a supplementary rationale, which provides a detailed overview and context for the sequence of information and requirements listed. Segments of information in these parts may have application in other relevant parts and sections. Cross-referencing within the document is provided when this overlap occurs.

Dimensions

Dimensions used in this standard are in metric units (millimetres or metres) and shown as “mm” or “m”. When dimensions are not indicated within a range of maximum or minimum (“Max.” or “Min.”), the dimensions are absolute and should be met.

Overview of Standard Layout

Rationale

The Rationale section identifies the reasoning of why the subsection is written and some key overarching points that should be considered when reviewing the subsection.

Application

The Application section clarifies where the Key Considerations and Requirements should be applied. The Application section has been added in select subsections where clarifications have most likely been required.

Not all subsections have an Application statement. For additional information on how this standard is applied refer to “Appendix A–Application, Exceptions and Approvals”.

Key Considerations

The same headings are used for Key Considerations and Requirements. The Key Considerations section outlines the rationale and relates primarily to the qualitative elements of the Requirements.

Requirements

The same headings are used for Key Considerations and Requirements. The Requirements section is typically reserved for the quantitative elements that can be implemented in the built environment.

Related Sections

The Related Sections list identifies other subsections that should be reviewed because of related or supplemental design considerations or guidance.

Related References

The Related References list identifies other documents that were used to inform the requirements identified in the subsection. The designer may consult two types of these documents during the project's design process.

The first type of related references are internally produced documents by GBP, most of which are publicly available. Some remain as internal reference documents only available to GBP staff and its applicable vendors, however upon approval of GBP staff they may be made available for review.

The second type of related references are externally produced documents by other agencies and organizations that are associated with the section or subsection of these guidelines.

Glossary and Referenced Documents

Standards, guidelines, and other related reference documents are hyperlinked throughout the document. Not all documents have publicly available web addresses. Where documents are not hyperlinked, refer to "Appendix B–Recognition, References and Resources".

Renovation compliance alternatives are identified in a square bracket with "R-" and the section number referenced. For example, [R-1.1.2. (1)(a)].

Any cross-referenced information that occurs will be identified and linked to the specific section referenced.

Accessible Format and Screen Reader Capabilities

The George Brown Polytechnic (GBP) Facility Accessibility Design Standards (FADS) have been created in an accessible format in accordance with GBP's digital accessibility, information, and communication standards. The document includes easy-to-read graphic layout, fonts, language, diagrams and multiple types of referencing, available in large print and screen reader compatible.

Screen Reader User Tips

This document has been tested and is compatible with screen reader software. Different software may not have the same functionalities and keyboard shortcuts. Refer to the screen reader user guide provided with your screen reader software for additional instructions. Tips for JAWS and NVDA and commonly used keyboard shortcuts are below.

(1) Keyboard Shortcuts for JAWS:

Commonly used keyboard shortcuts for JAWS include:

- The [H] key will navigate to the next section heading;
- The [Insert + F6] keys will provide a list of headings in the document;
- The [Alt + ↑] key will read the prior sentence;
- The [Alt + Numpad 5] keys will read current sentence;
- The [Alt + ↓] key will read the next sentence;
- The [Insert + ↓] keys will read all text from current position;
- The [→] key will fast forward during read all text;
- The [←] key will rewind during read all text;
- The [T] key will navigate to the next table;
- The [Ctrl + Alt + directional arrow] keys will select the cell to the left, right, below, or above in a table; and

- The [Ctrl + Alt + Numpad 5] keys will read the current cell in a table.

(2) Keyboard Shortcuts for NVDA:

Commonly used keyboard shortcuts for NVDA include: (note: the NVDA key is set to the [Insert] key by default, but can be changed by the user)

- The [H] key will navigate to the next section heading;
- The [↑] or [Numpad 7] key will read the prior line;
- The [NVDA + ↑] or [Numpad 8] key will read the current line;
- The [↓] or [Numpad 9] key will read the next line;
- The [NVDA + ↓] will read all text from current position;
- The [T] key will navigate to the next table; and
- The [Ctrl + Alt + directional arrow] keys will select the cell to the left, right, below, or above in a table.

Feedback

George Brown Polytechnic (GBP) recognizes that accessibility best practices continue to evolve and change over time with the expectation that these guidelines exist as "living document" and as such encourages all users of this standard to provide feedback, as well as to request changes to be considered for any additions, deletions, or corrections by completing the Change Proposal Form included in "Appendix B–Recognition, References and Resources".

Glossary

Contents in Section

Glossary

Glossary

The following definitions are provided for clarification.

AFF: "Above Finished Floor", measured from the finished floor surface vertically to the centre line of the operable portion or control of the measured item.

Access Aisle: Refers to a demarcated zone used for passenger pick-up and drop-off of persons from a vehicle. Access aisles include pavement markings for easy identification and are often shared between accessible parking spaces. See Accessible Parking Space.

Accessible: Refers to products, devices, information, services, facilities, or public spaces that provide independent, equitable, and dignified access for persons with disabilities, including but not limited to those with visual, auditory, cognitive, and mobility-related disabilities.

Accessible Facility: A large space, such as a recreation centre or office building, that meets the requirements in this guideline. See Specialized Spaces and Amenity definitions for more information.

Accessible Parking Space: A designated vehicle parking space with a displayed accessible parking permit. See Access Aisle, Type A Parking Space, and Type B Parking Space.

Accessible Path of Travel: A continuous, unobstructed route providing exterior and interior access to elements and spaces. Interior accessible paths of travel include aisles, corridors, hallways, unobstructed passing areas, ramps, elevators, and platform lifts. Exterior accessible paths of travel include sidewalks, trails, pathways, boardwalks, beach access routes, pedestrian overpasses and underpasses, exterior paths of travel to entrances and exits, ramps, pedestrian crossings, traffic islands, curb ramps, depressed curbs, and access aisles. An accessible path of travel should be safe, unobstructed and the most direct route. See Pedestrian Clearway and Sidewalk.

Accessible Pedestrian Signal: A device that communicates information, through sound and vibro-tactile indications, that advises pedestrians who are blind, have low vision, or are deaf-blind when they have the right of way to cross at a signalized pedestrian crossing and in which direction they may cross the intersection.

Accessible Water Closet Stall and Enclosure: A stall and enclosure within a multi-stall washroom that has a water closet, the maneuvering space for a person using a smaller mobility device, and the required grab bars. An accessible water closet stall and

enclosure is also known as a barrier-free water closet stall and enclosure and is a different space from a universal washroom. See Universal Washroom.

Adaptable Seating: A seat designed to facilitate a side transfer from a mobility device. A common example of adaptable seating is a removable arm rest to allow for an individual to transfer onto the seat. Alternatively, the seat can be removed and provide required clear floor space for a person using a mobility device.

Adaptive Bicycle: A bike that is modified to fit the needs of an individual rider. Adaptive bicycles may include hand-cycles, tandem bikes, four-wheeled dual recumbent, three-wheeled recumbent, recumbent foot cycle, recumbent hand-cycle, etc.

Adult Change Table: A raised platform located in a washroom or change room designed for use by an adult during measures of care, independently or with the assistance of others.

Ambulatory: Refers to a person with limited mobility who may use assistive devices such as canes, crutches, and/or walkers.

Amenity: An item or items which provide accessible conveniences or services for use by the public. Examples include benches and seats, waste receptacles and recycling bins, bicycle racks, storage and lock-up areas, exterior news, post, and mailboxes, water bottle filling stations and drinking fountains, and washrooms.

Areas of Rescue Assistance: Is a space where persons can safely wait for rescue assistance during an evacuation. The space is indicated on the Fire Safety Plan, has a fire-rated enclosure, is equipped with separate ventilation, has direct access to an exit, and has two-way communication equipment.

Assistive Listening Device: There are three types of assistive listening technology: radio frequency (RF), infrared (IR), and induction loop, also known as hearing loop. Each of these uses different technology to transmit wireless sound to a personal receiver or directly to a compatible hearing aid. Assistive listening systems deliver the desired sound directly to the individual's ear without ambient background noise.

Audible Signal: Refers to signals which emit a distinctive sound, communication, or alert to provide a warning or indicate readiness to respond.

Bariatric: Persons who are within a weight range that would typically require wider seats and a furnishing, fixtures and equipment that can sustain a load capacity of at least 182kg to 453 kg.

Barrier: Anything that prevents a person with a disability from fully participating in all aspects of society because of their disability. Typical examples include a physical or architectural barrier, an information or communication barrier, an attitudinal barrier, a technological barrier, and/or a policy or a practice barrier.

Basic Renovation: When existing interior walls, ceilings, floor or roof assemblies are maintained during construction by the reuse, relocation, or extension of the same or similar materials or components of the building.

Beach Access Route: Refers to routes that create accessible connection to the water, typically by seasonal mats over sand to connect trails to water.

Best Practice: Recognized standards that exceed the minimum accessibility requirements in current legislation and regulations such as the Ontario Building Code (OBC) and the Accessibility for Ontarians with Disabilities Act's (AODA) Design of Public Spaces Standards. Examples of current best practice standards include CAN/CSA B651 Accessible Design for the Built Environment, AODA Accessible Built Environment (2010), or this document.

Bevel: A small slope between adjacent, non-continuous surfaces that creates a maneuverable transition at an elevation change. An elevation change up to 13 mm can be accommodated by a bevel at a maximum slope of 1 in 2.

Braille: A system of raised dots that persons who are blind can read with their fingers. The basis of the braille system is the braille cell. A full braille cell is comprised of six dots, arranged in two parallel rows of three dots. Each dot, or combination of dots, represents a letter of the alphabet, a number, or punctuation mark. Together, they can be used to express words, sentences, equations, musical notation, and more. Grade 1 braille is where every letter in a word is expressed in braille and is also known as elementary braille. Grade 2 braille is a shorthand version of braille that saves space and allows for faster reading and writing.

Cane Detectable: An object that can be identified by a person using a long white cane for wayfinding. This can be achieved by having an object's bottom edge be mounted at or below 680 mm AFF. A Tactile Walking Surface Indicator would be detectable by a person using a white cane for wayfinding. See Tactile Walking Surface Indicator.

Clear Floor Space: The minimum unobstructed level, floor or ground space required to fit a person using a mobility device. The clear floor space should be considered as a volume and should be centred on a control or an operated object. See Space and Reach Range Dimensions.

Clear Ground Space: See Clear Floor Space.

Collector Roads: Defined in the City of Toronto's Road Classification System, collector roads provide access to property and traffic movement, 2,500 to 8,000 vehicles per day, less than 1,500 bus (or streetcar) passenger per day, signalized intersections at arterial roads, truck restrictions permitted, cyclists–special facilities as required, sidewalks on both sides of the road, and medium priority for winter maintenance.

Colour/Brightness Contrast: Also referred to as luminance (colour) contrast, is the difference in light reflectance value between adjacent surfaces. For example, light on a dark background or dark on a light background. The Michelson contrast is a formula, C_M, used to calculate the luminance (colour) contrast value (%): $C_M = (L_1 - L_2) / (L_1 + L2) \times 100$

- L_1 = the value of luminance on a lighter surface, expressed in cd/m^2
- L_2 = the value of luminance on a darker surface, expressed in cd/m^2

Cross Slope: The slope measured perpendicularly to the direction of travel (opposite of running slope). See Running Slope.

Crosswalk: A designated portion of a roadway commonly found at an intersection or at a designated location along the road, marked by crossing signs and/or roadway surface markings such as black and white "zebra markings". The crosswalk is intended for use by pedestrians to cross the roadway.

Curb Ramp: A ramp that is cut through a curb or that is built up to a curb.

Depressed Curb: A seamless gradual slope at transitions between sidewalk or walkways and roadways and is usually found at intersections or at pick-up and drop-off zones.

Dropped Curb: The section of curb within a curb ramp or depressed curb that is level with a roadway to allow access between the roadway and sidewalk.

Elevated Platform: Elevated platforms include stage areas, speaker podiums, daises, and other raised areas.

Entrance: Any access point into a building or facility used for the purposes of entering. An entrance includes the approach walkway, the vertical access leading to the entrance platform, the entrance platform itself, vestibules (if provided), the entry door(s) or gate(s), and the hardware of the entry door(s) or gate(s).

Extensive Renovation: Defined in the OBC as when existing interior walls, ceilings, floor, or roof assemblies are substantially removed and new interior walls, ceilings, floor. or roof assemblies are installed.

Exterior Public Spaces and Elements: Spaces and elements that are open and accessible to persons. They include spaces and elements such as roads, laneways, pedestrian clearways, paved or unpaved trails and paths, public squares, parks, campgrounds, play areas, and beaches. They shall comply with these guidelines as follows:

- All newly built exterior public spaces and elements described in Section 1 shall comply with the requirements of the George Brown Polytechnic (GBP) Facility Accessibility Design Standards (FADS).
- All existing built exterior public spaces and elements being altered, upgraded or replaced shall comply with the requirements of the GBP FADS to provide the highest level of accessibility possible, having regard for physical barriers and technical constraints.

External Microphones: A personal FM system consists of a microphone used by a speaker that transmits the signal to a receiver worn by the listener. Some types of receivers can be worn as headsets while other receivers can connect directly to hearing aids. Also refer to Portable Amplification Devices.

Glare: Is a visual sensation caused by excessive light and uncontrolled brightness. Light can be from a direct source or be reflected from a surface, creating a range of responses from visual annoyance, discomfort, to visual loss.

Gradual Transition: Is a sloped surface that allows for better control and ease of movement for persons using mobility devices.

Haptic Technology: Is a broad term describing technologies that a user experiences through their sense of touch. See Vibro-Tactile.

High-Capacity Trails: As identified in the Toronto Multi-Use Trail Design Guidelines, high-capacity trails may perform any or all of the functions of primary and/or secondary trails, collect traffic from primary and secondary trails, and are trails that may be a destination or attraction itself.

High Stimulus Environment: Spaces that can anticipate a steady flow of people and activity, that can be audible loud, have lots of visual stimuli and activity such as cafeterias, large lounges, collaborative working areas, or atriums.

High-Use Area: Refers to the pedestrian volume in an area. These areas are paths of travel that have a frequent flow of persons and are wide enough to allow at least two persons using mobility devices to pass each other. Examples include the main circulation space in a building or the path of travel to a washroom. See Low-Use Area.

***Illumination Ratio**: A calculation that evaluates the lighting in one area with an area that is immediately adjacent, e.g. comparing the lighting on a desk with the lighting on a wall.

Lavatory: A sink or washbasin.

Lay-By: An area at the side of a roadway where vehicles may pull off the road and stop.

Local Roads: Defined in the City of Toronto's Road Classification System, local roads typically provide access to property, less than 2500 vehicles per day, generally no bus routes, sidewalks on at least one side of road, and truck restrictions preferred.

Low-Use Area: Refers to the pedestrian volume of an area. These areas are paths of travel that have an occasional flow of persons and are wide enough to allow at least one person using a mobility device to easily pass. Examples include aisles in offices or the path between fixed elements or furniture pieces. See High-Use Area.

Maintenance: Activities that are intended to keep existing spaces and elements in good working order and usable.

- *Measurable addressing the specific risks/barriers that need to be mitigated (e.g. construction, garbage, snow, leaves, water, ice, sand), and establish standards for care, cleaning and repair, to maintain accessibility elements, features and amenities in good order and safe condition.
- *Ensure maximum level of usability, safety and operability of accessible elements, features and amenities (e.g. power door operators, accessible pedestrian signals, accessible path of travel) that meet the requirements of the GBP FADS.

Major Arterial Roads: Defined in the City of Toronto's Road Classification System, major arterial roads typically provide traffic movement as a primary function, subject to access controls, greater than 20,000 vehicles per day, greater than 5,000 transit passengers per day, and sidewalks on both sides.

Minor Arterial Roads: Defined in the City of Toronto's Road Classification System, minor arterial roads typically provide traffic movement as a primary function, some

property access control, 8,000 to 20,000 vehicles per day, 1500 to 5000 transit passenger per day, no truck restrictions, and sidewalks on both sides.

Mobility Device: Refers to a range of assistive equipment used by persons with disabilities to assist with mobility. Examples include crutches, canes, manual or powered wheelchairs, scooters, and walkers.

Multi-Use Trail: An extensive network of formal and established paths within a parkland or ravine which can be paved or have a granular surface. See Trails.

Naturalized Trail: An extensive network of informal paths within a parkland or ravine which is typically made up of a dirt surface. See Trails.

Neurodiversity: A concept that recognizes and celebrates the spectrum and variation of human brain functioning and cognition. Human neurodiversity recognizes the ranges in the way we may communication, think, move, and act. Sensory processing differences, learning disabilities and mental health illness is often associated with the concept of neurodiversity. Neurological profiles can sometimes be collectively grouped as:

- Neurotypical (someone fitting a majority neurological profile and is not neurodivergent);
- Neurodivergent (someone who fits outside majority neurological profile and is commonly associated with autism, attention deficit hyperactivity disorder, dyslexia, dyspraxia, dyscalculia, dysgraphia and Tourette's syndrome – there is no definitive list of conditions associated with neurodivergence); and
- Neurodegenerative (whereby sensory processing differences develop over time through brain diseases, such as different forms of dementia or Parkinson's).

Off-Street Parking: Includes open area parking lots and structures intended for the temporary parking of vehicles by the public, whether or not the payment of a fee is charged and includes visitor parking spaces in parking facilities. See On-Street Parking.

On-Street Parking: Designated vehicle spaces located on a roadway, within GBP's right-of-way. On-street parking is intended for the temporary parking of vehicles by the public. See Off-Street Parking.

Operable Portion or Control: A part used to insert or withdraw objects, or to activate, deactivate, or adjust the equipment or appliance (for example coin slot, push button, handle).

Passenger Loading Zone: See Passenger Pick-Up and Drop-Off (PPUDO).

Passive Play: Passive play provides a sensory or non-interactive play experience at play spaces. For example, a passive lawn area located away from the activity zone for rest and quiet play should be provided at play spaces.

Pedestrian Clearway: The zone on the sidewalk that is dedicated for pedestrian travel. The pedestrian clearway should be clear, straight and unobstructed. The pedestrian clearway is the most important zone on a sidewalk. See Sidewalk.

Pedestrian Crossing: The area across a roadway where it is intended for pedestrians to cross. A pedestrian crossing can be a controlled crossing, where pedestrians have the right-of-way, or an uncontrolled crossing, where pedestrians do not have the right-of-way and must wait for a sufficient gap in traffic in order to cross.

Passenger Pick-Up and Drop-Off (PPUDO): Areas of a roadway or driveway that are designated and sometimes signed for a vehicle to safely stop for a limited amount of time and allow persons to board and disembark from the vehicle. This area allows for ease of access into the building and is designed with a dropped curb to allow persons using a mobility device to access the path of travel.

Persons with a Disability: A person with a disability refers to anyone who experiences a long-term, temporary, or recurring physical, mental, intellectual, cognitive, learning, communication, or sensory impairment which, in interaction with attitudinal, environmental, or systemic barriers, may limit their full and equitable participation in society. This definition recognizes that disability results not only from an individual's impairment, but from the design of environments, systems, and attitudes that fail to accommodate the diversity of human experience. Disabilities may be visible or invisible, permanent or temporary, and may vary in intensity over time. Inclusive design aims to reduce and remove these barriers by creating environments, information, and services that are accessible and usable by the widest range of people.

Pool Lift: A device, fixed or non-fixed, that includes a seat where a person may sit and be lifted into a pool. A transfer space must be provided.

Portable Amplification Device: Devices that amplify the incoming auditory signal (e.g. "PocketTalker"). A microphone picks up the audio signal, which is then amplified and streamed through the attached headset, according to volume preference of the user. Amplification devices are far less sophisticated than hearing aids, cannot be adjusted to fit the user's hearing loss, and can be set to potentially harmful listening levels. Generally, portable amplification devices are recommended for short-term use (e.g. for

patients awaiting surgery or for those who are too ill to undergo a hearing aid evaluation and/or fitting). Refer to External Microphones.

Power Door Operator (PDO): A mechanism consisting of wireless push plate actuator switch which controls a surface-applied electromechanical operator that allows the door to be opened mechanically rather than by a person pushing or pulling the door.

Primary Trails: As identified in the Toronto Multi-Use Trail Design Guidelines, primary trails are local connections and feeder or tributary routes.

Public Pool: Defined in the OBC as a structure, basin, chamber or tank containing or intended to contain an artificial body of water for swimming, water sport, water recreation, or entertainment, but does not include wading pools, hydro-massage pools, or pools that serve only as receiving basins for persons at the bottom of water slides. See Wading Pools.

Public Spa: Defined in the OBC as a hydro-massage pool, commonly referred to as a "hot tub", that contains an artificial body of water, that is intended primarily for therapeutic or recreation use, that is not drained, cleaned or refilled before use by each individual and that utilizes hydro-jet circulation, air induction bubbles, current flow or a combination of them over the majority of the pool area, but does not include wading pools. See Wading Pools.

Queuing Area: A waiting line for a sequence of persons or vehicles awaiting their turn to be attended to or to proceed.

Ramp: A sloped surface or inclined plane that provides an accessible connection between changes in ground elevation. The ramp includes all elements and features necessary to provide an accessible path of travel as described in this guideline.

Recreational Trail: See Trails.

Regulation: A directive, rule, or law made and maintained by an authority, such as a government conduct.

Replacement: Construction, modification, or material alteration of a building element.

Rest Area: A dedicated level and clear area that is intended to allow persons to stop or sit along an exterior or interior accessible path of travel. This area may include a bench or seating that must not impede into the minimum required space. In an exterior setting, such as a trail, a rest area can also be applied as a "Viewing Area".

Running Slope: A slope that is parallel to the direction of travel. See Cross Slope.

Secondary Trails: As identified in the Toronto Multi-Use Trail Design Guidelines, secondary trails connect different parts of the city, collect traffic from secondary trails, and connect with other primary trails.

Sensory Inclusive: An environment that considers the impact senses from the visual, olfactory, auditory, touch and taste and how one experiences the environment. Typically, adjustments to lighting, noise levels, ability to control temperature can make environments more comfortable.

Sensory Overload: Can be caused by numerous elements in the built environment, including: variations in sound or acoustical environment, including intermittent or continuous, from loud to very quiet ,especially when unexpected; visual "noise" which may be caused by light, glare, shadows, colours, patterns, movement, technology, or clutter; spatial and layout complexity; and unwanted or extreme sensory feedback through smell, touch, taste or temperatures. Also known as "Sensory Shut Down".

Sensory Processing Difference: How information is perceived, processed, and organized when received through the senses, i.e. hearing, sight, smell, touch, taste, and movement. To have a sensory and/or information processing difference is to react through the senses in a different way to the majority. Someone might experience atypically high response to a sensory stimulus (hypersensitive) or atypically low response (hyposensitive). This can sometimes result in stimulation being actively sought out, also known as "sensory seeking". Sensitivity might vary so an individual may be hyposensitive to light but not noise, for example, or might be highly sensitive to a wide range of stimuli. However, it should be noted that all our senses work together rather than in isolation, so it's important to consider the multisensory impact and balance of how they combine when designing and managing the built environment.

Service Animal: A service animal may be a guide dog, signal dog or other animal individually trained to provide assistance to an individual with a disability. Animals may be considered service animals regardless of whether they have been licensed or certified by a school or training facility. Guide dogs are one type of service animal (covered by Ontario Service Dog Act, Blind Persons Rights Act), used by some persons who are blind or have low vision. There are service animals that assist persons with other kinds of disabilities in their day-to-day activities. Some examples include alerting persons who are hard of hearing to sounds, pulling wheelchairs, assisting with balance, or carrying and picking up things for persons with limited mobility, and detecting and alerting persons of oncoming seizures.

Service Room: Defined in the OBC as a space provided in a building to contain equipment associated with building services.

Service Space: Defined in the OBC as a space provided in a building to facilitate or conceal the installation of building service facilities such as chutes, ducts, pipes, shafts or wires.

Sidewalk: Refers to the paved area, typically constructed parallel to roadways, that allows for pedestrian travel. In an urban context, sidewalks also provide space for café patios, street trees, street furniture, and other items. The portion dedicated to pedestrian travel is referred to as the Pedestrian Clearway. See Pedestrian Clearway.

Signage: Is one component of wayfinding and is a means of communicating information about the built environment and can include printed and raised text, braille and pictograms. Where overhead signage is used, raised text and braille are typically not used. Digital signage or electronic signage use technologies to display digital information.

Site Constraint: An existing major physical element prohibiting the necessary modification or addition of elements, spaces, or features for compliance with the GBP FADS.

Slip-Resistant: Ability of a surface to prevent slipping, typically measured by the frictional force between the surface and an object (such as a shoe sole). It is often quantified using the coefficient of friction (COF), which can be static (SCOF) or dynamic (DCOF), depending on whether the object is stationary or in motion. Reference standards such as ANSI A326.3 American National Standard Test Method for Measuring Dynamic Coefficient of Friction of Hard Surface Flooring Materials provide the minimum values required for slip resistance. Static COF requires additional testing and information from the manufacturer.

Some typical DCOF values include: Adopted from Table 1 in ANSI A326.3

Classification	Criteria
Interior, Dry	≥ 0.42 dry DCOF*1 (per Section 10.1)
Interior, Wet	≥ 0.42 wet DCOF* (per Section 9.1) or Manufacturer-Declared
Exterior, Wet	Manufacturer-Declared

Smudging: Traditional practice among may Indigenous Cultures of First Nations, Métis, and Inuit communities. Smudging involves the burning of sacred plants such as sage, sweetgrass or cedar and using the smoke to cleanse a person, space, or object of negative energies or influences, and to allow for purification, attraction of positive energies and spirits.

Splash Pad: A water play area typically located in parks, parkettes, and play spaces and often including engaging water features for children such as shower heads and spray jets.

Street Furniture: A variety of elements and amenities installed in the public right-of-way for use by and convenience of the public. Examples include, but are not limited to, transit shelters, benches, litter / recycling receptacles, bicycle parking, publication structures, information / wayfinding pillars, and poster kiosks.

Tactile: Describes an object or element that can be perceived using the sense of touch.

Tactile Attention Indicator: Shaped as truncated domes, which communicate an upcoming hazard or decision-making point.

Tactile Direction Indicator: Parallel flat-top elongated bars, which communicate a suggested path of travel and act as a tool to help with wayfinding.

Tactile Walking Surface Indicators (TWSI): A standardized floor or ground surface feature built into or applied to walking surfaces that can be detected by a long white cane used by persons with low or no vision with wayfinding in the built environment. There are two types of TWSI that are recognized by ISO 23599; they are tactile attention indicator, and tactile direction indicator.

Technically Infeasible: Refers to the renovation or replacement of a building element that cannot meet the requirements of the GBP FADS and where a suitable Renovation Compliance Alternative, noted in “Appendix A–Application, Exceptions and Approvals”, cannot be applied based on existing structural conditions that would require altering parts of the structural frame, such as a load-bearing member; and/or other existing major physical or site constraint prohibiting the necessary modification or addition of elements, spaces or features for compliance with GBP FADS.

Textural Nosing Strip: A distinct surface located at the edge of a stair tread or at the nosing, that is textured, and colour contrasted from the stair tread, intended to visually identify the edge of each stair tread.

Text Telephone (TTY): Machinery or equipment that uses text-based communication through the transmission of coded signals across the standard telephone network. Text telephones can include, for example, devices known as TDD's (telecommunication devices for persons who are D/deaf, deafened, or hard of hearing) or computers with special modems. Text telephones are also called TTY, an abbreviation for teletypewriter.

Trail: A path found within a more natural area, parkland or ravine system that is not a sidewalk or pedestrian clearway. These are often considered recreational trails can be divided into two types.

Transfer Wall: Provides an accessible means of entry and egress from a public spa (hot tub). The wall allows a person using a mobility device to make a horizontal transfer from their seat to the top surface of the transfer wall and directly access the water on the other side of the wall.

TTY: Teletypewriter. See Text Telephone.

Type A Parking Space: A wider parking space and signage that identifies the space as "Van Accessible". See Accessible Parking Space.

Type B Parking Space: A standard accessible parking space. See Accessible Parking Space.

Universal Change Rooms: Combine the function of universal washrooms and accessible showers into a single room to provide additional privacy and space when compared to accessible change room facilities.

Universal Design: Is the design of products and environments to be usable by all persons, to the greatest extent possible, without the need for adaptation or specialized design.

Universal Washroom: A single occupancy washroom that is all gender and provides the space for a person using a larger mobility device, an adult change table and an attendant to assist a user when required, and an emergency call system. See Accessible Water Closet Stall and Enclosure.

Vibro-Tactile: Also known as haptic technology, kinaesthetic communication or 3D touch, referring to any technology that can create an experience of touch by applying forces, vibrations, or motions to the user. Haptic devices incorporate tactile sensors that measure forces exerted by the user on the interface. See Haptic Technology.

Wading Pool: A shallow pool that contains an artificial body of water, that is intended primarily for children to paddle in. See Public Pools and Public Spas.

Water Closet: A toilet. See Accessible Water Closet Stall and Enclosure, and Universal Washroom.

Wayfinding: Uses cognitive and perceptual information to reach a destination. A spatial problem-solving process based upon consistent use and organization of definite sensory cues in the environment that persons use to understand where they are, know where their desired location is, and know how to get to that destination from their present location.

White Cane: White cane, or long white cane, is a device that helps persons with low or no vision stay safe and feel more comfortable when wayfinding independently.

Space and Reach Ranges

Contents in Section

Space and Reach Range Dimensions

Space and Reach Range Dimensions

The following dimensions and diagrams represent general dimensions to assist in the planning stages of construction projects.

Clear Turning Space

A clear turning space that is 2500 mm minimum in diameter is recognized as the dimension that would accommodate 95% of mobility devices used in North America. For clear turning space requirements specific to the various building elements, refer to the appropriate part in this standard, and “Figure 1 - Clear Turning Space”.

Clear Floor Spaces

A clear floor space that is 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach is recognized as the universal mobility device size that would accommodate 95% of mobility devices utilized in North America. Unless otherwise specified, a clear floor space must be provided in areas that require access to wall-mounted controls, power door operators, tactile signage, service counters, workstations, or under any tabletops, and under lavatories, sinks or drinking fountains. For clear floor space requirements specific to the various building elements, refer to the appropriate part in this standard, and “Figure 2 - Clear Floor Space for a Front Approach”.

Reach Range

A general reach range requires an object to be mounted between 460 mm to 1050 mm AFF. For requirements specific to various building elements, refer to the appropriate part in this standard, and “Figure 3 - Reach Range”.

Clear Floor Space for a Front Approach

A front approach is typically favoured over a side approach. In instances where a front approach is provided at a counter, up to 500 mm can be located under the counter, refer to the appropriate part in this standard, and “Figure 4 - Clear Floor Space for a Front Approach at a Table or Counter”.

Reach Range to Touch

A reach range to an object or item should be between 460 mm and 1050 mm AFF. Where there is an obstruction, such as the top surface of an object or item, that is between 860 mm to 1050 mm, a reach range to touch of 600 mm maximum deep should be provided to allow for a front and side approach, “Figure 5 - Reach Range to Touch”.

Clear Floor Space for a Side Approach

A side approach enables a mobility device to be positioned parallel to an object or an item and should provide a clear floor space of 900 mm by 2200 mm, “Figure 6 - Clear Floor Space for a Side Approach”.

Reach Range to Grasp

A reach range to an object or item should be between 460 mm and 1050 mm AFF. Where there is an obstruction, such as the top surface of an object or item, that is between 860 mm to 1050 mm, a reach range to grasp of 500 mm maximum deep should be provided to allow for a front and side approach, “Figure 7 - Reach Range to Grasp”.

Knee and Toe Space for a Front Approach

Knee and toe space for a front approach should be provided at service counters, workstations, or under any tabletops, etc. that is 735 mm minimum high AFF at the front edge, 500 mm minimum deep, and 900 mm minimum wide; and where an obstruction may be present toe clearance should be provided at 305 mm minimum high AFF at 600 mm from the front edge, Figure 8 - Knee and Toe Space for Front Approach.

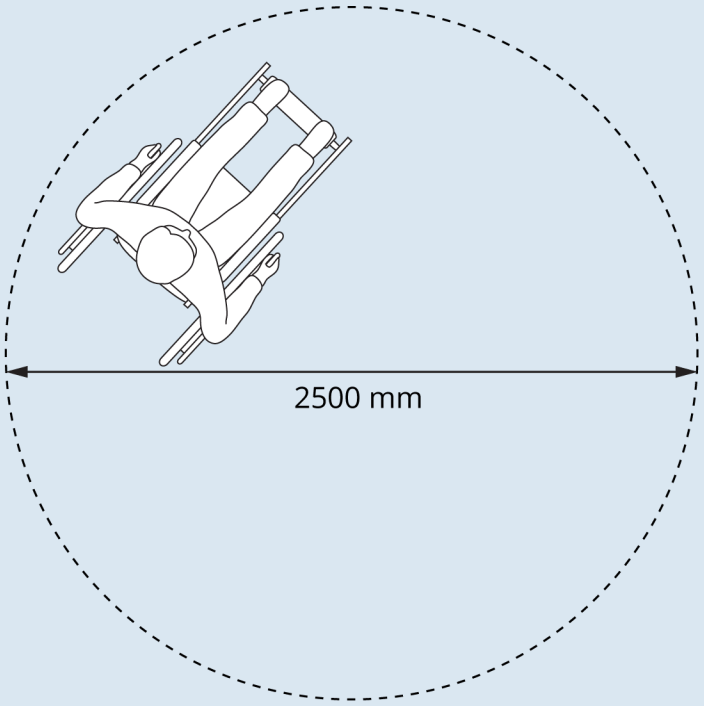

Figure 1.1.1-A - Clear Turning Space

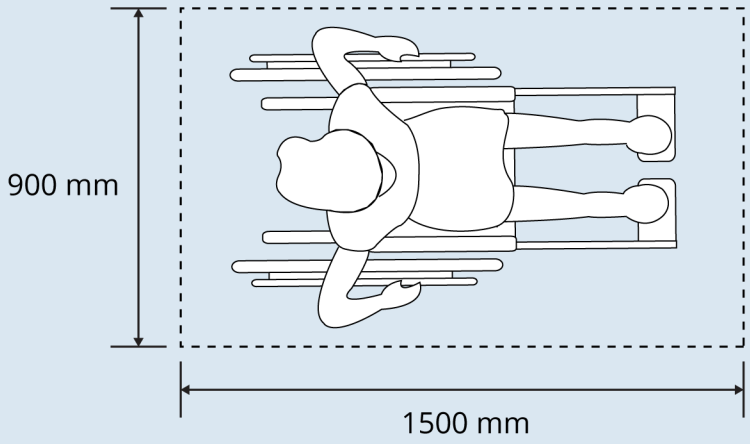

Figure 1.1.1-B - Clear Floor Space for a Front Approach

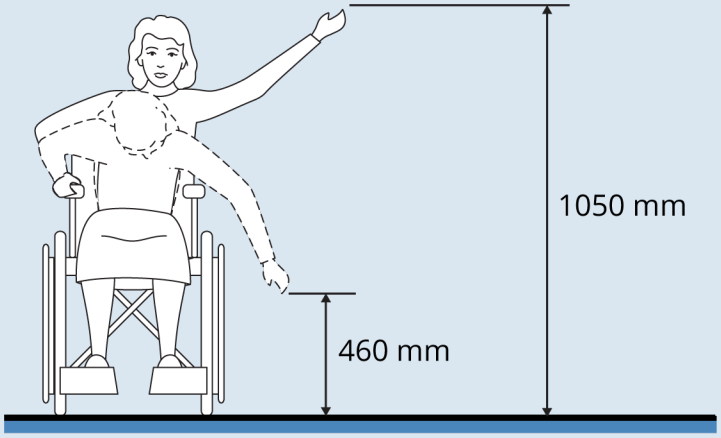

Figure 1.1.1-C - Reach Range

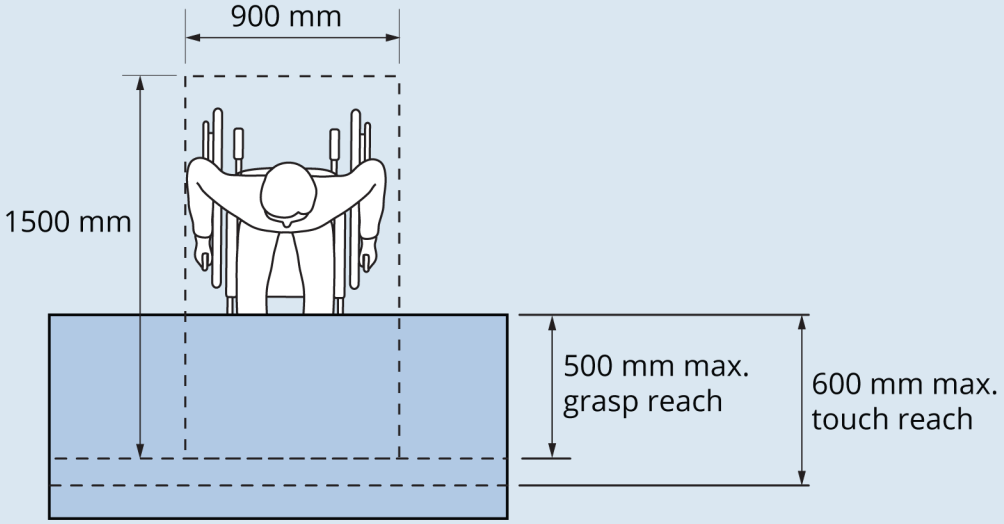

Figure 1.1.1-D - Clear Floor Space for a Front Approach at a Table or Counter

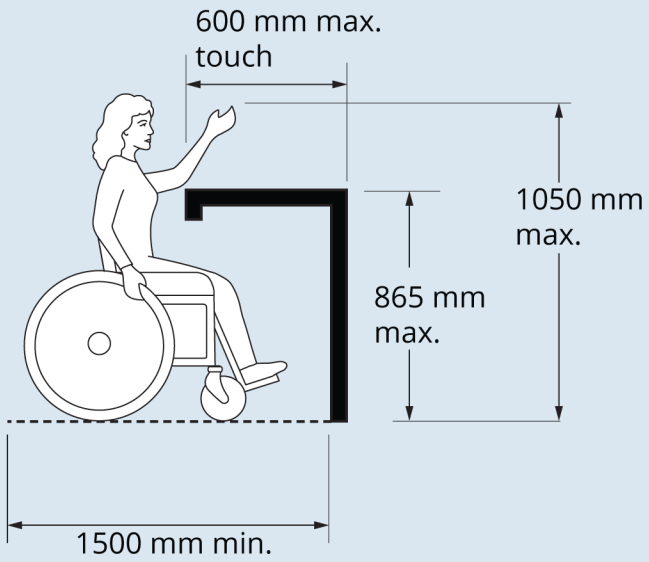

Figure 1.1.1-E - Reach Range to Touch

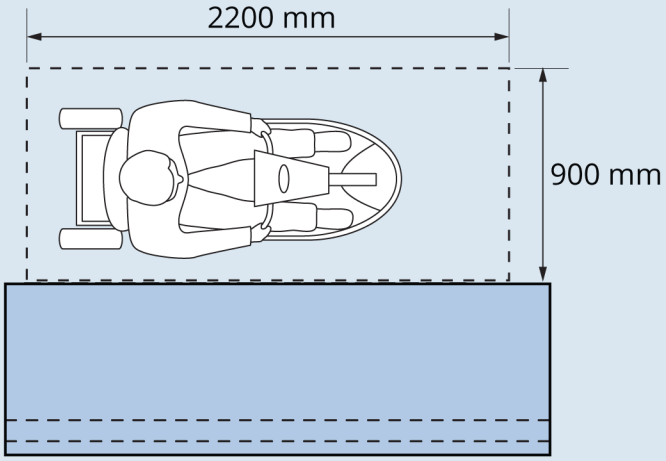

Figure 1.1.1-F - Clear Floor Space for a Side Approach

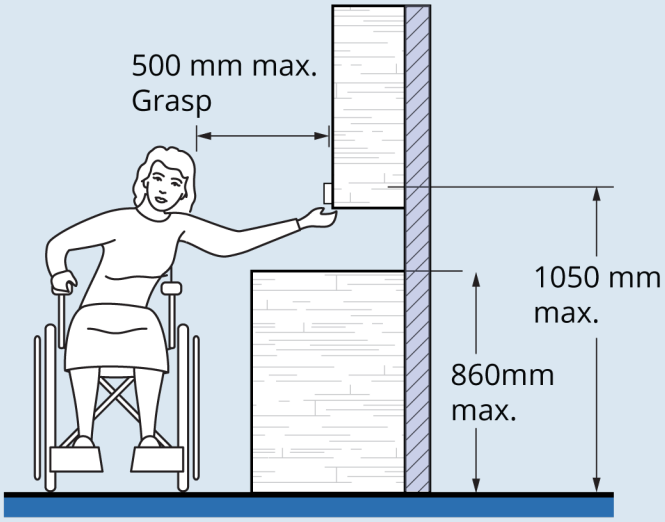

Figure 1.1.1-G - Reach Range to Grasp

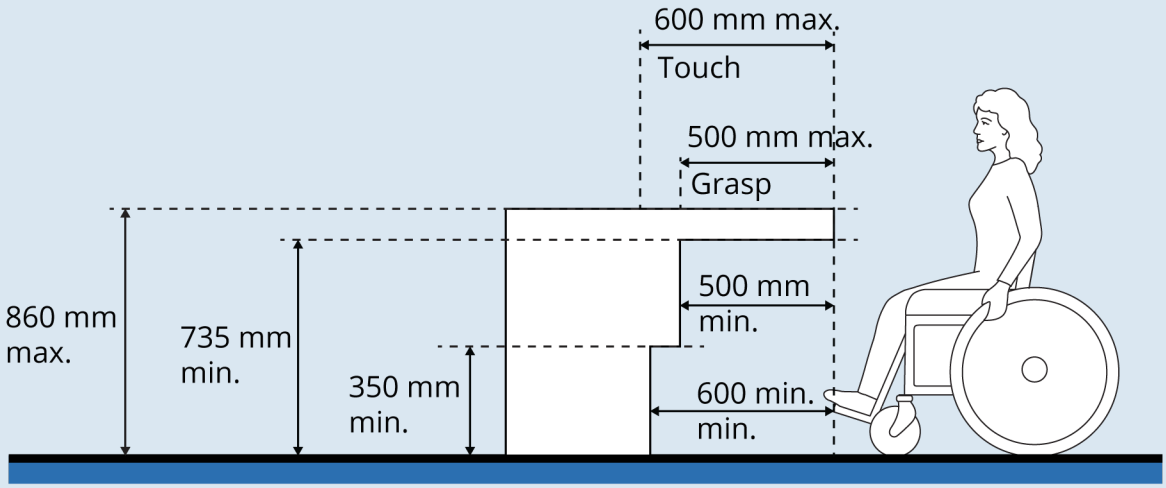

Figure 1.1.1-H - Knee and Toe Space for Front Approach

GEORGE BROWN COLLEGE
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1. Exterior

1.1. Exterior Paths of Travel

Section Summary

This section reviews the accessible design requirements for exterior paths of travel intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Within an urban context, a pedestrian clearway, the portion of a sidewalk dedicated to pedestrian travel, exterior paths of travel to entrances and exits, and ramps should provide exterior accessible paths of travel. Outside of the urban context, exterior accessible paths of travel should be provided on trails, pathways, boardwalks, beach access routes, and bridges with underpasses.

Contents in Section

1.1.1. Exterior Accessible Paths of Travel

1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes

1.1.3. Pedestrian Overpasses and Underpasses

1.1.4. Exterior Paths of Travel to Entrances and Exits

1.1.5. Rest Areas

1.1.6. Grade and Elevation Changes

1.1.7. Handrails

1.1.8. Guards

1.1.9. Exterior Ramps

1.1.10. Exterior Stairs

1.1.11. Obstructions, Protrusions and Overhead Objects

1.1.12. Safety and Security

1.1.1. Exterior Accessible Paths of Travel

Rationale

Exterior accessible paths of travel should provide a continuous, unobstructed route providing exterior access to elements and spaces. It is important to assess the intended users of a space to implement adequate space and ensure the highest level of access is provided.

Application

The scope of this section applies to pedestrian clearways, including sidewalks.

Related Sections

- [Reserved]

Related References

- Accessible Streets
- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Complete Streets Guidelines
- Construction Specifications and Drawings for Road Works
- Pavement Design and Rehabilitation Guidelines
- Streetscape Manual
- T-310.010-10 Pedestrian Clearway Widths on Sidewalks
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Clear Widths

The clear width of exterior accessible paths of travel should be free from obstacles such as temporary or permanent obstructions, protrusions, and overhead objects. High-use, exterior accessible paths of travel should at minimum provide clear widths to allow for

the simultaneous passage of two persons using mobility devices. Low-use, exterior accessible paths of travel should at minimum provide clear widths to allow for the passage of one person using a mobility device.

Slopes

Where slopes are provided at pedestrian clearways, they should be designed to have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Surfaces

A level and smooth ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Requirements

(1) Clear Widths:

Exterior accessible paths of travel should provide a clear width, "Figure 1.1.1-A Clear Widths", that:

(a) Is 2100 mm minimum, for local roads, "[R-1.1.1. (1)(a)]", but can be reduced to 1800 mm minimum on roads with low pedestrian volumes and low vehicle speeds and volumes;

(b) Is 2100 mm minimum for collector roads, minor arterial roads, and major arterial roads, "[R-1.1.1. (1)(b)]", and

(c) Is 1600 mm minimum of a different texture to that surrounding it, where the line of travel is level and even with adjacent walking surfaces.

(d) Is clear from obstructions, protrusions, and overhead objects that meet the criteria in section "1.1.11. Obstructions, Protrusions and Overhead Objects"

(2) Slopes:

Where slopes are provided at exterior accessible paths of travel, "Figure 1.1.1-B Slopes" and "Figure 1.1.1-C Maximum Cross Slope Gradient", they should have:

(a) A 1:20 (5%) maximum running slope:

(i) Where the exterior path of travel is a sidewalk, it can have a slope of greater than 1:20 (5%), but it cannot be steeper than the slope of the adjacent roadway; and

(b) A 1:50 (2%) typical cross slope:

(i) Where a typical cross slope of 1:50 (2%) cannot be achieved due to limiting site-specific physical constraints, a cross slope of no greater than 1:25 (4%) is permitted, provided the extent for which this occurs is minimized as much as possible along the path of travel.

(3) Surfaces:

Exterior accessible paths of travel should provide surfaces, "Figure 1.1.1-D Maximum Opening at Grates", that:

(a) Are level, firm, stable, slip-resistant, and smooth; and

(b) Have openings that:

(i) Are located outside of an accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter greater than 13 mm.

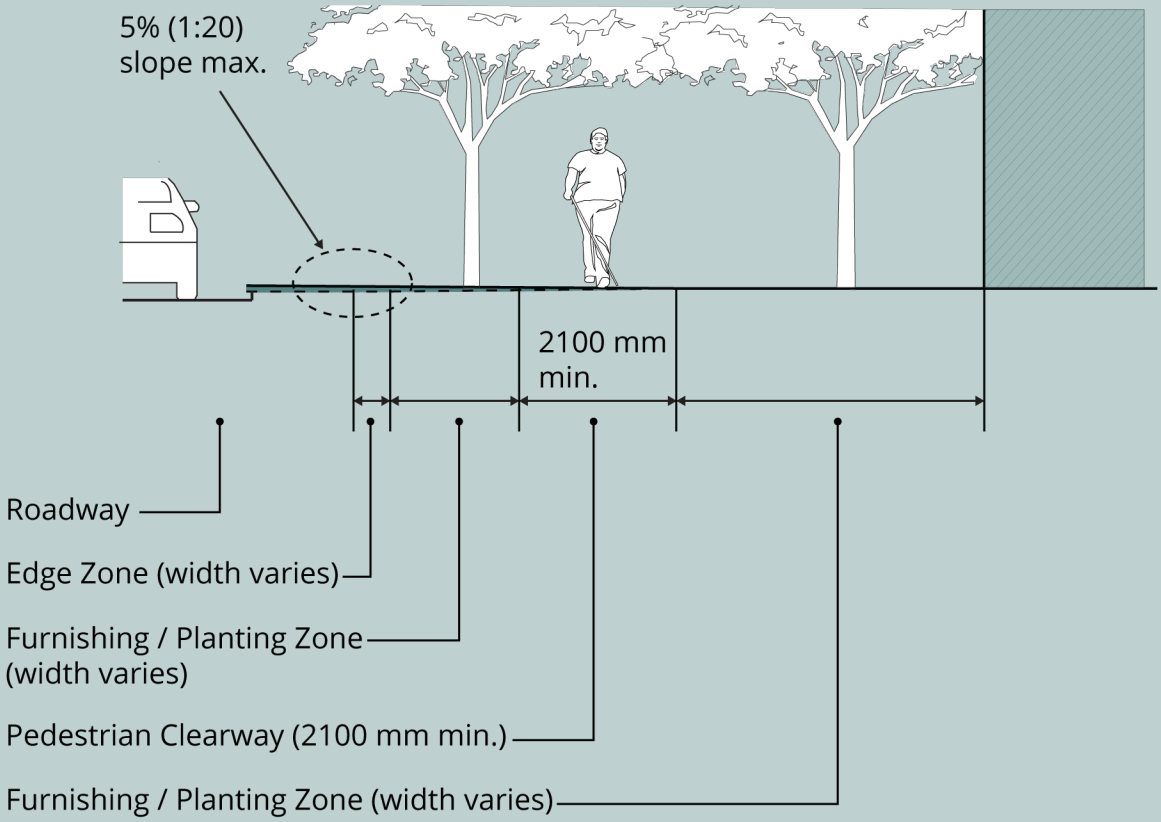


Figure 1.1.1-A Clear Widths

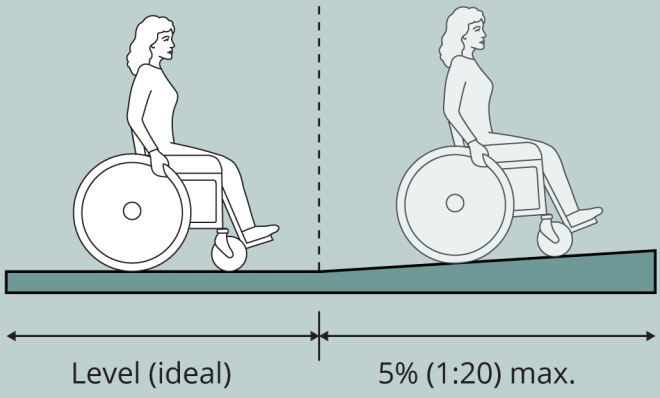
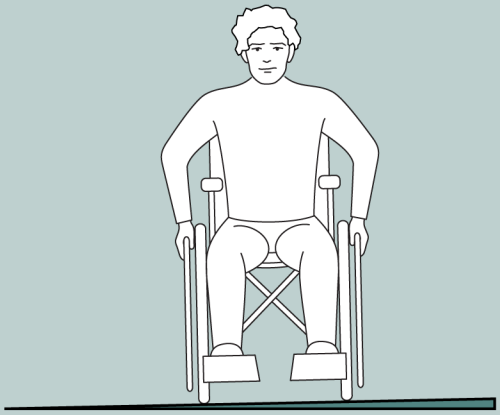


Figure 1.1.1-B Slopes



1:50 (2%) typical to 1:25 (4%) max. cross slope

Figure 1.1.1-C Maximum Cross Slope Gradient

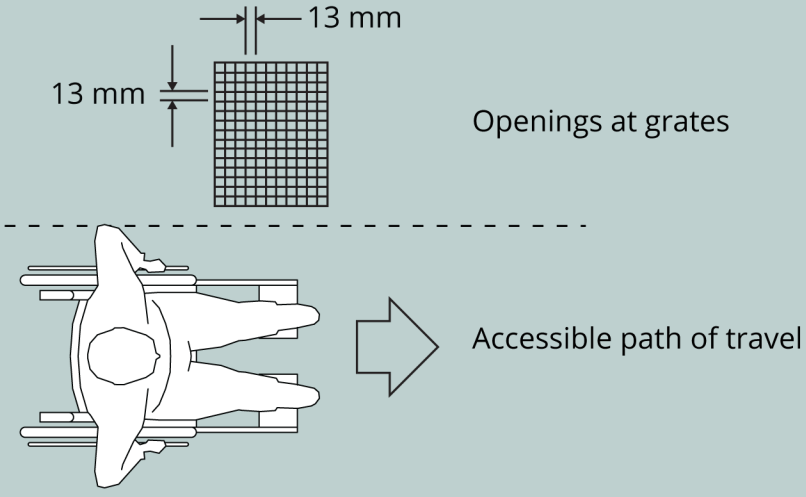


Figure 1.1.1-D Maximum Opening at Grates

1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes

Rationale

Trails, pathways, boardwalks, and beach access routes are an extension of exterior paths of travel and should provide an exterior accessible path of travel. Trails and pathways are the routes provided in a naturalized built environment.

Boardwalks are raised structures to provide a dry path for individuals in areas where water or wet soil are typical. Beach access routes, including natural or urban beaches, provide an ease of movement to the water typically in the form of seasonal mats over sand.

Application

The scope of this section applies to areas such as multi-use trails, including primary, secondary, and high-capacity trails, as well as park pathways, boardwalks, and beach access routes. This section does not apply to areas designated and protected under Heritage and Cultural Acts, where the requirements would adversely affect the natural environment, or where physical conditions or site constraints prohibit redevelopment to achieve the requirements of this section where noted.

Related Sections

- “1.1.1. Exterior Accessible Paths of Travel”
- “1.1.5. Rest Areas”
- “1.1.6. Grade and Elevation Changes”
- “1.1.7. Handrails”
- “1.1.8. Guards”
- “1.6.3. Tactile Direction Indicators”
- “3.2.1. Signage and Wayfinding Systems”

Related References

- A Guide to the Integrated Accessibility Standards Regulation

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Complete Streets Guidelines
- Natural Environment Trail Strategy
- Ontario Trails Strategy
- Streetscape Manual
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at trails, pathways, boardwalks, and beach access routes to allow for a continuous, unobstructed route providing exterior access to elements and spaces. Designers should consider the criteria in the Toronto Multi-Use Trail Design Guidelines when designing primary, secondary, and high-capacity trails, and provide the highest level of accessibility. Where paths of travel exclusively for bicycles or other modes of active transportation are adjacent to pedestrian pathways, tactile and visual markers should be provided to communicate a change related to the presence of faster-moving traffic.

Slopes

Where slopes are provided at trails, pathways, boardwalks, and beach access routes, they should be designed to have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Surfaces

A level and smooth ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Edge Protection

Edge protection should be provided at trails, pathways, boardwalks, and beach access routes when adjacent to water or a drop-off to prevent individuals, including persons using mobility devices, from slipping or rolling over the edge of an exterior path of travel. Edge protection can provide a means of wayfinding for persons with low or no vision using white canes. In some naturalized built environments, edge protection can create barriers or allow water to pool, so each condition should be carefully assessed.

Signage

Signage should be provided at all points of entry to trails, pathways, boardwalks, and beach access routes. Signage allows the public to decide whether the conditions are appropriate for their use and to familiarize themselves with expected features along an exterior path of travel.

Consultation

Consultation on recreational trails and beach access routes with the public, including persons with disabilities and the municipal Accessibility Advisory Committee (AAC), should be provided where an organization is required to have one under the Design of Public Spaces Standards.

Requirements

(1) Accessible Path of Travel:

Trails, pathways, boardwalks, and beach access routes should provide an exterior accessible path of travel that:

(a) Has a clear width, "[R-1.1.2. (1)(a)]", "Figure 1.1.2-A Clear Width and Use at Natural Trails", that:

(i) Is 3000 mm minimum at primary trails;

(ii) Is 2700 mm minimum at secondary trails;

(iii) Is 3600 mm minimum at high-capacity use trails; and

(iv) Meets the criteria in "Table 1.1.2-A Clear Width and Use";

(b) Has an overhead clearance that is 3000 mm minimum; and

(c) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

Table 1.1.2-A Clear Width and Use

Clear Width Dimension	**Anticipated Use**
2100 mm minimum	Only Pedestrians
3000 mm minimum	Pedestrians and Cyclists
3600 mm minimum	Pedestrians, Cyclists and Maintenance Vehicles

(2) Slopes:

Where slopes are provided at trails, pathways, boardwalks, and beach access routes, they should have:

(a) A 1:20 (5%) maximum running slope; and

(b) A 1:50 (2%) typical cross slope:

(i) Where a typical cross slope of 1:50 (2%) cannot be achieved due to limiting site-specific physical constraints, a cross slope of no greater than 1:25 (4%) is permitted, provided the extent for which this occurs is minimized as much as possible along the path of travel.

(3) Surfaces:

Trails, pathways, boardwalks, and beach access routes should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant;

(b) Have openings that:

(i) Are located outside of an accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum; and

(c) Have colour/brightness contrast at:

(i) Transition points immediately before a footbridge; and

(ii) Intersections between primary and secondary trails, except for at natural or granular surface trails where there may be adverse effects on the natural environment.

(d) Provide visual and tactile delineation for pathways dedicated to bicycle or active modes of transportation from pedestrian pathways.

(4) Edge Protection:

Trails, pathways, boardwalks, and beach access routes should provide edge protection that:

(a) Has a 75 mm minimum curb, without impeding drainage; and

(b) Has colour/brightness contrast.

(5) Signage:

Trails, pathways, boardwalks, and beach access routes should provide signage, "Figure 1.1.2-B Path at Signage", that:

(a) Is located periodically along an exterior path of travel;

(b) Has a minimum of one tactile map located at the beginning of the trail head, that communicates:

(i) The length of the trail/route;

(ii) The type of surface material(s);

(iii) The average and the minimum clear width;

(iv) The average and maximum running slope and cross slope;

(v) The location of amenities; and

(vi) Safety and security information; and

(vii) That has the bottom edge of the sign at 800mm min. AFF., with the sign panel angled at 70°, with colour/ brightness contrast provided on the ground surface to identify the sign location, and with Braille provided in the upper left corner of the sign.

(c) Is cane detectable, or where tactile direction indicators are provided, meet the criteria in section "1.6.3 Tactile Direction Indicators"; and

(d) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(6) Consultation:

Consultation on recreational trails and beach access routes should:

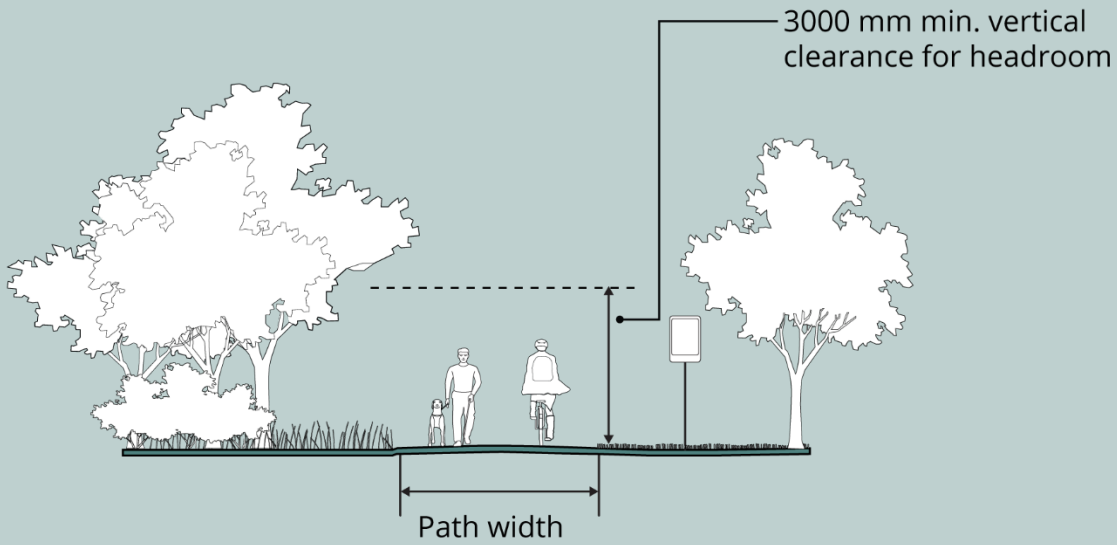
(a) Be provided for:

(i) The slope of the trail;

(ii) The need for, and location of, ramps on the trail; and

(iii) The need for, location and design of rest areas; passing areas; viewing areas; amenities on the trail; and any other pertinent feature; and

(b) Meet the requirements in the AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards.



Path width for anticipated use:

2100 mm min. - Pedestrian only
3000 mm min. - Pedestrian and cyclist
3600 mm min. - Pedestrian, cyclist, and maintenance vehicle

Figure 1.1.2-A Clear Width and Use at Natural Trails

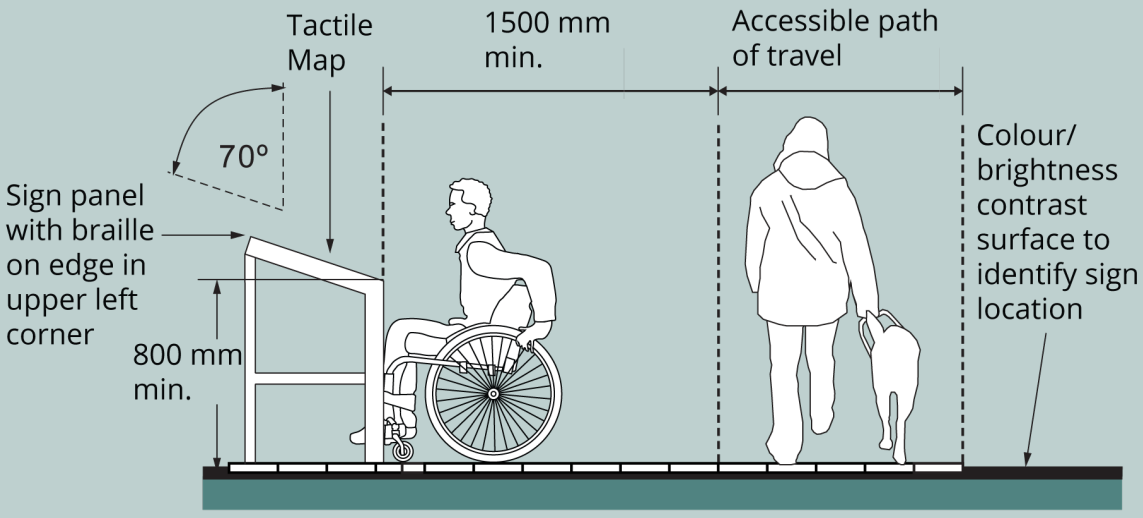


Figure 1.1.2-B Path at Signage

1.1.3. Pedestrian Overpasses and Underpasses

Rationale

Pedestrian overpasses and underpasses are an extension of exterior paths of travel and are intended to provide a dedicated accessible path of travel above or below vehicle traffic.

Application

The scope of this section applies to pedestrian overpasses and underpasses that allow for a continuous, unobstructed route for pedestrians that is separate from vehicle traffic.

Related Sections

- "1.1.1 Exterior Accessible Paths of Travel"
- "1.1.6 Grade and Elevation Changes"
- "1.1.7 Handrails"
- "1.1.8 Guards"

Related References

- Construction Specifications and Drawings for Road Works
- T-900.200 Pedestrian Bridge
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Design

Pedestrian overpasses and underpasses should be designed to provide an exterior accessible path of travel to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Requirements

(1) Design:

Pedestrian overpasses and underpasses should be designed to:

(a) Have ramp running slopes that are 1:15 (6.67%) maximum / 1:20 (5%) default;

(b) Have landings that have cross slopes that are 1:50 (2%) maximum;

(c) Have switch-back landings turning radii that are 2350 mm minimum;

(d) Have bridge deck clearway width as per City of Toronto Multi-Use Trail Guidelines:

(i) Ramps unobstructed clearway that is 3000 mm minimum (between handrails); and

(ii) Ramps/deck overhead clearway that is 2700 mm minimum;

(e)) Have walking surfaces that are from and slip-resistant (and preferred surface is bare concrete); and

(f) Meet the criteria in T-900.200 Pedestrian Bridge.

1.1.4. Exterior Paths of Travel to Entrances and Exits

Rationale

Exterior paths of travel to entrances and exits should provide an exterior accessible path of travel. In the event of an emergency, the public, including persons using mobility devices, should be provided with independent, equitable and dignified entry and egress opportunities.

Application

The scope of this section applies to the area within a building's property line, such as pedestrian walkways and promenades leading to the building from the public right of way.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.5. Rest Areas"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Toronto Neighbourhood Urban Design Guidelines Template & Manual

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at exterior paths of travel to entrances and exits to allow for a continuous, unobstructed route providing exterior access to elements and spaces, such as the area within a building's property line and into the building.

Slopes

Where slopes are provided at exterior paths of travel to entrances and exits, they should be designed to have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Surfaces

A level and smooth ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling.

Requirements

(1) Accessible Path of Travel:

Exterior paths of travel to entrances and exits should provide an exterior accessible path of travel that:

(a) Has a clear width that is 2100 mm minimum;

(b) Directly connected to:

(i) A designated accessible parking area, where provided;

(ii) An exterior passenger pick-up/drop-off, where provided; and

(iii) A public thoroughfare.

(c) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”.

(2) Slopes:

Where slopes are provided at exterior paths of travel to entrances and exits, they should have:

(a) A 1:20 (5%) maximum running slope, “[R-1.1.4. (2)(a)]”; and

(b) A 1:50 (2%) typical cross slope:

(i) Where a typical cross slope of 1:50 (2%) cannot be achieved due to limiting site specific physical constraints, a cross slope of no greater than 1:25 (4%) is

permitted, provided the extent for which this occurs is minimized as much as possible along the path of travel.

(3) Surfaces:

Exterior paths of travel to entrances and exits should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have openings that:

(i) Are located outside of the accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum.

(4) Rest Areas:

Exterior paths of travel to entrances and exits should provide rest areas that:

(a) Are located at 30 m intervals, where the exterior path of travel to entrances and exits is greater than 30 m; and

(b) Meet the criteria in section “1.1.5. Rest Areas”.

1.1.5. Rest Areas

Rationale

Rest areas create space for the public to safely rest or wait, enjoy their surrounding environment or regain their strength to continue moving along an exterior path of travel. Rest areas should be connected to an exterior accessible path of travel and be placed consistently to ensure that the public, especially persons using mobility devices and persons with low stamina, can feel safe and reassured that a rest area is approaching.

Application

The scope of this section applies to the level area adjacent to benches or seating areas that can accommodate a person using a wheeled mobility device, a service animal, stroller, walker, etc.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes"
- "1.1.4. Exterior Paths of Travel to Entrances and Exits"
- "1.5.1. Benches and Seats"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at rest areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Design

The design of rest areas should provide a dedicated level and clear area that includes a clear ground space and a bench or seat.

Consultation

Consultation on rest areas with the public, including persons with disabilities, and the George Brown Polytechnic Accessibility Advisory Committee (AAC) should be provided where an organization is required to have one under the Design of Public Spaces Standards.

Requirements

(1) Accessible Path of Travel:

Rest areas should provide an exterior accessible path of travel that:

(a) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

(2) Design:

Rest areas, "Figure 1.1.5-A Rest Areas" and "Figure 1.1.5-B Accessible Paths of Travel and Rest Area", should be designed to have:

(a) A dedicated level and clear space that is 1800 mm by 1800 mm minimum that includes:

  (i) A clear ground space, adjacent to the bench, that is 900 mm by 1500 mm for front approach; and

  (ii) A minimum of one bench or seat that meets the criteria in section "1.5.1. Benches and Seats";

(b) Clear sightlines to the exterior path of travel and the surrounding environment;

(c) Colour/brightness contrast from the exterior path of travel and the surrounding environment; and

(d) Where provided, shelters for weather protection that:

  (i) Have an overhead clearance that is 3000 mm minimum; and

  (ii) Are located above benches and seats.

(e) A distance of 30 m maximum between rest areas.

(3) Consultation:

Consultation on the design and placement of rest areas along the exterior path of travel should be provided that:

(a) Meets the requirements in the AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards.

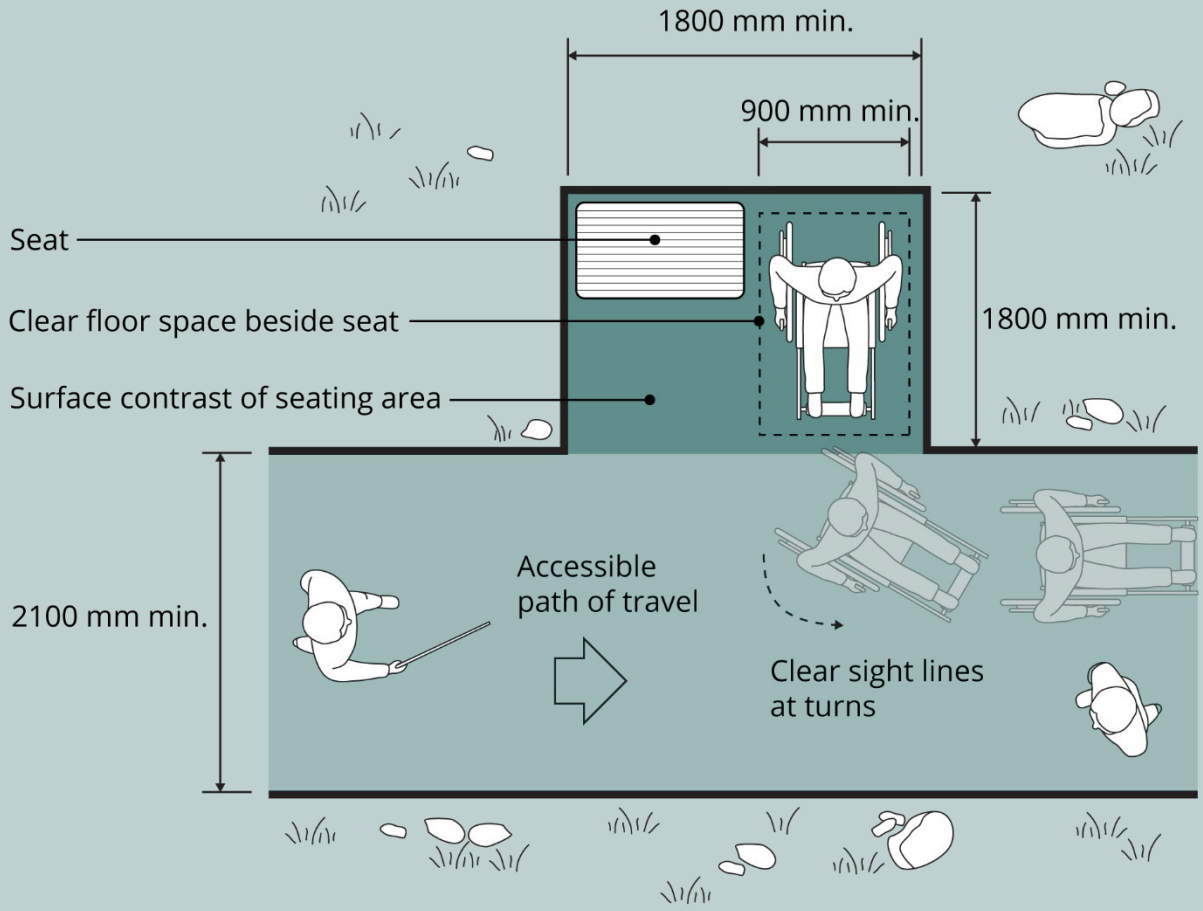


Figure 1.1.5-A Rest Areas

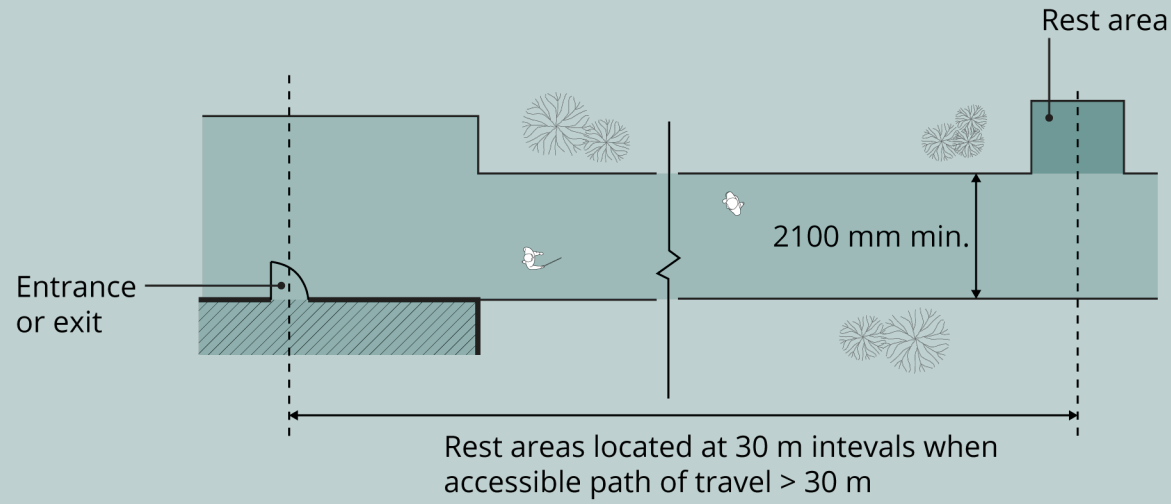


Figure 1.1.5-B Accessible Paths of Travel and Rest Area

1.1.6. Grade and Elevation Changes

Rationale

Where grade and elevation changes are provided along exterior paths of travel, they should integrate accessible elements and provide an exterior accessible path of travel to enhance their safety and access for all individuals especially for persons with low or no vision, persons with limited mobility, and persons using mobility devices.

Application

The scope of this section does not apply to areas:

- Designated and protected by Heritage and Cultural Acts;
- Where the requirements would adversely affect the natural environment; and
- Where physical conditions or site constraints prohibit redevelopment to achieve the requirements of this Section.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.7. Handrails"
- "1.1.8. Guards"
- "1.1.9. Exterior Ramps"
- "1.1.10. Exterior Stairs"

Related References

- Construction Specifications and Drawings for Road Works
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Slopes

Where slopes are provided at grade and elevation changes, they should be designed to have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Edge Protection

Edge protection should be provided at grade and elevation changes when adjacent to water or a drop-off to prevent individuals, including persons using mobility devices, from slipping or rolling over the edge of an exterior path of travel. It can provide a means of wayfinding for persons with low or no vision using a white cane. In some naturalized built environments, edge protection can create barriers or pooling water, so each condition should be carefully assessed. Where handrails and guards are provided at grade and elevation changes, they should be designed to create safety and support for the public moving along an exterior path of travel.

Requirements

(1) Slopes:

Where slopes, "Figure 1.1.6-A Permitted Slope at Elevation Change", "Figure 1.1.6-B Maximum Running Slope Gradient", and "Figure 1.1.6-C Maximum Cross Slope Gradient", are provided at grade and elevation changes, they should be/have:

(a) A 1:20 (5%) maximum running slope;

(b) A 1:50 (2%) typical cross slope:

(i) Where a typical cross slope of 1:50 (2%) cannot be achieved due to limiting site specific physical constraints, a cross slope of no greater than 1:25 (4%) is permitted, provided the extent for which this occurs is minimized as much as possible along the path of travel; and

(c) Meet the criteria in "Table 1.1.6-A Slopes at Grade and Elevation Slopes".

(2) Edge Protection:

Grade and elevation changes should provide edge protection, "Figure 1.1.6-D Edge Protection at Elevation Change", that:

(a) Has a curb that:

(i) Is 75 mm minimum, without impeding drainage;

(ii) Has colour/brightness contrast; and

(iii) Is provided at locations where the adjacent slope is steeper than 1:3 (33%), or there is an adjacent drop-off less than 600 mm; or

(b) Has handrails and/or guards that:

(i) Are located adjacent to a drop-off at or greater than 600 mm;

(ii) Meet the criteria in section "1.1.7. Handrails"; and

(iii) Meet the criteria in section "1.1.8. Guards"; and

(c) Meets the criteria in "Table 1.1.6-B Edge Protection at Grade and Elevation Changes".

Table 1.1.6-A Slopes at Grade and Elevation Slopes

Grade and Elevation Changes	**Permitted Running Slope**
6 mm to 13 mm	Beveled slope 1:2 (50%)
Greater than 13 mm and less than 75 mm	1:8 (12.5%) maximum or depressed curb/curb ramp
75 mm or greater and 200 mm or less	1:10 (10%) maximum or depressed curb/curb ramp
Greater than 200 mm	Provide a ramp

Table 1.1.6-B Edge Protection at Grade and Elevation Changes

Level Change at Grade	**Permitted Edge Protection**
Less than 600 mm	Curb
At or greater than 600 mm	Handrails and Guards

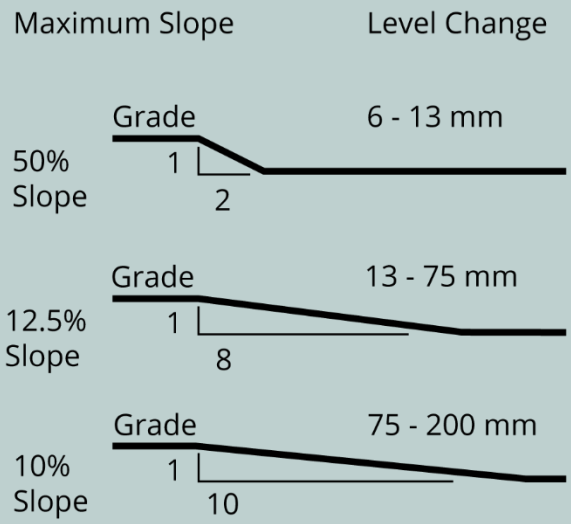
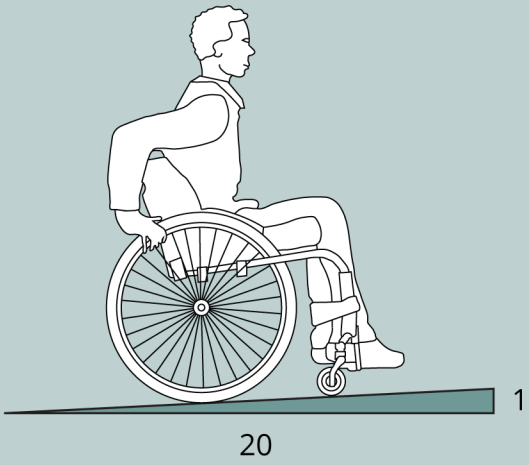
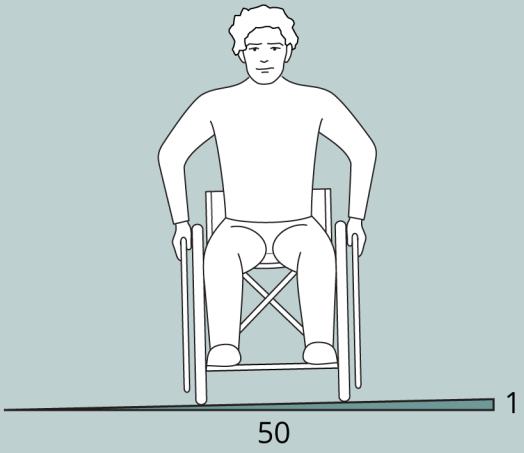


Figure 1.1.6-A Permitted Slope at Elevation Change



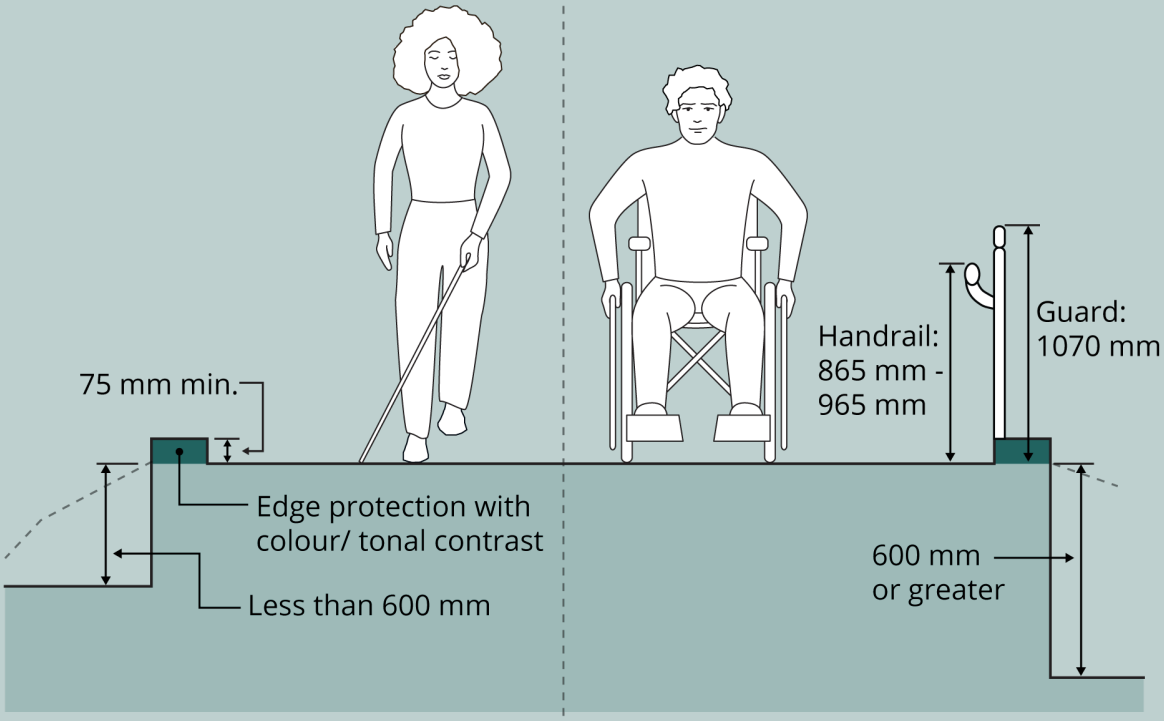
1:20 (5%) Maximum Running Slope

Figure 1.1.6-B Maximum Running Slope Gradient



1:50 (2%-4%) Maximum Crossing Slope

Figure 1.1.6-C Maximum Cross Slope Gradient



Provide a curb:

Adjacent drop-off less than 600 mm, or adjacent slope steeper than 1:3 (33%)

Provide a handrail and guard:

Adjacent drop-off 600 mm or greater

Figure 1.1.6-D Edge Protection at Elevation Change

1.1.7. Handrails

Rationale

Handrails should be designed to provide safety and support for the public moving along an exterior path of travel. They should create a sense of navigation and wayfinding for persons with low or no vision.

Application

The scope of this section applies to handrails provided at grade and elevation changes including ramps, stairs and landings.

Related Sections

- "1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes"
- "1.1.3. Pedestrian Overpasses and Underpasses"
- "1.1.6. Grade and Elevation Changes"
- "1.1.9. Exterior Ramps"
- "1.1.10. Exterior Stairs"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Location

Handrails should be located at grade and elevation changes, including on both sides of ramps and stairs and continue around landings.

Installation

Handrails should be installed with consideration for the reach ranges of the intended individuals and should not impede the sightlines of individuals including persons using mobility devices. In built environments where individuals include children and/or persons of short stature, secondary handrails should be mounted at a lowered height.

Additionally, intermediate handrails should be installed on ramps and stairs that are too wide for a person to reach both sides.

Components

Handrail components, such as their supports, should be designed to withstand the loading value of a non-concurrent and a uniform concentrated load applied at any point and in any direction to the handrail so that all individuals can grasp the handrail and safely support themselves. Clearance should be provided for the individual's hand between the wall or guard to which the handrail components are attached to ensure a continuous grasp, except where interrupted by a door at a landing. Handrail component openings should not facilitate climbing or present the risk of a person or child getting their head stuck through the opening.

Horizontal Extensions

Horizontal extensions should be provided on handrails at the top and bottom of ramps, stairs and landings. They should terminate without obstructing the accessible path of travel or creating a hazard and be cane detectable.

Tactile characters and/or braille should be provided on horizontal extensions to communicate navigation and wayfinding to individuals, such as at the start and end points on a handrail.

Service animals such as guide dogs are certified and have training to perform specific tasks such as guiding persons with low or no vision to hazard strips, or bumble bee strips provided on horizontal extensions.

Requirements

(1) Location:

Handrails, "Figure 1.1.7-A Handrail Location", should be located:

(a) On both sides of:

(i) Ramps that meet the criteria in section "1.1.9. Exterior Ramps"; and

(ii) Stairs that meet the criteria in section "1.1.10. Exterior Stairs";

(b) Continuously around landings, except where interrupted by a door;

(c) Where three or more steps are located; and

(d) At 600 mm or greater elevation changes that meet the criteria in section "1.1.6. Grade and Elevation Changes".

(2) Installation:

Handrails should be installed to have:

(a) A primary handrail mounted at 865 mm to 965 mm;

(b) A secondary handrail mounted at 600 mm,

(c) An intermediate handrail, "Figure 1.1.7-B Handrail and Intermediate Handrail", that:

(i) Where ramps are more than 2200 mm in width, have one or more intermediate handrails that are continuous between landings that are provided and located so that there is 1650 mm maximum between handrails; and

(ii) Where stairs are more than 2200 mm in width, have one or more intermediate handrails that are continuous between landings that are provided and located so that there is 1650 mm maximum between handrails.

(3) Components:

Handrails should provide components, "Figure 1.1.7-C Handrail Diameter and Clearances", that:

(a) Have a circular diameter between 30 mm to 40 mm;

(b) Are able to withstand:

(i) A 0.7 kN non-concurrent load applied at any point in any direction; and

(ii) A 0.9 kN uniform concentrated load applied at any point in any direction;

(c) Have clearances that:

(i) Are 50 mm minimum away from the smooth wall;

(ii) Are 70 mm minimum away from a rough wall and surfaces; and

(iii) Are 450 mm minimum from the top of the handrail to the bottom edge of the wall when the handrail is recessed into a wall; and

(d) Have colour/brightness contrast to mounting surface.

(4) Horizontal Extensions:

Handrails should provide horizontal extensions, "Figure 1.1.7-D Handrail Extension", that:

(a) Are 300 mm minimum:

(i) Beyond the top and the bottom of the ramp measured from the edge of the incline level;

(b) Are 300 mm minimum:

(i) Beyond the top riser of the stair or step; and

(ii) Beyond the bottom riser that continues to slope for one tread depth.

(c) Are cane detectable returning to the post, wall or floor;

(d) Have a high visibility identifier, or bumble bee strips that:

(i) Are 200 mm wide on centre of the extension; and

(ii) Have high colour/brightness contrast, such as black and yellow; and

(e) Where provided at interior stairs, have tactile characters and braille, "Figure 1.1.7-E Bumble Bee Strips, Tactile Characters, and Braille", that:

(i) Are located on centre and on the top of the extension;

(ii) Indicate the floor level, or the direction of travel and change in floor level; and

(iii) Meet the criteria in section "3.2.1. Signage and Wayfinding Systems".

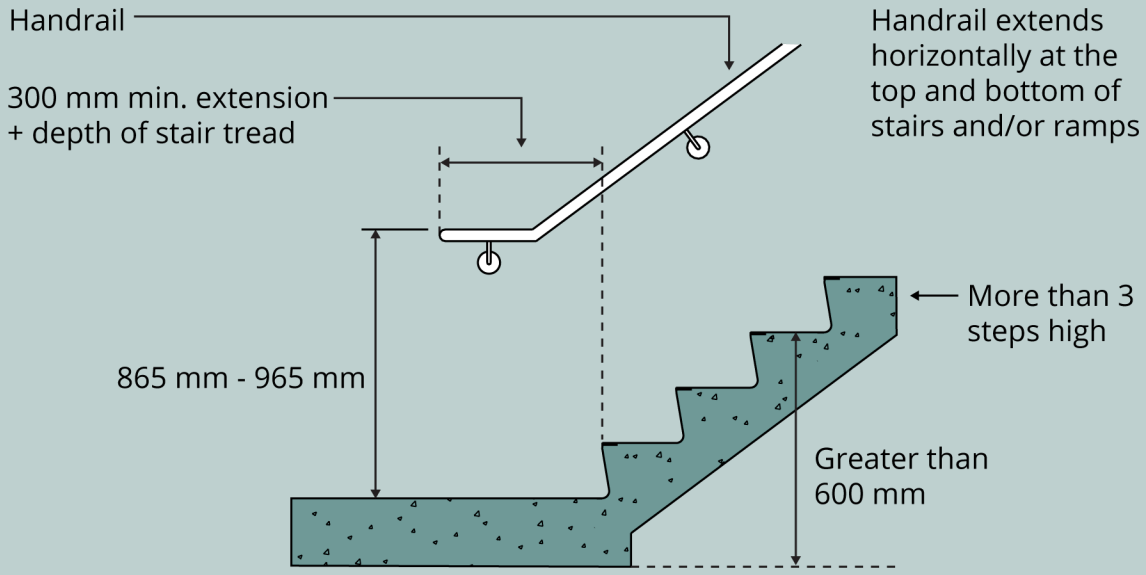


Figure 1.1.7-A Handrail Location

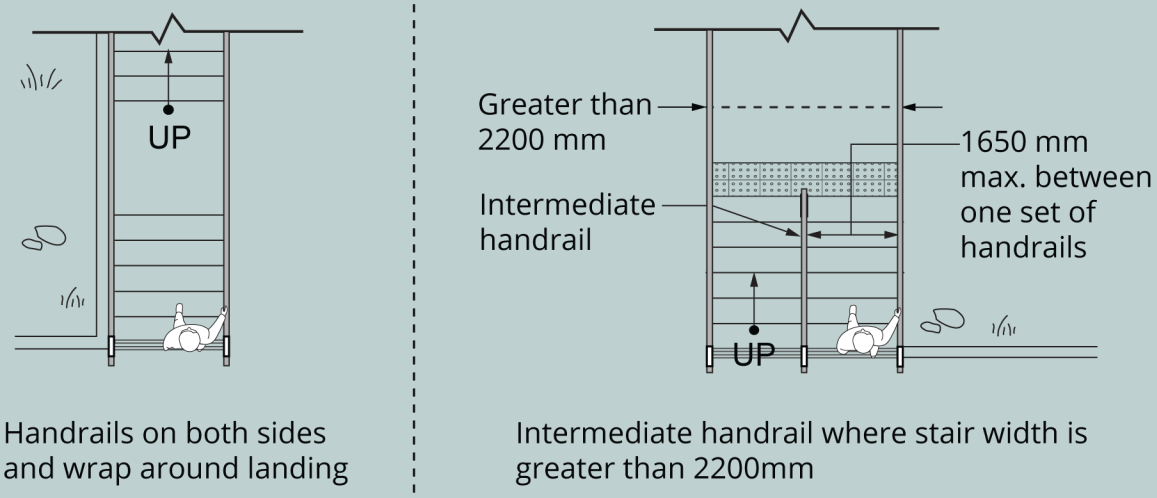


Figure 1.1.7-B Handrail and Intermediate Handrail

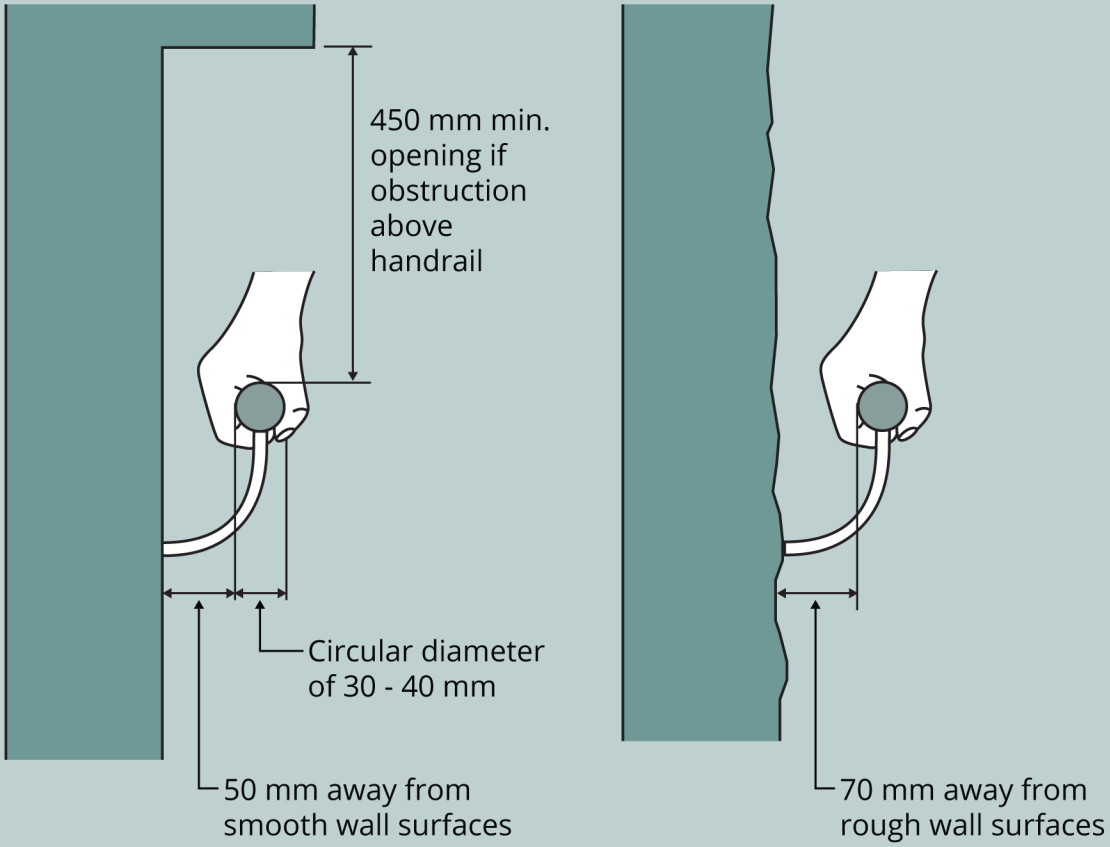


Figure 1.1.7-C Handrail Diameter and Clearances

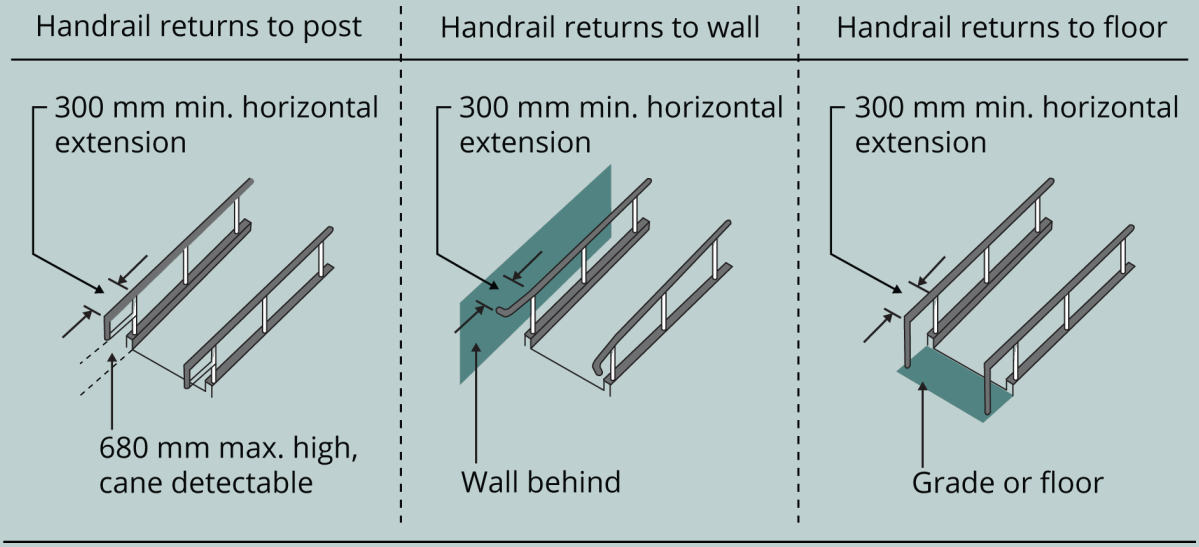


Figure 1.1.7-D Handrail Extension

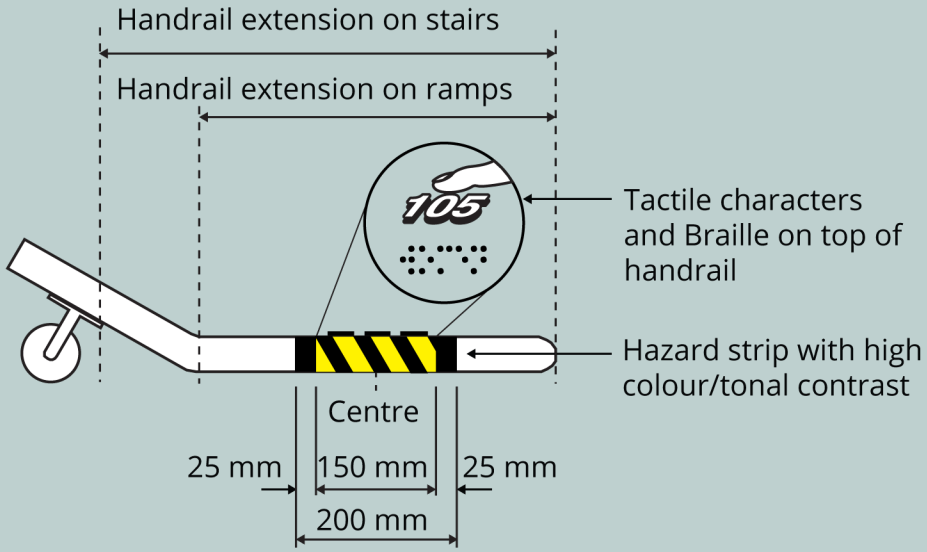


Figure 1.1.7-E Bumble Bee Strips, Tactile Characters, and Braille

1.1.8. Guards

Rationale

Guards, barriers, or solid enclosures should be designed to provide safety and support for the public moving along an exterior path of travel.

Application

This section applies to guards provided at grade and elevation changes including ramps, stairs and landings where there is no wall.

Related Sections

- "1.1.6. Grade and Elevation Changes"
- "1.1.9. Exterior Ramps"
- "1.1.10. Exterior Stairs"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Location

Guards should be located at grade and elevation changes, including on both sides of ramps and stairs and continue around landings.

Installation

Guards should be installed at a height that is higher than an average person's centre of gravity to reduce the risk of a person falling off the elevated area. Where a secondary handrail is provided for persons of shorter stature or children, a taller guard height should be provided. Guards should be designed so that when mounted, they do not impede the view of persons seated and using mobility devices.

Components

Components, such as balusters or vertical supports, provided at guards should not facilitate climbing or present the risk of a person or child getting their head stuck through the opening.

Requirements

(1) Location:

Guards should be located:

(a) On both sides of:

(i) Ramps that meet the criteria in section "1.1.9. Exterior Ramps"; and

(ii) Stairs that meet the criteria in section "1.1.10. Exterior Stairs";

(b) Continuously around landings, except where interrupted by a door; and

(c) Where three or more steps are located; or

(d) Where adjacent to a drop-off at or greater than 600 mm that meets the criteria in section "1.1.6. Grade and Elevation Changes".

(2) Installation:

Guards should be installed, "Figure 1.1.8-A Guards and Handrails":

(a) At 920 mm minimum measured vertically to the top of the guard from a line drawn through the outside edges of the stair nosings;

(b) At 1070 mm minimum measured vertically to the top of guard from the ramp surface, and around landings and is required on each side of a stairway where the difference in elevation between ground level and the top of the stair is more than 600 mm, except where there is a wall, a guard is not required on that side; and

(c) Where a secondary handrail is provided at 600 mm, the height of guards should increase by at least 600 mm measured from the top of the first handrail at 920 mm and meet the loading requirements that meet the criteria in the Ontario Building Code.

(3) Components:

Guards should provide components (member, attachment or opening), “Figure 1.1.8-B Openings at Guards”, that:

(a) Where located between 140 mm to 900 mm, will not facilitate climbing;

(b) Are no greater than 100 mm between balusters or vertical supports; and

(c) When not a full-height wall, have clear sightlines, or transparency, that are between 1070 mm to 1200 mm.

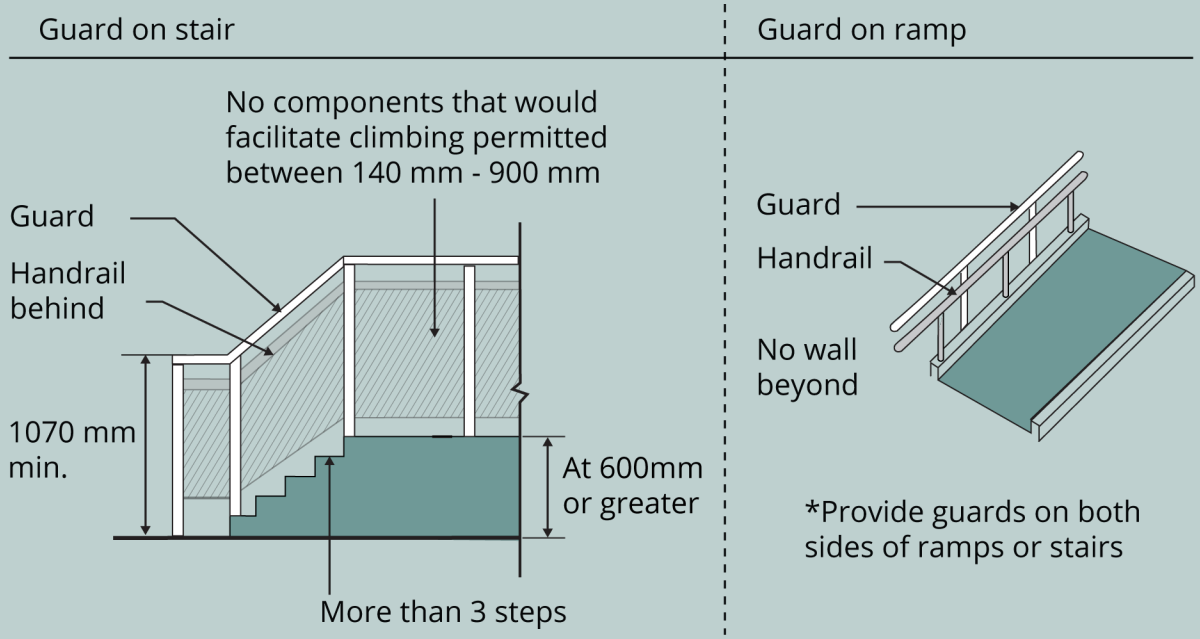


Figure 1.1.8-A Guards and Handrails

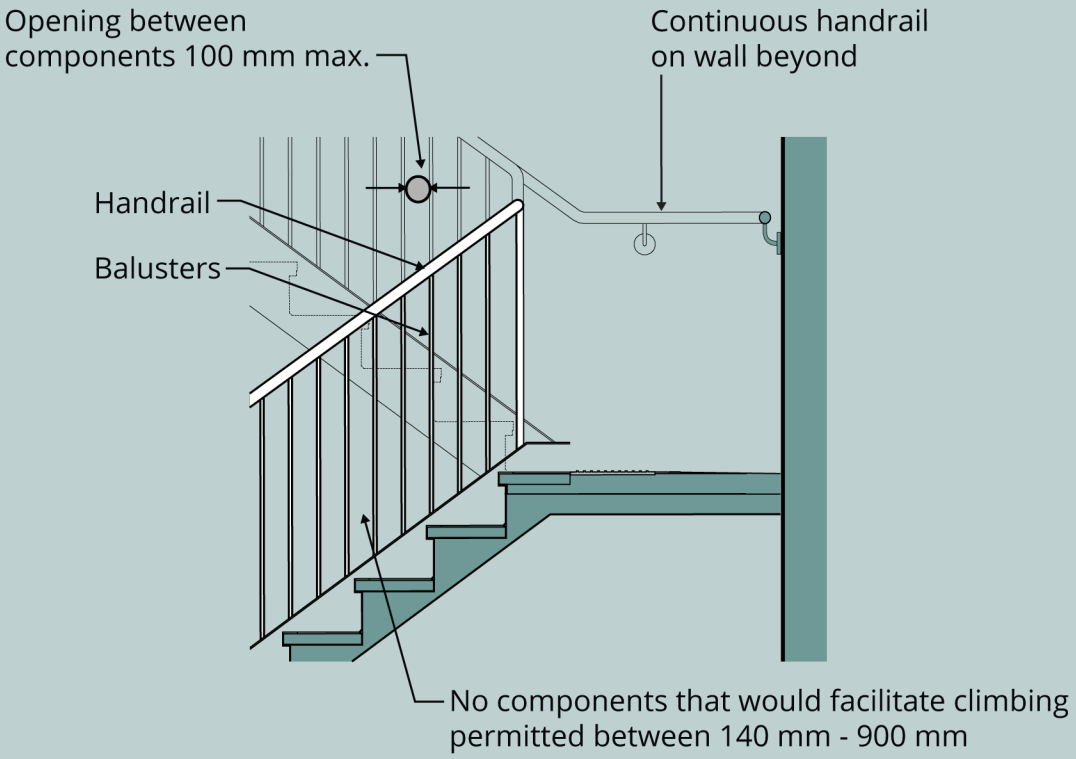


Figure 1.1.8-B Openings at Guards

1.1.9. Exterior Ramps

Rationale

Ramps provide an exterior accessible path of travel to overcome grade and elevation changes. Their slopes should have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Application

The scope of this section applies to exterior and interior ramps provided at grade and elevation changes.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.6. Grade and Elevation Changes"
- "1.1.7. Handrails"
- "1.1.8. Guards"
- "1.1.10. Exterior Stairs"
- "1.6.2. Tactile Attention Indicators"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Location

Ramps should be at grade and elevation changes and, where provided, adjacent to stairs.

Accessible Path of Travel

Ramps allow for a continuous, unobstructed route providing exterior access to elements and spaces. Ramps should provide landings at the top and bottom of slopes, where there is an abrupt change in direction of travel, and at horizontal intervals. A clear sight line and view for the user should be provided between the beginning and the end of a ramp, and where multiple landings are provided.

Slopes

The slope of ramps should be designed to provide a gradual transition as they allow for better control and ease of movement for persons using mobility devices. Slope or steepness is typically expressed as a ratio, such as 1:20 (5%), where for every 1 unit in rise or height change there are 20 units that extend horizontally or in length. For example, a change in elevation that is 200 mm with a 1:20 slope would require a ramp length of 4000 mm (200 mm multiplied by 20).

Surfaces

Ramps should have surfaces that reduce the risk of tripping and the potential discomfort, experienced by persons using mobility devices or white canes, caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Tactile attention indicators should be provided where a door swing opens into a ramp landing. Additional features may be provided to the surface to maintain and address seasonal weather conditions.

Edge Protection

Edge protection should be provided at ramps where there are no walls, or solid enclosures to prevent individuals, including persons using mobility devices, from slipping or rolling over the edge of the exterior path of travel. Edge protection can provide a means of wayfinding for persons with low or no vision who use a white cane. In some naturalized built environments, edge protection can create barriers, so each condition should be carefully assessed.

Handrails and Guards

Handrails and guards (or walls) should be provided at ramps and be designed to provide safety and support for persons moving along the exterior path of travel.

Requirements

(1) Location:

Ramps should be located at:

(a) Grade and elevation changes that:

(i) Are greater than 1:20 (5%) running slope; and

(ii) Are greater than 200 mm; and

(b) A convenient location along a main accessible path of travel to an entrance.

(2) Accessible Path of Travel:

Ramps should provide exterior accessible paths of travel that:

(a) Have a ramp width, "[R-1.1.9. (2)(a)]", that is 1800 mm minimum;

(b) Have a 2100 mm overhead clearance;

(c) Have level landings, "[R-1.1.9. (2)(c)]", "Figure 1.1.9-A Ramp Configuration Plan Views" and "Figure 1.1.9-B Ramp Configuration Perspective Views", that:

(i) Have a clear sight line and view for the user between the beginning and the end of a ramp, and where multiple landings are provided;

(ii) Are located at intervals no greater than 9 m apart;

(iii) Are 2500 mm by 2500 mm minimum at straight run ramps;

(iv) Are 2500 mm by 2500 mm minimum at 90 degree turn locations; and

(v) Are 2500 mm by the path width at 180 degree turn locations;

(vi) Where a door is located at the level landing in a ramp, have a clear ground space that is 1700 mm by 1700 mm, "Figure 1.1.9-C Door Opening on to Landing"; and

(d) Meet the criteria in section "1.1.1. Exterior Accessible Paths of Travel"

(3) Slopes:

Ramps should provide slopes, "Figure 1.1.9-D Ramp Running and Cross Slope", that have:

(a) A 1:15 (6.7%) to 1:20 (5%) running slope "[R-1.1.9.(3)(a)]";

(b) A 1:50 (2%) maximum cross slope (exterior only); and

(c) Where two or more consecutive slopes are provided, should be of the same slope ratio.

(4) Surfaces:

Ramps should provide surfaces that:

(a) Are firm, stable and slip-resistant;

(b) Have openings that:

(i) Are located outside of an accessible path of travel;

(ii) Allow for drainage (in exterior conditions);

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum;

(c) Have textural strips, "Figure 1.1.9-E Ramp Grates and Textural Strips", that:

(i) Are located at the start and end of the ramp slope, or at the start and end of a level surface such as the landing;

(ii) Extend across the full clear width of the ramp slope;

(iii) Are 50 mm wide; and

(iv) Have colour/brightness contrast.

(5) Edge Protection:

Ramps should provide edge protection, "Figure 1.1.9-F Protection on Ramps", that:

(a) Is located on both sides of the ramp;

(b) Has a 75 mm minimum curb, without impeding drainage, or 50 mm where the bottom member of a handrail or guard is used in lieu of a curb; and

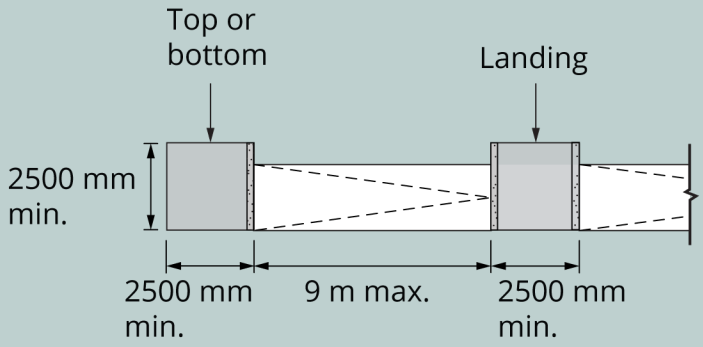
(c) Has colour/brightness contrast.

(6) Handrails and Guards:

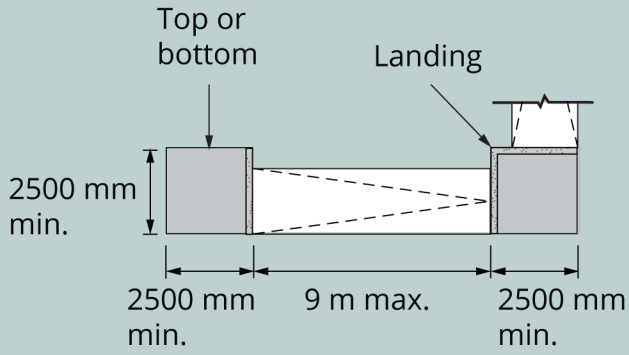
Ramps should provide handrails, "Figure 1.1.9-G Ramp Width and Handrail", and guards that:

(a) Meet the criteria in section "1.1.7. Handrails", and "1.1.8. Guards".

Straight run - plan view



90 Degree turn - plan view



180 Degree turn - plan view

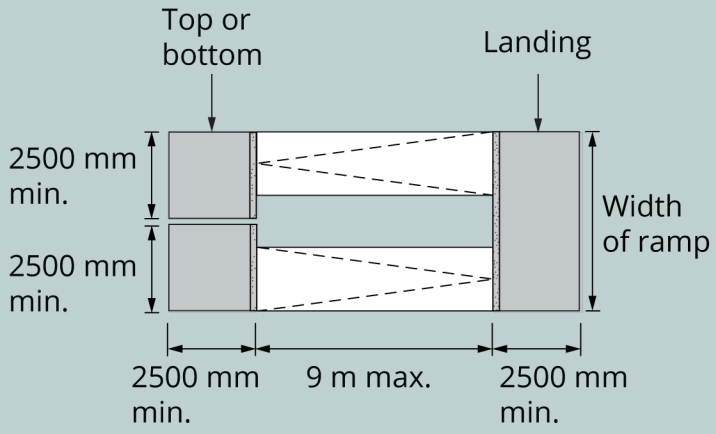
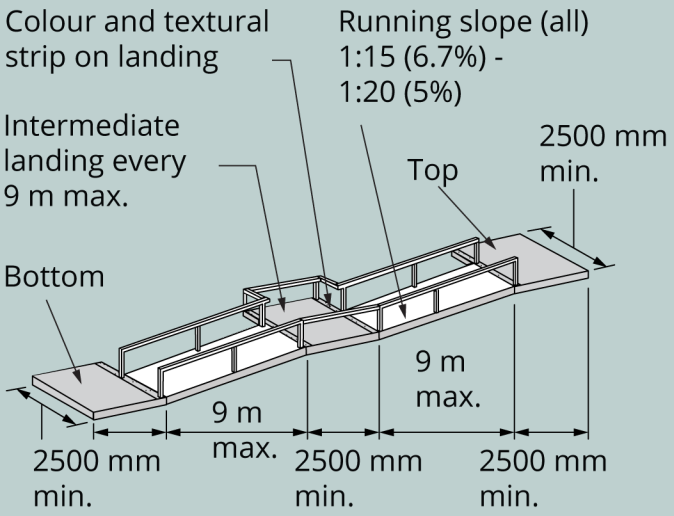
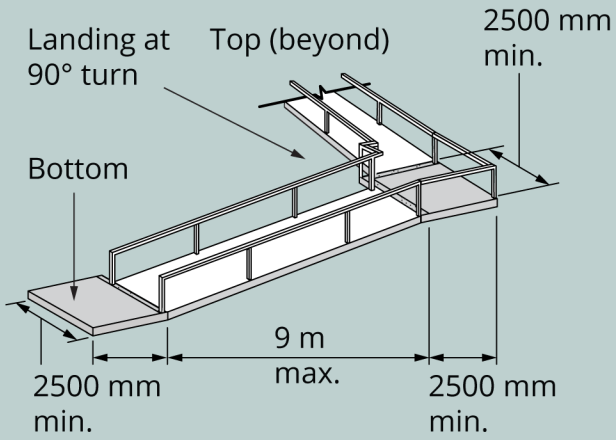


Figure 1.1.9-A Ramp Configuration Plan Views

Straight run



90 Degree turn



180 Degree turn

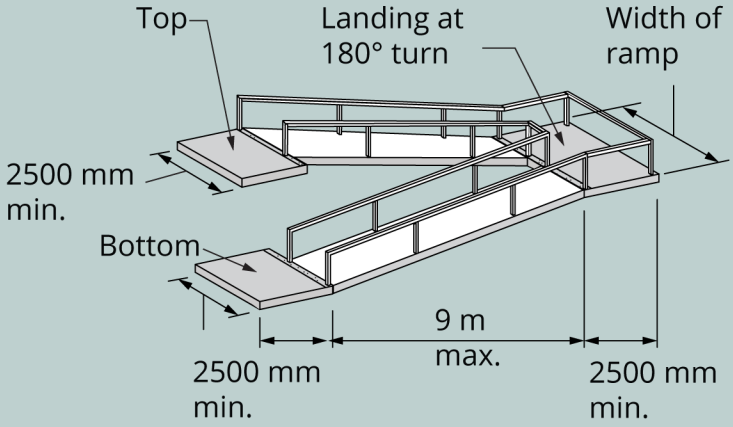


Figure 1.1.9-B Ramp Configuration Perspective Views

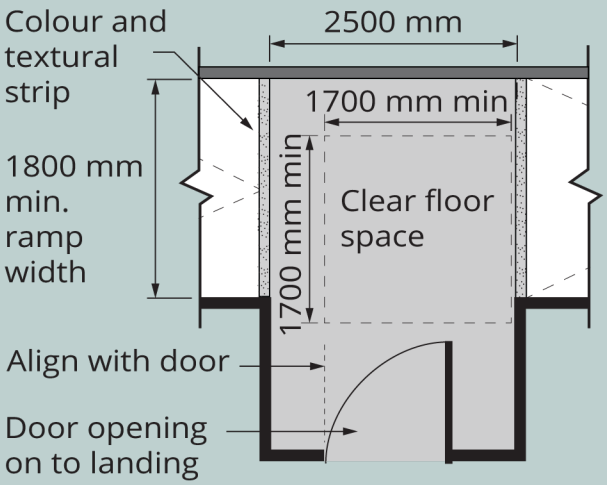


Figure 1.1.9-C Door Opening on to Landing

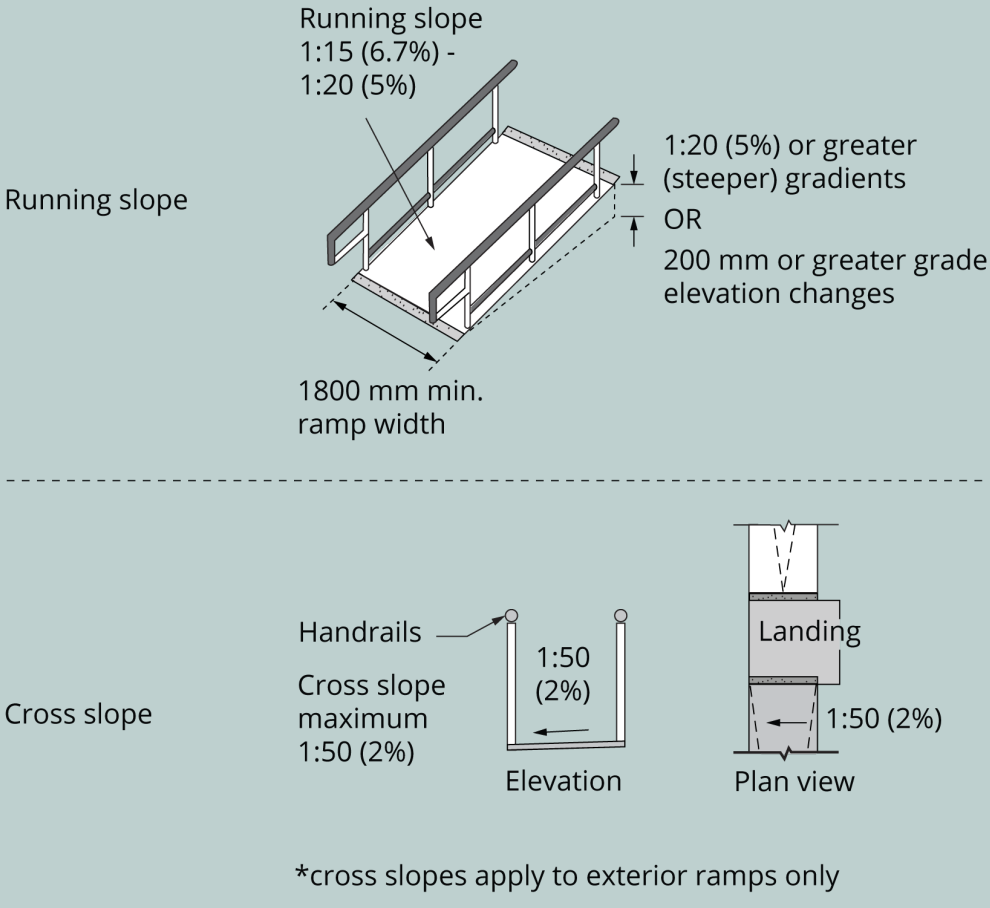


Figure 1.1.9-D Ramp Running and Cross Slope

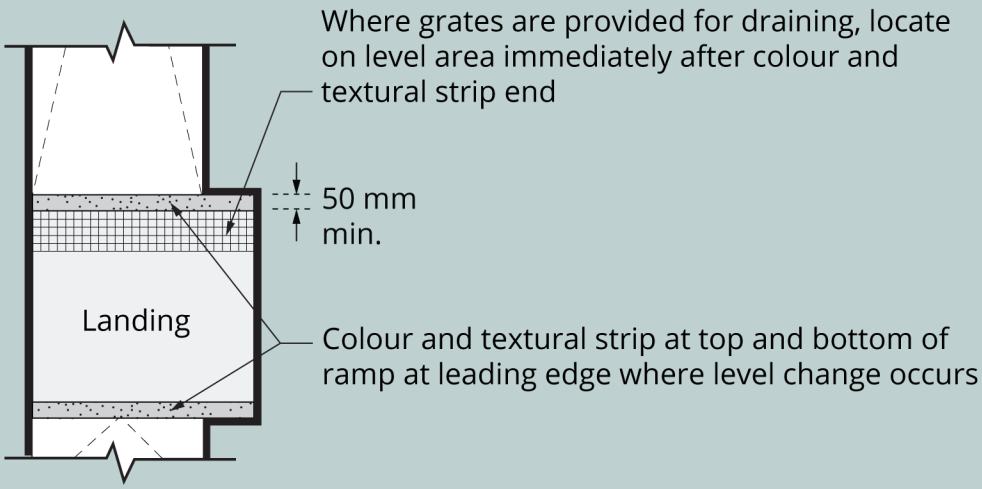


Figure 1.1.9-E Ramp Grates and Textural Strips

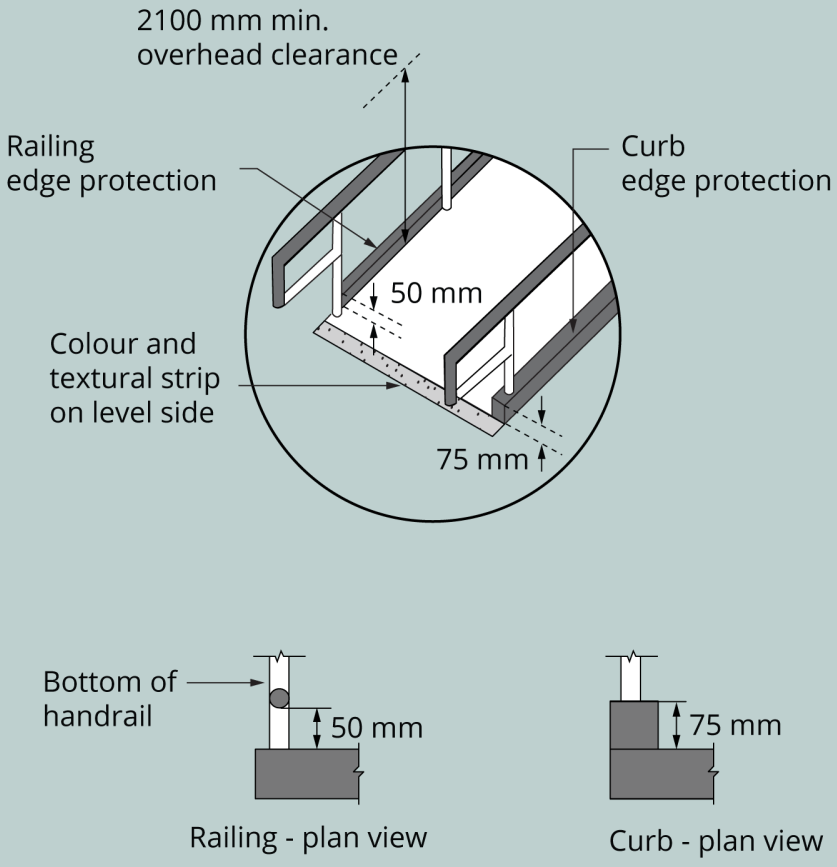


Figure 1.1.9-F Protection on Ramps

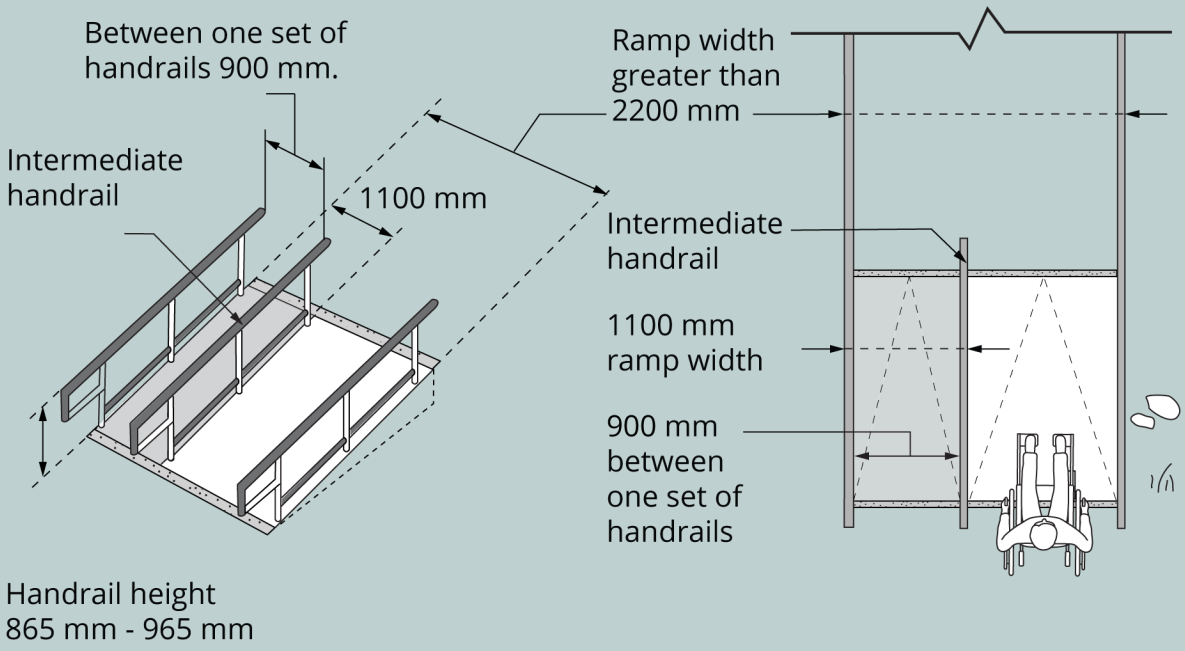


Figure 1.1.9-G Ramp Width and Handrail

1.1.10. Exterior Stairs

Rationale

Where stairs are provided to overcome grade and elevation changes, they should be adjacent to an exterior accessible path of travel such as ramps. Stairs should integrate accessible elements to enhance their usability for all individuals especially for persons with low or no vision and persons with limited mobility.

Application

The scope of this section applies to exterior and interior stairs and steps provided at grade and elevation changes.

Related Sections

- "1.1.6. Grade and Elevation Changes"
- "1.1.7. Handrails"
- "1.1.8. Guards"
- "1.1.11. Obstructions, Protrusions and Overhead Objects"
- "1.6.2. Tactile Attention Indicators"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Toronto Multi-Use Trail Design Guidelines

Key Considerations

Location

Where stairs are provided at grade and elevation changes, they should be adjacent to an accessible path of travel such as a ramp.

Overhead Clearances

Overhead clearance should be provided at stairs from the ground to any overhead objects, such as trees or signage.

Surfaces

Surfaces should be provided at stairs that reduce the risk of tripping. Tactile attention indicators should be provided on stair landings. Additional features may be provided to the surface to maintain and address seasonal weather conditions.

Handrails and Guards

Handrails and guards (or walls) should be provided at stairs and be designed to create safety and support for persons moving along the exterior path of travel.

Risers and Treads

Risers (rise) which are the vertical surface or the height of the step, and treads (run) which are the horizontal surface of the step should provide uniform dimensions at stairs to reduce the risk of tripping. Stairs should be designed to provide shorter rises and longer runs, within the prescribed limits, to create less steep staircases that are easier to use. Closed risers should be provided to improve the recognition and visibility of each stair tread. Spiral and curved stairs should be discouraged as the non-uniform tread depth can be difficult to use.

Nosings

Nosings should be provided at stairs and be designed without any abrupt undersides to reduce the risk of tripping.

Requirements

(1) Location:

Stairs should be located:

(a) Adjacent to an accessible path of travel that:

(i) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”;

(ii) Meets the criteria in section “1.1.9. Exterior Ramps”;

(iii) Meets the criteria in section "2.1.1. Interior Accessible Paths of Travel";

(iv) Meets the criteria in section "2.1.3. Interior Ramps";

(v) Meets the criteria in section "2.1.5. Elevators"; or

(vi) Meets the criteria in section "2.1.6. Limited Use, Limited Application (LULA) Lifts".

(2) Overhead Clearances:

Stairs should provide overhead clearances, "Figure 1.1.10-A Clearances and Cane Detectability", that:

(b) Are 2100 mm minimum;

(c) Are clear from obstructions, protrusions, and overhead objects that meet the criteria in section "1.1.11. Obstructions, Protrusions and Overhead Objects".

(3) Surfaces:

Stairs should provide surfaces that:

(a) Are firm, stable and slip-resistant;

(b) Have two textural strips, "Figure 1.1.10-B Textured Surfaces at Stairs", that:

(i) Are located at the bottom of the stairs, starting one tread depth back from the bottom riser;

(ii) Extend across the full clear width;

(iii) Are each 50 mm wide;

(iv) Are spaced 50 mm apart; and

(v) Have colour/brightness contrast; and

(c) Have tactile attention indicators, "Figure 1.1.10-C Stair Landing Tactile Indicators", that meet the criteria in section "1.6.2. Tactile Attention Indicators".

(4) Handrails and Guards:

Stairs should provide handrails and guards, "Figure 1.1.10-D Additional Stair Landing Designs", that:

(a) Meet the criteria in section "1.1.7. Handrails"; and

(b) Meet the criteria in section "1.1.8. Guards".

(5) Risers and Treads:

Stairs should provide:

(a) Risers, "Figure 1.1.10-E Elevation of Stair Details", that:

(i) Have a rise between successive treads be between 125 mm to 180 mm;

(ii) Have uniform dimensions for the entire rise surface;

(iii) Are closed; and

(iv) Have no less than three steps at interior stairs; and

(b) Runners that:

(i) Have a run between successive steps be between 280 mm to 355 mm; and

(ii) Have no abrupt undersides.

(6) Nosings:

Stairs should provide nosings that:

(a) Have a 50 mm deep strip that:

(i) Is located at the edge of the stair;

(ii) Extends the full width of the tread;

(iii) Is, where possible, recessed flush with the tread surface; and

(iv) Has colour/brightness contrast that extends the full clear width;

(b) Have a 38 mm (60 degrees) maximum projection; and

(c) Have bevelled or rounded edges that do not reduce the tread depth by more than 13 mm.

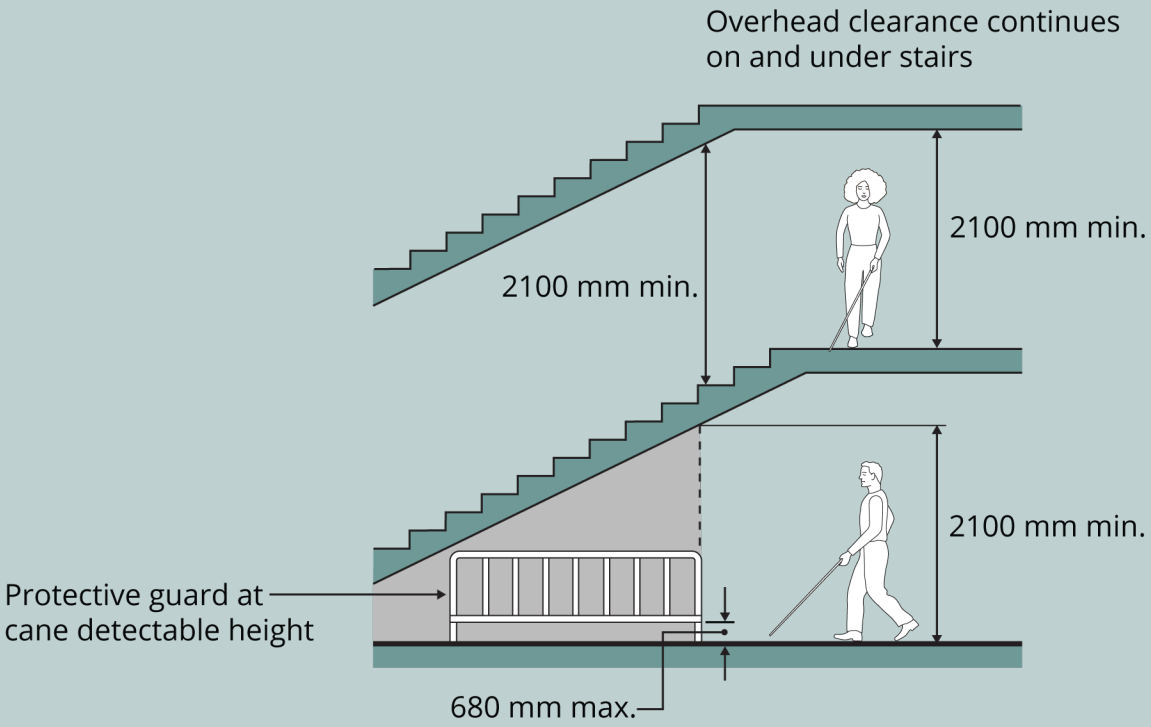


Figure 1.1.10-A Clearances and Cane Detectability

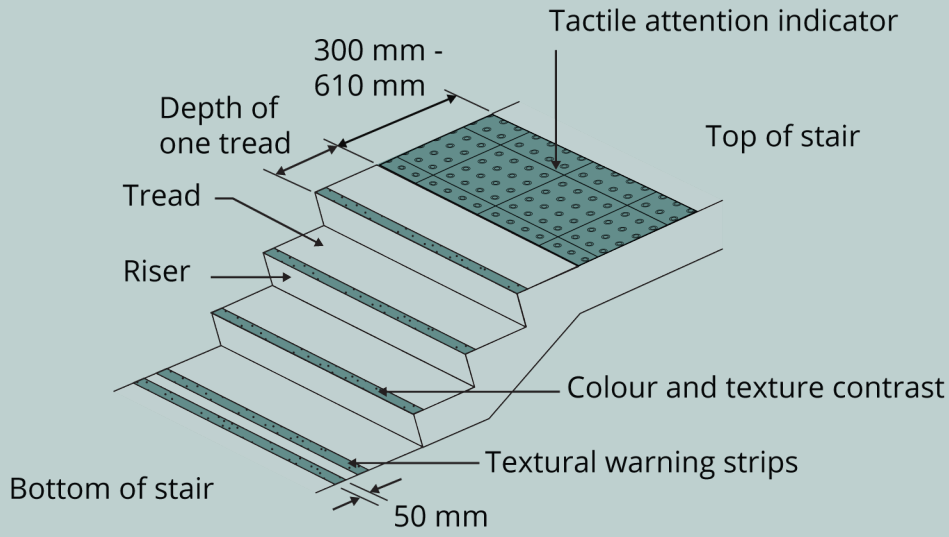


Figure 1.1.10-B Textured Surfaces at Stairs

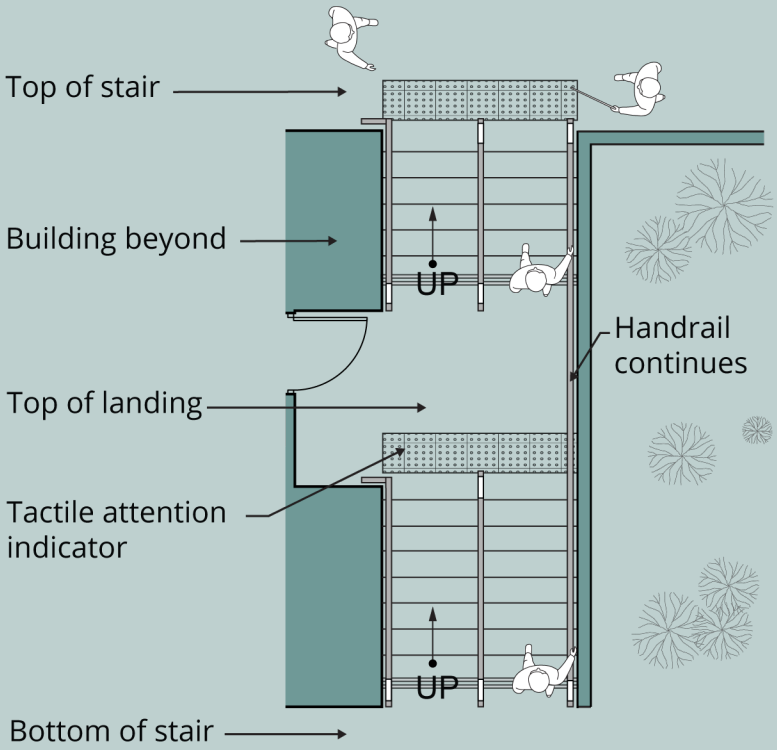


Figure 1.1.10-C Stair Landing Tactile Indicators

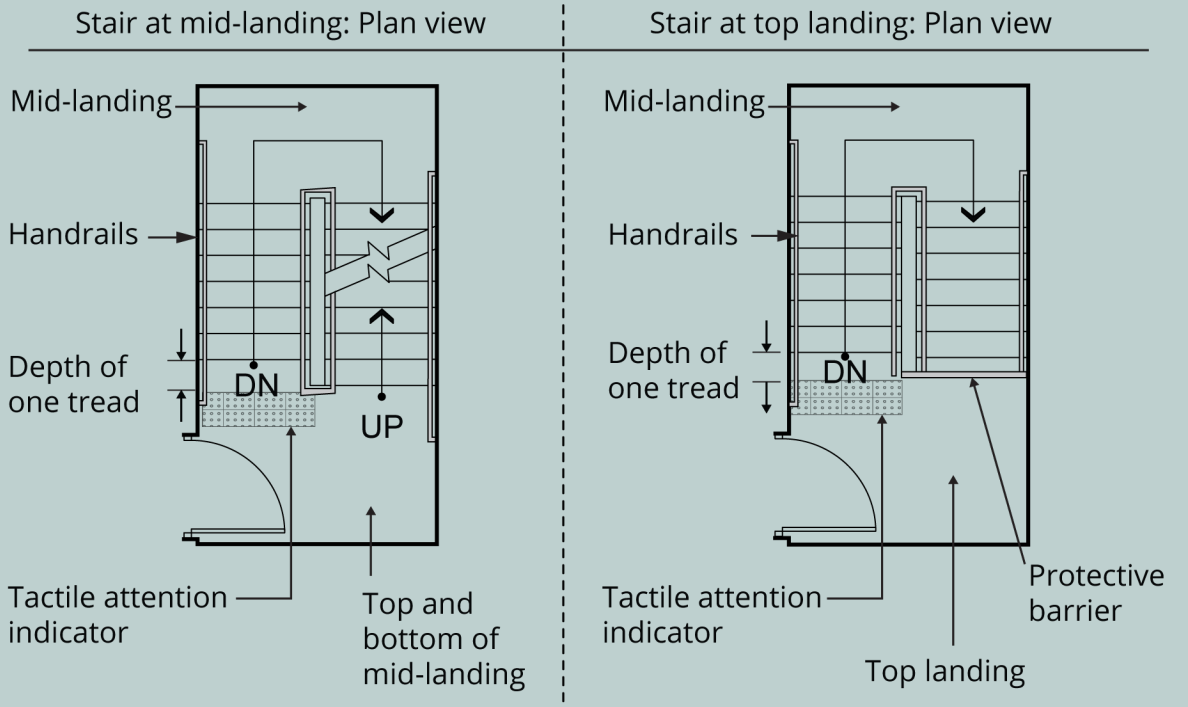


Figure 1.1.10-D Additional Stair Landing Designs

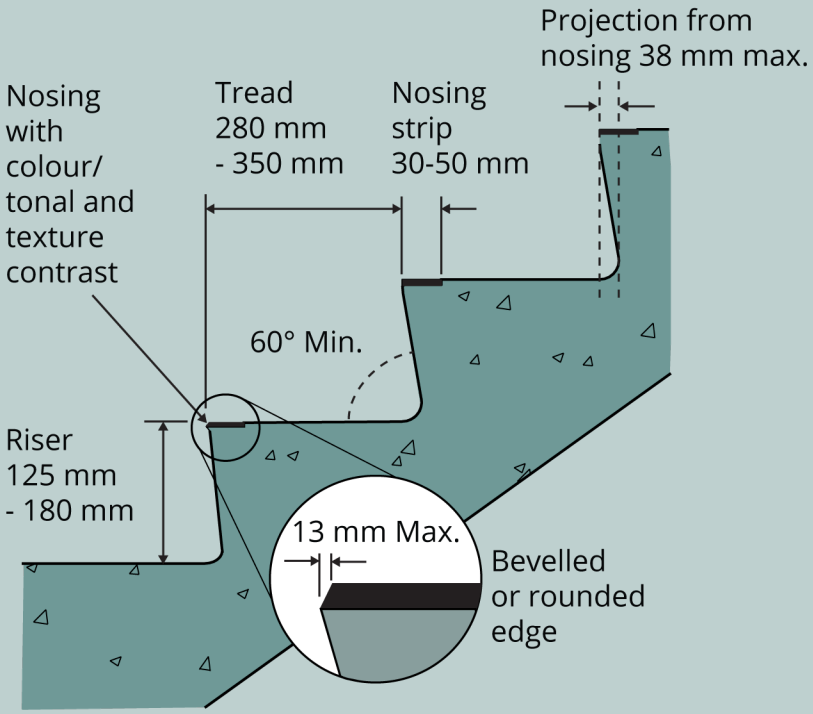


Figure 1.1.10-E Elevation of Stair Details

1.1.11. Obstructions, Protrusions and Overhead Objects

Rationale

Obstructions, protrusions and overhead objects may include both temporary and permanent objects. Where present, they should not impede an exterior accessible path of travel and should be located to reduce the risk of potential hazards.

Application

The scope of this section applies to temporary or permanent exterior furnishings, fixtures, equipment, street and building elements including vegetation and plantings, guy wires, other braces or supports for trees, drinking fountains, water bottle filling stations, waste receptacles and recycling bins, signage and wayfinding, bollards, pylons, columns and pillars, bus shelters, queuing lines, sales booths, bollards, fire hydrants, light posts, vending machines, etc.

Related Sections

- [Reserved]

Related References

- Complete Streets Guidelines
- Toronto Multi-Use Trail Design Guidelines
- Toronto Neighbourhood Urban Design Guidelines Template & Manual

Key Considerations

Overhead Clearances

Where provided, obstructions, protrusions, and overhead objects should have clearances from the ground to the object to reduce the risk of potential hazards.

Cane Detectability

Where provided, obstructions, protrusions, and overhead objects should be designed to be cane detectable so that they can be identified by a person using a white cane for navigation and wayfinding.

Requirements

(1) Overhead Clearances:

Where present, obstructions, protrusions, and overhead objects should have overhead clearances, “Figure 1.1.11-A Overhead Clearances and Cane Detectable Obstructions”, that:

(a) Are 2100 mm minimum.

(2) Cane Detectability:

Where present, obstructions, protrusions, and overhead objects should:

(a) Be cane detectable;

(b) Have the bottom edge of the object be mounted at or below 680 mm, “Figure 1.1.11-A Overhead Clearances and Cane Detectable Obstructions”; and

(c) Project no more than 100 mm into an exterior accessible path of travel, “Figure 1.1.11-B Protrusions in Path of Travel”

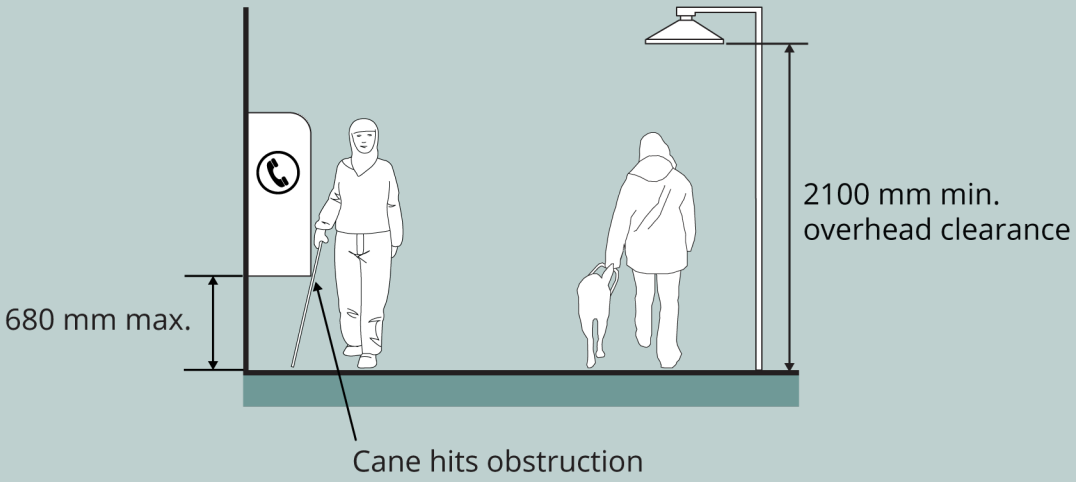


Figure 1.1.11-A Overhead Clearances and Cane Detectable Obstructions

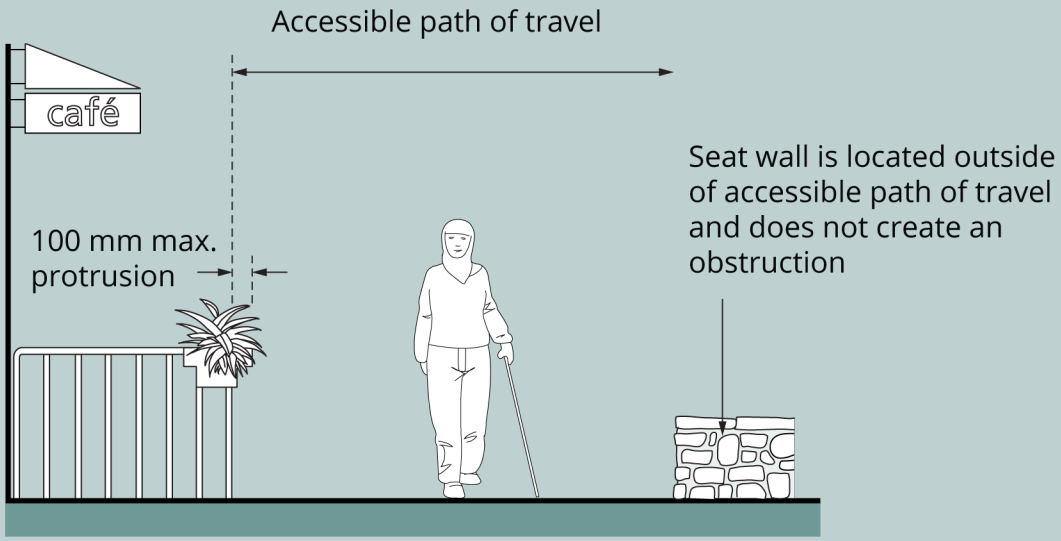


Figure 1.1.11-B Protrusions in Path of Travel

1.1.12. Safety and Security

Rationale

Features such as lighting, communication and information systems, and emergency plans should be integrated to enhance the safety and security for all individuals.

Application

[Reserved]

Related Sections

- "1.1.4. Exterior Paths of Travel to Entrances and Exits"
- "1.3.1. Off-Street Parking"
- "2.2.1. Entrances"
- "3.1.2. Exterior Lighting"
- "3.2.2. Two-Way Communication Systems"
- "3.2.4. Public Address Systems"
- "3.2.6. Accessible Public Telephones"
- "3.3.3. Fire and Life Safety"

Related References

- Complete Streets Guidelines
- Road Safety
- Tactile Walking Surface Indicators
- Toronto Green Standard
- Toronto Multi-Use Trail Design Guidelines
- Toronto Neighbourhood Urban Design Guidelines Template & Manual

Key Considerations

Location

Safety and security features should be provided throughout the site along exterior accessible paths of travel, including paths leading to: entrances and exits, parking, and vehicular arrival and departure areas.

Lighting

Lighting should be provided to improve visibility and sightlines within the immediate area.

Communication Devices

Communication devices should be provided to enhance safety and security so that all individuals can access assistance. They should include two-way communication systems such as public telephones, intercoms and/or emergency call systems. All devices should be designed to coordinate with interior public address or security address systems.

Emergency Plans

Emergency plans should be provided to enhance safety and security and be designed to consider the needs and provide appropriate assistance for all individuals. They should be integrated into the fire protection and life safety emergency plans.

Requirements

(1) Location:

Safety and security features should be located, “Figure 1.1.12-A Safe and Secure Areas”, at:

(a) Throughout the site along exterior paths of travel to entrances and exits that meet the criteria in section “1.1.4 Exterior Paths of Travel to Entrances and Exits”; and

(b) Off-street parking that meets the criteria in section “1.3.1. Off-Street Parking”.

(2) Lighting:

Safety and security features should provide lighting that:

(a) Is designed to minimize glare;

(b) Meets the criteria in section "3.1.2. Exterior Lighting"; and

(c) Meets the criteria in the Toronto Green Standard with regard to the dark night sky.

(3) Communication Devices:

Safety and security features should provide communication devices that may include:

(a) Two-way communication systems that:

(i) Are connected to a central monitoring station; and

(ii) Meet the criteria in section "3.2.2. Two-Way Communication Systems";

(b) Public Address Systems that:

(i) Amplify into the exterior site; and

(ii) Meet the criteria in section "3.2.4. Public Address Systems";

(c) Public telephones that:

(i) Are located at an accessible entrance; and

(ii) Meet the criteria in section "3.2.6. Accessible Public Telephones"; and

(d) Personal alarm devices for persons who may reside on site or regular visitors.

(4) Emergency Plans:

Safety and security features should provide emergency plans that:

(a) Identify the various communication devices provided and meet the criteria in section "3.3.3. Fire and Life Safety".

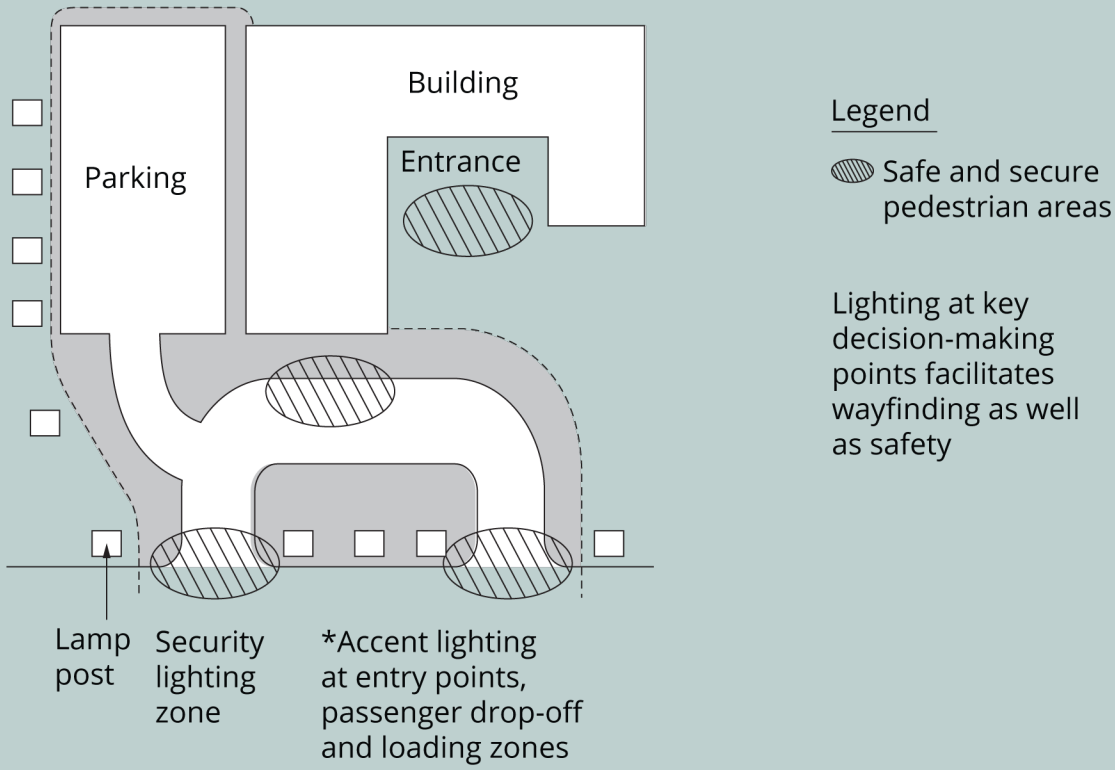


Figure 1.1.12-A Safe and Secure Areas

1.2. Pedestrian Crossings and Signals

Section Summary

This section reviews the accessible design requirements for pedestrian crossings and control signals intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Elements such as tactile attention indicators and accessible pedestrian signals are features designed specifically to provide additional cues to persons with low or no vision about how to better navigate the pedestrian crossings. Curb ramps or depressed curbs are crucial to allow persons using mobility devices to transition between the exterior accessible path of travel, or pedestrian clearway, and the vehicular path.

Contents in Section

1.2.1. Pedestrian Crossings

1.2.2. Accessible Pedestrian Signals

1.2.3. Traffic Islands

1.2.4. Curb Ramps

1.2.5. Depressed Curbs

1.2.1. Pedestrian Crossings

Rationale

Pedestrian crossings provide a designated area to allow pedestrians to cross the roadway. They should be free of all obstacles to ensure a clear path of travel. Features, such as accessible pedestrian signals, traffic islands on the public right of way, curb ramps, depressed curbs, and pavement markings all provide navigational cues that enhance safety for all individuals.

Application

The scope of this section applies to pedestrian crossings at controlled and uncontrolled intersections.

Related Sections

- “1.2.2. Accessible Pedestrian Signals”
- “1.2.3. Traffic Islands”
- “1.2.4. Curb Ramps”
- “1.2.5. Depressed Curbs”

Related References

- Accessible Pedestrian Signals
- Complete Streets Guidelines
- Construction Specifications and Drawings for Road Works
- Construction Specifications and Drawings for Traffic Control Devices
- Streetscape Manual
- T-310.030-5 Zebra Pavement Marking Detail at Signalized Intersections
- T-310.030-7 Signalized Intersection
- Configurations of Pedestrian Crossings
- T-310.030-8 Controlled Non-Signalized Intersection Configuration of Pedestrian Crossings

- T-310.030-9 Location of Dropped Curbs at Controlled Intersections
- T-310.030-10 Tactile Walking Surface Indicator and Curb Ramp Detail
- T-310.030-11 Tactile Walking Surface Indicator and Depressed Curb Detail
- Tactile Walking Surface Indicators

Key Considerations

Design

Pedestrian crossings should be designed to meet the criteria in the City of Toronto's Construction Specifications and Drawings for Road Works.

Requirements

(1) Design:

Pedestrian crossings should be designed to:

(a) Have pavement marking details at signalized intersections that meet the criteria in T-310.030-5 Zebra Pavement Marking Detail at Signalized Intersections;

(b) Have signalized intersection configurations of pedestrian crossings that meet the criteria in T-310.030-7 Signalized Intersection Configurations of Pedestrian Crossings;

(c) Have controlled non signalized intersection configurations of pedestrian crossings that meet the criteria in T-310.030-8 Controlled Non-Signalized Intersection Configuration of Pedestrian Crossings;

(d) Have accessible pedestrian signals for signalized pedestrian crossings that meet the criteria in section "1.2.2. Accessible Pedestrian Signals";

(e) Where traffic islands are provided, they should meet the criteria in section "1.2.3. Traffic Islands";

(f) Have dropped curbs that:

(i) Meet the criteria in section "1.2.4. Curb Ramps"; or

(ii) Meet the criteria in section "1.2.5. Depressed Curbs";

(g) Have all corners of an intersection meet the requirements in this section.

1.2.2. Accessible Pedestrian Signals

Rationale

Accessible pedestrian signals should provide audible and vibro-tactile cues to help persons with low or no vision know when they have the right-of-way to cross the roadway.

Application

The scope of this section applies to controlled signals at signalized intersections and pedestrian crossings.

Related Sections

- "1.2.1. Pedestrian Crossings"

Related References

- Accessible Pedestrian Signals
- Complete Streets Guidelines
- Construction Specifications and Drawings for Traffic Control Devices
- Highway Traffic Act
- Guidelines for Understanding, Use and Implementation of Accessible Pedestrian Signals
- Ontario Traffic Manuals

Key Considerations

Location

Accessible pedestrian signals should be located at all signalized pedestrian crossings to guide pedestrians, especially persons with low or no vision, in crossing the roadway.

Controls

Accessible pedestrian signals should provide controls that have audible walk indicators and that are programmed to distinguish between pedestrian crossing directions, north

to south, or east to west, using different audible tones in order to provide clear navigational cues to persons with low or no vision. Vibro-tactile walk indicators provide a tactile cue to help persons with low or no vision know when the walk indicator is on and that they have the right-of-way to cross the roadway. The crossing time at pedestrian crossings should consider the needs of anticipated users including persons using mobility devices and persons with limited mobility and/or stamina, such as older adults. Controls such as push buttons should be connected to an accessible path of travel or pedestrian clearway, should have a clear ground space, and be set back from the vehicular roadway to ensure that persons using mobility devices can activate the control safely.

Requirements

(1) Location:

Accessible pedestrian signals, should be located at:

(a) Pedestrian crossings that meet the criteria in section "1.2.1. Pedestrian Crossings"; and

(b) The back of the pedestrian clearway, away from the road.

(2) Controls:

Accessible pedestrian signals should:

(a) Have audible walk indicators, such as chirping and cuckoos;

(b) Have visual walk indicators, such as flashing lights; and

(c) Have controls that:

(i) Have vibro-tactile walk indicators to alert pedestrians when the walk indicator is on;

(ii) Have arrows that align with the direction of the pedestrian crossing to help pedestrians locate and align themselves with the crossing;

(iii) Are installed on a single post located within 1500 mm of the edge of the curb for each pedestrian crossing; and

(iv) Are mounted on a single post 1050 mm maximum measured vertically from the ground surface; or

(v) Where two accessible pedestrian control signals are installed on the same corner, they should be a minimum 3000 mm apart;

(vi) Where the criteria in (v) cannot be met because of site constraints or existing infrastructure, two accessible pedestrian control signal assemblies can be installed on a single post, and when this occurs, a verbal announcement should clearly state which crossing is active; and

(vii) Have locator tones.

1.2.3. Traffic Islands

Rationale

Traffic islands are areas that allow persons to temporarily pause, wait, or rest as they cross an intersection. They are especially important at lengthy crossings and large intersections. Traffic islands are a part of pedestrian crossings and are an extension of an exterior accessible path of travel. Features that make traffic islands accessible include clear path widths and tactile and audible elements to allow pedestrians to safely navigate to and from the area. They should be built of materials and finishes that are easily distinguishable from the surrounding paving.

Application

The scope of this section applies to traffic islands on the public right of way at pedestrian crossings.

Related Sections

- “1.2.1. Pedestrian Crossings”

Related References

- Complete Streets Guidelines
- Construction Specifications and Drawings for Road Works
- Construction Specifications and Drawings for Traffic Control Devices
- Streetscape Manual
- T-310.030-5 Zebra Pavement Marking Detail at Signalized Intersections
- T-310.030-7 Signalized Intersection
- Configurations of Pedestrian Crossings
- T-310.030-8 Controlled Non-Signalized Intersection Configuration of Pedestrian Crossings
- T-310.030-9 Location of Dropped Curbs at Controlled Intersections
- T-310.030-10 Tactile Walking Surface Indicator and Curb Ramp Detail

Key Considerations

Design

Traffic islands should be designed to meet the criteria in the City of Toronto's Construction Specifications and Drawings for Road Works.

Requirements

(1) Design:

Traffic islands should be designed to:

(a) Have a waiting area that has colour/ brightness contrast from the surrounding environment;

(b) Have signalized intersection configurations of pedestrian crossings that meet the criteria in T-310.030-7 Signalized Intersection Configurations of Pedestrian Crossings; and

(c) Meet the criteria in section "1.2.1. Pedestrian Crossings"

1.2.4. Curb Ramps

Rationale

Curb ramps allow persons using mobility devices to overcome the transition between levels at grade and elevation changes between an exterior accessible path of travel, or pedestrian clearway, and the vehicular roadway.

Application

The scope of this section applies to curb ramps provided at grade and elevation changes located at pedestrian crossings, accessible parking, or passenger pick-up and drop-offs. The use of curb ramps should be evaluated, based upon the location's use and level of pedestrian traffic, during the design phase in consultation with GBP students and employees.

Related Sections

- "1.2.1. Pedestrian Crossings"
- "1.2.3. Traffic Islands"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Complete Streets Guidelines
- Construction Specifications and Drawings for Road Works
- T-310.030-5 Zebra Pavement Marking Detail at Signalized Intersections
- T-310.030-7 Signalized Intersection Configurations of Pedestrian Crossings
- T-310.030-8 Controlled Non-Signalized Intersection Configuration of Pedestrian Crossings
- T-310.030-9 Location of Dropped Curbs at Controlled Intersections
- T-310.030-10 Tactile Walking Surface Indicator and Curb Ramp Detail

Key Considerations

Design

Curb ramps should be designed to meet the criteria in the City of Toronto's Construction Specifications and Drawings for Road Works.

Requirements

(1) Design:

Curb ramps should be designed to:

(a) Have a clear width that:

(i) Is 3000 mm minimum for signalized intersections;

(ii) Is 2500 mm minimum for non-signalized intersections; or

(iii) Is 1500 mm minimum, exclusive of flared sides, for parking and loading zones;

(b) Where a curb ramp is perpendicular to the path of travel, be connected to a pedestrian clearway that has a clear width from the start of the curb ramp to the back of the sidewalk that is 1200 mm minimum, 1500 mm preferred;

(c) Have a running slope that is 1:20 (5%) typical, 1:10 (10%) maximum;

(d) Have a cross slope that is 1:50 (2%) maximum;

(e) Have tactile attention indicators that:

(i) Are located at the bottom of the curb ramp and behind the curb;

(ii) Are 200 mm set back from the face of the curb;

(iii) Are 610 mm depth;

(iv) Extend the full clear width of the curb ramp; and

(v) Have colour/brightness contrast from adjacent surfaces;

(vi) Align with the direction of travel; and

(vii) Have tactile walking surface indicator and curb ramp details that meet the criteria in T-310.030-10 Tactile Walking Surface Indicator and Curb Ramp Detail

1.2.5. Depressed Curbs

Rationale

Depressed curbs allow persons using mobility devices to overcome the transition between levels at grade and elevation changes between the exterior accessible path of travel, or pedestrian clearway, and the vehicular roadway.

Application

The scope of this section applies to depressed curbs provided at grade and elevation changes located at pedestrian crossings, accessible parking or passenger pick-up and drop-offs. The use of depressed curbs should be evaluated and based upon the location's use and level of pedestrian traffic, during the design phase in consultation with GBP students and employees.

Related Sections

- "1.2.1. Pedestrian Crossings"
- "1.2.3. Traffic Islands"

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Complete Streets Guidelines
- Construction Specifications and Drawings for Road Works
- T-310.030-5 Zebra Pavement Marking Detail at Signalized Intersections
- T-310.030-7 Signalized Intersection Configurations of Pedestrian Crossings
- T-310.030-8 Controlled Non-Signalized Intersection Configuration of Pedestrian Crossings
- T-310.030-9 Location of Dropped Curbs at Controlled Intersections
- T-310.030-11 Tactile Walking Surface Indicator and Depressed Curb Detail

Key Considerations

Design

Depressed curbs should be designed to meet the criteria in the City of Toronto's Construction Specifications and Drawings for Road Works.

Requirements

(1) Design:

Depressed curbs should be designed to:

(a) Have a clear width that:

(i) Is 3000 mm minimum for signalized intersections; and

(ii) Is 2500 mm minimum for non signalized intersections;

(b) Have a running slope that is 1:20 (5%); and

(c) Have tactile walking surface indicator and depressed curb details that meet the criteria in T-310.030-11 Tactile Walking Surface Indicator and Depressed Curb Detail.

1.3. Parking, Vehicular Arrival and Departure Areas

Section Summary

This section reviews the accessible design requirements for off-street parking, passenger pick-up and drop-off, and public transit areas intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community.

Contents in Section

1.3.1. Off-Street Parking

1.3.2. Passenger Pick-Up and Drop-Offs

1.3.3. Public Transit Areas

1.3.1. Off-Street Parking

Rationale

Off-street parking should provide accessible parking spaces. Accessible parking spaces should provide a series of elements that make it easier for drivers and passengers, including persons using mobility devices, to move from the vehicle to their desired destination.

Application

This section applies to off-street parking or parking lots intended for public and private use at GBP including covered and uncovered surfaces, multi-storey or underground parking lots or structures, storage garages, as well as existing parking structures and surface parking lots being re-surfaced, retrofitted, or rehabilitated. This section does not apply to on-street parking.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.4. Exterior Paths of Travel to Entrances and Exits"
- "1.2.4. Curb Ramps"
- "1.2.5. Depressed Curbs"
- "2.6.6. Self-Service Kiosks"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- Accessible Parking Permits
- City of Toronto Zoning By-law 569-2013, as amended (Office Consolidation)
- Greening Surface Parking Lots
- Section 11, Regulation 581 of the Revised Regulations of Ontario, 1990 (Accessible Parking for Persons with Disabilities) made under the Highway Traffic Act. O. Reg 413/12, s. 6

- Toronto Green Standard
- Toronto Multi-Use Trail Design Guidelines
- Toronto Municipal Code Chapter 743, Streets and Sidewalks, Use of
- Toronto Parking Authority, Accessibility Policies and Multi-Year Accessibility Plan

Key Considerations

Amount

Accessible parking spaces should be provided in proportion to the total number of parking spaces available. Additional accessible parking spaces should be provided in locations where a higher proportion of seniors, older adults, or persons using mobility devices are anticipated such as at parks, recreation and community centres, and parking lots that serve health care facilities.

Location

Off-street parking should be located within close proximity to an accessible entrance to ensure persons can access the building safely and efficiently.

Accessible Path of Travel

An exterior accessible path of travel should be provided at off-street parking to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Slopes

Where slopes are provided at off-street parking, they should be designed to have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings

should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Parking Spaces

Accessible parking spaces should be provided that permit larger-sized personal vehicles to park. Additional space should be provided when a vehicle is parked in a space beside a wall or obstruction, such as a fixed object, column, bollard, fence, or service pipe. Accessible parking spaces should be perpendicular or parallel to the drive aisle.

Curbs

Curb ramps or depressed curbs should be provided to allow persons using mobility devices to overcome the transition between levels at grade and elevation changes between an exterior accessible path of travel and the access aisle.

Access Aisles

Access aisles should be provided to create a designated area where drivers and passengers, including persons using mobility devices, can safely move from their parked vehicle to their desired destination. They may be shared between two accessible parking spaces.

Bollards

Bollards should be provided at depressed curbs to protect persons on an exterior accessible path of travel.

Pavement Markings

Pavement markings should be provided for accessible parking spaces and access aisles to clearly identify the designated areas.

Signage

Signage for accessible parking spaces should be provided that is designed to provide visual information, include the International Symbol of Access (ISA), and identify which are designated and van accessible. Signage should be mounted at a height that is visible to the driver.

Ticketing Dispensers

Ticketing dispensers should be provided that connect to an accessible path of travel and are in close proximity to accessible parking spaces. They should include accessible controls and operating mechanisms so that they can be used by persons using mobility devices, persons with limited dexterity, and persons with low vision.

Requirements

(1) Amount:

Off-street parking should provide accessible parking spaces that:

(a) Meet the criteria in "Table 1.3.1-A Number of Accessible Parking Spaces Required".

Table 1.3.1-A Number of Accessible Parking Spaces Required

Total Parking Spaces	**Number of Accessible Parking Spaces Required**
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	6
151 to 200	7
201 to 250	8
251 to 300	9
301 to 350	10
351 to 400	11
401 to 450	12

451 to 500	13
501 to 550	14
551 to 600	15
601 to 650	16
651 to 700	17
701 to 750	18
751 to 800	19
801 to 850	20
851 to 900	21
901 to 950	22
951 to 1000	23
1000 and over	11 spaces plus 1% of the total number of spaces (rounded up to the next whole number).

(2) Location:

Off-street parking should be located:

(a) Within 30 m of the main accessible entrance and/or any other accessible entrances; and

(b) On at least one level of a multi-storey or underground parking area.

(3) Accessible Paths of Travel:

Off-street parking should provide an exterior accessible path of travel that:

(a) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”.

(4) Slopes:

Where slopes, "Figure 1.3.1-A Slopes at Accessible Parking", are provided at off-street parking, they should have:

(a) A 1:20 (5%) maximum running slope;

(b) A 1:50 (2%) maximum cross slope; and

(c) Where infrastructural needs e.g. drainage) require greater slopes, these will be located to minimize their impacts and ensure the greatest level of accessible parking and path of travel.

(5) Surfaces:

Off-street parking should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have openings that:

(i) Are located outside of the accessible parking spaces and access aisles;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum.

(6) Parking Spaces:

Off-street parking should provide accessible parking spaces, "Figure 1.3.1-B Accessible Parking Spaces - Configuration 1" and "Figure 1.3.1-C Accessible Parking Spaces - Configuration 2", that:

(a) Are 3400 mm minimum wide;

(b) Are increased by 300 mm for each side of the parking space that is beside a wall or obstruction;

(c) Are 5600 mm minimum long; and

(d) Have an overhead clearance that is 3000 mm minimum, "[R-1.3.1. (6)(d)]"

(7) Curbs:

Off-street parking should provide curbs at accessible parking spaces that include:

(a) Curb ramps that meet the criteria in section "1.2.4. Curb Ramps"; and

(b) Depressed curbs that meet the criteria in section "1.2.5. Depressed Curbs".

(8) Parallel Parking Spaces:

Off-street parking should provide accessible parallel parking spaces, "Figure 1.3.1-D Parallel Parking", that:

(a) Are 3400 mm minimum wide;

(b) Are increased by 300 mm for each side of the parking space that is beside a wall or obstruction;

(c) Are 7100 mm minimum long; and

(d) Have an overhead clearance that is 3000 mm minimum, "[R-1.3.1. (8)(d)]".

(9) Access Aisles:

Off-street parking should provide access aisles, "Figure 1.3.1-E Access Aisle Detail", that:

(a) Are located at each accessible parking space;

(b) Are 1500 mm minimum wide;

(c) Extend the full length for a forward approach, or full width for a parallel accessible parking space;

(d) Have an overhead clearance that is 2100 mm minimum, "[R-1.3.1. (9)(d)]";

(e) Are marked with high colour/ brightness contrast diagonal lines, or consider the use of additional visual cues, such as posts or landscaping to replace the role of painted surfaces, if surfaces cannot be painted;

(f) Connect to an exterior accessible path of travel; and

(g) Are identified by a sign and always maintained and cleared for access by persons with disabilities; and

(h) Prevent vehicle access to the aisle using a bollard or signpost.

(10) Bollards:

Off-street parking should provide bollards that:

(a) Are provided at depressed curbs; and

(b) Have a clear width between bollards that is 1500 mm minimum.

(11) Pavement Markings:

Off-street parking should provide pavement markings for accessible parking spaces, "Figure 1.3.1-F Pavement Markings", that:

(a) Are slip-resistant;

(b) Have the International Symbol of Access that has:

(i) A 1400 mm by 1400 mm square inclusive of 100 mm thick white border;

(ii) A blue background;

(iii) An 880 mm wide by 1000 mm tall pictogram field centrally located; and

(iv) A 100 mm thick pictogram.

(c) Have painted lines and/or distinctive paving surfaces that have:

(i) 100 mm thick lines; and.

(ii) 400 mm of space between the centreline of diagonal lines for the access aisles.

(d) Are exempt in locations where there is not a paved or poured surface, such as in parking lots found in the trail systems or parks.

(12) Signage:

Off-street parking should provide signage, "Figure 1.3.1-G Parking Signage", for accessible parking spaces, that:

(a) Has visual information at the entrance to the parking area to indicate the number and location of accessible parking spaces in relation to each accessible entrance;

(b) Has the International Symbol of Access;

(c) Has "Van Accessible" provided on 50% of the spaces available;

(d) Is mounted 1500 mm to 2500 mm measured from the centre line of the sign; and

(e) Meet the criteria in section "1.1.11. Obstructions, Protrusions and Overhead Objects".

(f) Has appropriate graphical or textural information that clearly indicates the type of facilities available;

(g) Meets the criteria in section "3.2.1. Signage and Wayfinding".

(13) Ticketing Dispensers:

Off-street parking should provide ticketing dispensers that:

(a) Provide multiple ticketing dispensers based on the size of the parking facility;

(b) Are connected to an exterior accessible path of travel that meets the criteria in section "1.1.4. Exterior Paths of Travel to Entrances and Exits";

(c) Have an adjacent clear ground space of 900 mm by 1500 mm;

(d) Are located:

  (i) Within 20 m to the available accessible parking spaces; and

  (ii) In well-lit areas for safety and legibility of the device;

(e) Have controls and operating mechanisms that:

  (i) Are 1050 mm maximum;

  (ii) Have tactile features;

  (iii) Have colour/brightness contrast;

  (iv) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms"; and

  (v) Meet the criteria in section "2.6.6. Self-Service Kiosks"; and

(f) Have signage indicating the location of the ticketing dispensers and includes the information needed to use payment apps.

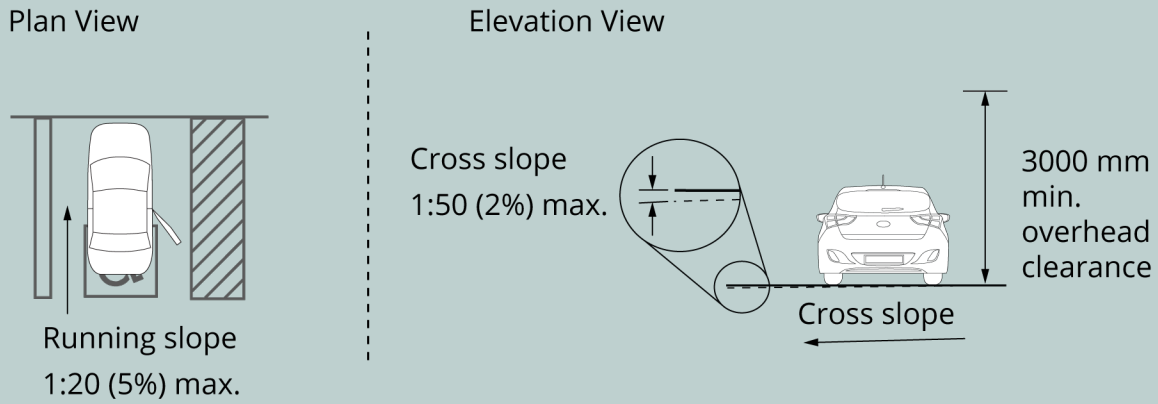


Figure 1.3.1-A Slopes at Accessible Parking

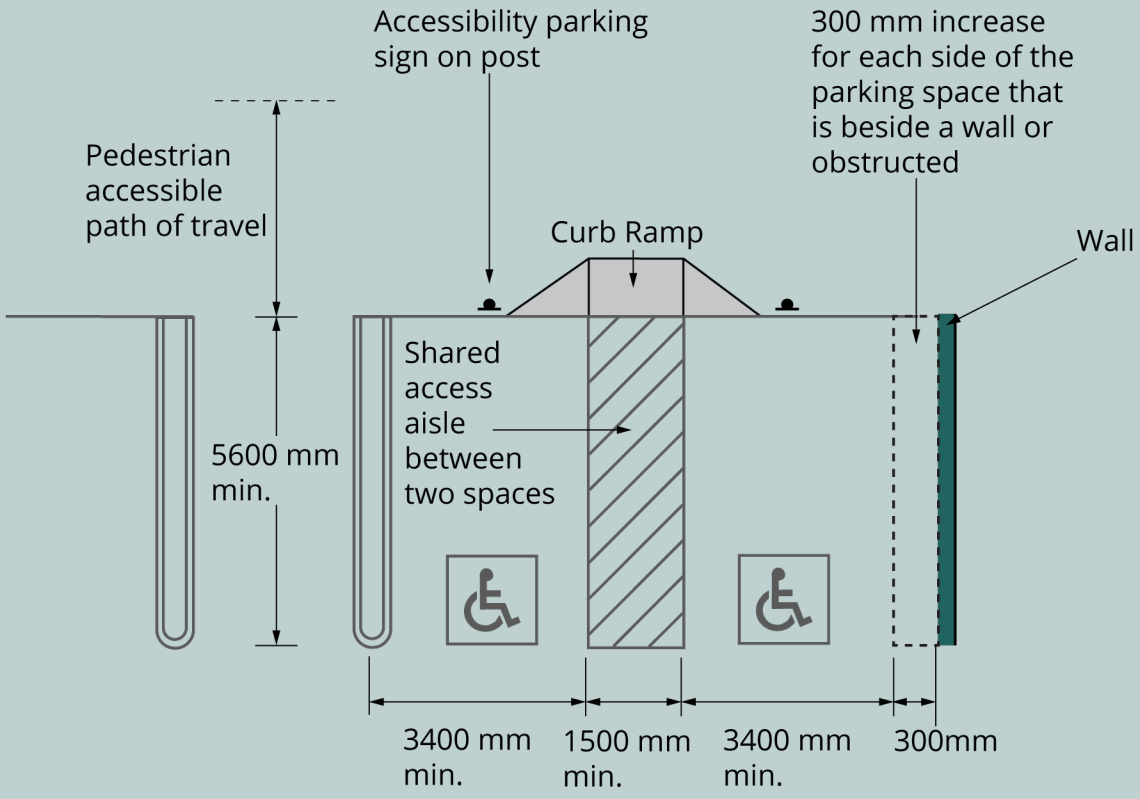


Figure 1.3.1-B Accessible Parking Spaces - Configuration 1

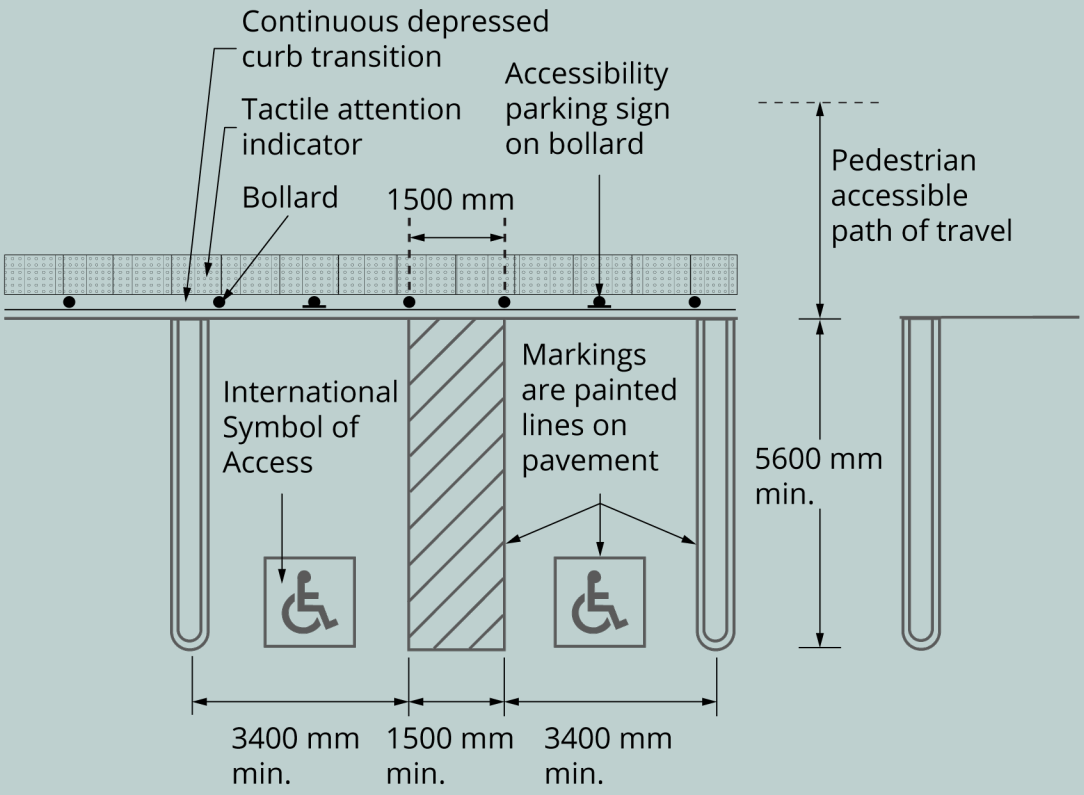


Figure 1.3.1-C Accessible Parking Spaces - Configuration 2

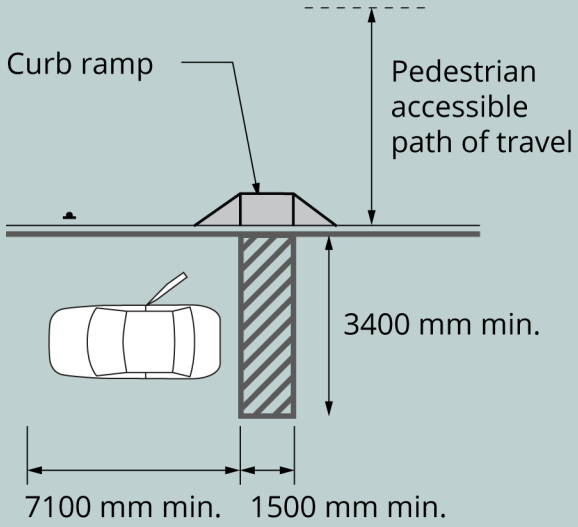


Figure 1.3.1-D Parallel Parking

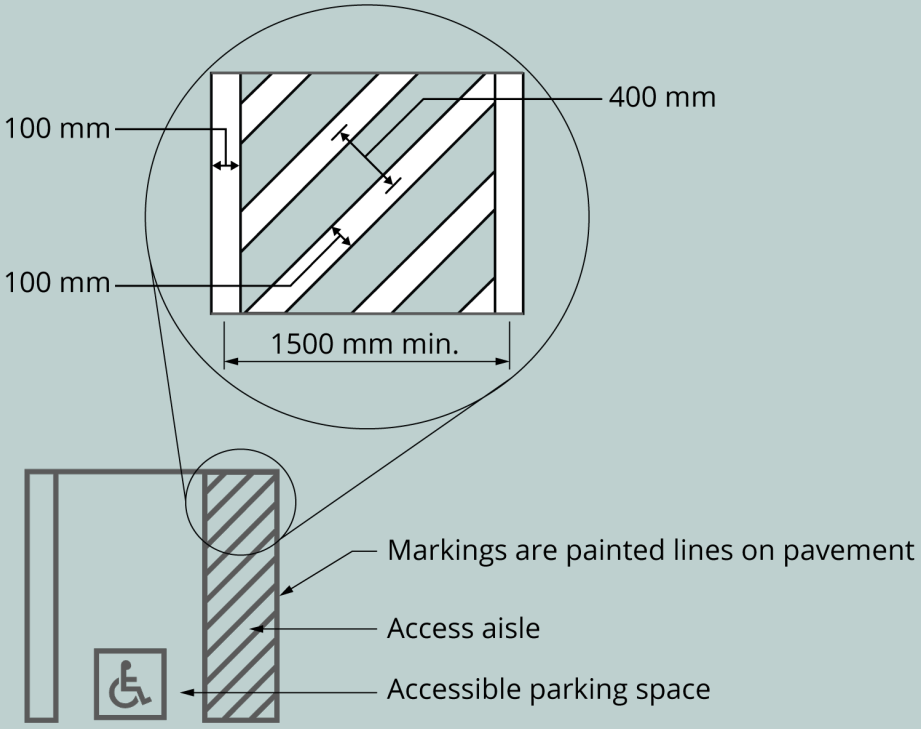


Figure 1.3.1-E Access Aisle Detail

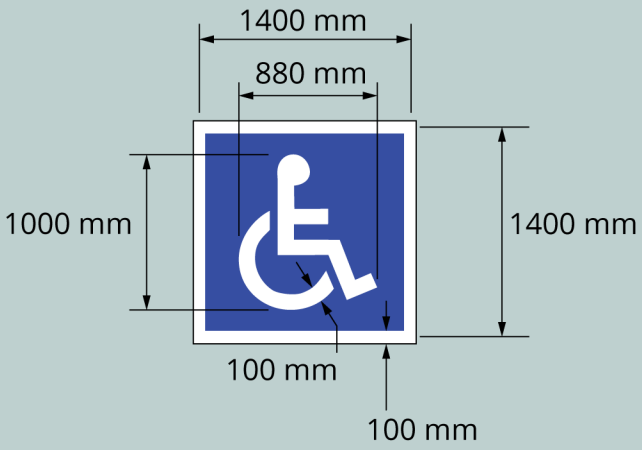


Figure 1.3.1-F Pavement Markings

Figure 1.3.1-G Parking Signage

1.3.2. Passenger Pick-Up and Drop-Offs

Rationale

Passenger pick-up and drop-offs (PPUDOs) provide designated areas (vehicular roadway) for vehicles to safely stop for a limited amount of time and provide clear space (access aisle) to allow persons to board onto or disembark from the vehicle. They are typically designed with curb ramps or depressed curbs to allow persons using mobility devices to overcome the transition between levels at grade and elevation changes between the access aisles and the exterior accessible path of travel, or pedestrian clearway.

Application

The scope of this section applies to PPUDOs provided for personal vehicles, public transit vehicles such as TTC Wheel-Trans bus, taxis or ride-shares, and valet or service parking.

Related Sections

- “1.1.1. Exterior Accessible Paths of Travel”
- “1.1.4. Exterior Paths of Travel to Entrances and Exits”
- “1.2.4. Curb Ramps”
- “1.2.5. Depressed Curbs”
- “3.2.1. Signage and Wayfinding Systems”

Related References

- [Reserved]

Key Considerations

Location

PPUDOs should be located within close proximity to an accessible entrance to ensure persons can access the building safely and efficiently.

Accessible Path of Travel

An exterior accessible path of travel should be provided at PPUDOs to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Slopes

Where slopes are provided at PPUDOs, they should be designed to have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes.

The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Access Aisles

PPUDOs should provide an access aisle to allow for a designated area where a person using a mobility device can safely transfer from their parked vehicle.

Pavement Markings

PPUDOs should provide pavement markings to identify the access aisle from the vehicle pull-up space.

Dropped Curbs

PPUDOs should provide curb ramps or depressed curbs to allow persons using mobility devices to overcome the transition between levels at grade and elevation changes between an exterior accessible path of travel and the access aisle. Some accessible vehicles require curbs to have an area to deploy their ramp. Designers should consult their clients when designing a PPUDO to understand if a curb ramp or depressed curb should be provided.

Bollards

Bollards should be provided at depressed curbs to protect persons on an exterior accessible path of travel.

Signage

PPUDOs should provide signage that identifies the area as an area for vehicles to safely stop for a limited amount of time to allow persons to disembark from the vehicle. Signage should also identify emergency routes that are connected to the area.

Emergency Routes

Where emergency routes designed for emergency vehicles are provided, they should not obstruct an exterior accessible path of travel to accessible entrances.

Design

The design should provide space for larger vehicles such as a TTC Wheel-Trans bus, accessible taxi, or van to access the lay-by space and include overhead clearance for all accessible vehicles from the ground to any overhead objects, such as trees, signage, and/ or canopies.

Requirements

(1) Location:

PPUDOs should be located:

(a) Within 30 m from the main accessible entrance and/or any other accessible entrances; and

(b) Within close proximity to a ramp, when a ramp is a part of the entrance.

(2) Accessible Path of Travel:

PPUDOs should provide an accessible path of travel that:

(a) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”.

(3) Slopes:

Where slopes are provided at PPUDOs, they should have:

(a) A 1:20 (5%) maximum running slope; and

(b) A 1:50 (2%) maximum cross slope.

(4) Surfaces:

PPUDOs should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have openings that:

(i) Are located outside of the PPUDO and access aisles;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum.

(5) Access Aisles:

PPUDOs should provide an access aisle that:

(a) Is located adjacent and parallel to the vehicle pull-up space;

(b) Connects to an exterior accessible path of travel;

(c) Is 2440 mm wide minimum and extends the full length of the PPUDO;

(d) Is marked with slip-resistant, high colour/brightness contrast diagonal lines; and

(e) Does not overlap the exterior accessible path of travel on the sidewalk.

(6) Pavement Markings:

PPUDOs should provide pavement markings that:

(a) Have painted lines and/or distinctive paving surfaces that have:

(i) 150 mm thick lines; and.

(ii) 400 mm of space between the centreline of diagonal lines for the access aisles; and

(iii) Are exempt in locations where there is not a paved or poured surface, such as in parking lots found in the trail systems or parks.

(7) Dropped Curbs:

PPUDOs should provide dropped curbs with tactile attention indicators, "Figure 1.3.2-A Dropped Curbs", that include:

(a) Curb ramps that meet the criteria in section "1.2.4. Curb Ramps"; and/or

(b) Depressed curbs that meet the criteria in section "1.2.5. Depressed Curbs".

(8) Bollards:

PPUDOs should provide bollards that:

(a) Are provided at depressed curbs;

(b) Have a clear width of 1500 mm minimum between bollards; and

(c) Are removable for ongoing maintenance operations.

(9) Signage:

PPUDOs should provide signage that:

(a) Identifies the PPUDO and that:

(i) Has the International Symbol of Access; and

(ii) Has text that states, "Passenger Pick-Up and Drop-Off Only, No Parking";

(b) Identifies emergency routes;

(c) Are located at specified intervals in highlight urban areas; and

(d) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(10) Emergency Routes:

Where emergency routes are connected to PPUDOs, they should:

(a) Not obstruct an exterior accessible path of travel to accessible entrances.

(11) Design:

PPUDOs, "Figure 1.3.2-B PPUDO - Design" and "Figure 1.3.2-C Overhead Clearance", should be designed to have:

(a) Overhead clearance that is 5000 mm minimum, "[R-1.3.2. (11)(a)]";

(b) A vehicle pull-up space that:

(i) Is 7925 mm long by 3400 mm wide minimum; and

(ii) Is located adjacent and parallel to the access aisle.

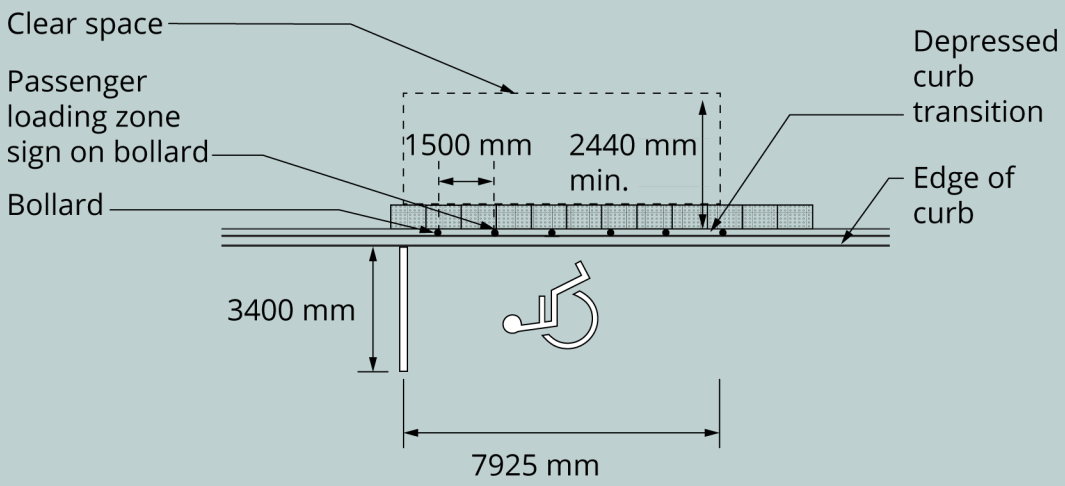


Figure 1.3.2-A Dropped Curbs

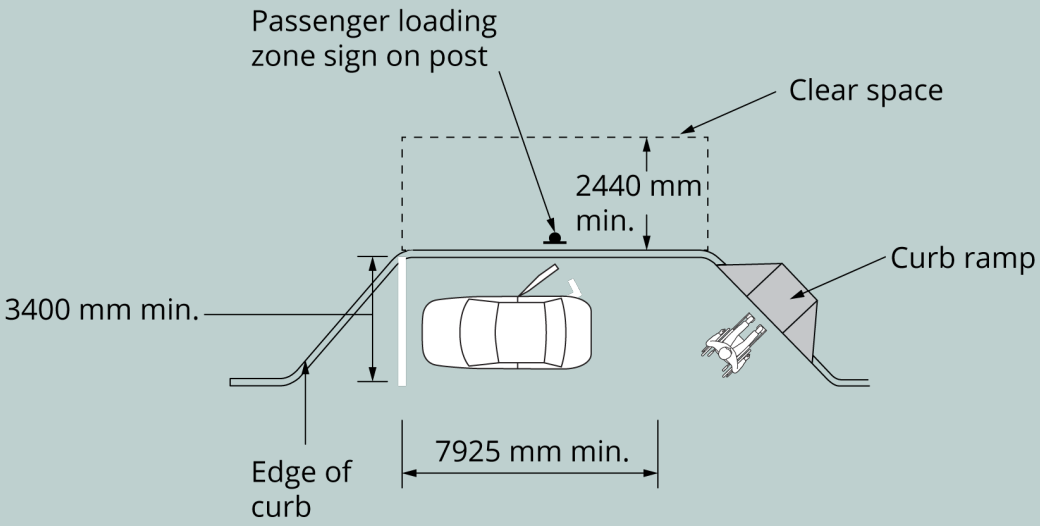


Figure 1.3.2-B PPUDO – Design

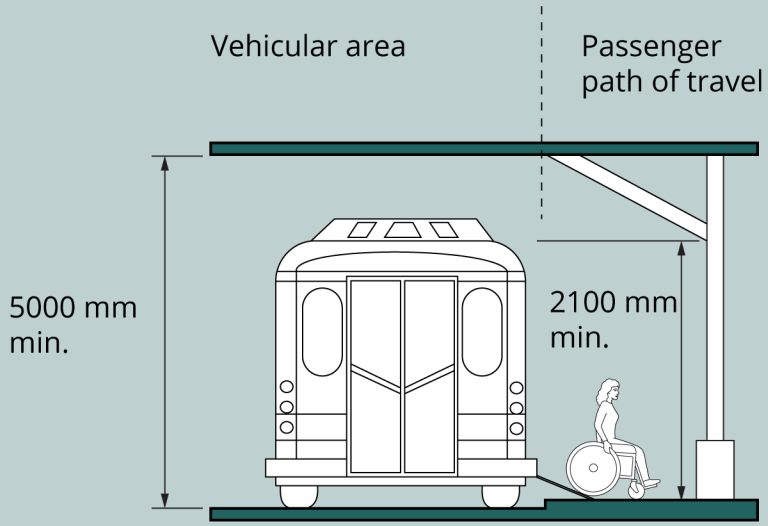


Figure 1.3.2-C Overhead Clearance

1.3.3. Public Transit Areas

Rationale

Public transit areas incorporate a system of subways, buses and streetcar routes such as those operated by the Toronto Transit Commission (TTC). Each public transportation route should include common accessible elements throughout stops, shelters and stations. The design of public transit areas should allow persons using mobility devices and persons with low or no vision to safely access and use the area.

Application

[Reserved]

Related Sections

- “1.1.9. Exterior Ramps”
- “1.1.10. Exterior Stairs”
- “1.3.1. Off-Street Parking”
- “1.5.1. Benches and Seats”
- “1.6.2. Tactile Attention Indicators”
- “1.6.3. Tactile Direction Indicators”
- “2.1.5. Elevators”
- “2.3.9. Universal Washrooms”
- “2.6.6. Self-Service Kiosks”
- “3.1.1. Interior Lighting”
- “3.2.1. Signage and Wayfinding Systems”
- “3.2.8. Controls and Operating Mechanisms”

Related References

- CSA B651 Accessible Design for the Built Environment — Section 8.5.4 Transit Shelters
- TTC Bus Stop Configurations

- Vibrant Streets

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at public transit areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces. Clear ground spaces for designated passenger waiting and boarding should also be connected to an accessible path of travel.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard. Tactile attention indicators should be provided at platforms or curb edges to communicate the transition between an exterior accessible path of travel into the vehicular roadway.

Signage

Signage should be provided that identifies schedules, maps, general information, service details, and designated waiting and boarding areas.

Benches and Seats

Benches and seats should be provided and designed to have a variety of accessible options that include seating with and without back support and armrests. Where open ended benches are provided, they should allow persons using mobility devices to side transfer. Where armrests are provided, they should have rounded edges, be easily graspable, and be free from obstructions.

Lighting

Lighting should be provided that enhances safety and security for passengers.

Ticketing Dispensers

Ticketing dispensers should be provided that connect to an exterior accessible path of travel. They should include accessible controls and operating mechanisms so that they can be used by persons using mobility devices, persons with limited dexterity, and persons with low vision.

Stops, Shelters and Stations

Stops, shelters, and stations should provide accessible features that enhance safety and security for passengers.

Requirements

(1) Accessible Path of Travel:

Public transit areas should provide an exterior accessible path of travel that:

(a) Meets the criteria in section "1.1.1 Exterior Accessible Paths of Travel"; and

(b) Is connected to a clear ground space at designated passenger waiting and boarding areas.

(2) Surfaces:

Public transit areas should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant;

(b) Have openings that:

(i) Are located outside of an exterior accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum; and

(c) Have tactile attention indicators, "Figure 1.3.3-A Transit Platform at Station", at the edge of platform that meet the criteria in section "1.6.2 Tactile Attention Indicators".

(3) Signage:

Public transit areas should provide signage that:

(a) Identifies:

(i) Schedules;

(ii) Maps;

(iii) General information;

(iv) Service details; and

(v) Designated waiting and boarding areas; and

(b) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(4) Benches and Seats:

Public transit areas should provide benches and seats that

(a) Have clear sightlines to:

(i) The vehicle roadway; and

(ii) Arriving and departing transit vehicles; and

(b) Meet the criteria in section "1.5.1 Benches and Seats".

(5) Lighting:

Public transit areas should provide lighting that:

(a) Has levels that:

(i) Are 100 lux (10 foot-candles) minimum at platform level at boarding areas; and

(ii) Are 200 lux (20 foot-candles) minimum at platform level at all ticketing areas or at ticketing machines; and

(b) Meet the criteria in section "3.1.1. Interior Lighting".

(6) Ticketing Dispensers:

Public transit areas should provide ticketing dispensers that:

(a) Are connected to an exterior accessible path of travel;

(b) Have an adjacent clear ground space of 900 mm by 1500 mm;

(c) Are located:

(i) In close proximity to designated waiting and boarding areas; and

(ii) In well-lit areas for safety and legibility of the device; and

(d) Have controls and operating mechanisms that:

(i) Are 1050 mm maximum AFF;

(ii) Have tactile features;

(iii) Have colour/brightness contrast;

(iv) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms"; and

(v) Meet the criteria in section "2.6.6. Self-Service Kiosks".

(7) Stops, Shelters and Stations:

Public transit areas should provide:

(a) Stops that:

(i) Have a 2400 mm wide by 16 m long passenger boarding or ramp deployment area for bus stops;

(b) Shelters, "Figure 1.3.3-B Accessible Transit Shelter", that:

(i) Have clear sightlines to the vehicle roadway, and arriving and departing transit vehicles; and

(ii) Are connected to an exterior accessible path of travel; and

(c) Stations that:

(i) Have a minimum of one accessible entrance;

(ii) Have ramps that meet the criteria in section "1.1.9 Exterior Ramps";

(iii) Have stairs that meet the criteria in section "1.1.10 Exterior Stairs";

(iv) Have elevators that meet the criteria in section "2.1.5 Elevators'; and

(v) Have universal washrooms that meet the criteria in section "2.3.9 Universal Washrooms".

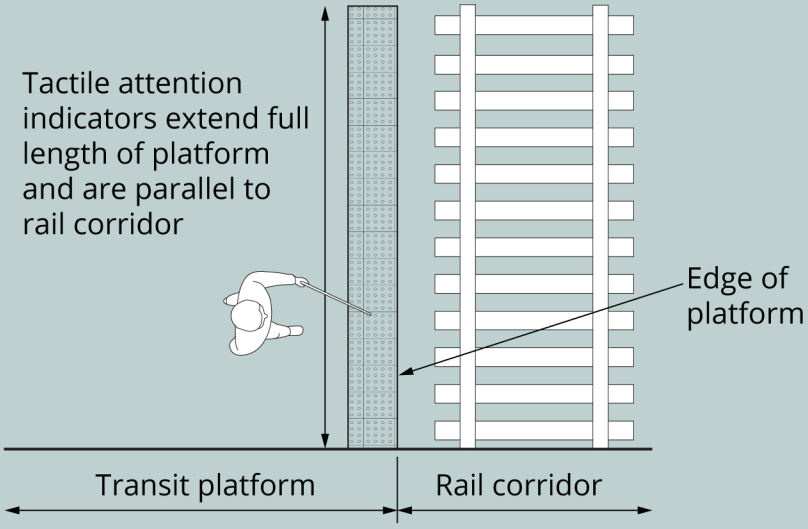


Figure 1.3.3-A Transit Platform at Station

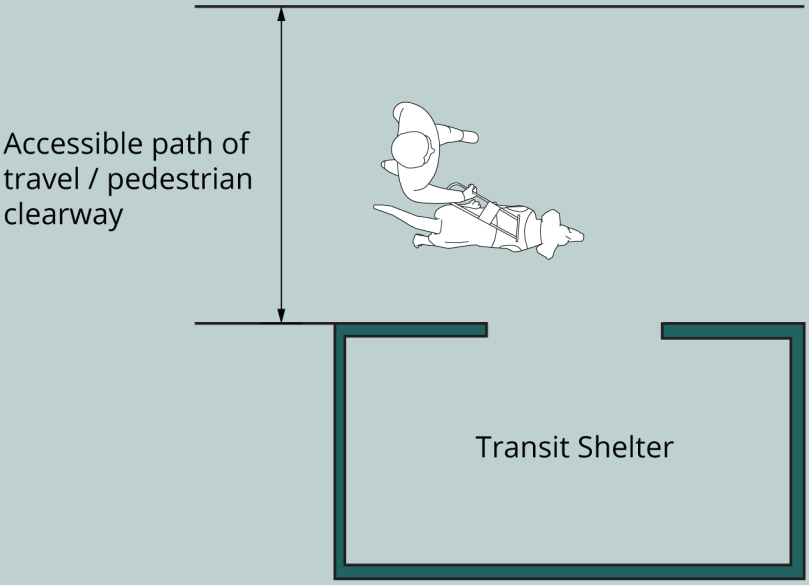


Figure 1.3.3-B Accessible Transit Shelter

1.4. Exterior Specialized Areas

Section Summary

This section reviews the accessible design requirements for exterior specialized areas intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. An exterior accessible path of travel should connect the public right of way to the entrance and exit of a site and continue throughout the property to provide access and ease of movement to available amenities. Clear sightlines and exterior lighting should be provided to maintain safe and secure visibility for all individuals, including persons who are D/deaf, deafened, or hard of hearing and rely on their vision to better understand their surrounding environment.

Contents in Section

1.4.1. Parks and Playing Fields

1.4.2. Spectator Areas

1.4.3. Play Spaces

1.4.4. Exterior Eating and Picnic Areas

1.4.5. Public Pools and Spas

1.4.6. Dogs Off-Leash Areas (DOLA)

1.4.7. Service Animal Areas

1.4.8. Balconies, Terraces, and Patios

1.4.9. Docks, Sea Walls, and Piers

1.4.10. Waterfront Areas

1.4.11. Community Garden and Public Horticulture Areas

1.4.1. Parks and Playing Fields

Rationale

Parks and playing fields, big or small, provide access to exterior green space and should be designed to allow all individuals to engage in equitable recreational and leisure activities.

Application

[Reserved]

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.3. Parking, Vehicular Arrival and Departure Areas"
- "1.4.3. Play Spaces"
- "1.4.4. Exterior Eating and Picnic Areas"
- "1.4.11. Community Garden and Public Horticulture Areas"
- "1.5.1. Benches and Seats"
- "1.5.2. Waste Receptacles and Recycling Bins"
- "2.2.6. Accessible Control Gates"
- "2.3.1. Multi-Stall Washrooms"
- "2.3.9. Universal Washrooms"
- "2.3.11. Accessible Change Rooms"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- Parks Canada Design Guidelines for Accessible Outdoor Recreation Facilities
- Parks & Trails Wayfinding Strategy

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at parks and playing fields to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Accessible Control Gates

Where provided at parks and playing fields, accessible control gates should have an accessible path of travel for entry and egress. The clear width, when the door is in the open position, should allow for ease of movement for all individuals, including persons using mobility devices.

Amenities

Where provided at parks and playing fields, amenities should include accessible conveniences or services for use by GBP students, employees, and other members of the GBP community.

Requirements

(1) Accessible Path of Travel:

Parks and playing fields should provide an exterior accessible path of travel that:

(a) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”.

(2) Accessible Control Gates:

Where provided at parks and playing fields, accessible control gates should:

(a) Have a clear width that is 950 mm minimum;

(b) Meet the criteria in section “2.2.6. Accessible Control Gates”; and

(c) Meet the criteria in section “3.2.8. Controls and Operating Mechanisms”.

(3) Amenities:

Where provided at parks and playing fields, amenities should include:

(a) Parking and vehicular arrival and departure areas that meet the criteria in section "1.3. Parking, Vehicular Arrival and Departure Areas";

(b) Play spaces that meet the criteria in section "1.4.3. Play Spaces";

(c) Exterior eating and picnic areas that meet the criteria in section "1.4.4. Exterior Eating and Picnic Areas";

(d) Community garden and public horticulture areas that meet the criteria in section "1.4.11. Community Garden and Public Horticulture Areas";

(e) Benches and seats that meet the criteria in section "1.5.1. Benches and Seats";

(f) Waste receptacles and recycling bins that meet the criteria in section "1.5.2. Waste Receptacles and Recycling Bins"; and

(g) Washrooms that:

(i) Meet the criteria in section "2.3.1. Multi-Stall Washrooms";

(ii) Meet the criteria in section "2.3.9 Universal Washrooms"; and

(iii) Meet the criteria in section "2.3.11. Accessible Change Rooms".

1.4.2. Spectator Areas

Rationale

Spectator areas provide a designated space for the public to sit and view events such as sports games and performances. Benches and seats should be provided for spectators, athletes, and performers, including persons with disabilities.

Application

The scope of this section applies to open-air spectator areas that have fixed benches and seats, spaces designated for persons using mobility devices, and fixed seats designated for adaptable seating.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.3. Parking, Vehicular Arrival and Departure Areas"
- "1.4. Exterior Specialized Areas"
- "1.5. Exterior Furniture, Equipment and Street Elements"
- "1.5.1. Benches and Seats"
- "2.3. Plumbing Fixtures, Washrooms and Change Rooms"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at spectator areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Benches and Seats

Accessible benches, seats, designated clear ground spaces, and companion seating should be provided at spectator areas. Adaptable seating and/or open-ended benches

should be provided and designed to allow persons using mobility devices to side transfer out of their mobility device and onto a seat. Companion seating should be located adjacent to designated clear ground or floor spaces. A variety of accessible seating should be provided. Where provided at spectator areas, temporary or permanent bleachers or hang-out steps should include accessible seating options. Mobility device storage space should be provided when spectators are expected to stay for longer periods of time and in high-use spectator areas.

Amenities

Where provided at spectator areas, amenities should include accessible conveniences or services for use by the public.

Requirements

(1) Accessible Path of Travel:

Spectator areas, "Figure 1.4.2-A Locations of Accessible Seating", should provide an exterior accessible path of travel that:

(a) Has a clear width that is 1800 mm minimum wide; and

(b) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

(2) Benches and Seats:

Spectator areas should provide:

(a) Benches and seats that meet the criteria in section "1.5.1. Benches and Seats";

(b) At least 50% of the total number of adaptable seats, rounding up to the nearest whole number, with back supports and foldable armrests;

(c) Adaptable seating that:

  (i) Has armrests with rounded edges that are easily graspable and free from obstructions; and

  (ii) Meets the criteria in "Table 1.4.2-A Number of Accessible Seating and Clear Ground Space";

(d) Companion seating that meets the criteria in "Table 1.4.2-A Number of Accessible Seating and Clear Ground Space";

(e) Designated clear ground spaces, "Figure 1.4.2-B Designated Clear Ground Spaces", that:

(i) Provide a minimum of two spaces;

(ii) Are 2400 mm wide by 1500 mm deep minimum, inclusive of two spaces side-by-side that are 900 mm wide by 1500 mm deep minimum; and

(iii) Meet the criteria in "Table 1.4.2-A Number of Accessible Seating and Clear Ground Space";

(f) Clear sightlines, "Figure 1.4.2-C Sightlines at Seating", to the main event and surrounding environment; and

(g) Mobility device storage that:

(i) Provides space for a minimum of one device, where spectator areas have less than 200 seats total;

(ii) Provides space for a minimum of two devices, where spectator areas have more than 200 seats total;

(iii) Is located on the same level as the spectator area; and

(iv) Is 900 mm wide by 1500 mm deep minimum in size per mobility device.

Table 1.4.2-A Number of Accessible Seating and Clear Ground Space

Number of Fixed Seats in Seating Area	**Minimum Number of Clear Ground/ Floor Spaces**	**Minimum Number of Adaptable Seating**	**Minimum Number of Companion Seating**
Up to 20	2	1	2
21 to 40	2	2	2
41 to 60	2	3	2
61 to 80	2	4	2
81 to 100	3	5	3
Over 100	3% of seating capacity	The greater of 5 seats or 5% of aisle	3% of seating capacity

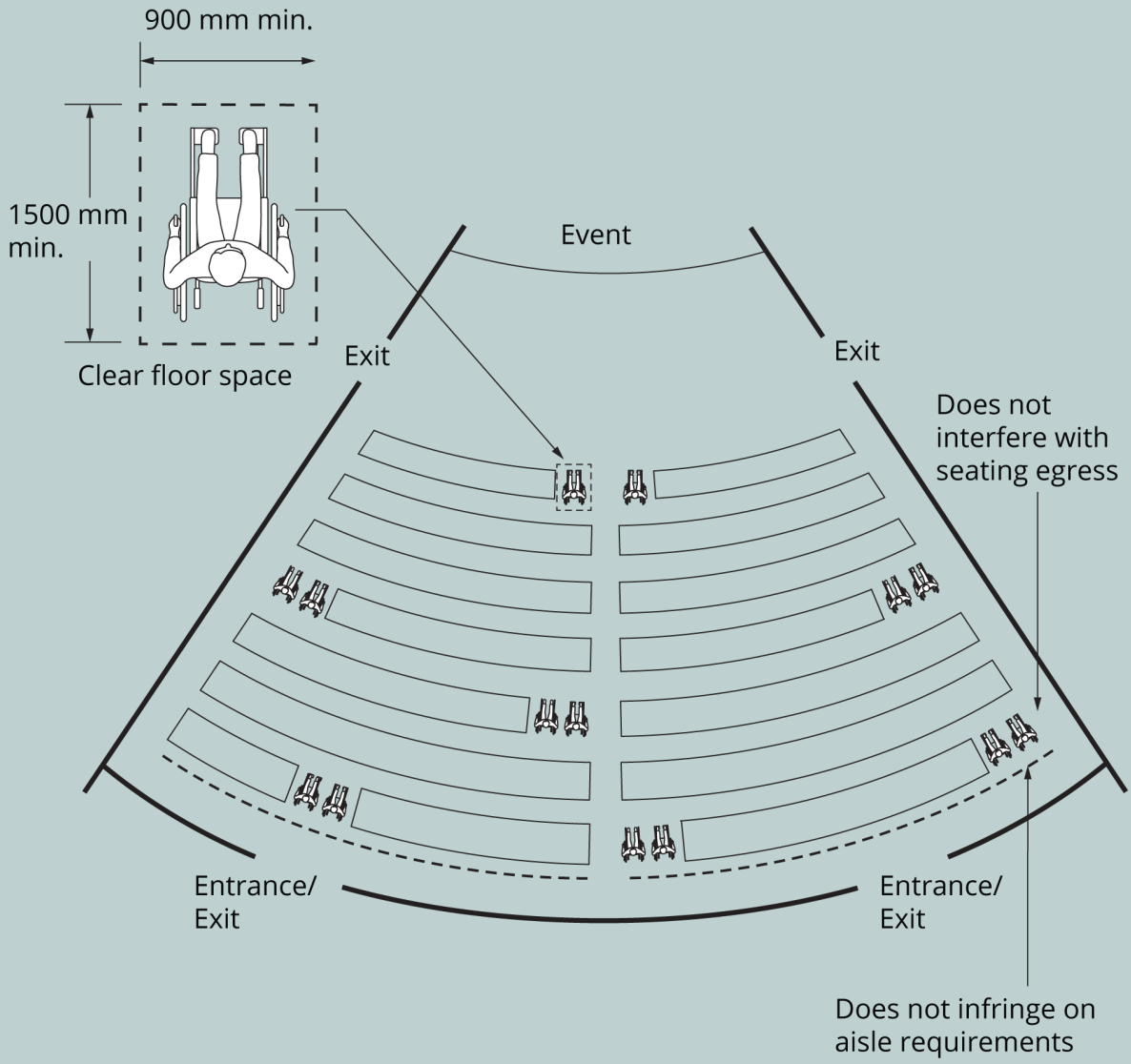


Figure 1.4.2-A Locations of Accessible Seating

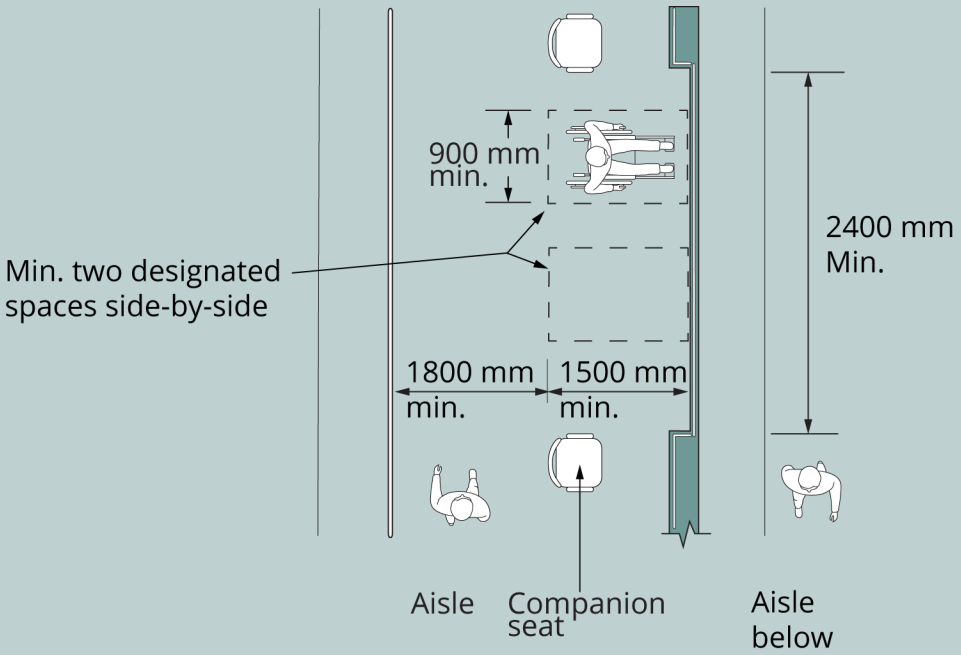


Figure 1.4.2-B Designated Clear Ground Spaces

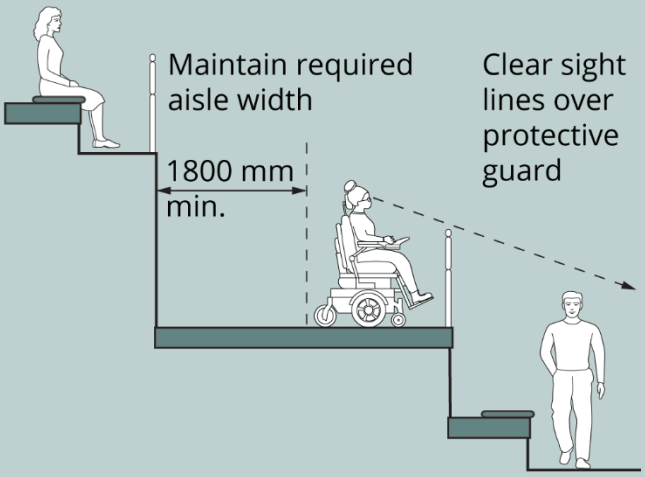


Figure 1.4.2-C Sightlines at Seating

1.4.3. Play Spaces

Rationale

Play spaces should welcome all individuals including persons who are young and old, families, caregivers, and persons with disabilities. They should be easy to navigate and engage all individuals. Play spaces should offer a variety of active and passive play experiences, landscape settings, and opportunities to connect with others. Play is important for all children as a means of developing intelligence, physical skills, and interpersonal and social awareness.

Application

[Reserved]

Related Sections

- “1.1.1. Exterior Accessible Paths of Travel”
- “1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes”
- “1.1.7. Handrails”
- “1.1.8. Guards”
- “1.3. Parking, Vehicular Arrival and Departure Areas”
- “1.4. Exterior Specialized Areas”
- “1.5.1. Benches and Seats”
- “1.5.2. Waste Receptacles and Recycling Bins”
- “1.5.3. Bicycle Racks, Storage, and Lock-Up Areas”
- “2.2.6. Accessible Control Gates”
- “3.2.8. Controls and Operating Mechanisms”

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- Child Care Design and Technical Guideline

- CSA Z614 - Annex Accessible Play Spaces in Canada
- Determination of Accessibility to Surface Systems Under and Around Playground Equipment (ASTM 1951)
- Playground: Early Learning and Care Assessment for Quality Improvement
- Standard Specifications for Impact Attenuation of Surface Systems Under and Around Playground Equipment (ASTM 1292)

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at play spaces to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Accessible Control Gates

Where provided at play spaces, accessible control gates should have an accessible path of travel for entry and egress. The clear width, when the door is in the open position, should allow for ease of movement for all individuals including persons using mobility devices. Formal enclosures around play spaces, such as fencing, provide a sense of safety and comfort adjacent to potential hazards such as waterfronts and vehicular roadways.

Surfaces

Surfaces surrounding play equipment and components at play spaces should provide impact-attenuating properties for injury prevention.

Handrails and Guards

Handrails and guards should be provided on play equipment to allow for additional safety, stability. and support where needed.

Play Equipment and Components

Play equipment and components should allow all individuals to experience a variety of challenging and engaging play opportunities in a way that suits them at play spaces. They should be designed for individuals to socialize and fairly participate in both active and passive play experiences. Active play experiences provide physically interactive

challenges and engagements. Passive play experiences, however, provide sensory or non-interactive challenges and engagements.

Play equipment and components should also provide space for rest, quiet play, and observation of the activity zone. They should be accessible, adjustable, and dispersed throughout play spaces at grade and elevation changes. Play features should include talking tubes, personal communication systems, interactive educational panels that engage multiple children at one time, sensory gardens, open play spaces, play mounds/hills and depressions that encourage climbing or rolling over, quiet zones, adjustable and flexible equipment, and sand and/or water areas.

Transfer Systems

Transfer systems, such as transfer platforms or transfer steps, should be provided at play spaces for play equipment and components. A transfer platform should provide a clear ground space to allow persons using mobility devices to side transfer at play equipment and components. Transfer steps provide additional support for maneuverability.

Amenities

Where provided at play spaces, amenities should include accessible conveniences or services for use by the public. Stroller and/or mobility device storage space should be provided at high-use play spaces. Where shelters are provided for weather protection they should be located above benches and seats.

Consultation

Consultation on outdoor play spaces with the public, including persons with disabilities and the municipal Accessibility Advisory Committee (AAC), should be provided where an organization is required to consult under the Design of Public Spaces Standards.

Requirements

(1) Accessible Path of Travel:

Play spaces should provide an exterior accessible path of travel that:

(a) Has a clear width, “[R-1.4.3. (1)(a)]”, that:

(i) Is 2100 mm minimum; or

(ii) Is 3000 mm minimum if the path requires vehicle access for maintenance; and

(b) Meets the criteria in section "1.1.1 Exterior Accessible Paths of Travel", or "1.1.2 Trails, Pathways, Boardwalks, and Beach Access Routes".

(2) Accessible Control Gates:

Where provided at play spaces, accessible control gates should:

(a) Have opening controls that are childproof and meet the criteria in section "3.2.8. Controls and Operating Mechanisms"; and

(b) Meet the criteria in section "2.2.6 Accessible Control Gates".

(3) Surfaces:

Play spaces should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have impact-attenuating properties for injury prevention.

(4) Handrails and Guards:

Play spaces should provide:

(a) Handrails that:

(i) Are located on play equipment;

(ii) Are installed at 560 mm to 965 mm AFF;

(iii) Are 510 mm to 710 mm at ramps;

(iv) Have a 24 mm to 39 mm diameter; and

(v) Meet the criteria in section "1.1.7 Handrails"; and

(b) Guards that are located on play equipment and meet the criteria in section "1.1.8 Guards".

(5) Play Equipment and Components:

Play spaces should provide play equipment and components that:

(a) Provide active play experiences;

(b) Provide passive play experiences that:

(i) Are located outside the activity zone in a quiet or enclosed area;

(ii) Have clear sightlines to the active play zone and surrounding environment; and

(iii) Include a minimum of one sensory challenge and/or engagement;

(c) Are accessible and adjustable;

(d) Are dispersed throughout the area at grade and elevation changes including:

(i) A minimum of 50% of the total number provided, rounding up to the nearest whole number, at grade level; and

(ii) A minimum of 50% of the total number provided, rounding up to the nearest whole number, at an elevation;

(e) Have clear ground spaces that:

(i) Are 900 mm by 1500 mm for front approach; or

(ii) Are 900 mm by 2200 mm for side approach;

(f) Have reach ranges available for children that:

(i) Are 460 mm to 910 mm AFF for 2- to 5-year-olds; and

(ii) Are 460 mm to 1020 mm AFF for 5- to 12-year-olds; and

(g) Provide a minimum of 2 types of play equipment and components that can be used by children using mobility devices.

(6) Transfer Systems:

Play spaces should provide transfer systems, "Figure 1.4.3-A Transfer Platform at Play Structure" and "Figure 1.4.3-B Transfer Step at Play Structure", that:

(a) Include:

(i) Transfer platforms that are mounted 280 mm to 460 mm AFF; or

(ii) Transfer steps that meet the criteria in section "1.1.10 Exterior Stairs"; and

(b) Have adjacent clear ground space that is 900 mm by 1500 mm for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach.

(7) Amenities:

Where provided at play spaces, amenities should include:

(a) Parking, vehicular, and departure areas that meet the criteria in section "1.3 Parking, Vehicular Arrival and Departure Areas";

(b) Exterior specialized areas that meet the criteria in section "1.4 Exterior Specialized Areas";

(c) Benches and seats that:

(i) Have shelter for weather protection, located above benches and seats, and have an overhead clearance that is 3000 mm minimum; and

(ii) Meet the criteria in section "1.5.1 Benches and Seats";

(d) Waste receptacles and recycling bins that meet the criteria in section "1.5.2 Waste Receptacles and Recycling Bins"; and

(e) Stroller, walking aid, and mobility device waiting or parking area that:

(i) Is located adjacent to other available amenities; and

(ii) Meets the criteria in section "1.5.3 Bicycle Racks, Storage, and Lock-Up Areas".

(8) Consultation:

Consultation on outdoor play spaces and the needs of children and caregivers with various disabilities should be provided that:

(a) Meets the requirements in the AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards.

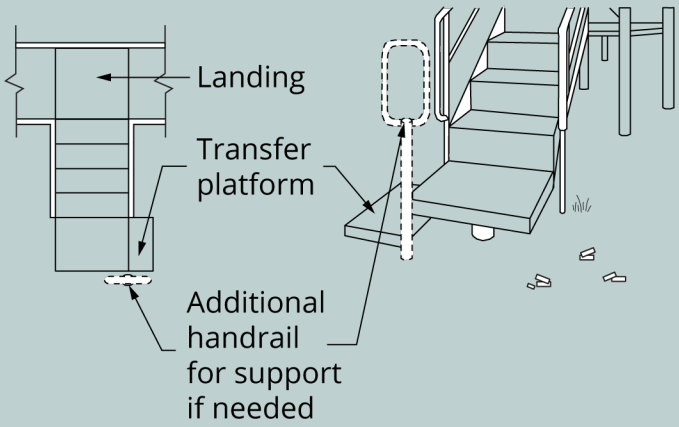


Figure 1.4.3-A Transfer Platform at Play Structure

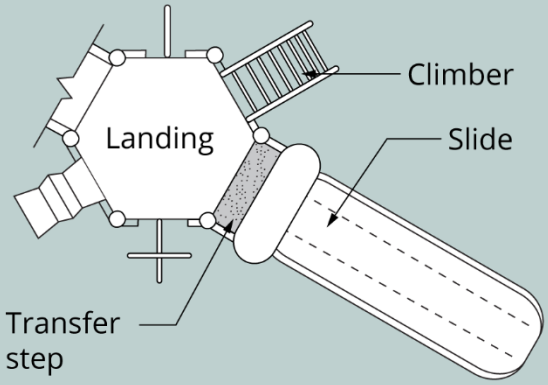


Figure 1.4.3-B Transfer Step at Play Structure

1.4.4. Exterior Eating and Picnic Areas

Rationale

Exterior eating and picnic areas provide an amenity for the public, including persons who use mobility devices. They should include exterior furnishings such as benches, seats, and tables that provide clear ground space and knee clearance for a front approach. Exterior furnishings should have colour/brightness contrast to enhance their visibility especially for persons with low vision.

Application

[Reserved]

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes"
- "1.3.1. Off-Street Parking"
- "1.5.2. Waste Receptacles and Recycling Bins"
- "2.3. Plumbing Fixtures, Washrooms and Change Rooms"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at exterior eating and picnic areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Tables

Tables, including picnic tables, should provide clear ground space between tables and on ends that connect to an exterior accessible path of travel or pedestrian clearway to

allow persons using mobility devices to avoid the risk of creating an obstruction. Picnic tables should provide an extension that has underside knee and toe space for persons using mobility devices. A variety of accessible benches and seats should be provided at tables.

Amenities

Where provided at exterior eating and picnic areas, amenities should include accessible conveniences or services for use by the public.

Requirements

(1) Accessible Path of Travel:

Exterior eating and picnic areas should provide an exterior accessible path of travel, "Figure 1.4.4-A Accessible Path of Travel", that:

(a) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel", or "1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes".

(2) Tables:

Exterior eating and picnic areas, "Figure 1.4.4-B Picnic Table with Knee Clearance", should provide accessible tables that:

(a) Include a minimum of 20% of the total amount provided on site, rounding up to the nearest whole number, but never less than one;

(b) Have knee and toe space for a front approach that is 735 mm minimum high at the front edge, 500 mm minimum deep, and 900 mm minimum wide;

(c) Have a surface that is 800 mm maximum AFF;

(d) Have a clear ground space that:

(i) Is 2000 mm by 2000 mm minimum; and

(ii) Is permitted to be shared between two tables;

(e) Have colour/brightness contrast with the surrounding environment;

(f) Where a traditional picnic table is used, tabletop extensions should be provided on one end of the table to allow for access for persons using a mobility device;

(g) Remain in an accessible or designated area that allows for flexibility with regards to placement of tables; and

(h) Have benches or seats that meet the criteria in section "1.5.1. Benches and Seats".

(3) Amenities:

Where provided at exterior eating and picnic areas, amenities should include:

(a) Off-street parking that meets the criteria in section "1.3.1. Off-Street Parking";

(b) Waste receptacles and recycling bins that meet the criteria in section "1.5.2. Waste Receptacles and Recycling Bins";

(c) Public washrooms and change rooms that meet the criteria in section "2.3. Plumbing Fixtures, Washrooms and Change Rooms";

(d) Signage at access points for public-use eating areas indicating the number and location of accessible tables in multiple accessible formats (e.g. website, QR code) that meets the criteria in section "3.2.1. Signage and Wayfinding Systems"; and

(e) Accessibility maintenance (e.g. when tables are moved to an inaccessible area) that meets the criteria in section "4.1 Exterior Maintenance".

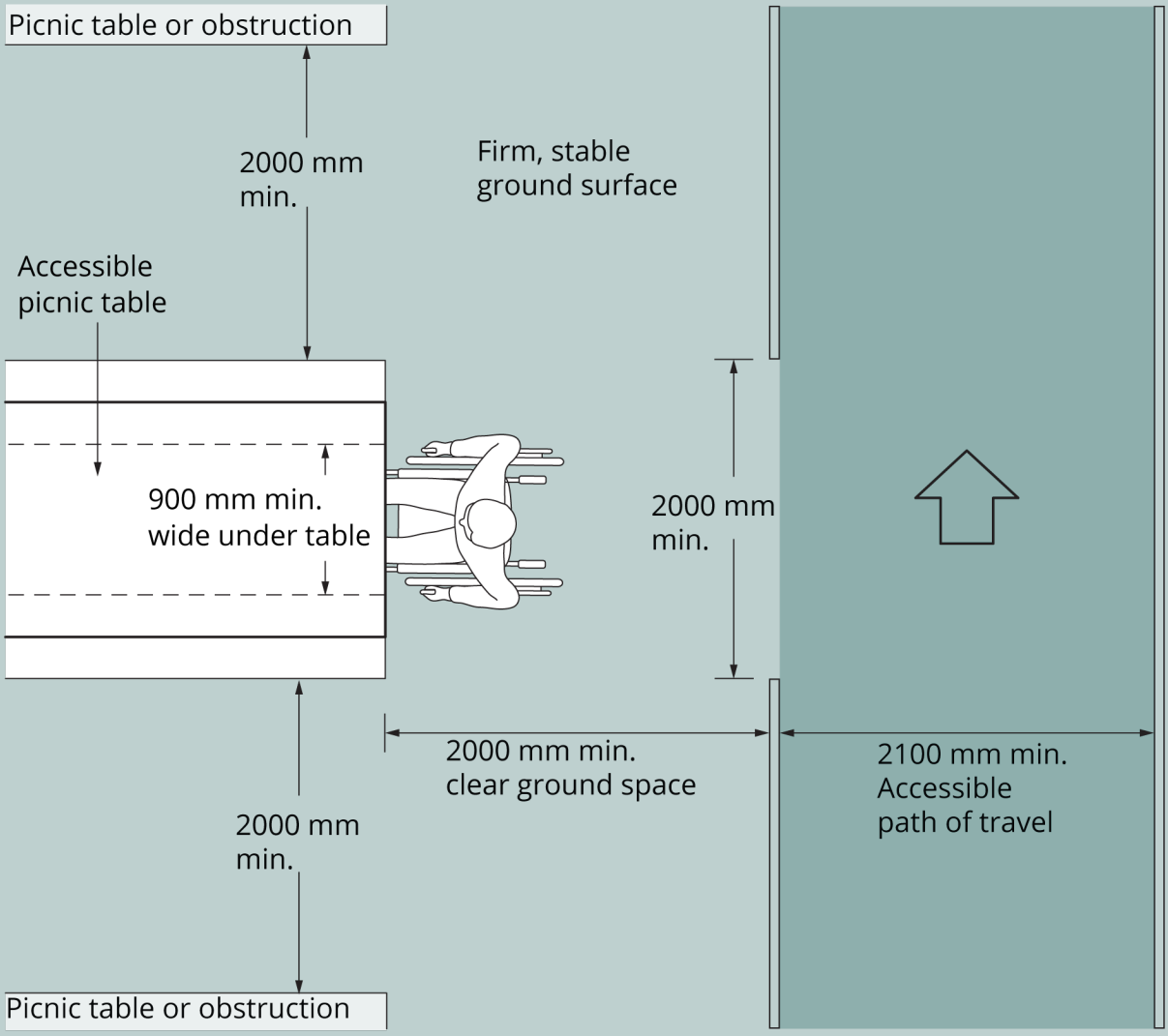


Figure 1.4.4-A Accessible Path of Travel

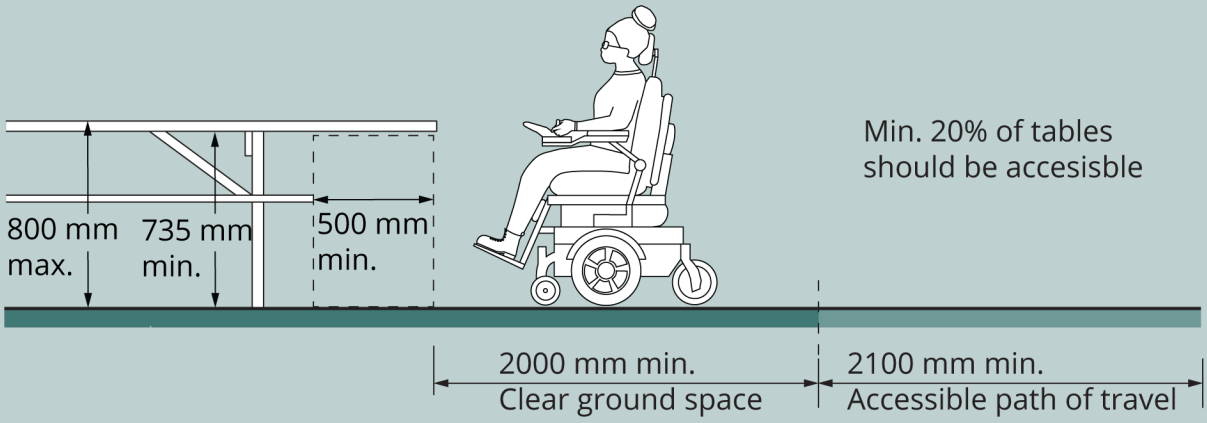


Figure 1.4.4-B Picnic Table with Knee Clearance

1.4.5. Public Pools and Spas

Rationale

Public pools and public spas provide recreational and therapeutic aquatic experiences for the public, including persons with disabilities. Ramps and pool lifts continue an exterior or interior accessible path of travel at public pools, whereas transfer walls provide accessible entry into and exit from public spas.

Application

[Reserved]

Related Sections

- “1.1.1. Exterior Accessible Paths of Travel”
- “1.1.7. Handrails”
- “1.1.10. Exterior Stairs”
- “1.4.2. Spectator Areas”
- “1.4.7. Service Animal Areas”
- “1.6.2. Tactile Attention Indicators”
- “1.6.3. Tactile Direction Indicators”
- “2.1.1. Interior Accessible Paths of Travel”
- “2.3.8. Washroom and Change Room Accessories”
- “2.3.9. Universal Washrooms”
- “2.3.13. Universal Dressing and Shower Rooms”
- “2.4.3. Mobility Device Storage Areas”

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An exterior or interior accessible path of travel should be provided at public pools and public spas to allow for a continuous, unobstructed route providing access to elements and spaces.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling.

Where gratings and grilles, such as drainage tiles, scuppers, or trenches are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Tactile attention indicators should be provided around the perimeter of the pool deck. Tactile directional indicators should be provided throughout the pool deck and perimeter areas to amenities. Pool depth markings should be provided. They should be visible to help persons including persons with low vision understand the depth of the pool and judge if they can safely enter the water.

Ramps

Ramps should be provided at public pools to allow persons using mobility devices or specialized pool chairs to have an accessible path of travel for entry and egress at the water. They should be located as close as possible to the washrooms, bathing areas, and change rooms for greater ease of movement to the pool. Ramps should be designed to be straight run without any curves in order to simplify navigation and prevent the limbs of persons using mobility devices from getting caught in the handrails.

Handrails

Handrails should be provided at public pools and be designed to provide safety, support, and wayfinding for persons moving along an accessible path of travel,

including the pool deck and perimeter areas. The design of handrails below water on ramps should consider the impact of the movement of water and how it influences a person's ease of movement.

Pool Lift

Where provided at public pools, pool lifts should be located to allow for accessible entry and egress at the water. They should be designed with the option to be operated independently and located so that staff are able to oversee the use of the pool lift.

Transfer Walls

Where provided at public spas, transfer walls should allow for accessible entry and egress at the water. They should be designed to provide safety and support for persons using mobility devices making a lateral transition into the water.

Splash Pads

Where provided at public pools, splash pads should be connected to an accessible path of travel.

Spectator Areas

Where provided at public pools, spectator areas or galleries should be separated from the pool deck.

Amenities

Where provided at public pools and public spas, amenities should include accessible conveniences or services for use by the public. At locations where individuals are expected to stay for longer periods of time, mobility device storage space should be provided. It should be located on the same level as the pool deck perimeter area so persons feel more at ease about leaving their personal items in storage. In locations where a higher proportion of persons using mobility devices is expected, additional storage should be provided. Tethering hooks for service animals (guide dogs) should be provided and located on the pool deck or perimeter areas.

Requirements

(1) Accessible Path of Travel:

Public pools and public spas should provide an accessible path of travel, "Figure 1.4.5-A Pool Deck and Perimeter Areas", that:

(a) Has a clear deck width that is 1800 mm minimum; and

(b) Meets the criteria in section "1.1.1 Exterior Accessible Paths of Travel", or "2.1.1 Interior Accessible Paths of Travel".

(2) Surfaces:

Public pools and public spas should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant, non-abrasive, easy-to-clean and have rounded edges;

(b) Allow for drainage using tiles, scuppers, or trenches;

(c) Have defined boundaries using colour/ brightness contrast around:

  (i) Pool deck and perimeter areas;

  (ii) Diving boards;

  (iii) Platforms for lifeguard chairs;

  (iv) Starter blocks; and

  (v) Pool equipment;

(d) Have tactile attention indicators that meet the criteria in section "1.6.2 Tactile Attention Indicators";

(e) Have tactile direction indicators that:

  (i) Lead from the washrooms, bathing areas, and change rooms to the pool deck, perimeter areas, and amenities; and

  (ii) Meet the criteria in section "1.6.3 Tactile Direction Indicators";

(f) Have pool markings that:

  (i) Identify the pool depths;

  (ii) Identify SHALLOW END and DEEP END; and

  (iii) Have colour/brightness contrast.

(3) Ramps:

Public pools should provide ramps, "Figure 1.4.5-B Ramp at Pool", that:

(a) Are designed to be straight run;

(b) Are 1:12 (8.3%) maximum running slope;

(c) Have a 1500 mm by 1500 mm minimum landing that:

(i) Is located on the bottom of the ramp;

(ii) Is submerged within the pool; and

(iii) Has a 600 mm to 900 mm high water depth above the bottom of the pool; and

(d) Have colour/brightness contrast from the wall and the bottom of the pool.

(4) Handrails:

Public pools should provide handrails, "Figure 1.4.5-C Handrails at Pool", that:

(a) Are located along an accessible path of travel including pool deck and perimeter areas; and

(b) Meet the criteria in section "1.1.7 Handrails".

(5) Pool Lifts:

Where pool lifts are provided at public pools, "Figure 1.4.5-D Pool Lift on Deck", they should:

(a) Be located where the water level is shallower than 1220 mm;

(b) Have 900 mm wide by 2200 mm deep clear deck space that:

(i) Is parallel for transfer onto the pool lift seat; and

(ii) Is 305 mm measured from a line located behind the rear edge of the seat;

(c) Have a 1:50 (2%) maximum running slope at the deck surface from the centre line of the pool lift seat to the pool edge;

(d) Have a seat that:

(i) Is 450 mm wide;

(ii) Is 405 mm to 485 mm deep;

(iii) Is located 400 mm minimum from the centre line of the pool lift seat to the edge of the pool;

(iv) Is equipped with a footrest;

(v) Is equipped with a removable and movable arm rest;

(vi) Has a 400 lb (180 kg) weight capacity;

(vii)Sustains 1.5 times the static load minimum; and

(viii) Submerges 455 mm deep maximum depth below the stationary water level;

(e) Have controls that:

(i) Are unobstructed, including when the pool lift is in use; and

(ii) Provide the option for independent use; and

(f) Meets the manufacturer's specifications and installation instructions.

(6) Transfer Walls:

Where provided at public spas, transfer walls, "Figure 1.4.5-E Transfer Wall with Steps", should:

(a) Have a height between 405 mm to 485 mm;

(b) Have a depth between 300 mm to 400 mm;

(c) Be slip-resistant and have edges that are rounded;

(d) Have a minimum of one grab bar that:

(i) Is perpendicular to the public spa and extends the full depth of the transfer wall;

(ii) Has a 100 mm to 150 mm clearance above the transfer wall;

(iii) Has a 610 mm clearance on both sides of the grab bar; and

(iv) Meets the criteria in section "2.3.7. Washroom and Change Room Accessories";

(e) Have a clear floor space that:

(i) Is 900 mm by 2200 mm minimum;

(ii) Is connected to an accessible path of travel; and

(iii) Is located on centre with the grab bar; and

(f) Have transfer steps that:

(i) Are located on the water side of the transfer wall, 455 mm below the stationary water level;

(ii) Have a rise between successive treads between 125 mm to 180 mm;

(iii) Have a run between successive steps between 280 mm to 355 mm;

(iv) Have colour/brightness contrast nosings; and

(v) Meet the criteria in section "1.1.10 Exterior Stairs".

(7) Splash Pads:

Where provided at public pools, splash pads should:

(a) Be connected to an accessible path of travel; and

(b) Provide a gradual transition into the water area.

(8) Spectator Areas:

Where provided at public pools, spectator areas should:

(a) Meet the criteria in section "1.4.2 Spectator Areas".

(9) Amenities:

Where provided at public pools and public spas, amenities should include:

(a) Furniture, equipment, and street elements that meet the criteria in section "1.5 Exterior Furniture, Equipment and Street Elements";

(b) Direct access to:

(i) At least two universal washrooms per floor that meet the criteria in section "2.3.9 Universal Washrooms"; and

(ii) At least one universal dressing and shower room that meets the criteria in section "2.3.13 Universal Dressing and Shower Rooms";

(c) Mobility device storage areas that meet the criteria in section "2.4.3. Mobility Device Storage Areas";

(d) Tethering hooks that:

(i) Are located on the wall or as a standalone support;

(ii) Are located in close proximity to the public pool entry and egress;

(iii) Are provided with clear sightlines to the pool; and

(iv) Meet the criteria in section “1.4.7 Service Animal Areas”; and

(e) An aquatic chair.

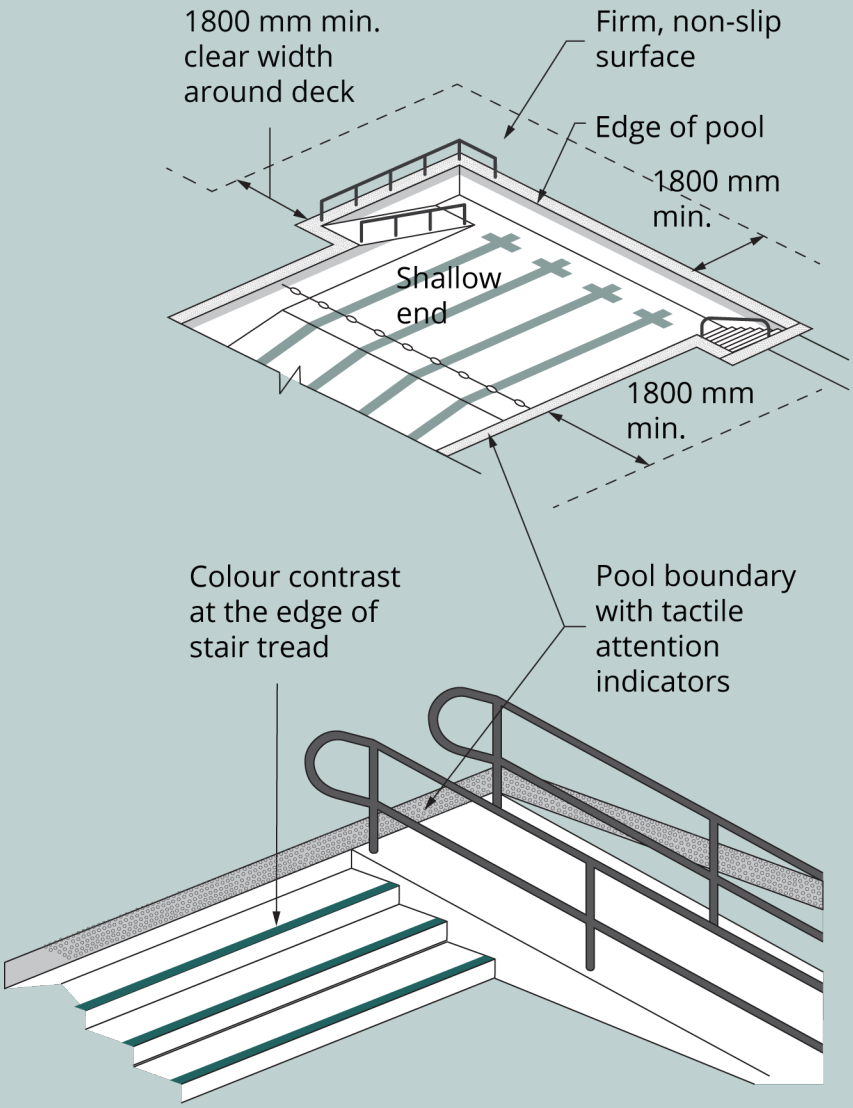


Figure 1.4.5-A Pool Deck and Perimeter Areas

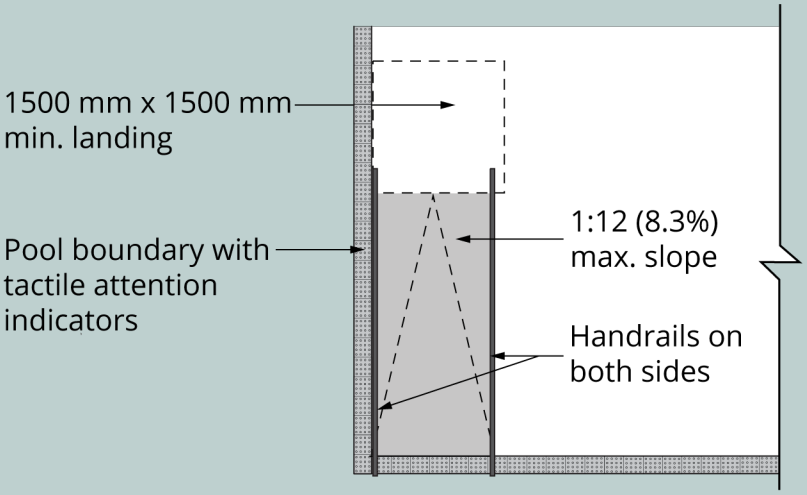
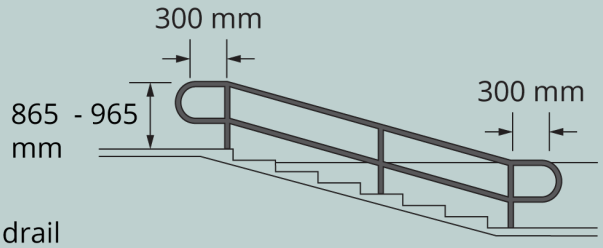
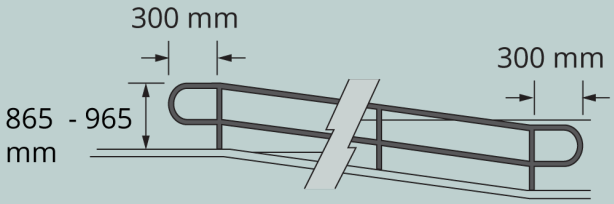


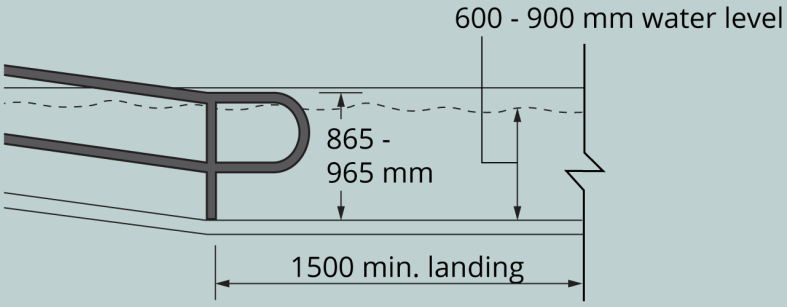
Figure 1.4.5-B Ramp at Pool



Elevation view - Stair handrail



Elevation view - Ramp handrail



Elevation view - Detail

Figure 1.4.5-C Handrails at Pool

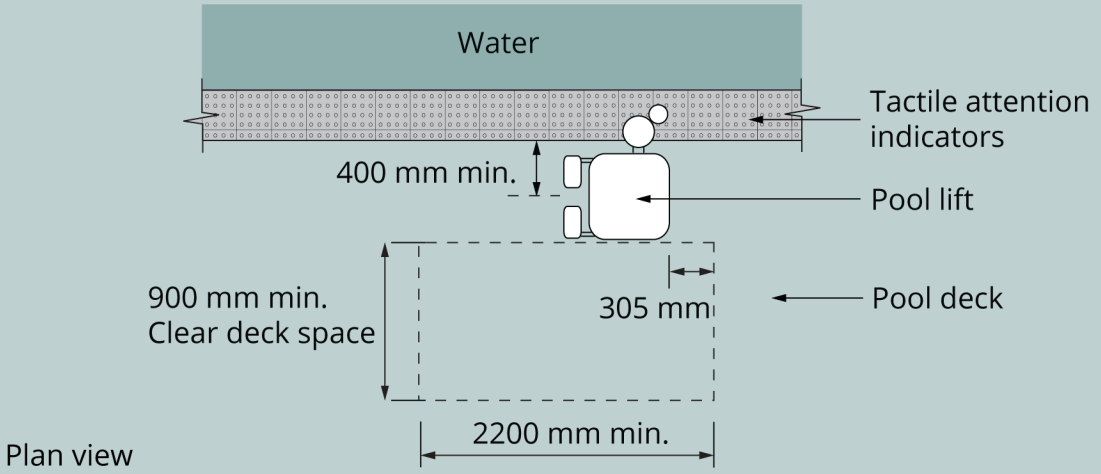


Figure 1.4.5-D Pool Lift on Deck

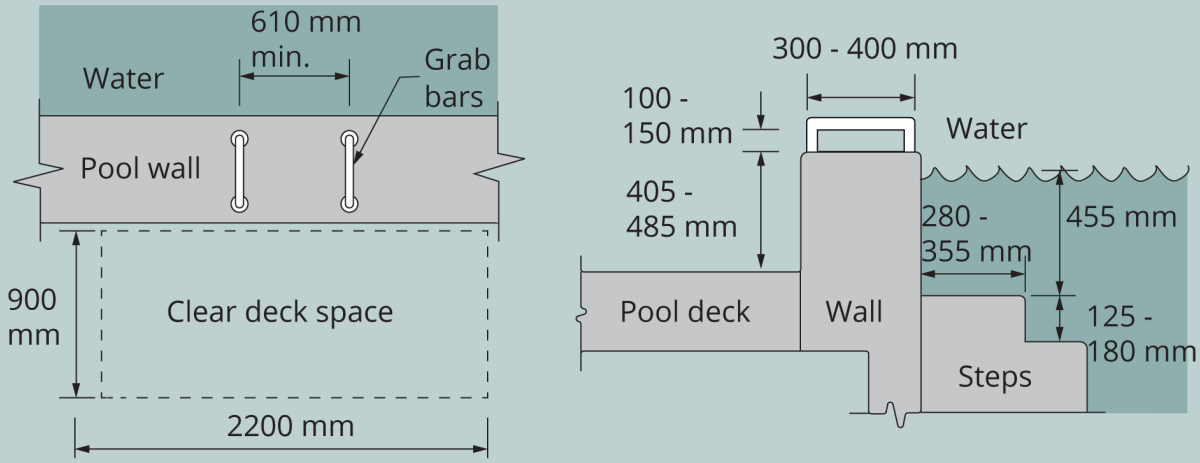


Figure 1.4.5-E Transfer Wall with Steps

1.4.6. Dogs Off-Leash Areas (DOLA)

Rationale

Dogs off-leash areas (DOLA) provide an enclosed or fully fenced exterior space where owners can bring their dogs to play with other of-leash dogs. DOLAs should be designed to engage both dogs and their owners including persons using mobility devices, persons who are blind or have low vision, and persons using service animals (guide dogs).

Application

The scope of this section applies to DOLAs selected by GBP.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.4. Exterior Paths of Travel to Entrances and Exits"
- "1.3.1. Off-Street Parking"
- "1.5.1. Benches and Seats"
- "1.5.2. Waste Receptacles and Recycling Bins"
- "2.2.1. Entrances"
- "2.2.6. Accessible Control Gates"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- Dogs Of-Leash Areas
- Pet Friendly Design Guidelines and Best Practices for New Multi-Unit Buildings

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at DOLAs to allow for a continuous, unobstructed route providing exterior access to elements and spaces. Where DOLAs are divided, for small and large dogs, each area should be connected to an exterior accessible path of travel.

Accessible Control Gates

Where provided at DOLAs, accessible control gates should have an exterior accessible path of travel for entry and egress. The clear width, when the door is in the open position, should allow for ease of movement for all individuals including persons using mobility devices. The accessible control gates should have distinguishing elements or features that delineate the entrance to the DOLA for persons with low to no vision.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be located outside of an accessible path of travel. Service animals (guide dogs) do not like the feeling of gratings and grilles on their paws and will avoid walking over these areas. In addition, gratings and grilles should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Signage

Signage should be provided at DOLAs that identify the designated area and available amenities.

Amenities

Where provided at DOLAs, amenities should include accessible conveniences or services for use by the public. Waste receptacles should be provided, and where a high

volume of individuals is anticipated, additional receptacles should be provided to avoid an overflow of waste products that may obstruct an exterior accessible path of travel. Where shelters are provided for weather protection, they should be located above benches and seats.

Requirements

(1) Accessible Path of Travel:

DOLAs should provide an exterior accessible path of travel that:

(a) Meets the criteria in section "1.1.1 Exterior Accessible Paths of Travel", or "1.1.4 Exterior Paths of Travel to Entrances and Exits".

(2) Accessible Control Gates:

DOLAs should provide accessible control gates, "Figure 1.4.6-A Dogs Off-Leash Area", that:

(a) Have a vestibule that meets the criteria in section "2.2.1 Entrances";

(b) Are equipped with pretensioned, self-closing hinging mechanism to allow the gate to self-close gently;

(c) Meet the criteria in section "2.2.6 Accessible Control Gates"; and

(d) Have latches that meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(3) Surfaces:

DOLAs should provide surfaces that:

(a) Are level, firm, stable, slip-resistant and permeable;

(b) Have openings that:

(i) Are located outside of the accessible paths of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum.

(4) Signage:

DOLAs should provide signage that:

(a) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(5) Amenities:

Where provided at DOLAs, amenities should include:

(a) Off-street parking that meets the criteria in section "1.3.1 Off-Street Parking";

(b) Benches and seats that:

(i) Have shelter for weather protection, located above benches and seats, and have an overhead clearance that is 3000 mm minimum; and

(ii) Meet the criteria in section "1.5.1 Benches and Seats"; and

(c) Waste receptacles and recycling bins that meet the criteria in section "1.5.2 Waste Receptacles and Recycling Bins".

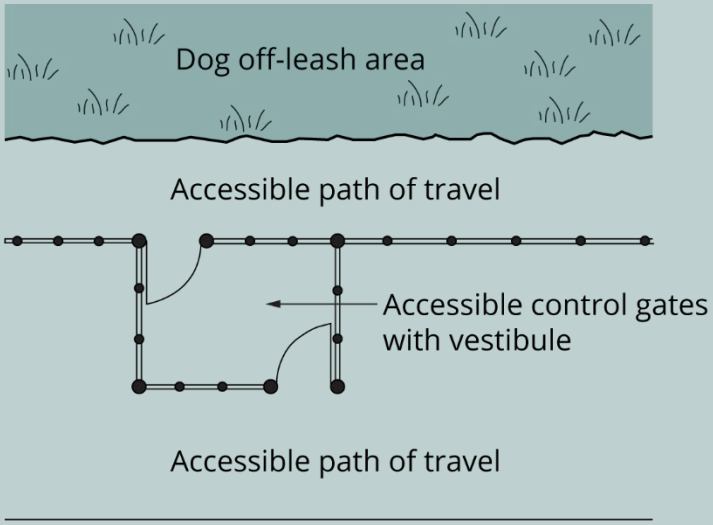


Figure 1.4.6-A Dogs Off-Leash Area

1.4.7. Service Animal Areas

Rationale

Service animal areas provide designated space for animals such as guide dogs. Relief areas should be provided for guide dogs to relieve themselves, such as at an accessible entrance to a building.

Tethering hooks should be provided for guide dogs to be securely tied and to safely wait or rest while their owner uses available amenities in the surrounding environment, such as at public pools and public spas.

Application

The scope of this section applies to exterior and interior service animal areas at recreational facilities, and at high-use areas such as main buildings on GBP's campus.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.5.2. Waste Receptacles and Recycling Bins"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at service animal areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface

openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be located outside of an accessible path of travel. Service animals (guide dogs) do not like the feeling of gratings and grilles on their paws and will avoid walking over these areas.

In addition, gratings and grilles should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard. A drain or a permeable surface should be provided to ensure that the area can be washed down after being used by a service animal (guide dog).

Relief Areas

Where provided, relief areas at service animal areas should allow quick and easy access to a safe, well-maintained space, such as at an accessible entrance to a building, to relieve big or small guide dogs. Designers should understand the needs of the intended individuals to determine the location of relief areas appropriate for the facility. Where provided at relief areas, street elements such as decorative fire hydrants should create an encouraging environment for guide dogs to relieve themselves. Relief areas should be designed to be large enough for full-size guide dogs to turn about inside a designated area.

Tethering Hooks

Where provided, tethering hooks at service animal areas should be designed so that guide dogs can safely wait and rest in a designated clear space or stall while being securely tied while their owner uses available amenities in the surrounding environment, such as at public pools and public spas. Clear sightlines should be provided from tethering hooks to the intended amenity being used by owners to decrease the potential risk of separation anxiety between the service animal and the owner.

Signage

Signage should be provided at service animal areas that identify the designated area and available amenities.

Consultation

Consultation on service animal areas with the public, including persons with disabilities and GBP students and employees, should be provided.

Requirements

(1) Accessible Path of Travel:

Service animal areas should provide an accessible path of travel that:

(a) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

(2) Surfaces:

Service animal areas should provide surfaces that:

(a) Are level, firm, stable, slip-resistant, easy-to-clean, and permeable; and

(b) Have openings that:

(i) Are located outside of the accessible paths of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum.

(3) Relief Areas:

Where service animal relief areas are provided, they should:

(a) Be 3000 mm by 3000 mm minimum;

(b) Have amenities consistently inside the entrance of the gated area that include waste receptacles that meet the criteria in section "1.5.2 Waste Receptacles and Recycling Bins";

(c) Be located no more than 30 m from the primary accessible entrance;

(d) Include the installation of large-print, high-contrast signage:

(i) To identify the area and encourage responsible practices like keeping animals on a leash and cleaning up after use; and

(ii) Include a resource number or QR code for providing questions or feedback;

(e) Include surfaces that are pet-friendly while also providing difference in texture to assist those with low to no vision to identify the relief area;

(f) Have good drainage and, where possible, a sprinkler system;

(g) Be fenced with the bottom of the fence cane detectable at or below 680 mm AFF;

(h) Include a gate, with a magnetic latch that can be self-closed and wide enough to allow for use by people using mobility devices, that meets the criteria in section "2.2.6 Accessible Control Gates";

(i) Provide adequate lighting that meets the criteria in section "3.1.2. Exterior Lighting";

(j) Provide sanitizing and handwashing stations; and

(k) Documents cleaning and maintenance and other operating procedures of the area.

(4) Tethering Hooks:

Where service animal areas provide tethering hooks, "Figure 1.4.7-A Tethering Hooks", they should:

(a) Be mounted 460 mm to 600 mm AFF;

(b) Have colour/brightness contrast; and

(c) Have a minimum of two designated clear floor spaces or stalls that:

(i) Are 1630 mm wide by 1270 mm deep minimum;

(ii) Have 900 mm minimum headroom clearance; and

(iii) Are located near a drain or a permeable surface.

(5) Signage:

Service animal areas should provide signage that:

(a) Identifies the designated area and available amenities;

(b) Includes tactile characters and/or braille; and

(c) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(6) Consultation:

Consultation on the design and placement of service animal areas should be provided.

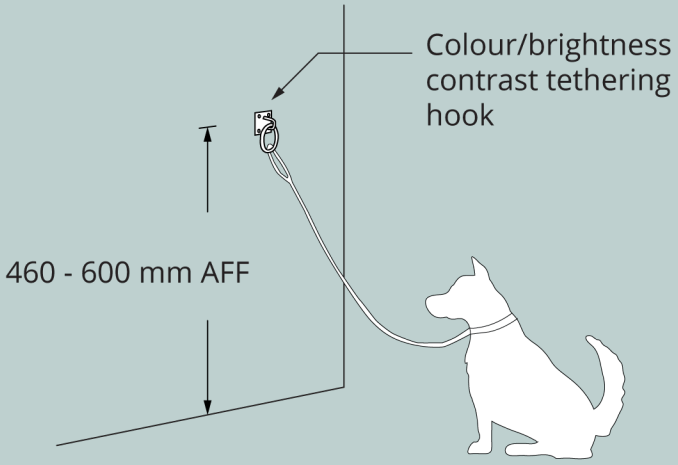


Figure 1.4.7-A Tethering Hooks

1.4.8. Balconies, Terraces, and Patios

Rationale

Balconies, terraces, and patios provide an exterior amenity space for people to use. They should be connected to an exterior or interior accessible path of travel.

Application

The scope of this section applies to balconies, terraces, and patios at all GBP buildings, including student residences.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.7. Handrails"
- "1.1.8. Guards"
- "1.1.11. Obstructions, Protrusions and Overhead Objects"
- "1.5.1 Benches and Seats"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.2.3. Doors and Doorways"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An exterior or interior accessible path of travel should be provided at balconies, terraces, and patios to allow for a continuous, unobstructed route providing exterior or interior access to elements and spaces.

Doors

Where provided at balconies, terraces, and patios, doors have an accessible path of travel for entry and egress. The clear width, when the door is in the open position, should allow for ease of movement for all individuals including persons using mobility devices.

Doors leading from the interior of a building should have a minimum threshold to provide an accessible path of travel.

Handrails and Guards

Handrails and guards (or walls) should be provided at balconies, terraces, and patios. They should be designed to provide safety, support, and clear sightlines to the environment for all individuals including persons using mobility devices.

Furniture, Fixtures and Equipment (FF&E)

Furniture, fixtures and equipment should be provided on balconies, terraces, and patios that are flexible, accessible, adaptable and usable by all individuals. Where fixed seating is provided, accessible benches, seats, designated clear floor spaces, and companion seating should be provided.

Amenities

Where provided at balconies, terraces, and patios, amenities should include accessible conveniences or services for use by the public. Weather protection that shelters individuals from sun, wind, and precipitation should be provided.

Requirements

(1) Accessible Path of Travel:

Balconies, terraces, and patios should provide an exterior or interior accessible path of travel, “[R-1.4.8. (1)]”, that:

(a) Has a clear ground space that is 2500 mm minimum diameter; and

(b) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel” or “2.1.1. Interior Accessible Paths of Travel”.

(2) Doors:

Where provided at balconies, terraces, and patios, doors should:

(a) Open to the exterior, when leading from the interior of a building, and against a side wall or guard; and

(b) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Handrails and Guards:

Balconies, terraces, and patios should provide:

(a) Handrails, "Figure 1.4.8-A Balcony Handrail and Guard" and "Figure 1.4.8-B Patio Handrail and Guard", that meet the criteria in section "1.1.7. Handrails"; and

(b) Guards that:

(i) Are 1070 mm minimum high;

(ii) Have clear sightlines to the surrounding environment; and

(iii) Meet the criteria in section "1.1.8. Guards".

(4) Furniture, Fixtures and Equipment (FF&E):

Where provided at balconies, terraces, and patios, FF&E should:

(a) Meet the criteria in section "1.5.1 Benches and Seats".

(5) Amenities:

Where provided at balconies, terraces, and patios, amenities should include:

(a) Shelter for weather protection, such as sun, wind, and precipitation, that:

(i) Has an overhead clearance that is 2100 mm minimum; and

(ii) Meets the criteria in section "1.1.11. Obstructions, Protrusions and Overhead Objects".

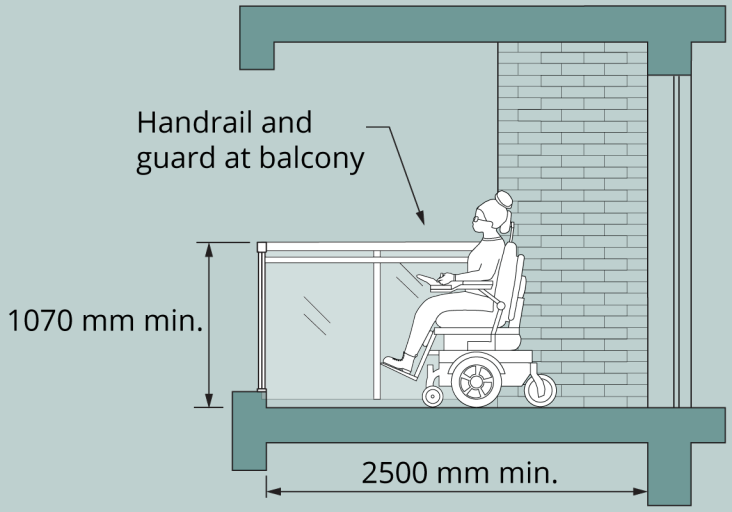


Figure 1.4.8-A Balcony Handrail and Guard

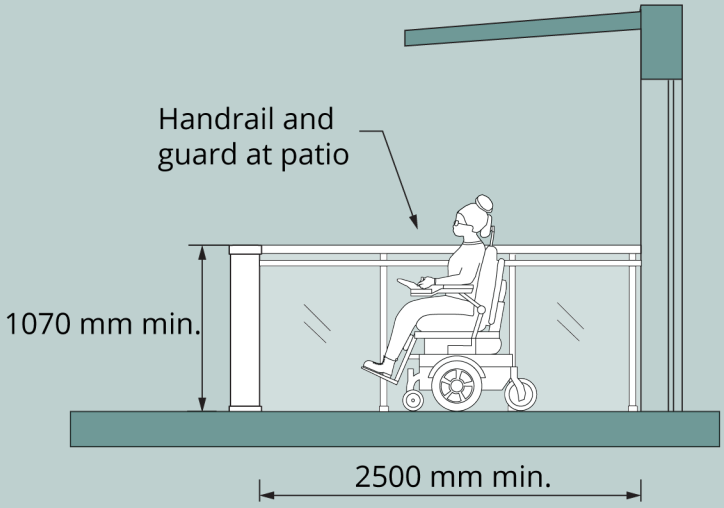


Figure 1.4.8-B Patio Handrail and Guard

1.4.9. Docks, Sea Walls, and Piers

Rationale

Docks, sea walls, and piers provide exterior recreational and leisure space where persons can participate in fishing, boating, or swimming. Accessible features should create a safe and supportive environment for all individuals along a water's edge.

Application

[Reserved]

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"

Related References

- Waterfront Accessibility Design Guidelines: Creating an Accessible Waterfront

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at docks, sea walls, and piers to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Edge Protection

Edge protection should be provided at docks, sea walls, and piers when adjacent to water or a drop-off to prevent individuals, including persons using mobility devices, from slipping or rolling over the edge of an exterior accessible path of travel. Edge protection can provide a means of wayfinding for persons with low or no vision who use white canes. In some naturalized built environments edge protection can create barriers, so each condition should be carefully assessed.

Requirements

(1) Accessible Path of Travel:

Docks, sea walls, and piers should provide an exterior accessible path of travel that:

(a) Has a clear width that is 2100 mm minimum; and

(b) Meets the criteria in section "1.1.1 Exterior Accessible Paths of Travel".

(2) Edge Protection:

Docks, sea walls, and piers should provide edge protection that:

(a) Has a 75 mm minimum curb without impeding drainage; and

(b) Has colour/brightness contrast.

1.4.10. Waterfront Areas

Rationale

Waterfront areas provide exterior recreational and leisure space for the public. Accessible features should create a safe and supportive environment for all individuals along the water's edge.

Application

[Reserved]

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes"
- "1.1.5. Rest Areas"
- "1.4.4. Exterior Eating and Picnic Areas"
- "1.4.11. Community Garden and Public Horticulture Areas"
- "1.5.2. Waste Receptacles and Recycling Bins"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- Waterfront Accessibility Design Guidelines: Creating an Accessible Waterfront

Key Considerations

Accessible Path of Travel

An accessible path of travel should be provided at waterfront areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Edge Protection

Edge protection should be provided at waterfront areas when adjacent to water or a drop-off to prevent individuals, including persons using mobility devices, from slipping

or rolling over the edge of an exterior accessible path of travel. Edge protection can provide a means of wayfinding for persons with low or no vision who use white canes. In some naturalized built environments edge protection can create barriers, so each condition should be carefully assessed.

Signage

Signage should be provided at waterfront areas that identify available amenities.

Amenities

Where provided at waterfront areas, amenities should include accessible conveniences or services for use by the public.

Requirements

(1) Accessible Path of Travel:

Waterfront areas should provide an exterior accessible path of travel that:

(a) Meets the criteria in section "1.1.1 Exterior Accessible Paths of Travel", or "1.1.2 Trails, Pathways, Boardwalks, and Beach Access Routes".

(2) Edge Protection:

Waterfront areas should provide edge protection that:

(a) Has a 75 mm minimum curb without impeding drainage; and

(b) Has colour/brightness contrast.

(3) Signage:

Waterfront areas should provide signage that:

(a) Identifies available amenities;

(b) Includes tactile characters and/or braille; and

(c) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(4) Amenities:

Where provided at waterfront areas, amenities should include:

(a) Rest areas that meet the criteria in section “1.1.5 Rest Areas”;

(b) Exterior eating and picnic areas that meet the criteria in section “1.4.4 Exterior Eating and Picnic Areas”;

(c) Landscape materials and plantings that meet the criteria in section “1.4.11 Community Garden and Public Horticulture Areas”; and

(d) Waste receptacles and recycling bins that meet the criteria in section “1.5.2 Waste Receptacles and Recycling Bins”.

1.4.11. Community Garden and Public Horticulture Areas

Rationale

Landscape materials, trees, shrubs, and plants should be selected to enhance enjoyment by all persons during the landscape design process. The stimulation of the senses, such as smell, sight, sound, and touch, should be considered when providing landscape materials and plants along an exterior accessible path of travel. Careful selection of plant types and their characteristics should be considered. Community garden and public horticulture areas provide exterior recreational and leisure space that should be designed to stimulate the individual's senses including smell, sight, sound, and touch.

Application

Community gardens or publicly accessed horticulture areas owned, leased, or operated by GBP.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.4. Exterior Paths of Travel to Entrances and Exits"
- "4.1.1. General Exterior Maintenance"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at community garden and public horticulture areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Landscape Materials and Plantings

Landscape materials and plantings should be provided at community garden and public horticulture areas. They should be carefully selected, and their characteristics should consider the needs of all individuals. Plantings with thorns or heavy berries may constitute a tripping hazard or risk of injury and should be avoided, while plants with scent or fragrance can help identify the entrance, for example.

NTD Heading

Raised planter beds should be provided to engage persons using mobility devices and persons with limited mobility in the gardening experience. They should be designed to allow for drainage.

Requirements

(1) Accessible Path of Travel:

Community garden and public horticulture areas should provide an exterior accessible path of travel that:

(a) Meets the criteria in section "1.1.1 Exterior Accessible Paths of Travel", or "1.1.4 Exterior Paths of Travel to Entrances and Exits".

(2) Landscape Materials and Plantings:

Community garden and public horticulture areas should provide landscape materials and plantings that:

(a) Are located outside of an accessible path of travel; and

(b) Meet the criteria in section "4.1.1. General Exterior Maintenance".

(3) Raised Planter Beds:

Community garden and public horticulture areas should provide raised planter beds, "Figure 1.4.11-A Raised Planter Beds", that:

(a) Represent 20% minimum of the total number of planter beds available;

(b) Drain well;

(c) Have a top surface of 860 mm maximum AFF; and

(d) Have knee and toe space for a front approach that is 735 mm high at the front edge; 685 mm high at a point 200 mm back from the front edge; and 350 mm high over the distance from a point 280 mm to a point 430 mm back from the front edge.

(e) Have plantings located within 500 mm from the front edge for plantings that required ongoing manipulation during the planting process.

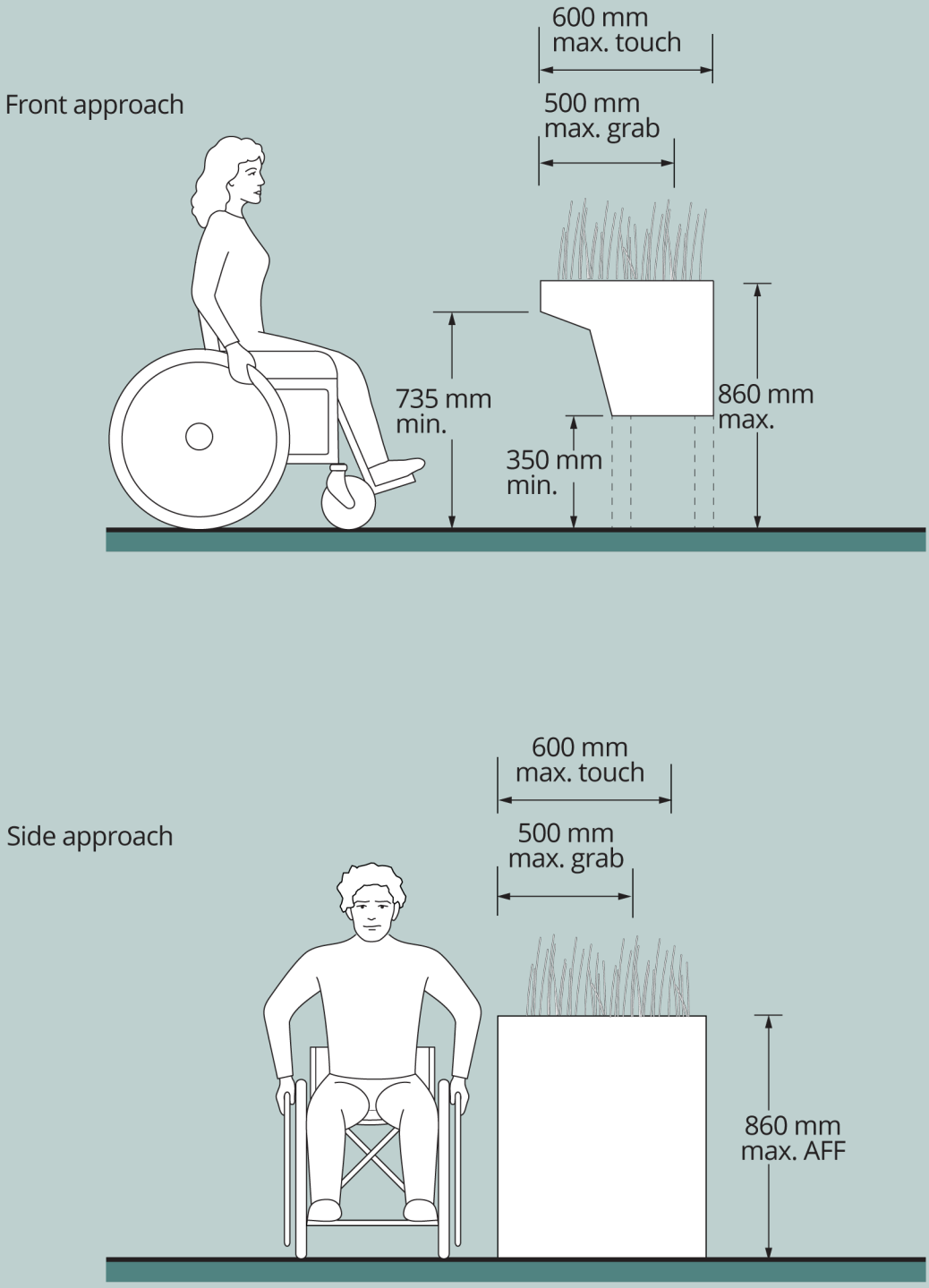


Figure 1.4.11-A Raised Planter Beds

1.5. Exterior Furniture, Equipment and Street Elements

Section Summary

This section reviews the accessible design requirements for exterior furniture, equipment and street elements intended for use by the public and George Brown Polytechnic (GBP) staff. All exterior furniture and equipment should be connected to an accessible path of travel and placed in a way that does not impede the minimum clear width. Street elements should have colour/brightness contrast from the surrounding environment to improve visibility for persons with low vision.

Contents in Section

1.5.1. Benches and Seats

1.5.2. Waste Receptacles and Recycling Bins

1.5.3. Bicycle Racks, Storage, and Lock-Up Areas

1.5.4. Post and Mailboxes

1.5.5. Exterior Water Bottle Filling Stations and Drinking Fountains

1.5.1. Benches and Seats

Rationale

Benches and seats should be connected to an exterior accessible path of travel or pedestrian clearway. Designers should consider the needs of the intended individuals when determining the design and placement of benches and seats. A variety of accessible seating and components should be provided.

Application

The scope of this section applies to benches and seats provided in the built environment such as at rest areas, exterior eating and picnic areas, parks recreation, and exterior specialized areas. Benches and seats located in naturalized areas should meet the criteria in the Toronto Multi-Use Trail Guidelines.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"

Related References

- Furniture Design & Placement Street Furniture
- Toronto Multi-Use Trail Design Guidelines
- Vibrant Streets

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at benches and seats to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or

ground upheaval and settling. Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Clear Ground Spaces

Clear ground spaces should be provided adjacent to benches and seats to designate an area to be utilized by persons using mobility devices, a service animal, a walking aid/cane or a stroller.

Components

Components, such as back support and armrests, provide safety and stability for individuals including older adults/seniors and persons with disabilities at benches and seats. Where open-ended benches are provided, they should have adjacent clear ground space to allow persons using mobility devices to side transfer on and off the bench. Where armrests are provided, they should be located in the middle of the bench and designed to have rounded edges, be easily graspable, and be free from obstructions. The intended individuals should be considered when determining which combination of components should be provided.

Requirements

(1) Accessible Path of Travel:

Benches and seats should be connected to an exterior accessible path of travel that:

(a) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”.

(2) Clear Ground Spaces:

Benches and seats, “Figure 1.5.1-A Benches”, should provide a clear ground space that:

(a) Is located on at least one side of a bench and outside of an exterior accessible path of travel;

(b) Is 900 mm wide by 1500 mm minimum long for a front approach; and

(c) Is not obstructed by exterior furniture, equipment, and street elements that are in close proximity.

(3) Surfaces:

Benches and seats should be provided on surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have openings that:

(i) Are located outside of an exterior accessible path of travel and the clear ground space;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum.

(4) Components:

Benches and seats should provide components that:

(a) Are located on at least one side of a bench and outside of an exterior accessible path of travel;

(b) Have a seat that:

(i) Is 460 mm AFF;

(ii) Is 450 mm wide to 460 mm deep; and

(iii) Has foot space under the bench to allow individuals to lean forward to stand;

(c) Have back support that:

(i) Is 450 mm minimum above bench seat; and

(ii) Is angled 5 to 15 degrees;

(d) Have armrests that:

(i) Are 600 mm AFF;

(ii) Have rounded edges;

(iii) Are made from materials that are durable and easily graspable; and

(iv) Are not on both ends of the bench (one end of the bench should have no arm rest to allow for a side transfer on to the bench); and

(e) Have colour/brightness contrast from the surrounding environment.

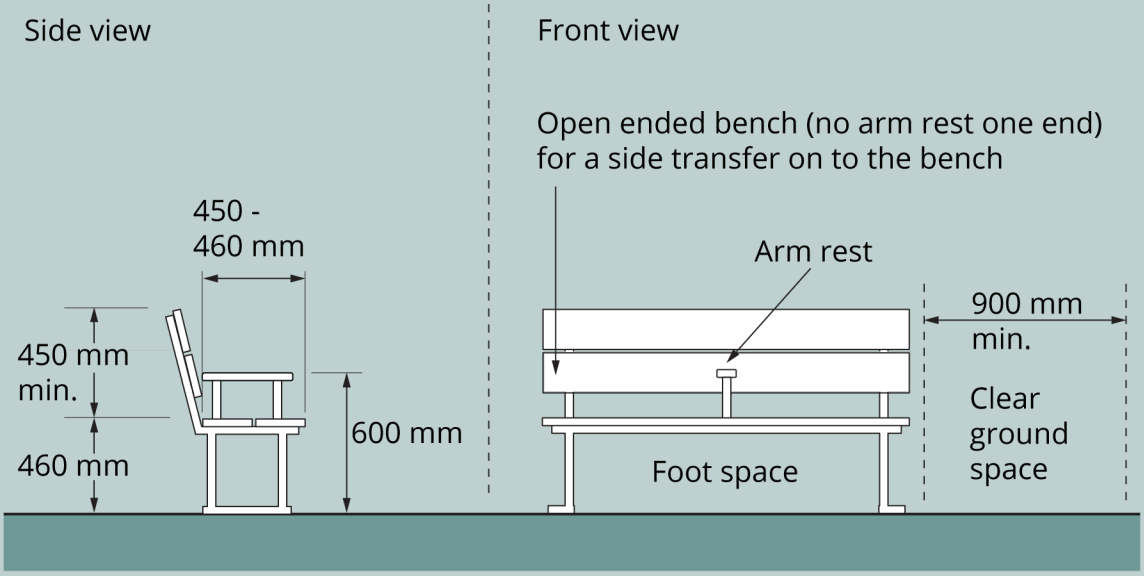


Figure 1.5.1-A Benches

1.5.2. Waste Receptacles and Recycling Bins

Rationale

Waste receptacles and recycling bins should be connected to an exterior accessible path of travel or pedestrian clearway. Designers should consider the needs of the intended individuals and the proximity to available amenities, where provided, in the surrounding environment when determining the design and placement of waste receptacles and recycling bins. The location and number of waste receptacles or recycling bins provided should consider whether an area is a high-use area or low-use area and reflect the program and amenities available in the surrounding environment. Ensuring a consistent arrangement of waste receptacles and recycling bins can create predictability. Allowing for predictable placement can reduce the need for persons with low or no vision to touch the surfaces to identify the waste receptacle or recycling bin.

Application

[Reserved]

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes"
- "1.1.4. Exterior Paths of Travel to Entrances and Exits"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Redevelopments
- Furniture Design & Placement

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided at waste receptacles or recycling bins to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Controls and Operating Mechanisms

Controls and operating mechanisms, such as lids and openings, should be provided at waste receptacles and recycling bins and have accessible space and reach ranges. The placement of openings should be designed with consideration for persons with low to no vision. Openings should be placed in the same order wherever they are located. For example, the left-side opening should be waste, and the right-side opening should be recycling.

Requirements

(1) Accessible Path of Travel:

Waste receptacles and recycling bins should be connected to an exterior accessible path of travel that:

(a) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”;

(b) Meets the criteria in section “1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes”; or

(c) Meets the criteria in section “1.1.4. Exterior Paths of Travel to Entrances and Exits”.

(2) Surfaces:

Waste receptacles and recycling bins should be provided on surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have openings that:

(i) Are located outside of an exterior accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(c) Do not allow passage of an object that has a diameter of 13 mm maximum.

(3) Controls and Operating Mechanisms:

Waste receptacles and recycling bins should provide controls and operating mechanisms, "Figure 1.5.2-A Waste and Recycle Containers", that:

(a) Have a self-closing lid;

(b) Have openings that:

(i) Face an exterior accessible path of travel; and

(ii) Are distinguishable in shape and colour whether they are single or combined;

(c) Are 900 mm to 1050 mm AFF;

(d) Have a 22 N maximum operating force;

(e) Are operable using a closed fist;

(f) Have colour/brightness contrast from the surrounding environment;

(g) Are cane detectable; and

(h) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

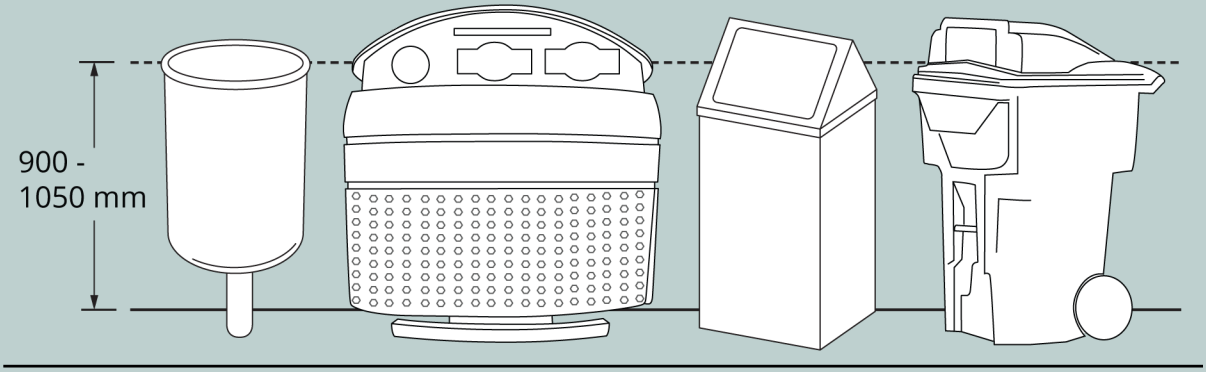


Figure 1.5.2-A Waste and Recycle Containers

1.5.3. Bicycle Racks, Storage, and Lock-Up Areas

Rationale

Bicycle racks, storage, and lock-up areas that are fixed should be connected to, but located outside of, an exterior accessible path of travel. The groups intended to use these areas should be considered when determining the location and number of spaces provided for a variety of bicycle types including single, multiple, and adaptive bicycles. The components of the bicycle racks, storage, and lock-up areas should have accessible elements to enhance their usability. Bicycle racks, storage, and lock-up areas should be provided in locations that reflect the program and amenities available in the surrounding environment.

Application

The scope of this section does not apply to bicycle-sharing systems. Where bicycle racks are installed on the road surface, soft surfaces, or a stepped right-of-way environment, they should meet the criteria in this section.

Related Sections

- “1.1.1. Exterior Accessible Paths of Travel”
- “3.2.8. Controls and Operating Mechanisms”

Related References

- Bicycle Parking Facilities
- Guidelines for the Design and Management of Bicycle Parking Facilities

Key Considerations

Amount

The number of spaces for bicycle racks, storage, and lock-up areas provided should consider whether an area is a high-use or low-use. If an insufficient number of spaces are provided there is potential that the public will use exterior furnishings, equipment, and street elements that were not designed for this use.

Accessible Path of Travel

An exterior accessible path of travel should be provided at bicycle racks, storage, and lock-up areas to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Controls and Operating Mechanisms

Where provided, controls and operating mechanisms at bicycle racks, storage, and lock-up areas should have accessible space and reach ranges.

Requirements

(1) Amount:

Bicycle racks, storage, and lock-up areas should provide:

(a) Space for single bicycle storage and lock-up areas;

(b) Space for multiple bicycle storage and lock-up areas; and

(c) Space for adaptive bicycle storage and lock-up areas.

(2) Accessible Path of Travel:

Bicycle racks, storage, and lock-up areas should be connected to, and located outside of, an exterior accessible path of travel or pedestrian clearway that:

(a) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”.

(3) Surfaces:

Bicycle racks, storage, and lock-up areas should be provided on surfaces that:

(a) Are level, firm, stable, and slip-resistant;

(b) Have openings that:

(i) Are located outside of an exterior accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum; and

(c) Are cane detectable; and

(d) Have colour/brightness contrast from adjacent surfaces.

(4) Controls and Operating Mechanisms:

Bicycle racks, storage, and lock-up areas should provide controls and operating mechanisms that:

(a) Are 900 mm to 1050 mm AFF;

(i) Except for post and ring bicycle racks in the right-of-way that are 360 mm to 750 mm AFF at the ring portion;

(b) Have a 22 N maximum operating force;

(c) Are operable using a closed fist;

(d) Have colour/brightness contrast from the surrounding environment;

(e) Are cane detectable; and

(f) Meet the criteria in section “3.2.8. Controls and Operating Mechanisms”.

1.5.4. Post and Mailboxes

Rationale

Post and mailboxes are areas designed for mail and parcel pick-up and drop-off. This area and associated elements should consider how persons with disabilities will navigate the space and use accessible elements. Post and mailboxes should be provided at locations that reflect the program and amenities available in the surrounding environment.

Application

The scope of this section applies to providing access to post and mailboxes operated by GBP and not those operated by Canada Post. The design of mailboxes owned and operated by Canada Post should meet the criteria in their national standards and do not need to meet the criteria in this section. Equipment and street elements that are newly designed for the GBP should meet the criteria in this section.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- Delivery Planning Standards Manual for Builders and Developers
- Rural Mailbox Guidelines

Key Considerations

Amount

The amount of post and mailboxes provided should consider whether an area is a high-use or low-use.

Accessible Path of Travel

An exterior accessible path of travel should be provided at post and mailboxes to allow for a continuous, unobstructed route providing exterior access to elements and spaces. A clear ground space should be provided adjacent to post and mailboxes to allow for a front and side approach, as well as a clear turning space for persons using mobility devices.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling.

Where gratings and grilles are provided, the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Controls and Operating Mechanisms

Controls and operating mechanisms at exterior post and mailboxes should have accessible space and reach ranges.

Requirements

(1) Amount:

Post and mailboxes, “Figure 1.5.4-A Community Mailboxes”, should provide:

(a) Minimum 10% accessible of the total amount provided.

(2) Accessible Path of Travel

Post and mailboxes should be connected to, and located outside of, an exterior accessible path of travel or pedestrian clearway that:

(a) Has a clear ground space, “Figure 1.5.4-B Community Mailboxes Arrangement”, that is 900 mm by 1500 mm minimum for a front approach, or 900 mm by 2200 mm minimum for a side approach;

(b) Has a clear turning space, within any enclosed areas, that is 2500 mm minimum in diameter; and

(c) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

(3) Surfaces:

Post and mailboxes should be provided on surfaces that:

(a) Are level, firm, stable, and slip-resistant;

(b) Have openings that:

(i) Are located outside of an exterior accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum; and

(c) Are cane detectable; and

(d) Have colour/brightness contrast from adjacent surfaces.

(4) Controls and Operating Mechanisms

Post and mailboxes should provide controls and operating mechanisms that:

(a) Are 460 mm to 1050 mm AFF;

(b) Have a 22 N maximum operating force;

(c) Are operable using a closed fist;

(d) Have colour/brightness contrast from the surrounding environment;

(e) Are cane detectable; and

(f) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(5) Signage:

Post and mailboxes should provide signage that:

(a) Provides identification;

(b) Has 19 mm minimum high numbers on mailboxes; and

(c) Meets the criteria in "3.2.1. Signage and Wayfinding Systems".

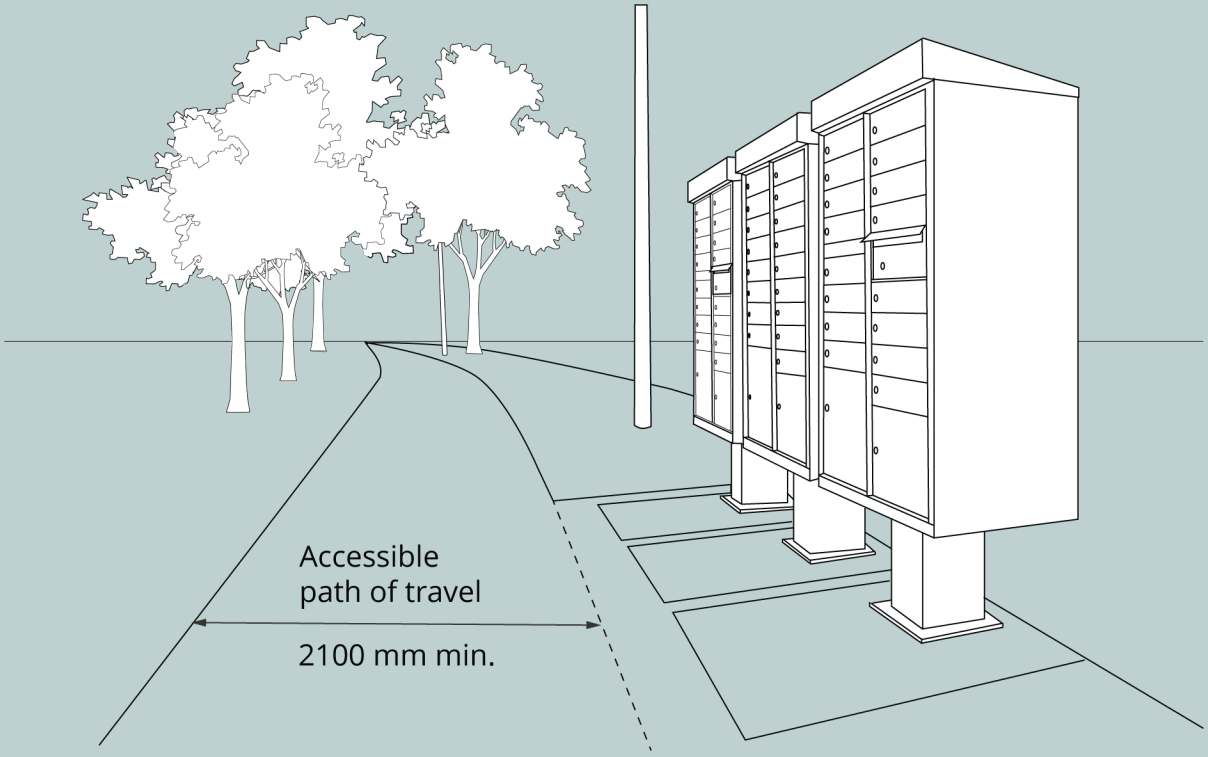


Figure 1.5.4-A Community Mailboxes

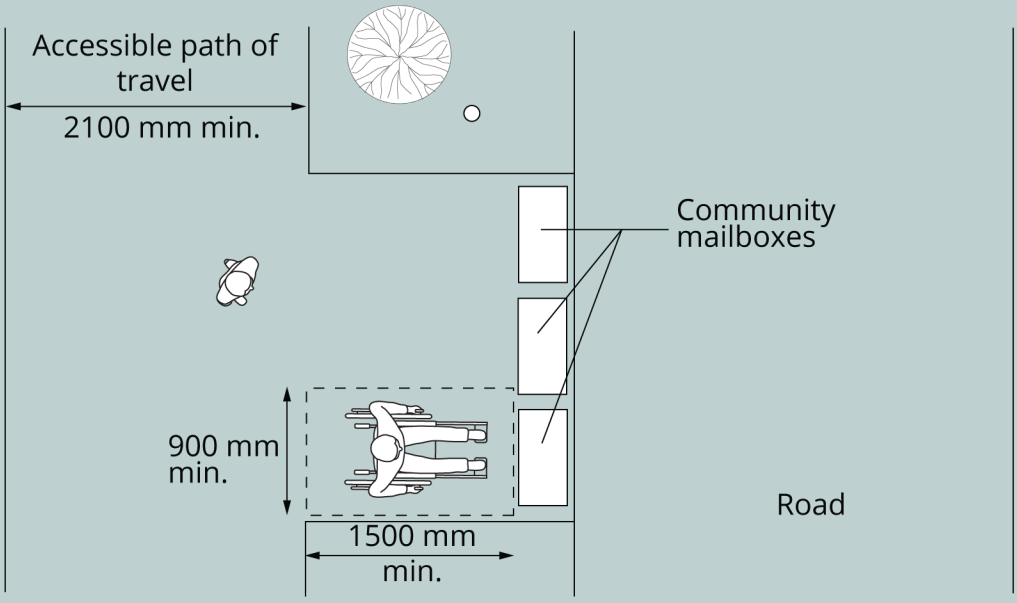


Figure 1.5.4-B Community Mailboxes Arrangement

1.5.5. Exterior Water Bottle Filling Stations and Drinking Fountains

Rationale

Water bottle filling stations and drinking fountains are an amenity that should be connected to, but located outside of, an exterior accessible path of travel. Water bottle filling stations are preferred over drinking fountains because they provide greater opportunity for use and require less maneuverability for all individuals. Water bottle filling stations and drinking fountains should be at locations that reflect the program and amenities available in the surrounding environment.

Application

The scope of this section applies to water bottle filling stations and drinking fountains located at parks, recreation, and exterior and interior specialized areas such as play spaces and dog off-leash areas (DOLA). Equipment and street elements that are newly designed for the GBP furniture program should meet the criteria in this section.

Related Sections

- “1.1.1. Exterior Accessible Paths of Travel”
- “2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains”

Related References

- Water Bottle Policy in City Parks and Facilities

Key Considerations

Amount

The amount of accessible water bottle filling stations and drinking fountains provided should consider whether an area is a high-use or low-use.

Accessible Path of Travel

An exterior accessible path of travel should be provided at water bottle filling stations and drinking fountains to allow for a continuous, unobstructed route providing exterior

access to elements and spaces. A clear ground space should be provided adjacent to water bottle filling stations and drinking fountains to allow for front and side approach, as well as a clear turning space for persons using mobility devices.

Surfaces

A level ground surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. The discomfort experienced is typically caused by vibrations when rolling over surface openings such as gratings, grilles, expansion joints, paved or interlocking stones, and/or ground upheaval and settling. Where gratings and grilles are provided the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Design

The design of exterior and interior water bottle filling stations and drinking fountains should be consistent.

Requirements

(1) Amount:

Water bottle filling stations and drinking fountains should provide:

(a) A minimum of one accessible unit where one or more is provided.

(2) Accessible Path of Travel

Water bottle filling stations and drinking fountains should be connected to an exterior accessible path of travel that:

(a) Has a clear ground space that is 900 mm by 1500 mm minimum for a front approach or 900 mm by 2200 mm minimum for a side approach;

(b) Has a clear turning space, within any enclosed areas, that is 2500 mm minimum in diameter; and

(c) Meets the criteria in section “1.1.1. Exterior Accessible Paths of Travel”.

(3) Surfaces:

Water bottle filling stations and drinking fountains should be provided on surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have openings that:

(i) Are located outside of an exterior accessible path of travel;

(ii) Allow for drainage;

(iii) Are oriented perpendicular to the direction of travel where elongated; and

(iv) Do not allow passage of an object that has a diameter of 13 mm maximum;

(c) Are cane detectable; and

(d) Have colour/brightness contrast from adjacent surfaces.

(4) Design

Water bottle filling stations and drinking fountains should:

(a) Meet the criteria in section “2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains”.

1.6. Exterior Materials and Finishes

Section Summary

This section reviews the accessible design requirements for exterior materials and finishes intended to be used by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. The design of floor or ground surfaces should strategically use materials, colour/brightness contrast, and textural cues, such as tactile attention indicators and tactile direction indicators, to improve the safety, visibility, and detectability of elements and features in the built environment. Careful consideration of materials and finishes can also help with navigation and wayfinding.

Contents in Section

1.6.1. Ground Surfaces

1.6.2. Tactile Attention Indicators

1.6.3. Tactile Direction Indicators

1.6.1. Ground Surfaces

Rationale

Ground surfaces should strategically use materials and finishes to enhance the usability and accessibility of the built environment.

Application

The scope of this section applies exterior ground surfaces.

Related Sections

- "1.6.2. Tactile Attention Indicators"
- "1.6.3. Tactile Direction Indicators"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Materials

Where naturalized or manufactured ground surface materials are provided, they should be designed to enhance an exterior accessible path of travel.

Colour/Brightness Contrast

Colour/brightness contrast should be provided on ground surfaces to assist in identifying key elements in the built environment and aid in wayfinding.

Textural Cues

Ground surfaces should provide textural cues, such as tactile walking surface indicators (TWSI), which should be cane detectable to help with navigation and wayfinding for persons with low or no vision. Objects or elements should provide tactile characters and/or braille to help with navigation and wayfinding for persons with low or no vision. Wall surfaces should be smooth and non-abrasive.

Requirements

(1) Materials:

Where naturalized or manufactured ground surface materials are provided, they should:

(a) Be level, firm, stable, and slip-resistant;

(b) Be matte (non-glare);

(c) Avoid heavily patterned finishes that have a busy design; and

(d) Not be subject to upheaval and settling from frost or thaw cycles.

(2) Colour/Brightness Contrast:

Ground surfaces should provide colour/ brightness contrast that:

(a) Has a light reflectance value (LRV) that is 50% minimum from the LRV of adjacent surfaces.

(3) Textural Cues:

Ground surfaces should provide textural cues that:

(a) Include tactile walking surface indicators (TWSI) such as:

(i) Tactile attention indicators, that meet the criteria in section “1.6.2. Tactile Attention Indicators”; and

(ii) Tactile directional indicators, that meet the criteria in section “1.6.3. Tactile Direction Indicators”; and

(b) Are smooth and non-abrasive.

1.6.2. Tactile Attention Indicators

Rationale

Tactile attention indicators (TAI) are one type of tactile walking surface indicator (TWSI) that should be cane detectable by persons with low or no vision using white canes or guide dogs for navigation and wayfinding in the built environment.

Application

The scope of this section applies to tactile attention indicators used in the exterior and interior built environment.

Related Sections

- “1.1.10. Exterior Stairs”
- “1.2.4. Curb Ramps”
- “1.2.5. Depressed Curbs”
- “1.3.3. Public Transit Areas”
- “1.4.5. Public Pools and Spas”
- “1.6.1. Ground Surfaces”
- “2.1.7. Escalators”

Related References

- AODA, Integrated Accessibility Standards, PART IV.1 Design of Public Spaces Standards
- CSA B651 Accessible Design for the Built Environment
- ISO 23599: 2012 Assistive Products for Blind and Vision-Impaired Persons - Tactile Walking Service Indicators
- Tactile Walking Surface Indicators

Key Considerations

Location

Tactile attention indicators should be located where critical safety information, upcoming hazards, and decision-making points should be communicated to individuals. They should also be located at grade and elevation changes, unprotected edges with a drop-off or slope, platforms, pool decks, the top of stairs, landings where there is a door leading onto the stair or ramp landing, the top and bottom of escalators, and the bottom of curb ramps and depressed curbs. In addition, they should be located to identify an entry into a vehicular roadway where no curbs or any other element separates the roadway from an exterior accessible path of travel or pedestrian clearway.

Surfaces

Tactile attention indicators should be provided on floor or ground surfaces to improve the safety, visibility, and detectability of elements and features in the built environment.

Design

Tactile attention indicators should be designed as circular, flat-topped, truncated domes/ cones. The spacing between adjacent domes/ cones should be adjusted depending on their size. The larger the individual domes/cones the more distant the space between them.

They should be cane detectable by persons with low or no vision using white canes or guide dogs to understand the textural cue underfoot. Tactile attention indicators should be installed as inlaid tiles or as individual nail heads and be wide enough to be detected and not stepped over. Inlaid tiles, when compared to surface-applied tiles, have shown to require less maintenance and reduce the risk of tripping.

Requirements

(1) Location:

Tactile attention indicators should be located at:

(a) Stairs, installed:

(i) At the top of the stair;

(ii) At landings where there is a door leading onto the landing of stairs;

(iii) One full tread depth back from the first step; and

(iv) Meeting the criteria in section "1.1.10. Exterior Stairs";

(b) Any edge of a platform:

(i) That is not protected by a guard;

(ii) That is higher than 250 mm or is sloped steeper than 1:3 (33%); and

(iii) To extend the full width;

(c) Curb ramps, installed:

(i) At the bottom of the curb;

(ii) To extend the full width;

(iii) To be set back 150 mm to 200 mm from the curb edge; and

(iv) Meeting the criteria in section "1.2.4. Curb Ramps";

(d) Depressed curbs, installed:

(i) At the bottom of the curb;

(ii) To extend the full width;

(iii) To be set back 150 mm to 200 mm from the curb edge; and

(iv) Meeting the criteria in section "1.2.5. Depressed Curbs";

(e) Pool decks, installed:

(i) At the water's edge;

(ii) To extend around the perimeter of the pool;

(iii) Meeting the criteria in section "1.4.5. Public Pools and Spas";

(f) Escalators, installed:

(i) At the top and bottom; and

(ii) Meeting the criteria in section "2.1.7. Escalators";

(g) Entries into a vehicular roadway where no curbs or other element separates the roadway from an exterior accessible path of travel or pedestrian clearway.

(2) Surfaces:

Tactile attention indicators should provide surfaces that:

(a) Meet the criteria in section "1.6.1. Ground Surfaces".

(3) Design:

Tactile attention indicators, "Figure 1.6.2-A Tactile Attention Indicator", should be designed to:

(a) Have circular, flat-topped and truncated domes/cones that:

(i) Are 4 mm to 5 mm high; and

(ii) Meet the criteria in "Table 1.6.2-A Top Diameter and Centre-to-Centre Spacing Requirements"; and

(b) Be inlaid tiles or individual nail heads that are 610 mm deep; and

(c) Meet the criteria in ISO 23599: 2012 Assistive Products for Blind and Vision - Impaired Persons - Tactile Walking Service Indicators.

Table 1.6.2-A Top Diameter and Centre-to-Centre Spacing Requirements

Top diameter of truncated domes or cones (mm)	**Spacing centre-to- centre in a square grid (mm)**
12	42 to 61
15	45 to 63
18	48 to 65
20	50 to 68
25	55 to 70

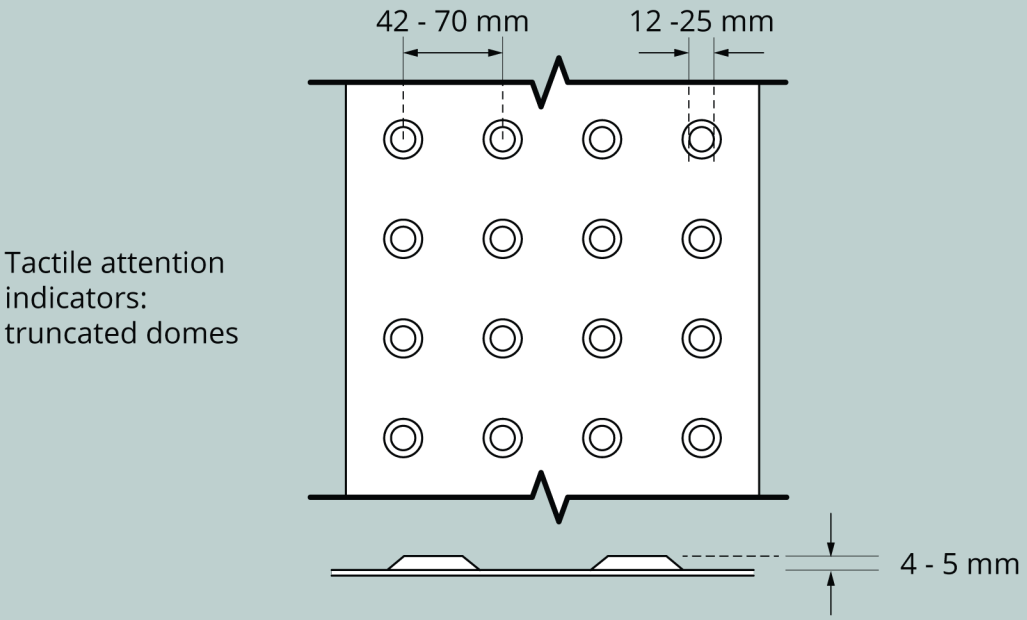


Figure 1.6.2-A Tactile Attention Indicator

1.6.3. Tactile Direction Indicators

Rationale

Tactile direction indicators (TDI) are one type of tactile walking surface indicator (TWSI) that should be cane detectable by persons with low or no vision using white canes or guide dogs for navigation and wayfinding in the built environment.

Application

The scope of this section applies to tactile direction indicators used in the exterior and interior built environment.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.3.2. Passenger Pick-Up and Drop-Offs"
- "1.6.1. Ground Surfaces"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.2.1. Entrances"

Related References

- CSA B651 Accessible Design for the Built Environment
- ISO 23599: 2012 Assistive Products for Blind and Vision - Impaired Persons - Tactile Walking Service Indicators
- Tactile Walking Surface Indicators

Key Considerations

Location

Tactile direction indicators should be located to communicate an exterior or interior accessible path of travel or pedestrian clearway and act as a tool to help with wayfinding to major destinations or amenities.

Surfaces

Tactile direction indicators should be provided on floor or ground surfaces to improve the safety, visibility and detectability of elements and features in the built environment.

Design

Tactile direction indicators should be designed as parallel, flat-topped, elongated bars that extend in the direction of an exterior or interior accessible path of travel. They should be cane detectable by persons using white canes or guide dogs to understand the textural cue underfoot.

Requirements

(1) Location:

Tactile direction indicators should be located:

(a) Along the accessible path of travel:

(i) At passenger pick-up and drop-offs that meet the criteria in section "1.3.2 Passenger Pick-Up and Drop-Offs";

(ii) From main building entrances that meet the criteria in section "2.2.1. Entrances", to major destinations or amenities within a space; and

(iii) That meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel", or "2.1.1. Interior Accessible Paths of Travel".

(2) Surfaces:

Tactile direction indicators should provide surfaces that:

(a) Meet the criteria in section "1.6.1. Ground Surfaces".

(3) Design:

Tactile direction indicators, "Figure 1.6.3-A Tactile Direction Indicator", should be designed to:

(a) Be parallel, flat-topped, elongated bars that:

(i) Are 4 mm to 5 mm high; and

(ii) Meet the criteria in "Table 1.6.3-A Top Width and Centre-to-Centre Spacing Requirements"; and

(b) Be inlaid tiles or individual bars that:

(i) Are 250 mm to 300 mm wide;

(ii) Have 600 mm minimum of clear space on each side; and

(iii) Have 270 mm minimum top length; and

(c) Meet the criteria in ISO 23599: 2012 Assistive Products for Blind and Vision - Impaired Persons - Tactile Walking Service Indicators.

Table 1.6.3-A Top Width and Centre-to-Centre Spacing Requirements

Top width of flat-topped elongated bars (mm)	**Spacing centre-to-centre (mm)**
17	57 to 78
20	60 to 80
25	65 to 83
30	70 to 85

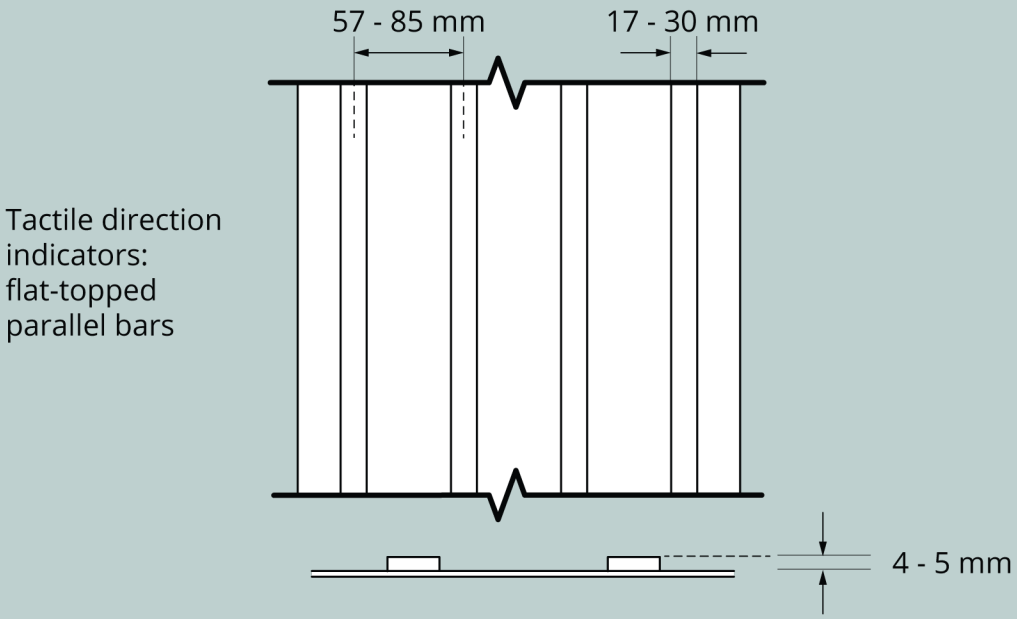


Figure 1.6.3-A Tactile Direction Indicator

2. Interior

2.1. Interior Paths of Travel

Section Summary

This section reviews the accessible design requirements for interior paths of travel intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Interior paths of travel include interior accessible paths of travel, ramps, stairs, elevators, limited use/limited application (LULA) lifts, and escalators. Interior accessible paths of travel, similar to exterior accessible paths of travel, should be continuous, unobstructed routes providing interior access to elements and spaces throughout a building.

Contents in Section

2.1.1. Interior Accessible Paths of Travel

2.1.2. Obstacles

2.1.3. Interior Ramps

2.1.4. Interior Stairs

2.1.5. Elevators

2.1.6. Limited Use, Limited Application (LULA) Lifts

2.1.7. Escalators

2.1.1. Interior Accessible Paths of Travel

Rationale

Interior accessible paths of travel should be continuous, unobstructed routes providing interior access to elements and spaces throughout a building. It is important to assess the intended occupants of a building to implement adequate space to ensure the highest level of access is provided.

Application

The scope of this section applies to interior accessible paths of travel throughout a building, including the entrance storey, within all normally occupied floor areas above or below the first storey, and rooftop amenity spaces. It also applies to interior aisles, corridors, and hallways.

Related Sections

- "1.1.7. Handrails"
- "1.1.5. Rest Areas"
- "2.1.2. Obstacles"
- "2.7.1. Floor, Wall, and Ceiling Surfaces"

Related References

- [Reserved]

Key Considerations

Location

Interior accessible paths of travel should be located within high-use area and low-use areas.

Surfaces

A level floor surface should be provided to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices or white canes. Where

carpets are provided, the piles should be low to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Clear Widths

The clear width of interior accessible paths of travel should be free from obstacles such as temporary or permanent obstructions, protrusions, and overhead objects. High-use, interior accessible paths of travel should provide clear widths to allow for the simultaneous passage of two persons using mobility devices. Low-use, interior accessible paths of travel should provide clear widths to allow for the passage of one person using a mobility device.

Clear Turning Spaces

Clear turning spaces should be provided at interior accessible paths of travel to create space for persons using mobility devices to make a 360° turn at main access and decision-making points and to easily change direction. At locations where the minimum clear width is provided, passing areas should be provided to allow for easy and seamless maneuverability.

Clear Floor Spaces

Where provided at interior accessible paths of travel, clear floor spaces should create unobstructed, level floor areas that are sized to provide the space for persons using mobility devices. The size of the clear floor space should be adjusted depending on the intended approach (front or side).

Passing Areas

Passing areas should be provided at interior accessible paths of travel to create an unobstructed space for persons using mobility devices to turn and change their direction of travel. They should be located at high-use areas and corridors and hallways that have long travel distances to allow two persons using mobility devices to pass one another.

Additional Features

Where provided at interior accessible paths of travel, additional features should include handrails, convex mirrors, and rest areas.

Handrails create safety and support for the public moving along accessible paths of travel. Convex mirrors create safety and security. Rest areas create space for the public to safely rest or wait, enjoy their surrounding environment or regain their strength to continue moving along an interior path of travel.

Requirements

(1) Location:

Interior accessible paths of travel should be located:

(a) Throughout a building;

(b) At high-use areas such as:

(i) Accessible entrances;

(ii) Primary corridors and hallways; and

(iii) Washrooms; and

(c) At low-use areas such as:

(i) Offices;

(ii) Meeting rooms;

(iii) Between furniture and equipment; and

(iv) Aisles in areas of assembly.

(2) Surfaces:

Interior accessible paths of travel should provide surfaces that:

(a) Are level, firm, stable, and slip-resistant;

(b) Reduce the risk of tripping; and

(c) Have floor surfaces that meet the criteria in section “2.7.1. Floor, Wall, and Ceiling Surfaces”.

(3) Clear Widths:

Interior accessible paths of travel should provide a clear width that:

(a) Is 1800 mm minimum at high-use areas, “Figure 2.1.1-A Clear Width in High-Use Areas”;

(b) Is 1100 mm minimum at low-use areas, “Figure 2.1.1-B Clear Width in Low-Use Areas”;

(c) Is clear from obstructions, protrusions, and overhead objects that meet the criteria in section “2.1.2. Obstacles”; and

(d) Does not overlap with required clearances in front of fixtures or operating controls.

(4) Clear Turning Spaces:

Interior accessible paths of travel should provide clear turning spaces, “Figure 2.1.1-C Clear Turning Space”, that:

(a) Are 2500 mm minimum in diameter for 360° turns that are located at:

(i) Vestibules at entrances;

(ii) Lobbies (entrance and elevator);

(iii) Corridor intersections;

(iv) Entryways into offices and large public assembly or conference rooms; and

(v) At dead ends of corridors and hallways; and

(b) Are 1800 mm minimum in diameter at 180° turns and 90° turns, “Figure 2.1.1-D 90 Degree Turn”.

(5) Clear Floor Spaces:

Where provided at interior accessible paths of travel, clear floor spaces, “Figure 2.1.1-E Clear Floor Space”, should:

(a) Be 900 mm wide by 1500 mm long minimum for a front approach or 900 mm wide by 2200 mm minimum for a side approach.

(6) Passing Areas:

Interior accessible paths of travel should provide passing areas, “Figure 2.1.1-F Passing Areas”, that:

(a) Are unobstructed;

(b) Are 2500 mm by 2500 mm; and

(c) Are located:

(i) At the beginning of a corridor or hallway; and

(ii) At 30 m intervals where the clear width of an interior accessible path of travel is less than 1600 mm.

(7) Additional Features:

Where provided at interior accessible paths of travel, additional features should include:

(a) Handrails that:

(i) Are located in corridors when the linear interior path of travel is greater than 30 m;

(ii) Are located on at least one side of the corridor; and

(iii) Meet the criteria in section "1.1.7. Handrails";

(b) Convex mirrors that are located:

(i) In the corners of ceilings at high-use areas;

(ii) At unobstructed passing areas;

(iii) At intersections along the interior path of travel where the line of sight is impeded; and

(iv) At quiet areas as a security measure; and

(c) Rest areas that meet the criteria in section "1.1.5. Rest Areas".

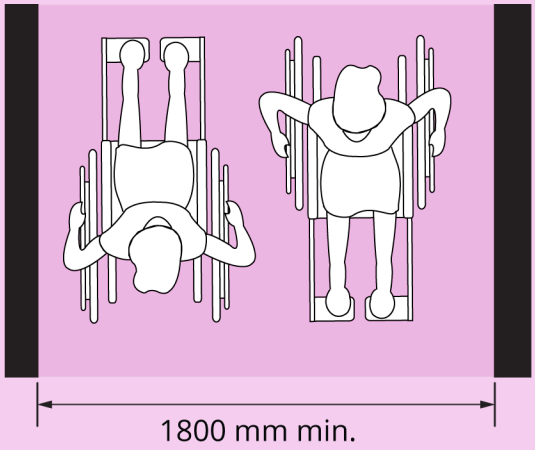


Figure 2.1.1-A Clear Width in High-Use Areas

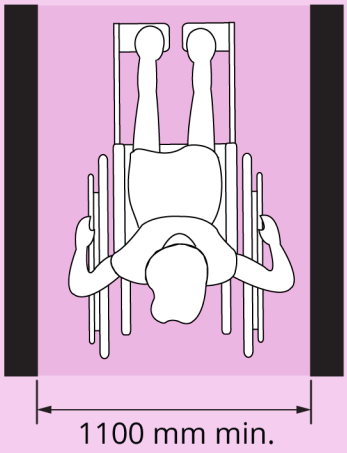


Figure 2.1.1-B Clear Width in Low-Use Areas

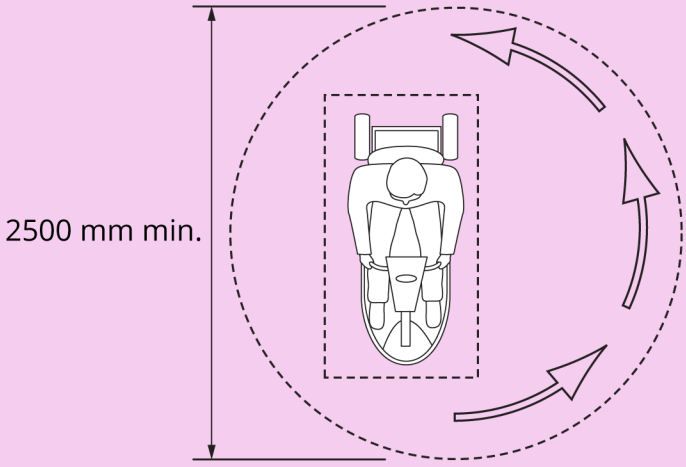


Figure 2.1.1-C Clear Turning Space

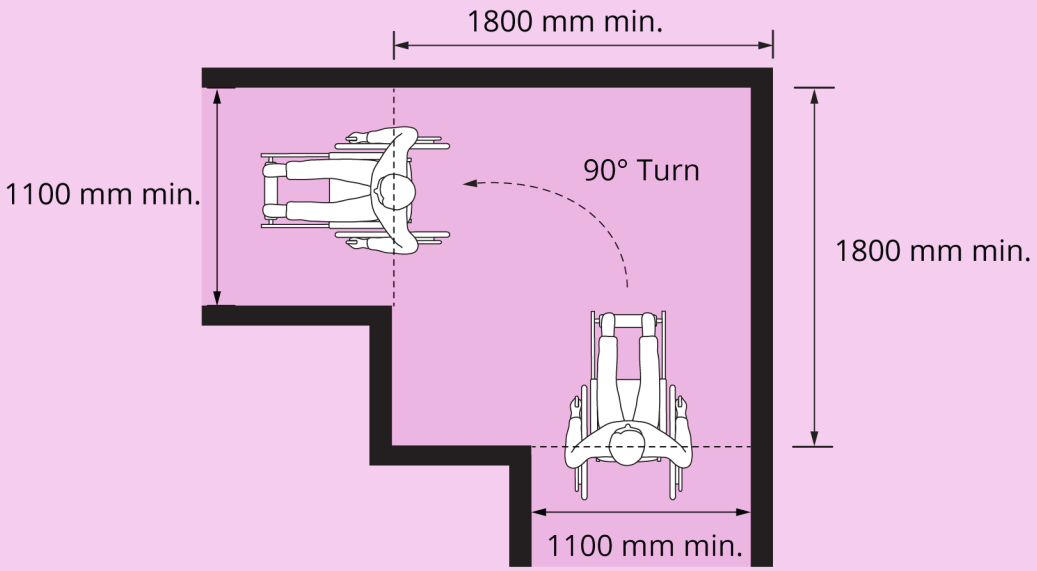


Figure 2.1.1-D 90 Degree Turn

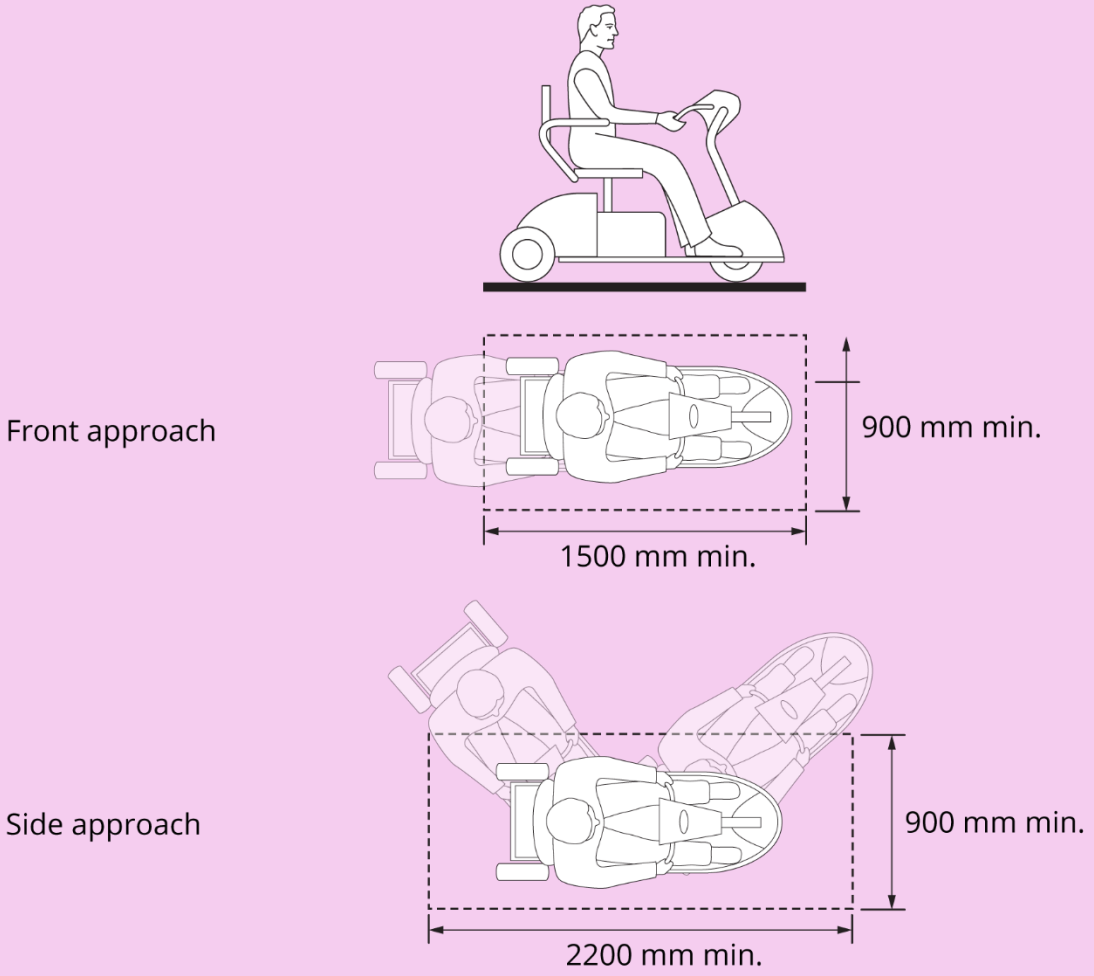


Figure 2.1.1-E Clear Floor Space

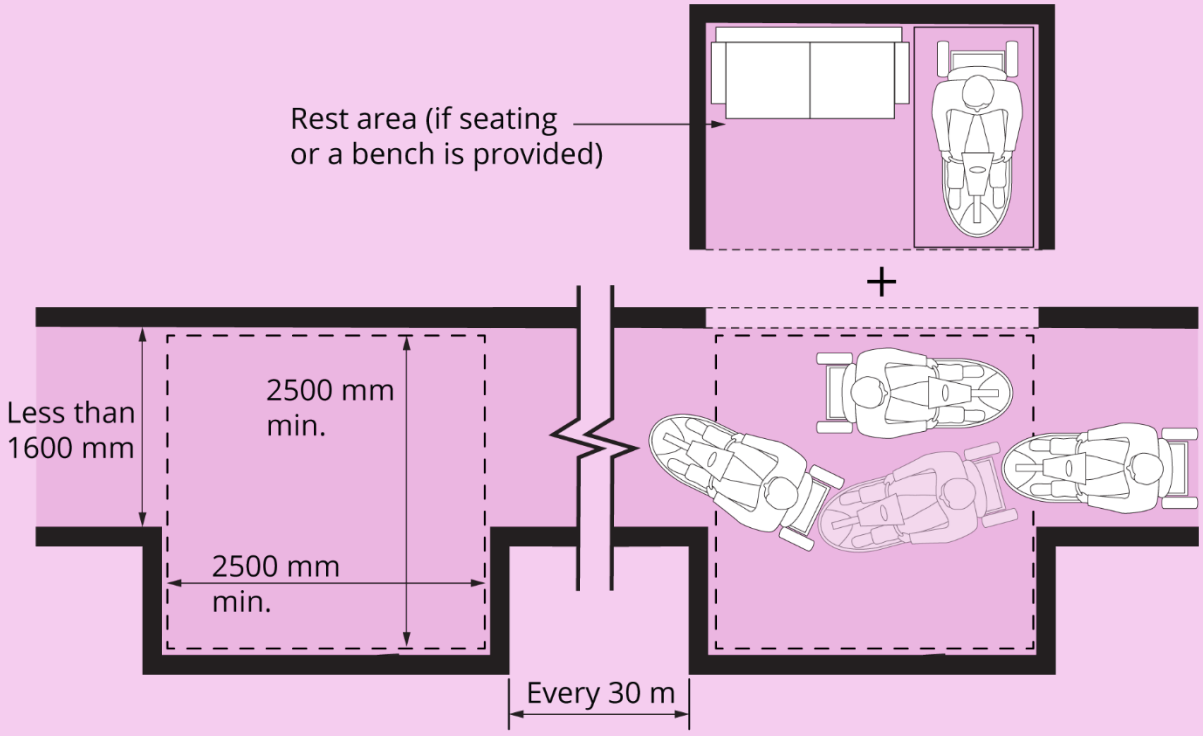


Figure 2.1.1-F Passing Areas

2.1.2. Obstacles

Rationale

Obstacles include temporary or permanent obstructions, protrusions, and overhead objects. Where provided, they should not impede interior paths of travel, including interior accessible paths of travel, and should be located to reduce the risk of potential hazards especially for persons with low or no vision.

Application

The scope of this section applies to temporary or permanent building elements such as interior furnishings and equipment, plants, waste receptacles and recycling bins, water bottle fill stations, drinking fountains, office equipment and technology, signage, and vending machines.

Related Sections

- [Reserved]

Related References

- [Reserved]

Key Considerations

Clear Width

The clear width of an interior paths of travel should be free from obstacles such as temporary or permanent obstructions, protrusions, and overhead objects. Where provided, obstacles should limit the distance that the clear width is reduced.

Overhead Clearances

Where provided at interior paths of travel, obstacles should have minimum clearances from the ground to the object to reduce the risk of potential hazards.

Cane Detectability

Where provided at interior paths of travel, obstacles should be designed to be cane detectable so that they can be identified by persons using white canes for navigation and wayfinding.

Requirements

(1) Clear Width:

Where provided at interior paths of travel, obstacles should:

(a) Limit the distance that the clear width is reduced:

(i) To 950 mm minimum wide; and

(ii) To 615 mm maximum long, parallel to the direction of travel; and

(b) Have a clear floor space located before and after the reduced clear width.

(2) Overhead Clearances:

Where provided at interior paths of travel, obstacles should have overhead clearances that:

(a) Are 2100 mm minimum AFF.

(3) Cane Detectability:

Where provided at interior paths of travel, obstacles should:

(a) Be cane detectable and:

(i) Have the bottom edge of the object be mounted at or below 680 mm AFF; and

(ii) Project no more than 100 mm into an accessible path of travel.

2.1.3. Interior Ramps

Rationale

Interior ramps, like exterior ramps, provide accessible paths of travel to overcome grade and elevation changes. Their slopes should have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Application

The scope of this section applies to all interior ramps including those that are retrofitted within existing heritage buildings or properties with extensive structural limitations.

Related Sections

- "1.1.7. Handrails"
- "1.1.8. Guards"
- "1.1.9. Exterior Ramps"

Related References

- [Reserved]

Key Considerations

Design

The design of interior ramps should provide slopes that have a gradual transition as they allow for better control and ease of movement for persons using mobility devices.

Requirements

(1) Design:

The design of interior ramps should:

(a) Meet the criteria in section "1.1.7. Handrails";

(b) Meet the criteria in section "1.1.8. Guards"; and

(c) Meet the criteria in section “1.1.9. Exterior Ramps”.

2.1.4. Interior Stairs

Rationale

Where interior stairs are provided to overcome grade and elevation changes, they should be adjacent to interior accessible paths of travel such as interior ramps or elevators. Interior stairs should integrate accessible elements to enhance their usability for all individuals, including persons with low or no vision and persons with limited mobility.

Application

[Reserved]

Related Sections

- "1.1.7. Handrails"
- "1.1.8. Guards"
- "1.1.10. Exterior Stairs"

Related References

- [Reserved]

Key Considerations

Design

The design of interior stairs should be consistent throughout a building and within a set of stairs. The consistent design of the risers and treads helps individuals predict their movements on the stairs and reduces the risk of tripping or falling.

Requirements

(1) Design:

The design of interior stairs should:

(a) Meet the criteria in section "1.1.7. Handrails";

(b) Meet the criteria in section “1.1.8. Guards”; and

(c) Meet the criteria in section “1.1.10. Exterior Stairs”.

2.1.5. Elevators

Rationale

Elevators or passenger elevating devices play an important part in maintaining continuous interior accessible paths of travel. They should be used instead of Limited Use, Limited Application (LULA) lifts and platform lifts because they securely navigate a change in level, whereas platform lifts often require operational assistance and leave individuals, including persons using mobility devices, feeling confined or restricted.

Application

The scope of this section applies to new and retrofitted or upgraded elevators within an existing building (heritage or otherwise) to the maximum extent possible. The criteria of this section do not apply to freight elevators except where they are used as combination freight and passenger elevators. In some cases, there may be other factors to consider, including physical or structural constraints which must be reviewed with GBP staff on a case-by-case basis.

Related Sections

- "3.2.8. Controls and Operating Mechanisms"

Related References

- Appendix E of ASME A17.1/CSA B44, Safety Code for Elevators and Escalators

Key Considerations

Design

The design of elevators, including interior cab size, should consider the intended users of the building. Larger interior cab sizes should be provided where a high proportion of persons using mobility devices is anticipated. Elevators should be designed to utilize audible, visual, and operational features to ease the experience of all individuals, such as by allowing for additional time to enter and exit the elevator safely.

Controls and Operating Mechanisms

Controls and operating mechanisms provided at elevators should be clearly distinguished from their surrounding surfaces to help persons with low vision clearly find operable portions or controls. A clear floor space should be provided to allow persons using mobility devices the space to approach without any obstructions or protrusions. Elevator cab doors should provide longer opening times where a high proportion of seniors or persons using mobility devices is anticipated.

Additional Features

Where provided at elevators, additional features should be integrated into the design to enhance usability and accessibility, as well as safety during operation.

Requirements

(1) Design:

Elevators should be designed to:

(a) the criteria in Appendix E of ASME A17.1/CSA B44, Safety Code for Elevators and Escalators;

(b) Have an interior cab size and door clear width, “Figure 2.1.5-A Interior Cab Dimension”, that meet the criteria in “Table 2.1.5-A Elevator Dimensions”;

Table 2.1.5-A Elevator Dimensions

Door Location	**Door Clear Width (mm)**	**Inside Car Side to Side (mm)**	**Inside Car Back Wall to Front Return (mm)**
Centred	1065	2030	1295
Side (off-centre)	915*	1725	1295
Any	915*	1370	2030
Any	915*	1525	1525

(2) Controls and Operating Mechanisms:

Elevators should provide controls and operating mechanisms that have:

(a) Hall buttons in elevator lobbies, "Figure 2.1.5-B Car Control Buttons" and "Figure 2.1.1-C Clear Turning Space", that:

(i) Have a 19 mm minimum diameter in the smallest dimension;

(ii) Are mounted with their centreline at 900 mm to 1050 mm AFF; and

(iii) Have visual signals to indicate when each call is registered and received;

(b) Interior cab operable portions or controls that:

(i) Are mounted with its centreline at 1220 mm maximum AFF (except when the elevator serves more than 16 openings, in which case the centreline of buttons with floor designations may be 1370 mm maximum AFF);

(ii) Are located on a horizontal control panel placed as close as possible to the opening side of the elevator cab door;

(iii) Have a 19 mm minimum diameter;

(iv) Are arranged with numbers in ascending order; and

(v) Have visual and audible feedback to announce the floor number;

(c) Have a clear floor space that is 900 mm by 1500 mm minimum for a front approach;

(d) Tactile characters and braille placed immediately to the left of the control buttons; and

(e) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(3) Additional Features:

Where provided at elevators, additional features should include:

(a) Floor/car designations that:

(i) Have 50 mm high characters and include braille that meets the criteria in CSA B651-12 Clause E.19;

(ii) Are provided on both cab door jambs of the elevator hoistway entrances; and

(iii) Are mounted with their centreline at 1525 mm AFF. from the baseline of the characters;

(b) A two-way communication system and a hands-free speaker system that:

(i) Are provided within the elevator with the highest operable portions or controls located at 1050 mm maximum AFF; and

(ii) Have the ability to interact using sign language or face-to-face communication for those who are D/deaf, deafened, or hard of hearing;

(c) Floor surfaces that:

(i) Are firm, stable, slip-resistant;

(ii) Have colour/brightness contrast from the surrounding walls; and

(iii) Where provided with carpet, have a pile height that is13 mm maximum tall;

(d) Handrails that:

(i) Are located on all non-access walls mounted between 865 mm to 920 mm AFF; and

(ii) Have a clearance of 35 mm to 45 mm between the handrails and the wall;

(e) A flat mirror that is located between the ceiling and handrail on the wall opposite the door;

(f) Illumination levels at the operable portions or controls, floor surface, cab threshold, and landing sill that are 100 lux minimum; and

(g) Cab doors that:

(i) Have a reopening device that will stop and reopen elevator doors when an object or person is sensed at a minimum of 125 mm +/- 25 mm and at 735 mm+/- 25 mm AFF. without requiring contact for activation; and

(ii) Have a minimum period of 5 seconds before the doors start to close if it is a hall call, and 3 seconds if it is a car call.

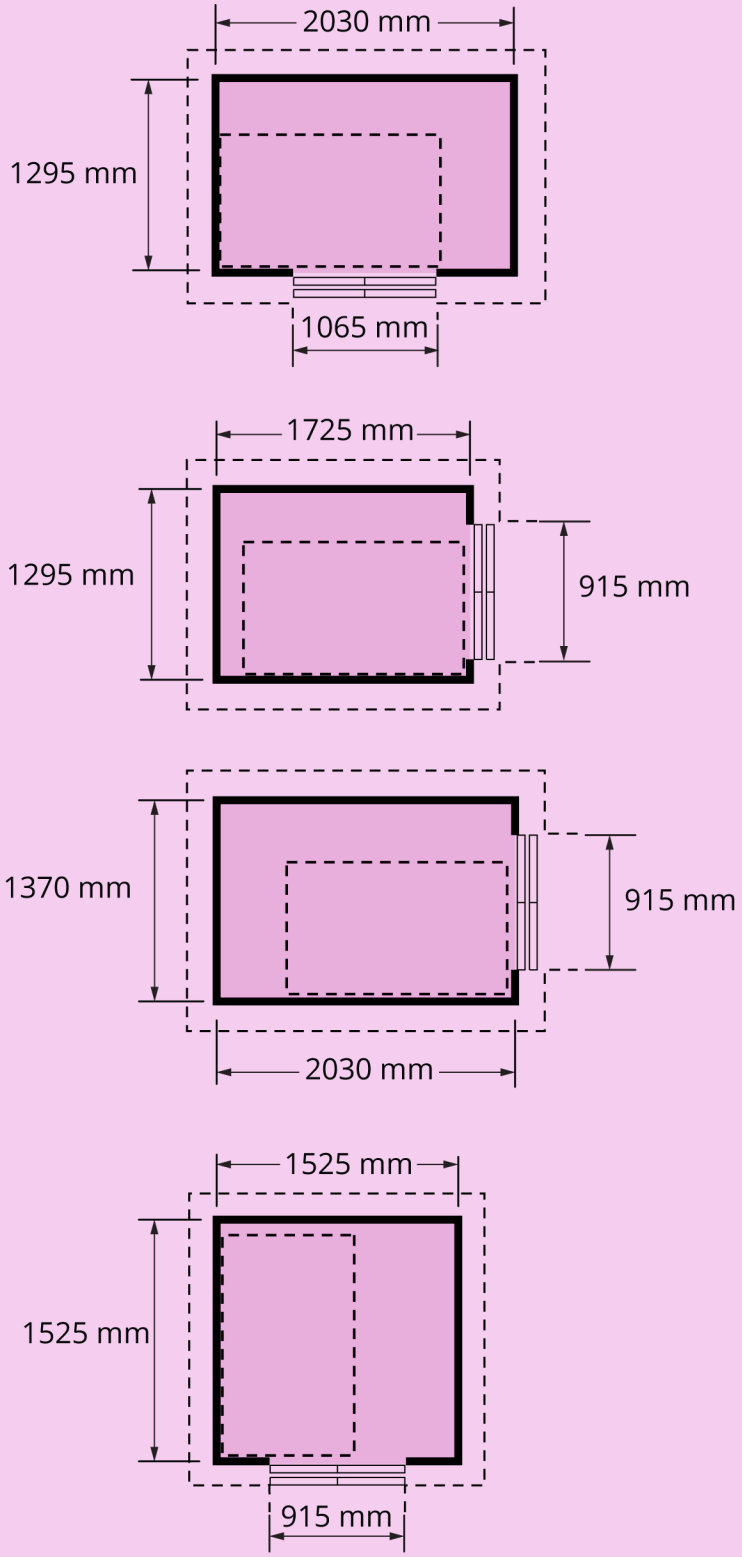


Figure 2.1.5-A Interior Cab Dimension

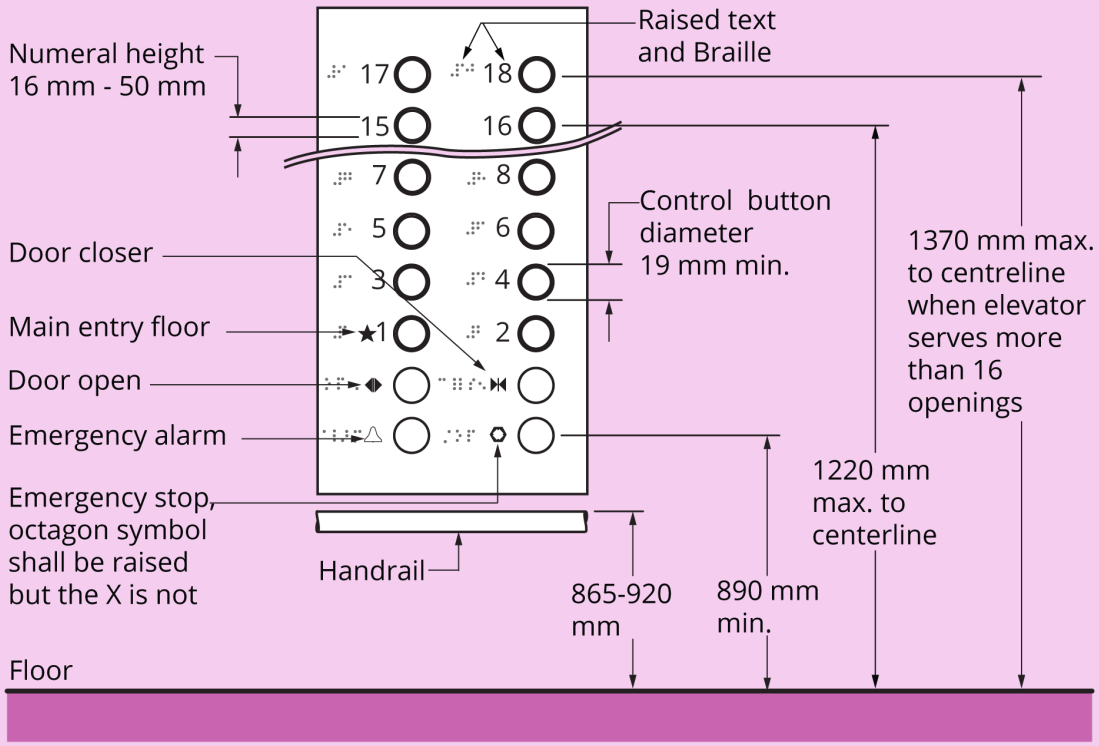


Figure 2.1.5-B Car Control Buttons

An audible signal shall indicate the passing or location of a floor. Visual indication shall be provided in a car to show what floor the car is on.

Both visual and audible signals must be used.

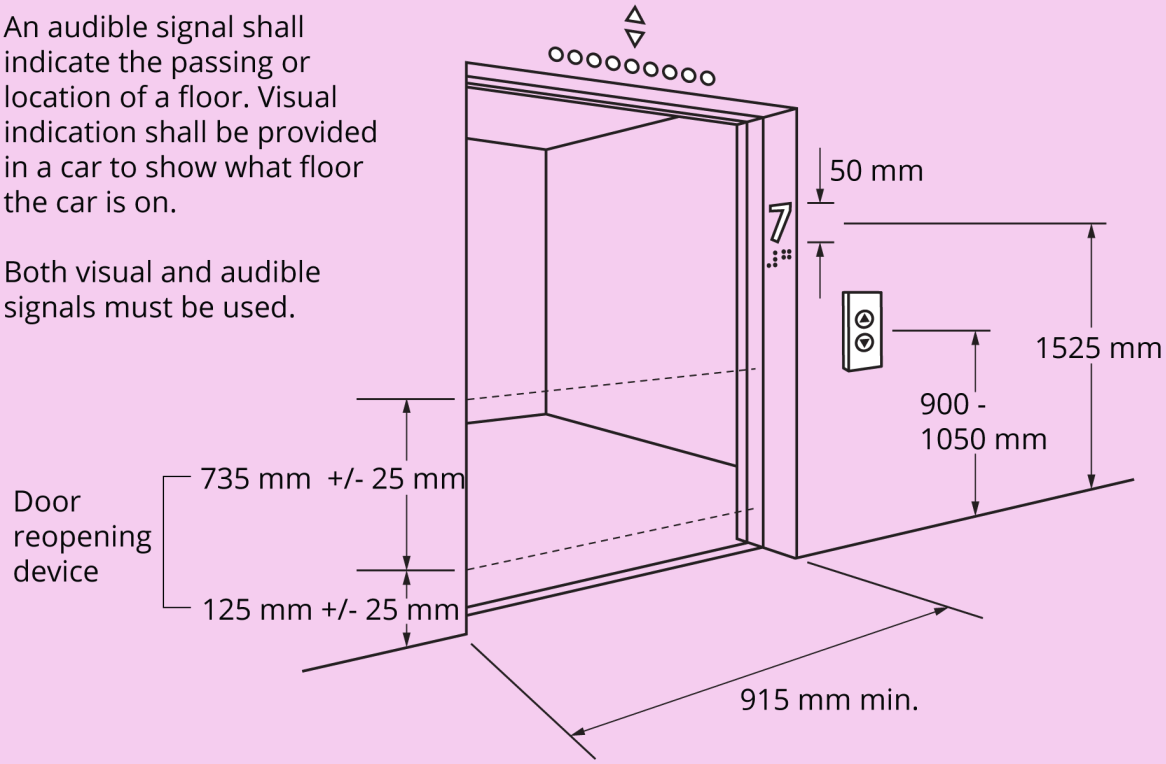


Figure 2.1.5-C Hall Call Buttons

2.1.6. Limited Use, Limited Application (LULA) Lifts

Rationale

Limited use, limited application (LULA) lifts are a combination of a small commercial elevator and lift that allows for independent use and have accessible controls. Where LULA lifts are provided, they should integrate accessible elements to enhance their usability for all individuals especially for persons using mobility devices. In new buildings, LULA lifts should be used in lieu of platform lifts. Whenever possible, passenger elevators, extensive grading, or ramps should be used instead of LULA lifts.

Application

The scope of this section applies to LULA lifts as well as platform lifts that are used in retrofits where the use of an elevator is not possible due to physical or structural constraints.

Related Sections

- "3.2.8. Controls and Operating Mechanisms"

Related References

- CSA B355-09 Lifts for Persons with Physical Disabilities

Key Considerations

Location

LULA lifts should be located in interior retrofits where there is a physical or structural constraint. Designers should consider that they are limited in their vertical travel distance as they can leave an individual feeling unsafe at certain heights.

Design

LULA lifts should be designed to overcome limited elevation changes. Larger interior cab sizes should be provided where a high proportion of persons using mobility devices are anticipated. Additional space for an assistant that can operate the LULA lift should be provided.

Controls and Operating Mechanisms

Controls and operating mechanisms provided at LULA lifts should be designed so that a user can independently operate the LULA lift.

Requirements

(1) Location:

LULA lifts should be located:

(a) At interior retrofits where there is a physical or structural constraint, "[R-2.1.6. (1)(a)]".

(2) Design:

LULA lifts should be designed to:

(a) Have clear floor space that is 1000 mm wide by 1500 mm long minimum for a front approach;

(b) Have standing space for one person minimum; and

(c) Have entry doors or gates:

(i) Providing a clear width of 850 mm minimum in the open position if located on the short side of the passenger elevating device; or

(ii) Providing a clear width of 1000 mm minimum in the open position if located at either end of the long side of the passenger-elevating device.

(3) Controls and Operating Mechanisms:

LULA lifts should provide controls and operating mechanisms that:

(a) Have operable portions or controls that:

(i) Can be used without assistance;

(ii) Do not require continuous pressure; and

(iii) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

2.1.7. Escalators

Rationale

Where escalators are provided to overcome grade and elevation changes, they should be adjacent to interior accessible paths of travel such as interior ramps or elevators. Escalators should integrate accessible elements to enhance their usability for all individuals especially for persons with low or no vision, persons with limited mobility, and persons with cognitive disabilities.

Application

[Reserved]

Related Sections

- "1.6.2. Tactile Attention Indicators"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.1.5. Elevators"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- Appendix E of ASME A17.1/CSA B44, Safety Code for Elevators and Escalators

Key Considerations

Location

Where provided, escalators should be located in close proximity to interior accessible paths of travel such as an elevator.

Signage

Signage should be provided at escalators that identify the location of interior accessible paths of travel.

Tactile Attention Indicators

Where provided, escalators should provide tactile attention indicators. The top and bottom landing of escalators can be problematic and hazardous for persons with low to no vision. Textural warnings help to maintain safety as they navigate through a building and towards an escalator.

Requirements

(1) Location:

Where provided, escalators should be located:

(a) In close proximity to interior accessible paths of travel that meet the criteria in section "2.1.1. Interior Accessible Paths of Travel" and "2.1.5. Elevators".

(2) Signage:

Escalators should provide signage that:

(a) Identifies the location of an interior accessible path of travel; and

(b) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(3) Tactile Attention Indicators:

Where provided, escalators should provide tactile attention indicators that:

(a) Meet the criteria in section "1.6.2. Tactile Attention Indicators".

2.2. Entrances, Exits, Doors and Doorways

Section Summary

This section reviews the accessible design requirements for interior entrances, exits, doors, and doorways intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Entrances, exits, doors, and doorways connect exterior paths of travel to interior paths of travel. Doors and doorways can create barriers where provided and connected to accessible paths of travel. They should integrate accessible elements to enhance their usability for all individuals including persons with low to no vision and persons using mobility devices.

Contents in Section

2.2.1. Entrances

2.2.2. Exits

2.2.3. Doors and Doorways

2.2.4. Door Controls and Devices

2.2.5. Vision Panels and Strips

2.2.6. Accessible Control Gates

2.2.1. Entrances

Rationale

All entrances, including the principal entrance to a building, should be accessible and lead from exterior accessible paths of travel at sidewalk level, or a ramp that leads from a sidewalk. Integrating accessible elements to enhance the usability of entrances will help to ensure that all individuals are able to enter a building with independence, equitable use and dignity.

Application

[Reserved]

Related Sections

- "1.3.2. Passenger Pick-Up and Drop-Offs"
- "1.5.1. Benches and Seats"
- "2.2.3. Doors and Doorways"
- "2.4.2. Queuing Guides and Waiting Areas"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.2. Two-Way Communication Systems"

Related References

- [Reserved]

Key Considerations

Amount

The number of accessible entrances provided to a building, in addition to the principal entrance, should consider the use of its facilities and the needs of all persons.

Doors and Doorways

Accessible doors and doorways should be provided at entrances that connect exterior and interior accessible paths of travel. Exterior exit doors should be provided at entrances.

Vestibules

Vestibules should be provided at entrances that are designed to meet the needs of persons using larger mobility devices to reduce the risk of any user not having a sufficient clear turning space between two sets of doors. A user should be able to maneuver through a vestibule without being hit by the door opening or closing. Where possible, the use of swinging doors in vestibules should be avoided or minimized in the design of a facility. Accessible doors and doorways should be provided at vestibules that are either in series or not aligned. Sliding doors that have proximity-scanning devices to control power door operators should be used at entrances with vestibules located in high-use areas.

Surfaces

Surfaces, such as seasonal entrance mats, should be provided at entrances to help reduce the impact of inclement weather. Permanent (or inlaid) mats, when compared to temporary (surface applied) mats, have shown to require less maintenance and reduce the risk of tripping.

Signage

Signage should be provided at entrances to help individuals including persons with cognitive disabilities, persons experiencing confusion or age-related dementia while navigating and wayfinding. Waiting areas should be provided with signage that identifies the location for wheel-trans vehicles and that the area is a designated passenger pick-up and drop-off.

Waiting Areas

Waiting areas should be provided at entrances to create a designated passenger pick-up and drop-off (PPUDO) area for persons waiting for their transportation. They should have clear sightlines from benches and seating to the entrance and to PPUDOs. Communication systems should be provided at waiting areas to ensure that individuals are able to access information, contact and obtain assistance when they need it.

Passenger Pick-Up and Drop-Off (PPUDO)

Where provided at entrances, PPUDOs should be in close proximity to a building's principal entrance.

Additional Features

Where additional features are provided at entrances, they should include weather protection, such as canopies, that have overhead clearances and are free from obstacles. Canopies help to reduce the impact of inclement weather and provide safe passage at entrances provided to a building.

Requirements

(1) Amount:

Entrances should be:

(a) Accessible, except for service entrances; and
(b) Connected to an accessible path of travel.

(2) Signage:

Entrances should provide signage that:

(a) Identifies the location of:
    (i) Accessible elements;
    (ii) Designated waiting areas;
    (iii) Wheel-trans vehicles; and
    (iv) PPUDOs;
(b) Incorporates the International Symbol of Access; and
(c) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(3) Doors and Doorways:

Entrances that include more than one door or doorway should provide doors and doorways that:

(a) Have at least one door that meets the criteria in section "2.2.3. Doors and Doorways".

(4) Vestibules:

Entrances should provide vestibules that:

(a) Have single doors, "Figure 2.2.1-A Design – Single Door", or double doors, "Figure 2.2.1-B Design – Double Doors", into the vestibule that:

(i) Are in a series or are not aligned; and

(ii) Have a clear turning space that is 2500 mm minimum in diameter, "[R-2.2.1.(4)(a)(ii)]", plus the width of any door that swings into the space in the path of travel from one door to another.

(5) Surfaces:

Entrances should provide surfaces that:

(a) Have permanent (inlaid) or temporary (surface applied) seasonal entrance mats with a non-slip backing or adhesive that prevents slips while laid on the floor, "Figure 2.2.1-C Surfaces", that:

(i) Have a thickness that is 13 mm maximum AFF;

(ii) Have gently beveled edges;

(iii) Are level with the adjacent floor surface;

(iv) Extend in the direction of interior accessible paths of travel; and

(v) Have colour/brightness contrast.

(6) Waiting Areas:

Entrances should provide waiting areas, "Figure 2.2.1-D PPUDO and Waiting Area", that:

(a) Are connected to interior accessible paths of travel;

(b) Have benches and seats that meet the criteria in section "1.5.1. Benches and Seats";

(c) Have 3% minimum, rounding up to the nearest whole number, but never less than two, clear floor space that is 900 mm wide by 1500 mm minimum for a front approach or 900 mm wide by 2200 mm long minimum for a side approach;

(d) Have 5% minimum adaptable seating, rounding up to the nearest whole number, but never less than one;

(e) Have clear sightlines to the:

(i) Entrance doors and doorways; and

(ii) Passenger pick-up and drop-off;

(f) Have communication systems that:

(i) Have a call bell;

(ii) Include an information telephone; and

(iii) Meet the criteria in section "3.2.2. Two-Way Communication Systems";

(g) Are located in environments that are temperature controlled; and

(h) Meet the criteria in section "2.4.2. Queuing Guides and Waiting Areas".

(7) Passenger Pick-Up and Drop-Off (PPUDO):

Where provided at entrances, PPUDO's, "Figure 2.2.1-D PPUDO and Waiting Area", should:

(a) Meet the criteria in section "1.3.2 Passenger Pick-Up and Drop-Offs".

(8) Additional Features:

Where provided at entrances, additional features should include:

(a) Weather protection or canopies that have 2100 mm AFF overhead clearance, "Figure 2.2.1-E Overhead Clearance", for pedestrians.

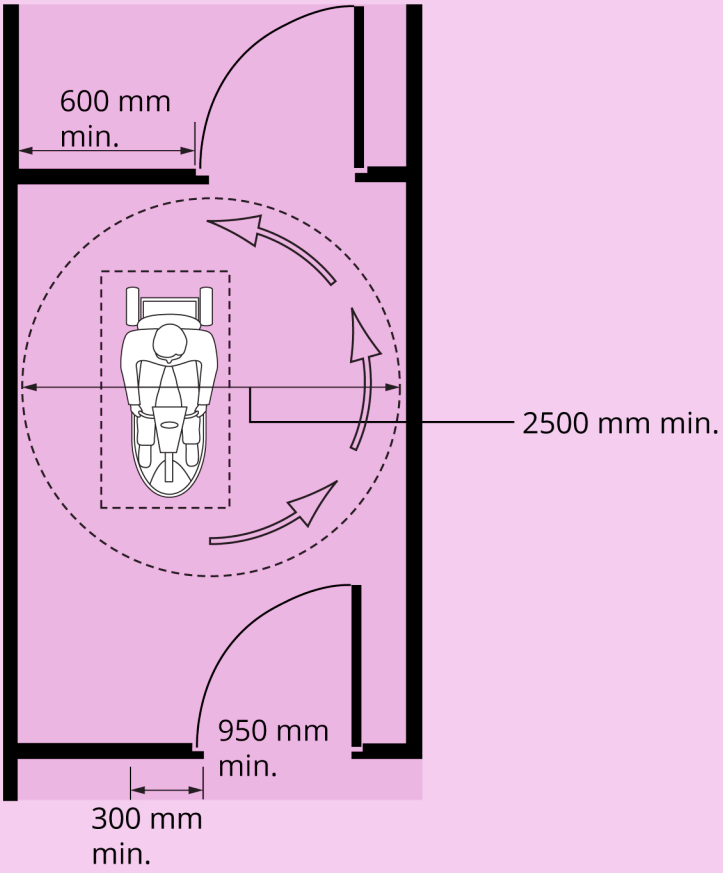


Figure 2.2.1-A Design – Single Door

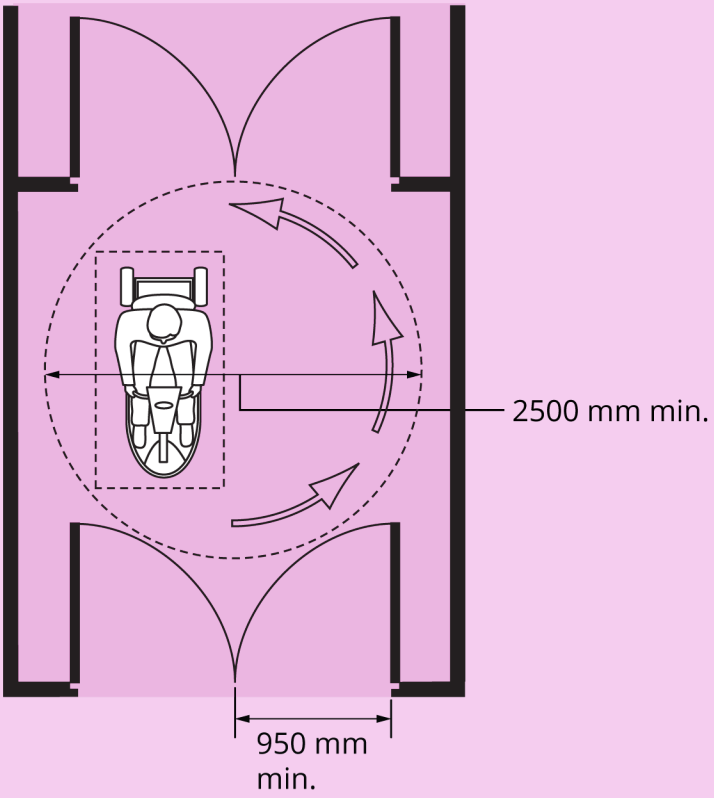
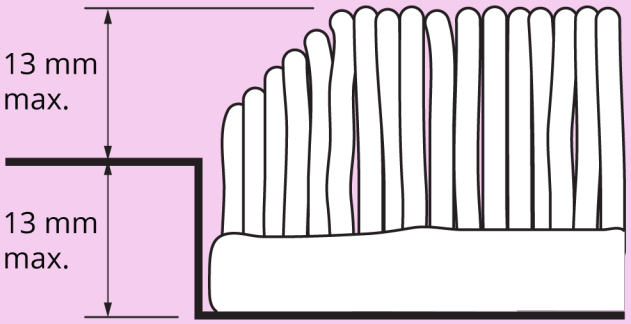


Figure 2.2.1-B Design – Double Doors



Avoid mats and rugs thicker than 13mm, or which are recessed more than 13mm

Figure 2.2.1-C Surfaces

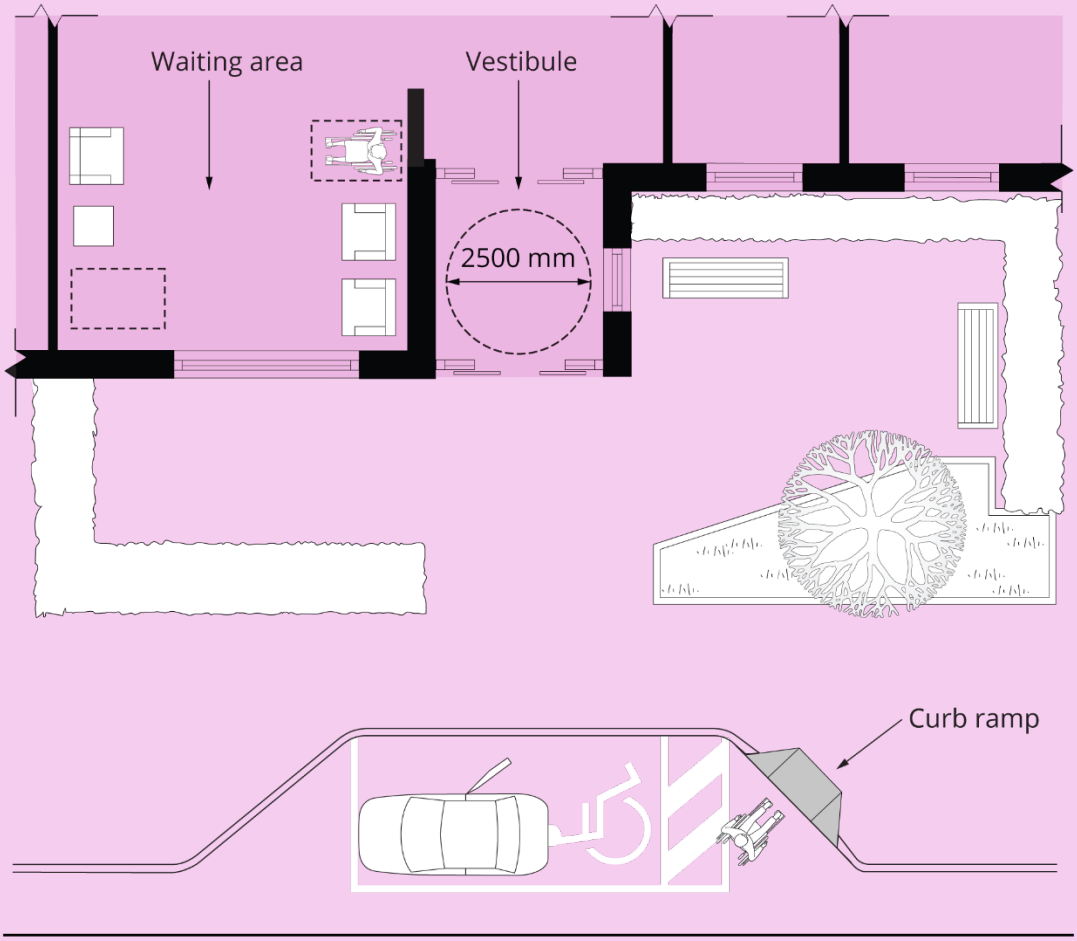


Figure 2.2.1-D PPUDO and Waiting Area

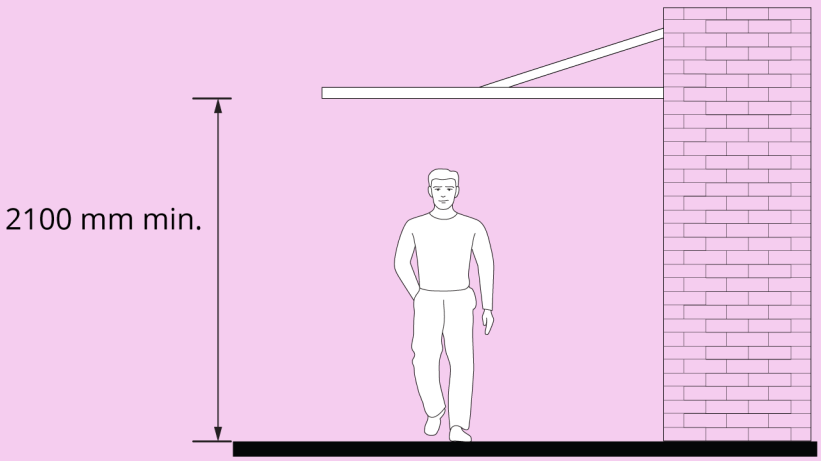


Figure 2.2.1-E Overhead Clearance

2.2.2. Exits

Rationale

Exits should be accessible and lead from an interior to an exterior accessible path of travel. Integrating accessible elements to enhance the usability of exits will help to ensure that all individuals are able to exit a building with independence, equitable use, and dignity.

Application

The scope of this section applies to exits at the first storey of a building.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "2.2.1. Entrances"

Related References

- [Reserved]

Key Considerations

Amount

The number of accessible exits provided to a building should consider the use of its facilities and the needs of all persons.

Accessible Paths of Travel

An interior and exterior accessible path of travel should be connected to exits to allow for a continuous, unobstructed route providing equitable means of egress.

Signage and Wayfinding

Signage and wayfinding should be provided at emergency exits for all people to be able to use and exit the building safely and quickly.

Emergency Evacuation Chairs

Emergency evacuation chairs help to ensure persons using mobility devices can evacuate a building in a safe manner.

Requirements

(1) Amount:

Exits should be:

(a) Accessible at all ground floor emergency exits that egress the facility; and

(b) Connected to an accessible path of travel away from the building.

(2) Accessible Paths of Travel:

Exits should provide an interior and exterior accessible path of travel that:

(a) Meet the criteria in section "2.2.1. Entrances"; and

(b) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

(3) Signage and Wayfinding:

Exits should provide signage and wayfinding that:

(a) Has the International Symbol of Access;

(b) Provides information in alternative formats (e.g. websites); and

(c) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(4) Evacuation Chairs:

Exits should provide emergency evacuation chairs that:

(a) Are provided on each floor above and below the entrance level of all buildings;

(b) Provide signage that:

(i) Identifies the location and instructions of use, and staff training on a bi-annual basis;

(ii) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems"; and

(iii) Includes plans for use in the evacuation plans and maps.

2.2.3. Doors and Doorways

Rationale

Doors and doorways that connect interior and/or exterior accessible paths of travel can create barriers for individuals. It is important to consider eliminating doors where they are not required for acoustic or physical privacy.

Application

The scope of this section applies to all doors and doorways that connect interior and/or exterior accessible paths of travel. It also applies to at least one door or doorway where more than one is provided, such as double doors. Doors and doorways at service rooms and service spaces are exempt from the criteria in this section.

Related Sections

- "2.2.4. Door Controls and Devices"
- "2.2.5. Vision Panels and Strips"

Related References

- [Reserved]

Key Considerations

Clear Width

The clear width at doors, when in the open position, and doorways should be provided with unobstructed entry and egress to a building and interior accessible paths of travel. The location of door controls and devices should not obstruct the clear width.

Latch Side Clear Space

Latch side clear space should be provided at doors to allow for independent, equitable, and dignified access for all individuals, including persons using mobility devices. Latch side clear space should be provided beyond the edge of the door opening where the door swings toward (pull side) and away (push side) from the approach side. Latch side clear space provides maneuverability space for persons using mobility devices to

approach and simultaneously use the door controls and opening devices with ease of movement.

Vestibules

Where provided, vestibules at doors should be designed to meet the needs of persons using larger mobility devices to reduce the risk of any user not having a sufficient clear turning space between two sets of doors. A user should be able to maneuver through a vestibule without being hit by the door opening or closing. Where possible, the use of swinging doors in vestibules should be avoided or minimized in the design of a facility.

Door Controls and Devices

Door controls and devices should be provided at doors and doorways that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. Where controls for power door operators (PDO) are provided at doors they should require minimal opening force when the PDO is deactivated by an emergency alarm. Where proximity scanning devices to control PDO's at sliding doors are provided, such as at high-use area entrances, they should be equipped with door release (panic) hardware to allow for a safe means of egress during an emergency.

Materials and Finishes

Materials and finishes should be provided at doors and doorways that can be distinguished from adjacent surfaces, especially where connected to interior accessible paths of travel. Colour/brightness contrast is important to provide visibility for persons with low to no vision to safely navigate, enter and exit rooms and spaces they are intending to use. Fully glass doors, sidelights and vision panels should be designed to reduce the risk of hazard and have vision strips to create a visual barrier to stop individuals, especially persons with low vision, from walking into the door.

Thresholds

Where thresholds are provided at doors and doorways, they should have a minimal transition to allow for a level floor surface and accessible path of travel. Raised thresholds can create barriers for individuals including persons using mobility devices.

Additional Features

Where additional features are provided at doors and doorways, they should include cane detectable guards. Cane detectable guards help to reduce the risk of hazard and obstruction for persons who have low or no vision as they navigate along interior accessible paths of travel or means of egress. They should also be located where doors swing toward (pull side) the approach side or have proximity scanning devices to control PDO's.

Requirements

(1) Clear Width:

Doors and doorways should provide clear width, that:

(a) Are 950 mm minimum, "[R-2.2.3. (1)(a)]";

(b) Are measured from the face of the door or door release (panic) hardware to the door jamb when the door is opened 90° from the frame;

(c) Are located at all doors, "[R-2.2.3. (1)(c)]", including:

(i) Fire doors;

(ii) Smoke doors;

(iii) Exits;

(iv) Sliding doors;

(v) Gates; and

(vi) At least one door or doorway where more than one is provided; and

(d) Where provided, have projections that are 100 mm maximum and 865 mm minimum AFF.

(2) Latch Side Clear Space:

Doors and doorways should provide latch side clear space 1that:

(a) Has 600 mm minimum on the pull side of a swinging door, "Figure 2.2.3-A Latch Side Clear Space";

(b) Has 300 mm minimum on the push side of a swinging door;

(c) Has 300 mm minimum on both sides of a sliding door; and

(d) Has clear space that:

(i) Is level;

(ii) Is 1800 mm wide measured from the inside of the door face, by 1800 mm long measured from the outside of the door face, on the pull side of the door; and

(iii) Is 1500 mm wide measured from the inside of the door face, by 1500 mm long measured from the outside of the door face, on the push side of a swinging door.

(3) Vestibules:

Doors and doorways should provide vestibules that:

(a) Have single doors, or double doors into the vestibule that:

(i) Are in a series, or are not aligned; and

(ii) Have a clear turning space that is 1800 mm to 1900 mm minimum in diameter, plus the width of any door that swings into the space in the path of travel from one door to another.

(4) Door Controls and Devices:

Doors and doorways should provide door controls and devices that:

(a) Meet the criteria in section “2.2.4. Door Controls and Devices”.

(5) Materials and Finishes:

Doors and doorways should provide materials and finishes that:

(a) Have colour/brightness contrast from adjacent surfaces; and

(b) Meet the criteria in section “2.2.5. Vision Panels and Strips”.

(6) Thresholds:

Doors and doorways should provide thresholds, “Figure 2.2.3-B Thresholds”, that:

(a) Are level;

(b) Have a 0 mm to 6 mm maximum vertical rise; or

(c) Have a 6.1 mm to 13 mm maximum rise with a beveled edge of 1:2 (50%) maximum.

(7) Additional Features:

Where provided at doors and doorways, additional features should include:

(a) Cane detectable guards where the door is not fully inset or recessed, "Figure 2.2.3-C Cane Detectable Guards", that:

(i) Are located on the pull side of a swinging door, or are located on the pull side of a swinging door that has proximity scanning devices to control PDO's;

(ii) Installed perpendicular to the wall; and

(iii) Extend the full clear door width plus 50 mm beyond the edge of the door opening;

(b) Doors that are inset or recessed, "Figure 2.2.3-D Inset or Recessed Doors", from interior accessible paths of travel, "[R-2.2.3. (7)(b)]";

(c) Where privacy is not a concern, a vision panel that meets the criteria in "2.2.5. Vision Panels and Strips"; and

(d) Door kick plates that extend 300 mm minimum AFF in high use-areas.

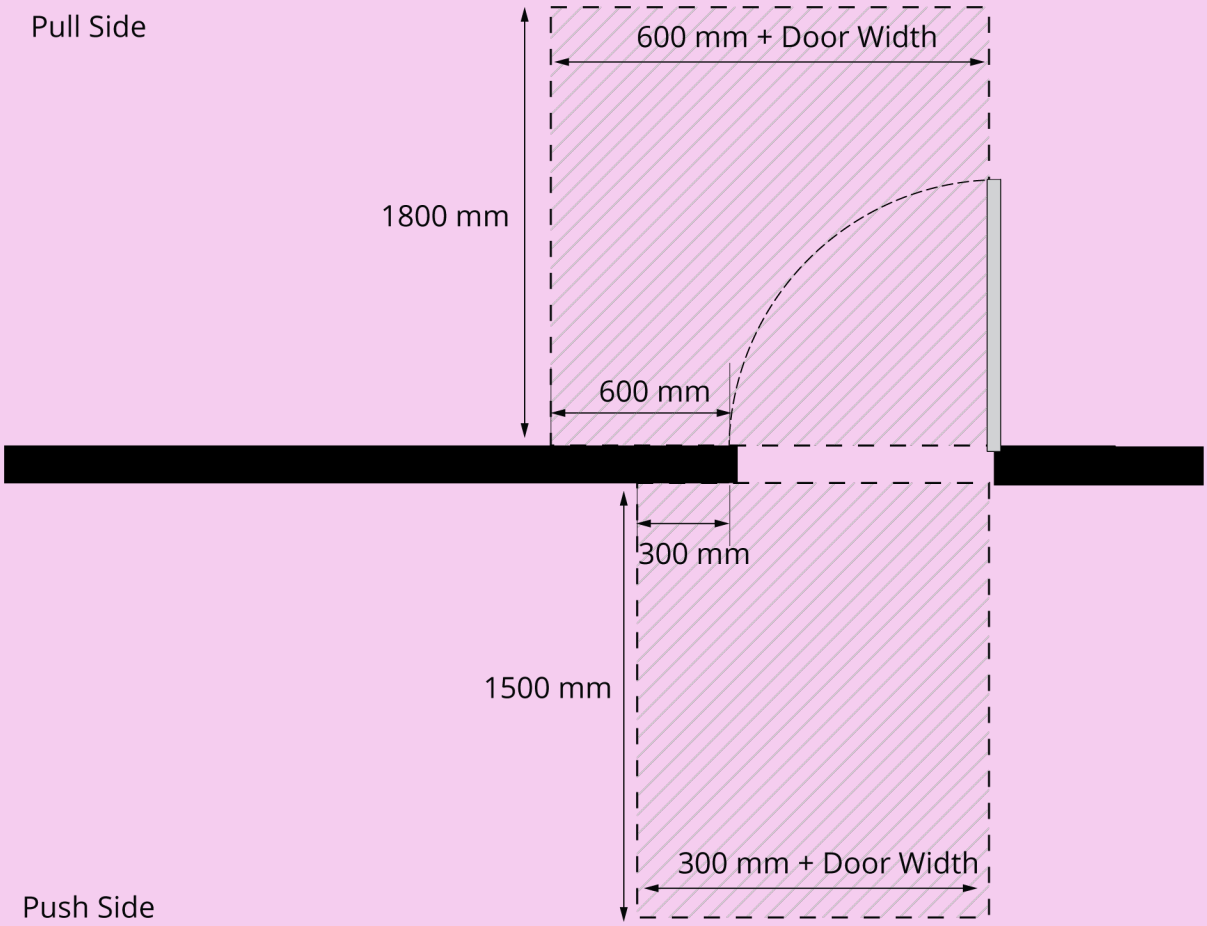


Figure 2.2.3-A Latch Side Clear Space

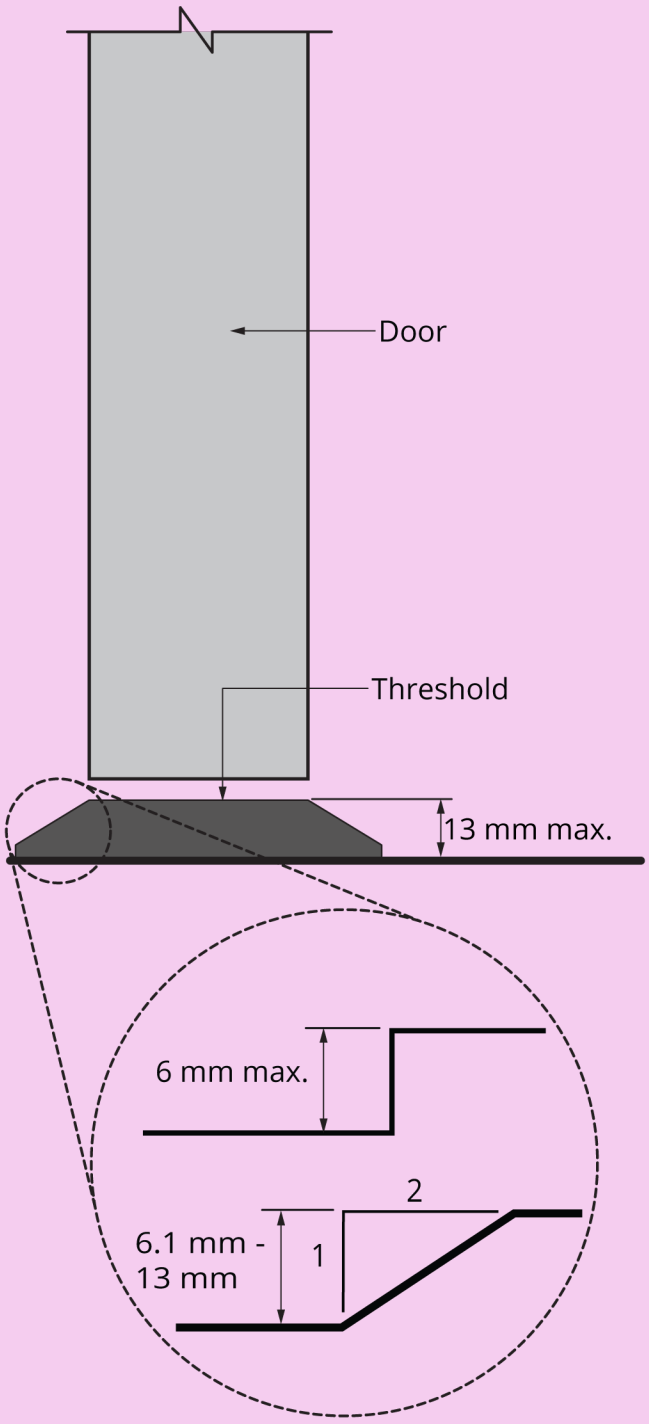


Figure 2.2.3-B Thresholds

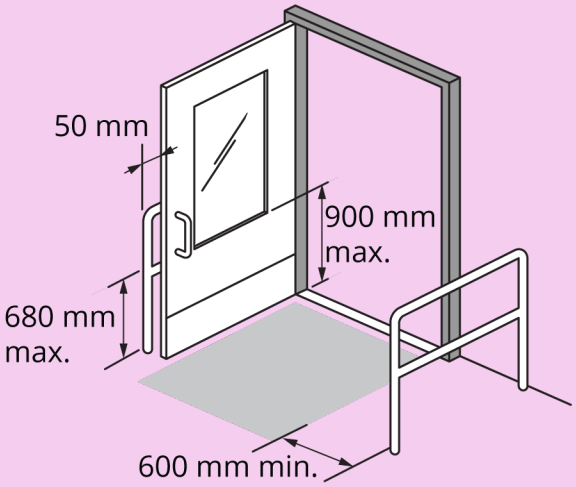


Figure 2.2.3-C Cane Detectable Guards

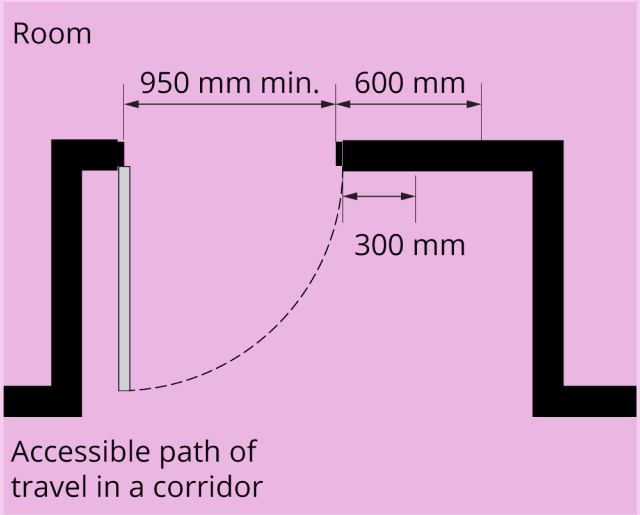


Figure 2.2.3-D Inset or Recessed Doors

2.2.4. Door Controls and Devices

Rationale

Door controls and devices including control for power door operators and door opening devices (hardware) enhance the usability of doors for all individuals to navigate through. They should have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Application

The scope of this section applies to all doors and doorways that connect interior and/or exterior accessible paths of travel.

Related Sections

- "2.2.1. Entrances"
- "2.2.3. Doors and Doorways"

Related References

- [Reserved]

Key Considerations

Control for a Power Door Operator (PDO)

Control for a PDO should be provided at doors that are connected to accessible paths of travel to ensure that a consistent level of access is provided throughout a building.

Where they are not installed, rough-in construction should be provided for the future installation of a control for a PDO.

Manual control for a PDO's, such as an elongated-type (preferred), a circular-type (push button), should have operable portions or controls, and be installed to have clear floor space and reach range dimensions for persons using mobility devices to use. Where control for a PDO is deactivated by an emergency alarm, the door should be designed to require minimal force to open.

Automatic control for a PDO, such as a proximity scanning device, or a wave-to-open-type should be provided at doors in high-use areas. Where provided, they should be equipped with door release (panic) hardware to allow for a safe means of egress during an emergency. However, consider that persons who are blind or have low vision may experience more difficulty activating wave-to-open type.

Where pressure sensitive mats or infra-red sensors are provided, the layout or coverage should ensure that persons using mobility devices, seniors or persons with visual limitations have time to clear the opening safely before the door closes again.

Door Opening Devices

Door opening devices (hardware), such as handles and locks, should be provided at doors. They should be designed to have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that persons with low vision can easily find and operate door opening devices.

Requirements

(1) Control for a Power Door Operator (PDO):

Control for a PDO should:

(a) Be located at:

(i) Entrances that meet the criteria in section “2.2.1. Entrances”;

(ii) Both sets of doors in a vestibule;

(iii) Doors connected to accessible paths of travel that have door closers, electromagnetic hold-open, or no latch side clearance;

(iv) Doors equipped with self-closing devices, where doors are located in an accessible path of travel, between the entrance, including the interior doors of a vestibule, and the entrance doors to suites or rooms served by a public corridor or a corridor used by the public;

(v) Doors entering into all public meeting rooms and assembly space;

(vi) Larger multi-purpose or training rooms and board rooms serving more than 30 persons;

(vii) Doors entering into publicly accessed reception areas;

(viii) Doors leading into an area of refuge;

(ix) Doors leading in public buildings providing access to essential services, programs and highly used work support areas; and

(x) All accessible facilities, such as washrooms and change rooms that meet the criteria in section 2.3. Plumbing Fixtures, Washrooms and Change Rooms;

(b) Have a clear floor space, centred on the PDO, that is 900 mm by 1500 mm minimum;

(c) Have the International Symbol of Access (ISA);

(d) Have a matte, honed, flamed, or brushed surface from adjacent surfaces;

(e) Have tactile features; and

(f) Are operable using a closed fist;

(g) Be between 600 mm to 1500 mm beyond the door swing when the door opens toward the control, or from any inside corner, measured from the centreline of the control to the edge of the door frame, “Figure 2.2.4-A Power Door Operator - Plan View”;

(h) Be installed on a wall, or a pedestal that is adjacent to an accessible path of travel “[R-2.2.4. (1)(h)]”;

(i) Should keep doors open for a period of 20 seconds minimum before the doors start to close;

(j) Where provided, an elongated type (preferred), “Figure 2.2.4-B Elongated Power Door Operator”, that:

(i) Be 150 mm minimum wide by 725 mm minimum long; and

(ii) Extend from 200 mm maximum to 900 mm minimum AFF; or

(k) Where provided, a circular-type, “Figure 2.2.4-C Circular Power Door Operator”, that:

(i) Be 150 mm minimum diameter; and

(ii) Be mounted on centre 900 mm to 1050 mm AFF; or

(l) Where provided, a proximity scanning device, “Figure 2.2.4-D Wide Detection Zone” and “Figure 2.2.4-E Narrow Detection Zone”, that:

(i) Is located for sliding doors at entrances and at high-use department entry; and

(ii) Where doors into a vestibule are in a series, have coordinated opening times for both sets of doors.

(2) Door Opening Devices:

Doors should have door opening devices that:

(a) Are mounted on centre 900 mm to 1050 mm AFF;

(b) Have D-type hardware, "Figure 2.2.4-F Door Opening Device - D-Type", for closets or sliding doors that are 75 mm to 100 mm long, or lever-type hardware, "Figure 2.2.4-G Door Opening Device - Lever-Type";

(c) Have panic hardware;

(d) Have colour/brightness contrast from adjacent surfaces;

(e) Have tactile features;

(f) Are operable using a closed fist;

(g) Are operable using a force of 22 N maximum at doors that connect to interior accessible paths of travel;

(h) Are operable using a force of 38 N maximum at doors that connect to exterior accessible paths of travel;

(i) Include electric hold-open devices on required fire and smoke barrier doors so that the doors only close when the fire alarm is activated; and

(j) Have automatic locks at public washrooms that:

(i) Are placed 500 mm maximum from the latch side of the door and that can be accessed from both standing and seated positions;

(ii) Have an audible and visual signal identifying when the door is locked;

(iii) Have accessible signage with tactile information identifying instructions for use that meets the criteria in section "3.2.1. Signage and Wayfinding Systems"; and

(iv) Have a design that is distinct, visually and tactilely, from the control for the power door operator.

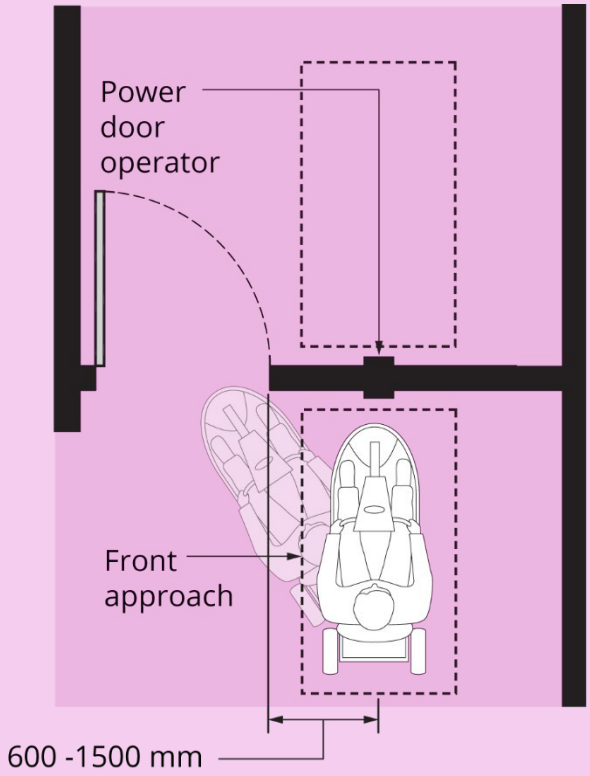


Figure 2.2.4-A Power Door Operator - Plan View

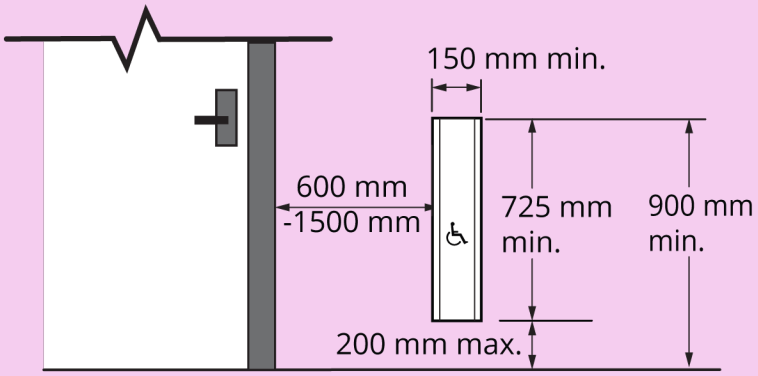


Figure 2.2.4-B Elongated Power Door Operator

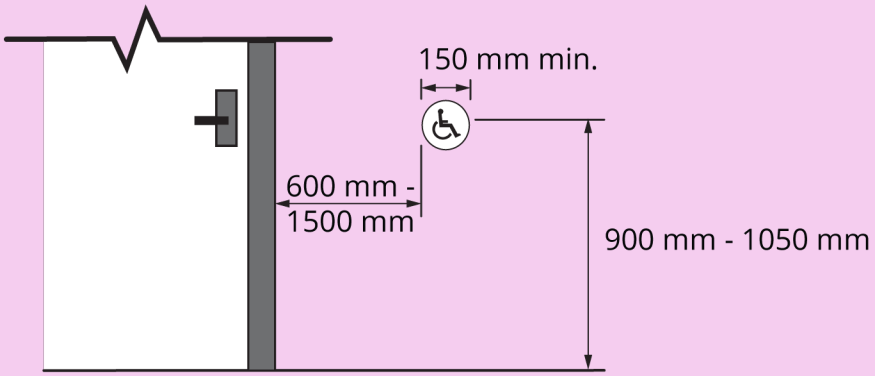


Figure 2.2.4-C Circular Power Door Operator

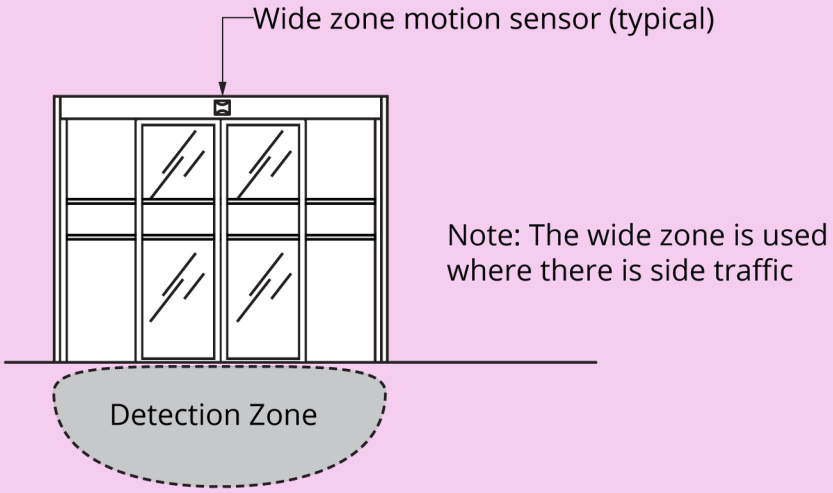


Figure 2.2.4-D Wide Detection Zone

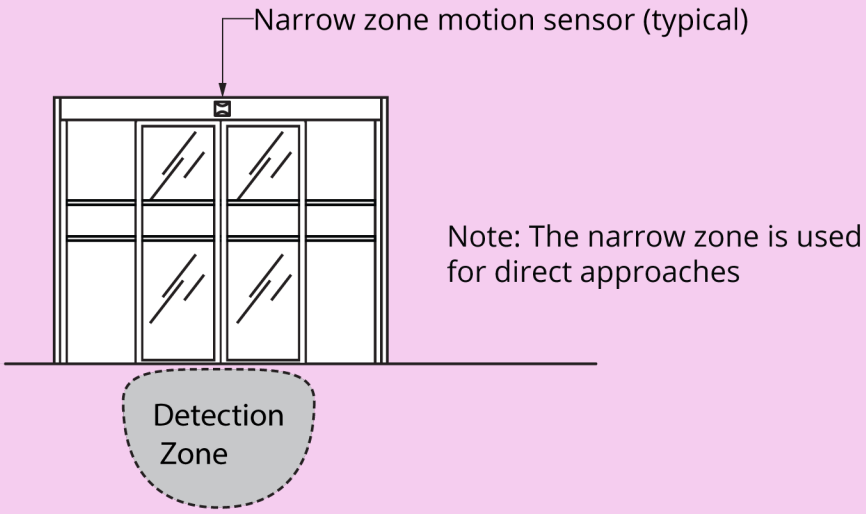


Figure 2.2.4-E Narrow Detection Zone

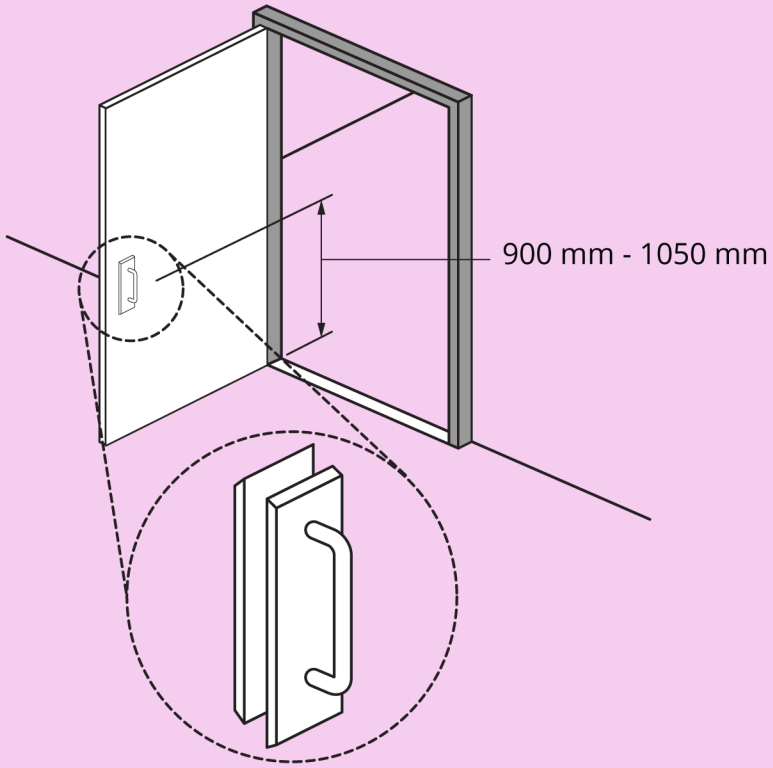


Figure 2.2.4-F Door Opening Device - D-Type

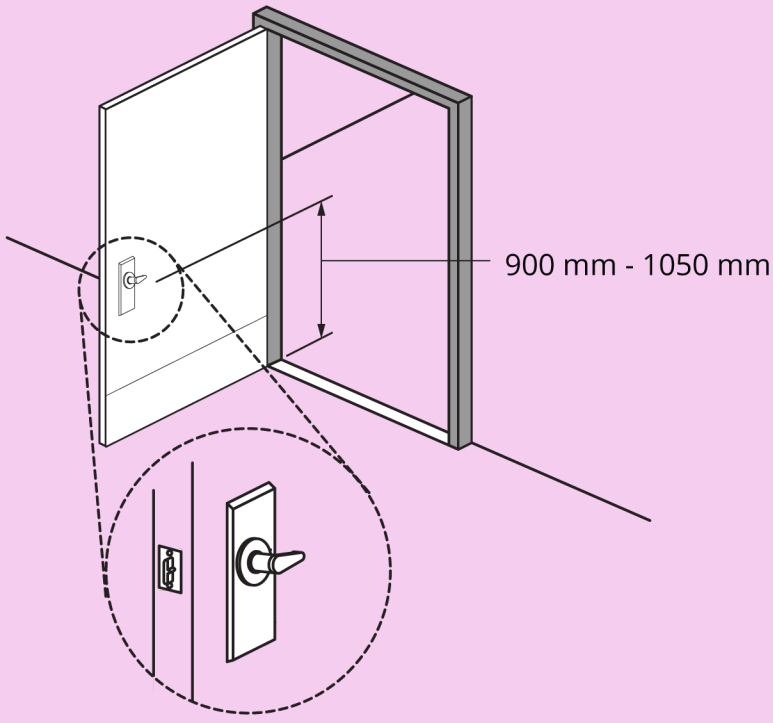


Figure 2.2.4-G Door Opening Device - Lever-Type

2.2.5. Vision Panels and Strips

Rationale

Vision panels and vision strips are accessible elements that enhance the visibility of glazing and glass from doorways for all individuals.

Application

[Reserved]

Related Sections

- [Reserved]

Related References

- [Reserved]

Key Considerations

Vision Panels

Vision panels (and sidelights) should be located at doors to allow for security and clear sightlines between interior spaces for persons with low vision and persons using mobility devices. They provide visibility and reduce the hazard of doors swinging into accessible paths of travel.

Vision Strips

Vision strips should be located at etched or patterned glazed screens, fully glazed transparent doors, sidelights, and panels. They help to enhance the visibility of glazing or glass from doorways and help reduce the risk of colliding with glazing or glass for individuals, especially persons with low vision.

Requirements

(1) Vision Panels:

Vision panels (and sidelights), “Figure 2.2.5-A Vision Panels”, at doors should:

(a) Be 75 mm minimum wide; and

(b) Be located so that:

(i) The bottom of the panel (sill) is 900 mm maximum AFF; and

(ii) The vertical edge of the panel closest to the latch is 250 mm maximum from the latch side of the door.

(2) Vision Strips:

Vision strips, "Figure 2.2.5-B Vision Strips", should:

(a) Be located at:

(i) Etched or patterned glazed screens;

(ii) Fully glazed transparent doors; and

(iii) Fully glazed transparent sidelights and panels with widths greater than 300 mm; and

(b) Have two continuous opaque strips that:

(i) Have colour/brightness contrast to the background of the surface;

(ii) Are 50 mm minimum wide;

(iii) Extend across the width of the surface on centre 1350 mm to 1500 mm AFF; and

(iv) Extend across the width of the surface on centre 750 mm to 950 mm AFF.

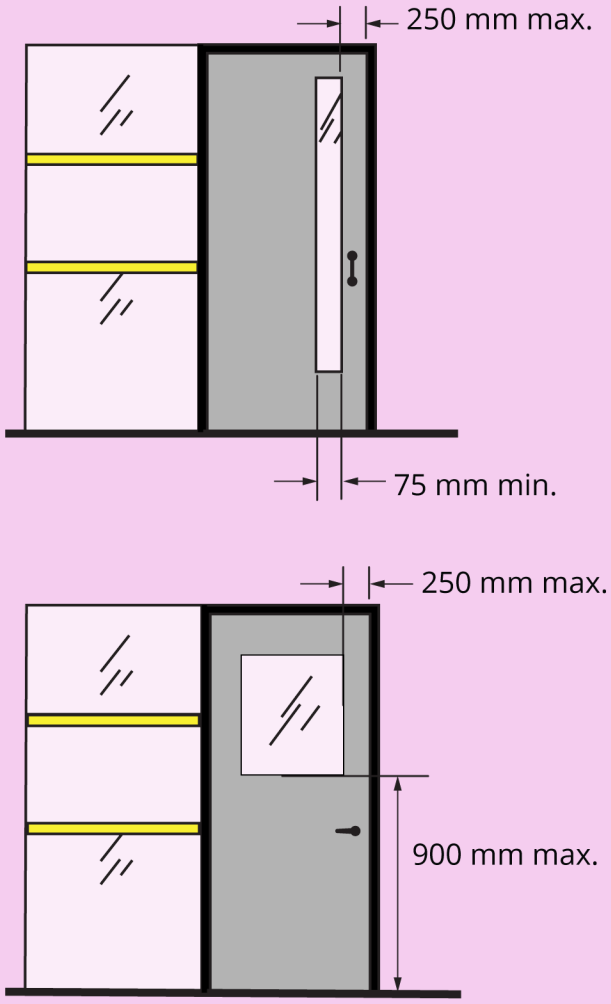


Figure 2.2.5-A Vision Panels

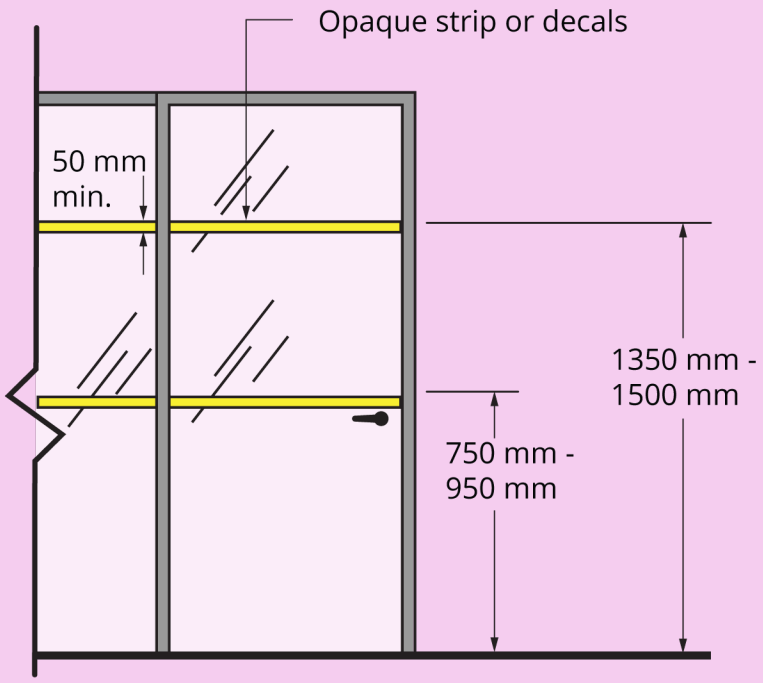


Figure 2.2.5-B Vision Strips

2.2.6. Accessible Control Gates

Rationale

Accessible control gates that connect interior or exterior accessible paths of travel can create barriers for individuals. It is important for designers to consider eliminating gates where they are not required for safety or programming. Where turnstiles are provided, they should be adjacent to accessible control gates.

Application

[Reserved]

Related Sections

- "2.2.5. Vision Panels and Strips"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Clear Width

The clear door width at accessible control gates, when the gate is in the open position, should be provided with unobstructed entry and egress to interior or exterior accessible paths of travel. The location of door controls and devices should not obstruct the clear width.

Gate Controls and Devices

Door opening devices (hardware), such as handles, locks, or latches should be provided at accessible control gates. They should be designed to have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that persons with low vision can easily find and operate accessible control

gate opening devices. They should also have a break-away design to allow for a safe means of egress during an emergency.

Requirements

(1) Clear Width:

Accessible control gates should provide a clear width, "Figure 2.2.6-A Clear Width" and "Figure 2.2.6-B Clear Width", that:

(a) Is 920 mm to 1000 mm minimum.

(2) Gate Controls and Devices:

Accessible control gates should provide gate control and devices that:

(a) Have a break-away design;

(b) Meet the criteria in section "2.2.5. Vision Panels and Strips"; and

(c) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

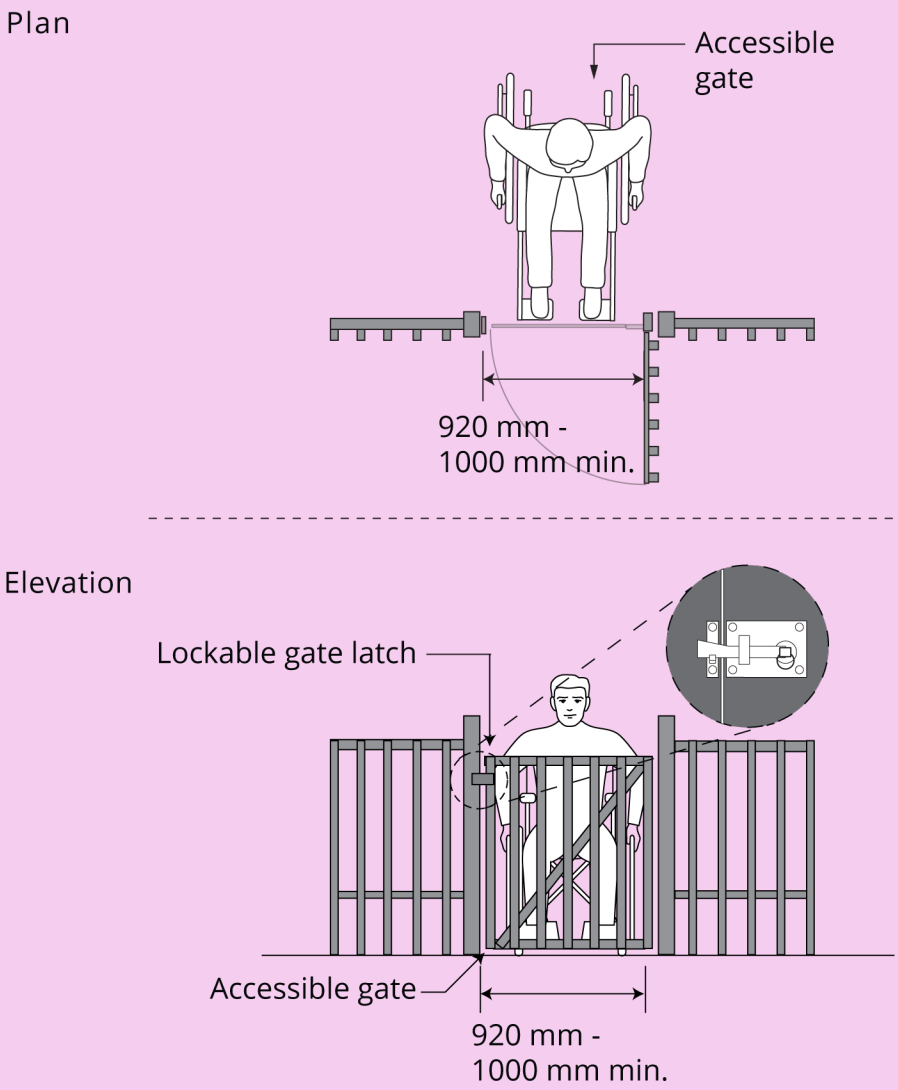


Figure 2.2.6-A Clear Width

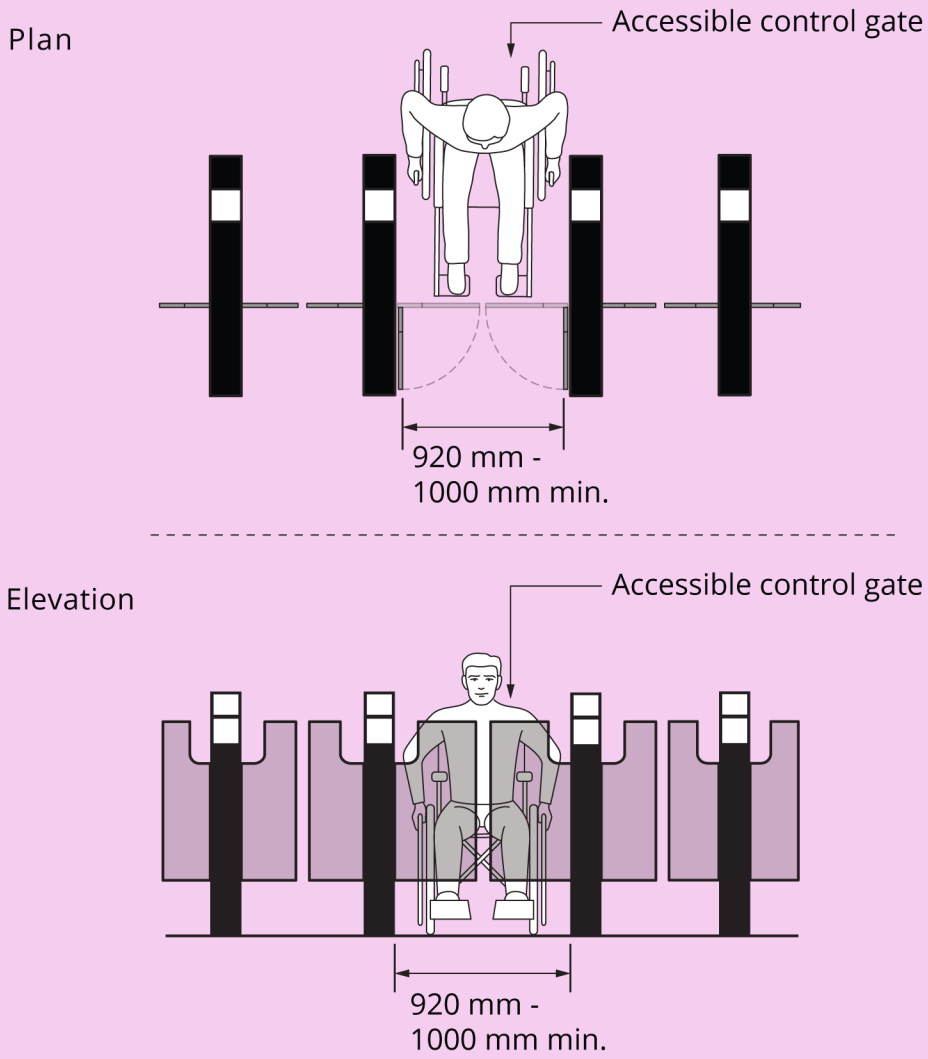


Figure 2.2.6-B Clear Width

2.3. Plumbing Fixtures, Washrooms and Change Rooms

Section Summary

This section reviews the accessible design requirements for plumbing fixtures, washrooms and change rooms intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Plumbing fixtures, washrooms, and change rooms should be connected to accessible paths of travel and provided with accessible elements to enhance the usability for all individuals.

Contents in Section

2.3.1. Multi-Stall Washrooms

2.3.2. Accessible Water Closet Stalls and Enclosures

2.3.3. Ambulatory Water Closet Stalls and Enclosures

2.3.4. Accessible Water Closets

2.3.5. Accessible Urinals

2.3.6. Accessible Lavatories

2.3.7. Ritual Washing

2.3.8. Washroom and Change Room Accessories

2.3.9. Universal Washrooms

2.3.10. Accessible Showers

2.3.11. Accessible Change Rooms

2.3.12. Accessible Change Room Stalls

2.3.13. Universal Dressing and Shower Rooms

2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains

2.3.1. Multi-Stall Washrooms

Rationale

Multi-stall washrooms are a basic health and accessibility requirement of a building and should be designed for all individuals. Integrating accessible elements, such as accessible water closet stalls and enclosures, water closets, lavatories, and accessories to enhance the usability of multi-stall washrooms will help to ensure that all individuals are provided with independent, equitable, and dignified access.

Gender-inclusive washroom types allow an individual helping (parent or caregiver) to assist their companion without feeling awkward or discriminated against, and support members of the transgender community by mitigating discriminatory behaviour.

Application

The scope of this section applies to indoor and outdoor single occupancy washrooms in a group, as well as washrooms that have more than one water closet stall or enclosure per washroom.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "2.2.3. Doors and Doorways"
- "2.3.2. Accessible Water Closet Stalls and Enclosures"
- "2.3.4. Accessible Water Closets"
- "2.3.5. Accessible Urinals"
- "2.3.6. Accessible Lavatories"
- “2.3.7. Ritual Washing ”
- "2.7.1. Floor, Wall, and Ceiling Surfaces"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be provided throughout multi-stall washrooms to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided at multi-stall washrooms to connect interior accessible paths of travel. It is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy.

Accessible Water Closet Stalls and Enclosures

Accessible water closet stalls should be provided within multi-stall washrooms to enhance usability and help to ensure that all individuals, including persons using mobility devices, are provided with independent, equitable, and dignified access to the available facility.

Plumbing Fixtures

Plumbing fixtures should be provided within multi-stall washrooms, such as water closets, urinals, and lavatories, that can be used by all individuals, including persons using mobility devices or persons with limited mobility and dexterity.

Accessories

Accessories should be provided within multi-stall washrooms that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Signage

Signage should be provided at multi-stall washrooms that incorporates a tactile floor plan, the International Symbol of Access (ISA), and clearly identifies the type of facility available. If multi-stall washrooms with accessible stalls are not visible from the common areas or are adjacent to other non-accessible public washrooms, directional

signage should be provided to direct persons to the location of the accessible washroom.

Materials and Finishes

Materials and finishes should be provided within multi-stall washrooms that consider risk factors associated with the circumstance of which they are being used.

For example, the use of slip-resistant and low-glare materials will prevent fall/vision hazards and outward swinging stall doors will prevent entrapment and allow access for emergency responders to aid persons in need. The overall selection of design features and appropriate choice of materials will increase the usability and safety of all multi-stall washrooms.

Requirements

(1) Accessible Path of Travel:

Multi-stall washrooms should provide an interior accessible path of travel that:

(a) Has a clear width, "Figure 2.3.1-A Multi-Stall Washroom Layout", that:

(i) Is 1400 mm minimum between the outside face of the stall partition and nearest obstruction; and

(ii) Is 1700 mm minimum between the outside of the stall face and the face of an in-swinging washroom door;

(b) Has a clear turning space in front of the stall or enclosure that is 1500 mm minimum in diameter; and

(c) Meets the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Doors and Doorways:

Multi-stall washrooms should provide doors and doorways that:

(a) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Accessible Water Closet Stalls and Enclosures:

Multi-stall washrooms should provide accessible water closet stalls and enclosures, "[R-2.3.1. (3)]", that:

(a) Meet the criteria in section "2.3.2. Accessible Water Closet Stalls and Enclosures".

(4) Plumbing Fixtures:

Multi-stall washrooms should provide plumbing fixtures that include:

(a) Water closets that meet the criteria in section "2.3.4. Accessible Water Closets";

(b) Urinals that meet the criteria in section "2.3.5. Accessible Urinals"; and

(c) Lavatories that meet the criteria in section "2.3.6. Accessible Lavatories".

(5) Accessories:

Multi-stall washrooms should provide accessories that:

(a) Include at least one:

(i) Baby change table;

(ii) Hand drying equipment or towel dispenser;

(iii) Waste receptacle;

(iv) Shelf; and

(b) Include coat hooks;

(c) Meet the criteria in section “2.3.8 Washroom and Change Room Accessories”; and

(d) Include visual fire alarms that meets the criteria in section “2.3.9 Universal Washrooms”.

(6) Signage:

Multi-stall washrooms should provide signage that:

(a) Has appropriate graphical and textural information that clearly indicates the type of facilities available;

(b) Includes the International Symbol of Access;

(c) Indicates if washroom is gender-designated , all genders/gender inclusive;

(d) Includes a tactile floor plan of the space highlighting the location of water closets, lavatories, wall mounted fixtures, and any other key amenities or accessories within the space.

(e) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems"; and

(f) Includes blade signs above the door frame to ensure visibility.

(7) Materials and Finishes:

Multi-stall washrooms should provide materials and finishes that:

(a) Meet the criteria in section "2.7.1. Floor, Wall, and Ceiling Surfaces".

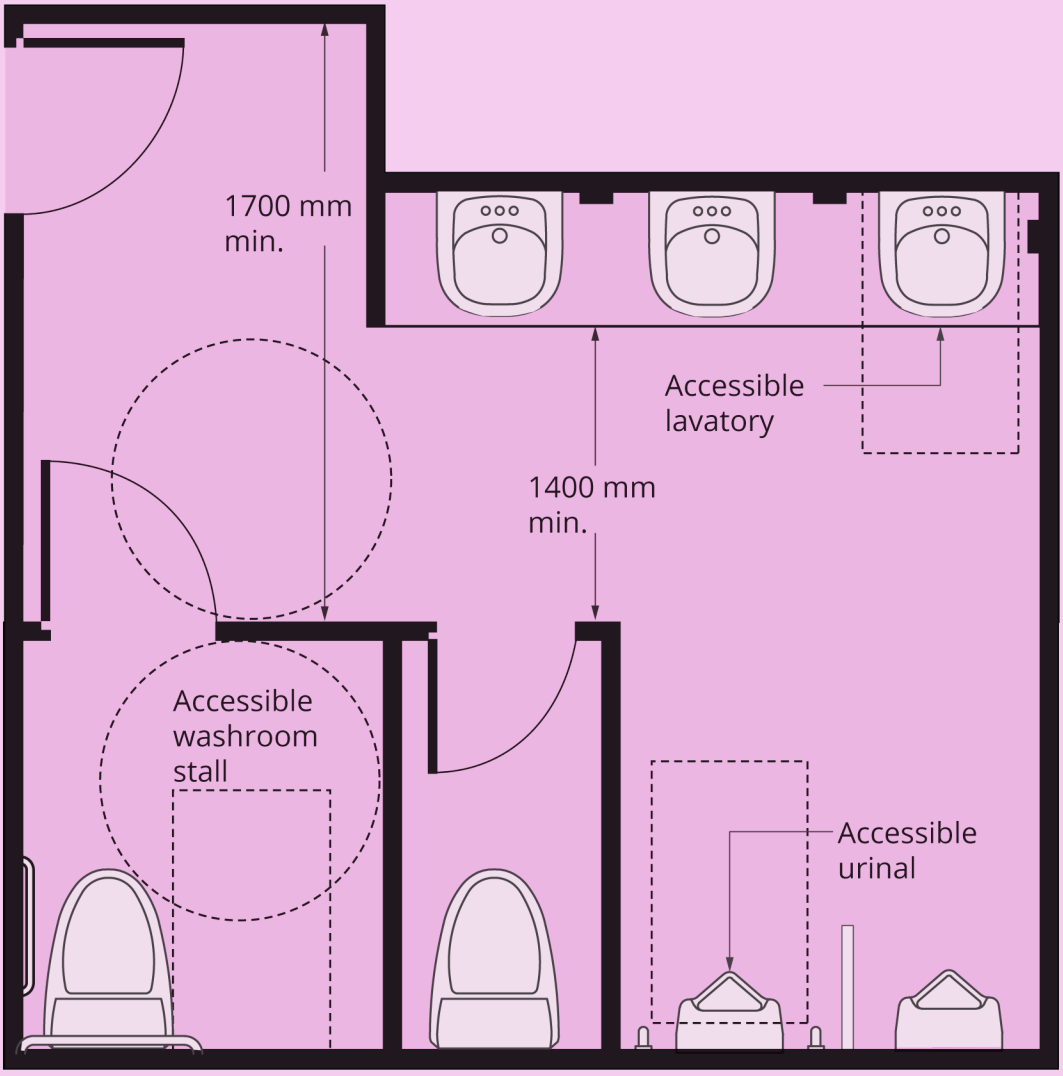


Figure 2.3.1-A Multi-Stall Washroom Layout

2.3.2. Accessible Water Closet Stalls and Enclosures

Rationale

Accessible water closet stalls and enclosures should be provided at multi-stall washrooms to enhance the usability and help to ensure that all individuals, including persons using mobility devices, are provided with independent, equitable, and dignified access to the available facility.

Application

[Reserved]

Related Sections

- "2.3.4. Accessible Water Closets"
- “2.3.7. Ritual Washing ”

Related References

- [Reserved]

Key Considerations

Amount

The amount of accessible water closet stalls and enclosures provided within multi-stall washrooms should consider the use of its facilities and the needs of all individuals.

Additional stalls should be provided in facilities or areas where a greater number of individuals will require accessible water closet stalls. This will ensure that persons are not waiting for extended periods of time to use the facility.

Doors

Doors should be provided at accessible water closet stalls and enclosures to connect interior accessible paths of travel, and to ensure privacy, independent, equitable, and dignified access. The clear width at doors should be provided with unobstructed entry

and egress that is the same as the door to the multi-stall washroom. This will ensure that if a person is able to enter the multi-stall washroom, they will also be able to enter the accessible water closet stall.

Clear Turning Spaces

Clear turning spaces should be provided within accessible water closet stalls and enclosures to create space for persons using mobility devices to make a 360° turn.

Clear Floor Spaces

Clear floor space should be provided within accessible water closet stalls and enclosures, adjacent to the water closets, to create an unobstructed, level floor area that is sized to provide the space for persons using mobility devices to side transfer.

Water Closets

Water closets should be provided within accessible water closet stalls and enclosures to allow individuals, including persons using mobility devices, to side transfer to the water closet and reach accessories.

Accessories

Accessories should be provided within accessible water closet stalls and enclosures that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Signage

Signage should be provided and designed to have visual information to indicate the location of accessible washrooms.

Requirements

(1) Amount:

Accessible water closet stalls and enclosures should, "[R-2.3.2. (1)]", provide:

(a) A minimum amount that meets the criteria in "Table 2.3.2-A Number of Accessible Water Closet Stalls".

Table 2.3.2-A Number of Accessible Water Closet Stalls

Number of Water Closets per Washroom	Number of Accessible Water Closet Stalls and Enclosures per Washroom
1-9	1
10-16	2
17-20	3
21-30	4
Over 30	5, plus 1 for each additional increment of 10 water closets per washroom in excess of 30 water closets per washroom

(2) Doors:

Accessible water closet stalls and enclosures should provide a door that:

(a) Has a clear width that is 950 mm minimum, "[R-2.3.2. (2)(a)]";

(b) Has 600 mm minimum latch side clearance on the pull side of a swinging door;

(c) Has 300 mm minimum latch side clearance on the push side of a swinging door;

(d) Swings outward, unless a clear floor space that is 900 mm by 1500 mm minimum for a front approach is provided within the stall to permit the door to be closed without interfering with the mobility device;

(e) Is self-closing so that, when at rest, the door remains open not more than 50 mm beyond the jamb;

(f) Has horizontal, D-shaped door pulls, "Figure 2.3.2-A Accessible Stall Door Hardware", that:

(i) Have colour/brightness contrast;

(ii) Are located on both sides of the door;

(iii) Are mounted on the vertical centre line of the door;

(iv) Are located at a height between 800 mm to 1000 mm AFF;

(v) Are 140 mm minimum long; and

(vi) Have 30 mm to 50 mm clearance from face of stall and enclosure door;

(g) Is aligned with a clear floor space;

(h) Is capable of having the latch released from the outside in case of an emergency;

(i) Has a lock with operable portions or controls that can be used with a closed fist (e.g. sliding type) and do not require tight grasping, pinching, or twisting of the wrist; and

(j) Has an occupancy indicator, such as a red/green marker, to indicate vacancy.

(3) Clear Turning Spaces:

Accessible water closet stalls and enclosures should provide a clear turning space, "Figure 2.3.2-B Accessible Water Closet Stall", that:

(a) Is 1500 mm minimum in diameter for 360° turns.

(4) Clear Floor Spaces:

Accessible water closet stalls and enclosures should provide a clear floor space that:

(a) Meets the criteria in section "2.3.4. Accessible Water Closets".

(5) Water Closets:

Accessible water closet stalls and enclosures should provide a water closet that:

(a) Meets the criteria in section "2.3.4. Accessible Water Closets".

(6) Accessories:

Accessible water closet stalls and enclosures should provide accessories that:

(a) Include at least one shelf that is 650 mm minimum AFF and clear of any grab bars;

(b) Include coat hooks; and

(c) Meet criteria in section “2.3.8 Washroom and Change Room Accessories”.

(7) Signage:

Accessible water closet stalls and enclosures should provide signage that:

(a) For water closet stalls only:

a. Indicates the location of the accessible stall;

b. Includes the International Symbol of Access;

(b) Provides the same information in both visual and tactile forms; and

(c) Meets the criteria in section “3.2.1. Signage and Wayfinding Systems”.

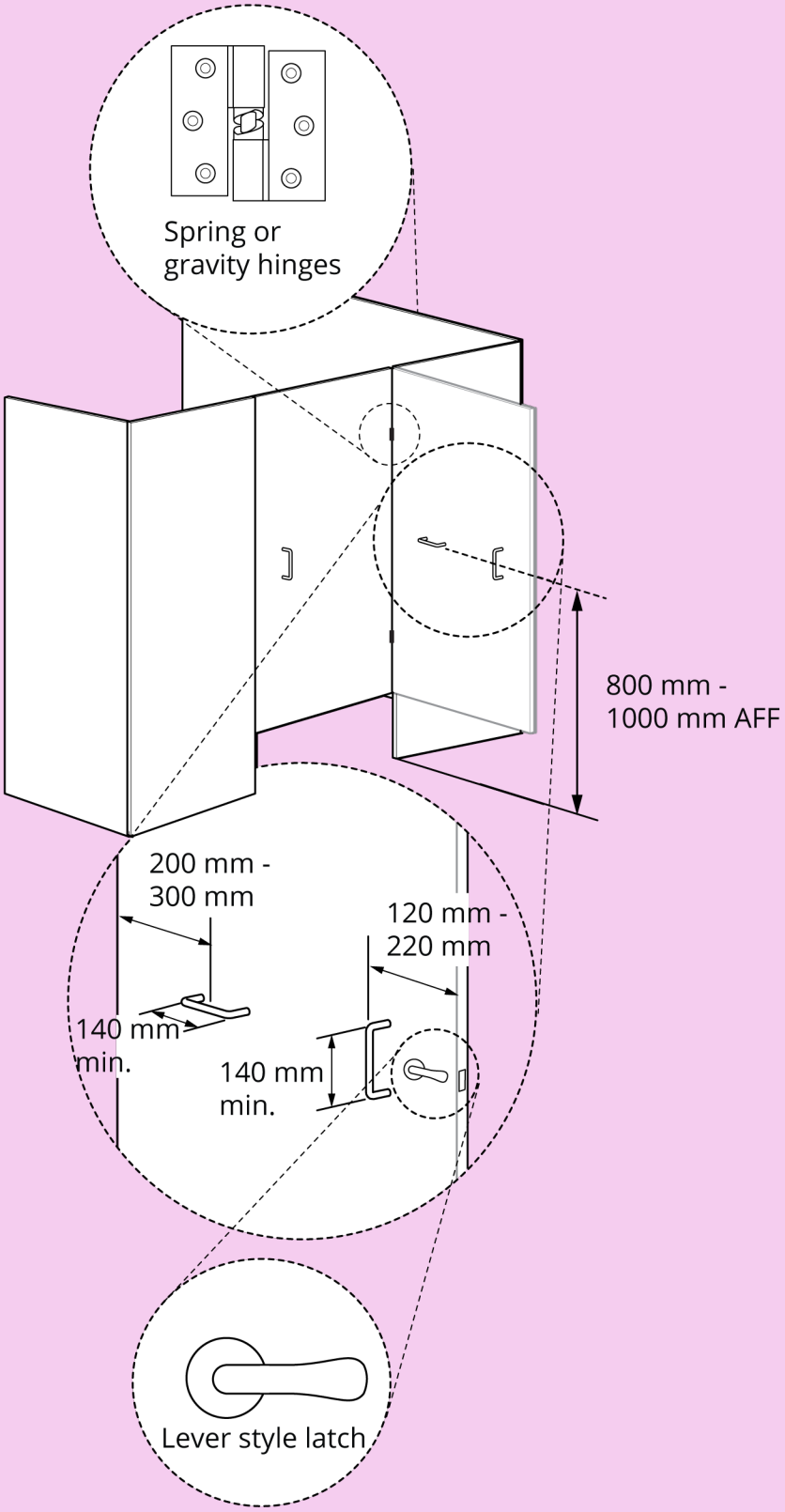


Figure 2.3.2-A Accessible Stall Door Hardware

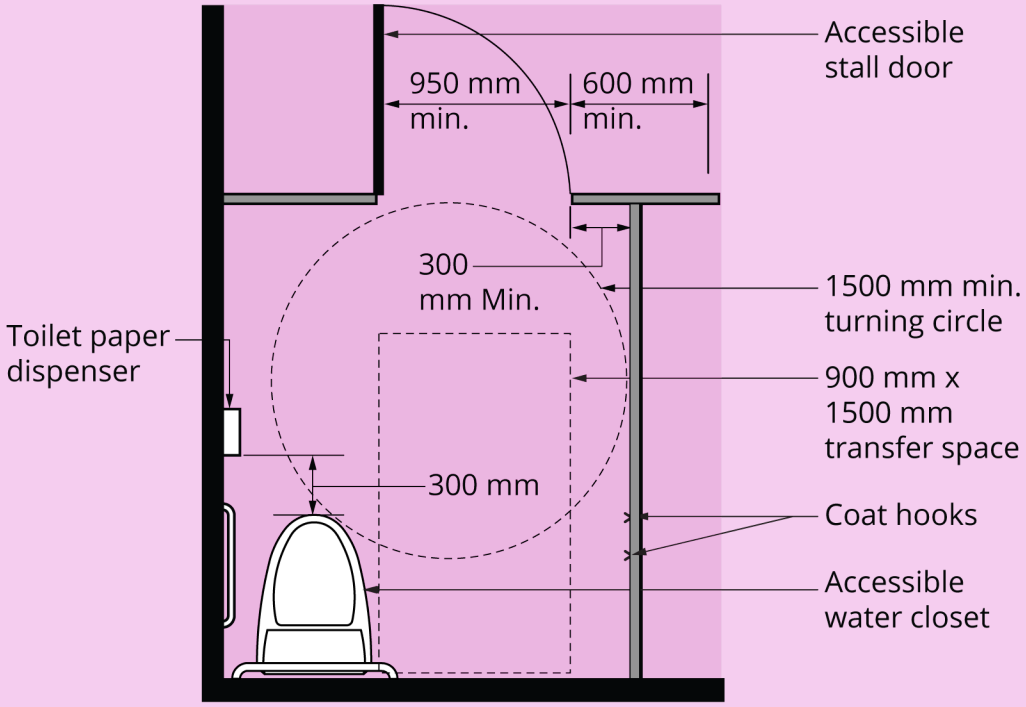


Figure 2.3.2-B Accessible Water Closet Stall

2.3.3. Ambulatory Water Closet Stalls and Enclosures

Rationale

Multi-stall washrooms may include a combination of accessible water closet stalls, ambulatory water closet stalls, and enclosures and/or non-accessible water closet stalls. Ambulatory water closet stalls and enclosures help individuals with limited mobility who may have balance, strength, pain, or other limitations that would benefit from grab bars to help them sit and rise.

Application

[Reserved]

Related Sections

- "2.3.4. Accessible Water Closets"
- “2.3.7. Ritual Washing ”
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Amount

The number of ambulatory water closet stalls and enclosures provided within multi-stall washrooms should consider the use of its facilities and the needs of all individuals.

Additional stalls should be provided in facilities or areas where a greater number of individuals will require ambulatory water closet stalls. This will ensure that persons are not waiting for extended periods of time to use the facility.

Doors

Doors should be provided at ambulatory water closet stalls and enclosures to connect interior accessible paths of travel, and to ensure privacy, independent, equitable, and dignified access.

Design

The design of ambulatory water closet stalls and enclosures should be sized to allow individuals with limited mobility, who might have balance, strength, pain, or other limitations to help them sit and stand.

Water Closets

Water closets should be provided within ambulatory water closet stalls and enclosures to allow individuals with limited mobility, who might have balance, strength, pain, or other limitations to sit and rise from the water closet and reach accessories.

Grab Bars

Grab bars should be provided within ambulatory water closet stalls and enclosures to allow individuals with limited mobility who might have balance, strength, pain, or other limitations to safely support themselves while sitting and standing. Where grab bars are installed on stall partitions, they should be provided with reinforcement to bear the anticipated load.

Accessories

Accessories should be provided within ambulatory water closet stalls and enclosures that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Signage

Signage should be provided at ambulatory water closet stalls and enclosures that incorporates a pictogram of a person using a cane and/or crutches and identifies the suitability of the stall or enclosure for individuals who may require grab bar assistance.

Requirements

(1) Amount:

Ambulatory water closet stalls and enclosures should provide:

(a) A minimum of one per multi-stall washroom.

(2) Doors:

Ambulatory water closet stalls and enclosures should provide a door that:

(a) Has a clear width that is 860 mm minimum;

(b) Swings outward, unless 1500 mm minimum in depth and 900 mm in width, are not located within the door swing;

(c) Is self-closing so that, when at rest, the door remains open not more than 50 mm beyond the jamb;

(d) Has two D-shaped door pulls that:

(i) Have colour/brightness contrast;

(ii) Are located on both sides of the door, near the latch side of the door;

(iii) Are at a height between 900 mm to 1050 mm AFF;

(iv) Are 140 mm minimum long; and

(v) Have 30 mm to 50 mm clearance from face of stall and enclosure door;

(e) Is capable of having the latch released from the outside in case of an emergency; and

(f) Has a lock with operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

(3) Design:

Ambulatory water closet stalls and enclosures should be designed, "Figure 2.3.3-A Ambulatory Water Closet Stall", so that they:

(a) Are 1500 mm minimum deep; and

(b) Are 890 mm to 940 mm wide.

(4) Water Closets:

Ambulatory water closet stalls and enclosures should provide a water closet that:

(a) Meets the criteria in section "2.3.4. Accessible Water Closets".

(5) Grab Bars:

Ambulatory water closet stalls and enclosures should provide grab bars that:

(a) Include two L-shaped, “[R-2.3.3. (5)(a)]", that:

(i) Are located on both sides of the stall; and

(ii) Meet the criteria in section "2.3.4. Accessible Water Closets", excluding horizontal grab bar and optional fold-down grab bars.

(6) Accessories:

Ambulatory water closet stalls and enclosures should provide accessories that:

(a) Include at least one shelf that is 650 mm minimum AFF. and clear of any grab bars;

(b) Include coat hooks; and

(c) Meet criteria in section "2.3.8 Washroom and Change Room Accessories”.

(7) Signage:

Ambulatory water closet stalls and enclosures should provide signage that:

(a) Incorporates a pictogram of a person using a cane and/or crutches;

(b) Identifies the stalls suitability for individuals who may require grab bar assistance; and

(c) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

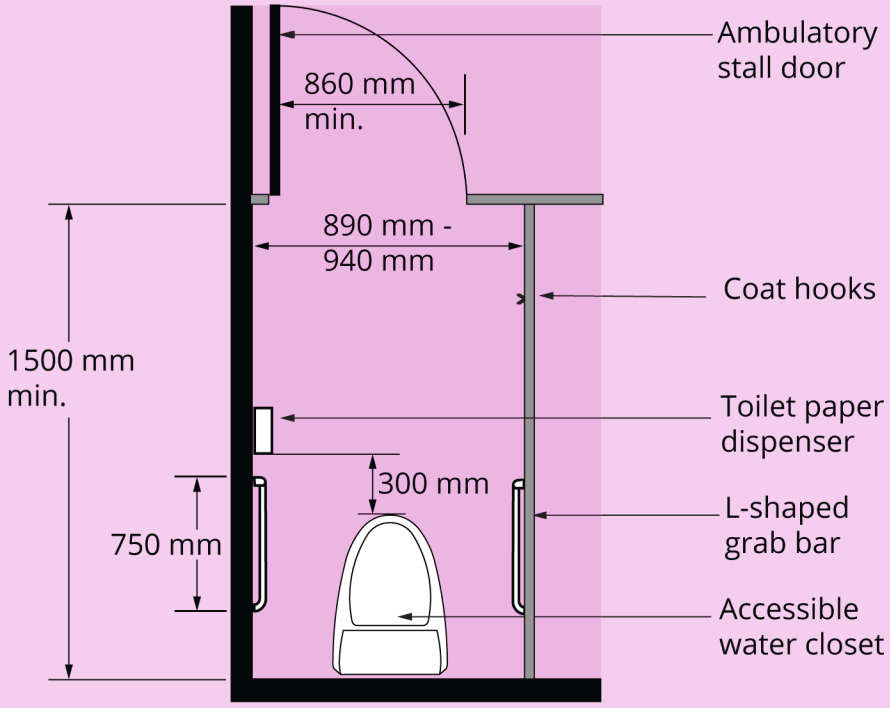


Figure 2.3.3-A Ambulatory Water Closet Stall

2.3.4. Accessible Water Closets

Rationale

Accessible water closets within accessible water closet stalls or universal washrooms should be designed to allow individuals, including persons using mobility devices, to side transfer from their mobility device to the accessible water closet and reach accessories.

Application

[Reserved]

Related Sections

- [Reserved]

Related References

- [Reserved]

Key Considerations

Design

The design of accessible water closets should allow individuals, including persons using mobility devices to side transfer to the water closet and reach accessories. Wall-mounted water closets are preferred compared to floor-mounted fixtures. Accessible water closets should provide clearance from walls and other accessories.

Clear Floor Spaces

Clear floor space (clear transfer space) should be provided adjacent to accessible water closets to create an unobstructed, level floor area that is sized to provide the space for persons using mobility devices to side transfer. Designers should consider alternating the clear floor space where multiple accessible water closet stalls are provided in the same multi-stall washroom to allow for left or right-handed side transfers.

Flush Controls

Flush controls should be provided at accessible water closets that are automatic (e.g. infra-red or touch-less actuators) and are connected directly to a constant power source that does not require replacement components such as batteries. Where flush controls are not automatic (e.g. manual lever-type or push-button actuator) they should have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Toilet Paper Dispensers

Toilet paper dispensers should be provided at accessible water closets that have a sufficient supply of toilet paper rolls within reach (e.g. single loose rolls or double stacking single rolls). Jumbo commercial toilet paper rolls can be difficult to reach and should not be provided.

Grab Bars

Grab bars should be provided at accessible water closets to allow individuals, including persons using mobility devices, to safely support themselves while side transferring. Where grab bars are installed on stall partitions, they should be provided with reinforcement to bear the anticipated load.

Requirements

(1) Design:

Accessible water closets should be designed, "Figure 2.3.4-A Location and Clear Floor Space", to:

(a) Have a non-spring activated seat that is 430 mm to 485 mm AFF;

(b) Have the centre line of the water closet between 460 mm 480 from one side wall;

(c) Have a wall or floor-mounted fixture, provided that there is wall reinforcement to support the anticipated loading; and

(d) Have back support where there is no seat lid or tank.

(2) Clear Floor Spaces:

Accessible water closets should provide a clear floor space that:

(a) Is located on one side of the water closet or on both sides of the water closet; and

(b) Is 900 mm by 1500 mm minimum for a front approach.

(3) Flush Controls:

Accessible water closets should provide flush controls that:

(a) Flush automatically (infra-red or touch-less) and are connected directly to a constant power source, or are equipped with a manual flushing control (lever-type or push button) that:

(i) Is located between 500 mm to 900 mm AFF;

(ii) Is operable from the transfer side; and

(iii) Is operable using a closed fist and with a force of 22.2 N maximum.

(4) Toilet Paper Dispensers:

Accessible water closets should provide toilet paper dispensers that:

(a) Are wall mounted adjacent to the water closet;

(b) Are located below the L-shaped grab bar at 600 mm AFF and 150 mm from the edge of the bar to prevent the holder from impeding use of the grab bar, so that the closest edge of the dispenser is 300 mm from the front of the water closet seat;

(c) Do not impede the use of the toilet, knee space for transfer, or space required for the grab bar, but are reachable by the water closet user; and

(d) Are not placed above the horizontal portion of the bar.

(5) Grab Bars:

Accessible water closets should provide grab bars that:

(a) Include one horizontal grab bar, "Figure 2.3.4-B Water Closet Front Elevation", that:

(i) Is 600 mm minimum long; and

(ii) Is wall mounted, behind the water closet, between 840 mm to 920 mm AFF., or where the water closet has a water tank, be wall mounted 150 mm above the tank;

(b) Include one continuous L-shaped grab bar, "Figure 2.3.4-C Water Closet Side Elevation", that:

(i) Has a 750 mm long horizontal and vertical components;

(ii) Is wall mounted, adjacent to the water closet, with the horizontal component 750 mm AFF., and the vertical component 150 mm in front of the water closet; and

(c) Where provided, include fold-down grab bars that:

(i) Are provided on the side of the water closet where a clear floor space is provided, typically opposite the L-shaped grab bar;

(ii) Are wall mounted behind the water closet, on the side that has a clear floor space, with the horizontal component 750 mm AFF and 300 mm from the surface of the water closet seat;

(iii) Are between 390 mm to 410 mm from the centre line of the water closet;

(iv) Require a force of 22 N maximum to pull down;

(v) Are 750 mm long; and

(vi) Are the type that does not lock in place in the upright position;

(d) Are between 30 mm to 50 mm in diameter, "Figure 2.3.4-D Grab Bar Characteristics";

(e) Are installed to bear a load of 1.3 kN (300 lbs) minimum applied vertically or horizontally.

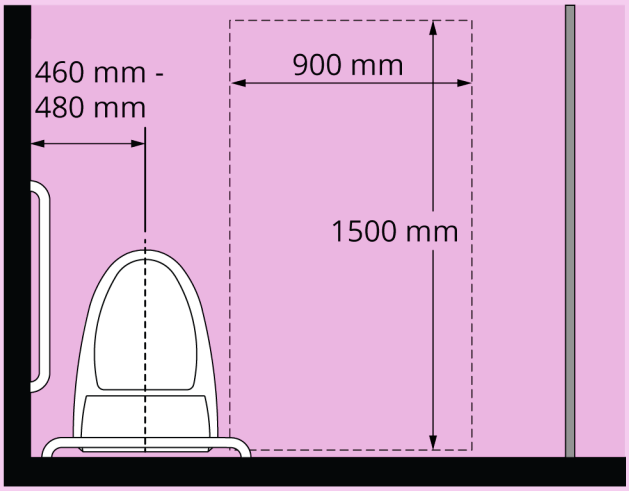


Figure 2.3.4-A Location and Clear Floor Space

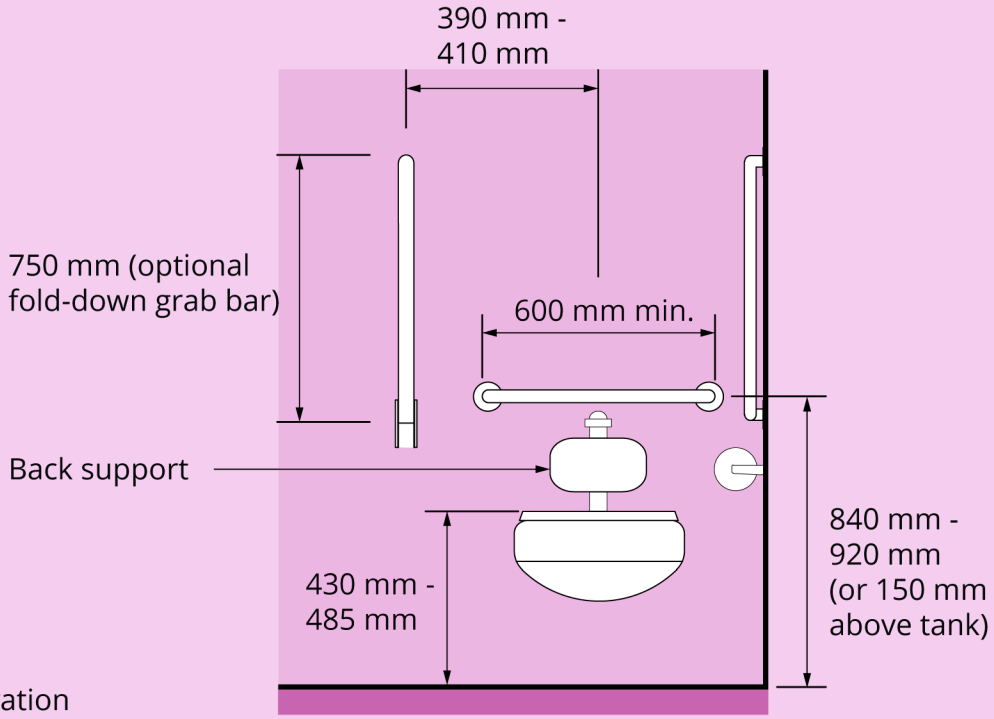


Figure 2.3.4-B Water Closet Front Elevation

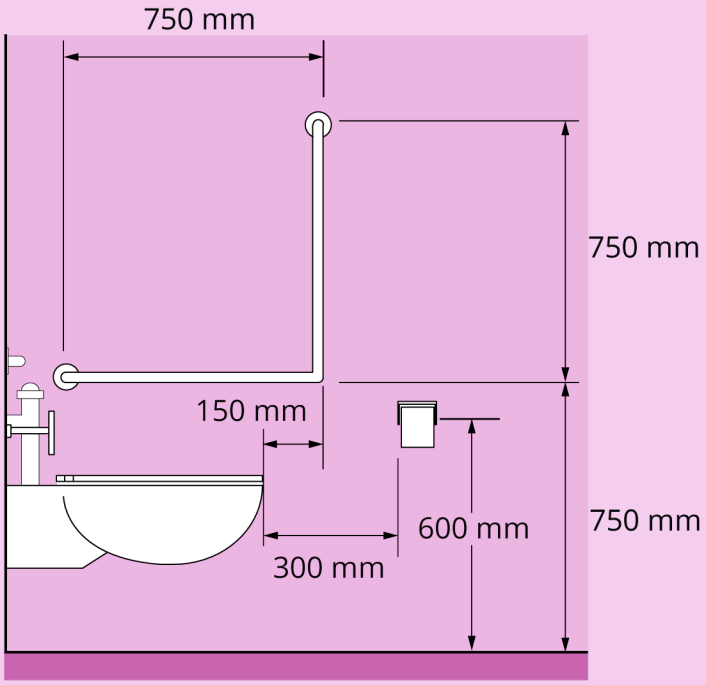


Figure 2.3.4-C Water Closet Side Elevation

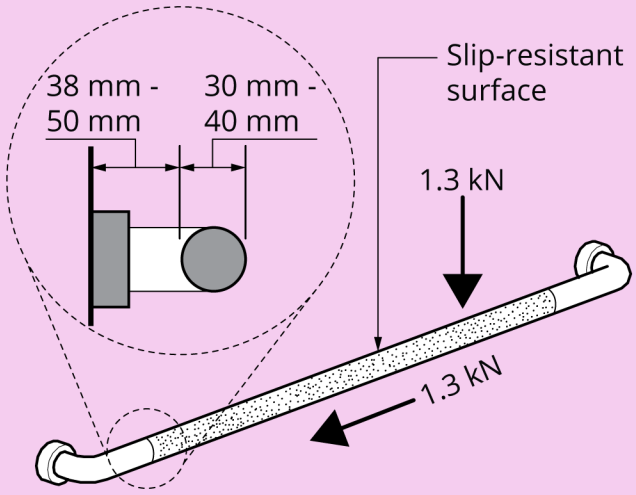


Figure 2.3.4-D Grab Bar Characteristics

2.3.5. Accessible Urinals

Rationale

Accessible urinals should be designed to have lower rim heights. They should provide accessories, such as grab bars, to enhance the usability for all persons including persons with an unstable gait or limited mobility.

Application

The scope of this section applies to accessible urinals. Where urinals are used in multi-stall washrooms in lieu of non-accessible washroom stalls and enclosures, then all the urinals provided should meet the criteria this section. In retrofit applications, the criteria in this section should apply to the maximum extent possible with at least one accessible urinal where it is technically infeasible to make them all accessible.

Related Sections

- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Amount

The number of accessible urinals provided should consider the use of its facilities and the needs of all individuals. Additional accessible urinals should be provided in facilities or areas where the intended individuals will include a greater number of persons with limited mobility or strength, persons of short stature, or children.

Design

The design of accessible urinals should allow individuals, including persons using mobility devices, persons of short stature, persons with limited mobility, who might have balance, strength, pain, or other limitations to use the fixture. Urinals should be designed to offer a certain level of privacy to the user so that they can be comfortable and outside of clear sightlines.

Clear Floor Spaces

Clear floor space should be provided at accessible urinals that are perpendicular to, and centred on, the urinal that is unobstructed by privacy screens.

Flush Controls

Flush controls should be provided at accessible urinals that are automatic (e.g. infra-red or touch-less actuators) and connected directly to a constant power source that does not require replacement components such as batteries. Where flush controls are not automatic (e.g. manual lever-type or push-button actuator), they should have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Grab Bars

Grab bars should be provided at accessible urinals to allow persons using mobility devices, persons with limited mobility, who might have balance, strength, pain, or other limitations to stand or remain seated while using the fixture. The design of the grab bars should give all individuals the confidence and security that they are safe while bearing their weight on the supports.

Requirements

(1) Amount:

Accessible urinals should provide:

(a) A minimum of one, where one or more is provided; and

(b) In high-use public multi-stall washrooms that are gender-specific with more than three (3) urinals, at least one urinal should be provided for children or persons of short stature.

(2) Design:

Accessible urinals should be designed, "Figure 2.3.5-A Urinal Design Front Elevation" and "Figure 2.3.5-B Urinal Design Side Elevation", to:

(a) Be mounted:

(i) On the floor, with its rim level with the floor; or

(ii) With the rim located not more than 430 mm AFF;

(b) Be cane detectable;

(c) Have privacy screens that:

(i) Are mounted 460 mm minimum from the centre line of the urinal; and

(ii) Have a clearance of 50 mm minimum from the grab bars.

(3) Clear Floor Spaces:

Accessible urinals should provide clear floor space that:

(a) Is located perpendicular to, and centred on, the urinal, and unobstructed by privacy screens;

(b) Has no step in front of it; and

(c) Is 900 mm by 1500 mm minimum for a front approach.

(4) Flush Controls:

Accessible urinals should provide flush controls that:

(a) Flush automatically (infra-red or touch-less) and are connected directly to a constant power source, and be equipped with a manual flushing control (lever-type or push button) that:

(i) Is located between 900 mm to 1050 mm AFF;

(ii) Is operable using a closed fist and with a force of 22.2 N maximum; and

(iii) Is located within a reach range that meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(5) Grab Bars:

Accessible urinals should provide grab bars, "[R-2.3.5. (5)]", that:

(a) Include two vertical grab bars that:

(i) Are installed on each side of the urinal;

(ii) Are 600 mm minimum long;

(iii) Are wall mounted, behind the urinal, with their centre line 1000 mm AFF; and

(iv) Are located 380 mm maximum from the centre line of the urinal.

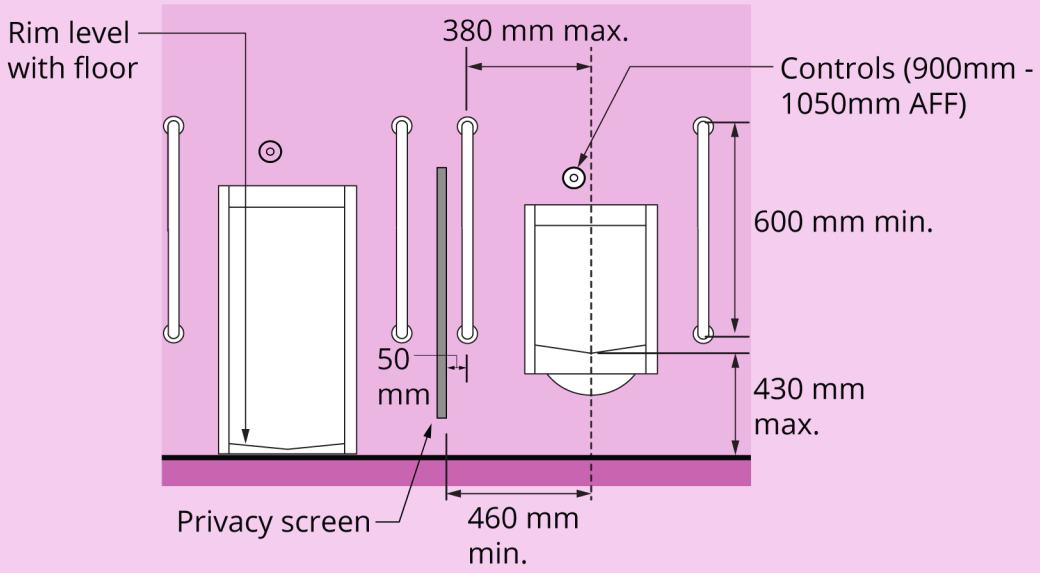


Figure 2.3.5-A Urinal Design Front Elevation

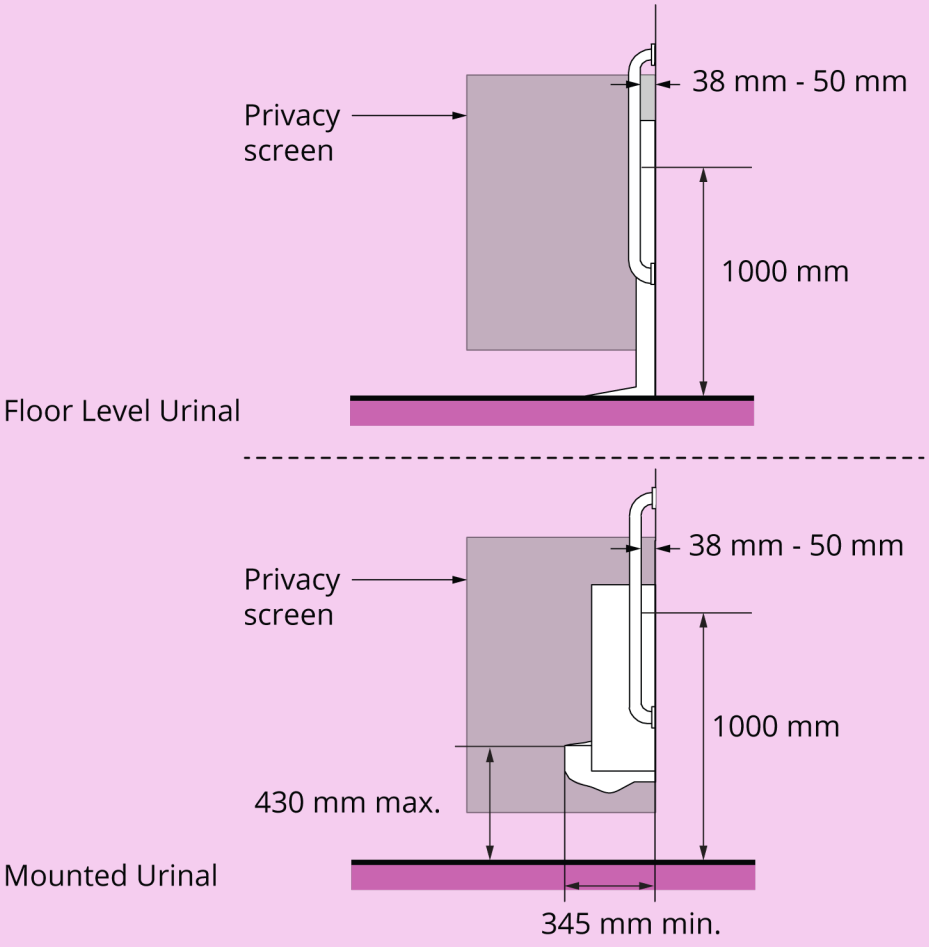


Figure 2.3.5-B Urinal Design Side Elevation

2.3.6. Accessible Lavatories

Rationale

Accessible lavatories should be designed to allow all individuals, including persons using mobility devices, to have clearances to reach controls, soap, and paper towel dispensers.

Application

The scope of this section applies to lavatories, sinks, hand washing, and eye washing stations.

Related Sections

- “2.3.7. Ritual Washing ”
- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Amount

The number of accessible lavatories provided within multi-stall washrooms should consider the use of its facilities and the needs of all individuals. Additional accessible lavatories should be provided in facilities or areas where a greater number of individuals will require accessible lavatories. This will ensure that persons are not waiting for extended periods of time to use the facility.

Design

The design of accessible lavatories should allow all individuals, including persons using mobility devices, to have knee and toe space, to reach controls and accessories, such as soap and paper towel dispensers. They should be clear of walls, and other obstacles such as fixtures or accessories.

Accessories

Where accessories are provided at accessible lavatories, they should be located consistently and predictably throughout a facility. Accessories should include a soap dispenser, a towel dispenser or other hand drying equipment, a shelf, a mirror, or other dispensing or hand-operated washroom accessories that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Requirements

(1) Amount:

Accessible lavatories should provide:

(a) A minimum of one per washroom.

(2) Design:

Accessible lavatories should be designed, "Figure 2.3.6-A Lavatory – Design", to:

(a) Be located so that the distance between the centre line of the fixture and the side wall:

  (i) Is 460 mm to 600 mm; or

  (ii) Is 600 mm minimum at residential facilities;

(b) Have a rim height 860 mm maximum AFF;

(c) Have insulated pipes, or a water supply temperature limited to 43°C; and

(d) Have a faucet that:

  (i) Operates automatically (running for 15 seconds minimum) or has a manual control that has a lever-type handle or is otherwise operable using a closed fist and does not require the application of continuous force to maintain water flow; and

  (ii) Is located so that the distance from the centre line of the faucet to the edge of the lavatory or, where the lavatory is mounted in a vanity, to the front edge of the vanity is 485 mm maximum;

(e) Have knee and toe space, "Figure 2.3.6-B Lavatory - Clearances", that:

  (i) Is beneath the lavatory;

(ii) Is 920 mm wide by 1500 mm deep to allow for front approach, of which 500 mm maximum depth can be located under the lavatory;

(iii) Is 735 mm high at the front edge;

(iv) Is 685 mm high at a point 200 mm back from the front edge; and

(v) Is 350 mm high over the distance from a point 280 mm to a point 430 mm back from the front edge;

(f) Have operable portions or controls that meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(3) Accessories:

Accessible lavatories should provide accessories that:

(a) Include:

(i) A soap dispenser;

(ii) A recessed, "[R-2.3.6. (3)(a)(ii)]", towel dispenser or other hand drying equipment;

(iii) A shelf;

(iv) A mirror; and

(v) Meet the criteria in section “2.3.8 Washroom and Change Room Accessories”.

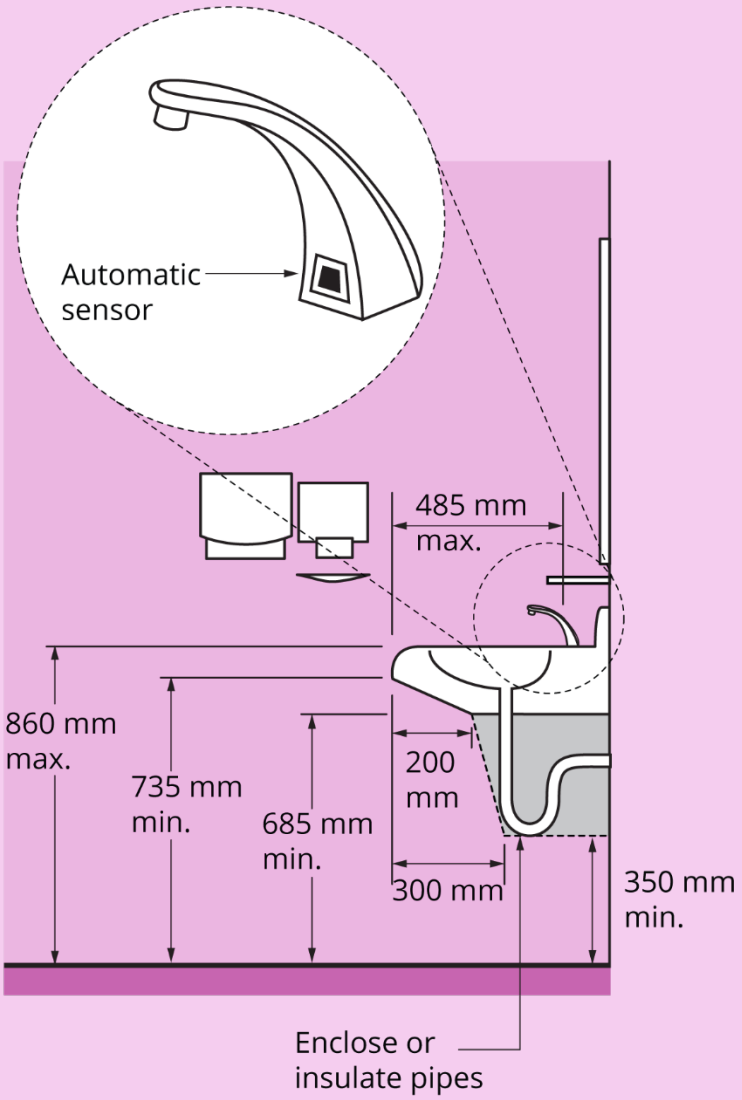


Figure 2.3.6-A Lavatory – Design

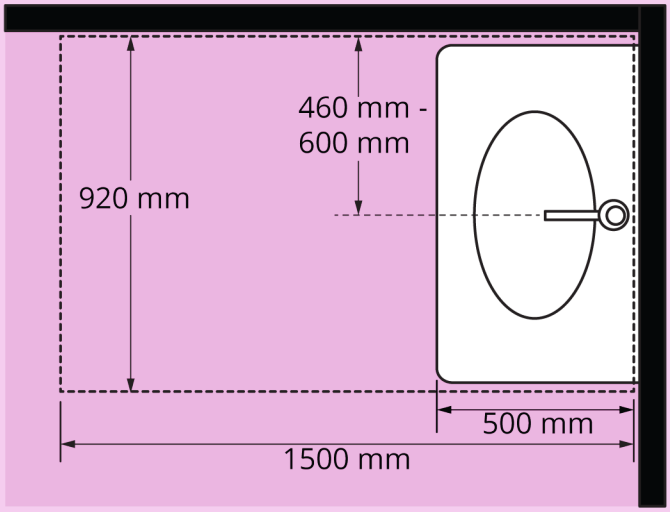


Figure 2.3.6-B Lavatory - Clearances

2.3.7. Ritual Washing

Rationale

Ritual washing, ablution, cleansing, or wudu is practiced by individuals before prayer or mealtimes. It may require washing the face, head, hands, arms, feet, or personal areas for several minutes. Ritual washing facilities should be provided adjacent to wellness and reflection rooms.

Application

[Reserved]

Related Sections

- "2.3.4. Accessible Water Closets"
- "2.3.5. Accessible Urinals"
- "2.3.7. Washroom and Change Room Accessories"
- "2.3.9. Universal Washrooms"

Related References

- Diversity Matters, Multi-Faith Room Provisions in the Workplace, 2018
- Inclusive Design Standards, London Legacy Development Corporation, 2019

Key Considerations

Ablution Facilities

Ablution facilities should consider proximity to wellness and reflection rooms, be designed as separate from washroom facilities, be provided to avoid excessive queuing, and consider the use of its facilities and the needs of all individuals. Additional accessible ablution facilities should be provided in areas where user groups will include a greater number of persons with limited mobility or strength, persons of short stature, or children. Ablution facilities may include wash enclosures at designated fixtures and should provide adequate size and space for approach and use. Ritual washing at lavatories or water closets is not an inclusive solution and may create a health and

safety hazard. Accessible features should be provided to allow for washing the face, head, hands, arms, and feet.

Personal Washing Facilities

Personal washing is practiced by some individuals after using washroom facilities. In private spaces, personal washing may include the use of bidets such as douches, bidet water closets, integrated bidets, or personal bidets. However, personal washing may include the use of containers filled with water to be used in the privacy of a water closet enclosure. In public spaces, personal washing should be thoughtfully considered to avoid creating any risk to health, safety, accessibility, or privacy. Facility operations and maintenance is also important.

Requirements

(1) Ablution Facilities:

Ablution facilities should:

(a) Where provided, have a minimum of one facility that is accessible;

(a) Be located in proximity to wellness and reflection rooms;

(b) Where located within washrooms, be completely separate from a water closet stall or enclosure or lavatory areas;

(b) Provide private enclosures;

(c) Have a clear turning space within an enclosure of 1500 mm minimum;

(d) Have a clear turning space in front of an enclosure of 1500 mm minimum;

(c) Have a sunken trough or footbath;

(d) Have a hand-held shower head with 1800 mm minimum of flexible hose located so that it:

(i) Can be reached from a seated position within 500 mm maximum;

(ii) Can be used for face, arm, and feet washing;

(iii) Operates automatically or is operable using a closed fist with a force of not more than 22.2 N;

(iv) Has a pressure-equalizing or thermostatic mixing valve;

(v) Has single-source water source taps;

(vi) Incorporates in-line filters and water savers;

(vii)Can be used in a fixed position at a height 600 mm to 2030 mm AFF;

(viii) Does not obstruct the use of the grab bars;

(e) Have floor surfaces that are slip-resistant and anti-bacterial;

(f) Have wall surfaces that assist in cleaning, reduce mildew and mould growth, and prevent water damage;

(g) Have hand or foot drying equipment and towel dispensers that:

(i) Are located to be accessible to persons using mobility devices;

(ii) Are located within 500 mm from the front edge of the seat;

(iii) Are located to use without walking on wet floors;

(iv) Meet the criteria in section “2.3.8 Washroom and Change Room Accessories”; and

(h) Where towel dispensers are provided, have waste receptables that meet the criteria in section “2.3.8 Washroom and Change Room Accessories”;

(i) Have a soap dispenser that:

(i) Operates automatically or is operable using a closed fist with a force of not more than 22.2 N; and

(ii) Is located 1100 mm maximum AFF., within 500 mm from the front of the seat or fixture;

(j) Have grab bars that:

(i) Are vertically mounted on each side and meet the criteria in section “2.3.5 Accessible Urinals”; or

(ii) Are horizontally mounted on all sides or fold down and meet the criteria in section “2.3.4 Accessible Water Closets";

(k) Have a non-fixed seat that:

(i) Has arm rests;

(ii) Is height adjustable;

(iii) Is not less than 450 mm wide and 400 mm deep;

(iv) Is designed to carry a load 1.3 kN minimum;

(v) Is located so that the edge of the seat or fixture is within 500 mm of the faucet controls; and

(vi) Has smooth and slip-resistant surface and no rough edges;

(l) Have a low shelf for dry storage of clothes;

(m) Have colour/brightness contrast between operable controls, fixtures, and fittings and the background against which they are seen;

(n) Have coat hooks that meet the criteria in section "2.3.8 Washroom and Change Room Accessories"; and

(o) Have an emergency call system that meets the criteria in section "2.3.9 Universal Washrooms".

(2) Personal Washing Facilities:

The need for, location, and design of personal washing facilities, including grab bars, should be consulted on with GBP students and employees.

2.3.8. Washroom and Change Room Accessories

Rationale

Where dispensing or hand-operated washroom and change room accessories are provided, they should be located consistently and predictably throughout a facility and have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Application

[Reserved]

Related Sections

- "1.5.2. Waste Receptacles and Recycling Bins"
- "2.3.9. Universal Washrooms"
- "2.3.12. Accessible Change Room Stalls"

Related References

- [Reserved]

Key Considerations

Soap Dispensers

Where soap dispensers are provided, they should be designed to have space and reach range dimensions to be usable by all individuals. Soap dispensers should have soap collectors below the dispenser when they are not located above a counter or vanity to prevent soap from creating a slip hazard or dripping on service animals.

Hand Drying Equipment and Towel Dispensers

Where hand drying equipment and towel dispensers are provided, they should be designed to have space and reach range dimensions to be usable by all individuals. Accessories that allow persons to dry their hands help to promote hygiene and sanitation reducing the spread of germs.

Shelves

Where shelves are provided, they should be designed to have space and reach range dimensions to be usable by all individuals.

Shelves provide a dry zone for individuals and help to temporarily store items, such as personal devices and medication, while using washroom facilities.

Mirrors

Where mirrors are provided, they should be designed to be usable by all individuals. Mirrors located above lavatories allow individuals to view their upper body while full-length mirrors allow individuals to view their whole body. All mirrors help to reflect views and light. Tilted or inclined mirrors can be stigmatizing and disorienting and should not be provided.

Baby Change Tables

Where baby change tables are provided, they should be designed to be usable by all individuals. Baby change tables allow a parent or caregiver to safely and securely change and clean up a baby while on the move in public spaces. They should be easy to use and located in close proximity to lavatories to enhance hygiene and sanitation within washroom facilities.

Adult Change Tables

Where adult change tables are provided, they should be designed to be usable by all individuals, including persons using mobility devices. Adult change tables allow a user with or without a personal support worker or caregiver to safely and securely change and clean up while on the move in public spaces with dignity. Without adult change tables, individuals who require the accessory are forced to risk their own health and safety by changing on the floor or elsewhere.

Coat Hooks

Where coat hooks are provided, they should be designed to be usable by all individuals. Coat hooks provide a dry zone for individuals and help to temporarily store items, such as coats and bags, while using washroom facilities. It is important to provide accessories that meet individuals needs to reduce the risk of hazards.

Waste Receptacles and Sharps Bins

Where waste receptacles and sharps bins are provided, they should be designed to consider the needs of the intended individuals and the proximity to available plumbing fixtures and accessories when determining the design and placement within a washroom or change room facility.

Benches and Seats

Where benches and seats are provided, they should be designed to have a variety of accessible options that include seating with and without back support and armrests depending on the type of facility. Where open ended benches are provided, they should have space to allow persons using mobility devices to side transfer. Where armrests are provided, they should have rounded edges, be easily graspable, and be free from obstructions.

Grab Bars

Where grab bars are provided, they should be designed to allow all individuals to be able to support themselves while using a plumbing fixture or accessory. The design of the grab bars should give all individuals confidence and security that they are safe while bearing their weight on the supports.

Controls and Operating Mechanisms

Controls and operating mechanisms should be provided for washroom and change room accessories and be located consistently and predictably throughout a facility, have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Sanitary Dispensers and Waste Receptacles

Where sanitary dispensers and waste receptacles are provided, they should be provided in public washrooms for all user groups and within an accessible reach range from water closets.

Requirements

(1) Soap Dispensers:

Where provided, washroom and change room accessories should include soap dispensers, "Figure 2.3.8-A Accessories – Lavatory", that:

(a) Operate automatically or are operable using a closed fist with a force of 22.2 N maximum;

(b) Are located 1050 mm maximum AFF, within 500 mm maximum from the front of a lavatory;

(c) Are wall mounted adjacent to or behind a lavatory; and

(d) Have soap collectors below the dispenser when not located above the counter to prevent soap from creating a slip hazard.

(2) Hand Drying Equipment and Towel Dispensers:

Where provided, washroom and change room accessories should include hand-drying equipment and towel dispensers that:

(a) Are wall mounted and recessed into a wall;

(b) Are located 1050 mm maximum AFF;

(c) Operate automatically or manually with one hand;

(d) Are 500 mm maximum, measured horizontally, from the edge of the lavatory; and

(e) Consider acoustics.

(3) Shelves:

Where provided, washroom and change room accessories should include shelves that:

(a) Are located 200 mm maximum above the top of a lavatory, or are wall mounted 1050 mm maximum AFF; and

(b) Project 100 mm maximum from the wall or mounting surface.

(4) Mirrors:

Where provided, washroom and change room accessories should include mirrors that:

(a) Are wall mounted with bottom edges 1000 mm maximum AFF that:

(i) Are located above a lavatory; and

(ii) Where full-length, are located clear of plumbing fixtures and other accessories.

(5) Baby Change Tables:

Where provided, washroom and change room accessories should include baby change tables, "Figure 2.3.8-B Baby Change Table", that:

(a) Have a surface height of 860 mm AFF;

(b) Have operable portions or controls that are mounted 900 mm to 1050 mm;

(c) Are designed to support a 0.22 KN (50 lbs) load applied to it;

(d) Have colour/brightness contrast edge from the back wall and at the portion to open the baby change table; and

(e) Does not encroach into a clear floor space.

(6) Adult Change Tables:

Where provided, washroom and change room accessories should include adult change tables that:

(a) Meet the criteria in section "2.3.9. Universal Washrooms".

(7) Coat Hooks:

Where provided, washroom and change room accessories should include coat hooks that:

(a) Have at least two collapsible-type;

(b) Are wall mounted 1050 mm maximum AFF;

(c) Project 50 mm maximum from the wall or mounting surface;

(d) Have colour/brightness contrast from the surroundings; and

(e) Are located on the side wall and the door.

(8) Waste Receptacles and Sharps Bins:

Where provided, washroom and change room accessories should include waste receptacles and sharps bins that:

(a) Have openings that are 900 mm to 1050 mm AFF;

(b) Are recessed or surface mounted and project 100 mm maximum;

(c) Where a lid is provided, require a force of 22 N maximum; and

(d) Meet the criteria in section "1.5.2. Waste Receptacles and Recycling Bins".

(9) Benches and Seats:

Where provided, accessories should include a bench or seat, "Figure 2.3.8-C Bench and Mirror Installation", that:

(a) Has a seat height that is 460 mm height AFF;

(b) Is 510 mm minimum deep;

(c) Has at least one bench that is 2500 mm minimum long;

(d) Provides 50% minimum, rounding up to the nearest whole number, with back support that is 760 mm AFF. or be located against a wall;

(e) Has an arm rest that is 600 mm AFF or has grab bars that meet the criteria in section "2.3.12. Accessible Change Room Stalls"; and

(f) Has a clear floor space that is 900 mm wide by 1500 mm minimum long for a front approach.

(10) Grab Bars:

Where provided, accessories should include grab bars that:

(a) Are between 30 mm to 40 mm in diameter;

(b) Have clearance that is 38 mm to 50 mm from the wall or mounting surface; and

(c) Are installed to bear a load of 1.3 kN (300 lbs) minimum applied vertically or horizontally.

(11) Controls and Operating Mechanisms:

Accessories should provide controls and operating mechanisms that:

(a) Have a dispensing height, "Figure 2.3.8-D Accessories Dispensing Heights", that is 900 mm to 1050 mm AFF;

(b) Have operable portions or controls that are mounted 900 mm to 1050 mm;

(c) Have a clear floor space that is 900 mm by 1500 mm minimum for front approach, or 900 mm by 2200 mm minimum for side approach; and

(d) Have colour/brightness contrast from adjacent surfaces.

(12) Sanitary Dispensers and Waste Receptacles

Where provided, accessories should provide sanitary dispensers and waste receptacles that:

(a) Are placed on the side wall between 400 to 1050 mm AFF beside the water closet in all public washrooms.

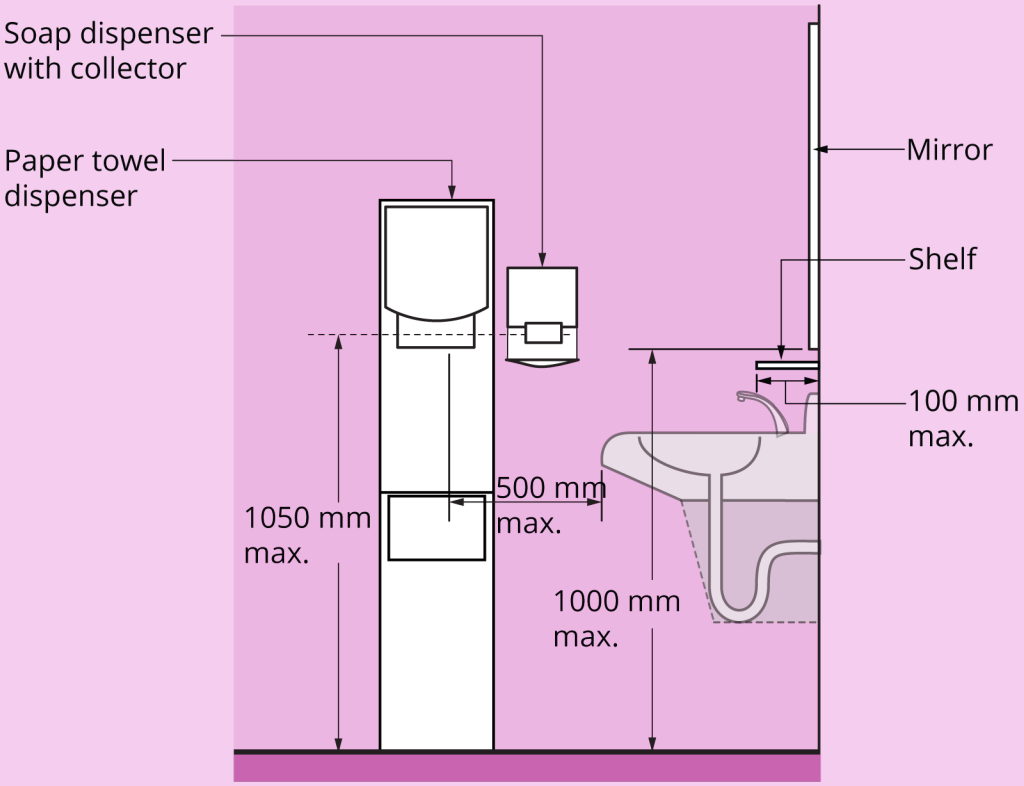


Figure 2.3.8-A Accessories – Lavatory

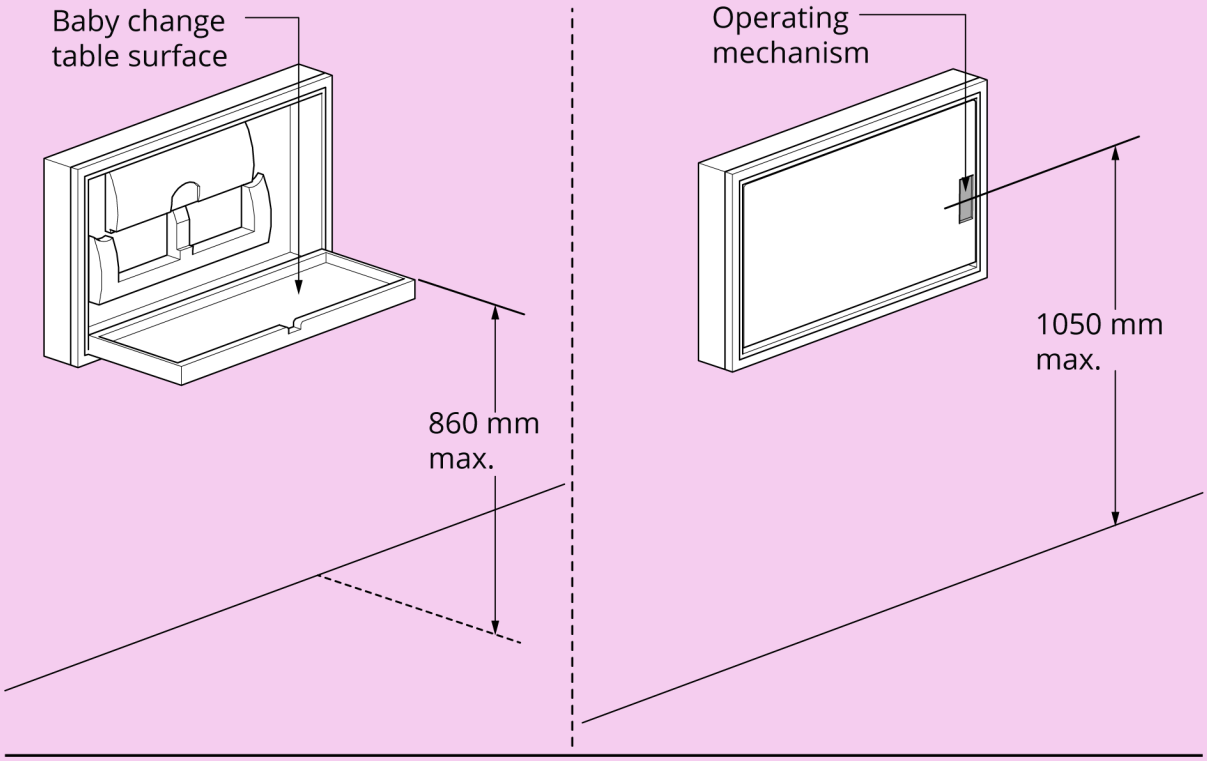


Figure 2.3.8-B Baby Change Table

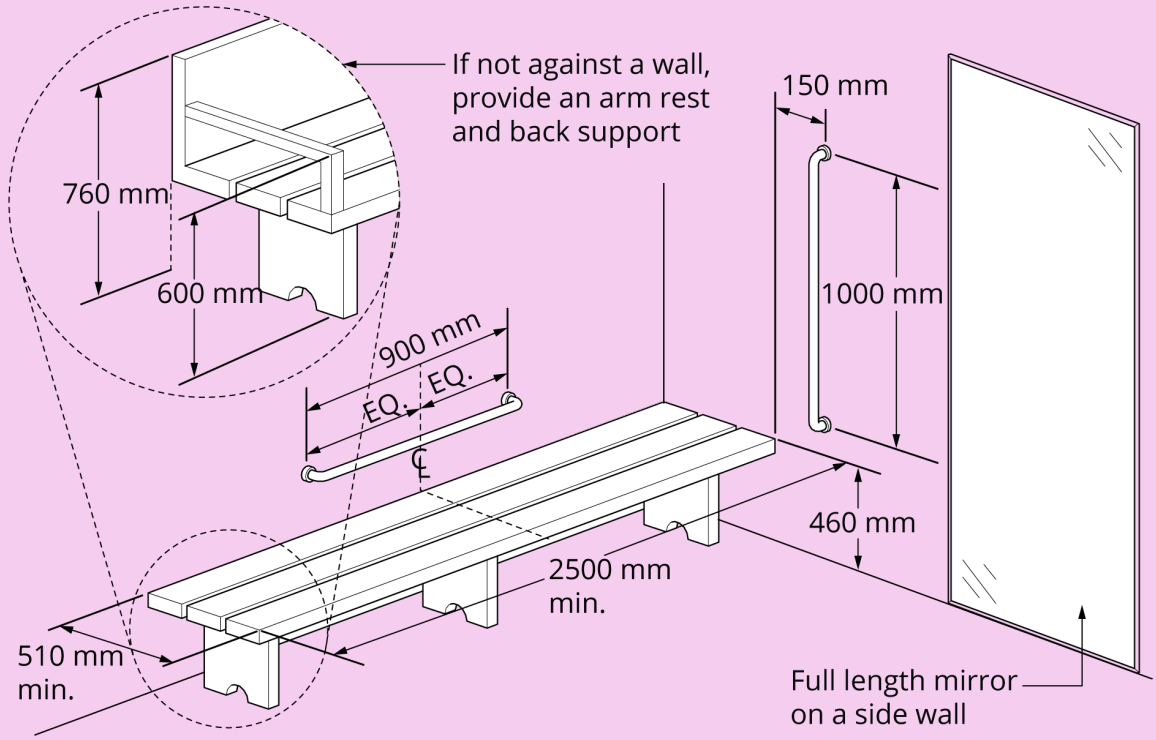


Figure 2.3.8-C Bench and Mirror Installation

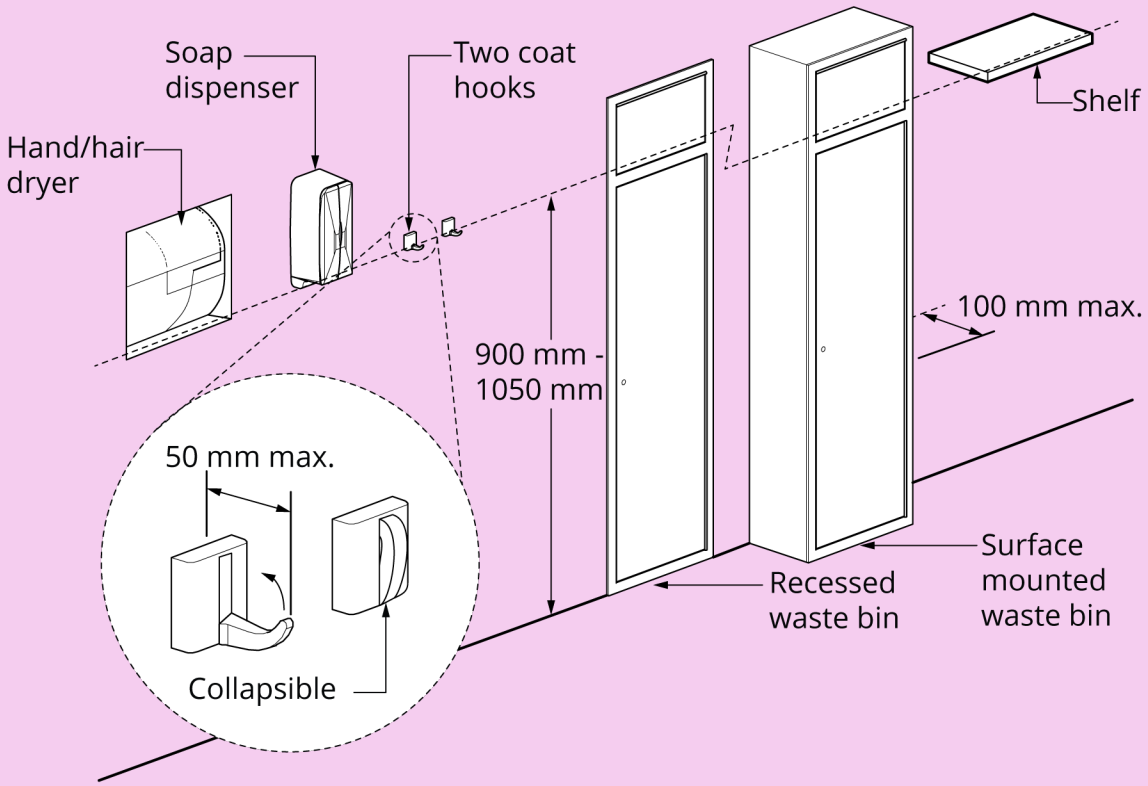


Figure 2.3.8-D Accessories Dispensing Heights

2.3.9. Universal Washrooms

Rationale

Universal washrooms provide the space required for persons using larger mobility devices, individuals being assisted by a personal support worker of the opposite gender, and the space required for privacy to use the adult change table. Universal washrooms also provide an alternative to using gender-specific multi-stall washrooms. They are typically equipped with more accessories that can be used by all individuals.

Application

[Reserved]

Related Sections

- "1.4.5. Public Pools and Spas"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.2.3. Doors and Doorways"
- "2.2.5. Vision Panels and Strips"
- "2.3.1. Multi-Stall Washrooms"
- "2.3.4. Accessible Water Closets"
- "2.3.6. Accessible Lavatories"
- "3.1.1. Interior Lighting"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Amount

The number of universal washrooms should consider the use and occupancy of its facilities and the needs of all individuals on every floor level or storey, as well as, throughout a building.

Location

The location of universal washrooms should be distributed throughout a building as appropriate to the building design and operation. They should be in publicly accessed areas so that individuals are provided with independent, equitable, and dignified access to universal washrooms.

Accessible Path of Travel

An interior accessible path of travel should be connected to universal washrooms to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors

Doors should be provided at universal washrooms to connect interior accessible paths of travel. They should have power door operators.

Clear Turning Spaces

Clear turning spaces should be provided within universal washrooms to create space for persons using mobility devices to make a 360° turn. They should be designed with space for larger mobility devices (i.e., scooters) and adequate space for a personal support worker(s) assisting a user who requires the assistance. Clearances such as the clear transfer space beside the accessible water closet, or the clear floor space at the accessible lavatory, provided within universal washrooms may overlap the clear turning space.

Plumbing Fixtures

Plumbing fixtures should be provided at universal washrooms such as a water closet and a lavatory that can be used by all individuals, including persons using mobility devices, or persons with limited mobility and dexterity.

Accessories

Accessories, such as lighting controlled by motion sensor, should be provided within universal washrooms to enhance the usability and help to ensure that all individuals, including persons using mobility devices, are provided with independent, equitable, and dignified access to the available facility. Accessories should have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Emergency Call Systems

An emergency call system should be provided within universal washrooms. Emergency call systems provide a safeguard to allow individuals, personal support workers, or caregivers to request help if required. Audible and visual signal devices are essential in universal washrooms and should be connected to a central monitoring system within a building.

Adult Change Tables

Adult change tables should be provided within universal washrooms. They should be designed to be usable by all individuals, including persons using mobility devices.

Adult change tables allow a user with or without a personal support worker or caregiver to safely and securely change and clean up while on the move in public spaces with dignity. Without adult change tables, individuals who require the accessory are forced to risk their own health and safety by changing on the floor or elsewhere.

In some facilities movable adult change tables that have locking wheels should be used because they provide more flexibility. Where adult change tables are not installed, clearances and wall reinforcement should be provided for the future installation of adult change tables.

Signage

Signage should be provided at universal washrooms that incorporates the International Symbol of Access (ISA) and clearly, positively, and inclusively identifies the function of the space over the identity of individuals.

Requirements

(1) Amount:

Universal washrooms should provide:

(a) A minimum of one per floor in a building; and

(b) A minimum of two per floor on levels where public pools and public spas are provided that meet the criteria in section "1.4.5. Public Pools and Spas".

(2) Location:

Universal washrooms should be located:

(a) A maximum of 45 m from a multi-stall washroom that meets the criteria section "2.3.1. Multi-Stall Washrooms";

(b) At least one per floor per building; and

(c) At least two per floor with direct access to public pools and public spas that meet the criteria in "1.4.5. Public Pools and Spas".

(3) Accessible Path of Travel:

Universal washrooms should be connected to an interior accessible path of travel that:

(a) Meets the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(4) Doors:

Universal washrooms should provide a door, "Figure 2.3.9-A Universal Washroom", that:

(a) Has a graspable latch-operating mechanism that:

(i) Is operable using a closed fist and with a force of 22.2 N maximum; and

(ii) Is located between 900 mm to 1050 mm AFF;

(b) Is capable of being locked from the inside and released from the outside in case of an emergency;

(c) Meets the criteria in section "2.2.3. Doors and Doorways"; and

(d) Is equipped with a power door operator that meets the criteria in section "2.2.5. Vision Panels and Strips".

(5) Clear Turning Spaces:

Universal washrooms should provide a clear turning space, "[R-2.3.9. (5)]", that:

(a) Is 2500 mm minimum in diameter.

(6) Plumbing Fixtures:

Universal washrooms should provide plumbing fixtures that include:

(a) Water closets that meet the criteria in section "2.3.4. Accessible Water Closets"; and

(b) Lavatories that meet the criteria in section "2.3.6. Accessible Lavatories".

(7) Accessories:

Universal washrooms should provide accessories that:

(a) Include a baby change table in facilities that are used by parent/caregivers with children;

(b) Include lighting controlled by motion sensor that:

(i) Is 100 lux minimum, measured on the floor surface;

(ii) Has an emergency power source; and

(iii) Meets criteria in section "3.1.1. Interior Lighting"; and

(c) Have audible and visual signaling components of a fire alarm that meet the local building code requirements; and

(d) Meet criteria in section “2.3.8 Washroom and Change Room Accessories”.

(8) Emergency Call Systems:

Universal washrooms should provide an emergency call system, "[R-2.3.9. (8)]", "Figure 2.3.9-B Emergency Call System Signage", that:

(a) Consists of audible and visual signal devices;

(b) Is located inside and outside the universal washroom;

(c) Is activated by a control device inside the universal washroom;

(d) Has an emergency sign that:

(i) Is posted 300 mm maximum above the operable portions or controls of the emergency button; and

(ii) Contains the words IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AN AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE in letters at least 25 mm high with a 5 mm stroke;

(e) Has accessibility plans and procedures in place to respond to the activation of the emergency call system and includes planning for staff to be trained to respond.

(f) Is connected to a central monitoring system within a building or, in remote facilities that are not monitored by a central monitoring system or staff, is equipped with a feature to release the privacy door locking hardware so that emergency responders or the public can access the washroom and provide help;

(g) Is within reach of an individual seated on the water closet within 600 mm maximum from the front edge of the water closet, and a supine position on the floor surface if a person has fallen 450 mm AFF;

(h) Has operable portions or controls consisting of a vertical emergency push strip extending between 200 mm to 1050 mm AFF. and located within 500 mm of the water closet;

(i) Has two-way communication system that meets the criteria in section “3.2.2. Two-Way Communication Systems”.

(9) Adult Change Tables:

Universal washrooms should provide adult change tables that:

(a) Have a clear space that is 810 mm wide and 1830 mm long for an adult change table;

(b) Have reinforcement in the wall to permit the future installation of the adult change table;

(c) Where installed, "[R-2.3.9. (9)(c)]" should:

(i) Be wall mounted, and is a fold-down table that does not encroach into a clear floor space;

(ii) When fully loaded, have an adjustable surface height, "Figure 2.3.9-C Adult Sized Change Table", that is between 450 mm and 500 mm AFF at the low range, and 850 mm and 900 mm AFF. at the high range;

(iii) Be designed to carry a 1.78 kN (400 lbs) minimum load;

(iv) Have a clear floor space that is parallel to the long side of the table, and is 900 mm wide and 1830 mm long minimum for a side approach;

(v) Have operable portions or controls that are 1050 mm maximum AFF; and

(vi) Have an electrical power source for plug-in hydraulic power assisted models which are preferred; and

(d) Are accompanied by a ceiling lift system to eliminate manual lifting of individuals who are not able to transfer themselves, which should:

(i) Comply with CAN/CSA-Z10535.1 and be installed in accordance with CSA Z10535.2; and

(e) Where a movable adult change table is installed, should:

(i) Be a free-standing mobile unit on wheels with locking brakes; and

(ii) Allow for clearances needed for caregivers to maneuver on both sides.

(10) Signage:

Universal washrooms should provide signage that:

(a) Identifies the function of the space over the identity of individuals, such as gender-non-specific signage with a toilet symbol;

(b) Is wall mounted and clearly communicates how to use:

(i) Door controls and devices, such as privacy locking door hardware and the power door operator; and

(ii) The hydraulic adult change table; and

(c) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

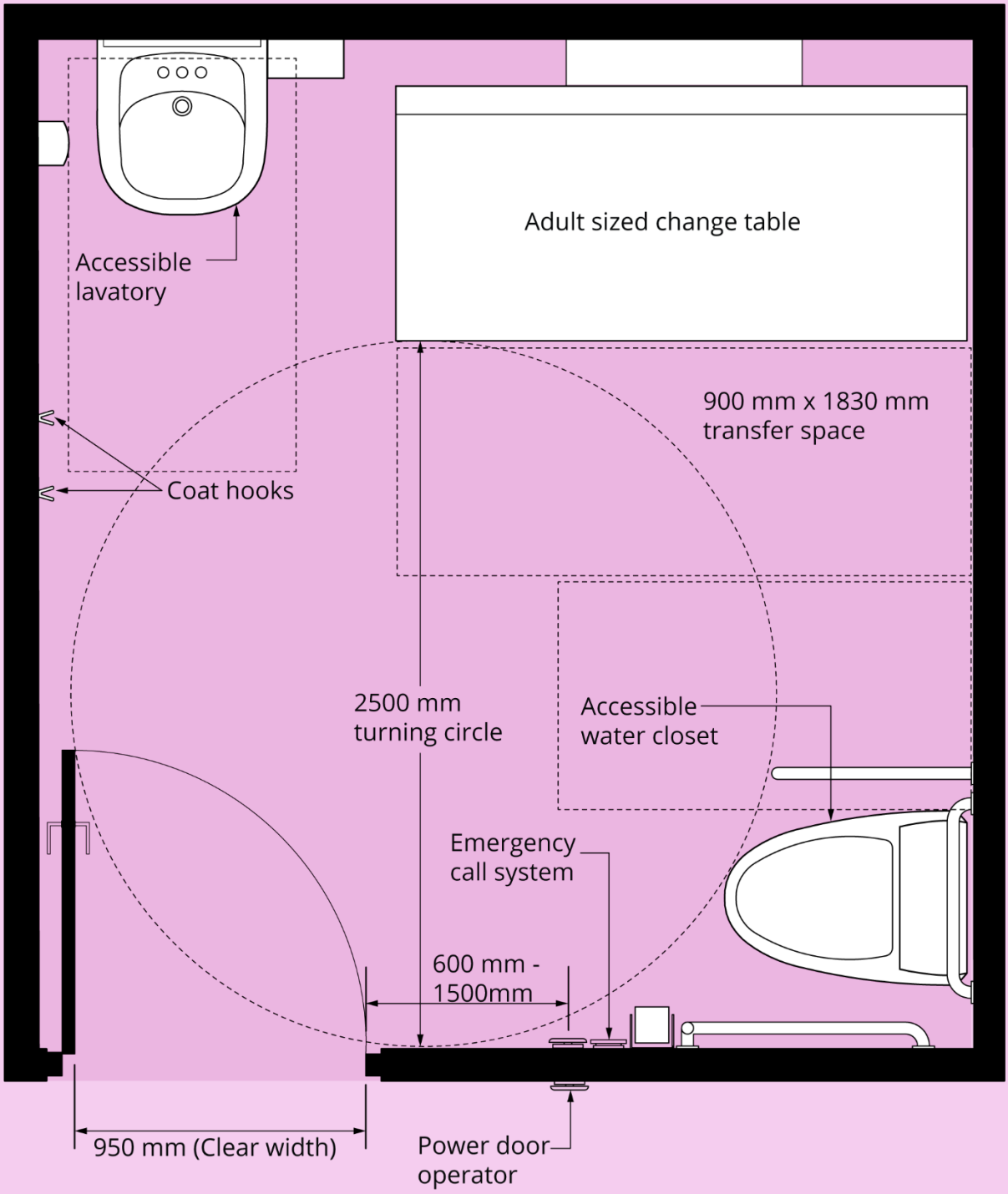


Figure 2.3.9-A Universal Washroom

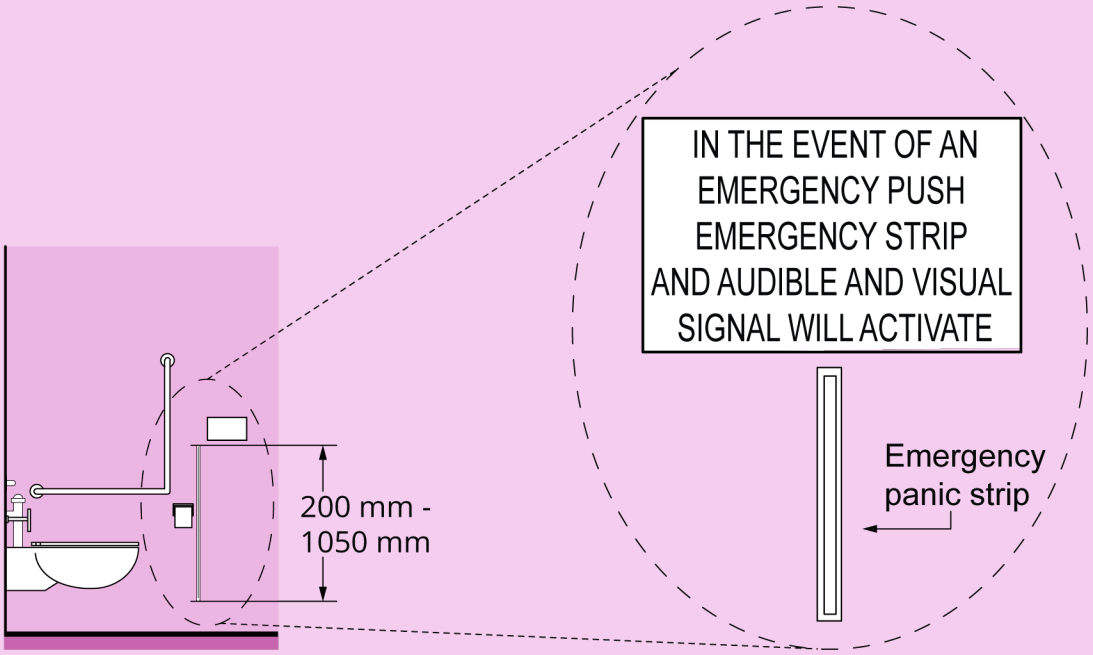


Figure 2.3.9-B Emergency Call System Signage

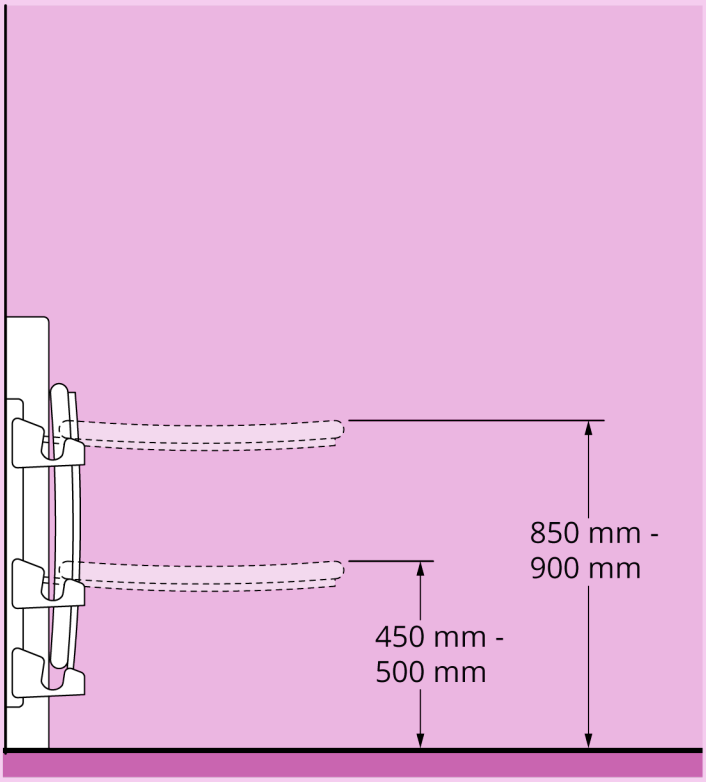


Figure 2.3.9-C Adult Sized Change Table

2.3.10. Accessible Showers

Rationale

Accessible showers provide the space for persons using mobility devices to side transfer to the hinged seat and reach accessories. Accessories, such as grab bars and a hand-held shower head, should be provided to enhance the usability and help to ensure that all individuals are provided with independent, equitable, and dignified access.

Application

The scope of this section applies to accessible showers provided within public washroom and change room facilities, recreation and interior specialized facilities.

Related Sections

- "1.4.5. Public Pools and Spas"
- “2.3.13. Universal Dressing and Shower Rooms”

Related References

- [Reserved]

Key Considerations

Amount

The number of accessible showers should consider the use of its facilities and the needs of all individuals. They should be provided where public showers are provided to ensure that the facility can be used by all individuals.

Floor Surfaces

Floor surfaces should be designed to reduce the risk of tripping and the potential discomfort experienced by persons using mobility devices. Where gratings and grilles, such as drainage tiles, scuppers, or trenches are provided the openings should be reduced in size to prevent canes, crutches, or the wheels of mobility devices from becoming trapped within and creating a tripping hazard.

Thresholds

Where thresholds are provided at accessible showers, they should have a minimal transition to allow for a level floor surface and accessible path of travel. Raised thresholds can create barriers for individuals including persons using mobility devices.

Design

The design of accessible showers should provide the space for persons using mobility devices to side transfer to the hinged seat and reach accessories.

Accessories

Accessories should be provided within accessible showers that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. Accessories should include a hinged seat, grab bars, shower controls, such as a pressure-equalizing or thermostatic mixing valve, and a hand-held shower head, as well as fully recessed soap holders and lighting.

Signage

Signage should be provided and designed to have visual information to indicate the location of accessible showers.

Requirements

(1) Quantity:

Accessible showers should provide:

(a) A minimum of 20%, rounding up to the nearest whole number, but never less than two; and

(b) Where a showering facility is provided for use by the public or customers, or as part of a common-use area for employees, a minimum of one universal dressing and shower room that meets the criteria in section “2.3.13 Universal Dressing and Shower Rooms”.

(2) Floor Surfaces:

Accessible showers should provide floor surfaces that:

(a) Are firm, stable, and slip-resistant, non-abrasive (smooth), easy-to-clean, and have rounded edges; and

(b) Allow for drainage using tiles, scuppers or trenches.

(3) Thresholds:

Accessible showers should provide thresholds that:

(a) Are level;

(b) Have a 0 mm to 6 mm maximum vertical rise; or

(c) Have a 6.1 mm to 13 mm maximum vertical rise with a beveled edge of 1:2 (50%) maximum.

(4) Design:

Accessible showers should be designed, "Figure 2.3.10-A Shower Stall and Transfer Space", to:

(a) Be 900 mm deep by 1500 mm wide minimum;

(b) Have a clear floor space that:

(i) Is at the entrance to the shower; and

(ii) Is 900 mm deep and the same width as the shower (1500 mm minimum); and

(c) Have no doors (curtains or fully glazed doors) that obstruct the shower controls or the clear floor space.

(5) Accessories:

Accessible showers should provide accessories, "Figure 2.3.10-B Accessible Shower", that:

(a) Include a hinged seat that:

(i) Is 450 mm wide by 400 mm deep minimum;

(ii) Is mounted on the same side wall as the vertical grab bar between 460 mm and 480 mm AFF;

(iii) Is designed to carry a 1.3 kN minimum load;

(iv) Is located so that the edge of the seat is within 500 mm of the shower controls;

(v) Has a smooth and slip-resistant surface and no rough edges; and

(vi) Allows water to drain;

(b) Include one vertical grab bar that:

(i) Is 1000 mm long;

(ii) Is located on the side wall between 50 mm and 80 mm from the adjacent clear floor space; and

(iii) Is mounted with the lower end between 600 mm and 650 mm AFF;

(c) Include one continuous L-shaped grab bar that:

(i) Is located on the wall opposite the entrance to the shower;

(ii) Has a 1000 mm long horizontal component, and is mounted between 750 mm to 870 mm AFF; and

(iii) Has a 750 mm long vertical component, and is mounted between 400 mm to 500 mm from the side wall on which the vertical grab is mounted;

(d) Include one horizontal grab bar that:

(i) Is 750 mm long;

(ii) Is located on the side wall without the hinged seat; and

(iii) Is mounted between 750 mm to 870 mm AFF;

(e) Include a pressure-equalizing or thermostatic mixing valve that:

(i) Is operable using a closed fist and with a force of 22.2 N maximum;

(ii) Is mounted on the wall opposite the entrance to the shower at 1050 mm AFF; and

(iii) Is located within reach of the seat;

(f) Include a hand-held shower head that:

(i) Has 1800 mm minimum of flexible hose;

(ii) Is located so it can be reached from a seated position;

(iii) Can be used in a fixed position at a height of 1200 mm and 2030 mm AFF; and

(iv) It does not obstruct the use of the grab bars;

(g) Include fully recessed soap holders that can be reached within 500 mm from the seated position; and

(h) Include lighting that:

(i) Is waterproof; and

(ii) Has a lux level that is at least 100 lux greater than that provided at the remaining floor surface.

(6) Signage:

Accessible showers should provide signage that:

(a) Indicates the location of accessible showers;

(b) Includes the International Symbol of Access;

(c) Has appropriate graphical or textural information that clearly indicates the type of facilities available;

(d) Provides the same information in both visual and tactile forms; and

(e) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

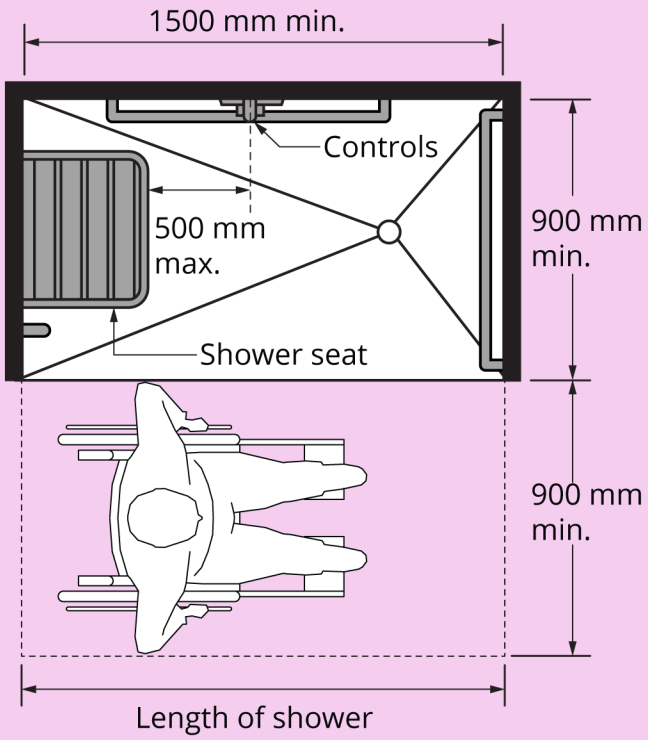


Figure 2.3.10-A Shower Stall and Transfer Space

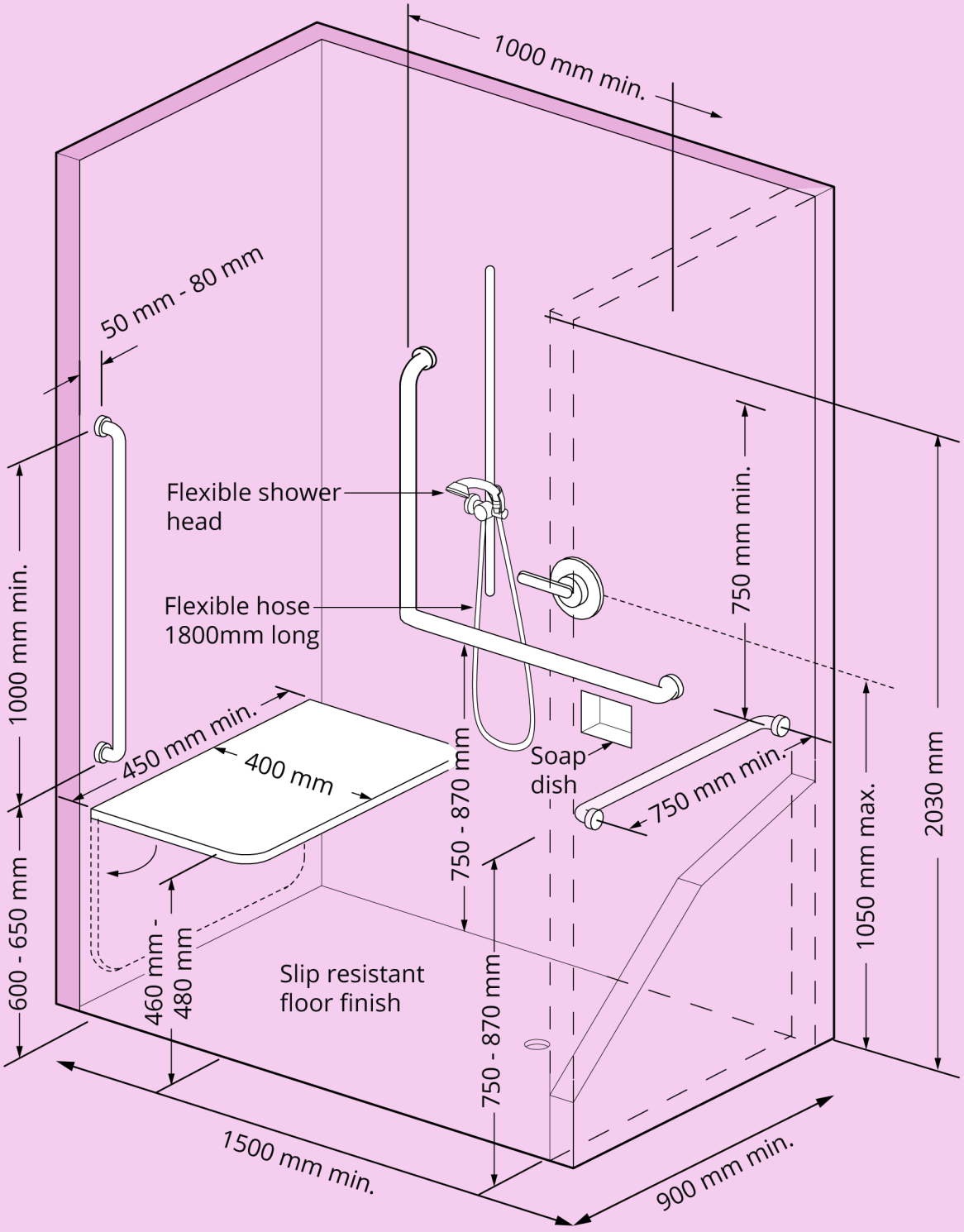


Figure 2.3.10-B Accessible Shower

2.3.11. Accessible Change Rooms

Rationale

Accessible change rooms should be designed for all individuals to have a safe, hygienic and dignified changing experience. They should include accessible washrooms, showers, accessible change room stalls, and accessories.

Application

The scope of this section applies to indoor and outdoor accessible change rooms such as GBP team dressing rooms or locker rooms and dressing rooms or fitting rooms.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "2.2.3. Doors and Doorways"
- "2.3.1. Multi-Stall Washrooms"
- "2.3.7. Ritual Washing "
- "2.3.10. Accessible Showers"
- "2.3.12. Accessible Change Room Stalls"
- "2.4.4. Lockers and Baggage Storage Areas"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be provided throughout accessible change rooms to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided at accessible change rooms, but it is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy. Where doors are provided at accessible change room facilities they should have power door operators.

Multi-Stall Washrooms

Multi-stall washrooms should be provided within accessible change rooms. They are a basic health and accessibility requirement of a building and should be designed for all individuals.

Accessible Showers

Accessible showers should be provided within accessible change rooms. They should be designed to provide space for persons using mobility devices to side transfer to the hinged seat and reach accessories.

Accessible Change Room Stalls

Accessible change room stalls should be provided within accessible change rooms to enhance the usability and help to ensure that all individuals, including persons using mobility devices, are provided with independent, equitable, and dignified access to the available facility.

Accessories

Accessories should be provided within accessible change rooms that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. Accessories, such as handrails, that are provided along the walls from pool decks to main areas within change rooms so that persons with low stamina can be supported and safely navigate the change room.

Signage

Signage should be provided at accessible change rooms that incorporates the International Symbol of Access (ISA) and clearly, positively, and inclusively identifies the function of the space over the identity of individuals.

Requirements

(1) Accessible Path of Travel:

Accessible change rooms should provide interior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Doors and Doorways:

Accessible change rooms should provide doors and doorways that:

(a) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Multi-stall Washrooms:

Accessible change rooms should provide multi-stall washrooms that:

(a) Meet the criteria in section "2.3.1. Multi-Stall Washrooms".

(4) Accessible Showers:

Accessible change rooms should provide accessible showers that:

(a) Include at least two where showers are provided in a group; and

(b) Meet the criteria in section "2.3.10. Accessible Showers".

(5) Accessible Change Room Stalls:

Accessible change rooms should provide accessible change room stalls that:

(a) Meet the criteria in section "2.3.12. Accessible Change Room Stalls".

(6) Accessories:

Accessible change rooms should provide accessories that:

(b) Include handrails that:

(i) Are mounted at 865 mm to 965 mm AFF; and

(ii) Are located along the walls from pool decks to main areas within change rooms;

(c) Include lockers that:

(i) Are designed to distinguish upper and lower units for persons who are blind or have low vision; and

(ii) Meet the criteria in section "2.4.4. Lockers and Baggage Storage Areas"; and "2.3.8 Washroom and Change Room Accessories".

(7) Signage:

Accessible change rooms should provide signage that:

(a) Identifies the function of the space over the identity of individuals; and

(b) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

2.3.12. Accessible Change Room Stalls

Rationale

Accessible change room stalls should be provided within accessible change room facilities to enhance usability and help to ensure that all individuals are provided with independent, equitable, and dignified access to the available facility. Accessible change rooms stalls should be designed to provide space and clearances, as well as integrate accessible elements and accessories.

Application

[Reserved]

Related Sections

- “2.3.2. Accessible Water Closet Stalls and Enclosures”
- “2.3.7. Ritual Washing ”

Related References

- [Reserved]

Key Considerations

Amount

The number of accessible change room stalls provided within accessible change room facilities should consider the use of its facilities and the needs of all individuals.

Doors

Doors should be provided at accessible change room stalls to connect interior accessible paths of travel. The clear width at doors should be provided with unobstructed entry and egress that is the same as the door to the accessible change room facility. This will ensure that if a person is able to enter the accessible change room facility, they will also be able to enter the accessible change room stall.

Clear Turning Spaces

Clear turning spaces should be provided within accessible change room stalls to create space for persons using mobility devices to make a 360° turn.

Accessories

Accessories should be provided within accessible change room stalls that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Requirements

(1) Amount:

Accessible change room stalls should provide:

(a) A minimum of 20% of the total in a group, rounding up to the nearest whole number, but never less than one.

(2) Doors:

Accessible change room stalls should provide a door, “Figure 2.3.12-A Accessible Change Room Stalls”, that:

(a) Meets the criteria in section “2.3.2. Accessible Water Closet Stalls and Enclosures”.

(3) Clear Turning Spaces:

Accessible change room stalls should provide a clear turning space, “[R-2.3.12. (3)]”, that:

(a) Is 2500 mm minimum in diameter for 360° turns.

(4) Accessories:

Accessible change room facilities should provide accessories that:

(a) Include a mirror that:

(i) Is full-length; and

(ii) Does not reflect the door;

(b) Include a bench;

(c) Include one horizontal grab bar that:

(i) Is 900 mm long;

(ii) Is mounted 750 mm AFF; and

(iii) Has its centre line aligned with the middle of the bench;

(d) Include one vertical grab bar that:

(i) Is 1000 mm long;

(ii) Is mounted with the lower end at 750 mm AFF; and

(iii) Is 150 mm from the edge of the bench;

(e) Include coat hooks; and

(f) Meet criteria in section "2.3.8 Washroom and Change Room Accessories".

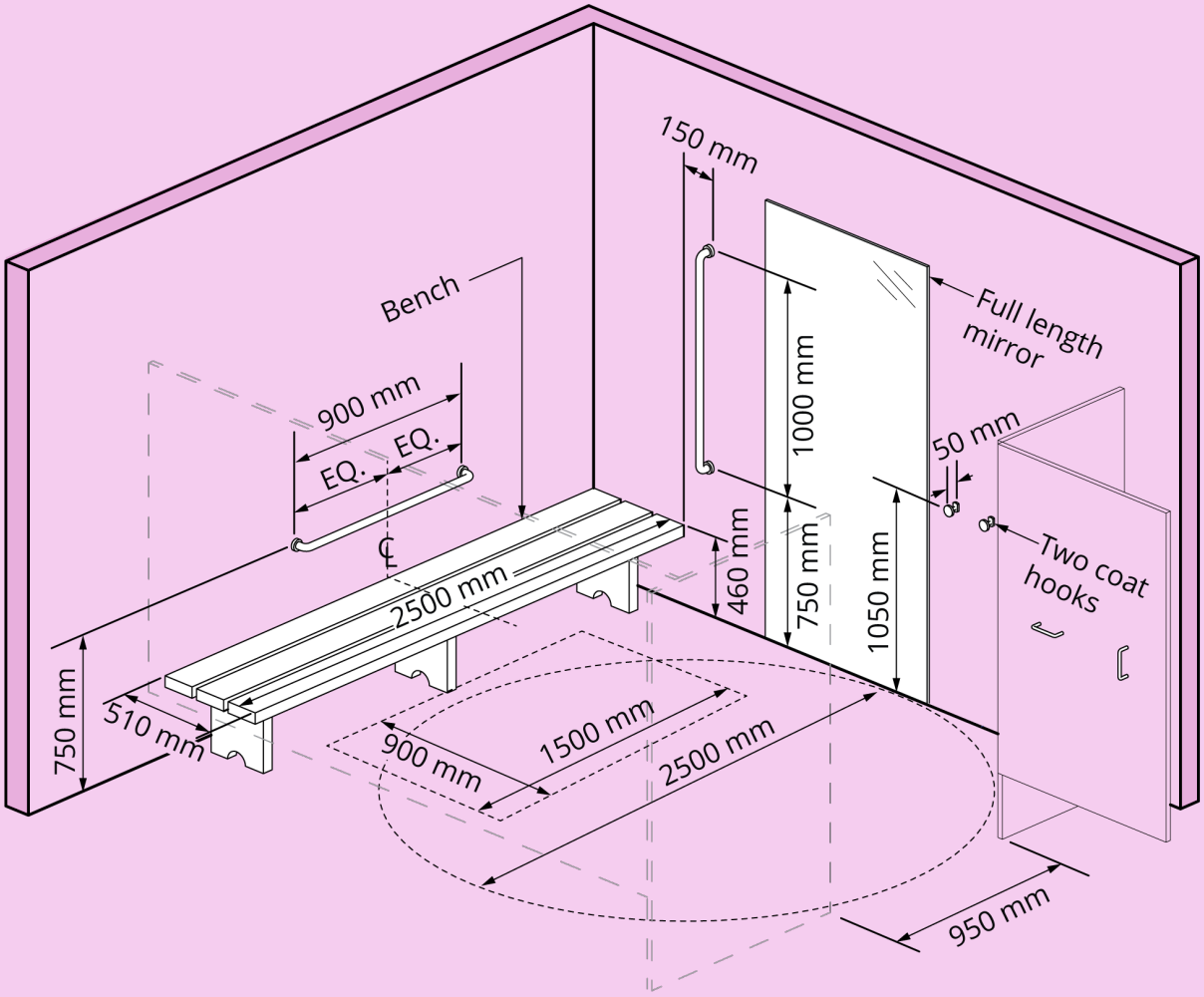


Figure 2.3.12-A Accessible Change Room Stalls

2.3.13. Universal Dressing and Shower Rooms

Rationale

Universal dressing and shower rooms combine the function of universal washrooms and accessible showers into a single room to provide additional privacy and space when compared to accessible change room facilities. Where provided, they should be in close proximity to multi-stall washrooms and accessible change rooms.

Application

The scope of this section applies to universal dressing and shower rooms adjacent to accessible change room facilities such as GBP team dressing rooms or locker rooms, and gender-specific dressing rooms or fitting rooms.

Related Sections

- “2.1.1. Interior Accessible Paths of Travel”
- “2.2.3. Doors and Doorways”
- “2.3.7. Ritual Washing ”
- “2.3.9. Universal Washrooms”
- “2.3.10. Accessible Showers”
- “3.2.1. Signage and Wayfinding Systems”

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be provided throughout universal dressing and shower rooms to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided at universal dressing and shower rooms, but it is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy. Where doors are provided at accessible change room facilities they should have power door operators.

Showers

Accessible showers should be provided within universal dressing and shower rooms. They should be designed to provide space for persons using mobility devices to side transfer to the hinged seat and reach accessories.

Accessories

Accessories should be provided within universal dressing and shower rooms that have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Signage

Signage should be provided at universal dressing and shower room facilities that incorporates the International Symbol of Access (ISA) and clearly, positively, and inclusively identifies the function of the space over the identity of individuals.

Universal Washrooms

Universal washrooms should be provided within universal dressing and shower room. They should provide the space required for persons using larger mobility devices, persons being assisted by a personal support worker(s) of the opposite gender, and the space required for privacy to use the adult change table.

Requirements

(1) Accessible Path of Travel:

Universal dressing and shower rooms should provide interior accessible paths of travel that:

(a) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Doors and Doorways:

Universal dressing and shower rooms should provide doors and doorways that:

(a) Have a door capable of being locked from the inside and released from the outside in the event of an emergency; and

(b) Meet the criteria in section “2.2.3. Doors and Doorways”.

(3) Showers:

Universal dressing and shower rooms should provide accessible showers that:

(a) Meet the criteria in section "2.3.10. Accessible Showers".

(4) Accessories:

Universal dressing and shower rooms should provide accessories that:

(a) Meet criteria in “2.3.8 Washroom and Change Room Accessories"; and

(b) Meet the criteria in section "2.3.9. Universal Washrooms".

(5) Signage:

Universal dressing and shower rooms should provide signage that:

(a) Identifies the function of the space over the identity of individuals; and

(b) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

(6) Universal Washrooms:

Universal dressing and shower rooms, "Figure 2.3.13-A Universal Dressing and Shower Rooms", should provide universal washrooms that:

(a) Meet the criteria in section "2.3.9. Universal Washrooms".

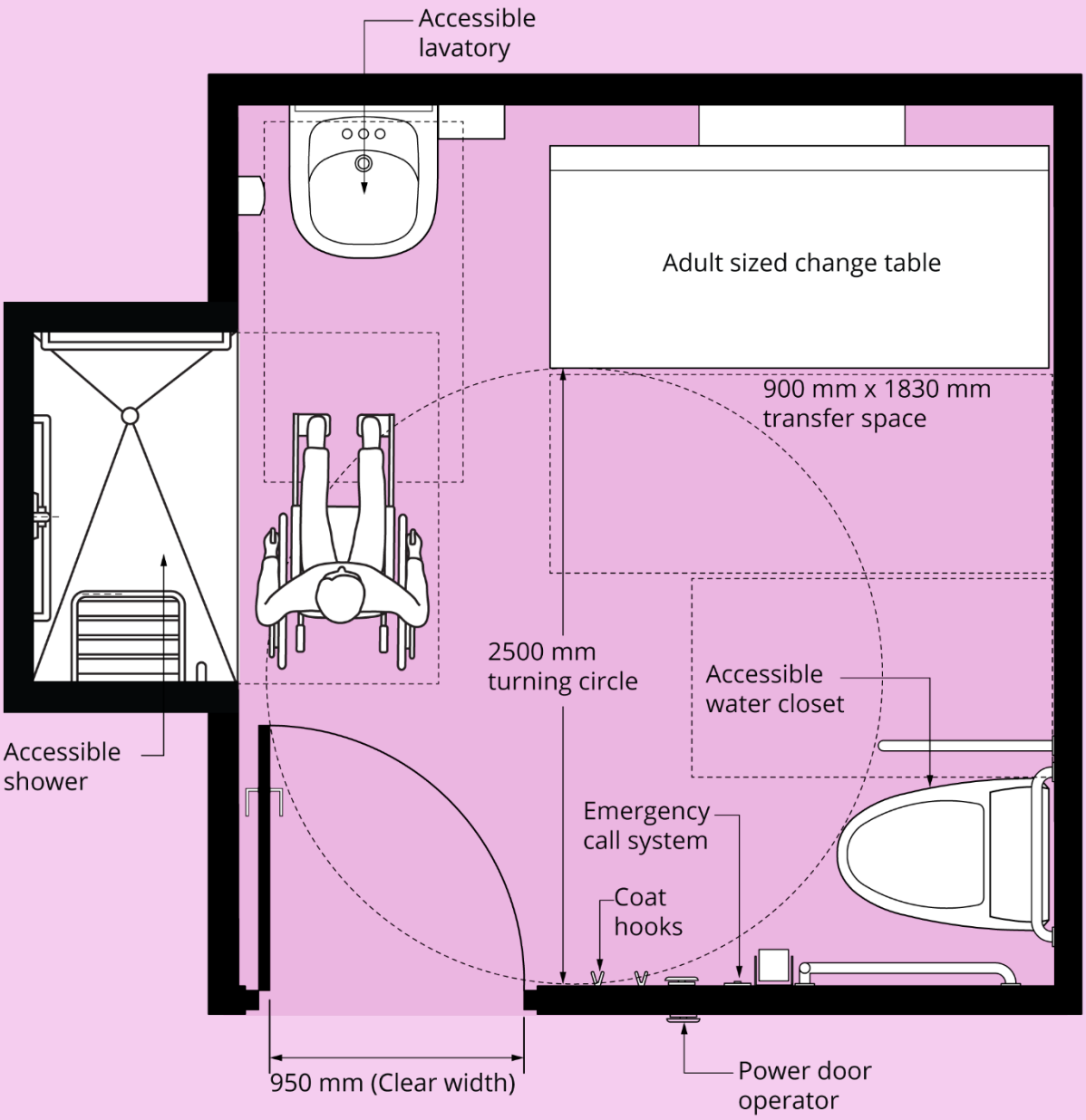


Figure 2.3.13-A Universal Dressing and Shower Rooms

2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains

Rationale

Water bottle filling stations and drinking fountains should be connected to accessible paths of travel and located at high-use areas. They should be designed to be recessed in a wall so not to obstruct or protrude into the interior accessible path of travel. Water bottle filling stations are preferred over drinking fountains, however where space permits the use of a combination plumbing fixture is permitted.

Application

[Reserved]

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.6.2. Tactile Attention Indicators"
- "1.6.3. Tactile Direction Indicators"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.1.2. Obstacles"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Amount

The number of accessible water bottle filling stations and drinking fountains provided should consider the use of its facilities and the needs of all individuals.

Accessible Path of Travel

An interior or exterior accessible path of travel should be connected to water bottle filling stations and drinking fountains to allow for a continuous, unobstructed route providing interior or exterior access to elements.

Water Bottle Filling Stations

Water bottle filling stations should be designed to be used by all individuals and have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Drinking Fountains

Drinking fountains should be designed to be used by all individuals and have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist.

Requirements

(1) Amount:

Interior water bottle filling stations and drinking fountains should provide:

(a) All accessible units, "[R-2.3.14. (1)(a)]"; and

(b) A minimum of one accessible unit per floor in multi-unit facilities.

(2) Accessible Path of Travel:

Interior water bottle filling stations and drinking fountains should be connected to interior or exterior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel", or "1.1.1. Exterior Accessible Paths of Travel"; and

(b) Where tactile walking surface indicators are provided to water bottle filling stations and drinking fountains, meet the criteria in section "1.6.2. Tactile Attention Indicators" and "1.6.3. Tactile Direction Indicators".

(3) Water Bottle Filling Stations:

Interior water bottle filling stations should be designed to:

(a) Be a pedestal style, "Figure 2.3.14-A Pedestal Style Unit", that is securely mounted on a hard floor surface, or a wall mounted style, "Figure 2.3.14-B Wall Mounted Unit", that is recessed, so that it is flush with the adjacent wall surface; and

(b) Have a bottle rest platform that is 900 mm to 915 mm AFF;

(c) Have operable portions or controls that:

(i) Activate automatically; or

(ii) Are manual and located on the front face of the unit, and are operable at a height of 1050 mm maximum AFF; and

(iii) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms";

(d) Have rounded corners, with no burrs or sharp edges;

(e) Be cane detectable that:

(i) Is at or below 680 mm; and

(ii) Meet the criteria in section "2.1.2. Obstacles";

(f) Have colour/brightness contrast from adjacent surfaces; and

(g) Have a clear floor space that is 900 mm by 1500 mm for front approach, or 900 mm by 2200 mm for side approach.

(4) Drinking Fountains:

Interior drinking fountains should be designed to:

(a) Have a spout that:

(i) Provides a water stream at a vertical angle of 30°, where it is located less than 75 mm from the front edge, or a water stream at a vertical angle of 15°, where it is located 75 mm to 125 mm from the front edge;

(ii) Is 915 mm maximum AFF; and

(iii) Projects water minimum 100 mm high;

(b) Have knee and toe space that:

(i) Is under the fountain;

(ii) Is 735 mm minimum high AFF at the front edge, 500 mm minimum deep, and 900 mm minimum wide; and

(iii) Is 350 mm high AFF. from a point 300 mm back from the front edge to the wall;

(c) Have operable portions or controls that:

(i) Are located on the front face of the unit;

(ii) Are 1050 mm maximum AFF;

(iii) Are easily operated from a mobility device using one hand with a force of 22 N maximum or operate automatically; and

(iv) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms";

(d) Have a rounded-corner design with no burrs or sharp edges;

(e) Be cane detectable, "[R-2.3.14. (4)(e)]", that:

(i) Is at or below 680 mm; and

(ii) Meet the criteria in section "2.1.2. Obstacles";

(f) Have colour/brightness contrast from adjacent surfaces; and

(a) Have a clear floor space that is 900 mm by 1500 mm for front approach, or 900 mm by 2200 mm for side approach.

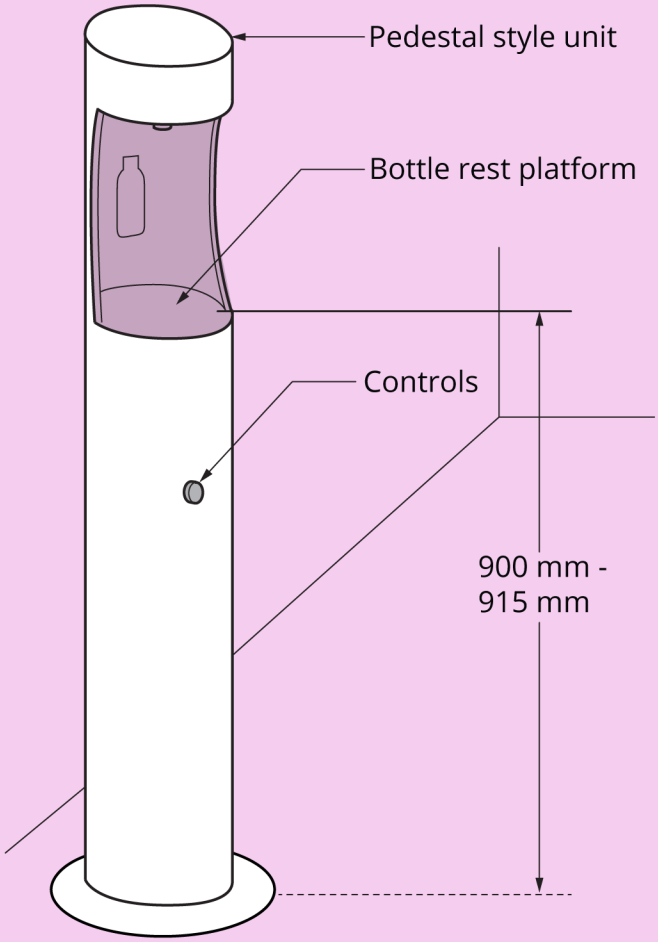


Figure 2.3.14-A Pedestal Style Unit

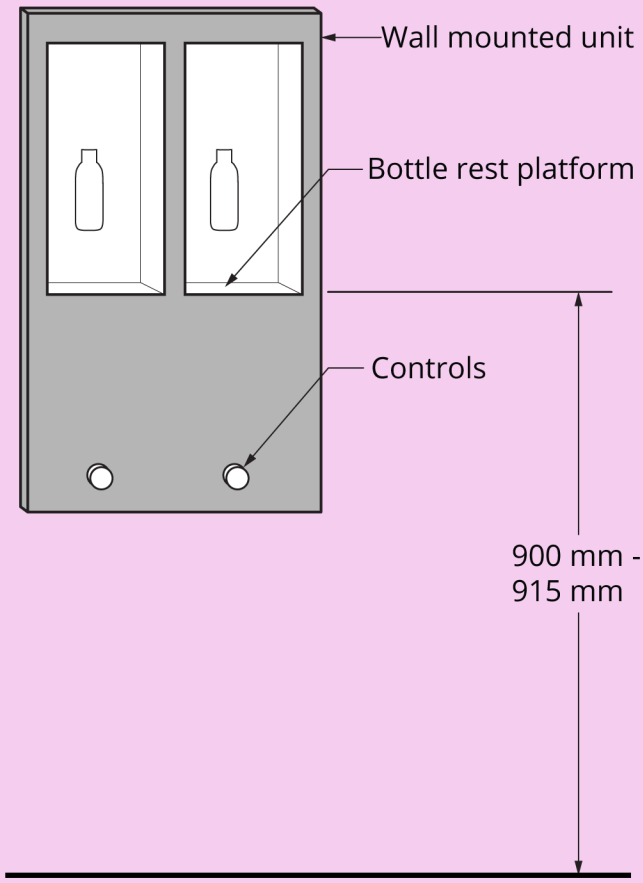


Figure 2.3.14-B Wall Mounted Unit

2.4. Interior Rooms and Areas

Section Summary

This section reviews the accessible design requirements for interior rooms and areas intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. An interior accessible path of travel should be provided into and throughout interior rooms and areas to ensure that all individuals can safely navigate throughout a building.

Contents in Section

2.4.1. Service Counters

2.4.2. Queuing Guides and Waiting Areas

2.4.3. Mobility Device Storage Areas

2.4.4. Lockers and Baggage Storage Areas

2.4.5. Stages, Platforms and Performance Areas

2.4.6. Kitchens and Kitchenettes

2.4.7. Cafeteria, Eating and Dining Areas

2.4.8. Offices and Work Areas

2.4.9. Meeting Rooms

2.4.10. Sensory-Controlled Spaces

2.4.11. Wellness and Reflection Rooms

2.4.12. Wellness, Lactation, and First Aid Spaces

2.4.13. Areas of Rescue Assistance

2.4.1. Service Counters

Rationale

Service counters should have accessible portions that are integrated into the design. Counter-top heights should be usable by all individuals, including persons using mobility devices, children, and persons of short stature. Communication and information systems, such as assistive listening devices, should be provided to help persons who are D/deaf, deafened, or hard of hearing. Where there are multiple queuing guides, service counters should be identified by signage.

Application

The scope of this section applies to various types of service counters (e.g. desks, wickets, booths) including reception, registration, security, information, campus store, bookstores, or food services. Every service counter is purpose built, and designers should consult with GBP staff and conduct an activity analysis on the counters use and purpose for both public and staff.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.5. Assistive Listening Devices"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

Amount

The number of service counters that have accessible portions that are integrated into the design should consider the use of its facilities and the needs of all individuals. Additional accessible portions should be provided in high-use areas where a greater

number of individuals will require them. This will ensure that persons using mobility devices or who rely on assistive technology are not waiting for extended periods of time to obtain services.

Accessible Path of Travel

An interior accessible path of travel should be connected to service counters to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Furniture, Fixtures, and Equipment (FF&E)

FF&E at service counters should be usable by all individuals. It should provide a variety of counter-top heights and speaking ports, where required, including accessible portions that have clear floor space and sufficient knee and toe space to allow space for front and side approach to obtain services. Where accessible portions are provided on both sides of service counters for GBP students employees, and other members of the GBP community, they should be diagonal from each other to provide comfortable reach ranges across the shared counter for transactions. Additional service counters for specialized activities related to the service, such as information booths, writing counters for forms to be filled out by individuals should also provide accessible portions.

Communication and Information Systems

Communication and information systems, such as signage and wayfinding, tablets for on-demand live captioning or Sign language interpretation, and assistive listening devices should be provided at service counters. They should be designed to communicate necessary information effectively to all individuals and be easy to understand.

Requirements

(1) Amount:

Service counters should provide:

(a) A minimum of one accessible portion per each type of service interaction; and

(b) A minimum of two accessible portions in high-use areas.

(2) Accessible Path of Travel:

Service counters should provide interior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(3) Furniture, Fixtures and Equipment (FF&E):

Service counters should provide FF&E that:

(a) Has a clear floor space, "Figure 2.4.1-A Clear Floor Space", that is 900 mm wide by 1500 mm long minimum for a front approach or 900 mm wide by 2200 mm long minimum for a side approach;

(a) Has a countertop that is 865 mm maximum AFF;

(b) Has knee and toe space, "Figure 2.4.1-B Knee and Toe Space", for a front approach that is 735 mm minimum high AFF. at the front edge, 500 mm minimum deep, and 900 mm minimum wide;

(c) Has glazed screens for security, where required, that allow for speech clarity, lip reading and signing, or have voice ports;

(d) Has an available chair to benefit those with lower stamina or those that need to set aside a mobility device; and

(e) Where a point-of-sale device is provided, is placed within an accessible reach range to grasp or touch between 500 mm to 600 mm so that they can be independently reached and privately operated by all patrons.

(4) Communications and Information Systems:

Service counters should provide communications and information systems that:

(a) Include signage and wayfinding that:

(i) Indicate the type of assistive listening devices available; or

(ii) How to request accommodation for accessibility needs; and

(iii) Meet the criteria in section "3.2.1. Signage and Wayfinding Systems";

(b) Include two-way communication systems that:

(i) Have a keyboard, such as Ubi Duo, to facilitate communication with persons who are D/deaf, deafened, or hard of hearing; and

(ii) Meet the criteria in section "3.2.2. Two-Way Communication Systems";

(c) Include assistive listening devices that:

(i) Where voice ports are provided that are 1050 mm maximum AFF;

(ii) Have signage to notify individuals of its availability; and

(iii) Meet the criteria in section "3.2.5. Assistive Listening Devices";

(d) Include adaptable and adjustable microphones, where required; and

(e) Be designed with a tablet that is hardwired and secured to the counter to support on-demand captioning or Sign language interpretation.

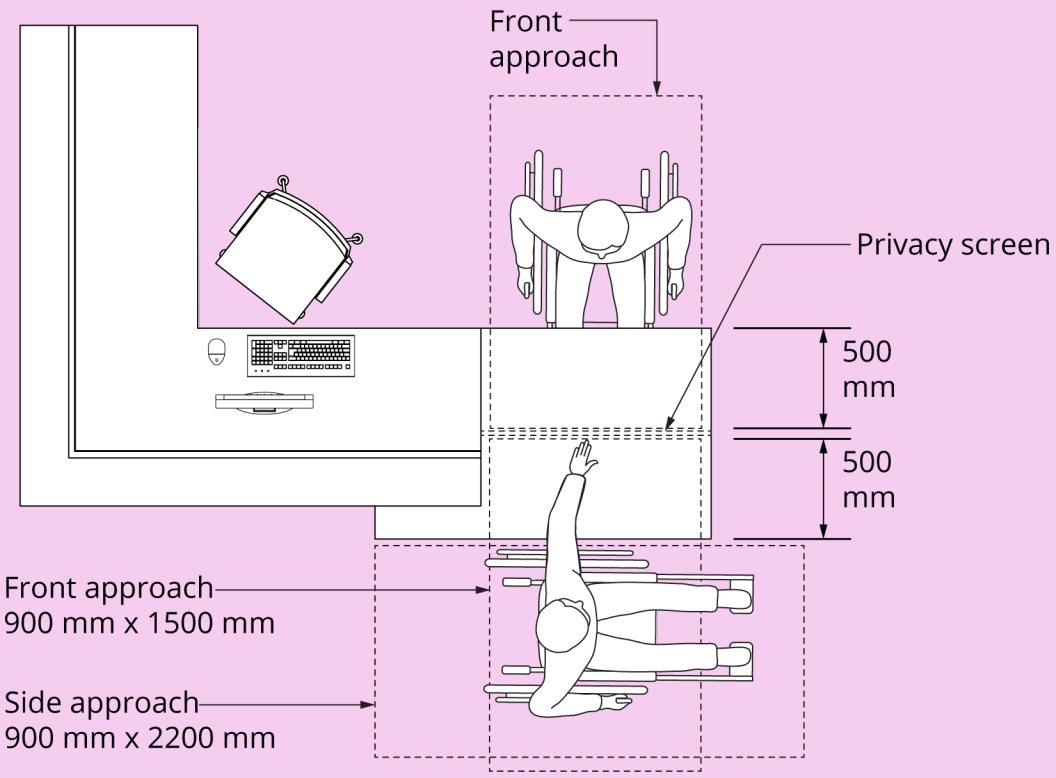


Figure 2.4.1-A Clear Floor Space

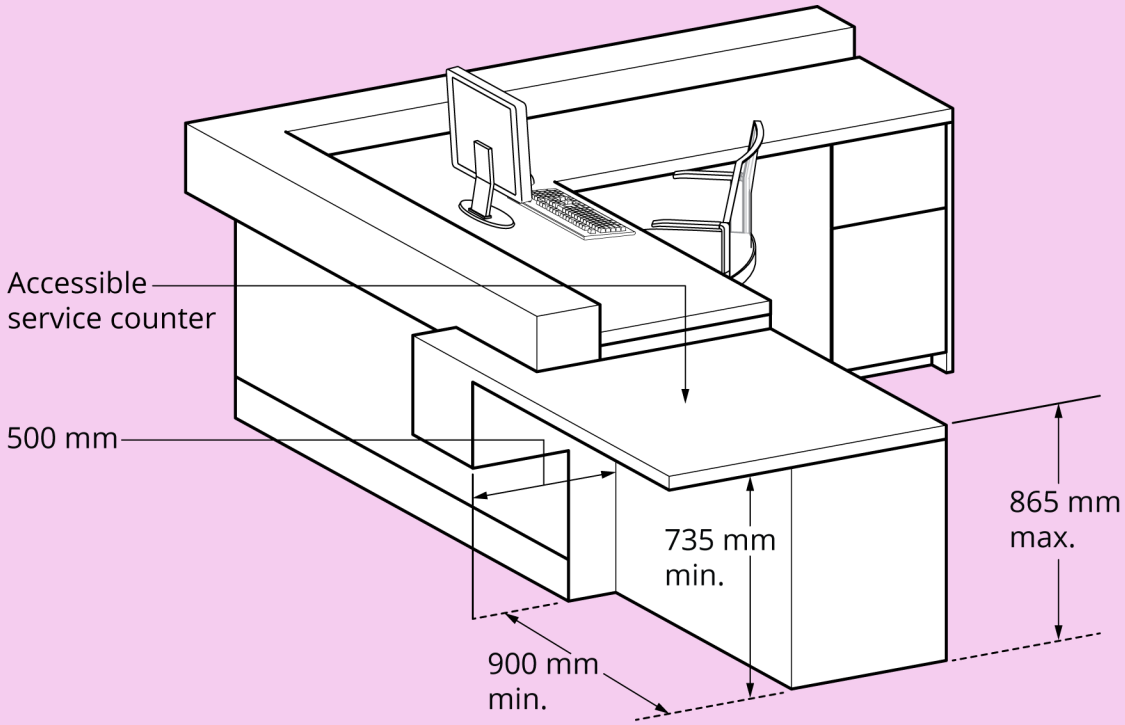


Figure 2.4.1-B Knee and Toe Space

2.4.2. Queuing Guides and Waiting Areas

Rationale

Queuing guides and waiting areas should be designed to be fixed, or non-fixed. They should be usable and safe to navigate for all individuals, including persons using mobility devices and persons with low or no vision. Queuing guides and waiting areas may be located where individuals obtain services, such as at service counters. Queuing guides should be cane detectable to reduce the risk of tripping.

Application

[Reserved]

Related Sections

- "1.5.1. Benches and Seats"
- "1.6.3. Tactile Direction Indicators"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.4.3. Mobility Device Storage Areas"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.6. Accessible Public Telephones"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to queuing guides and waiting areas to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Communication and Information Systems

Communication and information systems, such as signage and wayfinding, and public telephones, should be provided at queuing guides and waiting areas. They should be designed to communicate necessary information effectively to all individuals and be easy to understand. Call buttons that have accessible operable portions or controls should be provided within waiting areas to allow individuals to request assistance. Audio and visual signals should be provided to communicate and inform persons who are D/deaf, deafened, or hard of hearing, and persons with low to no vision, which service counter is available to obtain services at.

Furniture, Fixtures and Equipment

Furniture, fixtures and equipment, such as accessible benches, seats, designated clear floor spaces and companion seating should be provided at waiting areas. Clear sightlines from benches and seats to queuing guides and service counters should be provided.

Where fixed benches and seats are provided, the number of accessible furniture should consider the use of its facilities and the needs of all individuals. Additional accessible furniture should be provided in high-use areas where a greater number of individuals will require them.

Mobility Device Storage Spaces

Mobility device storage should be provided at waiting areas to allow individuals to charge their electric mobility devices.

Requirements

(1) Accessible Path of Travel:

Queuing guides and waiting areas should provide interior accessible paths of travel that:

(a) Have a clear width that is 1100 mm minimum;

(b) Have a clear turning space that is 2500 mm minimum in diameter, "[R-2.4.2.(1)(b)]", that is located at 180° turns and 90° turns, and the start and end of the queue;

(c) Have tactile direction indicators that meet the criteria in section "1.6.3. Tactile Direction Indicators"; and

(d) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Communication and Information Systems:

Queuing guides and waiting areas should provide communication and information systems that:

(a) Include signage and wayfinding that:

(i) Identifies the start of queuing guides;

(ii) Identifies companion and priority seating; and

(iii) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems";

(b) Include public telephones that meet the criteria in section "3.2.6. Accessible Public Telephones";

(c) Include audio and visual signals that communicate and inform service counter availability; and

(d) Include call buttons that:

(i) Request assistance;

(ii) Are located at the start and end of the line;

(iii) Are located consistently and predictably;

(iv) Are connected to Wi-Fi signals to allow for automation; and

(v) Have accessible operable portions or controls.

(3) Furniture, Fixtures and Equipment:

Queuing guides and waiting areas should provide furniture, fixtures and equipment that:

(a) Are fixed, or non-fixed;

(b) Are located adjacent to interior accessible paths of travel;

(c) Include accessible benches or seats;

(d) Include minimum 5% adaptable seating, rounding up to the nearest whole number, but never less than one;

(e) Include clear floor space, "Figure 2.4.2-A Queuing Guides and Waiting Areas", that:

(i) Is minimum 3%, rounding up to the nearest whole number, but never less than two; and

(ii) Is 900 mm wide by 1500 mm long minimum for a front approach;

(f) Include companion seating;

(g) Have clear sightlines to service counters;

(h) Are cane detectable at or below 680 mm maximum AFF;

(i) Meet the criteria in section "1.5.1. Benches and Seats"; and

(i) Meet the criteria in section "2.6.3. Furniture and Equipment".

(4) Mobility Device Storage:

Waiting areas should provide mobility device storage spaces that:

(a) Meets the criteria in section "2.4.3. Mobility Device Storage Areas".

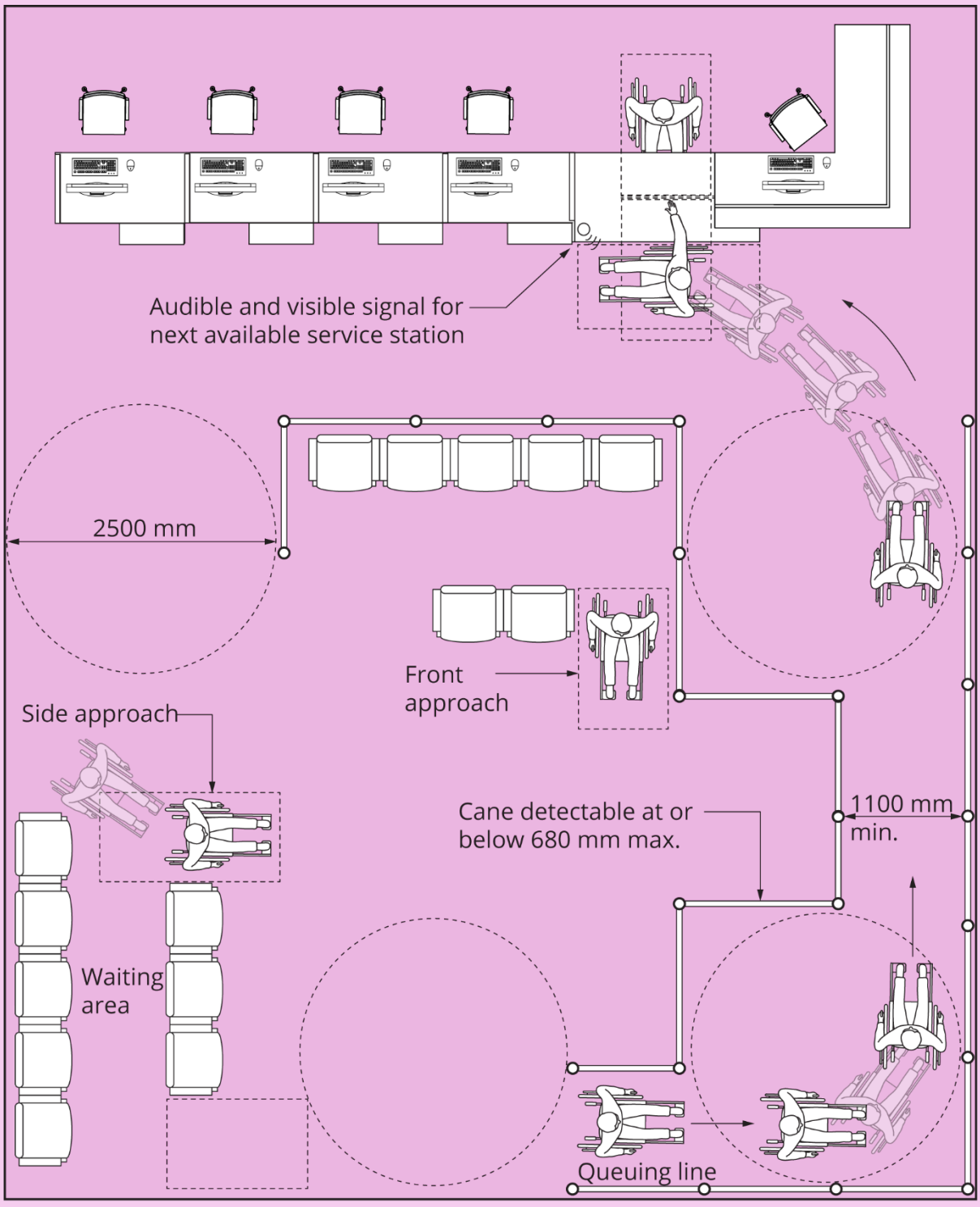


Figure 2.4.2-A Queuing Guides and Waiting Areas

2.4.3. Mobility Device Storage Areas

Rationale

Mobility device storage areas should be provided in all buildings to allow individuals to safely stow away their mobility device as needed and can charge their electric mobility devices.

Application

The scope of this section applies to interior mobility device storage spaces. The application to provide exterior mobility device storage spaces should be evaluated on a case-by-case basis.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "3.2.1. Signage and Wayfinding Systems"
- "3.3.1. Emergency Power"

Related References

- [Reserved]

Key Considerations

Amount

The amount of mobility device storage areas should consider the use of its facilities and the needs of all individuals. Additional storage spaces should be provided in high-use areas where a greater number of individuals will require them. This will ensure that persons using mobility devices or who rely on electric power are not waiting for extended periods of time to obtain access.

Accessible Path of Travel

An interior accessible path of travel should be connected to mobility device storage areas to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Clear Floor Spaces

Mobility device storage areas should provide clear floor spaces that allows a variety of mobility devices to be stored to enhance the usability.

Signage and Wayfinding Systems

Signage and wayfinding should be provided at mobility device storage areas. They should be designed to communicate necessary information effectively to all individuals and be easy to understand.

Electrical Power

Electrical power should be provided at mobility device storage areas to allow individuals to charge their electric mobility devices.

Requirements

(1) Amount:

Mobility device storage areas, "Figure 2.4.3-A Mobility Device Storage Areas", should provide:

(a) A minimum of two per area.

(2) Accessible Path of Travel:

Mobility device storage areas should provide interior and exterior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel", or "1.1.1. Exterior Accessible Paths of Travel".

(3) Clear Floor Spaces:

Mobility device storage areas should provide clear floor spaces that:

(a) Are located adjacent to interior and exterior accessible paths of travel; and

(b) Are 900 mm by 1500 mm minimum for front approach, or 900 mm by 2200 mm minimum for side approach.

(4) Signage and Wayfinding Systems:

Mobility device storage areas should provide signage and wayfinding systems that:

(a) Identify the use and designated space; and

(b) Meets the criteria in section “3.2.1. Signage and Wayfinding Systems”.

(5) Electrical Power:

Mobility device storage areas should provide electrical power that:

(a) Is between 460 mm to 1050 mm AFF; and

(b) Meets the criteria in section “3.3.1. Emergency Power”.

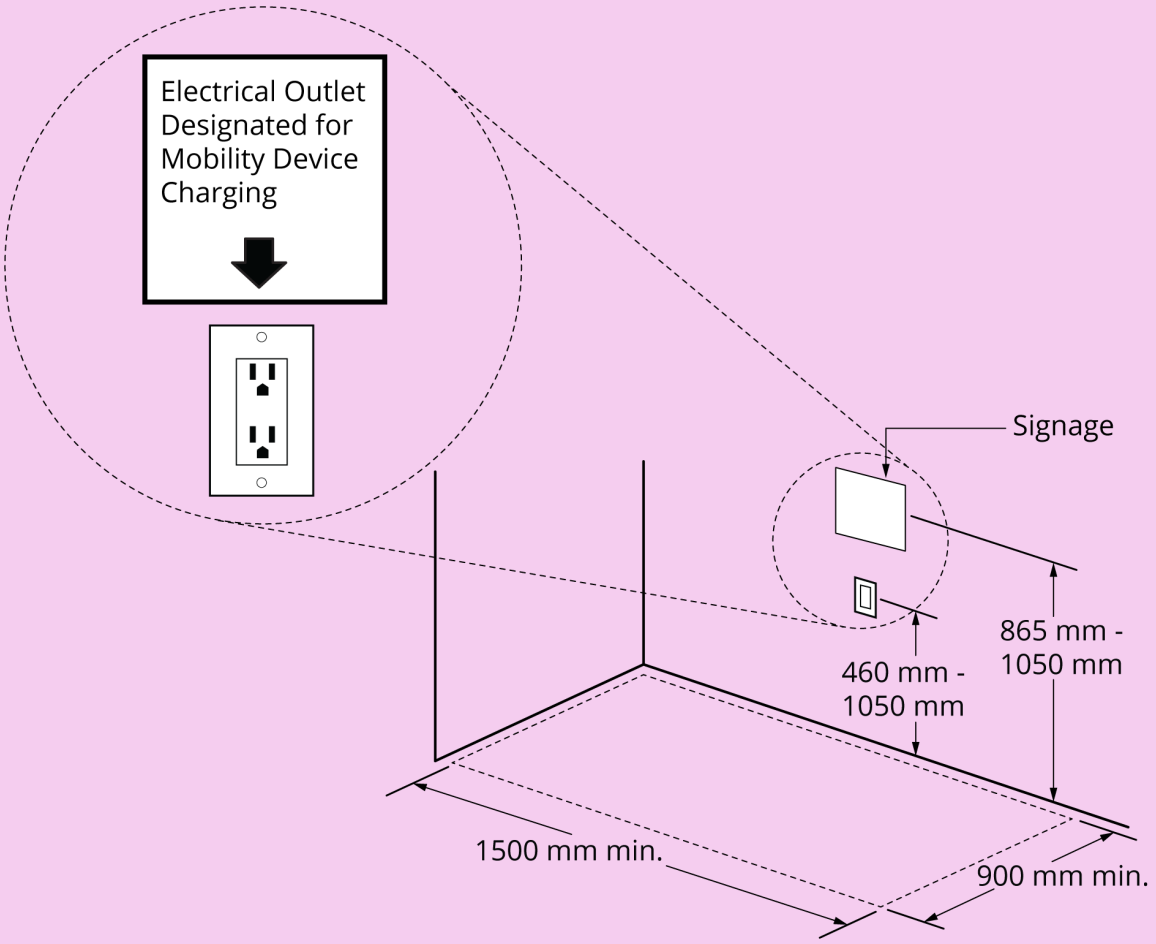


Figure 2.4.3-A Mobility Device Storage Areas

2.4.4. Lockers and Baggage Storage Areas

Rationale

Lockers and baggage storage areas should be designed to have accessible space and reach range dimensions, as well as accessories such as shelves and coat hooks that are usable by all individuals.

Application

[Reserved]

Related Sections

- "1.3.3. Public Transit Areas"
- "1.4.5. Public Pools and Spas"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.3.11. Accessible Change Rooms"
- "2.4.8. Offices and Work Areas"
- "2.5.9. Childcare Facilities"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Amount

The number of lockers and baggage storage areas should consider the use of its facilities and the needs of all individuals. Additional lockers should be provided in high-use areas where a greater number of individuals will require them.

Location

The location of lockers and baggage storage areas should be provided at recreation and specialized areas or facilities.

Accessible Path of Travel

An interior accessible path of travel should be connected to lockers and baggage storage areas to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Design

The design of lockers and baggage storage areas should provide accessible space and reach range dimensions, as well as accessories such as shelves and coat hooks. Lockers should be provided in a variety of sizes to provide individuals with options to store belongings that may require more space. A combination of half-height and full-height door lockers will ensure that there are enough lockers at different sizes.

Controls and operating mechanisms should be designed to be usable by all individuals and have accessible operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. Signage, such as tactile characters and/or braille, should be provided to help individuals, especially persons with low or no vision, identify locker numbers and/or names.

Requirements

(1) Amount:

Lockers and baggage storage areas should provide:

(a) Minimum 20% accessible units of the total amount available, rounding up to the nearest whole number.

(2) Location:

Lockers and baggage storage areas should be located at:

(a) Private and public facilities;

(b) All public social service facilities;

(c) Public transit areas that meet the criteria in section “1.3.3. Public Transit Areas”;

(d) Recreation and exterior specialized areas such as public pools and public spas that meet the criteria in section "1.4.5. Public Pools and Spas";

(e) Accessible change room facilities that meet the criteria in section "2.3.11. Accessible Change Rooms";

(f) Offices and work areas that meet the criteria in section "2.4.8. Offices and Work Areas"; and

(g) Childcare facilities that meet the criteria in section "2.5.9 Childcare Facilities".

(3) Accessible Path of Travel:

Lockers and baggage storage areas should provide interior accessible paths of travel that:

(a) Have a clear width that is 1100 mm minimum;

(b) Have a clear turning space that is 1500 mm minimum in diameter; and

(c) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(4) Design:

Lockers and baggage storage areas should be designed, "Figure 2.4.4-A Reach Range at Lockers", to:

(a) Have a variety of sizes that include:

  (i) Half-height lockers; and

  (ii) Full-height lockers;

(b) Have clear floor space that is 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach;

(c) Include shelves that are mounted between 460 mm to 1050 mm AFF;

(d) Include coat hooks that:

  (i) Are 500 mm maximum from the front edge of the locker; and

  (ii) Are installed 900 mm to1050 mm AFF; and

(e) Have accessible operable portions or controls that meet the criteria in section "3.2.8. Controls and Operating Mechanisms";

(f) Have colour/brightness contrast from adjacent surfaces;

(g) Have tactile characters and/or braille that:

(i) Are 13 mm to 19 mm tall, “Figure 2.4.4-B Accessible Lockers”;

(ii) Have colour/brightness contrast from adjacent surfaces;

(iii) Are mounted 1050 mm to 1525 mm AFF; and

(iv) Designate upper and lower tiers of lockers; and

(h) Include racks (platform surfaces) or carousels for baggage that are 460 mm maximum AFF.

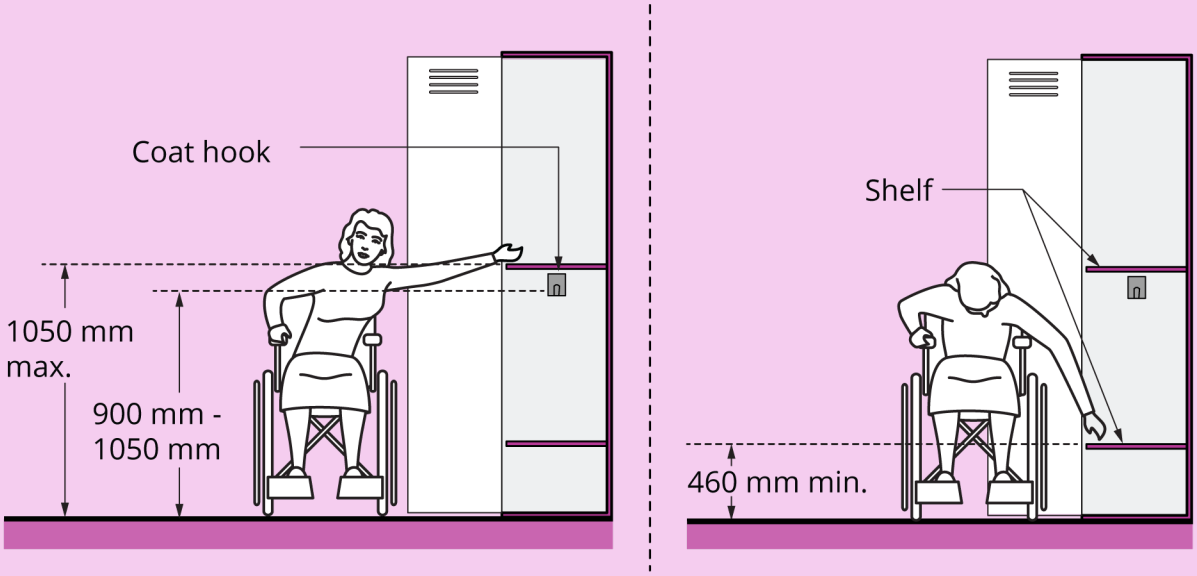


Figure 2.4.4-A Reach Range at Lockers

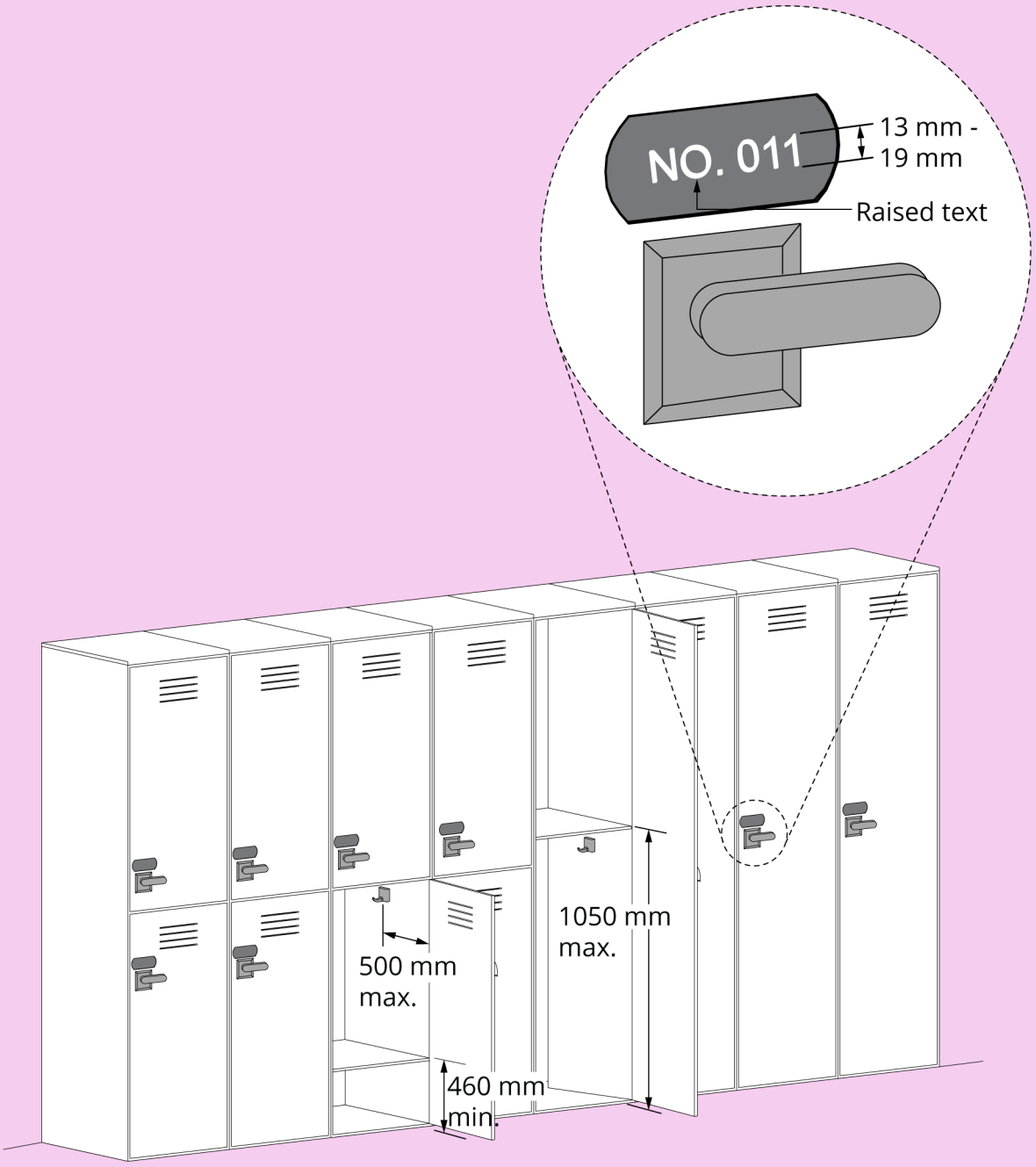


Figure 2.4.4-B Accessible Lockers

2.4.5. Stages, Platforms and Performance Areas

Rationale

Stages, platforms and performance areas provided for presentations, performances and associated spaces purposes, should be designed to be used by all individuals.

Application

The scope of this section applies to interior and exterior stages and platforms and performance areas, including but not limited to associated spaces such as changing and dressing areas, green rooms, production spaces, or behind the stage spaces.

Related Sections

- “1.6.2. Tactile Attention Indicators”
- “2.1.1. Interior Accessible Paths of Travel”
- “2.1.3. Interior Ramps”

Related References

- Arts Build Ontario
- Tangled Arts

Accessible Path of Travel

An interior accessible path of travel should be connected to stages and platforms to allow for a continuous, unobstructed route providing interior access to elements and spaces throughout the performance area.

Surfaces

Floor surfaces should be provided at stages and platforms that are level to reduce the risk of tripping. Tactile attention indicators (TAI) should be provided at the edge of stages and platforms to communicate the transition between an interior accessible path of travel and a drop-off. TAI's help to prevent individuals, including persons with low or no vision using a white cane, from walking over the edge of stages and platforms.

Interior Ramps

Where permanent or temporary interior ramps are provided at stages and platforms, they should have slopes that have a gradual transition to allow for better control and ease of movement for persons using mobility devices.

Furniture, Fixtures and Equipment

Where furniture, fixtures and equipment, such as podiums, lecterns and dais, are provided at stages and platforms, they should be flexible, accessible, adaptable and usable by all individuals.

Requirements

(1) Accessible Path of Travel:

Stages, platforms and performance areas should provide interior accessible paths of travel that:

Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Surfaces:

Stages, platforms, and performance areas should provide floor surfaces that:

(a) Are level, firm, stable, and slip-resistant; and

(b) Have tactile attention indicators at the leading edge of the raised stage or platform that meet the criteria in section “1.6.2. Tactile Attention Indicators”.

(3) Interior Ramps:

Stages, platforms, and performance areas should provide interior ramps that:

(a) Are permanent, or temporary; and

(b) Meet the criteria in section “2.1.3. Interior Ramps”.

(4) Furniture, Fixtures and Equipment:

Stages, platforms, and performance areas should provide furniture, fixtures, and equipment that:

(a) Are flexible, accessible, and adaptable; and

(a) Include podiums, lecterns or dais that are height adjustable.

2.4.6. Kitchens and Kitchenettes

Rationale

Kitchens and kitchenettes for GBP students and employees should be designed to be usable by all individuals. They are commonly found in recreation facilities or offices and work areas as common amenity space. In some instances, they are coupled with a small or large eating area with seating and tables. Elements such as millwork, work surfaces, sinks and appliances should be accessible, adaptable and provide accessible space and reach range dimensions.

Application

The scope of this section applies to kitchens, kitchenettes, serveries, and teaching kitchens in buildings and grounds, including athletic and recreational fields owned, leased, or operated by GBP.

Related Sections

- “2.1.1. Interior Accessible Paths of Travel”
- “2.3.6. Accessible Lavatories”
- “2.5.3. Laboratories ”
- “3.1.1. Interior Lighting”
- “3.2.8. Controls and Operating Mechanisms”
- “3.3.1. Emergency Power”

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to kitchens and kitchenettes to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Design

The design of kitchens and kitchenettes should allow individuals, especially persons using mobility devices, to maneuver around millwork, work surfaces, sinks and appliances with ease. Open concept style rooms and areas are preferred as they remove the need to make turns, provide easier access to all kitchen elements, and improve the overall lighting quality.

Millwork

Millwork should be provided within kitchens and kitchenettes that are accessible, adaptable and provides accessible space and reach range dimensions. Cabinets, pantries, shelves, waste receptacles and recycle bins should be designed to enhance usability and access. Work surfaces, such as counter-tops, should be height adjustable to be usable by all individuals.

Sinks

Sinks should be provided within kitchens and kitchenettes to allow all individuals, including persons using mobility devices, to have knee and toe space, to reach controls and accessories, such as soap and paper towel dispensers. Sinks should have faucets that have accessible operable portions or controls that can be used with a closed fist and that do not require tight grasping, pinching, or twisting of the wrist.

Appliances

Appliances should be provided within kitchens and kitchenettes. Where fixed and non-fixed appliances such as refrigeration, freezing, cooking, cleaning, waste disposal appliances are provided, they should be usable by all individuals. Ranges and cook-tops should have controls and operating mechanisms that are installed at the front edge to reduce the risk burns from reaching over hot burners. The type of range or cook-top used, such as induction, electric smooth top, or electric coil, should be evaluated and meet the needs of the intended individuals. Side hinging doors should be provided to allow persons sing mobility devices to easily reach into appliances, such as ovens.

Lighting

Lighting should be provided within kitchens and kitchenettes. Where adjustable ambient, task and/or accent lighting types are provided, they should minimize glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space

safely, but consideration should be made for individuals who may be sensitive to glare. Direct or in-direct lighting sources should utilize diffused lenses or filters and be adjustable to meet the needs of all individuals, as well as the function of the space.

Signals and Controls

Signals and controls, such as electrical power, should be provided at kitchens and kitchenettes to operate fixed and non-fixed appliances. Electrical power should be located as appropriate to the function of the space, as well as the number of non-fixed appliances expected to be used. Controls and operating mechanisms, such as millwork hardware and appliance controls, should have accessible operable portions or controls that can be used with a closed fist, and that do not require tight grasping, pinching, or twisting of the wrist.

Requirements

(1) Accessible Path of Travel:

Kitchens and kitchenettes should provide interior accessible paths of travel that:

(a) Have a clear turning space, "[R-2.4.6. (1)(a)]", that:

(i) Is 2135 mm minimum in diameter at residential facilities; and

(ii) Is 2500 mm minimum in diameter at all other locations; and

(b) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Design:

Kitchens and kitchenettes should be designed to:

(a) Be open concept style, "Figure 2.4.6-A Open Concept Kitchen"; or

(b) Be galley style, "Figure 2.4.6-B Galley Style Kitchen"; or

(c) Be U-shaped style, "Figure 2.4.6-C U-Shaped Kitchen"; or

(d) Be island style.

(3) Millwork:

Kitchens and kitchenettes should provide millwork that:

(a) Is minimum 50% accessible of the total number of lowers provided, rounding up to the nearest whole number;

(b) Is installed between 460 mm to 1050 mm AFF;

(c) Include cabinets and/or pantries, "Figure 2.4.6-D Kitchen Cabinets", that:

(i) Have doors that hinge open to180°; and

(ii) Have D-type handles that have smooth/rounded edges;

(d) Include shelves that:

(i) Are hydraulic;

(ii) Pull-out from cabinets or pantries; and

(iii) Are height adjustable;

(e) Include waste receptacles and recycle bins that pull-out from cabinets or pantries; and

(f) Have colour/brightness contrast between adjacent surfaces.

(4) Sinks:

Kitchens and kitchenettes should provide sinks, "Figure 2.4.6-E Sinks", that:

(a) Are mounted 860 mm maximum AFF;

(b) Are located so that the distance between the centre line of the sink and the side wall is 460 mm minimum;

(c) Have insulated or protected pipes;

(d) Have smooth and non-abrasive surfaces;

(e) Have clear floor space that is 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach;

(f) Have knee and toe space that meets the criteria in section 2.3.6. Accessible Lavatories;

(g) Have a faucet that:

(i) Is side mounted, or within 485 mm maximum from the front of the sink;

(ii) Has lever-type hardware;

(iii) Can project the water stream to the centre of the sink;

(iv) Is consistently mounted throughout all kitchens and kitchenettes within a building; and

(v) Has a retractable hose.

(5) Appliances:

Kitchens and kitchenettes should provide appliances that:

(a) Are fixed and/or non-fixed;

(b) Have a clear floor space that:

(i) Is 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach; and

(ii) Is located 600 mm away from the face of the fridge door;

(c) Include refrigeration and freezing appliances that:

(i) Have double, side hinging doors, where the hinges are located on the exterior edges;

(ii) Have tactile characters to communicate how to operate the appliance;

(iii) Are configured so that minimum 50%, rounding up to the nearest whole number, of the shelves are installed 1050 mm maximum AFF;

(iv) Have LCD screens, where required, that have audible and visual signals to operate the appliance; and

(v) Have a clear floor space for a side approach immediately adjacent to the unit, with its centreline 600 mm away from the front face of the unit;

(d) Include cooking appliances such as ovens or microwave ovens that:

(i) Have a single, side hinging door, “Figure 2.4.6-F Side Hinged Oven”;

(ii) Have tactile characters to communicate how to operate the appliance;

(iii) Have controls and operating mechanisms installed 1050 mm maximum AFF. that are operable using a closed fist; and

(iv) Have work surfaces that are adjacent to the latch side clear space of the appliance door; and

(v) Have a pull-out shelf below the bottom edge of the door;

(e) Include cooking appliances such as ranges or cook-tops that:

(i) Have tactile characters to communicate how to operate the appliance;

(ii) Have knee and toe space for a front approach that is 735 mm minimum high AFF. at the front edge, 500 mm minimum deep, and 900 mm minimum wide;

(iii) Have controls and operating mechanisms installed at the front edge to reduce the risk burns from reaching over hot burners;

(iv) Have heat resistant work surfaces that are 400 mm minimum wide on each side; and

(v) Have an angled mirror to view the top of the stove; and

(f) Include cleaning appliances such as dishwashers or laundry.

(6) Lighting:

Kitchens and kitchenettes should provide lighting that:

(a) Is adjustable;

(b) Is task and ambient;

(c) Is located above:

(i) Work surfaces;

(ii) Sinks; and

(iii) Cooking appliances; and

(d) Meets the criteria in section "3.1.1 Interior Lighting".

(7) Signals and Controls:

Kitchens and kitchenettes should provide signals and controls that:

(a) Include electrical power that:

(i) Has duplex receptacles, "Figure 2.4.6-G Duplex Receptacle Mounting";

(ii) Are arranged horizontally;

(iii) Are installed 1050 mm maximum AFF;

(iv) Where work surfaces are deeper than 500 mm, be located at the front edge, or on a side wall within a 500 mm maximum reach range;

(v) Are located so that any attached cords do not risk a tripping hazard; and

(vi) Meets the criteria in section "3.3.1. Emergency Power";

(b) Include millwork and appliances that have operable portions or controls that meet the criteria in section “3.2.8. Controls and Operating Mechanisms”;

(c) Include ventilation; and

(d) Include smoke detectors.

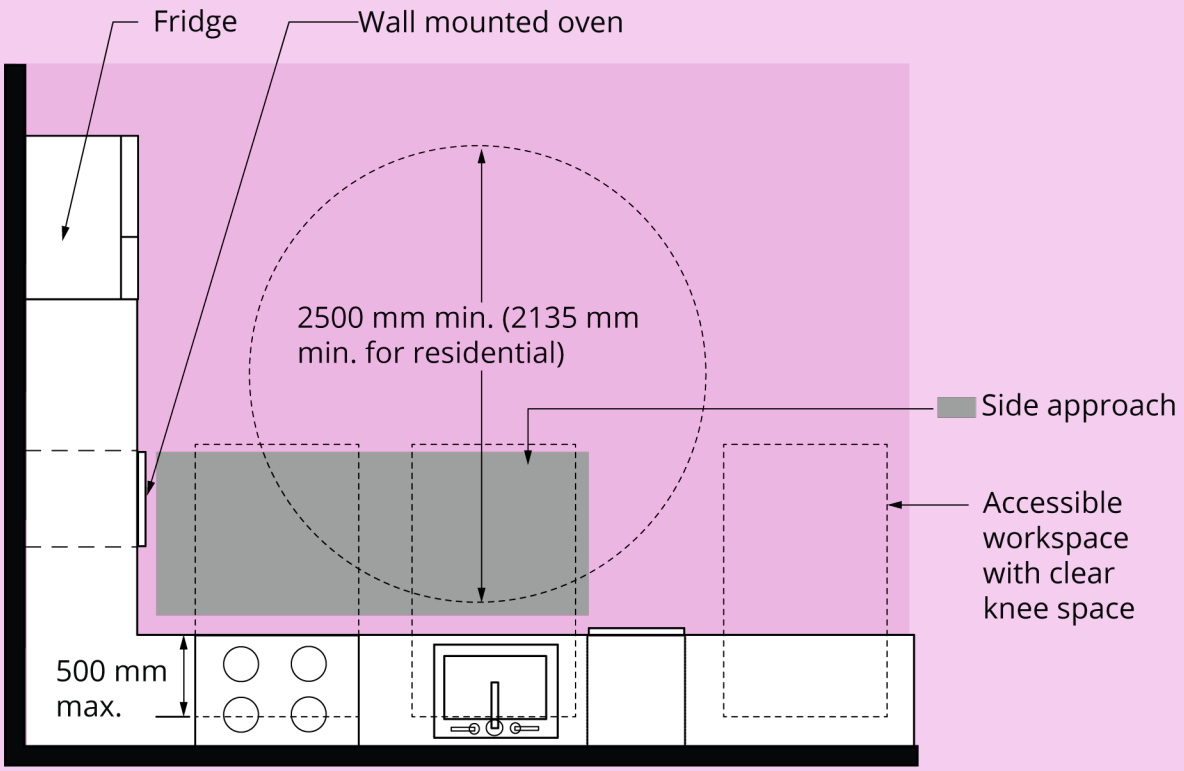


Figure 2.4.6-A Open Concept Kitchen

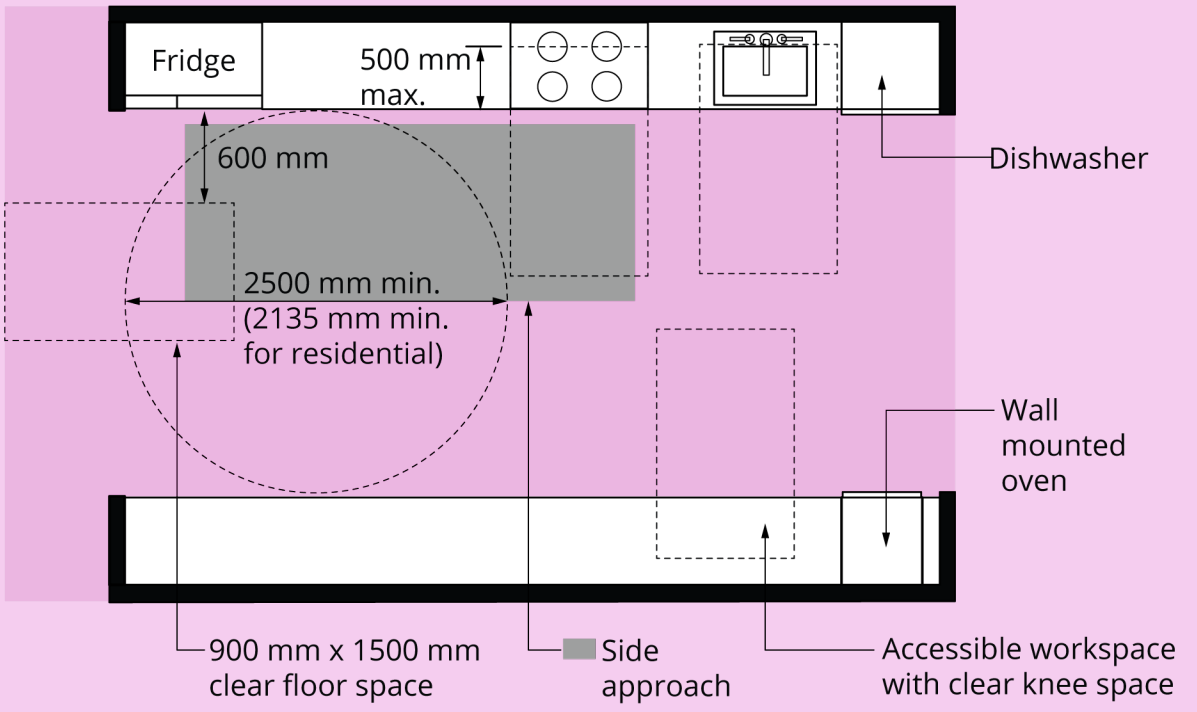


Figure 2.4.6-B Galley Style Kitchen

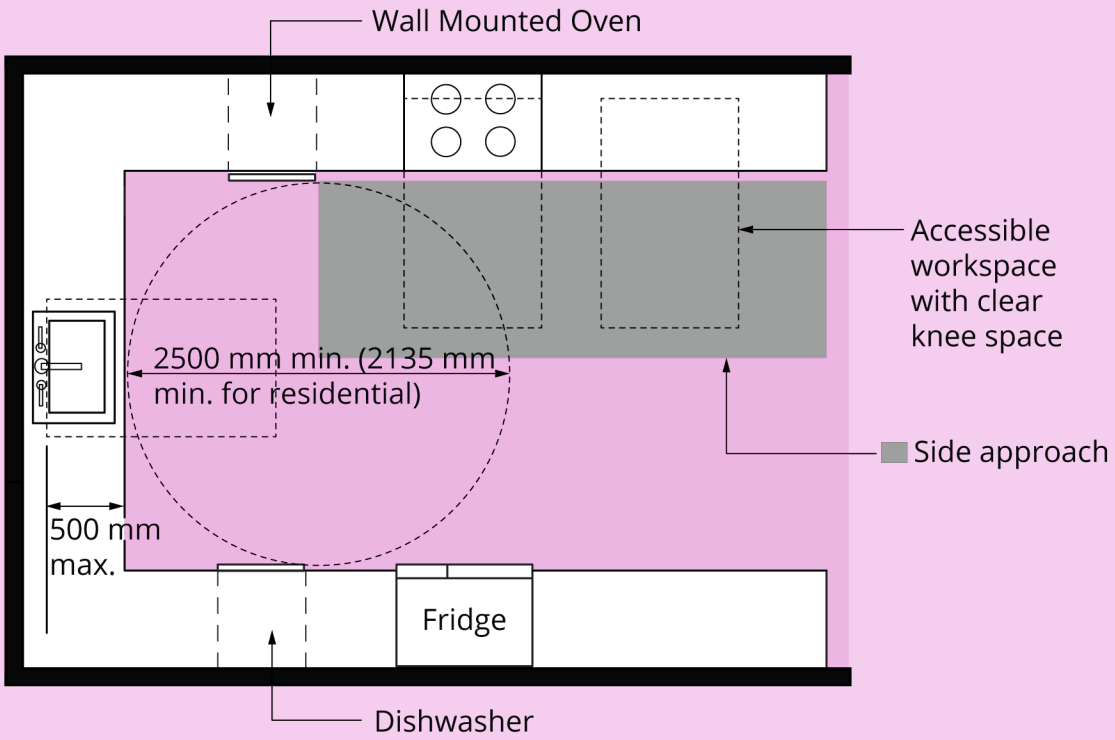


Figure 2.4.6-C U-Shaped Kitchen

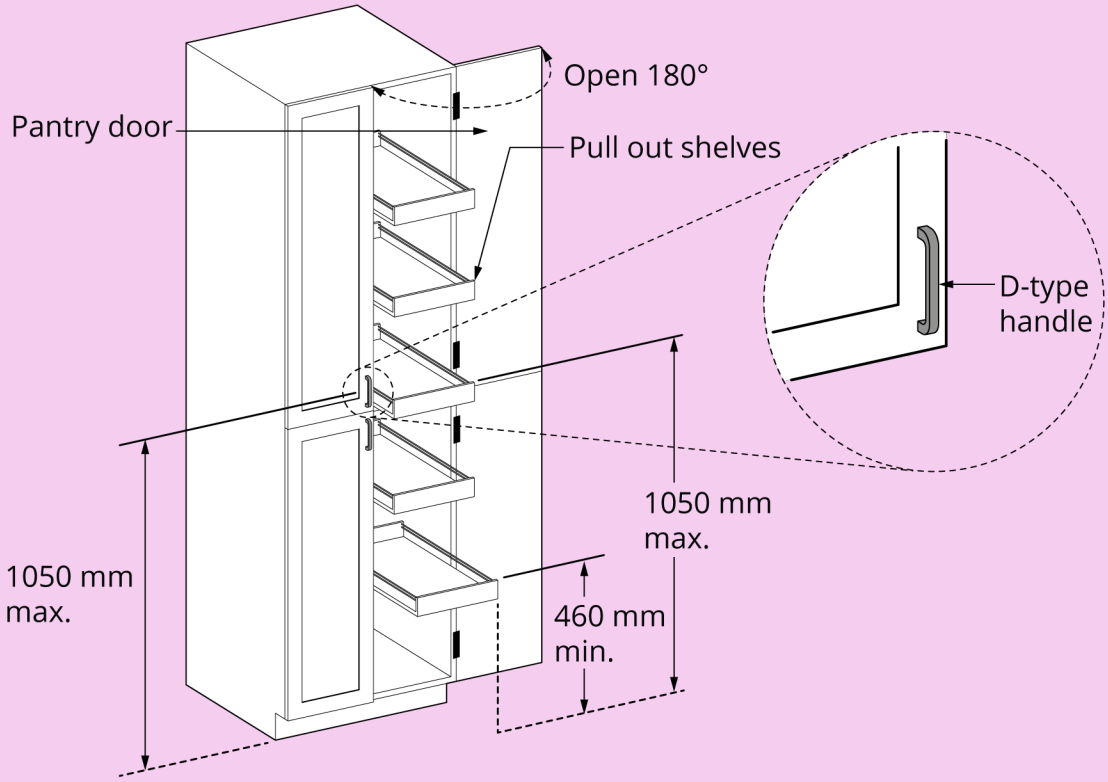


Figure 2.4.6-D Kitchen Cabinets

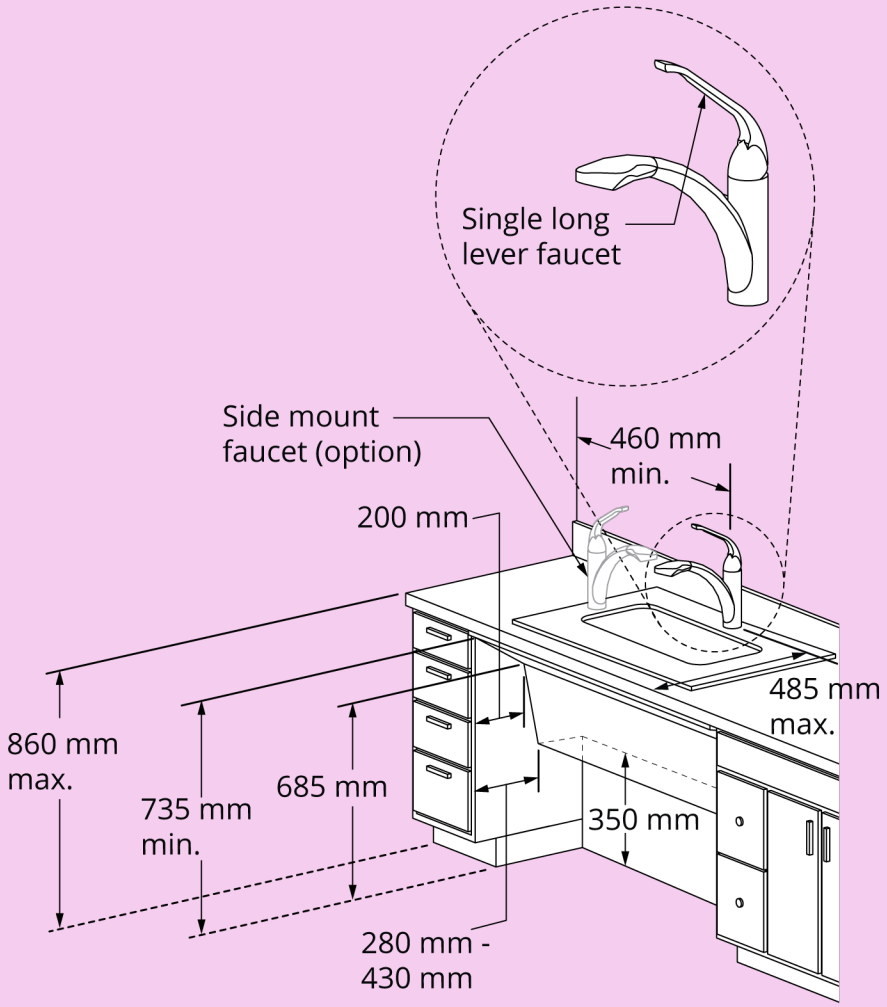


Figure 2.4.6-E Sinks

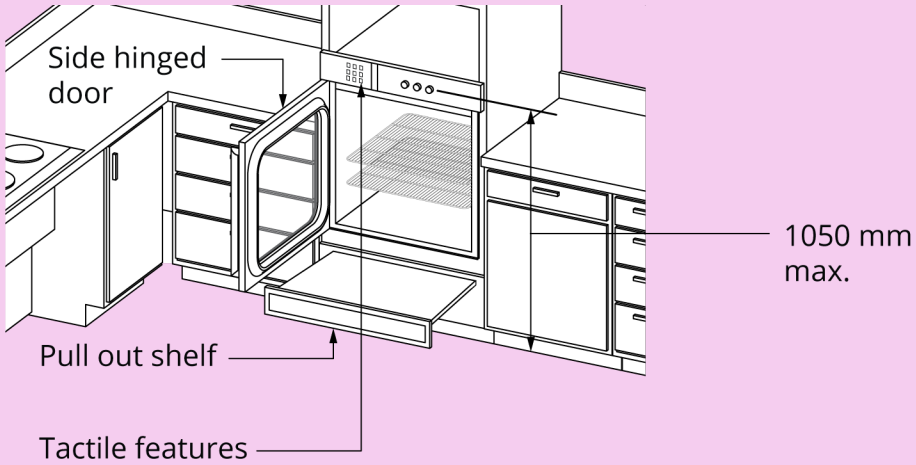


Figure 2.4.6-F Side Hinged Oven

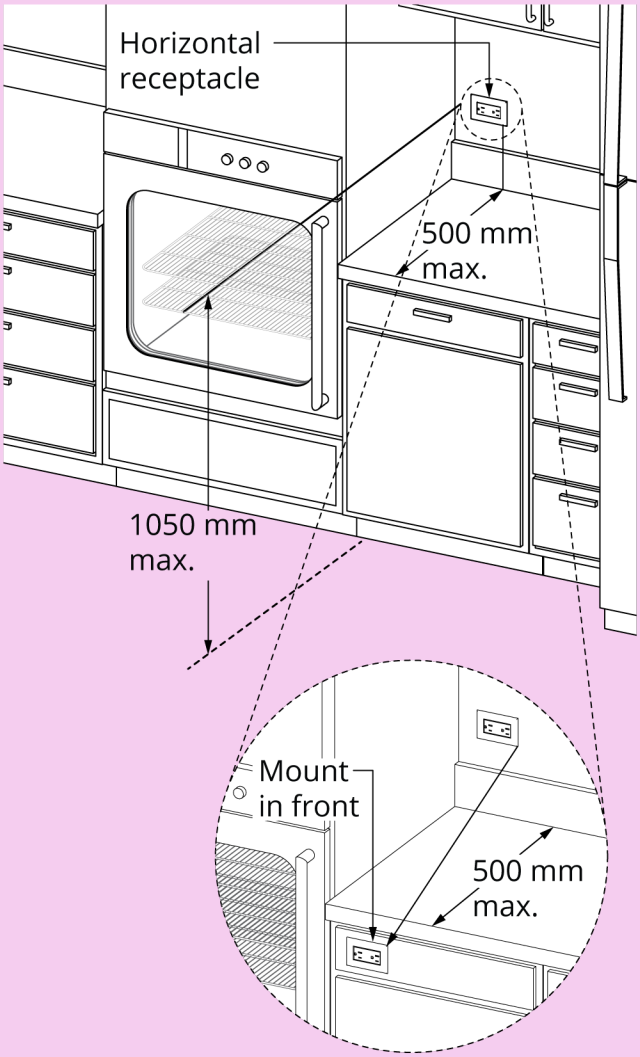


Figure 2.4.6-G Duplex Receptacle Mounting

2.4.7. Cafeteria, Eating and Dining Areas

Rationale

Eating and dining areas should be usable by all individuals. They should provide space and clearances to allow for the maneuverability of persons using mobility devices.

Application

The scope of this section applies to interior and exterior eating or dining areas such as cafeterias, restaurants, cafes and bars.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "2.4.10. Sensory-Controlled Spaces"
- "2.6.3. Furniture and Equipment"
- "2.7.1. Floor, Wall, and Ceiling Surfaces"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to eating and dining areas to allow for a continuous, unobstructed route providing interior access to elements (non-fixed or fixed) and spaces.

Furniture, Fixtures and Equipment

Furniture, fixtures and equipment should be provided within eating and dining areas that are flexible and accessible. Additional accessible seats and tables should be provided in high-use areas where a greater number of individuals will require them. Where non-fixed or fixed furniture are provided such as seats, tables, and self-service stations, they should have accessible space and reach range dimensions. Where bar

height tables are provided, an equitable number of tables intended for seated use should be provided.

Materials and Finishes

Materials and finishes should be provided within eating and dining areas to identify primary and secondary interior accessible paths of travel, as well as areas intended for staff only.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory processing differences and be more susceptible to sensory overloads. Designing for sensory controlled spaces or elements can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Accessible Path of Travel:

Eating and dining areas should provide interior accessible paths of travel that:

(a) Have a clear width, “Figure 2.4.7-A Clear Width” and “Figure 2.4.7-B Clear Width”, that is 1100 mm minimum; and

(b) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Furniture, Fixtures and Equipment:

Eating and dining areas should provide furniture, fixtures and equipment that:

(a) Include seats that:

(i) Have minimum 5% adaptable seating of the total number of seating capacity available, rounding up to the nearest whole number, but no less than one; and

(ii) Have minimum 10% clear floor space of the total number of seating capacity available, rounding up to the nearest whole number, but no less than one, that are 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach;

(b) Include tables that have knee and toe space for a front approach that is 735 mm minimum high AFF. at the front edge, 500 mm minimum deep, and 900 mm minimum wide;

(c) Include self-service stations, "Figure 2.4.7-C Self-Serve Stations", such as buffets, beverage stations, vending machines, that:

(i) Have at least one accessible portion per station;

(ii) Have surfaces that are 860 mm maximum AFF. for displays, cutlery, condiments, napkins, or tray rails;

(iii) Have shelves that are between 460 mm to 1050 mm AFF;

(iv) Have a reach range that is 500 mm maximum; and

(v) Have operable portions and/or controls that are operable with a closed fist; and

(d) Meet the criteria in section "2.6.3. Furniture and Equipment".

(3) Materials and Finishes:

Eating and dining areas should provide materials and finishes that:

(a) Identify:

(i) Primary and secondary interior accessible paths of travel; and

(ii) Areas intended for staff only; and

(b) Meet the criteria in section "2.7.1. Floor Surfaces".

(4) Neurodiversity and Neurodivergence:

Cafeteria, eating, and dining areas should be designed for neurodivergence and:

(a) Meet the requirements within section "2.4.10 Sensory-Controlled Spaces.

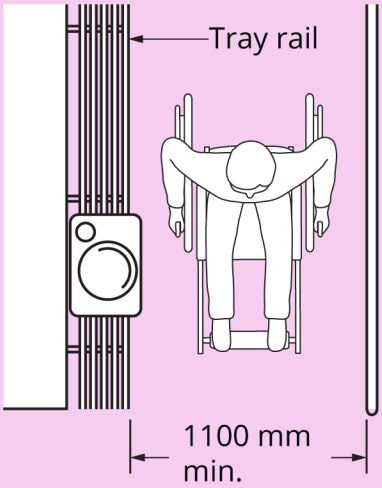


Figure 2.4.7-A Clear Width

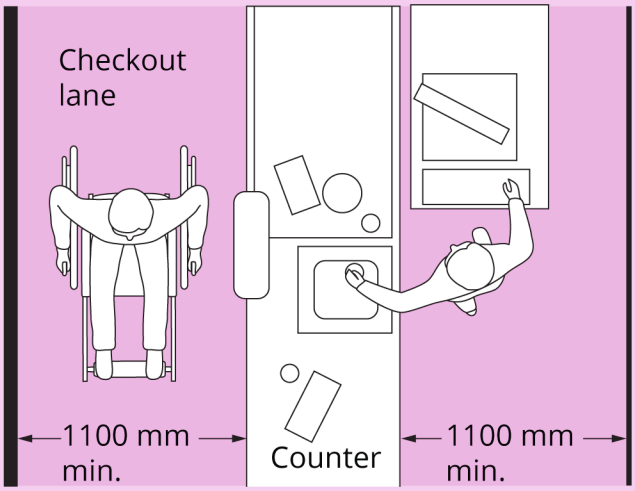


Figure 2.4.7-B Clear Width

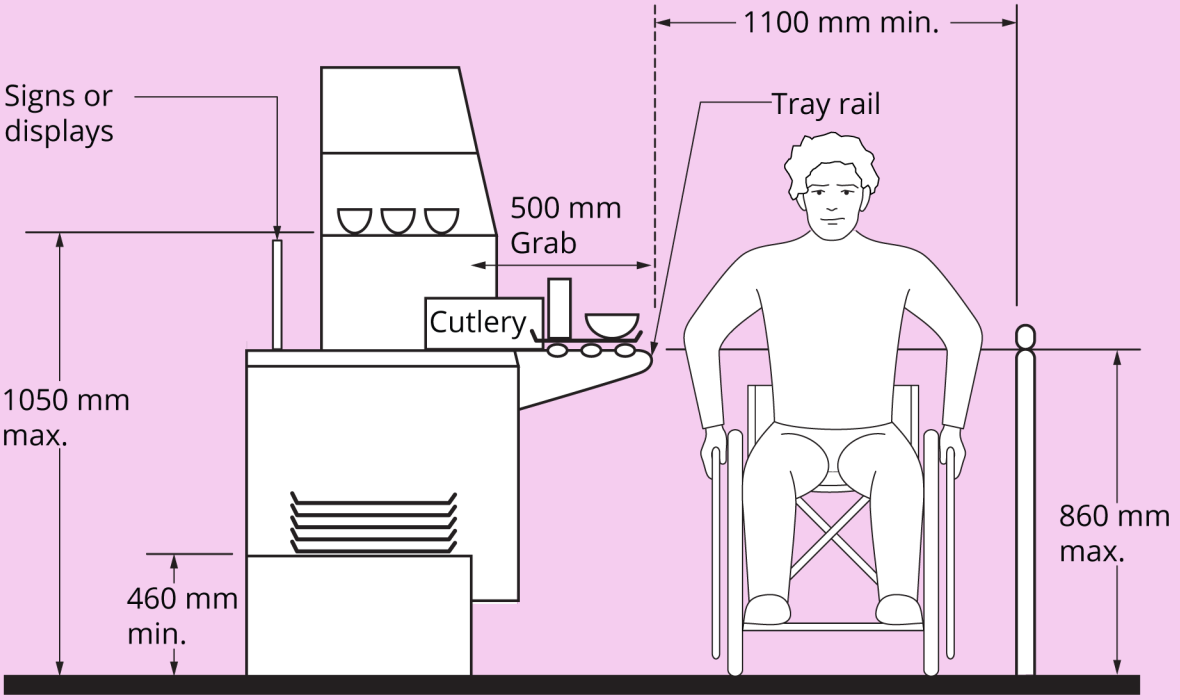


Figure 2.4.7-C Self-Serve Stations

2.4.8. Offices and Work Areas

Rationale

Offices and work areas should be designed to allow all individuals to work within a role with a sense of belonging. Physical barriers within the work environment should not be a limiting factor on whether a person is able to engage in specific work environments. Space requirements and assistive technologies should be provided to allow persons with a range of abilities to work directly within offices and work areas amongst the other individuals. These design decisions will facilitate equal opportunities for participation and enhance the usability for all individuals.

Application

The scope of this section applies to all office areas used by GBP employees and students, including but not limited to the Registrar's Office, Student Success Office, consultation rooms, and interview rooms.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "2.2.3. Doors and Doorways"
- "2.4.10. Sensory-Controlled Spaces"
- "2.6.3. Furniture and Equipment"
- "2.7.1. Floor, Wall, and Ceiling Surfaces"
- "2.7.2. Acoustics"
- "3.1.1. Interior Lighting"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- Design for the Mind: Neurodiversity in the Built Environment (2022), BSI

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to offices and work areas to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided at offices and work areas, but it is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy.

Furniture, Fixtures and Equipment

Furniture, fixtures and equipment (FF&E), whether purchased or leased, should be provided within offices and work areas that are flexible, adaptable and usable by all individuals. Depending on the use of offices and work areas, workstations and amenities should be provided, throughout open and private office layouts, that meet the needs of all individuals. Where smaller rooms, such as telephone rooms, are provided within offices and work areas, FF&E should be usable by all individuals. Where provided, photocopiers, fax machines, printers, scanners, refrigerators, microwaves, garbage and recycling stations, stationary rooms, water dispensers/coolers, and health and safety stations should be accessible.

Materials and Finishes

Materials and finishes should be provided within offices and work areas that are designed to be durable and safe for all individuals. They should be used to identify primary and secondary interior accessible paths of travel. Floor surfaces should provide textural cues, such as tactile walking surface indicators, that are cane detectable to help with navigation and wayfinding for persons with low or no vision. Wall surfaces should be smooth and non-abrasive.

Colour/brightness contrast should be provided on surfaces to assist in identifying key elements in the built environment and aid in wayfinding. Colour selection should be carefully considered to meet the needs of persons with cognitive diversity. Neutral colours are preferred in comparison with bright colours, which should only be used to

accent or highlight an element or space. Designers should consider both the positive and negative impact bright colours can have on all individuals.

Lighting

Lighting should be provided within offices and work areas that minimize glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space safely, but consideration should be made for individuals who may be sensitive to glare. Direct or in-direct lighting sources should utilize diffused lenses or filters and be adjustable to meet the needs of all individuals, as well as the function of the space.

Signage and Wayfinding Systems

Signage and wayfinding systems should be provided within offices and work areas. They should be designed to communicate necessary information effectively to all individuals and be easy to understand.

Acoustics

Acoustics should be provided within offices and work areas. Ambient noise should be controlled to help improve concentration for all individuals who are engaged in tasks.

Requirements

(1) Accessible Path of Travel:

Offices and work areas should provide interior accessible paths of travel that:

(a) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Doors and Doorways:

Offices and work areas should provide doors and doorways that:

(a) In smaller spaces, such as consultation rooms and interview rooms where two doors or means of egress are provided, both should be accessible; and

(b) Meet the criteria in section “2.2.3. Doors and Doorways”.

(3) Furniture, Fixtures and Equipment:

Offices and work areas should provide furniture, fixtures and equipment that:

(a) Is flexible and adaptable;

(b) Include workstations, "Figure 2.4.8-A Adjustable Desk", "Figure 2.4.8-B Fixed Height Desk", and "Figure 2.4.8-C Knee and Toe Space at Desk", that:

(i) Have a surface height that is 860 mm maximum AFF., where fixed; and

(ii) Have knee and toe space for a front approach that is 735 mm minimum high AFF. at the front edge, 500 mm minimum deep, and 900 mm minimum wide; and

(c) Meet the criteria in section "2.6.3. Furniture and Equipment".

(4) Materials and Finishes:

Offices and work areas should provide materials and finishes that:

(a) Have colour/brightness contrast:

(i) From adjacent surfaces that define boundaries including the junction between walls and floors, doorway recesses and interior accessible paths of travel intersections; and

(ii) That identifies key spaces throughout offices and work areas, and most notably in buildings with multiple floors with offices and work areas; and

(b) Meet the criteria in section "2.7.1. Floor, Wall, and Ceiling Surfaces".

(5) Lighting:

Offices and work areas should provide lighting that:

(a) Is direct, or in-direct;

(b) Utilizes diffused lenses, or filters;

(c) Is adjustable;

(d) Is natural; and

(e) Meets the criteria in section "3.1.1. Interior Lighting".

(6) Signage and Wayfinding Systems:

Offices and work areas should provide signage and wayfinding systems that:

(a) Compliment the surrounding environment allowing for easy navigation and identification of key elements and spaces; and

(b) Meet the criteria in section “3.2.1. Signage and Wayfinding Systems”.

(7) Acoustics:

Offices and work areas should provide acoustics that:

(a) Meet the criteria in section “2.7.2. Acoustics”.

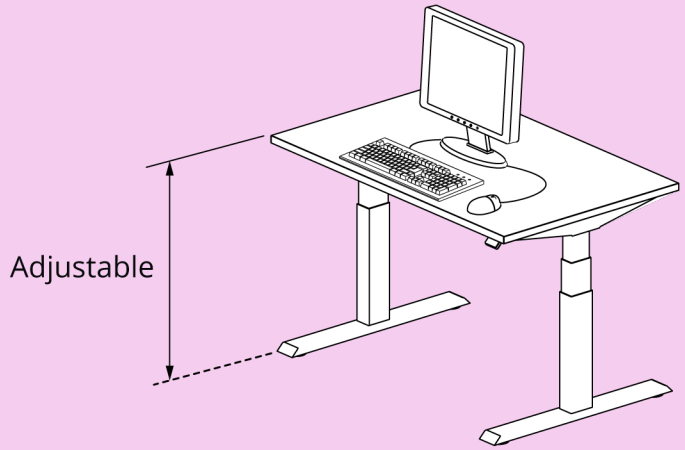


Figure 2.4.8-A Adjustable Desk

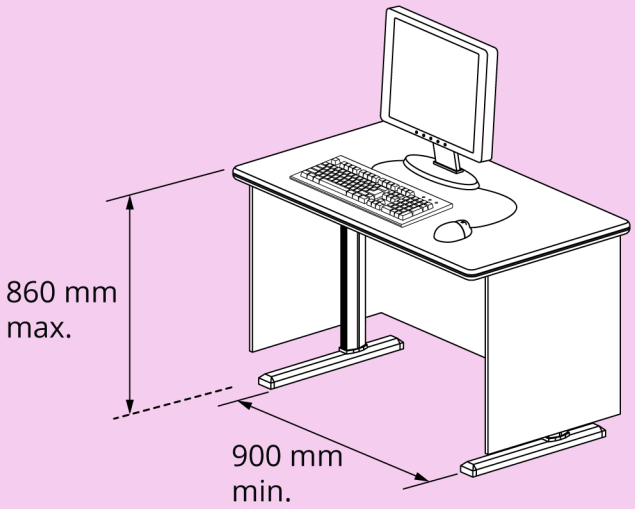


Figure 2.4.8-B Fixed Height Desk

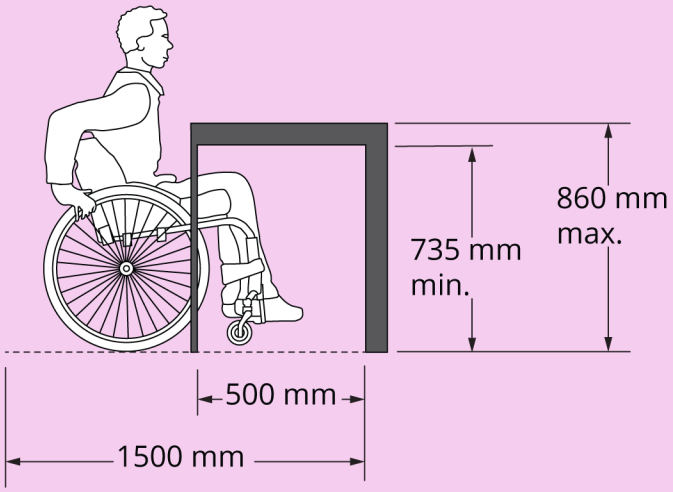


Figure 2.4.8-C Knee and Toe Space at Desk

2.4.9. Meeting Rooms

Rationale

Meeting and conference rooms should be designed to be flexible, accessible and adaptable to meet the needs of a wide range of individuals and group sizes. The functional needs of the participants should be considered to all people to best contribute and partake in event. Interior accessible paths of travel should be connected to elements and spaces within meeting and conference rooms.

Application

The scope of this section applies to large meeting rooms that may function as training rooms or multi-purpose rooms to small meeting rooms that may function as webinar and recording rooms, or telephone booths.

Related Sections

- “1.4.2. Spectator Areas”
- “2.1.1. Interior Accessible Paths of Travel”
- “2.2.3. Doors and Doorways”
- “2.4.3. Mobility Device Storage Areas”
- “2.4.5. Stages, Platforms and Performance Areas”
- “2.4.10. Sensory-Controlled Spaces”
- “2.6.3. Furniture and Equipment”
- “2.7.2. Acoustics”
- “3.1.1. Interior Lighting”
- “3.2.1. Signage and Wayfinding Systems”
- “3.2.5. Assistive Listening Devices”

Related References

- Design for the Mind: Neurodiversity in the Built Environment (2022), BSI

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to meeting and conference rooms to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided at meeting and conference rooms, but it is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy. Where movable partitions are provided that have doors, an interior accessible path of travel should be provided to connect both rooms and areas. Glazed screen partitions should be durable, low glare, provide privacy by using a frosted finish or window coverings, and limit the amount of distraction.

Furniture, Fixtures and Equipment

Furniture, fixtures and equipment, whether purchased or leased, should be provided within meeting and conference rooms that are flexible, accessible, adaptable and usable by all individuals. Depending on the use of meeting rooms and conference areas, furniture such as seating, tables, self-service stations, stages or platforms, lecterns, podiums, or dais, mobility device storage areas and amenities should be provided throughout that meet the needs of all individuals. Where fixed seating is provided, accessible benches, seats, designated clear floor spaces and companion seating should be provided.

Lighting

Lighting should be provided within meeting and conference rooms that suits the function of the room and minimizes glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space safely, but consideration should be made for individuals who may be sensitive to glare. Rooms and spaces should have multi-zoned lighting and options for spot lighting. Where there is natural light through exterior glazing, window shades that can reduce light, and glare, and that have accessible operable portions or controls should be provided.

Communication and Information Systems

Communication and information systems, such as assistive listening devices, should be provided within meeting and conference rooms that extend throughout the entire seating area. Assistive listening devices should be designed to be used with a person's hearing aid to enhance their listening experience and provide extra help in challenging listening situations. Audio and visual signals should include speakers and voice uplift systems, as well as, equipment that will allow for video conferencing, and closed captioning. Digital display panels that are visible to all individuals should have accessible operable portions or controls. Communication and information systems should be selected to support hybrid meetings and conferences where participants can both be virtual and in person.

Signals and Controls

Audible and visible signals, such as the audio and visual components of a fire alarm, should be provided within meeting and conference rooms.

Acoustics

Acoustics control should be provided within meeting and conference rooms. Ambient noise should be controlled to help improve concentration for all individuals who are engaged in tasks. Improved acoustic environments can impact the clarity of spoken word, speech privacy from adjoining offices and work areas and adjacent interior accessible paths of travel.

Consideration for the insulation of ductwork and the selection of air distribution grilles that are acoustically lined should be made. Sound absorbing and/or masking materials should be used if appropriate. Rooms that have advanced audio and visual signals should be located by the core without the interference of natural sunlight or external sounds coming through the windows.

Requirements

(1) Accessible Path of Travel:

Meeting and conference rooms should provide interior accessible paths of travel that:

(a) Has clear aisle space that is 1100 mm minimum;

(b) Has a clear turning space that:

(i) Is 1500 mm minimum in diameter in small meeting rooms;

(ii) Is 2100 mm minimum in diameter at large meeting rooms; and

(iii) Is 3150 mm minimum in diameter at conference rooms that are intended for 50 persons or greater;

(c) Extend to stages and platforms, where provided; and

(d) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Doors and Doorways:

Meeting and conference rooms should provide doors and doorways that:

(a) Have power door operators at:

(i) Entrance doors to large and highly used rooms; and

(ii) Where double leaf doors or a cluster of doors are provided, one door minimum;

(b) Have vision panels or sidelights that:

(i) Have a frosted finish; or

(ii) Have window coverings; and

(c) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Furniture, Fixtures and Equipment:

Meeting and conference rooms should provide furniture, fixtures and equipment that:

(a) Are flexible, accessible, adaptable;

(b) Maintain clear sightlines to the main event, speakers, or screens, where applicable;

(c) Include:

(i) Movable seating equipped with and without arm rests;

(ii) Where fixed seating is provided, meet the criteria in section "1.4.2. Spectator Areas";

(iii) Tables that provide clear floor space that is 915 mm wide and 1370 mm deep, and knee and toe space, "[R-2.4.9. (3)(c)(iii)]", for a front approach that is 735 mm minimum high AFF. at the front edge, 500 mm minimum deep, and 900 mm minimum wide;

(d) In large meeting or conference rooms include:

(i) Serveries or sideboards that provide clear floor space that is 915 mm wide and 1370 mm deep, and that have space and reach range requirements;

(ii) Podiums, lecterns, or dais that are height adjustable and with a movable base;

(iii) Mobility device storage areas that meet the criteria in section "2.4.3. Mobility Device Storage Areas";

(iv) Stages or platforms that meet the criteria in section "2.4.5. Stages, Platforms and Performance Areas".

(e) Meet the criteria in section "2.6.3. Furniture and Equipment".

(4) Lighting:

Meeting and conference rooms should provide lighting that:

(a) Is adjustable;

(b) Is multi-zoned;

(c) Has spot lighting options;

(d) Where natural light is provided, have roller window shades; and

(e) Meets the criteria in section "3.1.1. Interior Lighting".

(5) Communications and Information Systems:

Meeting and conference rooms should provide communications and information systems that:

(a) Include signage and wayfinding systems that meet the criteria in section "3.2.1. Signage and Wayfinding Systems";

(b) Include assistive listening devices that meet the criteria in section "3.2.5. Assistive Listening Devices"; and

(c) Include audio and visual that:

(i) Has speakers;

(ii) Voice up-lift systems;

(iii) Video conferencing equipment; and

(iv) Display panels with adjustable operable portions and controls; and

(d) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(6) Signals and Controls:

Meeting and conference rooms should provide signals and controls that:

(a) Include audible and visible signals that:

(i) Audio and visual components of a fire alarm;

(ii) Adjustable volume levels; and

(iii) Meet the criteria in section "3.3.4. Audible and Visible Signals ".

(7) Acoustics:

Meeting and conference rooms should include acoustics that:

(a) Allow for audible equipment with adjustable volume levels; and

(b) Meet the criteria in section "2.7.2. Acoustics".

2.4.10. Sensory-Controlled Spaces

Rationale

Sensory-controlled spaces are intended to provide a calming and comfortable atmosphere generally associated with physical and mental wellbeing, but are particularly beneficial for people who experience sensory processing differences and sensory overloads. Sensory-controlled spaces should provide features with key considerations for spatial clarity, air quality and thermal comfort, acoustics, lighting, surface finishes, and fixtures, furniture and equipment (FF&E). Careful consideration of these features creates spaces that are private, safe, and equally available to all users.

Application

The scope of this section applies to rooms and/or spaces that may be a single-designated sensory-controlled space, or to spaces within or servicing collaboration, learning, or activity spaces such as classrooms, laboratories, libraries, study rooms, and meeting rooms. Sensory-controlled spaces should also be considered in other high-stimuli environments such as cafeterias, eating and dining areas, or potentially stressful environments such as consultation rooms or interview rooms used by student services. Sensory-controlled spaces could also be referred to as quiet spaces, calming spaces, or restorative spaces.

Related Sections

- “2.4.7. Cafeteria, Eating and Dining Areas”
- “2.4.8. Offices and Work Areas”
- “2.4.9. Meeting Rooms”
- “2.5.1. Accessible Student Support Services Offices ”
- “2.5.2 Learning Spaces ”
- “2.5.4. Libraries and Reference Facilities”
- “2.5.6. Exhibition, Museum and Gallery Facilities”
- “2.5.8. Student Housing Facilities”
- “2.5.9. Childcare Facilities”

- "2.5.10. Pop-Ups, Event Spaces, and Temporary-Use Facilities"

Related References

- AUTISM ASPECTS Design Index (2023)
- Guide to the Use of Acoustical Standards in Canada (2012), Canadian Acoustical Association
- Acoustical Performance Criteria, Design Requirements, and Guidelines for School, (2015), ANSI
- Design for the Mind: Neurodiversity in the Built Environment (2022), BSI

Key Considerations

Size and Location

The size and layout of space is one of the greatest areas of importance for people with sensory and/or information-processing differences. Adequate space should be provided to allow persons to maintain personal space boundaries to help manage social anxiety or any cognitive conditions affecting coordination or balance. While larger spaces can provide the area to better maintain personal space boundaries, they also tend to be high-sensory activity areas and can lead to persons experiencing a sensory overload. The selected location of designated sensory-controlled spaces, placement of furniture, and access to smaller sensory-reduced spaces or areas can provide the required reprieve and allow persons to recentre themselves.

Spatial Clarity and Transition Zones

Transitional cues in the built environment should be provided to help individuals understand that there is change in the function and use between spaces. Designed transition zones provide the space and time for a person to recalibrate their senses as they move between spaces.

Air Quality and Thermal Comfort

Chemical sensitivities, alteration to smell perception (parosmia), and hypersensitivity to odours are factors to consider when designing and maintaining the built environment. Exposure to even low levels of toxins and fragrances can lead to symptoms such as headaches, nausea, disorientation/confusion, and fatigue which may be further

heightened for persons with sensory-processing differences. The perception of smell and fear of potential air pollutants can have a negative impact on a person. Uncomfortably high indoor temperatures and humidity levels can elevate one's social anxiety and increase the need for more space between people. Hypersensitivity to cold temperatures is also problematic for some people. Designing for good indoor air quality and temperature control helps to promote comfortable spaces and sensory-friendly spaces.

Acoustics

Noisy environments can have a negative psychological impact on anyone, however for persons with sensory-processing differences there is often a hypersensitivity to sound and noise. Noise may be continuous, intermittent, unexpected, high-volume, or at specific frequencies. Softer sounds such as a continuous hum, ticking clock, or dripping tap also contribute to the noise level and acoustic environment. Acoustic zoning helps to identify the level of acoustic treatment while considering adjacent spaces. Spaces should be reviewed by an acoustics specialist to identify potential acoustical challenges based on the programmed activity or the design of the space. Acoustical zoning should be used to allow people to make smooth transitions from low sensory areas (quietest) to the high sensory areas (noisiest) within a building. Very low noise levels can also be distressing as too-quiet spaces can enhance some conditions such as tinnitus while taking away any privacy from conversations. Background noise from ventilation and air conditioning systems can create low-frequency sounds that are intermittent responding to environmental conditions. Unpredictable sound levels can be startling and challenge a person's ability to maintain concentration.

Lighting

Good lighting aids in improved visibility and the perception of safety of a space while the colour temperature of the lighting can help to create a calm or stimulating environment. Fast-moving or changing light effects can increase the risk of seizures for some persons with epilepsy. Access to natural daylighting helps to manage circadian rhythms and reduce eye fatigue. Levels of glare should be controlled to reduce the risk of reducing one's visual field or visual discomfort. Shadows created can easily be misinterpreted as a barrier, obstruction, or hole in the ground while also creating further visual stimuli. People with sensory sensitivities are particularly perceptive to lighting flicker found in certain types of lighting types and installation. Flicker is often associated with the use of fluorescent lamps, poor-quality LEDs with low-quality drives,

incompatible dimming controls, or incompatible drivers and lighting fixtures (luminaries). Flicker is most perceptible at frequencies up to 60 Hz (a 100 Hz flicker is not an issue for most people). Compact fluorescents operate at 20,000 Hz and are not likely to produce a detectable flicker, but this might happen towards the end of their service life. Automated lighting controls can be alarming and can create confusion or anxiety for some persons who are neurodivergent. Transitional lighting between spaces or movement from low-sensory areas to high-sensory areas to help signal a change in anticipated activity within a space.

Surface Finishes

Carefully and conscientious choices about surface finishes can contribute to reducing sensory overload. Absorptive properties of finishes contribute to improved acoustics within a space, while matte finishes help to control glare and improve the visual field. Selecting muted colours contributes to a more calming environment and causes less sensory overload when compared to vivid colours and strong patterns. Some patterns and arrangements can be difficult for the human visual cortex to perceive and can lead to visual fatigue, headaches, nausea, fainting, and other physiological responses. Persons with a higher sensory receptivity can experience sensory fatigue and overload more frequently. Geometric forms and perforated materials can appear to shimmer or move when viewed. Maintaining visual balance and avoiding optical illusions is also important to improve a person's understanding and processing of the environment. Tactile elements, such as tactile walls, can be a therapeutic tool in a multisensory space but can also attract obsessional behaviours. Persons with sensory processing differences may be more aware of and sensitive to fabric finishes where there will be a range of preferences from soft and smooth to a dislike to slippery materials.

Fixtures, Furniture, and Equipment (FF&E)

Selecting simple and intuitive design FF&E will help make elements seem familiar and easier for persons to use. Unfamiliar newer and innovative designs may not be intuitive and should be carefully reviewed from the lens of providing clarity of use. In larger spaces, a mix of layouts allow for group or focused discussion while allowing someone to be seated in busier area but be offered some privacy. Technology can rapidly change and make environments difficult to use or disorienting for some persons. Automated features, such as motion sensor lighting or doors, may be confusing for some people with sensory-processing differences.

Designated Sensory Controlled Spaces

Rooms and spaces can meet varying levels of the range of requirements in this section, but in spaces and environments where stress and sensory overload are likely to occur the provision of a sensory-controlled room should be prioritized. Rooms should be readily available for people to use when needed.

Requirements

(1) Size and Location:

Sensory-controlled spaces should be sized and/or located:

(a) Within high-stimulus environments or within closely proximity of the high-stimulus environment;

(b) By exits to allow persons to easily leave the space or building in moments of heightened panic, anxiety, or sensory overload;

(c) So that there are opportunities to view a larger space from a smaller part of the space to allow people to perceive a safe refuge until a person is ready to rejoin the larger space; and

(d) Where designated sensory-controlled rooms or spaces cannot be provided, consider implementing as many of the Key Considerations in this section as possible to contribute to a sensory-friendly space.

(2) Spatial Clarity and Transition Zones:

Where there is anticipated change in the level of sensory stimuli, such as the movement from a high-stimuli space to a low-stimuli space, or entry into a sensory-controlled space, design considerations should include:

(a) Gradual changes in features such as lighting level, sound level, textures on surfaces, and/or olfactory scents;

(a) Transition features that are predictable throughout a space, building, or across the organization; and

(b) Colour changes that are gradual.

(3) Air Quality and Thermal Comfort:

Sensory-controlled spaces should offer air quality and thermal comfort by providing:

(a) Construction materials and finishes that are free from toxins or emitting volatile organic compounds (VOC) that may off-gas long after they have been installed;

(a) Operational and maintenance procedures that allow for air flushes or building flushes to prior to occupancy and periodic purge ventilation (introducing intermittent, rapid ventilation into a room usually via an openable window, external window, or through an air filtration system);

(b) Cleaning procedures that use high-efficiency particulate air (HEPA) filter vacuums and cleaning any carpets with hot-water extraction;

(c) Cleaning procedures that use fragrance-free products and do not rely on use of air fresheners with strong perfumes. Chemical masking should not be used for unwanted odours;

(d) Air quality monitors that publicly display air quality readings; and

(e) Zoning of environmental controls, with restrictions on potential range, to allow people to select their preferred environment without significant impact to others.

(4) Acoustics:

Sensory-controlled spaces should have acoustical properties that are/have:

(a) Part of a broader acoustic zoning plan, where in the planning of the space the different types of activities are considered so that acoustic treatments are applied correctly within both spaces;

(b) Acoustically zoned so that people can gently transition from low-sensory areas (quiet) to high-sensory areas (noisy). Low-sensory areas should not be immediately adjacent to a high-sensory area;

(c) In areas where low noise levels are anticipated, sound masking systems should be provided to allow for speech privacy and improved concentration. Sound masking systems should be calibrated to ensure they do not contribute additional sensory load that a person may experience;

(d) Ventilation systems including low-noise fans, in-duct attenuators and acoustically insulated ductwork to minimize background noise;

(e) Designed with sound insulation, higher rated windows and doors, and minimal gaps or openings between spaces to reduce sound transmission from adjacent spaces or the outdoor environment;

(f) Consistent with the room acoustic values in Table 2.4.10-A Room Acoustic Values; and

(g) Based on the activity of the space, determine if smaller semi-enclosed areas should be used to mitigate noise.

(5) Lighting:

Sensory controlled spaces should have lighting that is/has:

(a) Lighting colour temperatures associated with the intended use of the space. For spaces of rest or low stimuli spaces colour temperatures should be warm and be between 2700 K to 3000 K;

(b) Dimmable or have varying lighting levels;

(c) Minimal flashing lights within the space;

(d) Access to daylighting that can be shielded with solid materials such as roller shades or curtains. Venetian blinds should not be used as shade and shadow patterns created on the surfaces contribute to further visual stimuli;

(e) Light sources without flicker;

(f) Signage communicating the presence of automated light controls upon entry into a space; and

(g) Illumination ratios less than 1:3 between a fixed task area and an adjacent space.

Table 2.4.10-A Room Acoustic Values

Room/Activity type	**Maximum unoccupied sound level LAeq,30mins dB**	**Maximum unoccupied reverberation time (RT) in seconds**
Quiet rooms, learning spaces likely to be used by learners with sensory differences	≤ 30 dBA	≤ 0.4 s (125 Hz to 4 000 Hz) A)
Meeting rooms, cellular offices, audio and video conferencing	≤ 35 dBA	≤ 0.5 s Tmf B)
General circulation space including corridors	≤ 45 dBA	≤ 0.6 s Tmf B) C)
Sleeping areas	≤ 35 dBA (preferably ≤ 30 dBA)	≤ 0.5 s Tmf B)
Dining room, restaurant, canteen; Large room (☐20 people) Small room (☐20 people)	Large: ≤ 45 dBA Small: ≤ 40 dBA	≤ 1 s Tmf B) ≤ 0.6 s Tmf B)
Multi-purpose hall/ community space	≤ 35 dBA	0.8 s to 1.2 s Tmf B)

A) These spaces require the average reverberation time to not exceed 0.4 s over octave band frequencies 125 to 4 000 Hz. Furthermore, the reverberation time may not exceed 0.6 s in any octave band within this range.

B) Tmf reverberation time is the arithmetic average of the reverberation times in the 500 Hz, 1 kHz and 2 kHz octave bands.

C) This value takes into account the potential to create respite and pause spaces within the corridor.

(6) Surface Finishes:

Sensory controlled spaces should have surface finishes that be/have:

(a) Have acoustical and lighting considerations that meet the criteria in section "2.7.2. Acoustics" and "3.1.1 Interior Lighting";

(b) Avoid the use of full-length mirrors and full mirrored walls to reduce the risk of a visually confusing environment or any optical illusions of an extended space;

(c) Matte or low sheen finishes;

(d) Prioritize the selection of neutral colours. Where more visually stimulating colours and backgrounds can be considered to provide a variety of sensory environments;

(e) Avoid geometric and repetitive patterns with high contrast on large surface areas such as flooring, walls, and ceilings;

(f) Careful analysis of the impact of perforated materials such as stair railings, wall perforations, louvres, and venetian blinds, to creating visual patterns that could heighten the sensory environmental. Additional visual patterns should be avoided.

(g) Avoid bold and intense patterns where there is a risk of falling, such as at stairs;

(h) Engage with people with sensory processing differences about the use and design of tactile walls in a sensory room; and

(i) Rough and harsh fabrics should be avoided on areas where people may sit, lay or stretch across.

(7) Fixtures, Furniture, and Equipment (FF&E):

Sensory controlled spaces should have FF&E that has:

(a) Where possible, such as double swing corridor doors, the push side of the door should be outfitted with push plates, and the pull side of the door should be outfitted with an accessible door handle.

(b) Where self-service devices are provided, they should be user-tested with a wide range of people with disabilities including persons with sensory processing differences;

(c) New technologies should be accompanied by simple directions, using simple language, with visual representations such as easy to understand floor charts;

(d) Reduced sightlines to large digital screens;

(e) Provide signage indicating the presence of automated controls–such as motion sensor lighting, automated window coverings, or sensor doors;

(f) Where multiple seating configurations are provided, seating should be laid out to allow for group discussion, one to one focused discussion, or for solitude or quiet sitting;

(g) Chamfered corners and soft surfaces; and

(h) Solid pieces that do not fold and cannot be easily thrown.

(8) Designated Sensory Controlled Space

Designated Sensory controlled spaces should be/have:

(a) Designated and signed as the "designated sensory controlled space". Signage and wayfinding should be provided to direct people to and identify the space as a sensory controlled space. Signage and wayfinding should meet he criteria in section "3.2.1 Signage and Wayfinding Systems";

(b) Flexible signage to indicate when room is occupied and in use;

(c) Programmed with the primary purpose to provide a quiet space and should not be programmed for multiple functions;

(d) Glazed panels to allow sightlines before entry into any spaces, including a sensory controlled space;

(e) Predictable layouts of furniture, fixtures or equipment between various sensory controlled spaces;

(f) Include two-way communication systems or panic button to request for assistance when needed and should meet the criteria in section "3.2.2. Two-Way Communication Systems";

(g) At least one space should be provided within close proximity to known high sensory areas such as collaboration, learning or activity spaces, lounges, cafeterias, and shared offices;

(h) Views to nature and daylight should be provided. Where views to the outside can not be provided, artwork depicting nature should be considered;

(i) Spaces should be large enough for pacing and to accommodate a person using a mobility device;

(j) Provide signage indicating the presence of automated controls–such as motion sensor lighting, automated window coverings, or sensor doors; and

(k) Meet the requirements within section “2.4.10 Sensory-Controlled Spaces” for acoustics, air quality and thermal comfort, lighting, surface finishes and FF&E requirements.

2.4.11. Wellness and Reflection Rooms

Rationale

Wellness and reflection rooms are designated areas designed to promote introspection, observation of spiritual and religious practices, and well-being. These spaces should incorporate similar key considerations as "2.4.10. Sensory-Controlled Spaces" but should be a separate designated space. These spaces should be designed to be inclusive to all persons with disabilities and from a range of cultural backgrounds.

Application

The scope of this section applies to room designed for religious, spiritual, and reflective practices. This space can also serve as a quiet space for personal reflection and relief from mental fatigue and stress.

Related Sections

- "2.1. Interior Paths of Travel"
- "2.2.3. Doors and Doorways"
- "2.2.4. Door Controls and Devices"
- "2.3.7. Ritual Washing "
- "2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains"
- "3.3.2. Heating, Ventilation and Air Conditioning (HVAC)"

Related References

- Multi-Faith Room Provision in the Workplace (2023), WuduMate
- Section 10.1 Special Ventilation: Smudging (2s019), Public Services and Procurement Canada
- Well Building Standard v2 (2022), International WELL Building Institute, Feature M07 Restorative Spaces

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to wellness and reflection rooms to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided to wellness and reflection rooms. Glazed screen partitions should be durable and low glare, provide privacy using a frosted finish or window covering, and limit the amount of distraction. To offer a level of privacy, doors to private-use rooms should offer locks.

Furniture, Fixtures and Equipment (FF&E)

FF&E, whether purchased or leased, should be provided within wellness and reflection rooms that are flexible, accessible, adaptable, and usable by all individuals. Materials and finishes that absorb smoke and odours should be avoided. Clear floor space for persons using mobility devices or travelling with service animals should also be provided as part of the FF&E plans.

Lighting

Lighting should be provided within wellness and reflection rooms that suits the function of the room and minimizes glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space safely, but consideration should be given to individuals who may be sensitive to glare. Rooms and spaces should have multi-zoned lighting and options for spot lighting. Where there is natural light through exterior glazing, window shades that can reduce light and glare, and that have accessible operable portions or controls, should be provided.

Signals and Controls

Audible and visible signals, such as the audio and visual components of a fire alarm, should be provided within wellness and reflection rooms. An “engaged” sign is to be provided to indicate when the room is in use.

Acoustics

Acoustic control should be provided within wellness and reflection rooms. Ambient noise should be controlled to help improve privacy within the space. Consideration for the insulation of ductwork and the selection of air distribution grilles that are acoustically lined should be made. Sound-absorbing and/or masking materials should be used if appropriate. Rooms that have advanced audio and visual signals should be located by the core without the interference of natural sunlight or external sounds coming through windows.

Additional Features

Where wellness and reflection rooms are designed for cultural celebrations and multi-faith practices, rooms should consider that some faiths, such as Islam, require specific daily rituals, such as Salat, that require proper observance during the ordinary work or school day. Some cultures, including First Nations, Inuit, and Métis communities, burn sacred plants during larger ceremonies and reflection practices. Wellness and reflection rooms should allow for ritual washing before prayer and have the required HVAC systems to allow for smudging.

Requirements

(1) Accessible Path of Travel:

Wellness and reflection rooms should provide interior accessible paths of travel that:

(a) Have clear aisle space that is 1100 mm minimum;

(b) Have a clear turning space that:

(i) Is 1500 mm minimum in diameter in wellness and reflection rooms;

(ii) Is 2100 mm minimum in diameter at large wellness and reflection rooms; and

(iii) Is 3150 mm minimum in diameter at wellness and reflection rooms; that are intended for 50 persons or greater;

(c) Extend to stages and platforms, where provided; and

(d) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Doors and Doorways:

Wellness and reflection rooms should provide doors and doorways that:

(a) Have power door operators at:

(i) Entrance doors to larger or highly used rooms; and

(ii) One door minimum where double leaf doors or a cluster of doors are provided;

(b) Have vision panels or sidelights that:

(i) Have a frosted finish; or

(ii) Have window coverings;

(c) Have door locks that are usable with closed fist; and

(d) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Furniture, Fixtures and Equipment (FF&E):

Wellness and reflection rooms should provide FF&E that:

(a) Is flexible, accessible, and adaptable;

(b) Includes movable seating equipped with and without arm rests;

(c) Where fixed seating is provided, meets the criteria in section "1.4.2. Spectator Areas";

(d) Where tables are provided, provides clear floor space that is 915 mm wide and 1370 mm deep, and knee and toe space, [R-2.4.2. (3)(c)(ii)], for a front approach, that is 735 mm minimum AFF at the front edge, 500 mm minimum deep, and 900 mm minimum wide; and

(e) Excludes fabric and other soft materials that can absorb smoke and odours.

(4) Lighting:

Wellness and reflection rooms should provide lighting that:

(a) Is adjustable or dimmable;

(b) Where natural light is provided, has roller window shades; and

(c) Meets the criteria in section "3.1.1 Interior Lighting".

(5) Signals and Controls:

Wellness and reflection rooms should provide signals and controls that:

(a) Include audible and visible signals that:

(i) Include audio and visual components of a fire alarm;

(ii) Provide adjustable volume levels; and

(iii) Meet the criteria in section "3.3.4. Audible and Visible Signals "; and

(b) Include two-way communication systems or panic buttons to request assistance when needed that meet the criteria in section "3.2.2. Two-Way Communication Systems"; and

(c) Includes dynamic signage to communicate when the room is in use.

(6) Acoustics:

Wellness and reflection rooms should include acoustics that:

(a) Allow for audible equipment with adjustable volume levels; and

(b) Meet the criteria in section "2.7.2. Acoustics".

(7) Additional Features:

Wellness and reflection rooms should:

(a) Allow for ritual washing, wudu, or ablution and meet the criteria in section "2.3.7 Ritual Washing "; and

(b) Allow for smudging practices and meet the criteria in section "3.3.2. Heating, Ventilation and Air Conditioning (HVAC)".

2.4.12. Wellness, Lactation, and First Aid Spaces

Rationale

Wellness, lactation, and first aid spaces are designated areas designed to allow for privacy related to breast/chest-feeding and milk expression as wells as for self-care and first aid services. Compared to other wellness spaces, these spaces have a specific function for physical self-care and should be a designated room to avoid conflicts or discomfort between different activities.

Application

The scope of this section applies to rooms and spaces designed for wellness related to light physical care. Lactation rooms and first aid spaces could also be referred to as parenting rooms, milk rooms, or health rooms.

Related Sections

- “2.1. Interior Paths of Travel”
- “2.2.3. Doors and Doorways”
- “2.2.4. Door Controls and Devices”
- “2.3.7. Ritual Washing ”
- “2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains”
- “2.4.6. Kitchens and Kitchenettes”

Related References

- Creating a Breast Friendly Workplace Strategy (2024), Region of Waterloo Public Health
- Well Building Standard v2 (2022), International WELL Building Institute, Feature C09 New Mother Support

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to wellness, lactation, and first aid spaces to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided to wellness, lactation, and first aid spaces. Glazed screen partitions should be durable and low glare, provide privacy by using a frosted finish or window coverings, and limit the amount of distraction. To offer a level of privacy, doors to private-use rooms should offer locks.

Furniture, Fixtures and Equipment (FF&E)

FF&E, whether purchased or leased, should be provided within wellness, lactation, and first aid spaces that are flexible, accessible, adaptable, and usable by all individuals. Clear floor space for persons using mobility devices or travelling with service animals should also be provided as part of the FF&E plans. Refrigerators should be provided for storing expressed milk or medications.

Lighting

Lighting should be provided within wellness, lactation, and first aid spaces that suits the function of the room and minimizes glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space safely, but consideration should be given to individuals who may be sensitive to glare. Rooms and spaces should have multi-zoned lighting and options for spot lighting. Where there is natural light through exterior glazing, window shades that can reduce light and glare, and that have accessible operable portions or controls, should be provided.

Signals and Controls

Audible and visible signals, such as the audio and visual components of a fire alarm, should be provided within wellness, lactation, and first aid spaces.

Acoustics

Acoustics control should be provided within wellness, lactation, and first aid spaces. Ambient noise should be controlled to help improve privacy within the space. Consideration for the insulation of ductwork and the selection of air distribution grilles that are acoustically lined should be made. Sound absorbing and/or masking materials should be used if appropriate. Rooms that have advanced audio and visual signals should be located by the core without the interference of natural sunlight or external sounds coming through windows.

Additional Features

Additional features such as sinks, baby change tables, and water bottle filling stations are some key features of wellness, lactation, and first aid spaces.

Key Considerations

(1) Accessible Path of Travel:

Wellness, lactation, and first aid spaces should provide interior accessible paths of travel that:

(a) Have clear aisle space that is 1100 mm minimum;

(b) Have a clear turning space that:

(i) Is 1500 mm minimum in diameter in lactation rooms and first aid spaces; and

(ii) Is 2100 mm minimum in diameter at larger lactation rooms and first aid spaces; and

(c) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Doors and Doorways:

Wellness, lactation, and first aid spaces should provide doors and doorways that:

(a) Have power door operators at:

(i) Entrance doors to larger or highly used rooms;

(b) Have vision panels or sidelights that:

(i) Have a frosted finish; or

(ii) Have window coverings;

(c) Have door locks that are usable with a closed fist; and

(d) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Furniture, Fixtures and Equipment (FF&E):

Wellness, lactation, and first aid spaces should provide FF&E that:

(a) Is flexible, accessible, adaptable;

(b) Made of materials that are easily cleaned and disinfected; and

(c) Includes:

(i) Comfortable seating equipped with back support and arm rests;

(ii) A height adjustable day bed;

(iii) A refrigerator to store expressed milk or medications;

(iv) Waste disposal bins with odour-reducing capabilities; and

(v) A sharps disposal bin.

(4) Lighting:

Wellness, lactation, and first aid spaces should provide lighting that:

(a) Is adjustable or dimmable;

(b) Where natural light is provided, has roller window shades; and

(c) Meets the criteria in section "3.1.1 Interior Lighting".

(5) Signals and Controls:

Wellness, lactation, and first aid spaces should provide signals and controls that:

(a) Include audible and visible signals that:

(i) Include audio and visual components of a fire alarm;

(ii) Provide adjustable volume levels; and

(iii) Meet the criteria in section "3.3.4. Audible and Visible Signals "; and

(b) Include two-way communication systems or panic buttons to request assistance when needed that meet the criteria in section "3.2.2. Two-Way Communication Systems".

(6) Acoustics:

Wellness, lactation, and first aid spaces should include acoustics that:

(a) Meet the criteria in section “2.7.2. Acoustics”.

(7) Additional Features:

Wellness, lactation, and first aid spaces should include additional features such as:

(a) Accessible sinks that meet the criteria in section “2.4.6. Kitchens and Kitchenettes”;

(b) Accessible counters and millwork that meet the criteria in “2.4.6. Kitchens and Kitchenettes”;

(c) Baby change tables that meet the criteria in section “2.3.8 Washroom and Change Room Accessories”; and

(d) Water bottle filling stations that meet the criteria in section “2.3.14 Interior Water Bottle Filling Stations and Drinking Fountains”.

2.4.13. Areas of Rescue Assistance

Rationale

Areas of rescue assistance, also known as protect in place or temporary or emergency waiting areas, are spaces where persons can safely wait for rescue assistance during an evacuation. The space is indicated on the Fire Safety Plan, has a fire-rated enclosure, has direct access to an exit, and has two-way communication equipment. They should be able to accommodate and hold space for several persons using mobility devices. Fire safety plans should indicate in detail the evacuation plan and any locations of areas of rescue assistance. This section exceeds the minimum requirements for areas of refuge as per the Ontario Building Code. Areas of rescue assistance should be provided where the building is sprinklered.

Application

[Reserved]

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.2. Two-Way Communication Systems"
- "3.3.1. Emergency Power"
- "3.3.3. Fire and Life Safety"

Related References

- [Reserved]

Key Considerations

Amount

The number of areas of rescue assistance provided should be at every floor level above or below the first storey of a building to ensure that the highest number of persons with disabilities will receive rescue assistance during an evacuation.

Accessible Path of Travel

An interior accessible path of travel should be connected to areas of rescue assistance to allow for a continuous, unobstructed route and providing interior access to elements and spaces, such as direct access to an exit and evacuation area to wait for assistance from firefighters.

Clear Floor Spaces

Clear floor spaces should be provided at areas of rescue assistance to create unobstructed, level floor areas that are sized to provide the space for persons using mobility devices. The size of the clear floor space should be adjusted depending on the intended approach (front, side). They should be clear of the interior accessible path of travel so that they do not obstruct other persons trying to exit a building.

Design

The design of areas of rescue assistance should include interior lighting, a separate ventilation system, be connected to an emergency power system, have a two-way communication system, and signage and wayfinding strategy. They should have a fire separation and a fire protection rating from the floor area to ensure that a person can safely wait until assistance arrives.

Requirements

(1) Amount:

Areas of rescue assistance should provide:

(a) A minimum of one per floor area:

(i) At every floor level above, or below the first story of a building; and

(ii) Where the building has two exits; and

(b) A minimum of two per floor area:

(i) At every floor level above, or below the first story of a building;

(ii) Located at opposite ends of a floor area; and

(iii) Where the building has three or more exits.

(2) Accessible Path of Travel:

Areas of rescue assistance should provide an interior accessible path of travel that:

(a) Is connected to a firefighter's elevator; and

(b) Meets the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(3) Clear Floor Spaces:

Each area of refuge or rescue assistance should provide clear floor spaces, "Figure 2.4.13-A Exit Stair", that:

(a) Have a minimum of two spaces;

(b) Are 900 mm by 1500 mm for front approach, or 900 mm by 2200 mm for side approach.

(4) Design:

Areas of rescue assistance should be designed, "Figure 2.4.13-B Elevator Lobby", to:

(a) Have emergency lighting that meets the criteria in section "3.1.1. Interior Lighting";

(b) Have two-way communication systems that:

(i) Have emergency power that meets "3.3.1Emergency Power"; and

(ii) Meets the criteria in section "3.2.2. Two-Way Communication Systems";

(c) Have signage and wayfinding strategy that:

(i) Direct persons to the designated evacuation area;

(ii) Identify the designated evacuation area and contain the words "Areas of Rescue Assistance"; and

(iii) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems";

(d) Be separated from the building floor area by a fire separation with a fire-resistance rating at least equal to that required for an exit;

(e) Be smoke-protected;

(f) Be served directly by an exit or by a firefighter elevator;

(g) Be a part of the evacuation plan meet the criteria in section "3.3.3. Fire and Life Safety"; and

(h) Be accompanied with fire emergency and rescue operational plans of the building and organization.

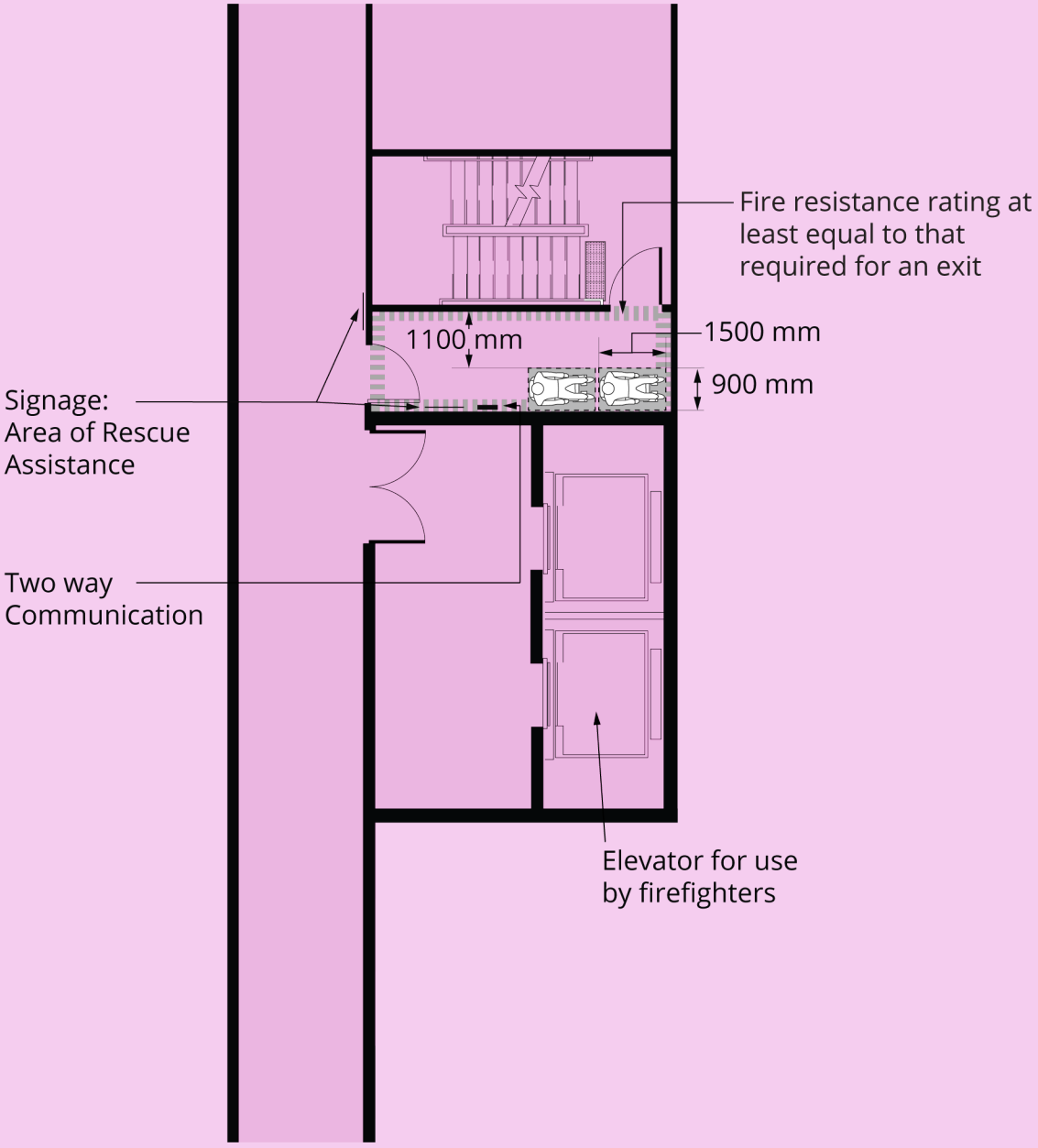


Figure 2.4.13-A Exit Stair

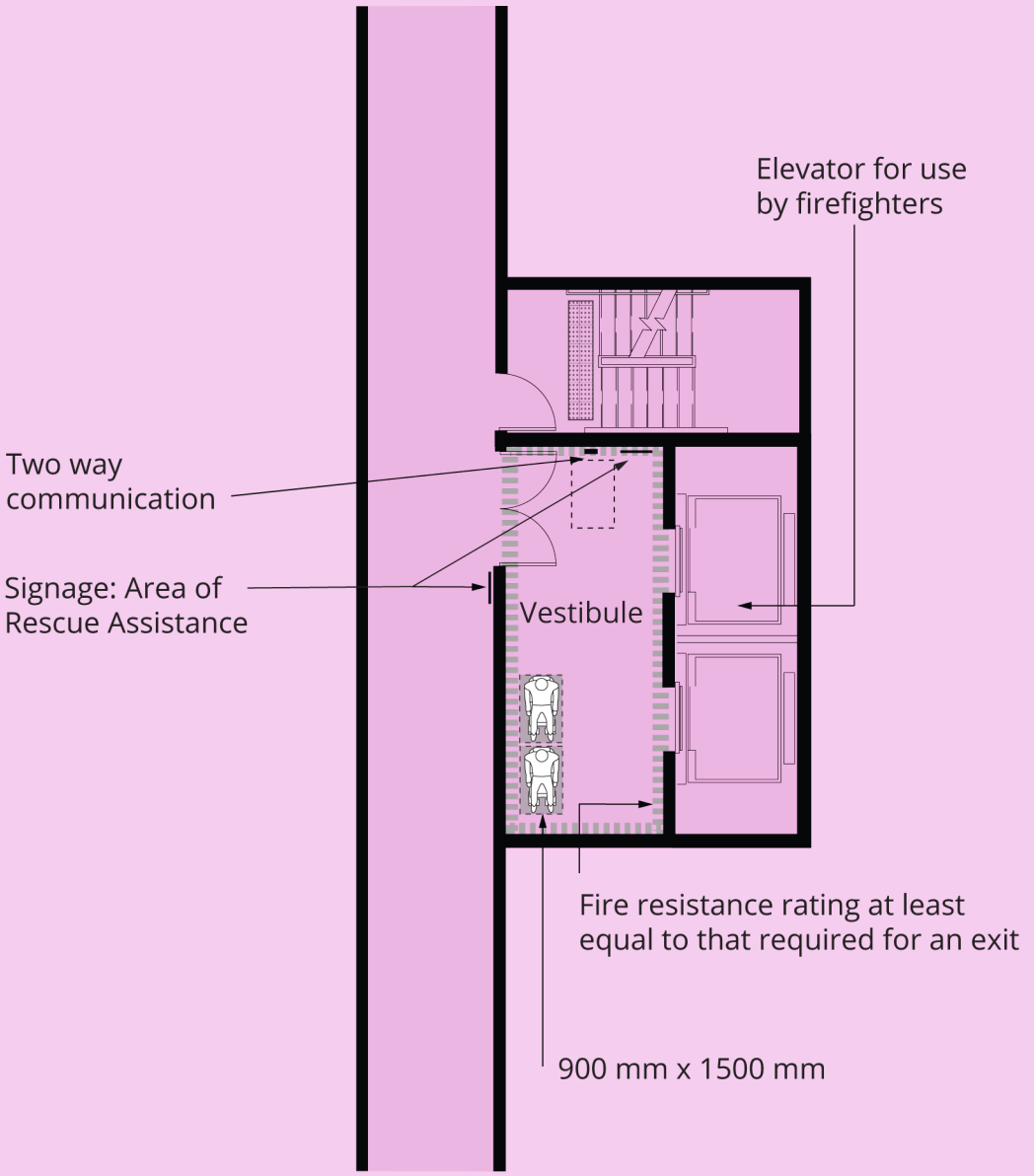


Figure 2.4.13-B Elevator Lobby

2.5. Post-Secondary Education Specialized Facilities

Section Summary

This section reviews the accessible design requirements for interior specialized facilities intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. An interior accessible path of travel should be provided into and throughout interior specialized facilities, including recreation and service facilities, to ensure that all persons can safely navigate throughout.

Contents in Section

2.5.1. Accessible Student Support Services Offices

2.5.2. Learning Spaces

2.5.3. Laboratories

2.5.4. Libraries and Reference Facilities

2.5.5. Recreation and Gymnasium Facilities

2.5.6. Exhibition, Museum and Gallery Facilities

2.5.7. Storage Spaces

2.5.8. Student Housing Facilities

2.5.9. Childcare Facilities

2.5.10. Pop-Ups, Event Spaces, and Temporary-Use Facilities

2.5.1. Accessible Student Support Services Offices

Rationale

Key student services to support learning and wellbeing should be equitably accessible and well situated within a building to help students and their families easily find them. Prominently locating Accessible Learning Services and client-facing student-success-related offices also builds awareness of the services available to students who have a permanent or temporary disability, or who suspect they have a disability, and are seeking assistance.

Application

The scope of this section applies to spaces to serve and support students, such as Accessible Learning Services, the Assessment Centre, Counselling and Student Well-Being, Deaf and Hard of Hearing Services, and the Office of Anti-Racism, Equity and Human Rights Services (OAREHRS).

Related Sections

- "2.4.1 Service Counters"
- "2.4.8. Offices and Work Areas "
- "2.4.9. Meeting Rooms"
- "2.4.10. Sensory-Controlled Spaces"

Related References

- [Reserved]

Key Considerations

Location

Student support services offices should be easy to find and access for students and their parents or guardians. By locating student support services offices in a convenient and obvious location, it will improve ease of use, access, and awareness of critical student services.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory-processing differences and be more susceptible to sensory overloads. Designing sensory-controlled spaces can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation. Potentially stressful environments should provide a sensory-controlled room to allow persons to partake in services offered by a student service provider.

Additional Features

Student support services offices should be physically and sensorially accessible to students and employees.

Requirements

(1) Location:

Student support services offices should:

(a) Be located near the main entrance of a building;

(b) Be co-located with other student service offices; and

(c) Be located on the ground floor or a level that does not require the use of an elevator.

(2) Neurodiversity and Neurodivergence:

Student support services offices should be designed for neurodivergence and:

(a) Provide a sensory-controlled space within the common-use area of the space; and

(b) Meet the requirements of section “2.4.10 Sensory-Controlled Spaces

(3) Additional Features

Student support services offices should:

(a) Be served by accessible service counters and meet the criteria in section “2.4.1 Service Counters”;

(b) Be served by accessible waiting areas and meet the criteria in section “2.4.2. Queuing Guides and Waiting Areas”;

(c) Have accessible offices and work areas and meet the criteria in section “2.4.8. Offices and Work Areas “; and

(a) Have accessible meeting rooms and meet the criteria in section “2.4.9. Meeting Rooms”.

2.5.2. Learning Spaces

Rationale

Students and employees should have equitable access to teaching and learning facilities. Enabling knowledge transmission and retention requires clear communication between students and employees, access to course materials, and conducive environments for learning. Additional considerations may be necessary for spaces, features, equipment, or technology to meet student-specific needs or accommodation plans.

Application

The scope of this section applies to spaces for learning, teaching, studying, and focused learning including classrooms, lecture halls, seminar rooms, study spaces, laboratories, studio spaces, and Assessment Centres.

Related Sections

- "2.1. Interior Paths of Travel"
- "2.2.3. Doors and Doorways"
- "2.2.4. Door Controls and Devices"
- "2.4.10. Sensory-Controlled Spaces"
- "2.6.3. Furniture and Equipment"
- "3.1.1. Interior Lighting"
- "3.2.5. Assistive Listening Devices"
- "2.7.2. Acoustics"

Related References

- DeafSpace, Gallaudet University
- DeafSpace: Principles and Elements of DeafSpace, RIT Libraries
- OCAD Facility Accessibility Design Standards (2017), OCAD University 4.5.8 Teaching Spaces Key Considerations

- Inclusive Physical Space Framework (2023), University of Waterloo 22 Learning Spaces

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to learning spaces to allow for a continuous, unobstructed route providing interior access to elements and spaces. Clear accessible paths of travel should be planned and maintained in all conditions, including in flexible furniture conditions. Teaching and learning materials or student project work should not protrude into the accessible path of travel and should be stored when not in use. Operational requirements should be provided to ensure learning space layouts maintain an accessible path of travel.

Doors and Doorways

Accessible doors and doorways should be provided at learning spaces, but it is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy.

Furniture, Fixtures and Equipment (FF&E)

FF&E should be provided within learning spaces that are flexible, adaptable, ergonomic, and usable by all individuals. Seating options in traditional lecture halls should provide choice and consideration for persons using mobility devices, persons with sensory-processing differences, and a wide range of body sizes.

Seating with integrated desks or table surfaces are not considered accessible to a person using a mobility device. Clear floor spaces should also be considered as a part of the room layout to account for persons using mobility devices or travelling with service animals. While arm rests are beneficial for some users, they may be less accessible for people of larger body size; therefore, a mixture of seats with and without arm rests should be provided. A range of seating options including options for left or right-handed persons should also be considered.

For many people who are neurodivergent, predictable experiences are important for processing sensory changes, therefore offering assigned or designated seating in a non-stigmatizing way should be considered. Task chairs with numerous adjustable

features are helpful for meeting ergonomic needs but can also be distracting and an element to fidget, especially for persons with sensory-processing differences.

Table heights should be designed or selected for a range of body heights and sizes, including persons of short stature, persons using mobility devices, and larger persons. Foot stools should be provided for persons of short stature to rest their feet on where seating is not adjustable or to aid in reach range.

Where demonstration stations or lecture podiums are provided, they should be adjustable in height to meet the needs of a wider range of students, employees, and other members of the GBP community.

Any surfaces designed for pinning up or presenting work, such as whiteboards or blackboards, should be a longer height extending closer to the ground to allow for a wider reach range, especially for persons of shorter stature and persons who use wheeled mobility devices in a seated position.

Power Sources and Technology

Persons with disabilities frequently use learning aids and other assistive devices that require a power supply throughout the learning space. A range of assistive technologies exist but some typical ones include screen readers, braille writers, assistive listening systems, head-mounted mouse systems that translate head movements to cursor movements on a digital interface.

Technology has enabled hybrid learning environments that have allowed for increased opportunities for participation. In-room audio and visual amplification systems can also improve the communication and learning of students, employees, and other members of the GBP community.

Lighting

Lighting should be provided within learning spaces that minimizes glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space safely, but consideration should be given to individuals who may be sensitive to glare. Direct or in-direct lighting sources should utilize diffused lenses or filters and be adjustable to meet the needs of all individuals, as well as the function of the facility. Lighting should be zoned to allow persons providing live sign language interpretation to be highlighted or for notetakers to have the required visibility.

Acoustic Controls

Acoustic controls should be provided within learning spaces. Ambient noise should be controlled to help improve concentration for all individuals who are engaged in tasks such as reading and studying. Too much ambient noise can further limit the hearing ability of persons who are D/deaf, deafened, or hard of hearing.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory-processing differences and be more susceptible to sensory overloads. Designing sensory-controlled spaces can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

School of Deaf and DeafBlind Studies

The School of Deaf and DeafBlind Studies may anticipate a higher percentage of students and employees who are D/deaf, deafened, hard of hearing, blind, or who have low vision. Similarly, the Academic Upgrading Program for Deaf and Hard-of-Hearing Adults offered through the Faculty of Community Services and Interdisciplinary Studies (FCSIS) may anticipate a higher percentage of students and employees who are D/deaf, deafened, or hard of hearing.

Given the nature of the education and learning experience offered within this faculty, accessibility strategies to enhance the usability of the built environment for persons who are D/deaf, deafened, hard of hearing, blind, or who have low vision should be prioritized. Sign language is a visual form of communication, and the environment should be designed to avoid eye fatigue. Persons who are D/deaf, deafened, or hard of hearing can have a range of hearing abilities and may use assistive devices to enhance sound sources. Background noise and reverberation should therefore be minimized.

Requirements

(1) Accessible Path of Travel:

Learning spaces should provide interior accessible paths of travel that:

(a) Have a clear width that is 1100 mm minimum, between fixed and non-fixed elements; and

(b) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Doors and Doorways:

Learning spaces should provide doors and doorways that:

(a) Have power door operators at:

(i) Entrance doors to large and highly used rooms; and

(ii) Where double leaf doors or a cluster of doors are provided, one door minimum;

(b) Have vision panels or sidelights; and

(c) Meet the criteria in section “2.2.3. Doors and Doorways”.

(3) Furniture, Fixtures and Equipment (FF&E):

Learning spaces should provide FF&E that:

(a) Is flexible, adaptable and ergonomic;

(b) Includes 3% minimum, but not less than one grouping of two clear floor spaces, and one adaptable seating of the total seating plan;

(i) Where clear floor spaces are provided, they should be co-located with an adaptable seat in a fixed seating configuration;

(c) In large raked or tiered seating configurations, includes clear floor spaces and adaptable seating options distributed throughout the front, middle, and top sections of the room;

(d) In flexible room configurations, includes a standardized layout for the moveable elements. At the end of each class or period, operational plans should be developed to ensure that the standardized configuration is maintained to allow for a predictable learning environment layout;

(e) Includes a mix of task chairs and ergonomic non-task chairs without wheels and non-adjustable elements;

(f) Includes a mixture of seats with arm rests and seats without arm rests;

(g) Includes wider seats with a load capacity of 227 kg (500lbs) for at least 2% of seats, but never less than one seat;

(h) Includes at least 3%, but not less than one, of tabletops, workstations, or desks that:

  (i) Have a surface height that is 860 mm AFF., where fixed; and

  (ii) Have knee and toe space for a front approach that is 735 mm minimum high AFF, 500 mm minimum deep, and 900 mm minimum wide;

(i) Includes at least 20%, but not less than one, height-adjustable tabletop, workstation, or desk;

  (i) In large raked or tiered seating configurations, adjustable tabletop(s), workstation(s), or desk(s) should be located in an area that is reached by a step-free path of travel (this may be at the front row, for example);

(j) Includes a mix of left and right-handed configurations where integrated seating and desks are provided. At least 10%, but no less than one, of seats provided should be left-handed;

(k) Provides a height-adjustable lectern or demonstration counter;

(l) Provides a live video feed or mirrors above the area of demonstration where a demonstration area or counter is provided;

(m) Provides at least 50% of shelving and storage space within an accessible reach range between 460 mm to 1050 mm AFF;

(n) Provides at least one of any element designed to be accessible with accessible end-user controls and served by an accessible path of travel;

(o) Provides pin-up space, whiteboards, or blackboards with a lower edge that extends as close to the floor surface as possible and with a lower edge no higher than 460 mm AFF; and

(p) Meets the criteria in section "2.6.3. Furniture and Equipment".

(4) Power Sources and Technology:

Learning spaces should provide:

(a) Electrical outlets mounted between 460 mm to 1050 mm AFF in a variety of locations, including:

(i) Some electrical outlets provided within seating areas, such that cords do not cross the path of travel and cause tripping hazards;

(b) Electrical outlets within an accessible reach range and 500 mm maximum deep from the front edge where electrical outlets are mounted on furniture, fixtures, or equipment;

(c) Full-room microphone pickup, in-room voice amplification, and auto-tracking cameras in hybrid learning classrooms;

(d) Assistive listening devices that meet the criteria in section “3.2.5. Assistive Listening Devices”; and

(e) Public Wi-Fi with a reliable connection should be considered for individuals using assistive technology within learning spaces.

(5) Lighting:

Learning spaces should provide lighting that:

(a) Is direct or in-direct;

(b) Utilizes diffused lenses or filters;

(c) Has adjustable lighting levels;

(d) Is zoned with at least two zones, one to focus on a sign language interpreter when the room is dimmed in larger learning spaces; and

(e) Meets the criteria in section "3.1.1 Interior Lighting".

(6) Acoustic Controls:

Learning spaces of all sizes should provide acoustic controls that:

(a) Have walls with a Sound Transmission Class (STC) rating of:

(i) 50 minimum between learning spaces;

(ii) 53 minimum between learning spaces and common spaces of washrooms; and

(iii) 60 minimum between learning spaces and mechanical spaces;

(b) Create an ambient noise level at 35 decibels or less when measured with the A-scale of a sound level meter;

(c) Create a reverberation time in rooms:

(i) Under 283.17 m^3 (10,000 ft^3) of space should not exceed 0.5 seconds; and

(ii) Spaces larger than 283.17 m^3 (10,000 ft^3) should be designed for maximum reverberation time of 0.7 seconds;

(d) Includes materials at the front of the room to be reflective to project sound to the back of the room; and

(e) Meet the criteria in section "2.7.2. Acoustics".

(7) Neurodiversity and Neurodivergence:

Learning spaces should be designed for neurodivergence and:

(a) Create sensory safe zones where there may be more private seating, less visual stimulation, and/or reduced sound levels in larger learning spaces.; and

(b) Meet the requirements within section “2.4.10 Sensory-Controlled Spaces”.

(8) School of Deaf and DeafBlind Studies

Learning spaces within the School of Deaf and DeafBlind Studies should:

(a) Consider increasing the sensory reach within the environment and integrate improved visual sightlines by incorporating:

(i) More framed, mirrored surfaces;

(ii) Glazed walls with vision strips and;

(iii) Rounded-edge walls rather than sharp corners.

(b) Have calming colours and lighting to reduce eye fatigue by:

(i) Providing soft, diffused light;

(ii) Using neutral colours and avoiding patterns.

(c) Create an acoustical environment that eliminates background noise and reverberation and meets the criteria in this section and section "2.7.2. Acoustics".

(d) Provide contrast between key elements, such as wall and floor or wall and door, and meet the criteria in section “2.7.1 Floor, Wall, and Ceiling Surfaces”.

2.5.3. Laboratories

Rationale

Students and employees should be able to safely access all learning opportunities, including experiential learning offered in faculty-specific laboratories.

Application

The scope of this section applies to laboratories offered in all faculties including, but not limited to, Arts and Design, Construction and Engineering, Health and Community, and Hospital and Culinary Arts.

Related Sections

- "2.1. Interior Paths of Travel"
- "2.2.3. Doors and Doorways"
- "2.2.4. Door Controls and Devices"
- "2.4.6. Kitchens and Kitchenettes"
- "2.5.2. Learning Spaces "
- "2.5.7. Storage Spaces "

Related References

- American National Standards Institute (ANSI) Standard Z358.1 (2014), Emergency Eyewash and Shower Equipment
- Canadian Centre for Occupational Health and Safety (2024), Emergency Showers and Eyewash Stations
- Checklist for Making Science Labs Accessible for Students with Disabilities (2014), Ontario's Universities Accessible Campus
- Designing beyond the ADA – Creating an Accessible Research Lab for Students and Scientists with Physical Disabilities (2011) Institute for Accessible Science: Purdue University
- OCAD Facility Accessibility Design Standards (2017), OCAD University 4.5.9 Laboratories

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to laboratories to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided at laboratories, but it is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy.

Controls and Operating Mechanisms

Controls and operating mechanisms for the operation of building services or safety devices should be designed to be usable by all individuals, where intended to be operated by the end user. Access to electrical, water, and gas lines should be made accessible and safely located at laboratory workstations.

Furniture, Fixtures and Equipment (FF&E)

FF&E should be provided within laboratories that are flexible, adaptable, ergonomic, and usable by all individuals. Table heights should be designed or selected for a range of body heights and sizes including persons of short stature, persons using mobility devices, and larger persons. Foot stools should be provided for persons of short stature to rest their feet on where seating is not adjustable or to aid in reach range.

Where demonstration stations or lecture podiums are provided, they should be adjustable in height to meet the needs of a wider range of students, employees, and other members of the GBP community.

Fume hoods should be located without compromising the required knee clearance and clear floor space for person using mobility devices. Fume hoods should be accessible and located to allow for forward air intake. It can be difficult to work safely and comfortably when fume hoods are located for side air intake. Fume hood sashes should be used to allow persons using mobility devices to reach into the fume hood to provide an additional layer of face and body protection. Sinks should be designed to be accessible and easy to access.

Safety

Laboratories that deal with hazardous or corrosive substances should provide accessible emergency showers and eyewash stations for on-the-spot decontamination. Emergency shower and eye wash stations should be accessible and usable by all persons. Additional emergency equipment such as emergency stop buttons and fire blankets should also be located in an accessible location.

Laboratory-specific alarms, such as spill and low-air-flow alarms, should communicate in multiple modalities from audible, visual print and sign-language interpretation, to identify any compromised conditions of the laboratory space.

Where toxic and dangerous activities occur within the lab, providing the opportunity for reprieve and rest is critical for everyone, especially for persons with sensory-processing differences or persons living with mental health illness and conditions. An accessible lounge or break space with separate ventilation should be provided within close proximity.

Art and Design Laboratories

In addition to the typical considerations noted above, art and design laboratories should adapt stations and tools as per each student's accessibility accommodation needs without compromising the safety of any persons or the overall use of the space.

Construction and Engineering Laboratories

In addition to the typical considerations noted above, construction and engineering laboratories should always provide an accessible path of travel into and throughout the space. A case-by-case evaluation of the student's accessibility accommodation and what degree of physical capabilities should be expected to safely use the equipment, minimize the risk of harm, and effectively learn skills applicable to the workplace should be completed.

Health Science Laboratories

In addition to the typical considerations noted above, health science laboratories should be organized as per each student's accessibility accommodation needs without compromising the safety of any persons or the overall use of the space. Handwashing stations and other safety features should be accessible

Hospitality and Culinary Arts Laboratories

In addition to the typical considerations noted above, health science laboratories should include accessible service counters, kitchens and kitchenettes, handwashing stations and eating and dinning areas where required by the program.

Requirements

(1) Accessible Path of Travel:

Laboratories should provide interior accessible paths of travel that:

(a) Have a clear width that is 1800 mm minimum, between fixed and non-fixed elements;

(b) Lead to storage areas that meet the criteria in "2.5.7. Storage Spaces ";

(c) Are kept clear of equipment, materials, cables, and debris; and

(d) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Doors and Doorways:

Laboratories should provide doors and doorways that:

(a) Have power door operators at:

(i) Entrance doors to large, highly used rooms or rooms that require the movement of many or large pieces of equipment or materials; and

(ii) Where double leaf doors or a cluster of doors are provided, one door minimum;

(b) Have vision panels or sidelights; and

(c) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Controls and Operating Mechanisms:

Laboratories should have controls and operating mechanisms that:

(a) Are 1050 mm maximum AFF;

(b) Are 500 mm maximum from the front edge of the obstruction, if any obstruction;

(c) Where they include touchscreens, have vibro-tactile (haptic technology) feedback, and tactile controls; and

(d) Have operable portions or controls that meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(4) Furniture, Fixtures and Equipment (FF&E):

Laboratories should have FF&E that:

(a) Includes at least 3%, but not less than one, of tabletops, workstations, or desks that:

(i) Have a surface height that is 860 mm AFF., where fixed; and

(ii) Have knee and toe space for a front approach that is 735 mm minimum high AFF., 500 mm minimum deep, and 900 mm minimum wide;

(b) Includes at least 20%, but not less than one, height-adjustable tabletop, workstation, or desk;

(c) Includes a mix of left and right-handed configurations where integrated seating and desks are provided. At least 10%, but not less than one, of seats provided should be left-handed;

(d) Includes a mix of seating types, which includes stools with and without wheels, and stools with and without back support.

(e) Provides at least 50% of shelving and storage space within an accessible reach range between 460 mm to 1050 mm AFF;

(f) Provides a height-adjustable lectern or demonstration counter; and

(g) Provides a live video feed or mirrors above the demonstration area where a demonstration areas or counter is provided;

(h) Includes at least 3%, but not less than one, accessible fume hoods that:

(i) Are adjustable with a flexible exhaust connection. Where adjustable fume hoods are not adequate, an accessible walk/roll-in fume should be provided with an accessible workstation depending on the task and type of equipment being used;

(ii) Have controls that operate with a proximity sensory for hand and foot controls; and

(iii) Include a fume hood sash with horizontally moveable glass panels; and

(i) Includes an accessible sink, where provided, and meets the criteria in section "2.4.6. Kitchens and Kitchenettes".

(5) Safety:

Laboratories should have safety features that include:

(a) An accessible shower and eyewash station and within 3-6 m of the hazard;

(b) Eyewash stations that provide:

(i) Knee clearance of 735 mm AFF by 900 mm wide;

(ii) Access to the dual nozzle eyewash;

(iii) A pull-down cord or panel that is located within an accessible reach range and can be operated with a closed fist and require less than 22N (5lbs) of force to operate;

(iv) Hands-free operation while activated; and

(v) A continuous flow of 1.5 litres of water per minute at 16 to 38 degrees Celsius.

(c) Retractable drench hoses at sinks as supplemental eyewash stations at accessible sinks that meet the criteria in in section "2.4.6. Kitchens and Kitchenettes". Retractable drench hoses cannot be provided in lieu of eyewash stations;

(d) An accessible shower that provides:

(i) A clear floor space of 900 mm by 1500 mm

(ii) A showerhead between 2000 mm to 2400 mm AFF;

(iii) Showerhead handles that have colour contrast and are usable with a closed fist and located within an accessible reach range of 900 mm to 1050 mm AFF;

(iv) Hands-free operation while activated;

(v) A continuous flow of 1.5 litres of water per minute at 16 to 38 degrees Celsius and

(vi) Grab bars that meet the criteria in section "2.3.10 Accessible Showers".

(e) Alarms that include audio and visual components, and vibro-tactile where possible;

(f) Co-located lounge spaces that are physically separated from laboratory space with:

(i) Signage directing to and from the spaces meeting the criteria in section "3.2.1 Signage and Wayfinding Systems";

(ii) Separate ventilation or fresh air supply; and

(iii) Washing facilities that meet criteria in section "2.3.6 Accessible Lavatories"; and

(g) Additional personal protective equipment (PPE) that may be required from a seated position or for a person of shorter stature.

(6) Art and Design Laboratories:

Art and Desing laboratories should have:

(a) At least one of each type of equipment that can be provided at an accessible height and reach range without compromising safety.

(7) Construction and Engineering Laboratories:

Construction and Engineering laboratories should have:

(a) An accessible path of travel that is clearly demarcated with black and yellow safety tape; and

(b) At least one of each type of equipment that can be provided at an accessible height and reach range without compromising safety.

(8) Hospitality and Culinary Arts Laboratories:

Hospitality and Culinary Art laboratories should have:

(a) At least 3%, but never less than one:

(i) Accessible kitchen teaching stations that meet the criteria in section "2.4.6. Kitchens and Kitchenettes";

(ii) Accessible eating and dining areas that meet the criteria in section "2.4.7. Cafeteria, Eating and Dining Areas"; and

(b) Accessible check-in or reception counters that meet the criteria in section "2.4.1 Service Counters.

2.5.4. Libraries and Reference Facilities

Rationale

Library and reference facilities located across all campuses should be accessible. Service counters, book stacks, teaching, learning and study spaces, digital services, such as computers, printing and photocopying, digital innovation hubs, etc. should be usable by all individuals, especially persons using mobility devices. Communication and information systems should be provided to enhance the usability for persons with low or no vision, and persons who are D/deaf, deafened, or hard of hearing. Library and reference material should be available in a variety of accessible formats.

Application

The scope of this section applies to libraries and reference facilities within GBP facilities.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- “2.4.1. Service Counters”
- “2.4.2. Queuing Guides and Waiting Areas”
- “2.4.8. Offices and Work Areas”
- “2.4.10. Sensory-Controlled Spaces
- "2.6.3. Furniture and Equipment"
- "2.7.2. Acoustics"
- "3.1.1. Interior Lighting”
- “3.2.1. Signage and Wayfinding Systems"

Related References

- Toronto Neighbourhood Urban Design
- Toronto Public Library, Accessibility

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to library and reference facilities to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Interior Rooms and Areas

Interior rooms and areas should be provided within library and reference facilities that are designed to be flexible, accessible and adaptable to meet the needs of a wide range of individuals and group sizes.

Furniture, Fixtures and Equipment

Furniture, fixtures and equipment should be provided within library and reference facilities that are flexible, adaptable, ergonomic, and usable by all individuals. Depending on the use of an area, workstations, lounge spaces and amenities should be provided throughout library and reference facilities that meet the needs of all individuals. Equipment and assistive technologies such as screen readers, braille writer, assistive listening devices or magnifying equipment should be provided to increase the usability of the library for persons who are blind or have low vision, or who are D/deaf, deafened, or hard of hearing.

Lighting

Lighting should be provided within library and reference facilities that minimize glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space safely, but consideration should be made for individuals who may be sensitive to glare. Direct or in-direct lighting sources should utilize diffused lenses or filters and be adjustable to meet the needs of all individuals, as well as the function of the facility.

Signage and Wayfinding Systems

Signage and wayfinding systems should be provided within library and reference facilities. They should be designed to communicate necessary information effectively to all individuals and be easy to understand.

Acoustic Controls

Acoustic controls should be provided within library and reference facilities. Ambient noise should be controlled to help improve concentration for all individuals who are engaged in tasks such as reading and studying. Too much ambient noise can further limit the hearing ability of persons who are D/deaf, deafened, or hard of hearing.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory processing differences and be more susceptible to sensory overloads. Designing for sensory controlled spaces can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Accessible Path of Travel:

Library and reference facilities should provide interior accessible paths of travel that:

(e) Have a clear width that is 1300 mm minimum, between book stacks, "Figure 2.5.4-A Clear Width at Book Stacks"; and

(f) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Interior Rooms and Areas:

Library and reference facilities should provide interior rooms and areas that include:

(a) Offices and work areas that meet the criteria in section “2.4.8. Offices and Work Areas”;

(b) Service counters that:

(i) Have procedures for addressing people who may need assistance with getting access to special resources; and

(ii) Meet the criteria in section “2.4.1. Service Counters”; and

(c) Queuing guides and waiting areas that meet the criteria in section “2.4.2. Queuing Guides and Waiting Areas”.

(3) Furniture, Fixtures and Equipment:

Library and reference facilities should provide furniture, fixtures and equipment that:

(c) Is flexible, adaptable and ergonomic;

(d) Include workstations that:

(i) Have a surface height that is 860 mm AFF., where fixed;

(ii) Have knee and toe space for a front approach that is 735 mm minimum high AFF. at the front edge, 500 mm minimum deep, and 900 mm minimum wide;

(e) Include book stacks or shelves that:

(i) Are 1050 mm maximum AFF; and

(ii) Are 500 mm maximum deep for side reach range;

(f) Include task chairs and lounge seating that are ergonomic and adaptable; and

(g) Meet the criteria in section "2.6.3. Furniture and Equipment".

(4) Lighting:

Library and reference facilities should provide lighting that:

(a) Is direct or in-direct;

(b) Utilizes diffused lenses or filters;

(c) Is adjustable;

(d) Is natural;

(e) Includes task lighting at workstations;

(f) Is located above book stacks or shelves; and

(g) Meets the criteria in section "3.1.1 Interior Lighting".

(5) Signage and Wayfinding Systems:

Library and reference facilities should provide signage and wayfinding systems that:

(a) Compliments the surrounding environment allowing for easy navigation and identification of key elements and spaces; and

(b) Meet the criteria in section "3.2.1 Signage and Wayfinding Systems"; and

(c) Where provided at special or designated spaces, have a variety of accessible formats, such as pre-recorded information, audio books, and audio playback.

(6) Acoustic Controls:

Library and reference facilities should provide acoustic controls that:

(a) Meet the criteria in section "2.7.2. Acoustics".

(7) Neurodiversity and Neurodivergence:

Library and reference facilities should be designed for neurodivergence and:

(a) Provide a sensory controlled room that meet the requirements within section “2.4.10 Sensory-Controlled Spaces”.

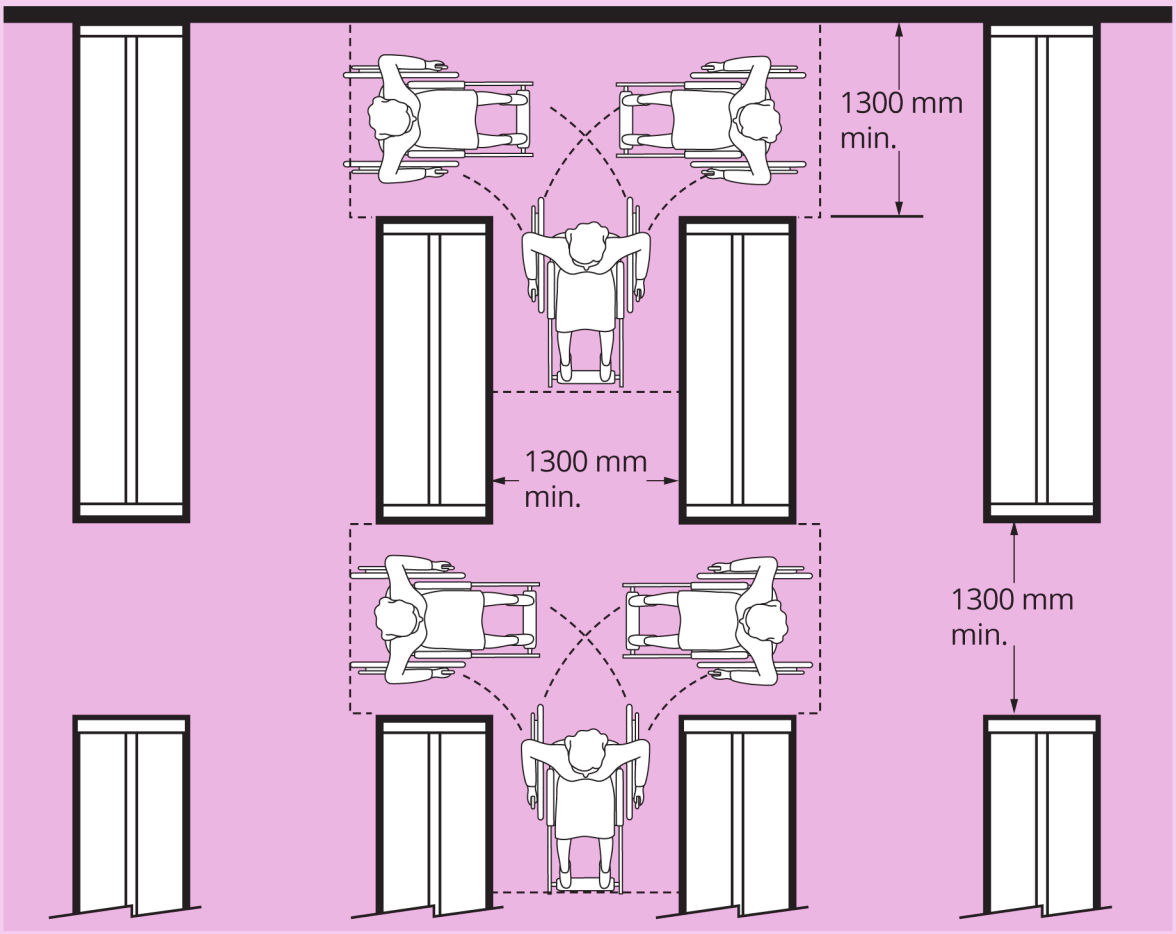


Figure 2.5.4-A Clear Width at Book Stacks

2.5.5. Recreation and Gymnasium Facilities

Rationale

Arenas and recreation facilities, such as specialized areas for fitness, sport and wellness should be designed to be usable by all individuals. Where ice rinks, gymnasiums, exercise studios and weight rooms are provided they should be designed to allow individuals to participate in a range of activities.

Application

[Reserved]

Related Sections

- “1.4.2. Spectator Areas”
- “1.4.5. Public Pools and Spas”
- "2.1.1. Interior Accessible Paths of Travel"

Related References

- Accessible Recreation
- Toronto Green Standard
- Toronto Neighbourhood Urban Design
- Guidelines Template & Manual

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to arenas and recreation facilities to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Interior Public Pools and Spas

Interior public pools and public spas should have recreational and therapeutic aquatic experiences for all individuals. Ramps and pool lifts continue an accessible path of

travel at public pools. Where as, transfer walls provide accessible entry into and exit from public spas.

Ice Rinks

Ice rinks should be multi-purposed. They should allow all individuals to participate in recreational and competitive fitness and sport such as skating, hockey, sledge hockey, shinny hockey, curling, etc. Ice rinks should provide accessible control gates to allow for accessible entrance and exit onto the ice surface. All individuals should have access to equipment that is accessible, flexible and adaptable.

Gymnasiums

Gymnasiums should be multi-purposed. They should allow all individuals to participate in recreational and competitive fitness and sport such as running, basketball, volleyball, soccer, gymnastics, squash, etc. All individuals should have access to equipment that is accessible, flexible and adaptable.

Spectator Areas

Spectator areas have a designated space for the public to sit and view events, such as sports games, performances, etc. Benches and seats should be provided for spectators, athletes and performers, including persons with disabilities.

Exercise Studios and Weight Rooms

Exercise studios and weight rooms should have access to equipment and machines that are accessible, flexible and adaptable.

Requirements

(1) Accessible Path of Travel:

Arenas and recreational facilities should provide interior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Interior Public Pools and Spas:

Arenas and recreational facilities should provide interior public pools and public spas that:

(a) Meet the criteria in section "1.4.5. Public Pools and Spas".

(3) Ice Rinks:

Arenas and recreational facilities should provide ice rinks that:

(a) Have equipment that is accessible, flexible and adaptable;

(b) Have at least one access point, in addition to the ice resurfacers (Zamboni machines) access point, leading to the ice surface that:

(i) Has a clear width that is 2100 mm minimum, where a single, overhead gate is used;

(ii) Has a clear width that is 3600 mm minimum where a single, swing gate is used; and

(iii) Can also be accessed by ice resurfacers (Zamboni machines); and

(c) Have an automated external defibrillator (AED).

(4) Gymnasiums:

Arenas and recreational facilities should provide gymnasiums that:

(a) Have equipment that is accessible, flexible and adaptable; and

(b) Have an automated external defibrillator (AED).

(5) Spectator Areas:

Arenas and recreational facilities should provide spectator areas that:

(a) Meet the criteria in section "1.4.2. Spectator Areas".

(6) Exercise Studios and Weight Rooms:

Arenas and recreational facilities should provide exercise studios and weight rooms that:

(a) Have equipment and machines that:

(i) Are accessible, flexible and adaptable to allow persons with a range of abilities to use them;

(ii) Have tactile characters, including free-weights;

(iii) Have colour/brightness contrast from adjacent surfaces and between operable portions and controls; and

(iv) Have high visibility and clear sightlines between individuals using equipment and machines and the facility staff and service counter, where provided;

(b) Where electronic equipment and machines are provided, they should:

(i) Have a visual display;

(ii) Audible descriptions of the visual display; and

(iii) Be designed to plug headphones or earbuds into;

(c) Have emergency call systems to signal immediate assistance with equipment and machines;

(d) Have a map of the equipment and machine plan that has tactile characters; and

(e) Have an automated external defibrillator (AED) located in an accessible area.

2.5.6. Exhibition, Museum and Gallery Facilities

Rationale

Exhibition, museum and gallery facilities should be designed to include for how all members of the public experience the space and participate with the exhibits and presentations. They should integrate a range of creative strategies and technologies into the design to be usable by all individuals.

Application

The scope of this section applies to art and cultural facilities including but not limited to art galleries, concert halls, theatres, heritage sites.

Related Sections

- “2.1.1. Interior Accessible Paths of Travel”
- “2.4.10. Sensory-Controlled Spaces
- “2.6.3. Furniture and Equipment”
- “3.1.1. Interior Lighting”
- “3.2.1. Signage and Wayfinding Systems”
- “3.2.5. Assistive Listening Devices”

Related References

- Toronto Green Standard
- Toronto Neighbourhood Urban Design
- Guidelines Template & Manual
- Toronto Public Library, Accessibility

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to exhibition, museum, and gallery facilities to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Lighting

Lighting should be provided within exhibition, museum and gallery facilities that minimize glare and brightness on all surfaces. Lighting should allow all individuals to navigate the space safely, but consideration should be made for individuals who may be sensitive to glare. Direct or in-direct lighting sources should utilize diffused lenses or filters and be adjustable to meet the needs of all individuals, as well as the function of the facility. Lighting such as wall sconces should be provided to help identify displays within the exhibit and highlight individual exhibit items.

Communication and Information Systems

Communication and information systems, such as signage and wayfinding systems, and assistive listening devices, should be provided within exhibition, museum, and gallery facilities to enhance the usability for persons with low or no vision and persons who are D/deaf, deafened, or hard of hearing. Systems should be designed to communicate necessary information effectively to all individuals and be easy to understand. Display materials should be available in a variety of accessible formats to be usable by all individuals. For persons who are D/deaf, deafened, or hard of hearing and who communicate using sign language, communication and information systems should provide translation or interpretation of information into sign language. Where interactive displays such as multi-media description for exhibit items are provided and are located on tables or work surfaces, they should have accessible space and reach range dimensions. Where virtual reality communication systems are provided, they should be usable by all individuals.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory processing differences and be more susceptible to

sensory overloads. Designing for sensory controlled spaces can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Accessible Path of Travel:

Exhibition, museum, and gallery facilities should provide interior accessible paths of travel that:

(a) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Lighting:

Exhibition, museum, and gallery facilities should provide lighting that:

(a) Is direct or in-direct;

(b) Utilizes diffused lenses or filters;

(c) Eliminates glare;

(d) Include wall sconces:

(i) To help identify displays within the exhibit; and

(ii) To highlight individual exhibit items; and

(e) Meets the criteria in section "3.1.1 Interior Lighting".

(3) Communications and Information Systems:

Exhibition, museum, and gallery facilities should provide communications and information systems that:

(a) Include signage and wayfinding systems that:

(i) Compliments the surrounding environment allowing for easy navigation and identification of displays and exhibit items;

(ii) Display labels that have tactile characters and braille; and

(iii) Meet the criteria in section "3.2.1. Signage and Wayfinding Systems";

(b) Include assistive listening devices that meet the criteria in section "3.2.5. Assistive Listening Devices";

(c) Are available in a variety of accessible formats, including sign language displays; and

(d) Where interactive displays are provided, they should:

(i) Be accessible;

(ii) Where tables or work surfaces are incorporated, be mounted 860 mm maximum AFF; and

(iii) Meet the criteria in section "2.6.3. Furniture and Equipment".

(4) Neurodiversity and Neurodivergence:

Exhibition, museum, and gallery facilities should be designed for neurodivergence and:

(e) Provide sensory controlled spaces that meet the requirements within “2.4.10 Sensory-Controlled Spaces”.

2.5.7. Storage Spaces

Rationale

Providing adequate storage areas helps to maintain the accessible path of travel, remove any obstructions or protrusions, and create a safe and accessible environment. Often, clear floor spaces designed to enhance access to various elements are used for storage space, removing the accessibility of the space, element, or feature. Having adequate storage space helps to maintain the accessibility and usability of a space.

Application

This section applies to all storage areas across GBP, including but not limited to learning spaces, laboratories, and retail spaces such as bookstores and the food pantry.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel
- "2.2.3. Doors and Doorways"
- "2.6.1. Millwork"

Related References

- NTD

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to storage spaces to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Doors and Doorways

Accessible doors and doorways should be provided at storage spaces, but it is important for designers to consider eliminating doors and vestibules where they are not required for acoustic or physical privacy.

Furniture, Fixtures and Equipment (FF&E)

FF&E should be provided within storage spaces that are flexible, adaptable, ergonomic, and usable by all individuals.

Requirements

(1) Accessible Path of Travel:

Storage areas should:

(a) Be served by an accessible path of travel that extends into the storage area and meets the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Doors and Doorways:

Storage areas should provide doors and doorways that:

(a) Have power door operators;

(b) Have vision panels or sidelights; and

(c) Meet the criteria in section "2.2.3. Doors and Doorways".

(3) Furniture, Fixtures and Equipment (FF&E):

Storage areas should provide FF&E that:

(a) Provides 50% of shelving and storage space within an accessible reach range;

(b) Includes hardware that is accessible and usable with a closed fist;

(c) Has colour contrast with the surrounding environment.

2.5.8. Student Housing Facilities

Rationale

Residential facilities should provide suites that are designed to be accessible, adaptable, and usable by all individuals. These design considerations will help to ensure that future renovations to improve the functionality of suites are minimized. An interior accessible path of travel that is level and smooth should be provided to and throughout bedrooms, bathrooms, kitchens, living rooms, and where provided, balconies or terraces to ensure that residents and visitors have equitable access to elements and spaces within their suite. In addition to being physically accessible, student housing should also be designed for people with sensory-processing differences and include a series of design considerations that help to control the sensory environment.

Application

The scope of this section is intended to guide the development/creation of accessible and adaptable suites within multi-unit residential buildings and facilities.

Related Sections

- “1.4.8. Balconies, Terraces, and Patios”
- "2.1.1. Interior Accessible Paths of Travel"
- “2.2.3. Doors and Doorways”
- "2.3.4. Accessible Water Closets"
- "2.3.6. Accessible Lavatories"
- "2.3.7. Ritual Washing ”
- "2.3.10. Accessible Showers"
- “2.4.6. Kitchens and Kitchenettes”
- "2.4.10. Sensory-Controlled Spaces“
- "2.6.3. Furniture and Equipment"

Related References

- Mid-Rise Buildings

- Tall Buildings
- Affordable Rental Housing Design Guidelines
- Toronto Community Housing (TCH)
- Accessibility Build Standards
- Toronto Green Standard
- Toronto Neighbourhood Urban Design
- Guidelines Template & Manual

Key Considerations

Amount

Accessible and as should not be less than 20% of the total number of suites available, and GBP-led projects should aim to exceed this amount to the greatest extent possible. While all units should be sensory inclusive to improve the overall experience of the unit especially for persons with sensory processing differences.

Accessible Path of Travel

An interior accessible path of travel should be connected to residential facilities to allow for a continuous, unobstructed route providing interior access to elements and spaces including all suites and common areas within a residential facility.

An interior accessible path of travel should be provided from the suite entrance to and throughout bedrooms, bathrooms, kitchens, living rooms, balconies, terraces, and patios that are located on the same level.

Doors and Doorways

Doors should be provided at residential facilities to connect exterior and interior accessible paths of travel, and to ensure privacy, independent, equitable, and dignified access.

Kitchens

Kitchens should be provided within suites within residential facilities that are designed to be accessible and adaptable. They should be designed to be usable by all individuals.

Elements such as millwork, work surfaces, sinks and appliances should be accessible, adaptable and provide accessible space and reach range dimensions.

Living Rooms

Living rooms should be provided within suites within residential facilities that are designed to be accessible and adaptable. They should be designed to have a clear turning space to provide maneuvering space for persons using mobility devices to make a 360° turn.

Balconies, terraces, and patios

Where provided, balconies should be designed to provide a level threshold through the balcony door. The surface of the balcony should be stable, firm and slip resistant. The balcony should provide sufficient clear floor space to be accessible for residents and visitors, including persons using mobility devices.

Bedrooms

Bedrooms should be provided within suites within residential facilities that are designed to be accessible and adaptable. They should be designed to have clear turning spaces to provide maneuvering space for persons using mobility devices to make a 360° turn.

Bathrooms

Bathrooms should be provided within suites within residential facilities that are designed to be accessible and adaptable. They should include a lavatory, a water closet, a bathtub or a shower. Bathrooms should have wall reinforcement installed for future renovations of elements, such as grab bars. They should be designed to have a clear turning space to provide maneuvering space for persons using mobility devices to make a 360° turn.

Bathtubs

Where bathtubs are provided within suites within residential facilities, they should be designed to be accessible and adaptable, they should have accessories, such as grab bars and a hand-held shower head. An alternative to bathtubs may include step-in bathtubs that are built into a single prefabricated unit with accessible features included.

Requirements

(1) Amount:

Residential facilities should provide:

(a) Accessible and adaptable suites should not be less than 20% of the total number of suites available, and GBP-led projects should aim to exceed this amount to the greatest extent possible.

(b) Accessible and adaptable suites that are in proportion of the total number of suites having one, two, three or more bedrooms in the remainder of residential facilities (a building); and

(c) Accessible and adaptable suites that are distributed among storeys having regard to the height of the suite above grade.

(d) All units should be sensory inclusive and meet the criteria in section “2.4.10 Sensory-Controlled Spaces.

(2) Accessible Path of Travel:

Residential facilities should provide interior accessible paths of travel that:

(a) Have a clear width that is 1100 mm minimum;

(b) Extends from the suite entrance to and throughout at least one:

(i) Bedroom;

(ii) Bathroom;

(iii) Kitchen;

(iv) Living room; and

(v) Balcony, terrace and patio, where provided; and

(c) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(3) Doors and Doorways:

Residential facilities should provide doors and doorways that:

(a) Meet the criteria in section “2.2.3. Doors and Doorways”.

(4) Kitchens:

Residential facilities should provide kitchens that:

(a) Meet the criteria in section “2.4.6. Kitchens and Kitchenettes”.

(5) Living Rooms:

Residential facilities should provide living rooms that:

(a) Are accessible; and

(b) Have a clear turning space that is 2500 mm in diameter, at 360° turns.

(6) Balconies, terraces, and patios:

Where provided at residential facilities, balconies, terraces, and patios should:

(a) Have a clear turning space that is 2500 mm in diameter, at 360° turns;

(b) Have a level entry threshold, or be bevelled at a slope of 1 in 2 (50%) maximum at changes in level not more than 13 mm; and

(c) Meet the criteria in section “1.4.8. Balconies, Terraces, and Patios”.

(7) Bedrooms:

Residential facilities should provide bedrooms, "Figure 2.5.8-A Residential Bedroom", that:

(a) Are accessible and adaptable;

(b) Are positioned directly across the hallway from an accessible bathroom;

(c) Are at least 3352 mm by 6070 mm in size;

(d) Have a clear turning space that is 2500 mm in diameter, at 360° turns; and

(e) Have coat closets, rods, hooks and shelves that meet the criteria in section "2.6.3. Furniture and Equipment".

(8) Bathrooms:

Residential facilities should provide bathrooms, "Figure 2.5.8-B Residential Bathroom", that:

(a) Are accessible;

(b) Have a clear turning space that is 2500 mm in diameter, at 360° turns;

(c) Include a lavatory that meets the criteria in section "2.3.6. Accessible Lavatories".

(d) Include a water closet that meets the criteria in section "2.3.4. Accessible Water Closets"; and

(e) Include a shower that meets the criteria in section "2.3.10. Accessible Showers", or a bathtub that meets the criteria in this section.

(9) Bathtubs:

Where bathtubs, "Figure 2.5.8-C Residential Bathtub", are provided within residential facilities they should:

(a) Be accessible;

(b) Be 1500 mm minimum long;

(c) Be capable of being accessed along the full length of the bathtub with no tracks mounted on the bathtub rim;

(d) Have faucets that:

(i) Are operable using a closed fist and with a force of 22.2 N maximum; and

(ii) Are located on the centre line of the bathtub or between the centre line of the bathtub and the exterior edge of the bathtub rim, at 450 mm maximum above the bathtub rim;

(e) Unless the bathtub is free-standing, have three grab bars that:

(i) Are 1200 mm minimum long;

(ii) Have two that are located vertically at each end of the bathtub, mounted between 80 mm and 280 mm above the bathtub rim, and 150 mm from the edge of the tub; and

(iii) Have one that is located horizontally along the full length of the bathtub, mounted between 80 mm and 280 mm above the bathtub rim and 150 mm from the front edge of the bathtub.

(f) Have a slip-resistant bottom surface;

(g) Be equipped with a hand-held shower head that:

(i) Has 1800 mm minimum of flexible hose;

(ii) Can be used in a fixed position at a height of 1200 mm and 2030 mm; and

(iii) Does not obstruct the use of the grab bars;

(h) Have a clear floor space that:

(i) Is 900 mm wide by 1500 mm long minimum for a front approach; and

(ii) Is located along the full length of the bathtub; and

(i) Have a fixed seat ledge that:

(i) Is the same width as the bathtub and 480 mm deep minimum;

(ii) Is mounted on the same side wall as the vertical grab bar, opposite the bathtub controls, between 460 mm and 480 mm AFF; and

(iii) Is designed to carry a 1.3 kN minimum load;

(iv) Has a smooth and slip-resistant surface and no rough edges; and

(v) Allows water to drain.

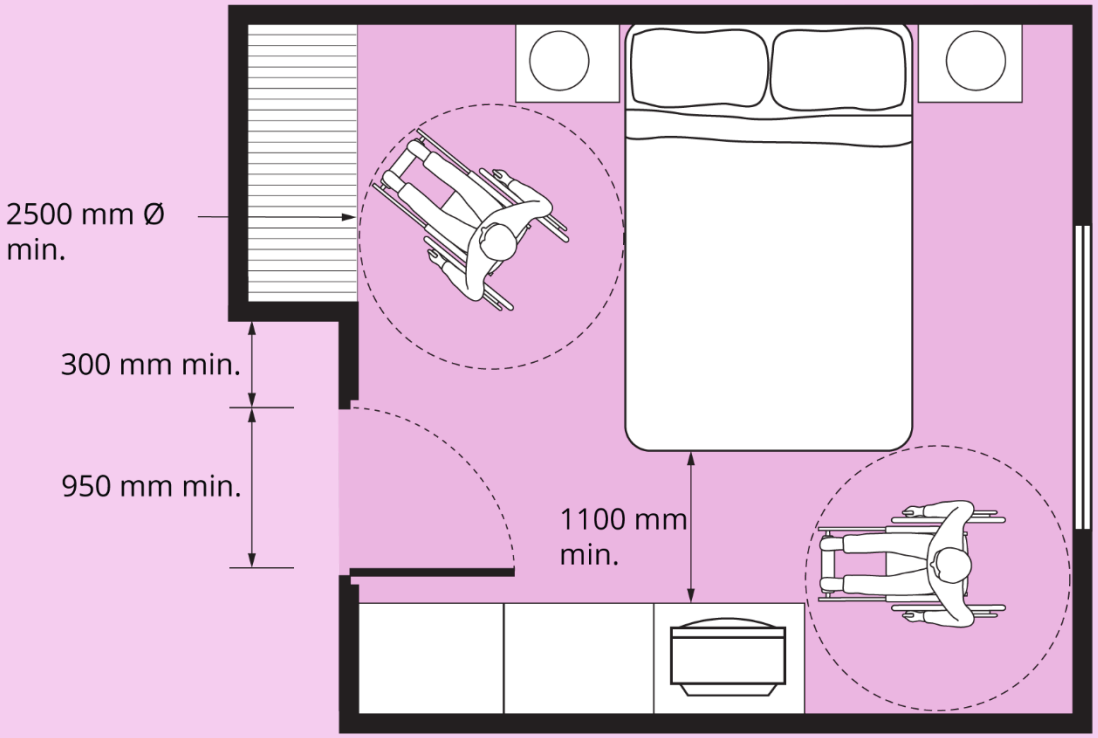


Figure 2.5.8-A Residential Bedroom

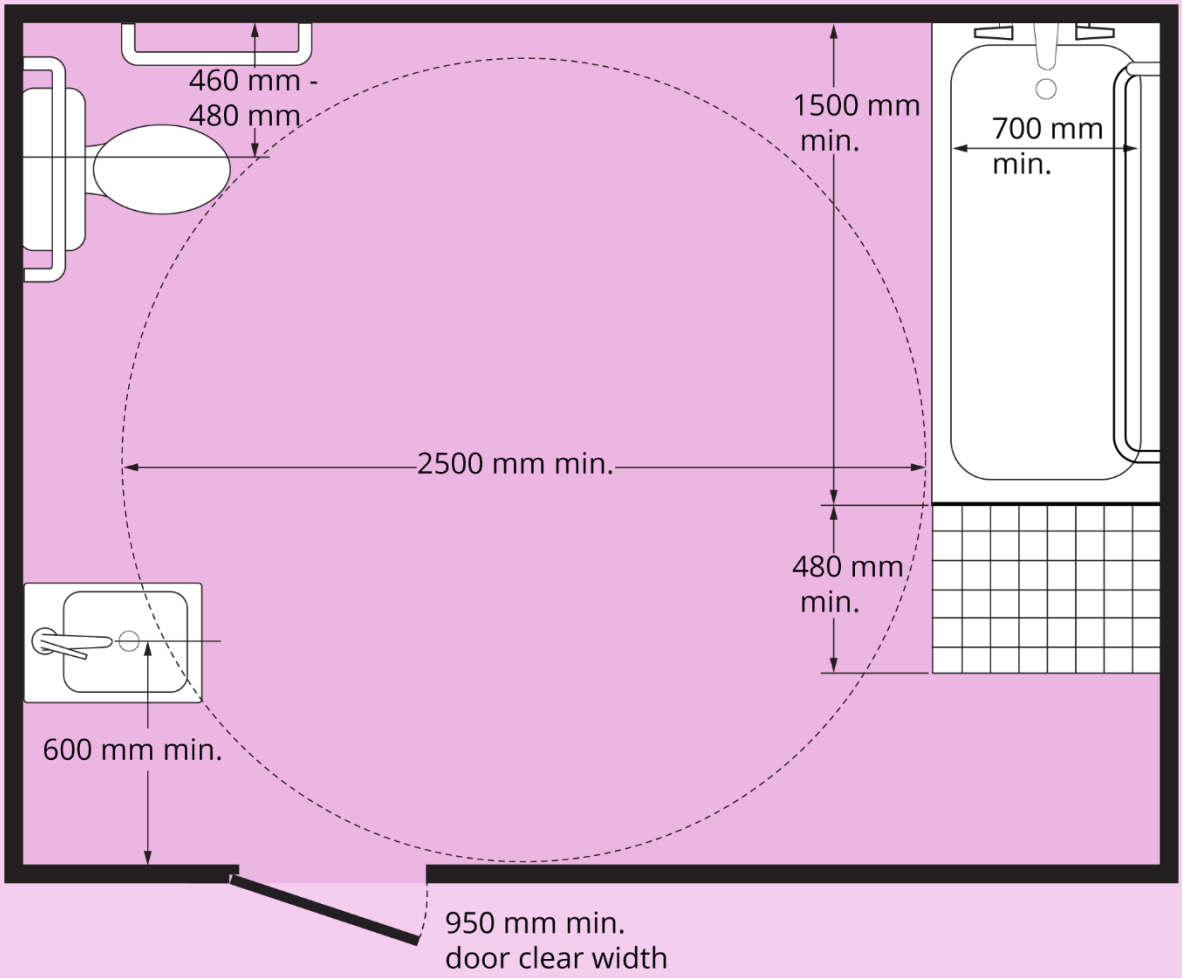


Figure 2.5.8-B Residential Bathroom

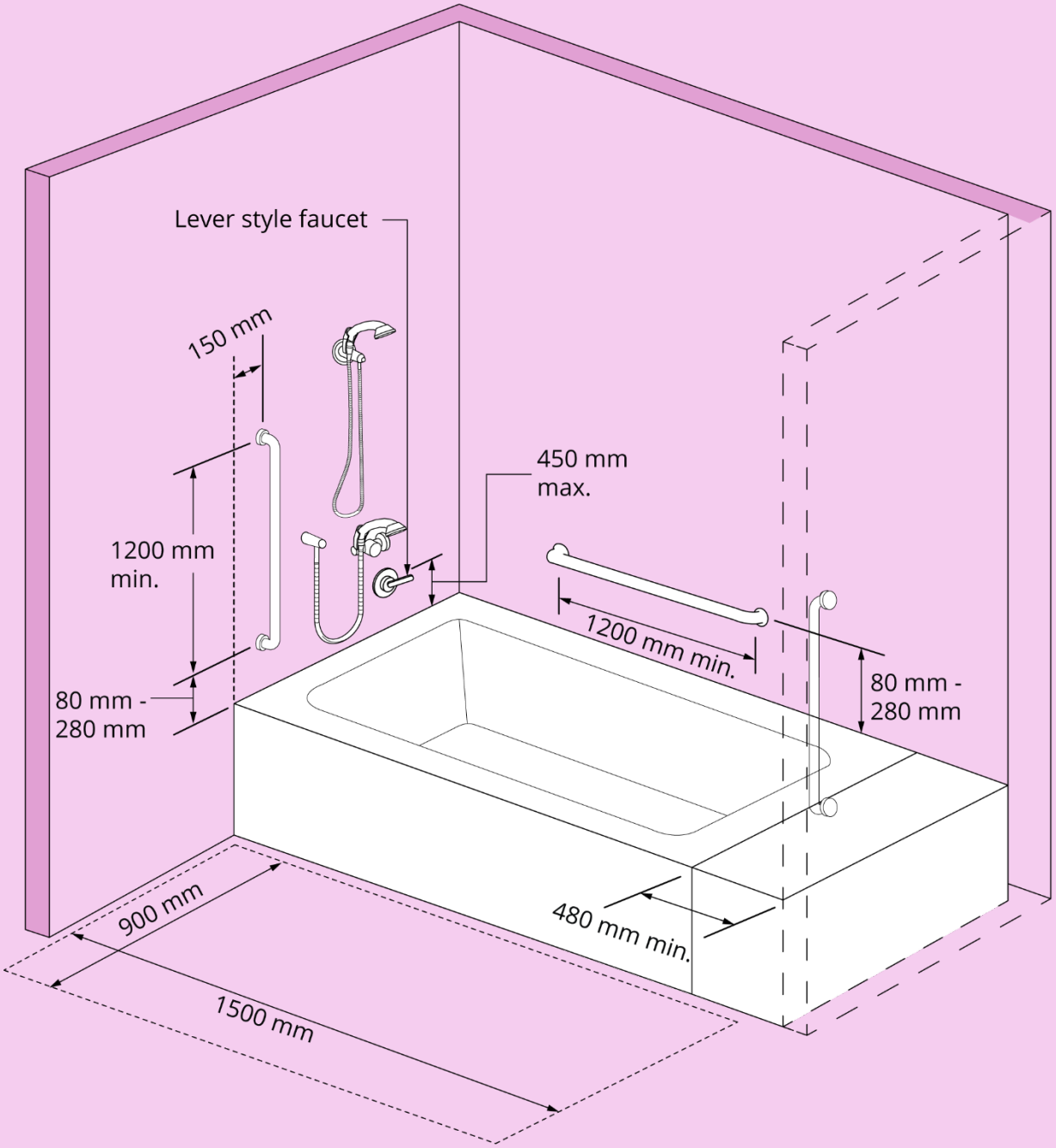


Figure 2.5.8-C Residential Bathtub

2.5.9. Childcare Facilities

Rationale

Childcare facilities should create accessible spaces for all its individuals including children, care givers, parents, staff or volunteers while balancing the need to create a safe and functional environment supporting child development and safety. All areas in childcare facilities should be accessible to person with disabilities. In many childcare facilities the requirements for enlarged entry vestibules and passenger pick-up and drop-offs for stroller's aid parents dropping off and picking up their children. In some cases, GBP-supported childcare facilities are located within mixed-use residential facilities, recreation centres and civic centre facilities. In these cases, an accessible path of travel that meet the criteria in these guidelines should be provided to the childcare entrance.

Application

[Reserved]

Related Sections

- "1.4.3. Play Spaces"
- "2.1.1. Interior Accessible Paths of Travel"
- "2.3.1. Multi-Stall Washrooms"
- "2.3.7. Ritual Washing "

Related References

- Child Care Design & Technical
- Guideline
- Toronto Green Standard
- Toronto Neighbourhood Urban Design
- Guidelines Template & Manual

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to childcare facilities to allow for a continuous, unobstructed route providing interior access to elements and spaces. Clear turning spaces should be provided where required, in areas such as entrances or elevators, to allow space for persons using multiple sizes of strollers to maneuver.

Furniture, Fixtures and Equipment

Furniture, fixtures and equipment (FF&E) should be provided within childcare facilities that are flexible, adaptable and usable by all individuals. FF&E should be safe, functional and developmentally appropriate. In some cases, the accessibility criteria of these guidelines will not adequately address the abilities and needs of children, but most notably children with disabilities or special mental and cognitive needs. Examples include reduced size of sinks and water closets or the requirement for sensory rooms (Snoezelen room). Designers should work closely with GBP project staff and operational supervisors to ensure they meet the criteria of the GBP's Childcare Design Guidelines, the childcare licensing requirements from the Ministry of Education and the most appropriate accessibility requirements of these guidelines.

Washrooms

Washrooms that have baby change tables should be provided within childcare facilities that are usable by all individuals. Plumbing fixtures, such as water closets and lavatories, should be provided that are safe, functional and developmentally appropriate.

Play Spaces

Play spaces should be provided at childcare facilities that are easy to navigate and engage all individuals. They should offer a variety of active and passive play experiences, landscape settings and opportunities to connect with others. Play is important for all children as a means of developing intelligence, physical skills and interpersonal and social awareness.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory processing differences and be more susceptible to sensory overloads. Designing for sensory controlled spaces can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Accessible Path of Travel:

Childcare facilities should provide interior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Furniture, Fixtures and Equipment:

Childcare facilities should provide furniture, fixtures and equipment that:

(a) Meet the criteria in Child Care Design & Technical Guideline.

(3) Washrooms:

Childcare facilities should provide washrooms that:

(a) Meet the criteria in section "2.3.1. Multi-Stall Washrooms".

(4) Play Spaces:

Childcare facilities should provide play spaces that:

(a) Meet the criteria in section “1.4.3. Play Spaces”.

(5) Neurodiversity and Neurodivergence:

Childcare facilities should be designed for neurodivergence and:

(a) Provide sensory controlled spaces that meet the requirements within “2.4.10 Sensory-Controlled Spaces”.

2.5.10. Pop-Ups, Event Spaces, and Temporary-Use Facilities

Rationale

Pop-ups, temporary displays, and temporary-use facilities should be designed to be accessible and usable by all individuals regardless of the size or duration of the temporary use element or space. Temporary use facilities, although constructed with the intention of being demolished within a specific period, should still serve all persons with the same level of equitable access that permanent facilities are required to provide.

Application

The scope of this section applies to all pop-up structures, temporary displays, or temporary use facilities that are accessed by the public, staff and visitors regardless of the size of the facility and the duration that the facility will be in use. Temporary use facilities include audience viewing stages, temporary access ramps, spectator bleacher areas, temporary kiosks, shelters, markets, event tents, health screening services or temporary safe pedestrian passageways around construction sites, that are accessed by GBP students, employees, and other members of the GBP community. This section does not apply to temporary structures such as scaffolding, open covers, material hoists, or construction trailers, that are directly associated with construction activities.

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "2.1.1. Interior Accessible Paths of Travel"
- “2.2.1. Entrances”
- “2.3. Plumbing Fixtures, Washrooms and Change Rooms”
- “2.4.1. Service Counters”
- “2.4.6. Kitchens and Kitchenettes”

Related References

- 24-Hour Respite Site Standards

- Toronto Green Standard
- Toronto Neighbourhood Urban Design Guidelines Template & Manual

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to temporary use facilities to allow for a continuous, unobstructed route providing exterior and interior access to elements and spaces. Accessible paths of travel should be maintained between temporary elements such as tables used at pop-up shops or student fairs.

Entrances

Entrances should be provided at pop-ups, event spaces, and temporary use facilities to ensure equitable access for all persons entering the building.

Washrooms

Washrooms should be provided at pop-ups, event spaces, and temporary use f that are accessible. This will ensure that all persons within the building, especially those using mobility devices, are able to access facilities required for basic human necessity.

Interior Rooms and Areas

Where interior rooms and areas are provided at pop-ups, event spaces, and temporary use f they should be accessible and usable to ensure that all individuals can safely navigate throughout the facility. Service counters, kitchens and kitchenettes should be made to be accessible to ensure that all persons, especially those using mobility devices, are able to be served without any barriers.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory-processing differences and be more susceptible to sensory overloads. Designing for sensory controlled spaces can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation. Pop up events or student fairs can be loud environments with presence of a large group of participants sometimes coupled with

music and lights to capture people's attention. Consideration should be given to managing the sensory environment to create a sensory inclusive space and experience.

Requirements

(1) Accessible Path of Travel:

Pop-ups, event spaces, and temporary use facilities should provide exterior and interior accessible paths of travel that:

(a) Meet the criteria in section "1.1.1. Exterior Accessible Paths of Travel";

(b) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel"; and

(c) Meet the criteria in section "2.2.3 Doors and Doorways".

(2) Entrances:

Pop-ups, event spaces, and temporary use facilities should provide entrances that:

(a) Meet the criteria in section "2.2.1. Entrances".

(3) Washrooms:

Pop-ups, event spaces, and temporary use facilities should provide washrooms that:

(a) Meet the criteria in section "2.3. Plumbing Fixtures, Washrooms and Change Rooms".

(4) Interior Rooms and Areas:

Pop-ups, event spaces, and temporary use facilities should provide interior rooms and areas that:

(a) Meet the criteria in section "2.4 Interior Rooms and Areas", where elements such as but not limited to service counters, dining and eating areas, kitchens and kitchenettes, stages and platform areas are provided.

(5) Neurodiversity and Neurodivergence:

Pop-ups, event spaces, and temporary use facilities should be designed for neurodivergence and:

(a) Include sensory-controlled spaces that meet the requirements within "2.4.10 Sensory-Controlled Spaces"; and

(b) Be scheduled with sensory-inclusive hours, where a calmer experience can be provided by eliminating or reducing potential sensory stimuli.

2.6. Interior Furniture, Fixtures and Equipment

Section Summary

This section reviews the accessible design requirements for interior furniture, fixtures and equipment (FF&E) intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Interior FF&E should be connected to interior accessible paths of travel and be located outside of the clear width to avoid obstructing the route and to reduce the risk of tripping.

Contents in Section

2.6.1. Millwork

2.6.2. Windows and Window Hardware

2.6.3. Furniture and Equipment

2.6.4. Mail and Drop Boxes

2.6.5. Mirrors

2.6.6. Self-Service Kiosks

2.6.1. Millwork

Rationale

Millwork (cabinetry) includes custom wood working pieces such as shelving and storage solutions. Millwork should be designed to be accessible and adaptable, often fabricated through systemic strategies and installed based on the functional needs of a space. Millwork is limited to the exact dimensions of a specific wall or confined area.

Application

[Reserved]

Related Sections

- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Hardware

Hardware should be provided on millwork such as cabinet or pantry handles, drawer pulls, locks or latches, and door-opening devices. They should be designed to be usable by all individuals including persons who have limited dexterity and strength. Hardware should have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. They should have colour/ brightness contrast from adjacent surfaces so that persons with low vision can easily find and operate hardware.

Shelves

Shelves should be provided within millwork and be designed to have space and reach range dimensions to be usable by all individuals. Shelves provide a zone for individuals and help to temporarily or permanently store items.

Doors

Doors should be provided on millwork, such as closets or wardrobes. Where individuals are intended to enter closets, they should have doors that meet the needs of all individuals. Sliding doors or pocket doors should be provided whenever possible. Where sliding doors or pocket doors are provided on millwork, they should meet the needs of the intended individuals and the functional needs of the space.

Consider providing hold open-type hinges or closers so that doors can remain in an open position to allow individuals to access the closet elements without having to worry about holding the door open manually or asking for assistance.

Coat Hooks and Rods

Coat hooks and rods should be designed to be usable by all individuals. They provide a zone for individuals to temporarily or permanently store items, such as coats, bags, and clothing including seasonal outerwear or other personal items.

Requirements

(1) Hardware:

Millwork should provide hardware that:

(a) Is manually operated;

(b) Includes D-type, “Figure 2.6.1-A Millwork Hardware”, or lever-type hardware that:

  (i) Is 75 mm minimum long; and

  (ii) Is mounted on centre 900 mm to 1050 mm AFF;

(c) Has tactile features; and

(d) Has operable portions or controls that meet the criteria in section “3.2.8. Controls and Operating Mechanisms”.

(2) Shelves:

Millwork should provide shelves that:

(a) Are located 200 mm maximum above the top of furnishings or equipment, or are mounted between 460 mm to 1050 mm AFF; and

(b) Project 100 mm maximum from the wall, or mounting surface.

(3) Doors:

Millwork should provide doors that:

(a) Where sliding or pocket-type closet doors are provided, "Figure 2.6.1-B Sliding Doors", have hardware that:

(i) Is provided on the leading edge of the door; and

(ii) Meets the criteria within this section;

(b) Have hold open-type hinges or closers;

(c) Have a clear width that is 950 mm minimum;

(d) Have latch side clearance that is 300 mm minimum; and

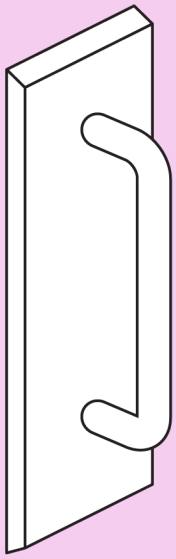
(e) Are operable using a force of 22 N maximum.

(4) Coat Hooks and Rods:

Millwork should provide coat hooks and rods that:

(a) Have minimum 25%, rounding up to the nearest whole number, accessible portion, "Figure 2.6.1-C Accessible Portion"; and

(b) Are mounted between 460 mm to1050 mm maximum AFF;



D-shaped door pull

Figure 2.6.1-A Millwork Hardware

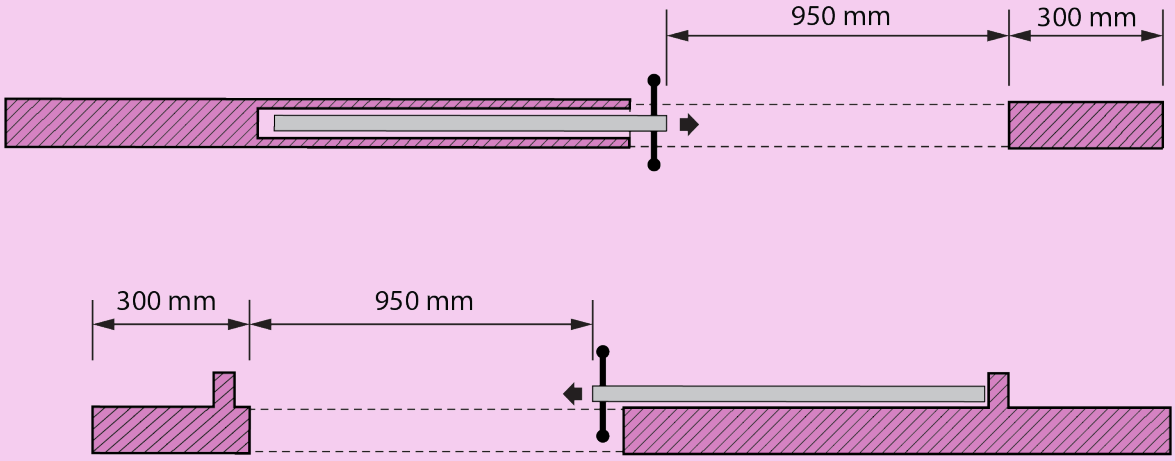


Figure 2.6.1-B Sliding Doors

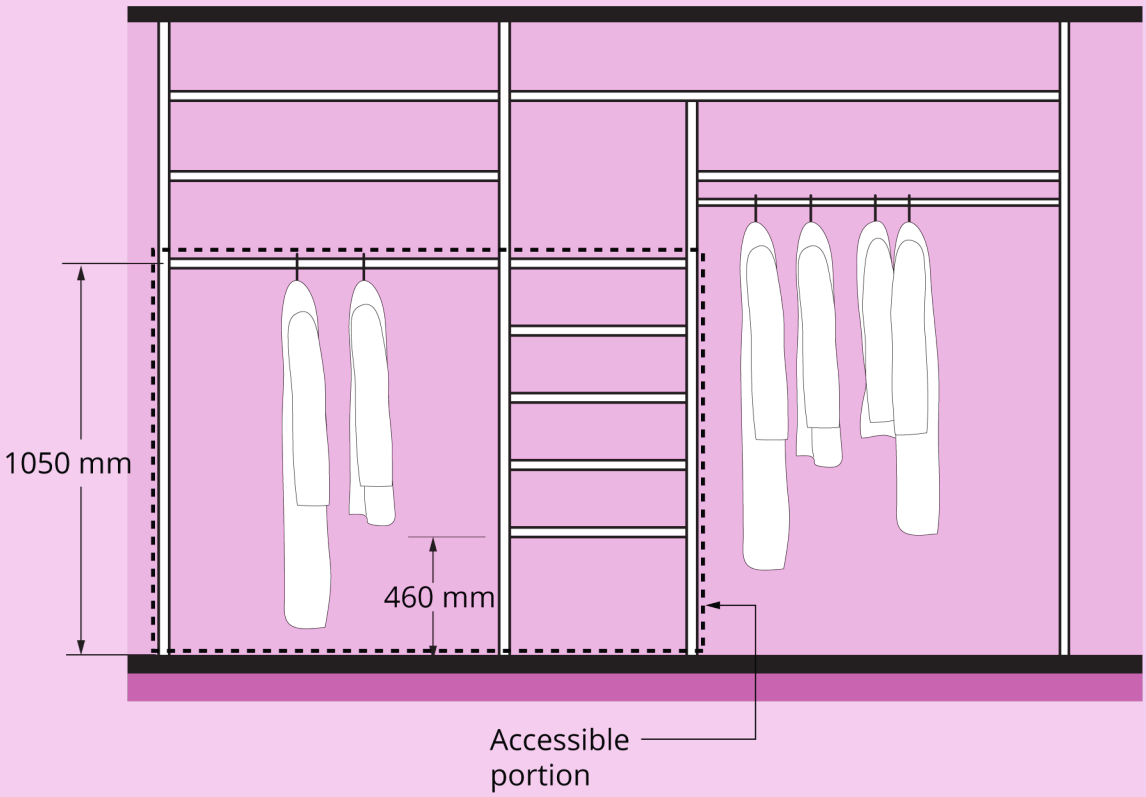


Figure 2.6.1-C Accessible Portion

2.6.2. Windows and Window Hardware

Rationale

Windows located within a wall, door, or roof provide natural lighting and ventilation. The design of windows should consider the size, type, and location to meet the needs of the intended individuals and the functional needs of the space, especially where window hardware is provided.

Application

[Reserved]

Related Sections

- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Windowsills

Windowsills should be provided at windows that are above the intended individuals centre of gravity, reducing the risk of hazards.

Horizontal Transoms

Where horizontal transoms are provided at windows, they should allow for clear sightlines for both individuals who are standing and persons using mobility devices.

Window Hardware

Where window hardware is provided at windows, it should be designed to be adjustable and usable by all individuals including persons who have limited dexterity and strength. Window hardware should have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that

persons with low vision can easily find and operate hardware. Depending on the functional needs of a specialized facility, such as childcare facilities, controls and operating mechanisms should have safety restraints to prevent accidental injury and reduce the risk of choking hazards.

Shading Devices

Where shading devices are provided at windows, they should be designed to provide sun control. Shading devices including roller fabric shades and drapes should be designed to control the impacts of glare from natural lighting and provide privacy as appropriate to the design. Blinds or window shading coverings should not have cutouts so that when light projects through the window covering additional shade and shadow patterns are not created on adjacent surfaces, adding to the sensory environment within the space. Where safety is a concern such as in childcare facilities, controls should be equipped with safety restraints preventing accidental injury or choking hazards.

Requirements

(1) Windowsills:

Windowsills should provide "Figure 2.6.2-A Glazed Windows":

(a) Be mounted at a height 760 mm maximum AFF.

(2) Horizontal Transoms:

Where horizontal transoms are provided at windows, they should:

(a) Have no horizontal components that are located between 1000 mm to 1200 mm AFF;

(b) Have clear sightlines; and

(c) Have colour/brightness contrast from adjacent surfaces.

(3) Window Hardware:

Where window hardware is provided at windows, it should:

(a) Be manually or automatically operated;

(b) Include lever-type hardware that is mounted on centre 900 mm to 1050 mm AFF;

(c) Have tactile features;

(d) Have a clear floor space that is 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach; and

(e) Have operable portions or controls that meet the criteria in section "3.2.8. Controls and Operating Mechanisms"

(4) Shading Devices:

Where shading devices are provided at windows, they should:

(a) Have sun control using matte vinyl, fabric finish, or blackout function;

(b) Include roller fabric shades or drapes that are solid and do not have cutouts;

(c) Are located to avoid direct visibility, where privacy is required; and

(d) Are installed at a height that is 2450 mm minimum AFF., or below 2450 mm AFF., where a diffuser or a tinted/ anti-glare lens is provided.

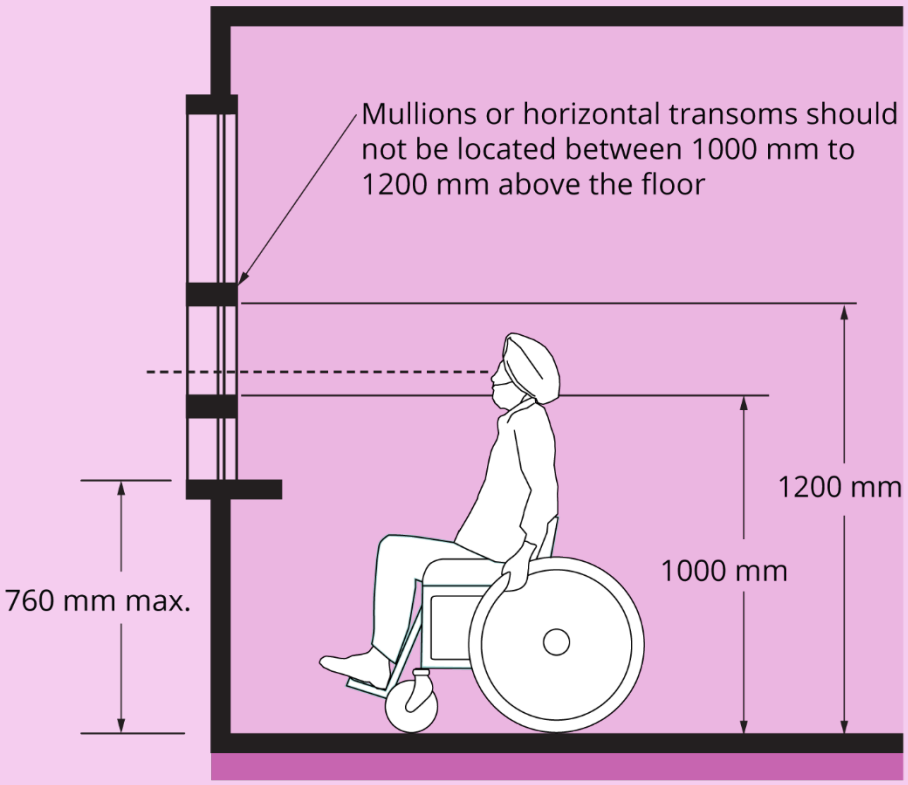


Figure 2.6.2-A Glazed Windows

2.6.3. Furniture and Equipment

Rationale

Furniture and equipment provided within interior rooms and areas, as well as specialized facilities, should be designed to be accessible and usable by all persons. Fixed or non-fixed furniture and equipment layouts should continue to maintain interior accessible paths of travel and not create obstacles. Clear floor spaces for persons using mobility devices or persons with service animals should be integrated into the space. Where non-fixed furniture and equipment is provided, a more flexible and adaptable interior environment is created.

Application

[Reserved]

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "2.4.10. Sensory-Controlled Spaces"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to furniture and equipment to allow for a continuous, unobstructed route providing interior access to elements and spaces. Furniture and equipment should not create obstacles along interior accessible paths of travel.

Benches and Seats

Where benches and seats (chairs) are provided, they should be designed to have a variety of accessible options that include seating with and without back support and armrests. Where open ended benches are provided, they should provide space to allow

persons using mobility devices to side transfer. Where armrests are provided, they should have rounded edges, be easily graspable, and free from obstructions.

Tables

Where tables are provided, they should have clear floor space between adjacent tables and on ends that connect to interior accessible paths of travel to allow persons using mobility devices to avoid the risk of creating an obstruction. Tables should provide an extension that has underside knee and toe space for persons using mobility devices.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory processing differences and be more susceptible to sensory overloads. Designing for sensory controlled spaces and elements can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Accessible Path of Travel:

Furniture and equipment should provide interior accessible paths of travel that:

(a) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Benches and Seats:

Where benches and seats, “Figure 2.6.3-A Seating”, are provided, they should:

(a) Be fixed, or non-fixed that have wheels or castors;

(b) Have a seat that:

(i) Is 460 mm AFF;

(ii) Is 360 mm to 460 mm deep; and

(iii) Has foot space under the bench or seat in order to allow individuals to lean forward to stand;

(c) Have back support that:

(i) Is 450 mm minimum AFF; and

(ii) Is angled 5 to 15 degrees back from the vertical;

(d) Have armrests that:

(i) Are 600 mm AFF;

(ii) Have rounded edges;

(iii) Are stationary or adaptable; and

(iv) Are made from materials that are durable and easily graspable; and

(e) Have colour/brightness contrast from the surrounding environment.

(3) Tables:

Where tables, "Figure 2.6.3-B Tables", are provided, they should:

(a) Have a surface height that is 760 mm to 860 mm AFF., where fixed;

(b) Have knee and toe space for a front approach that is 735 mm minimum high AFF. at the front edge, 500 mm minimum deep, and 900 mm minimum wide;

(c) Where provided, coffee tables that have a surface that is 510 mm minimum AFF; and

(d) Have colour/brightness contrast from the surrounding environment.

(4) Neurodiversity and Neurodivergence:

Furniture and equipment should be designed for neurodivergence and:

(a) Meet the requirements in section "2.4.10 Sensory-Controlled Spaces".

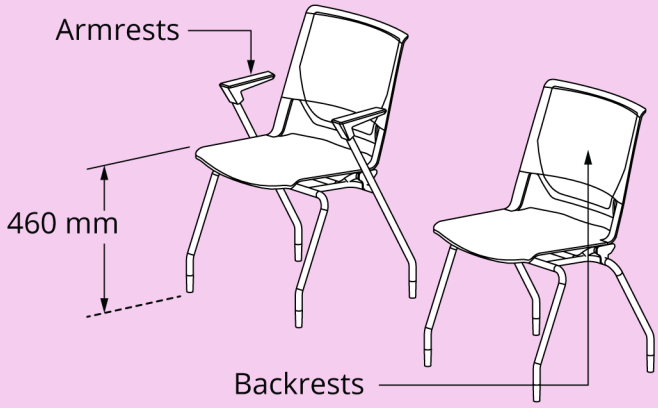


Figure 2.6.3-A Seating

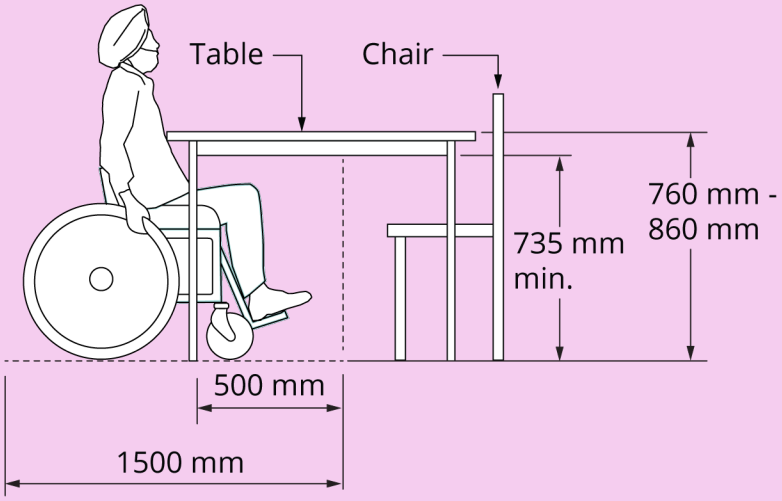


Figure 2.6.3-B Tables

2.6.4. Mail and Drop Boxes

Rationale

Mail and drop boxes should be designed to be accessible and usable by all individuals. Specialized facilities that have mail and drop boxes should have accessible space and reach range dimensions.

Application

The scope of this section applies to providing access to interior mail and drop boxes operated by a GBP and not those operated by Canada Post. The design of mailboxes owned and operated by Canada Post should meet the criteria in their national standards and do not need to meet the criteria in this section.

Related Sections

- [Reserved]

Related References

- [Reserved]

Key Considerations

Design

The design of mail and drop boxes should meet the needs of the intended individuals, including persons using mobility devices, as well as the functional needs of the specialized area.

Requirements

(1) Design:

Mail and drop boxes should be designed to:

(a) Where located at interior specialized areas, including residential facilities such as apartment buildings, have mail slots for letters and packages that:

(i) Have a swing door that has a lock, or be an open shelf that is 420 mm maximum deep;

(ii) Are located between 610 mm to 1050 mm maximum AFF;

(b) Have 500 mm maximum reach range, and 600 mm maximum grasp reach range to an object or item that:

(i) Is between 460 mm to 1050 mm AFF. for a front approach; or

(ii) Is between 860 mm to 1050 mm for a side approach;

(c) Be recessed within a wall;

(d) Have a clear floor space, “Figure 2.6.4-A Mail and Drop Boxes”, that is 900 mm wide by 1500 mm long; and

(e) Have a clear turning space that is 2500 mm minimum in diameter.

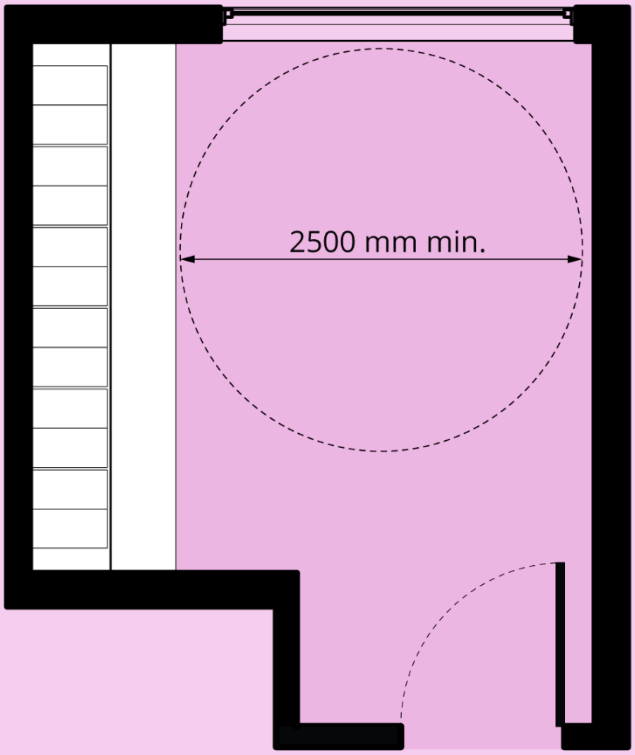


Figure 2.6.4-A Mail and Drop Boxes

2.6.5. Mirrors

Rationale

Mirrors should be designed to be usable by all individuals. They should be installed in simple and intuitive areas that contribute to the safety, security and enjoyment of the space. Flat wall mirrors should not be located at the end of corridors or hallways. The use of convex mirrors is more useful at intersections for safety and security. When mirrors reflect interior accessible paths of travel, they create the illusion that the path is continuing which makes navigation and wayfinding more challenging.

Application

[Reserved]

Related Sections

- [Reserved]

Related References

- [Reserved]

Key Considerations

Design

Where mirrors are located above furniture, fixtures and equipment, they allow individuals to view their upper body while full-length mirrors allow individuals to view their whole body. All mirrors help to reflect views and light. Lighting should not cause any surface glare on mirrors or interfere with the reflection. Surface glare will further diminish the sight of a person and will inhibit their ability to navigate the space. Patterned or antiqued mirrors should not be provided because they create visual distortion. Mirrors should be securely wall mounted. Free standing or tilted mirrors should not be provided because they create the risk of hazards. Convex or concave-type mirrors should be provided at interior accessible paths of travel and be installed for safety and security.

Requirements

(1) Design:

Mirrors should be designed to:

(a) Have a frame that has colour/ brightness contrast from adjacent surfaces;

(b) Have lighting that:

(i) Has even quality and distribution; and

(ii) Is directed away from the mirror surface; and

(c) Include convex-type mirrors at interior accessible paths of travel, including at intersections, installed for safety and security.

2.6.6. Self-Service Kiosks

Rationale

Self-service kiosks provide self-service access to interactive devices to allow individuals to initiate and/or conduct automated activities that would otherwise require on-site assistance to obtain services. They should be designed to have accessible space and reach range dimensions. Self-service kiosks should be integrated into a facility's signage and wayfinding strategy. Any visual displays should consider the use of audible instructions, access to a service intercom or phone that can be used to aid persons who are blind or have low vision to use the device. Any signage or operating instructions should also be included as raised tactile text and/or braille.

Application

The scope of this section applies to interactive kiosks such as computer terminals featuring specialized hardware and software that provides access to information and applications for communication, commerce, entertainment or education using touchscreen or keypad technology. This section also applies to vending machines and automated banking machines.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.3. Self-Service Interactive Devices"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- CSA B651.2-07 Accessible Design for Self-Service Interactive Devices
- CSA B651.1-09 Accessible Design for Automated Banking Machines

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to self-service kiosks to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Self-service kiosks should not create obstacles along interior accessible paths of travel.

Clear Floor Spaces

Clear floor spaces should be provided at self-service kiosks to create unobstructed, level floor areas that are sized to provide the space for persons using mobility devices to

use the self-service safely and independently. The size of the clear floor space should be adjusted depending on the intended approach (front, side).

Design

The design of self-service kiosks should meet the needs of the intended individuals, including persons using mobility devices, persons who are blind or have low vision, persons who are D/deaf, deafened, or hard of hearing.

Communication and Information Systems

Communication and information systems, such as signage and wayfinding, information, visual systems and directories, and assistive listening systems, should be provided at

self-service kiosks. They should be designed to communicate necessary information effectively to all individuals and be easy to understand. For persons who are D/deaf, deafened, or hard of hearing and who communicate using sign language, communication and information systems should provide translation or interpretation of information into sign language. Audio and visual signals, as well as vibro-tactile devices (haptic technology) should be provided to communicate and inform persons who are D/deaf, deafened, or hard of hearing, persons with low to no vision which self-service they are engaging with.

Signals and Controls

Signals and controls, such as volume control, should be provided at self-service kiosks. Signals and controls should be designed to have accessible space and reach range dimensions.

Requirements

(1) Accessible Path of Travel:

Self-service kiosks should provide interior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Clear Floor Spaces:

Self-service kiosks should provide clear floor spaces that:

(a) Are 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach.

(3) Design:

Self-service kiosks should be designed to:

(a) Be able to plug headphones or earbuds into;

(b) Have 500 mm maximum grasp reach range, and 600 mm maximum touch reach range to an object or item that:

(i) Is between 460 mm to 1050 mm AFF. for a front approach, "Figure 2.6.6-A Forward Reach at an ATM"; or

(ii) Is between 860 mm to 1050 mm for a side approach, "Figure 2.6.6-B Side Reach at an ATM";

(c) Have knee and toe space that is 735 mm high, 600 mm deep, and 900 mm wide minimum for a front approach.

(4) Communication and Information Systems:

Self-service kiosks should provide communication and information systems that:

(a) Have tactile characters and/or braille;

(b) Have options to enlarge text font size;

(c) Include vibro-tactile (haptic technology);

(d) Have sign-language interpretation, voice or sound cues where specific sequences or instructions are to be followed;

(e) Meet the criteria in section "3.2.1. Signage and Wayfinding Systems"; and

(f) Meet the criteria in section "3.2.3. Self-Service Interactive Devices".

(5) Signals and Controls:

Self-service kiosks should provide signals and controls that:

(a) Are mounted, "Figure 2.6.6-C Vending Machines", between 460 mm to 1050 mm AFF. and are in a clearly identifiable location;

(b) Include volume controls that meets the criteria in section "3.2.8. Controls and Operating Mechanisms"; and

(c) Have colour/brightness contrast from adjacent surfaces, "Figure 2.6.6-D Signage".

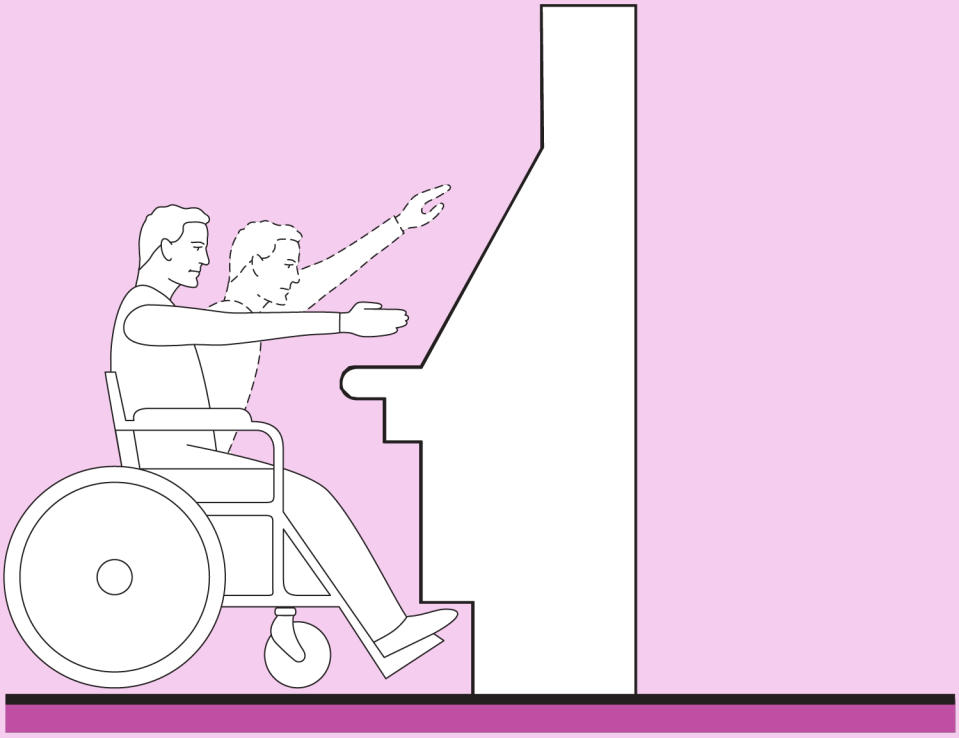


Figure 2.6.6-A Forward Reach at an ATM

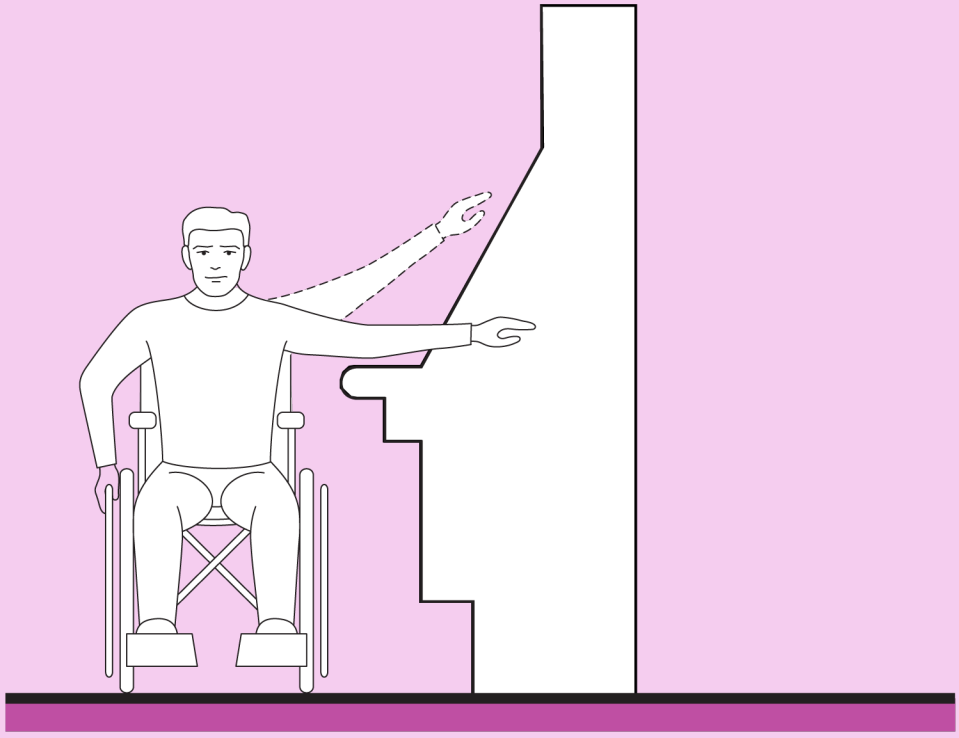


Figure 2.6.6-B Side Reach at an ATM

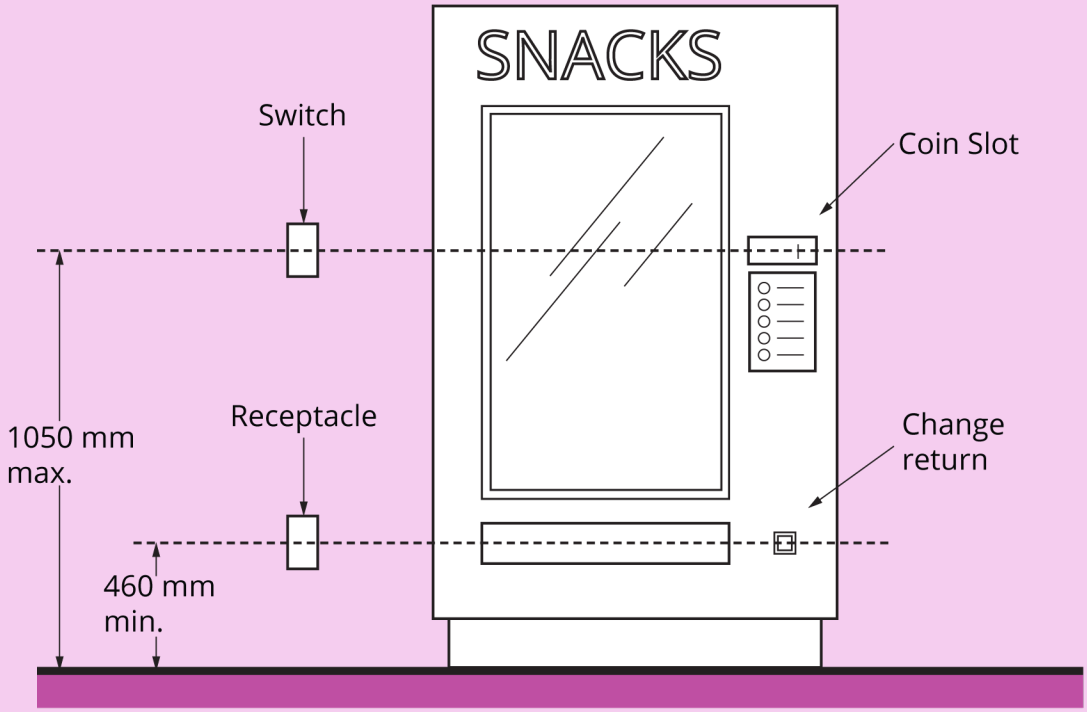


Figure 2.6.6-C Vending Machines

Figure 2.6.6-D Signage

2.7. Interior Materials and Finishes

Section Summary

This section reviews the accessible design requirements for interior materials and finishes intended to be used by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Materials should have physical properties that meet the needs of the intended individuals and the functional needs of the space. Materials, including floor, wall and ceiling surfaces may be used as structural members. Finishes should have solid, rigid backings, acoustical qualities, fire resistance and thermal insulation values. They should provide aesthetic qualities to a space using colour, pattern and surface textures with consideration for how finishes meet and join adjacent finishes. Interior materials and finishes should help to improve safety, visibility, and detectability of elements and features in the built environment. Careful consideration of interior materials and finishes can also help with navigation and wayfinding.

Contents in Section

2.7.1. Floor, Wall, and Ceiling Surfaces

2.7.2. Acoustics

2.7.1. Floor, Wall, and Ceiling Surfaces

Rationale

Floor, wall and ceiling surfaces should be durable, comfortable and safely support interior accessible paths of travel. Wall surfaces should be resistant to wear and cleanable. Ceiling surfaces should be relatively maintenance free. Materials and finishes should be provided on floor, wall and ceiling surfaces that have consideration for natural and artificial lighting, wayfinding, and acoustics.

Application

This section applies to floor, wall, and ceiling surfaces.

Related Sections

- “1.6.2. Tactile Attention Indicators”
- “1.6.3. Tactile Direction Indicators”
- “2.4.10. Sensory-Controlled Spaces”
- “2.7.2. Acoustics”
- “3.2.1. Signage and Wayfinding Systems”

Related References

- Strategy and Standards for Office Space and
- Ergonomics - Building Services

Key Considerations

Materials and Finishes

Materials and finishes should be provided on floor, wall and ceiling surfaces that enhance the functional and aesthetic intent, as well as the usability for all persons. Excessive light and uncontrolled brightness can cause glare from a direct source or be reflected from a surface creating a range of responses from visual annoyance, discomfort, to visual loss for all persons, especially persons with low vision. Floor, wall

and ceiling surfaces should be matte, honed, flamed, or brushed to reduce glare from natural and artificial lighting.

Avoid bold patterns, especially on floor and wall surfaces. The visual over-stimulation can exacerbate confusion for some older adults or those with cognitive disabilities. Colour/ brightness contrast should be used to highlight key design elements, whereas camouflage should be used to reduce unwanted use and out of bound areas.

Pattern and texture may also be provided. Surface textures can be used in conjunction with colour/brightness contrast to define potential hazards or indicate special features such as an accessible viewing area or wayfinding decision point.

Texture can be used to clearly define boundaries of materials, like carpeting or floor tiles, and should enhance safety by defining the junction between walls and floors, or defining primary and secondary accessible paths of travel in large facilities such as, civic buildings or long-term care facilities with long corridors.

Wayfinding

Wayfinding should be provided on floor, wall and ceiling surfaces. Wayfinding uses cognitive and perceptual information to help a person to understand where they are located and how to reach their destination. Strategic use of colour/brightness contrast can help with orienting persons within the space. Where tactile walking surface indicators are provided on floor surfaces, they should be cane detectable to help with navigation.

Acoustics

Acoustics should be provided on floor, wall and ceiling surfaces. Acoustical properties of a space can help persons who are blind or have low vision navigate the environment. Managing sound levels and reverberation helps to create more acoustically comfortable environments for persons who are D/deaf, deafened, or hard of hearing with residual hearing, while supporting neurodiversity.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory processing differences and be more susceptible to sensory overloads. Designing for sensory controlled spaces and elements can

contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Materials and Finishes:

Floor, wall and ceiling surfaces should provide materials and finishes that:

(a) Are matte, honed, flamed, or brushed to reduce glare from natural or artificial lighting;

(b) Have colours that improves safety, visibility, and detectability of elements and features;

(c) Where provided, have patterns that:

(i) Are minimal or simple;

(ii) Are non-directional;

(iii) Have low colour/brightness contrast;

(iv) Only have single, not multiple designs; and

(v) Are only used on feature or accent surfaces;

(d) Have colour/brightness contrast from adjacent surfaces including between:

(i) Floor to wall surfaces;

(ii) Floor to folding partitions; and

(iii) Floor to tactile walking surface indicators;

(iv) Wall surfaces to doors or door frames, except where the door does not lead to an accessible path of travel;

(v) Wall surfaces to window frames or sills;

(vi) Wall surfaces to elevator doors;

(vii)Wall surfaces to signage; and

(viii) Ceiling surfaces to signage, where signage is wall mounted;

(e) Where provided on floor surfaces, have tiles, bricks or pavers that:

(i) Are 6 mm maximum wide; and

(ii) Are level to reduce the risk tripping hazards;

(f) Where provided on floor surfaces, have carpets, "Figure 2.7.1-A Carpet Variation", that:

(i) Have low level loop construction (10 or 12 gauge);

(ii) Have a pile height that is 13 mm maximum;

(iii) Have non-static fibres;

(iv) Are firmly glued to sub-floor and secured in place;

(v) No additional padding;

(vi) Properly trimmed around floor box, recessed wire ways, and wire molds; and

(vii) Help to reduce visual confusion and facilitate wayfinding by using colour/brightness contrast between seasonal (winter) mats and runners, and adjacent floor surfaces;

(g) Where provided have textures that:

(i) Are located on wall surfaces that are smooth, and non-abrasive;

(ii) Are used in conjunction with colour/brightness contrast to define potential hazards or indicate special features such as, boundaries between floor and wall surfaces, primary and secondary accessible paths of travel throughout a large area, and indicate wayfinding decision points or entry points to common areas;

(iii) Are clearly detectable both visually and physically from the surrounding surface without use of thresholds; and

(h) Limit and/or eliminate scents from off-gassing materials in all areas that receive general interior maintenance.

(2) Wayfinding:

Floor surfaces should provide wayfinding that:

(a) Where provided have tactile walking surface indicators that:

(i) Meet the criteria in section "1.6.2. Tactile Attention Indicators"; and

(ii) Meet the criteria in section "1.6.3. Tactile Direction Indicators".

(3) Acoustics:

Floor, wall and ceiling surfaces should provide acoustics that:

(a) Meet the criteria in section “2.7.2. Acoustics”.

(4) Neurodiversity and Neurodivergence:

Floor, wall and ceiling surfaces should be designed for neurodivergence and:

(a) Meet the requirements within section “2.4.10 Sensory-Controlled Spaces” as determined by the client to enhance the various elements within the space.

Carpet variation types - sectional/elevation view

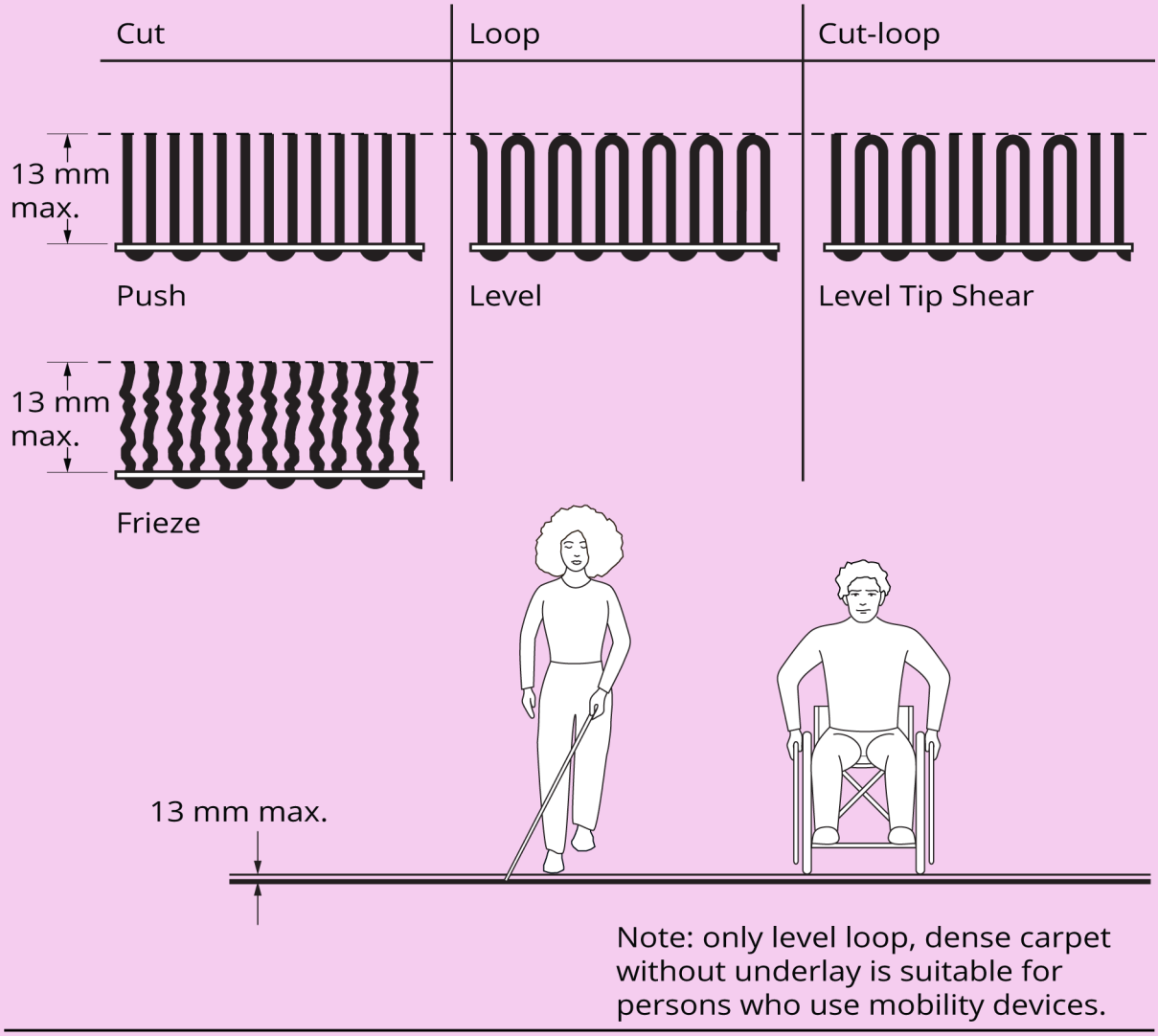


Figure 2.7.1-A Carpet Variation

2.7.2. Acoustics

Rationale

Acoustics within a room or a space is an important aspect of how accessible and usable a building is for everyone. Acoustical properties of a space can help persons who are blind or have low vision navigate the environment. Managing sound levels and reverberation helps to create more acoustically comfortable environments for persons who are D/deaf, deafened, hard of hearing, or with residual hearing while supporting sensory reduced environments and facilitating a person's ability to focus on the task at hand.

Application

[Reserved]

Related Sections

- "2.4.10. Sensory-Controlled Spaces"

Related References

- Strategy and Standards for Office Space and Ergonomics - Building Services

Key Considerations

Finishes

Finishes should be provided to manage acoustics within a building. A combination of hard and soft finishes should be used to meet the needs of all individuals and the functional needs of the space. Floor, wall and ceiling surfaces should create different sound qualities that can be audibly detected by individuals. They should be designed to control ambient noise and absorb direct, reflected, and reverberated sound.

Reverberated sound can obstruct, distort and disorient individuals including persons who are D/deaf, deafened, or hard of hearing, or persons with low to no vision. Acoustical cues should be provided to help individuals with independent navigation and wayfinding. The physical properties of floor, wall and ceiling surface materials should be

considered when integrating acoustical cues into the design. Domed shaped ceilings tend to distort sound and can disorient persons navigating through the building.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory processing differences and be more susceptible to sensory overloads. Designing for sensory controlled spaces and elements can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Finishes:

Finishes should provide acoustic qualities that:

(a) Control ambient noise;

(b) Absorb and dampen direct, reflected and reverberated sound using carpets, acoustic panels, or upholstered furniture; and

(c) Buffer external or exterior sound using double-glazed glass.

(2) Neurodiversity and Neurodivergence:

Acoustic elements should be designed for neurodivergence and:

(a) Meet the requirements within section “2.4.10 Sensory-Controlled Spaces”.

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ATM

3. Systems and Controls

3.1. Lighting

Section Summary

This section reviews the accessible design requirements for lighting intended to be used by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Glare and inadequate or uneven lighting levels will contribute to a less usable and accessible environment. A reduction in glare and the provision of adequate and even lighting levels allow for individuals, including persons with low vision or those who are D/deaf, deafened, or hard of hearing and heavily rely on their visual field to better perceive the environment around them. However, persons with light sensitivity or photophobia will be more sensitive to higher lighting levels. As a result, consideration should also be given to providing persons with the option to control their lighting levels.

Contents in Section

3.1.1. Interior Lighting

3.1.2. Exterior Lighting

3.1.1. Interior Lighting

Rationale

Interior lighting should provide both natural and artificial lighting to improve safety, visibility and detectability of elements and features within the built environment. Interior lighting should be designed to reduce glare on surfaces and be evenly distributed. Where the quality of interior lighting does not meet the needs of the intended individuals or the functional needs of a space, there are increased risks of health hazards such as eye strain, eye discomfort, headaches, seasonal affective disorder (SAD), and depression. Where there is a transition between spaces, interior lighting levels should be consistent to reduce the risk of pupillary light reflex or disorientation.

Application

[Reserved]

Related Sections

- “2.6.2. Windows and Window Hardware”
- “2.4.10. Sensory-Controlled Spaces”

Related References

- Lighting Handbook
- Best Practices Effective Lighting

Key Considerations

Natural Lighting

Natural lighting should be provided as a part of the interior lighting plan. Natural lighting brings daylight into a space using exterior glazing, such as windows or skylights, and should be designed to reduce glare on floor, wall and ceiling surfaces.

Artificial Lighting

Artificial lighting should be provided as a part of the lighting plan. Maintaining consistent lighting levels helps to reduce risks and improves safety, visibility, and detectability of elements and features. Artificial lighting should be designed to create an even distribution at floor level and minimize pools of light or shadows.

Rooms and spaces should have multi-zoned lighting fixtures and options for spot lighting to increase visibility of speakers, use of sign language by persons who are D/deaf and sign language interpreters, or general tasks. Artificial lighting that provides multiple pinpoints of high intensity lighting should be avoided. They increase glare and leave an afterimage on the retina. Lighting fixtures should use lenses and filters to evenly diffuse light and reduce glare.

Additional artificial lighting that provides upward and downward lighting options, such as wall sconces, should be provided to help identify displays within exhibition, museum, and gallery facilities and highlight individual exhibit items.

Artificial lighting should ensure that the colour temperature of light emits a wide spectrum to aid in edge and colour definition. Where fluorescent or quartz light sources with a high blue content or cool colour are used, they should be offset with incandescent or equivalent LED lights with a warm colour. This ensures that the warm end of the spectrum provides appropriate colour and identification of elements and features within the built environment.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments should also consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory-processing differences and be more susceptible to sensory overloads. Designing for sensory-controlled spaces and elements can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Natural Lighting:

Interior lighting should provide natural lighting that:

(a) Uses glazed windows or skylights that meet the criteria in section "2.6.2. Windows and Window Hardware"; and

(b) Reduces glare on all surfaces.

(2) Artificial Lighting:

Interior lighting should provide artificial lighting that:

(a) Maintains consistent lighting levels;

(b) Creates an even distribution at floor level and minimizes pools of light or shadows;

(c) Reduces glare on all surfaces;

(d) Includes lighting fixtures that:

(i) Utilize diffused lenses or filters; and

(ii) Have adjustable lighting levels;

(e) Includes multi-zoned lighting fixtures at large interior specialized areas;

(f) Includes options for spot lighting fixtures that increase the visibility of speakers, use of sign language by persons who are D/deaf and sign language interpreters,

(g) Includes task lighting fixtures, such as desk lamps, that have controls that adjust the direction of the light to help personalize lighting levels on work surfaces; and

(h) Has lighting levels in various locations that meet the criteria in "Table 3.1.1-A Minimum Interior Lighting Levels".

Table 3.1.1-A Minimum Interior Lighting Levels

Location	**Minimum Lighting Levels (lux)**
Interior Paths of Travel	200
Elevator Lobby and Cab	100 (measured at the threshold of the elevator)
Stairs, Ramps, Escalators	200
Washrooms	100
Waiting Areas	200

Service Counters	300 (at task plane)
Offices and Work Areas	500
Lounges and Common Rooms	200
Computer Work Stations	300
Signage	200
Card Access and Building Security Systems	150 (LCD screens) 100 (at controls)
Task Lighting	200

(3) Neurodiversity and Neurodivergence:

Lighting should be designed for neurodivergence and:

(a) Meet the requirements within section “2.4.10 Sensory-Controlled Spaces”.

3.1.2. Exterior Lighting

Rationale

Exterior lighting should provide artificial lighting to enhance the quality of lighting outside of a building, on exterior paths of travel, and at pedestrian crossings, parking, vehicular arrival and departure areas, and exterior specialized areas. It helps to improve safety, visibility, and detectability of elements and features within the built environment. Exterior lighting fixtures should withstand the effects of inclement weather.

Application

The scope of this section does not apply to exterior areas such as vehicular roadways.

Related Sections

- [Reserved]

Related References

- Lighting Handbook
- Best Practices Effective Lighting

Key Considerations

Artificial Lighting

Artificial lighting should be provided as a part of the exterior lighting plan. Maintaining consistent lighting levels helps to reduce risks and improves safety, visibility, and detectability of elements and features. Artificial lighting should be designed to create an even distribution at ground level and minimize pools of light or shadows. It should reduce glare on all surfaces and allow independent navigation and wayfinding.

Requirements

(1) Artificial Lighting:

Exterior lighting should provide artificial lighting that:

(a) Creates an even and consistent distribution at ground level;

(b) Maintains a 2100 mm height, light cut-off angle, and fixture spacing, "Figure 3.1.2-A Controlling Lighting Direction and Glare";

(c) Where fixtures are below 1525 mm, directs light to ground surfaces and is shielded to reduce glare, "Figure 3.1.2-B Controlling Lighting Direction and Glare";

(d) Reduces glare on all surfaces;

(e) Is installed on posts that are mounted high enough to clear snow accumulation; and

(f) Has lighting levels in various locations that meet the criteria in "Table 3.1.2-A Minimum Exterior Lighting Levels (lux)".

Table 3.1.2-A Minimum Exterior Lighting Levels (lux)

Location	**Minimum Lighting Levels (lux)**
Exterior paths of travel (including stairs and ramps)	30
Accessible Parking	50
Accessible path of travel from accessible parking to building entrance	50
Passenger Pick-Up and Drop-Off	50
Entrances	50
Main Driveway	30
Exterior Signage (building sign, directional and traffic)	30

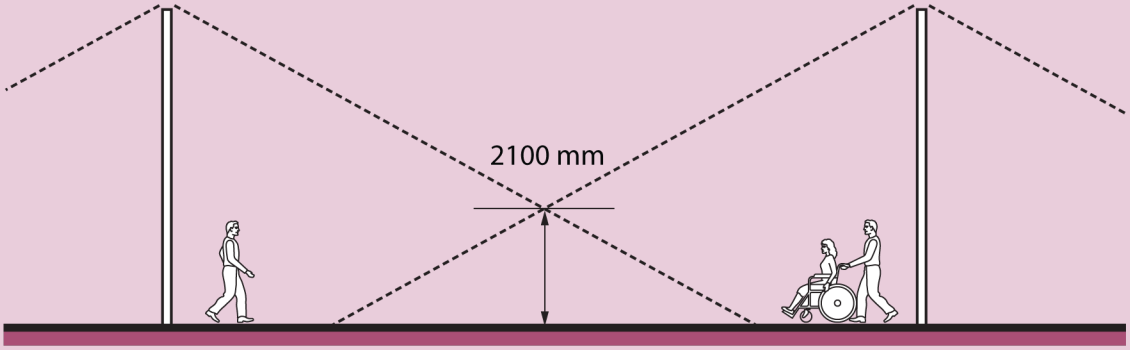


Figure 3.1.2-A Controlling Lighting Direction and Glare

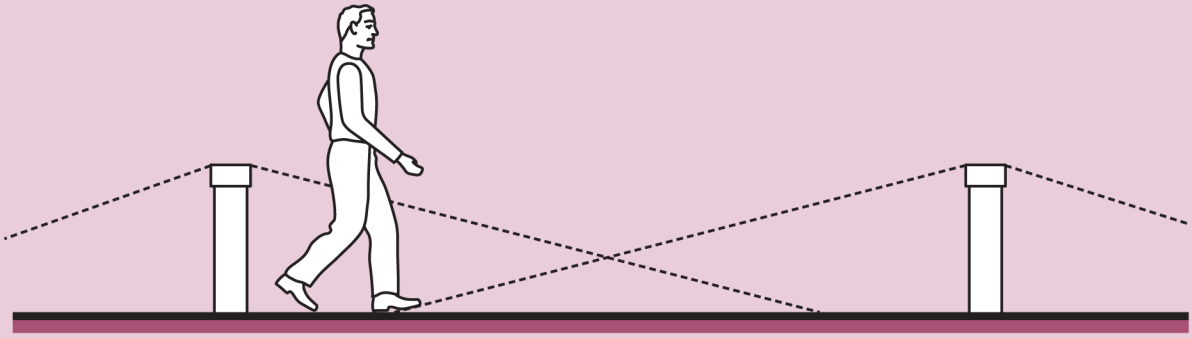


Figure 3.1.2-B Controlling Lighting Direction and Glare

3.2. Communication, Information Systems, Controls

Section Summary

This section reviews the accessible design requirements for communication and information systems intended to be used by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Communication and information systems should be designed to communicate necessary information effectively to all individuals and be easy to understand. For persons who are blind or have low vision, printed content should be provided in an audible format, whereas for persons who are D/deaf, deafened, or hard of hearing, the equivalent audible information should be provided in print form and through American Sign Language (recorded or live). Communication and information systems should enhance safe and independent navigation

throughout the built environment and interior and exterior accessible paths of travel.

Contents in Section

3.2.1. Signage and Wayfinding Systems

3.2.2. Two-Way Communication Systems

3.2.3. Self-Service Interactive Devices

3.2.4. Public Address Systems

3.2.5. Assistive Listening Devices

3.2.6. Accessible Public Telephones

3.2.7. Card Access and Building Security Systems

3.2.8. Controls and Operating Mechanisms

3.2.1. Signage and Wayfinding Systems

Rationale

Signage is a component of wayfinding and is a means of communicating information about the built environment and can include printed text, tactile signage, and pictograms. Wayfinding uses cognitive and perceptual information to help a person reach a destination. It is a spatial problem-solving process based upon consistent use and organization of definite sensory cues in the environment that persons use to understand where they are, where their desired location is, and how to get to that destination from their present location. Directional signage should be provided with visual and tactile information.

Signage and wayfinding systems should be used for identification purposes, to draw attention to safety hazards and sensory zones, and to help individuals safely and independently navigate throughout the built environment including interior and exterior accessible paths of travel. It should clearly indicate the type of facilities available.

Application

[Reserved]

Related Sections

- “1.6.2. Tactile Attention Indicators”
- “1.6.3. Tactile Direction Indicators”
- “2.6.6. Self-Service Kiosks”
- “3.1.1. Interior Lighting”

Related References

- Toronto TO360 Wayfinding
- Complementary Wayfinding Systems
- Design for the Mind: Neurodiversity in the Built Environment (2022), BSI

Key Considerations

Installation

Signage and wayfinding systems should be installed or mounted on the ground or floor, walls, and/or ceiling surfaces. To avoid risk of hazards, signage should not be mounted on swinging doors, especially those that have tactile characters and/or braille. Where mounted on ceiling surfaces, overhead clearance should be provided below and it should have larger text to provide maximum legibility of essential information. Tactile signage and digital signage that is interactive should be mounted within an accessible reach range and be adjacent to clear floor space.

Visual Signage

Where visual signage is provided for signage and wayfinding systems, it should have colour/brightness contrast from adjacent backgrounds and surfaces. The colour/brightness contrast of key elements in the built environment should be at least 50 percent, whereas the colour/brightness contrast on signs and pictograms should be at least 70 percent.

Digital Signage

Where digital signage is provided for signage and wayfinding systems, it should be used to allow dynamic or changing messages.

Alternative formats of the same information should be made available to individuals where digital signage is provided. Where digital signage is designed to be interactive, such as a touchscreen, it should be usable by all individuals and should consider how persons who are blind or have low vision can access the same information. Settings that allow individuals to customize their experience to enhance accessibility, such as drop-down menus and adjustable colour/brightness contrast, should be provided.

Tactile Signage

Where tactile signage, such as tactile characters (raised print) and/or braille, is provided on signage and wayfinding systems it should be designed for all individuals, especially persons with low or no vision.

Tactile graphics are images that use raised surfaces so that individuals, especially persons who are blind or have low vision, can touch them. They may be used to

communicate non-textual information such as maps, paintings, graphs, diagrams, and pictograms.

Tactile Maps

Where tactile maps are provided for wayfinding systems, they should be placed at key points to make an environment intuitive. Tactile maps should help to allow persons to reach their destination, but also to positively effect a persons experience within the environment. They should help individuals to understand where they are, know where their desired location is, and know how to get to that destination from their present location. Tactile maps should help to reduce overall stress and frustration, increase efficiency and functionality of a space, and contribute to an environment that is easy to exit in case of emergency evacuation.

Pictograms and Symbols

Where pictograms and symbols are provided on signage and wayfinding systems, they should be used to help individuals recognize information quickly and easily. They should communicate ideas, meaning, and function using a common visual language. The International Symbol of Access (ISA), also known as the international wheelchair symbol, consists of a blue square overlaid in white with a stylized image of a person in a wheelchair. This sign depicts a stationary person with an emphasis on the wheelchair.

Tactile Walking Surface Indicators

Where tactile walking surface indicators are provided for wayfinding systems, they should be designed to be cane detectable by persons with low or no vision using a white cane for navigation in the built environment.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory-processing differences and be more susceptible to sensory overloads. For some processing sequential processes, number and word identification might rely on more visual cues, symbols, or colours than the actual written text. Attentional bias is more likely to occur when someone experiences anxiety when wayfinding. Consistent design of signage or wayfinding cues should be provided throughout the journey sequence to reduce attentional bias. Multimodal information

offered in visual, audible, and tactile formats should be provided to engage at least two of the human senses. Providing a preview of the environment virtually, through audio and visual description or simplified floor plans, should be used to reduce anxiety and help persons prepare for their visit to GBP. Signage and wayfinding strategies should identify sensory zones and sensory-controlled spaces or rooms to assist in ease of wayfinding to these spaces.

Requirements

(1) Installation:

Signage and wayfinding systems should:

(a) Be consistently located;

(b) Be positioned to avoid shadow areas and glare;

(c) Be illuminated 200 lx minimum.

(d) Where installed on floor surfaces:

(i) Be level and not have any changes in level, except for tactile walking surface indicators;

(ii) Not have strong patterns, bold colour, and strong colour contrast;

(e) Where installed on wall surfaces:

(i) Be mounted with the horizontal centre line 1500 mm AFF.

(ii) Have a clear space around the sign of at least 75 mm;

(iii) Where at doors or used to identify doors, “Figure 3.2.1-A Wall Mounted Room Signage”, be installed on the latch side of doors or on the nearest wall on the right side of the door, where there is no wall at the latch side, and where applicable, have the leading vertical edge of the sign 140 mm to 160 mm from the edge of the door frame;

(iv) Where double-leaf doors are used or no wall space adjoins the door’s latch edge, be mounted on the nearest adjacent wall;

(v) Have a clear floor space, where tactile or digital signage that is interactive is provided, that is 900 mm wide by 1500 mm long minimum for a front approach, or 900 mm wide by 2200 mm long minimum for a side approach; or

(f) Where installed on ceiling surfaces, have the bottom edge of the sign mounted 2100 mm minimum AFF. to provide overhead clearance;

(g) Where signage is tactile:

(i) Allow a person to approach the sign within 100 mm without encountering protruding objects or standing within a door swing; and

(h) Be developed in consultation with organizations, orientation and mobility specialists, and GBP students and employees with low to no vision.

(2) Visual Signage:

Where visual signage is provided as part of signage and wayfinding systems, it should:

(a) Provide visual information to indicate the location of:

(i) Accessible entrances;

(ii) Ramps located in an accessible path of travel serving an accessible entrance;

(iii) Accessible washrooms;

(iv) Accessible showers;

(v) Accessible elevators;

(vi) Accessible parking spaces; and

(vii)Assistive listening systems or adaptive technologies;

(b) Where directional signs are provided, have visual information;

(c) Provide the same information in both visual and tactile forms when installed at or near doors, except for doors that serve service spaces or are located within a suite;

(d) Have a glare free surface;

(e) When used to give the same type of information within the same facility, be consistently shaped, coloured, and positioned;

(f) Have colour/brightness contrast, “Figure 3.2.1-B Colour/Brightness Contrast”, from adjacent backgrounds and surfaces; and

(g) Include text that:

(i) Has sans serif fonts;

(ii) Has Arabic numbers;

(iii) Uses uppercase letters with a stroke width to height ratio between 3:5 to 1:1;

(iv) Uses lowercase letters and all other characters with a stroke width to height ratio of 1:5 to 1:10;

(v) Has colour/brightness contrast from adjacent backgrounds and surfaces;

(vi) Is sized to be legible at junctions; and

(vii) Has character height sized relative to the intended viewing distance in "Table 3.2.1-A Character height relative to viewing distance".

Table 3.2.1-A Character height relative to viewing distance

Minimum character height, mm	**Maximum viewing distance, mm**
25	750
50	1500
75	2250
100	3000
150	4500
200	6000
250	7500
300	9000

(3) Digital Signage:

Where digital signage is provided as part of signage and wayfinding systems, it should:

(a) Allow dynamic or changing messages that display information for minimum 10 seconds;

(b) Have alternative formats of the information, such as tactile and audible;

(c) Where audible, have a plug-in audio jack, voice-activated intercom, or call-for-help feature;

(d) Include text that:

(i) Has sans serif fonts; and

(ii) Has no red font colours on black backgrounds;

(e) Have LED lights, such as white, yellow, green, or light blue, on a black background;

(f) Have lighting levels that are 200 lux minimum at the surface of the sign and that meets the criteria in section "3.1.1. Interior Lighting"; and

(g) Include interactive signage that:

(i) Has a touchscreen;

(ii) Has customizable settings;

(iii) Is cane detectable;

(iv) Provides alternate formats of the equivalent information; and

(v) Includes self-service kiosks that meet the criteria in section "2.6.6. Self-Service Kiosks".

(4) Tactile Signage:

Where tactile signage is provided as part of signage and wayfinding systems, it should:

(a) Provide the same information in both visual and tactile forms when installed at or near doors, except for doors that serve service spaces or are located within a suite;

(b) Be located at:

(i) Interior rooms; and

(ii) Amenity spaces;

(c) Supplement the text of warning signs, such as caution and danger signs;

(d) Supplement the text of identification signs, such as rooms, titles, names, or numbers;

(e) Have smooth edges;

(f) Include tactile characters that:

(i) Are between 16 mm to 50 mm high;

(ii) Are raised 0.8 mm to 1.5 mm above the surface of the sign;

(iii) Are sans serif; and

(iv) Have colour/brightness contrast from adjacent backgrounds and surfaces;

(g) Include braille that:

(i) Uses Grade 1 braille words;

(ii) Is spaced 9.5 mm minimum from other tactile elements, where located below corresponding text or characters;

(iii) Includes the capital braille character and the "all-capital" braille characters where appropriate;

(iv) Is placed near the bottom edge of the sign; and

(v) Uses uncontracted braille for signs that have 10 words or less and contracted braille for signs with more than 10 words; and

(h) Include tactile graphics, such as tactile maps or pictograms.

(5) Tactile Maps:

Where tactile maps are provided as part of wayfinding systems, they should:

(a) Have equivalent information as provided on printed maps, where provided.

(6) Pictograms and Symbols:

Where pictograms and symbols are provided for signage and wayfinding systems, they should:

(a) Help individuals recognize information quickly and easily;

(b) Communicate ideas, meaning, and function using a common visual language;

(c) Where a facility or its elements, such as a washroom, elevator, telephone or parking area, is required to accommodate persons with disabilities, be identified by a sign consisting of the international symbol of access (i.e., blue square overlaid in white) or the international symbol of access for hearing loss and appropriate graphical or textural information that clearly indicates the type of facilities available;

(d) Be 150 mm high and wide;

(e) Be raised 0.8 mm to 1.5 mm above the surface of the sign;

(f) Be located above tactile characters;

(g) Be consistent with the recognized standards and the GBP's internal signage and wayfinding standards; and

(h) Have colour/brightness contrast from adjacent backgrounds and surfaces.

(7) Tactile Walking Surface Indicators:

Where tactile walking surface indicators are provided for wayfinding, they should:

(a) Have tactile attention indicators that meet the criteria in section "1.6.2. Tactile Attention Indicators"; or

(b) Have tactile direction indicators that meet the criteria in section "1.6.3. Tactile Direction Indicators".

(8) Neurodiversity and Neurodivergence:

Signage and wayfinding should be designed for neurodiversity and neurodivergence and include:

(a) Consistent use of colours and symbols throughout;

(b) Use of landmarks such as colour or larger supergraphics;

(c) Multimodal forms of communicating information;

(d) The ability to preview wayfinding information in advance; and

(e) Information and maps to identify typically high stimulus and noisy environments, low stimulus and quieter environments, and designated sensory-controlled spaces.

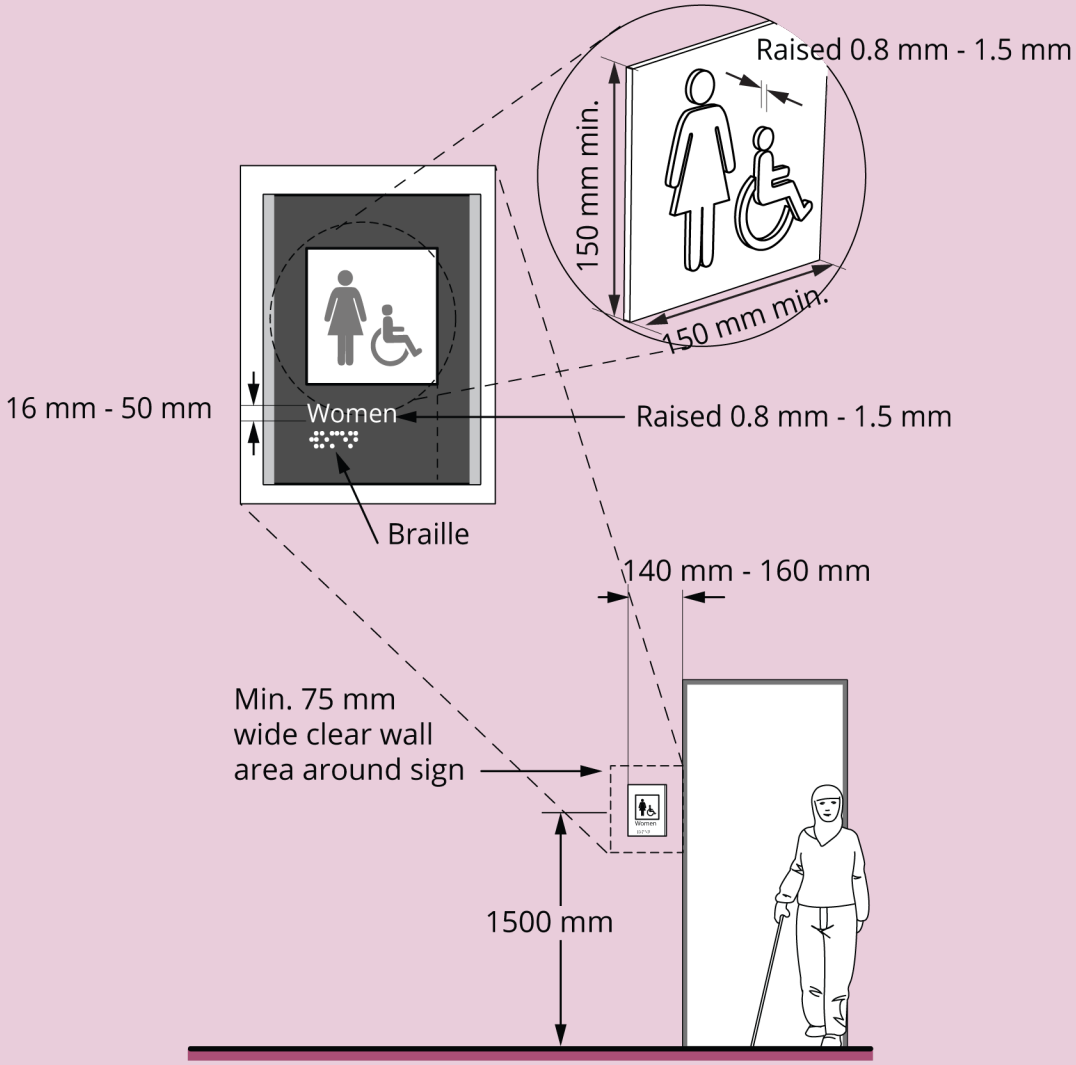


Figure 3.2.1-A Wall Mounted Room Signage

Figure 3.2.1-B Colour/Brightness Contrast

3.2.2. Two-Way Communication Systems

Rationale

Two-way communication systems should be designed to support communication of information between individuals and receivers, such as building operators or emergency services such as first responders.

Application

This section applies to emergency and non-emergency two-way communication systems provided in elevators and areas of rescue assistance or where public telephones are provided.

Related Sections

- "3.2.6. Accessible Public Telephones"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Design

Two-way communication systems should be user friendly and be accessible to all persons. Where emergency two-way communication systems are provided, they should provide audible and visible signals to indicate communication has been received and assistance is on the way. Additional signage should be provided to communicate information to ensure that emergency and non-emergency two-way communication systems are usable by all individuals. Two-way communication systems should be designed to be used with a closed fist without requiring tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that persons with low vision can easily find and operate them.

Requirements

(1) Design:

Two-way communication systems should be designed to:

(a) Be emergency or non-emergency two-way communication systems;

(b) Have voice input and output;

(c) Be hands-free with a speaker;

(d) Be mounted at 1050 mm maximum AFF;

(e) Have a visual display;

(f) Have volume enhancement on at least one machine of each type;

(g) Have a coupling device for persons with hearing aids;

(h) Where public telephones are provided, meet the criteria in section "3.2.6. Accessible Public Telephones";

(i) Include a TTY, "Figure 3.2.2-A TTY"; and

(j) Have operable portions or controls that meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

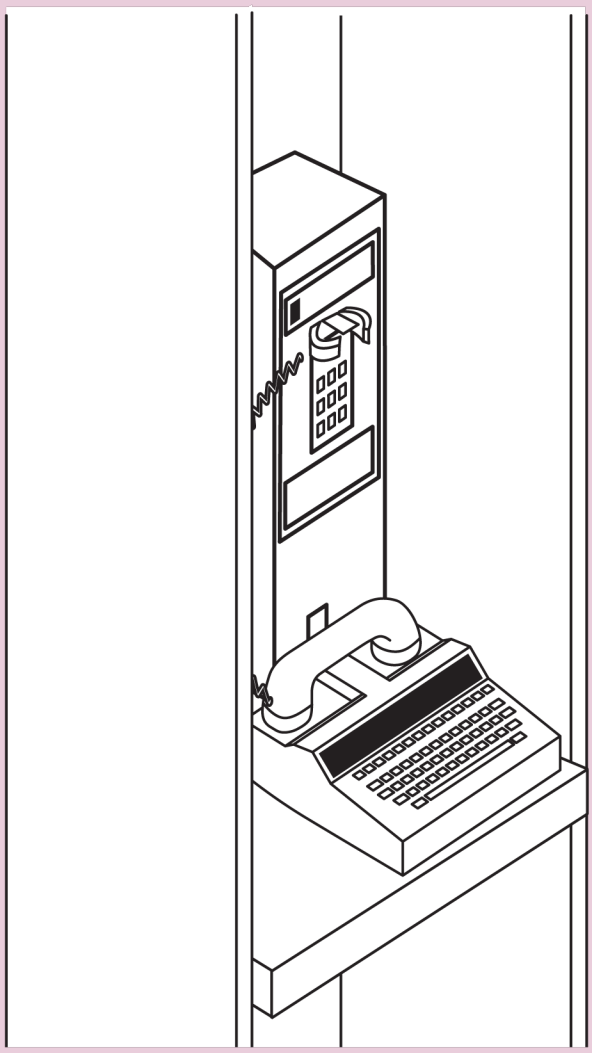


Figure 3.2.2-A TTY

3.2.3. Self-Service Interactive Devices

Rationale

Self-service interactive devices should be able to relay information in various formats able to be understood by all persons, especially those with low to no vision and those who are D/deaf, deafened, or hard of hearing. The incorporation of audible and visual feedback, tactile characters, or braille where text is printed helps ensure a wide variety of persons can get the information they need.

Application

The scope of this section applies to self-service interactive devices such as information, visual display, and directory systems including kiosks and bank machines.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- CSA/ASC B651.2:22 Accessible Design for Self-Service Interactive Devices Including Automated Banking Machines

Key Considerations

Design

Self-service interactive devices should be designed to be usable and accessible by all persons.

Accessible Path of Travel

An interior accessible path of travel should be connected to visual display and directory systems to allow for a continuous, unobstructed route providing interior access to elements and spaces. Information, visual display systems, and directories should not create obstacles along accessible paths of travel.

Clear Floor Spaces

Clear floor spaces should be provided at self-service interactive devices to create unobstructed, level floor areas that are sized to provide the space for persons using mobility devices to use the self-service safely and independently. The size of the clear floor space should be adjusted depending on the intended approach (front or side).

Installation

Self-service interactive devices should be installed to be stable and only moved when an intended force is applied. This will ensure that the device will be self supported and will not have to be constantly adjusted or held upright.

Signals and Controls

Signals and controls should be designed to have accessible space and reach range dimensions. For example, slots for cash dispensing at banking machines or ticketing machines. Where they have operable portions or controls, they should be designed to be used with a closed fist without requiring tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that persons with low vision can easily find and operate them.

Audible and visual signals should be provided to communicate and inform persons who are D/deaf, deafened, or hard of hearing or persons with low to no vision which element they are engaging with. They should provide feedback, using varying tones or vibro-tactile devices (haptic technology), to individuals to let them know when they have touched, tapped, or pressed a button, when they have successfully completed a task, and/or where action is still required.

Signage

Signage, including tactile signage, should be provided at self-service interactive devices. Tactile signage, such as tactile characters (raised print) and/or braille, should be designed for all individuals, especially persons with low or no vision.

Software

Self-service interactive device software should be easy and intuitive to use. Individuals should be able to follow instructions and interact with the interface instantly without an extended period to learn the software. This will ensure that all individuals are able to

independently and quickly access the intended information or service. Software should only react to one input method at a time to avoid accidental signals disrupting the individual's interaction with the device. For example, when the keyboard is being used to input information the mouse or any other input method should become inactive, and vice versa.

Requirements

(1) Design:

Self-service interactive devices should be designed to:

(a) Meet the requirements in CSA/ASC B651.2:22 Accessible design for self-service interactive devices including automated banking machines.

(2) Accessible Path of Travel:

Self-service interactive devices should provide interior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(3) Clear Floor Spaces:

Self-service interactive devices should provide clear floor spaces that:

(a) Is 900 mm wide by 1500 mm long minimum for a front approach or 900 mm wide by 2200 mm long minimum for a side approach.

(4) Installation:

Self-service interactive devices should be installed to:

(a) Be stable;

(b) Withstand the "tilt test" whereby the device will not fall over when tilted 10° from its upright position;

(c) Withstand the "force test" whereby the device will:

(i) Not fall over when a force equal to 20%, rounding up to the nearest whole number, of the device weight is applied;

(ii) Withstand a 250 N maximum force that is applied in any direction; and

(iii) Be mounted 2000 mm maximum AFF; and

(d) Withstand the "force-on-self test" whereby the device will not fall over when a constant 800 N maximum downward force is applied.

(5) Signals and Controls:

Self-service interactive devices should provide signals and controls that:

(a) Include audible signals that:

(i) Are activated by controls;

(ii) Are 20 decibels above the anticipated ambient noise level;

(iii) Are in plain language, with phased instructions;

(iv) Have varying tones and durations for successful completion and warning;

(v) Have an audio jack to initiate audio instructions and descriptions for graphic images central to the desired task to be completed;

(vi) Have the option to activate text captioning and descriptive video; and

(vii) Have the option to activate on-demand sign-language interpretation services.

(b) Include visual signals that:

(i) Are activated by controls;

(ii) Are adjustable;

(iii) Are equipped with an enlarge function to increase the scale and size of font on the screen;

(iv) Are glare free; and

(v) Have sans serif fonts;

(c) Have controls and operating mechanisms that:

(i) Are 1050 mm maximum AFF;

(ii) Are 500 mm maximum from the front edge of the obstruction, if any obstruction;

(iii) Where touchscreen, have vibro-tactile (haptic technology) feedback and tactile controls; and

(iv) Have operable portions or controls that meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(6) Signage:

Self-service interactive devices should provide signage that:

(a) Includes tactile signage;

(b) Includes alternative formats of the same information; and

(c) Meets the criteria in section "3.2.1 Signage and Wayfinding Systems".

(7) Software:

Self-service interactive devices should provide software that:

(a) Directs individuals' attention to complete one task at a time;

(b) Allows individuals to undo an unintended action; and

(c) Allows for additional time to complete a task and ask a user, "Do you require more time to complete the task?".

3.2.4. Public Address Systems

Rationale

Public address (PA) systems are electronic systems including microphones, amplifiers, loudspeakers, and related equipment. They increase the apparent volume (loudness) of a person's voice, musical instrument, or other acoustic sound source, recorded sound, or music. PA systems are an essential element in the built environment to allow critical information, such as emergency or safety information, to be audible at a distance or over a large area. Emergency or safety-related information should also be communicated in alternative formats. PA systems should be designed so that messages are effectively heard and understood by all individuals, including those who may be D/deaf, deafened, or hard of hearing.

Application

[Reserved]

Related Sections

- [Reserved]

Related References

- [Reserved]

Key Considerations

Design

Public address (PA) systems should be designed to have effective sound coverage in all required areas with acceptable output levels from all speakers to nearby audiences. The volume of the speakers should be louder than the expected ambient noise of the room so that the information from the PA system can be clearly heard. To ensure safety for all individuals within a building, especially persons who are D/deaf, deafened, or hard of hearing, where emergency or warning information is being announced it should be preceded by a distinguishable warning tone. Alternative formats of the audible information should be provided in the form of visual information, for example

American Sign Language or written text messages presented on marquee boards or television screens.

Paging or call systems should be used with discretion and only where the intended individuals, such as nurses, staff, or security, might be located. For persons who are D/deaf, deafened, or hard of hearing, persons with cognitive disabilities, and especially for persons who have difficulty managing sensory stimuli, constant paging, loud noises, and reverberation from speakers throughout a space may be distracting, interfere with an individual's ability to focus, and hinder any residual hearing.

Requirements

(1) Design:

Public address systems should be designed to:

(a) Have loudspeakers located to cover the desired area without feedback, echoes, or reverberation;

(b) Be mounted on a post at 2100 mm minimum AFF;

(c) Be located at:

(i) Exterior specialized areas;

(ii) Interior accessible paths of travel; and

(iii) Interior specialized facilities;

(d) Be multi-zoned so that information can be directed to key locations to minimize background noise in other areas of a building;

(e) Have a clear warning signal that sounds before significant information will be announced;

(f) Have alternative formats of the information being conveyed using visible formats such as video or marquee displays;

(g) Include point call systems that are used for fire and emergency information; and

(h) Include paging systems that:

(i) Are discreet; and

(ii) Low in volume.

3.2.5. Assistive Listening Devices

Rationale

Assistive listening devices should be designed to be usable by persons with and without hearing aids. They should help to improve individuals' hearing abilities and to distinguish speech over other noise, and should be provided in locations where an exchange of conversation is expected. They may integrate adaptive technologies to support accessibility and communication, including public Wi-Fi, Bluetooth, and adaptive and evolving technologies.

Application

[Reserved]

Related Sections

- "2.4.1 Service Counters"
- "2.4.9. Meeting Rooms"
- "2.7.2. Acoustics"

Related References

- Assistive Listening Devices (ALDS) (2024), Munk Hearing Centre

Key Considerations

Location

Assistive listening devices should be located at service counters and spaces with an assembly occupancy including all classrooms, auditoriums, meeting rooms, theatres, and exercise rooms.

Design

Assistive listening devices should be designed to encompass the entire service counter and seating area. They help individuals who are D/deaf, deafened, or hard of hearing listen to the intended speaker or media display without any barriers. Where assistive listening devices are provided, ambient noise levels or other audible sources within the

space should not disturb the individual's experience. Dimmer switches (or other transformer coils) should be carefully located within the area so that electro-magnetic interference with any audio induction loops does not occur. At locations where a motion picture is intended to be viewed, consideration for the integration of described video and rear-view captioning should be provided.

Requirements

(1) Location:

Assistive listening devices should be located at:

(a) Classrooms;

(b) Auditoriums;

(c) Theatres;

(d) Exercise rooms;

(e) Meeting and conference rooms that meet the criteria in section "2.4.9. Meeting Rooms"; and

(f) Minimum one service counter meeting the criteria in section "2.4.12.4.1 Service Counters" in each location where information, goods, or services are provided to the public at service counters in buildings of assembly occupancy; and

(g) Any other assembly space that:

(i) Is greater than 100 m2; or

(ii) Have an occupancy that is 25 persons or more.

(2) Design:

Assistive listening devices should be designed to:

(a) Include:

(i) Adaptive technologies;

(ii) An amplification system, where there is a barrier to communication such as a glass screen;

(iii) FM systems;

(iv) Infrared systems where no overhead incandescent lights are used as they cancel out the infrared signal to the receiver;

(v) Induction loop systems; or

(vi) Another compatible system;

(b) Be compatible with personal hearing aids, where provided as portable headsets;

(c) Have dimmer switches;

(d) Be provided for the clear communication required for the exchange of information, goods, and services;

(e) Be in spaces that provide acoustics that meet the criteria in section “2.7.2. Acoustics”;

(f) Meet the criteria in section "3.2.1. Signage and Wayfinding”;

(g) Be developed in consultation with people that are D/deaf, deafened, and/or hard of hearing as well as the organizations that serve the community and have expertise in assistive communication devices; and

(h) Where built-in assistive listening devices can not be provided, consider the provision of portable amplification devices, FM Systems, or external microphones.

3.2.6. Accessible Public Telephones

Rationale

Accessible public telephones, including phone booths, should be designed to be usable by all individuals. Despite the prevalence of mobile phones, the provision of public telephones helps to ensure that those without mobile phones can make phone calls in public spaces.

Application

The scope of this section applies to telephones that are available for public use located in both interior and exterior environments, telephones that are regulated by the Canadian Radio-Television Commission (CRTC), as well as coin operated, coin-less, and courtesy telephones. For telephones regulated by the CRTC, all requirements of this section should apply except for signals and controls.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "3.2.1. Signage and Wayfinding Systems"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- [Reserved]

Key Considerations

Amount

Accessible public telephones should be provided as a percentage of the population do not own mobile phones.

Accessible Path of Travel

An interior accessible path of travel should be connected to public telephones to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Clear Floor Spaces

Clear floor spaces should be provided at accessible public telephones to create unobstructed, level floor areas that are sized to provide the space for persons using mobility devices to make calls safely and independently. The size of the clear floor space should be adjusted depending on the intended approach (front or side).

Design

Accessible public telephones should provide a shelf that has space and reach range dimensions to be usable by all individuals. Shelves provide a zone for persons to place their portable text telephone or teletypewriter (TTY). TTYs are machines or equipment that use text-based communication through the transmission of coded signals across the standard telephone network. TTYs can include, for example, devices known as telecommunication devices (TDD) for persons who are D/deaf, deafened, or hard of hearing, or computers with special modems.

Signals and Controls

Signals and controls should be provided at accessible public telephones that are designed to have accessible space and reach range dimensions. Controls should have operable portions or controls that can be used with a closed fist and do not require tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that persons with low vision can easily find and operate them.

Requirements

(1) Amount:

Accessible public telephones should provide:

(a) A minimum of one accessible unit where one or more is provided.

(2) Accessible Path of Travel:

Accessible public telephones should be provided on interior accessible paths of travel that:

(a) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(3) Clear Floor Spaces:

Accessible public telephones should provide clear floor space that:

(a) Is centred on the telephone; and

(b) Is 900 mm by 1500 mm minimum for front approach.

(4) Design:

Accessible public telephones, "Figure 3.2.6-A Public Telephones", should be designed to:

(a) Have a shelf that:

(i) Is level;

(ii) Is 500 mm wide and 350 mm deep minimum; and

(iii) Has, for each telephone provided, a clear space that has no obstruction within 250 mm above the surface; and

(b) Have the top surface of a section of the shelf or counter that:

(i) Is mounted between 775 mm to 875 mm AFF; and

(ii) Has knee and toe space for a front approach that is 740 mm minimum high AFF at the front edge, 500 mm minimum deep, and 900 mm minimum wide.

(5) Signage:

Accessible public telephones should provide signage that:

(a) Indicates TTY device location and accessible public telephones; and

(b) Meets the criteria in section "3.2.1 Signage and Wayfinding Systems".

(6) Signals and Controls:

Accessible public telephones should provide signals and controls that:

(a) Are mounted at 1050 mm maximum AFF;

(b) Have controls and operating mechanisms that:

(i) Include coin slots;

(ii) Have a TTY device;

(iii) Have an acoustic coupler; and

(a) Have operable portions or controls that meet the criteria in section “3.2.8. Controls and Operating Mechanisms”.

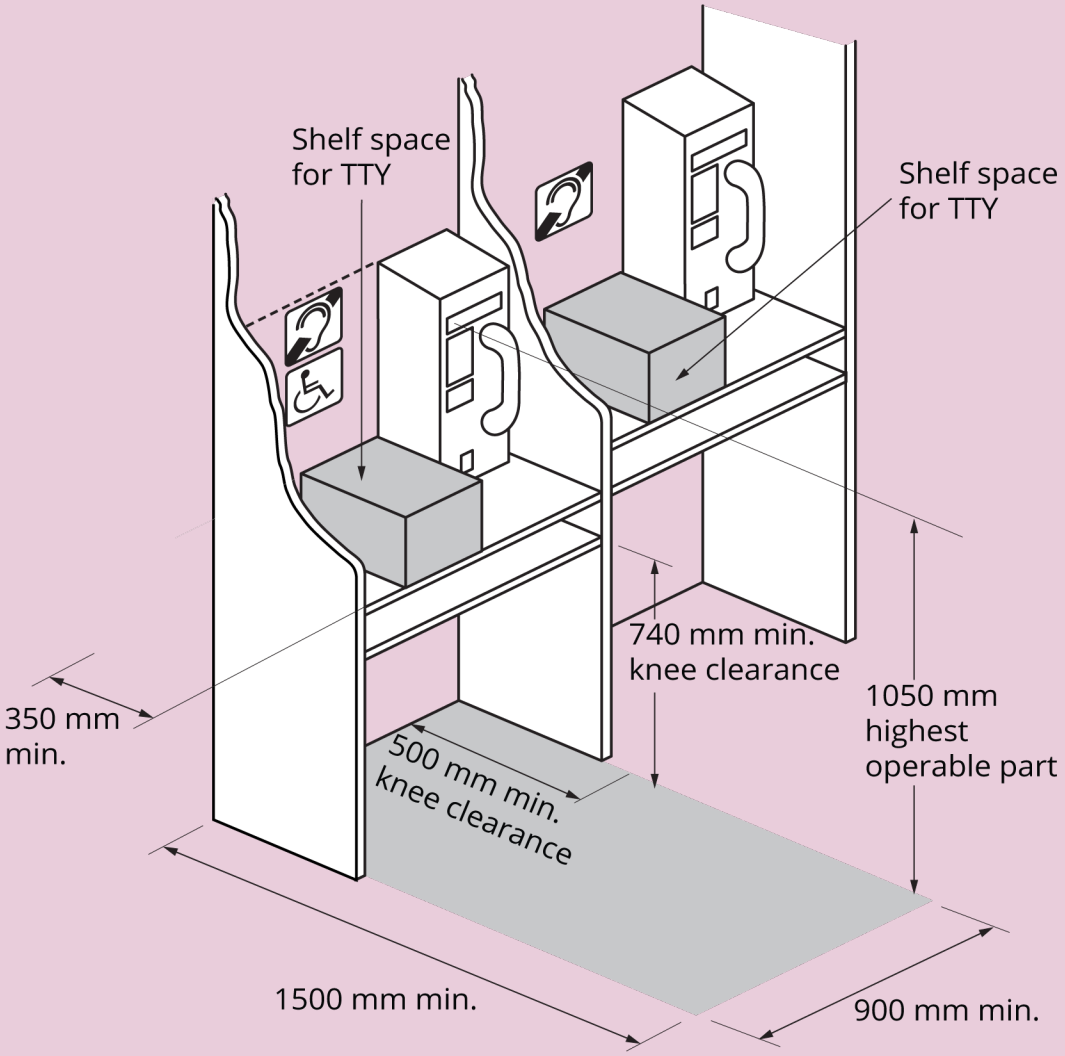


Figure 3.2.6-A Public Telephones

3.2.7. Card Access and Building Security Systems

Rationale

Card access and building security systems should be usable by all persons. The type and location of card access and building security systems should add to the comfort, protection, and safety of a building. The usability and accessibility of applicable building controls should be designed for persons with limited dexterity and without fine finger control.

Application

[Reserved]

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- Strategy and Standards for Office Space and Ergonomics - Building Services
- City of Toronto Corporate Security Access Control System Installation Standards

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to card access and building security systems to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Controls and Operating Mechanisms

Controls and operating mechanisms should be designed to be accessible in design and placement. They should be designed to have accessible space and reach ranges over obstructions. Controls should have operable portions or controls that can be used with a closed fist without requiring tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that persons with low

vision can easily find and operate them. Where proximity scanning devices, or proximity sensors, are provided to control access cards, they should be capable of detecting an access card when tapped or placed closely and without any physical contact.

Requirements

(1) Accessible Path of Travel:

Card access and building security systems should provide interior accessible paths of travel that:

(a) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Controls and Operating Mechanisms:

Card access and building security systems should provide controls and operating mechanisms that:

(a) Have access cards that:

(i) Have colour/brightness contrast, or a distinct colour; and

(ii) Have a distinct texture on one side or use tactile characters and braille to ensure easy orientation;

(b) Are installed on wall surfaces:

(i) Between 600 mm to 1500 mm beyond the door swing when the door opens toward the control, or from any inside corner, "Figure 3.2.7-A Card Access and Building Security Systems - Plan View"; and

(ii) Between 900 mm to 1050 mm AFF to the centreline of the control;

(c) Include a proximity scanning device or proximity sensors that control card access;

(d) Where a tactile keyboard, "Figure 3.2.7-B Card Access and Building Security Systems - Elevation View", or other encoded entry or exit system is provided, have buttons that:

(i) Are raised;

(ii) Where numeric, have a telephone-style keypad;

(iii) Are equipped with a raised dot on the five key; and

(iv) Have tactile characters for function keys; and

(e) Have accessible operable portions or controls that meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

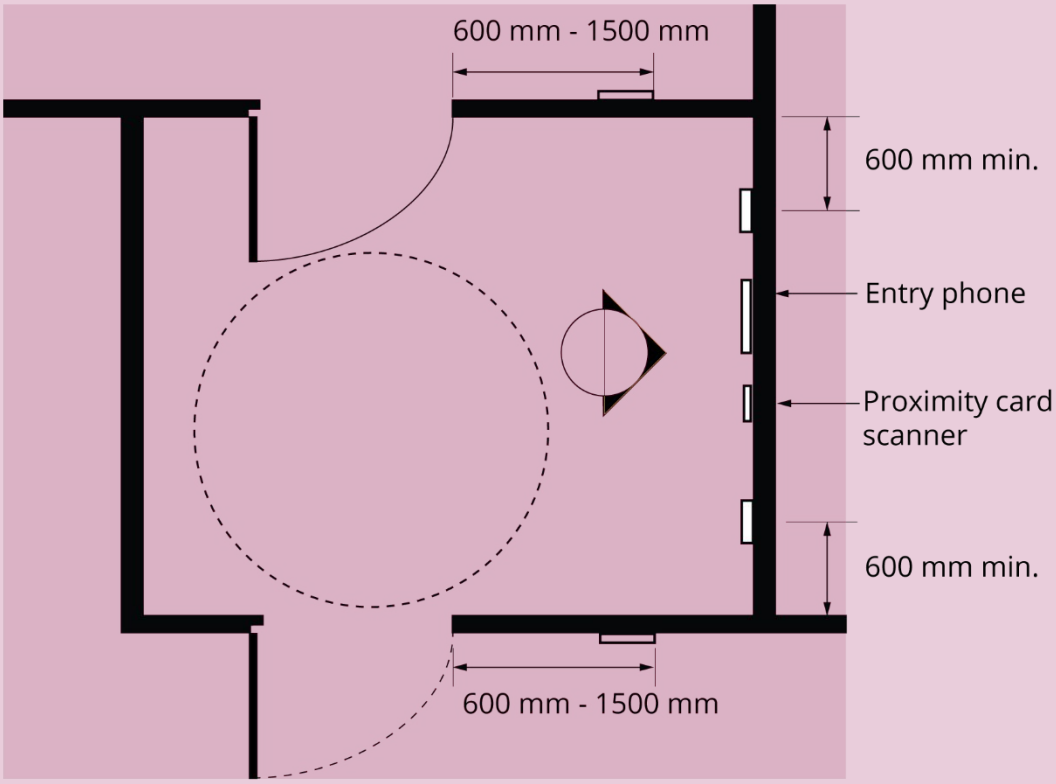


Figure 3.2.7-A Card Access and Building Security Systems - Plan View

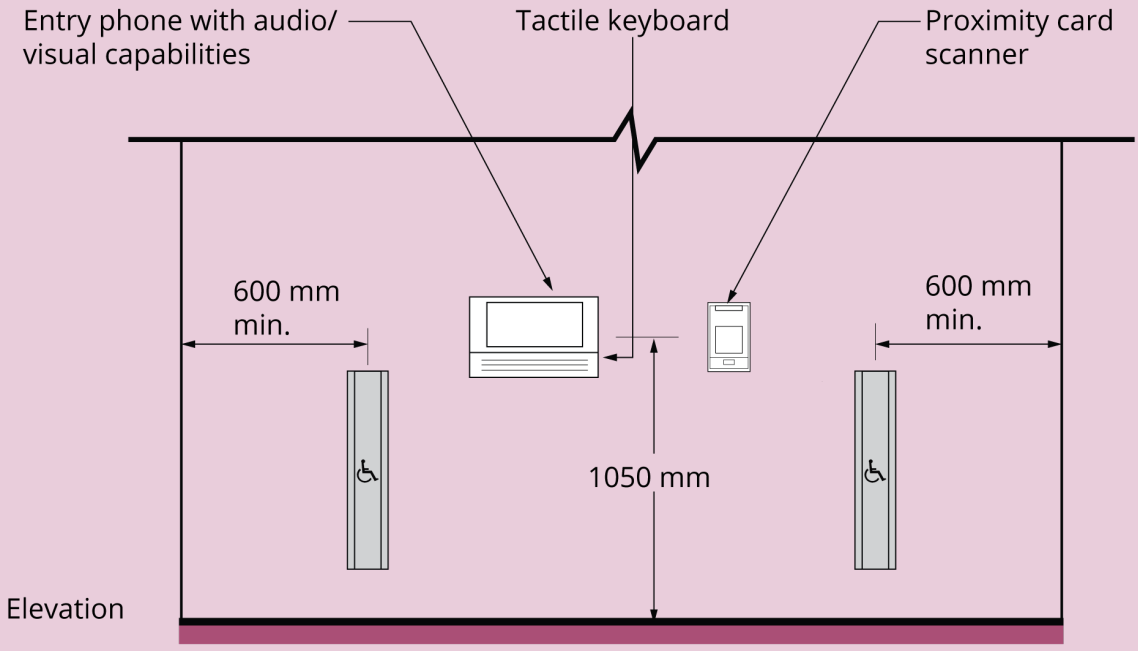


Figure 3.2.7-B Card Access and Building Security Systems - Elevation View

3.2.8. Controls and Operating Mechanisms

Rationale

Controls and operating mechanisms for the operation of building services or safety devices should be designed to be usable by all individuals, where intended to be operated by the end-user.

Application

The scope of this section applies to controls and operating mechanisms including millwork hardware, controls, electrical switches, and intercom switches intended to be operated by GBP students and employees, as well as electrical receptacles, thermostats, manual fire pull stations, power door operators, video conferencing systems, and all other controls.

Related Sections

- "2.1.1. Interior Accessible Paths of Travel"
- "2.2.4. Door Controls and Devices"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be connected to controls and operating mechanisms to allow for a continuous, unobstructed route providing interior access to elements and spaces.

Clear Floor Spaces

Clear floor spaces should be provided at controls and operating mechanisms to create unobstructed, level floor areas that are sized to provide the space for persons using mobility devices to use the mechanisms independently without creating an obstacle.

The size of the clear floor space should be adjusted depending on the intended approach (front or side).

Installation

Controls and operating mechanisms should be installed and mounted at a height that is operable by all individuals including persons using mobility devices and persons of short stature. The mounting height should be accessible and have accessible space and reach ranges over obstructions, where provided. Where a mounting height range is permitted, install controls at the lowest possible height.

Operable Portions or Controls

Operable portions of controls should be usable with a closed fist without requiring tight grasping, pinching, or twisting of the wrist. They should have colour/brightness contrast from adjacent surfaces so that persons with low vision can easily find and operate them.

Requirements

(1) Accessible Path of Travel:

Controls and operating mechanisms should be provided on interior accessible paths of travel that:

(a) Meet the criteria in section “2.1.1. Interior Accessible Paths of Travel”.

(2) Clear Floor Spaces:

Controls and operating mechanisms should provide clear floor spaces that:

(a) Are 900 mm by 1500 mm for front approach or 900 mm by 2200 mm for side approach.

(3) Installation:

Controls and operating mechanisms should be installed, “Figure 3.2.8-A Installation - Mounting Heights”, to:

(a) Where millwork hardware is provided, be between 860 mm to 1050 mm AFF;

(b) Where controls, electrical switches, and intercom switches intended to be operated by individuals are provided, be mounted between 900 mm to 1050 mm AFF;

(c) Where electrical receptacles are provided:

(i) Be mounted between 460 mm to 1050 mm AFF; and

(ii) Be located on the front edge of work surfaces or on a side wall 500 mm maximum from the front edge of the accessible portion of work surfaces;

(d) Where thermostats and manual fire pull stations are provided, be mounted at 1200 mm AFF;

(e) Where power door operators are provided, meet the criteria in section "2.2.3. Door Controls and Devices";

(f) Where video conferencing systems are provided, meet the criteria in this section;

(g) Where all other controls are provided, be mounted between 900 mm to 1050 mm AFF; and

(h) Where an obstruction is provided in front of a control, have accessible space and reach ranges, "Figure 3.2.8-B Installation - Reach Range over an Obstruction", over the obstruction that:

(i) Are 860 mm - 1050 mm high; and

(ii) Are 500 mm maximum deep.

(4) Operable Portions or Controls:

Controls and operating mechanisms should provide operable portions or controls that:

(a) Have colour/brightness contrast from adjacent surfaces;

(b) Are operable:

(i) Using one hand, without requiring tight grasping, pinching with fingers, or twisting of the wrist, and with a force of 22.2 N maximum, in the case of a manual pull station; and

(ii) Using a closed fist and with a force of 22.2 N in the case of all other controls;

(c) Where possible, have sensory feedback such as audible and visual signals and tactile markings such as power symbols, up/down arrow, etc.;

(d) Where instruction information is provided, such as at parking machines or exercise equipment, detailing the use of key operable portions or controls:

(i) Are clearly visible and in large print text;

(ii) Have colour/brightness contrast from adjacent surfaces;

(iii) Are mounted in close proximity to key operable portions or controls; and

(iv) Have signage that meets the criteria in section "3.2.1. Signage and Wayfinding Systems".

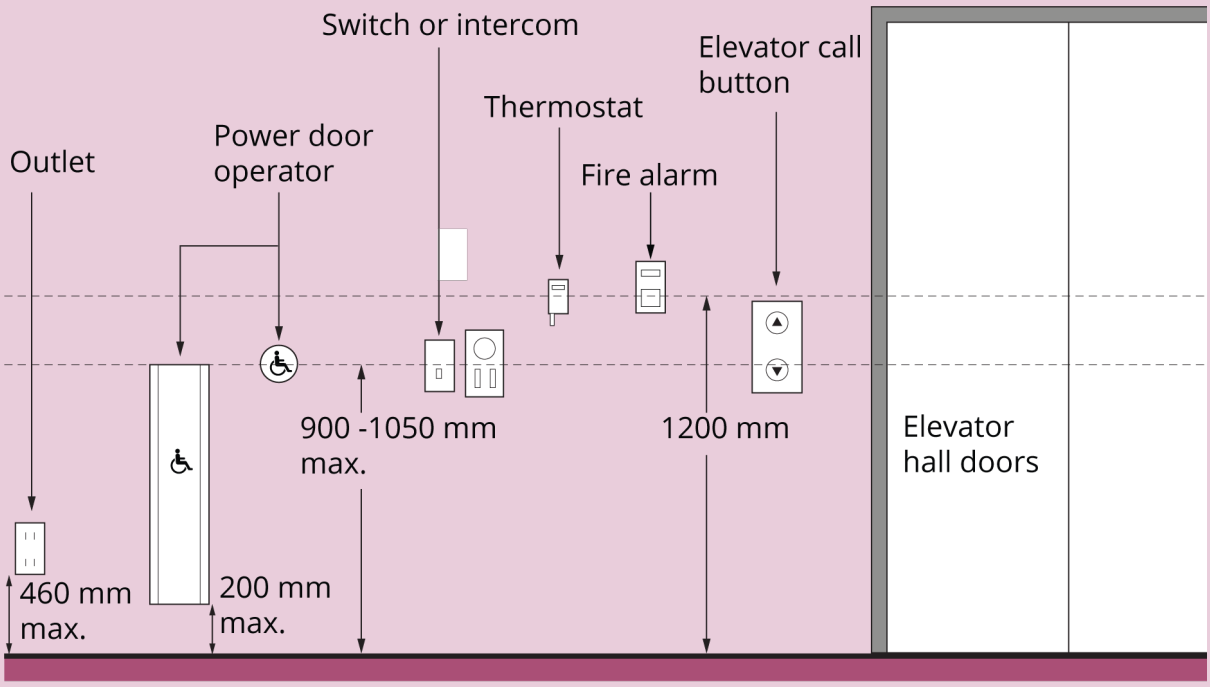


Figure 3.2.8-A Installation - Mounting Heights

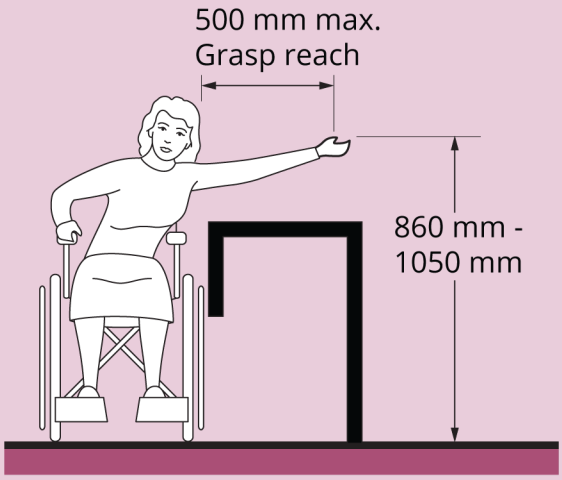


Figure 3.2.8-B Installation - Reach Range over an Obstruction

3.3. Building Systems

Section Summary

This section reviews the accessible design requirements for signals and controls intended to be used by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Signals and controls, such as controls and operating mechanisms, should provide sensory feedback including audible and visual signals, as well as tactile elements. These secondary elements provide alternative means of communication to indicate that the signal or control has been activated. Lighting and acoustic design become critical cues to persons who have low or no vision, while visual feedback is a critical cue to individuals who are D/deaf, deafened, or hard of hearing. Elements of personal comfort and safety should also be considered for all individuals when designing interior systems.

Contents in Section

3.3.1. Emergency Power

3.3.2. Heating, Ventilation and Air Conditioning (HVAC)

3.3.3. Fire and Life Safety

3.3.4. Audible and Visible Signals

3.3.1. Emergency Power

Rationale

Emergency power, or continual power systems, provide an independent source of electrical power that supports important systems on loss of primary power supply. The intent of emergency power is to maintain power or provide back-up electric power supply for outlets, charging devices, medical equipment, and two-way communication systems, and continued refrigeration of medication, etc. in emergency situations. An outlet on emergency power is required to provide power for persons with disabilities in commercial, institutional, and overnight accommodations who need constant support from equipment such as a ventilator or oxygen concentrator generator.

Application

[Reserved]

Related Sections

- "2.1.5. Elevators"
- "2.3.9. Universal Washrooms"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- Strategy and Standards for Office Space and Ergonomics - Building Services

Key Considerations

Design

Emergency power should be designed to supply a building with the necessary power to function safely. Lighting, elevators, and other life safety components, such as alarms and security systems, should all function. Where buildings are designed to facilitate overnight accommodations, emergency power should be provided to the sleeping area so that, in case of an emergency, a person using a breathing apparatus while they sleep will not be at risk of losing power to their device. Controls and operating mechanisms should have operating components and/or systems during a power outage.

Requirements

(1) Design:

Emergency power, "Figure 3.3.1-A Emergency Power", should be designed to:

(a) Provide sufficient electrical power to ensure:

(i) Minimum emergency lighting levels (lux) are provided at required locations;

(ii) The use of designated fire-fighters elevators that meet the criteria in section "2.1.5. Elevators";

(iii) The use of emergency call systems that meet the criteria in section "2.3.9. Universal Washrooms"; and

(iv) The use of two-way communication systems, lighting, and ventilation provided at areas of rescue assistance that meets the criteria in section "3.2.2. Two-Way Communication Systems";

(b) Where provided at a building that accommodates overnight occupancy, such as at a student residence, have duplex electrical receptacles that;

(i) Have at least one, in every accessible unit and in a common space on each floor; and

(ii) Are identified with a legible sign having the words EMERGENCY POWER OUTLET permanently mounted on the wall beside the receptacle;

(c) Where provided, have controls and operating mechanisms that meet the criteria in section "3.2.8. Controls and Operating Mechanisms"; and

(d) Be located:

(i) In all primary areas of the facility;

(ii) Along all accessible paths of travel to exits;

(iii) At designated safe holding areas;

(iv) At first aid rooms; and

(v) In occupancies that facilitate overnight accommodations with designated accessible rooms.

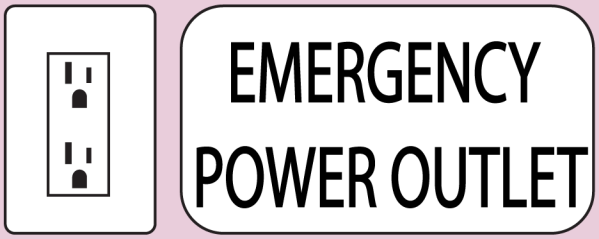


Figure 3.3.1-A Emergency Power

3.3.2. Heating, Ventilation and Air Conditioning (HVAC)

Rationale

Heating, ventilation, and air conditioning (HVAC) should be designed to be comfortable for all users. Consideration should be given to individuals who may be more sensitive to fluctuations in temperature, air quality, or sensory experiences; for example, due to compromised circulatory systems, allergies, asthma, compromised immune systems, or sensory-processing differences.

Application

[Reserved]

Related Sections

- "2.4.10. Sensory-Controlled Spaces"
- "3.2.8. Controls and Operating Mechanisms"

Related References

- Section 10.1 Special Ventilation: Smudging (2019), Public Services and Procurement Canada
- Design Guideline for Smudging Rooms in Alberta Infrastructure Facilities (2023), Technical Services and Procurement Branch, Infrastructure

Key Considerations

Design

HVAC should be designed to have indirect air flow that is not directed towards fixed seating and/or workstations or, in the case of interior specialized facilities, towards a person lying in a bed. Fan mounts should be acoustically isolated to minimize noise from air handling systems to reduce ambient noise levels. Adequate ventilation strategies (natural and mechanical) should be implemented to provide fresh air and remove dust, pollen, mold, bacteria, and airborne particles.

Controls and Operating Mechanisms

Controls and operating mechanisms should be provided for HVAC to include settings for temperature and humidity. Many individuals, especially seniors and/or persons using mobility devices, are predisposed to have difficulty sensing temperature differences because of poor circulation. When the ambient temperature is too high or too low, persons with poor circulation are susceptible to dehydration or hypothermia.

Special Ventilation

In spaces and rooms that are used for the practice of smudging, supplemental exhaust should increase the normal air changes supplied by the existing system.

Neurodiversity and Neurodivergence

Creating accessible and inclusive environments also should consider the spectrum and variation of human brain functioning. For persons who are neurodivergent, it can be common to experience sensory-processing differences and be more susceptible to sensory overloads. Designing sensory-controlled spaces can contribute to a person's ability to better manage their emotions and responses to day-to-day activities or times of sensory overload and over stimulation.

Requirements

(1) Design:

HVAC should be designed to:

(a) Have indirect air flow; and

(b) Have fan mounts that:

(i) Are acoustically isolated; and

(ii) Reduce ambient noise levels.

(c) Include adequate ventilation strategies (natural and mechanical) that provide fresh air and remove dust, pollen, mold, bacteria, and airborne particles.

(2) Controls and Operating Mechanisms:

HVAC should provide controls and operating mechanisms that include:

(a) Settings for temperature that are between 21°c to 26°c;

(b) Settings for humidity that are between 30% to 40%, rounding up to the nearest whole number; and

(c) Meet the criteria in section "3.2.8. Controls and Operating Mechanisms".

(3) Special Ventilation:

HVAC provided for smudging should provide:

(a) A dedicated exhaust and negative pressure relationship to the adjacent spaces to capture, contain, and remove smoke;

(b) Supplemental exhaust to increase regular air exchange by 2-4 air changes per hour. Air changes should be minimum 12 per hour;

(c) A control damper for isolating the return air from the smudging room during the burning of sacred plants during the ceremony;

(d) A manually operated switch with timer to activate the exhaust fan and close the control damper on the return side during the time of the ceremony. Controls should meet the in section "3.2.8. Controls and Operating Mechanisms"; and

(e) Where the fire alarm system could be activated by smudging activities, consider providing by-pass switch(es) at the main fire alarm control panel for the affected devices/areas and having an acceptable alternate procedure in place that is coordinated with GBP facilities and operations. Activating by-pass switch(es) shall trigger a trouble on the fire alarm system until the by-pass is de-activated.

(4) Neurodiversity and Neurodivergence:

HVAC elements should be designed for neurodivergence and:

(a) Meet the requirements within section "2.4.10 Sensory-Controlled Spaces.

3.3.3. Fire and Life Safety

Rationale

Fire and life safety within a building should include systems and controls for notification and/or assistance, signage and wayfinding systems, and accessible paths of travel for all individuals. They should help to maintain fire protection and emergency preparedness for persons using mobility devices, persons with limited mobility, and persons with visual, hearing, speech and/or cognitive disabilities.

Application

[Reserved]

Related Sections

- "3.3.4. Audible and Visible Signals "

Related References

- [Reserved]

Key Considerations

Evacuation Plans

Evacuation plans should be provided as a part of fire and life safety. They should provide building evacuation information that is appropriate and specific to the individuals of the facility. The location of assistive devices or equipment for evacuation, such as evacuation chairs, should be identified.

Visible and Audible Signals

Visible and audible signals should include a two-stage fire alarm system that is linked directly to a fire hall to ensure a timely fire department response. Each stage of the alarm should have distinct sounds/tones so that they are not confused for other building service sounds. Alternatively, a direct connection to a fire alarm monitor or commercial security company should be provided. This will ensure that there will be a safe and efficient flow of individuals exiting the building. The audible and visual signals should also allow for strategies to provide the early warning of emergency situations,

which are desirable for persons who are D/deaf, deafened, or hard of hearing. Audible signals should include public address (PA) system announcements to notify individuals of a fire or other emergency and provide individuals with unassisted evacuation strategies and/or directions to access areas of rescue assistance.

Requirements

(1) Evacuation Plans:

Fire and life safety should provide evacuation plans that:

(a) Include horizontal exiting strategies, such as:

  (i) Holding areas; and

  (ii) Evacuation areas;

(b) Identify areas of rescue assistance that:

  (i) Contain the words “Areas of Rescue Assistance”; and

  (ii) Meet the criteria in section ”2.4.13. Areas of Rescue Assistance”;

(c) Include a firefighter’s elevator;

(d) Include the location of assistive devices or equipment for evacuation, such as evacuation chairs; and

(e) Include the location of emergency communication devices, such as public telephones, intercoms, and/or emergency call systems.

(2) Audible and Visible Signals:

Fire and life safety should provide audible and visible signals that:

(a) Have a visual signaling component of a fire alarm and any announcements made on overhead public announcement systems.

(b) Meet the criteria in section “2.4.13. Areas of Rescue Assistance”; and

(c) Meet the criteria in section “3.3.4. Audible and Visible Signals ”.

3.3.4. Audible and Visible Signals

Rationale

Audible and visible signals should be provided in all buildings to allow for adequate warning for all persons, especially those who are older, with disabilities, or who require more time for safe evacuation.

Application

The scope of this section applies to building systems related to emergency notification, fire and life safety, and security duress.

Related Sections

- "3.3.3. Fire and Life Safety"

Related References

- 18.5.3 (Light, Colour and Pulse Characteristics) of NFPA 72, "National Fire Alarm and Signaling Code"

Key Considerations

Location

Audible and visible signals should be located to only have one visible at a time unless they can be synchronized. Some persons with epilepsy are at risk of developing a seizure from seeing flashing lights created by unsynchronized and scattered visual signals that create a "strobe-light" effect.

Design

Audible and visible signals should be designed to include a two-stage fire alarm system that is linked directly to a fire hall to ensure a timely fire department response. Each stage of the alarm should have distinct sounds/tones so that they are not confused for other building service sounds. Alternatively, a direct connection to a fire alarm monitor or commercial security company should be provided. This will ensure that there will be a safe and efficient flow of individuals exiting the building.

The audible and visual signals should also allow for strategies to provide the early warning of emergency situations which are desirable for persons who are D/deaf, deafened, or hard of hearing. Any verbal announcements should also be provided in visual text. Audible and visible signals with adjustable strobe frequencies are recommended for persons with epilepsy who are at risk of developing seizures.

Requirements

(1) Location:

Audible and visible signals should be located at:

(a) Group A (assembly spaces) occupancies;

(b) Group B (care and treatment, detention facilities) occupancies;

(c) Group C (residential) occupancies:

  (i) In the main living space;

  (ii) In the main bedroom; and

  (iii) In the main bathroom.

(d) Group D (business and personal services offices)

  (i) In private offices; and

  (ii) Meeting rooms;

(e) Group E (mercantile) occupancies;

(f) A building or a portion of a building intended for use primarily by persons who are D/deaf, deafened, or hard of hearing;

(g) Public and private corridors; and

(h) Public and private washrooms.

(2) Design:

Audible and visible signals should be designed, “Figure 3.3.4-A Audible and Visible Signals”, to:

(a) Have distinct sounds/tones for each stage of the two-stage system;

(b) Have synchronized flashing rates;

(c) Have only one signal visible at a time, even when the space is a high-use area;

(d) Have a two-stage fire alarm system that is linked directly to a fire hall, fire alarm monitor, or commercial security company;

(e) Include a portable and vibrating signal;

(f) Have strobe or flashing lights at workstations;

(g) Have announcements and visual text displays that:

  (i) Notify individuals of a fire or other emergency;

  (ii) Provide individuals with unassisted evacuation strategies;

  (iii) Provide direction to access areas of rescue assistance; and

  (iv) Are collocated with visual fire alarms where provided;

(h) Have adjustable controls for:

  (i) Sound or volume levels; and

  (ii) Strobe or flashing lights; and

(i) Meet the requirements in 18.5.3 (Light, Colour and Pulse Characteristics) of NFPA 72, “National Fire Alarm and Signaling Code”.

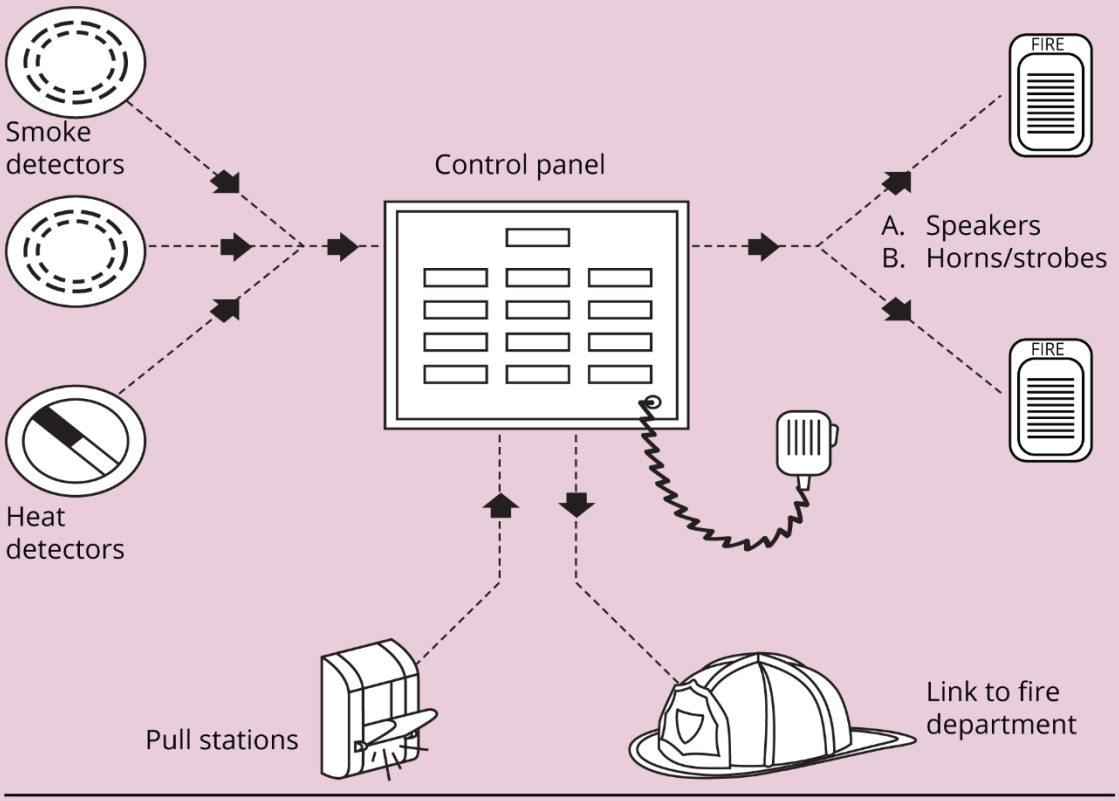


Figure 3.3.4-A Audible and Visible Signals

4. Exterior and Interior Maintenance

4.1. Exterior Maintenance

Section Summary

This section reviews the accessible design requirements for exterior maintenance of spaces and features intended for use by George Brown Polytechnic (GBP) students, employees, and other members of the GBP community. Decisions made by facility managers regarding spatial use, security, or maintenance can impact the accessibility and usability of a space. The intent of creating an accessible environment during the design stage could be compromised if exterior features and clearances are not maintained. During the process of completing maintenance, for example when an accessible area needs to be closed for non-emergency or planned maintenance, the alternative should also provide accessibility.

Contents in Section

4.1.1. General Exterior Maintenance

4.1.2. Construction Site Protection

4.1.3. Waste Handling

4.1.1. General Exterior Maintenance

Rationale

General exterior maintenance should sustain the level of accessibility as per the related sections of the GBP Facility Accessibility Design Standards (FADS). To ensure that accessibility features and elements remain in place, maintenance manuals and checklists should be developed to include information regarding the design strategies that were considered when developing the accessibility features of the site and the implications for ongoing maintenance of the site. General exterior maintenance plans should address inspections, testing and preventative maintenance, waste handling (e.g. garbage, leaves, and branches), and construction site protection (e.g. hoarding, signage, and alternative paths of travel).

Application

[Reserved]

Related Sections

- “1.1. Exterior Paths of Travel”
- “1.3. Parking, Vehicular Arrival and Departure Areas”
- “2.2.1. Entrances”
- "3.1.2. Exterior Lighting"
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Equipment

Equipment should be part of an exterior maintenance plan. Equipment including door controls and devices, such as power door operators, that are used to integrate

accessible elements or enhance their usability should receive quick repair when out of service.

Signage

Where general exterior maintenance is provided, signage should notify when equipment or an exterior accessible path of travel is out of service and identify the duration of the interruption and an alternative route.

Exterior Lighting

Exterior lighting should receive general exterior maintenance. Artificial lighting, such as bulbs located at exterior accessible paths of travel, should be maintained on a regular schedule using bulbs of the same wattage for which the lighting was designed for.

Obstructions, Protrusions, and Overhead Objects

Where provided, obstructions, protrusions, and overhead objects should receive general exterior maintenance. They should be checked regularly to reduce the risk of potential hazards. Overhead clearance and cane detectability should be provided.

Snow Removal

Snow removal should be provided as a part of general exterior maintenance. Snow removal is important for controlling snow accumulation and melting, which can be problematic for persons who rely on the use of an exterior accessible path of travel, parking, vehicular arrival and departure area, entrance, or exit to access a site or facility. Ground surfaces should be maintained to be free of snow and ice. Snow accumulation should not impede an exterior accessible path of travel. It should be removed and relocated.

Signage should be provided to identify exterior accessible paths of travel, such as trails, pathways, boardwalks and beach access routes, or multi-use trails that do not receive seasonal (winter) maintenance. Radiant heating should be provided for snow removal. It should be located at entrances that have additional features such as canopies. Radiant heating should be designed to automatically clear ice and snow where timely maintenance and snow clearing may be problematic.

Requirements

(1) Equipment:

General exterior maintenance should include equipment that:

(a) Is maintained on a regular schedule; and

(b) Receives quick repair when out of service.

(2) Signage:

General exterior maintenance should include signage that:

(a) Notifies when equipment or an exterior accessible path of travel is out of service;

(b) Identifies the duration of the interruption and an alternative route;

(c) Is located at exterior paths of travel to identify when paths of travel do not receive seasonal (winter) maintenance; and

(d) Meet the criteria in section "3.2.1 Signage and Wayfinding Systems".

(3) Exterior Lighting:

General exterior maintenance should include exterior lighting that:

(a) Is maintained on a regular schedule;

(b) Uses bulbs of the same wattage for which the lighting was designed for; and

(c) Meets the criteria in section "3.1.2. Exterior Lighting".

(4) Obstructions, Protrusions, and Overhead Objects:

Where required, general exterior maintenance should include obstructions, protrusions, and overhead objects that:

(a) Have overhead clearance;

(b) Have cane detectability; and

(c) Meet the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

(5) Snow Removal:

General exterior maintenance should provide snow removal that:

(a) Includes the removal of snow accumulation and melting, "Figure 4.1.1-A Snow Removal", that:

(i) Uses designated snow accumulation areas that are clear from exterior accessible paths of travel;

(ii) Is removed completely after each snowfall;

(iii) Has consistent standards and coordination between divisions regardless of jurisdiction; and

(iv) Has sufficient catch basins, drainage systems, and run-offs to ensure rapid removal of water from melting snow or ice from all pedestrian routes;

(b) Is provided:

(i) At all exterior paths of travel that meet the criteria in section “1.1. Exterior Paths of Travel”;

(ii) At parking and vehicular arrival and departure areas that meet the criteria in section “1.3. Parking, Vehicular Arrival and Departure Areas”; and

(iii) At entrances that meet the criteria in section “2.2.1. Entrances”;

(c) Has signage that:

(i) Identifies exterior paths of travel that do not receive seasonal (winter) maintenance; and

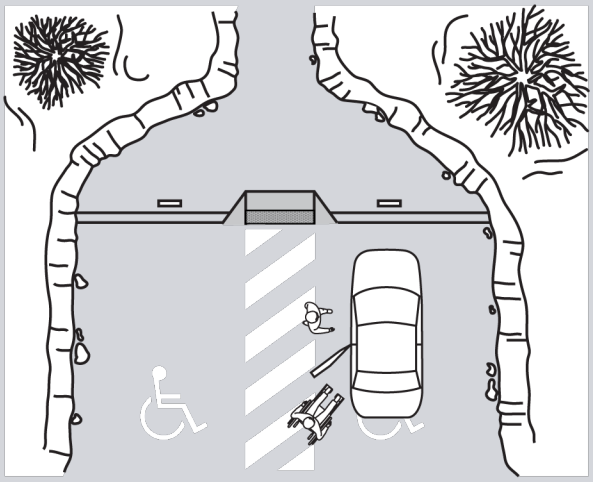
(ii) Meets the criteria in section "3.2.1. Signage and Wayfinding Systems"; and

(d) Has radiant heating that:

(i) Is located at entrances with or without canopies;

(ii) Is designed to automatically clear ice and snow where timely maintenance and snow clearing may be problematic; and

(iii) Is maintained and monitored to ensure that run-off from melted snow does not accumulate in one condensed area and create patches of ice at an exterior accessible path of travel that meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".



Snow clearing from accessible parking spaces and the accessible route is essential

Figure 4.1.1-A Snow Removal

4.1.2. Construction Site Protection

Rationale

Construction site protection should be designed to delineate an exterior accessible path of travel from any construction site or vehicular roadway to reduce the risk of injuries and/or accidents and to ensure the safety for pedestrians and site workers travelling around the perimeter of the site.

Application

The scope of this section applies to all construction sites and associated equipment including those that are used for a short period of time.

Related Sections

- "1.1.11. Obstructions, Protrusions and Overhead Objects”
- "3.2.1. Signage and Wayfinding Systems"

Related References

- [Reserved]

Key Considerations

Hoarding

Hoarding, including barriers, gates, viewing windows, and/or fencing, should be provided for construction site protection. Obstructions, protrusions, and overhead objects including both temporary and permanent hoarding should not impede an exterior accessible path of travel and should be located to reduce the risk of potential hazards. Overhead clearance and cane detectability should be provided below any framing or bracing located above an exterior accessible path of travel, including at short-term repair sites such as sidewalk repairs or manhole access covers.

Signage

Signage should be provided for construction site protection to alert persons of any upcoming construction. At locations where an alternate exterior accessible path of

travel is required, signage should be provided in advance to prevent a person from having to reverse their direction.

Maintenance

Maintenance should be provided for construction site protection. Where material and/or equipment, including pylons, are provided, they should not impede an exterior accessible path of travel and should be located to reduce the risk of hazards.

Requirements

(1) Hoarding:

Construction site protection should provide hoarding that:

(a) Is temporary or permanent;

(b) Delineates an exterior accessible path of travel from any:

(i) Construction site; or

(ii) Vehicular roadway;

(c) Surrounds the perimeter of the construction site;

(d) Has highly visible and cane-detectable barriers, "Figure 4.1.2-A Highly Visible and Cane Detectable Barrier";

(e) Is stable and secure;

(f) Where provided, has a minimum of one view port that is located 1050 mm AFF on centre;

(g) Maintains clear sightlines to traffic lights and signals; and

(h) Provides overhead clearance, "Figure 4.1.2-B Overhead Framing at a Construction Site", and cane detectability that meets the criteria in section "1.1.11. Obstructions, Protrusions and Overhead Objects".

(2) Signage:

Construction site protection should provide signage that:

(a) Is able to withstand all seasonal weather conditions; and

(b) Meets the criteria in section “3.2.1 Signage and Wayfinding Systems".

(3) Maintenance:

Construction site protection should provide maintenance that:

(a) Ensures that material and/or equipment:

(i) Does not impede an exterior accessible path of travel; and

(ii) Is located to reduce the risk of hazards.

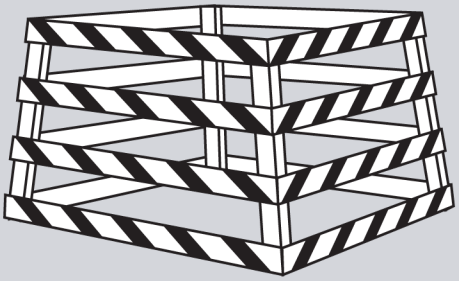


Figure 4.1.2-A Highly Visible and Cane Detectable Barrier

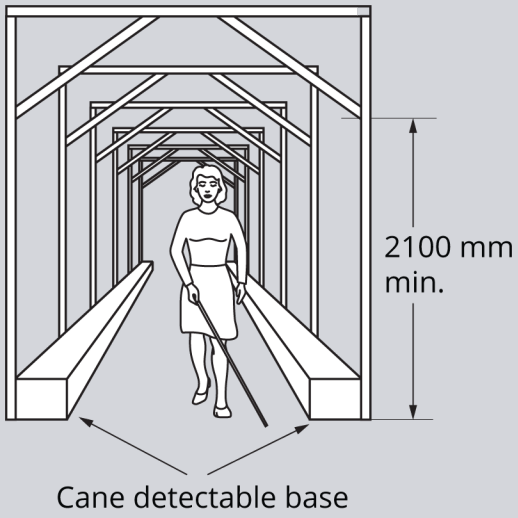


Figure 4.1.2-B Overhead Framing at a Construction Site

4.1.3. Waste Handling

Rationale

Waste handling is a crucial component of exterior maintenance. The overflow of waste or recycling items can create obstructions or increase the risk of tripping along an exterior accessible path of travel. General exterior maintenance should consider the frequency of waste removal and the size of waste receptacles to reduce the risk of waste overflow.

Application

[Reserved]

Related Sections

- "1.1.1. Exterior Accessible Paths of Travel"
- "1.5.2. Waste Receptacles and Recycling Bins"

Related References

- City of Toronto Requirements for Garbage, Recycling and Organics Collection Services for New Developments and Redevelopments

Key Considerations

Accessible Path of Travel

An exterior accessible path of travel should be provided for waste handling to allow for a continuous, unobstructed route providing exterior access to elements and spaces.

Design

Waste handling should be designed to include waste receptacles, recycling bins, and large industrial bins or containers.

Requirements

(1) Accessible Path of Travel:

Waste handling should provide an exterior accessible path of travel that:

(a) Meets the criteria in section "1.1.1. Exterior Accessible Paths of Travel".

(2) Design:

Waste handling should be designed to include:

(a) Waste receptacles and recycling bins that meet the criteria in section "1.5.2. Waste Receptacles and Recycling Bins"; and

(b) Large industrial bins or containers that are located outside of the accessible path of travel.

4.2. Interior Maintenance

Section Summary

This section reviews the accessible design requirements for interior maintenance intended for use by George Brown Polytechnic (GBP) students and employees. Decisions made by facility managers regarding spatial use, security, or maintenance can impact the accessibility and usability of a space. The intent of creating a fully accessible environment during the design stage could be compromised if interior spaces and clearances are not maintained. During the process of completing maintenance, for example when an accessible area needs to be closed for non-emergency or planned maintenance, the alternative should also provide accessibility.

Contents in Section

4.2.1. General Interior Maintenance

4.2.1. General Interior Maintenance

Rationale

General interior maintenance should sustain the level of accessibility as per the related sections of the GBP Facility Accessibility Design Standards (FADS). It should ensure that accessibility features and elements remain in place and that maintenance manuals and checklists include information regarding the design strategies that were considered when developing the accessibility features and the implications for ongoing maintenance of the facility. In addition, maintenance manuals should be developed to include information regarding the specific needs and barriers faced by persons with disabilities. Training for maintenance staff should address the potential barriers in this section.

Application

[Reserved]

Related Sections

- “2.1.1. Interior Accessible Paths of Travel”
- “2.7. Interior Materials and Finishes”
- “2.7.2. Acoustics”
- “3.1.1. Interior Lighting”
- “3.2.1. Signage and Wayfinding Systems”

Related References

- [Reserved]

Key Considerations

Accessible Path of Travel

An interior accessible path of travel should be a part of the interior maintenance plan to allow for a continuous, unobstructed route providing interior access to elements and spaces. Interior paths of travel should be designed with intentional clear floor spaces

and clear widths. Regardless of the occupancy or use of a building, all interior accessible path of travel should remain clear and not become a storage space for various office equipment, furniture, or other elements.

Temporary Signage

Temporary signage should be a part of the interior maintenance plan. Signage should be designed to be usable by all persons including persons with low or no vision. General interior maintenance plans should integrate strategies to consistently design and locate temporary signage to ensure they are legible and relevant.

Interior Lighting

Interior lighting should be a part of the interior maintenance plan. Burnt out bulbs should be replaced to prevent uneven lighting levels or dark areas. Maintaining an evenly illuminated space increases the visual field and is particularly important for persons who are D/deaf, deafened, or hard of hearing and who use visual forms of communication such as American Sign Language. The prevalence of energy-efficient bulbs reduces the cost of providing even and adequate lighting levels. The effects of high lighting levels that may create a barrier for some individuals should be considered.

Interior Materials and Finishes

Interior materials and finishes, such as wall and floor surfaces, should be a part of the interior maintenance plan. Maintenance staff may decide to wax or seal a typically non-glare floor surface (e.g. matte ceramic tile) using a high gloss polish finish. High gloss polish finishes increase the level of glare from surrounding light sources and create visual distortion for all persons particularly for those with low vision. The installation of carpeted surfaces should be used in high-use areas. Where provided, interior materials and finishes should be fragrance-free to accommodate persons who have sensitivities to fragrances.

Carpeted floor surfaces such as mats, runners, and/or area rugs should receive general interior maintenance. They are often added in main circulation areas during seasonal (winter) months. Haphazard placement of carpets can create visual confusion and disorientation for persons with low vision or persons with cognitive disabilities. In addition, carpeted surfaces can become rolled and increase the risk of tripping or inhibit the movement of persons using mobility devices. Carpeted surfaces should be carefully located and secured when used.

Acoustics

Acoustics, including sound proofing, should be a part of the interior maintenance plan and designed for the benefit of all individuals, especially persons with hearing impairments. A balance between soft and hard surface materials and finishes will help to absorb unnecessary sound. Where solid wall surfaces are provided, they should be insulated for maximum sound proofing. If fully glass panels are provided, two-ply glazing should be installed for sound proofing.

Clear Floor Spaces

Clear floor spaces are required in various locations throughout this standard. Typical locations for clear floor spaces include transfer space adjacent to the water closet, access to adult change tables, knee clearance at sinks or service counters, and clear floor space in front of power door operators or building controls such as light switches.

Requirements

(1) Accessible Path of Travel:

General interior maintenance should include interior accessible paths of travel that:

(a) Maintain the required clear floor space in public spaces (e.g. ensuring that floor space is not used for storage purposes); and

(b) Meet the criteria in section "2.1.1. Interior Accessible Paths of Travel".

(2) Temporary Signage:

Interior maintenance should be provided with temporary signage that:

(a) Identifies where the accessible path of travel, feature, or facility is located when there is a service disruption or temporary closure;

(b) Identifies when critical accessible elements (e.g. power door operators, elevators) are inoperable and the location of accessible alternatives;

(c) Is removed when no longer relevant;

(d) Has alternate formats of the information when tactile characters cannot be provided; and

(e) Meets the criteria in section "3.2.1 Signage and Wayfinding Systems".

(3) Interior Lighting:

Interior maintenance should be provided for interior lighting that:

(a) Meets the criteria in section "3.1.1. Interior Lighting".

(4) Interior Materials and Finishes:

Interior maintenance should be provided for interior materials and finishes that:

(a) Meet the criteria in section "2.7 Interior Materials and Finishes";

(b) Meet the air quality and thermal comfort requirements in section "3.3.2. Heating, Ventilation and Air Conditioning (HVAC)".

(5) Acoustics:

Interior maintenance should be provided for acoustics that:

(a) Meet the criteria in section "2.7.2. Acoustics".

(6) Clear Floor Spaces:

Interior maintenance should include:

(a) Operational plans that remove any obstructions or items placed in areas that require clear floor space.

5. Appendices

5.1. Appendix A–Application, Exceptions and Approvals

Section Summary

This section provides applications, exemptions and approvals to achieve accessibility in new and existing buildings. This section also highlights the role of the GBP Use of Space Authority, and the process required to ensure spaces are designed to the greatest level of accessibility possible as outlined in FADS. Where it is technically infeasible to implement FADS, it is important to document the efforts that were made to ensure accessibility and the barriers or roadblocks that prevented a FADS requirement from being implemented.

If a building is designated as a historical and heritage property and the accessibility requirement should impact the heritage value, an alternative solution for accessibility should be pursued.

Contents in Section

5.1.1Application Implementation

5.1.2 Accessibility Design Review and Approval Process

5.1.3 Renovation Compliance Alternatives

5.1.1. Application Implementation

Application

The intent of this section is to provide clarity on when the GBP FADS is used in both an exterior and interior context, and its application to owned and leased properties. The last section identifies exceptions to how FADS is implemented at GBP.

Facilities

Types of facilities where FADS is to be implemented include:

New Facilities (Leased or GBP Owned)
1) Newly Constructed Buildings
2) Newly Leased Buildings
3) Newly Constructed Temporary Buildings

Existing Facilities (Leased or GBP Owned)
4) Existing Facility Renovation, Retrofit or Alteration
   a. Category A–Extensive Renovation
   b. Category B–Basic (Non-Extensive) Renovation
   c. Category C–Alteration / Retrofit / Replacement
5) Historical or Heritage Building Renovation, Retrofit or Alterations
6) Examples of Scopes of Work

Exterior Elements
7) Trails, Parks, and Public Squares or Amenities
8) Urban and Natural Paths of Travel or Pedestrian Clearways
9) All Other Exterior Elements (New or Existing)

New Facilities (Leased or GBP Owned)

(1) Newly Constructed Buildings

GBP FADS Requirements:

(a) All newly constructed facilities, owned, leased, or operated by GBP shall comply with the GBP FADS.

(b) GBP FADS is encouraged for facilities and properties that are not owned or operated by GBP, i.e., Privately Owned, Agencies, Corporations, Commissions, and Adjudicative Bodies.

(2) Newly Leased Buildings

GBP FADS Requirements:

(a) All of GBP's newly leased premises shall comply with the GBP FADS when:

(i) The lease is for a term equal to and or greater than 5 years; or,

(ii) The public use of the facility is high; or,

(iii) When the lease includes a new landlord fit-up inducement(s) such as extensive interior / exterior alterations requiring a building permit.

(3) Temporary Buildings

GBP FADS Requirements:

(a) All newly constructed temporary facilities owned or operated by GBP shall comply with the GBP FADS.

Employee Designated Work Areas:

Unless otherwise listed in "Exceptions," all building types listed above and all areas intended for use by employees as well as visitors or users, must be designed and built for inclusivity in compliance with the GBP FADS.

Existing Facilities (Leased or GBP Owned)

(4) Existing Facility Renovation, Retrofit or Alteration

GBP FADS Requirements:

(a) **Category A**: Existing facilities/properties undergoing an extensive (major) * renovation as classified by the Ontario Building Code and Planning Act must comply with the GBP FADS.

(i) Example: Renovation of a public facing office within a campus to utilize and better serve the public. The renovation is extensive, thus requiring permit approvals from authorities having jurisdiction, and as such must comply with GBP FADS.

(b) **Category B**: Existing facilities/properties undergoing a minor, non-extensive or basic renovation or repair requiring the issuance of a building permit or zoning by-law compliance must comply with the GBP FADS.

(i) Example: Renovations to a public community centre kitchen or staff kitchen; counters to be lowered to comply with access and approach, and must comply with GBP FADS.

(c) **Category C**: Any alteration, replacement and/or upgrade to an existing building's mechanical systems (plumbing, HVAC,) electrical systems (power, lighting, life safety, security & audio-visual) and conveying systems (elevators, stairs, escalators, lifts), must comply with the requirements the GBP FADS.

(i) Example: A fire alarm notification device upgrade in a public or staff accessible waiting room area would require both an audible and visual notification device (i.e. horn / strobe) and must comply with GBP FADS.

(ii) Example: Retrofit of an existing elevator within a building must comply with GBP FADS and meet requirements such as cabin requirements for mobility devices and two-way communication system as identified in GBP FADS.

Note:

(1) All other renovations, retrofits & alterations not defined by Categories B, or C must comply with the GBP FADS to the greatest extent possible.

(2) If any individual element, space or area defined by Categories B, or C is deemed technically infeasible to comply with requirements of the GBP FADS then it should seek a compliance alternative that provides the highest level of accessibility possible. Refer to "5.1.2 Accessibility Design Review and Approval Process" for more details.

(5) Historical or Heritage Building Renovation, Retrofit or Alterations

GBP FADS Requirements:

(a) All accessibility alterations to Heritage Facilities shall be approached so that they will be the least disruptive to the defining heritage features of the facility and assessed on a case-by-case basis by GBP staff to determine compliance with the GBP FADS to the maximum extent feasible while following the "Standards and Guidelines for the Conservation of Historic Places in Canada."

(b) Parks Canada's document "The Standards and Guidelines for the Conservation of Historic Places in Canada" provides general standards for the preservation, rehabilitation, and restoration of historic sites to conserve the heritage value by adopting an approach that provides minimal intervention and respects character-defining elements.

(c) As such, any work on historic sites or heritage properties must be assessed on an individual basis to determine the most effective and least disruptive means of renovation or replacement and the extent to which the property can be made accessible. Refer to "Appendix A–Application, Exceptions and Approvals" for additional information.

Refer to links below for additional heritage legislative information:

- "Ontario Heritage Act"
- "Accessibility for Ontarians with Disabilities Act, 2005, S.O. 2005, c. 11"

(6) Examples of Scopes of Work

(a) If a renovation or replacement is necessary for an existing entrance, it is mandatory to meet the requirements of GBP FADS. The priority should be that the primary entrance be an accessible entrance.

(b) If the existing means of access is an escalator or stairs, then provide a renovation or replacement to accommodate another means of access such as an elevator that is accessible and meets the requirements in this standard.

(c) If the replacement of different building elements, when considered together, results in the renovation of a room or space, the entire space should be made accessible and meet the requirements in this standard.

(d) Painting, wallpapering, or any other changes to existing finishes are considered a replacement and should meet the requirements in this standard for finishes and colour/ brightness contrast.

(e) If a renovation is necessary for an existing exterior ramp, the ramp should meet the requirements in this standard.

Exterior Elements

(7) Trails, Parks, and Public Squares or Amenities

GBP FADS Requirements:

(a) All new exterior amenities, trails, parks and public squares on campus shall comply with the requirements of the GBP FADS.

(b) All existing exterior amenities, trails, parks and public squares being altered or upgraded shall comply with the requirements of the GBP FADS to provide the highest level of accessibility possible having regard for physical barriers and technical constraints.

(8) Urban and Natural Paths of Travel or Pedestrian Clearways

GBP FADS Requirements:

(a) All new urban & natural paths of travel and pedestrian clearways shall comply with the requirements of the GBP FADS.

(b) All existing urban & natural paths of travel and pedestrian clearways being altered or upgraded shall comply with the requirements of the GBP FADS to provide the highest level of accessibility possible having regard for physical barriers and technical constraints.

(9) All Other Exterior Elements (New or Existing)

GBP FADS Requirements:

(a) All other new exterior elements/amenities described in Section 1–Exterior shall comply with the requirements of the GBP FADS.

(b) Application of the GBP FADS to existing exterior elements/amenities being altered or upgraded shall comply with the requirements of the GBP FADS to provide the highest level of accessibility possible having regard for physical barriers and technical constraints.

Exceptions

(1) General Exceptions

Exceptions to GBP FADS Requirements:

(a) GBP FADS does not apply to facilities and properties that are not intended to be occupied on a daily or full-time basis including but not limited to:

(i) Storage sheds; and

(ii) Buildings of Group F Division 1 occupancy, as defined by the Ontario Building Code (latest edition with all amendments).

(b) The requirements of the GBP FADS do not apply to the following spaces / areas:

(i) Service rooms (electrical rooms, sprinkler rooms, boiler rooms, HVAC and mechanical rooms);

(ii) Elevator machine rooms;

(iii) Janitorial/maintenance rooms;

(iv) Service spaces (crawl spaces, attics, utility tunnels);

(v) Roof spaces without public access; and

(vi) Other similar utility and services areas identified in the Ontario Building Code.

(vii) Building elements designated under the Ontario Heritage Act or those with heritage protection that limit modifications. Exemptions may apply where accessibility changes would compromise the historical integrity of the structure. In these cases, alternative accessibility solutions should be explored.

(2) Renovation Compliance Alternative [RCA] Process

Exceptions to GBP FADS Requirements:

(a) Renovation Compliance Alternatives (RCA) are permitted to achieve accessibility in both basic and extensive (Category A, B, and C– refer to the list in point (4) above) renovations of existing buildings, properties or systems. When the renovation, individual element, space or area is deemed technically infeasible to comply with requirements of the GBP FADS, a suitable renovation compliance alternative (RCA) requirement can be selected for compliance.

(b) The renovation compliance alternative must provide the highest level of accessibility possible. RCA's should be reviewed on a case-by-case basis with GBP staff and follow the technically infeasible exemption process outlined in Renovation Compliance Alternatives to document a suitable compliance path.

(c) Renovation compliance alternatives are listed in "5.1.3 Renovation Compliance Alternatives." They are each identified in a square bracket, with 'R-' and the section number referenced; for example, [R-1.1.1.(1)].

5.1.2. Accessibility Design Review and Approval Process

Application

This section is intended to guide GBP Use of Space Authority in reviewing and approving design and development proposals to help ensure accessible design requirements of the GBP FADS and related GBP policies and procedures are incorporated.

The GBP FADS is a mandatory design aid, applicable to the design and construction of new facilities, as well as the retrofit, alteration or addition to existing facilities owned, leased, or operated by GBP.

This Accessibility Design Review and Approval Process has been developed to assist GBP design and development decision-makers, as well as external designers and contracted consultants, with how to apply the FADS guidelines for built environment design projects.

Relevant FADS sections and GBP policies must be applied to each project, with consultation and input from required groups as defined by the Use of Space Policy.

Where it is not technically feasible to implement a FADS accessibility guideline, it is important to document the efforts that were made to ensure accessibility and the barriers or roadblocks that prevented a FADS guideline from being implemented.

Accessibility Design Review and Approval Decision-Making Process

Responsibilities within the Design Review and Approval Process

1. GBP Purchasing and Procurement Departments:
    a. Ensure that compliance with FADS requirements is incorporated in any RFXs, such as a Requests for Proposal (RFPs), relevant competitions, procurement policy and procedure updates, and procurement or purchase agreements.
2. External Primary and Sub-Consultants: Designers and/or Architects:
    a. Ensure projects comply with FADS requirements, as well as OBC, AODA, and other applicable accessibility legislation. Present the project plans for review to appropriate GBP management, committees, and others in accessibility review, recommendation, and decision-making or approval roles; ensure this is done at each relevant design stage (e.g., Schematic Design and Design Development);
    b. Ensure accessibility and FADS requirements are communicated and are adhered to throughout the construction process; and
    c. Complete and sign the document: George Brown Polytechnic FADS Design Review Confirmation.
3. Internal Project Managers:
    a. Ensure designers, architects, and other consultants are aware of the mandatory requirements for compliance with the GBP FADS;
    b. Provide guidance and support regarding access to the FADS and applicable FADS content for specific projects; and
    c. Coordinate the presentation of design reviews with Accessibility Coordinator, Accessibility Committee members and Health, Safety and Wellness.
4. Accessibility Manager:
    a. Provide support to project designers and architects regarding the understanding, interpretation, and implementation of the FADS, as well as relevant GBP Multi-Year Accessibility Plan and accessibility-related policies or procedures; and
    b. In consultation with the Facilities and Sustainability Department, review (and approve, if applicable) projects, design plans at various stages of the project.

5. Accessibility Committee:
    a. Review design plans for all relevant changes to GBP campus (e.g. plans for new buildings, renovations to existing buildings, changes to campus grounds, changes to wayfinding and signage, RFPs for accessibility projects, etc.).
6. Use of Space Authority
    a. The final decision-making body within the Accessibility Design Review and Approval process, responsible for determining whether a project that cannot comply with the George Brown Polytechnic (GBP) Facility Accessibility Design Standards (FADS) may proceed under a non-compliant condition. This authority becomes relevant in cases where:
        i. All internal review processes, including evaluation by the Ad Hoc Accessibility Working Committee or the Accessibility Committee, have occurred;
        ii. A proposed alternative solution is brought forward but is either not fully compliant with FADS or is technically infeasible to implement within the scope or budget of the project;
        iii. A final determination must be made on whether to:
            a. Defer the issue for future resolution, and/or
            b. Incorporate the issue into the 10-year capital plan for long-term accessibility upgrades.

Alternative Solutions Process

In certain cases, a component of a project may not be able to fully comply with the requirements of the George Brown Polytechnic Facility Accessibility Design Standards (FADS) due to existing structural, technical, operational, or site constraints. When this occurs, an Alternative Solution must be developed to achieve the highest possible level of accessibility while maintaining design integrity and compliance with legislative requirements.

The Alternative Solutions Form should be completed at key stages to ensure accessibility considerations are evaluated prior to further design advancement.

The process outlined below ensures that all such situations are reviewed consistently and transparently, balancing accessibility objectives with feasibility considerations. Each alternative solution is evaluated through a structured approval pathway involving the Project Manager and Consultants, the Accessibility Working Committee, and the FADS Steering Committee, before a final determination is made by the Use of Space Authority.

Where full compliance remains technically infeasible, accessibility gaps are documented and prioritized for resolution through the Polytechnic's long term capital planning process.

(1) Project

The term project is defined as the in Section 1(1) Occupational Health and Safety Act (OHSA) is defined as:

"Project" means a construction project, whether public or private, including:

- The construction, alteration, conversion, fitting-out, completion, reconstruction, demolition or repair of a building;
- Any work or undertaking; or
- Any lands or appurtenances used in connection with construction.

In application, a "project" can include any construction-related activity or alteration to space that impacts form, function and/or occupants (people), such as:

- Renovations or alterations to existing spaces;
- Installation or modification of building systems (mechanical, electrical, etc.);

- Demolition or site preparation;
- Construction of temporary structures (e.g., scaffolding, hoarding, trailers);
- Landscaping or exterior works connected to construction;
- Any associated areas (storage, staging, access routes, etc.) used for construction purposes; and
- Introduction or alteration of furniture, fixtures and equipment.

(2) Definition of Minor and Major Projects

For the purpose of the Alternative Solutions process, projects are classified based on the potential financial impact of the proposed alternative.

Minor Project: An alternative solution that has an estimated cost impact of $100,000 or less to the overall project. These alternatives typically involve limited scope, minimal risk to compliance, and can be evaluated and approved through the standard review process.

Major Project: An alternative solution that has an estimated cost impact of greater than $100,000 to the overall project. These alternatives generally involve broader scope, higher complexity, or greater potential impact on accessibility, functionality, or regulatory compliance, and therefore require additional review, and approval by the FADS Steering Committee or delegated authority.

(3) Alternative Solution Pathway

When a project component, element, or space does not meet the requirements of the Facility Accessibility Design Standards (FADS), an Alternative Solution process shall be initiated. The first step is to determine whether the project qualifies as a Minor or Major Project.

- Minor Projects are reviewed by the Accessibility Working Committee.
- Major Projects involve a broader review group, including the GBP FADS Steering Committee.

The Accessibility Working Committee is typically established on an ad hoc basis and may include, but is not limited to, representatives from Campus Planning, the Project Manager, the Accessibility Manager, and Health, Safety and Wellness.

The Alternative Solution Form should be completed for both Minor and Major Projects at:

- 50% Design Development and submitted for review. This early submission ensures that accessibility considerations are evaluated prior to further design advancement.
- A final Alternative Solutions Form, listing all proposed and approved alternative solutions, should be submitted prior to building permit submission and or Construction Administration phase commencement.

Within these reviewing groups, the project is evaluated through the lens of the Use of Space Authority Decision, and an Alternative Solution is developed and accepted as appropriate.

Where the scope or impact of the variance is too significant to be resolved through an Alternative Solution, the project component, element, or space may be deferred and integrated into the 10-Year Capital Plan for future consideration.

Refer to the “Figure 5.1.2-A Alternative Solution Pathway” below for an overview of the process.

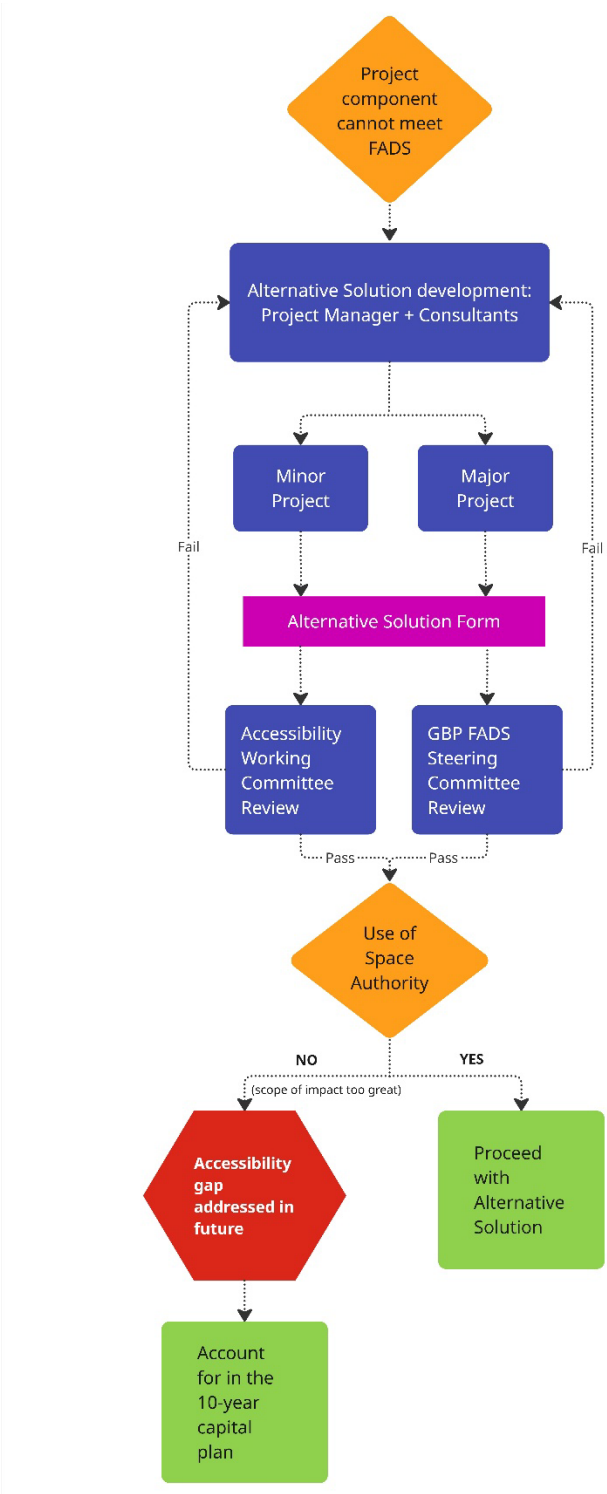


Figure 5.1.2-A Alternative Solution Pathway

(4) Alternative Solution Form

This form is intended to document the accessibility review process and track any requested exceptions as outlined in Section 5.1.1.

Project Information

1. Project Name:
2. Project Number:
3. Submission Number (note a project may submit this form several times during the duration of the project):
4. Project Type (please select):
    a. New Construction
    b. Renovation / Alteration
    c. Exterior Only
    d. Interior Only
    e. Other (specify) _____
5. Project Phase (please select):
    a. Preliminary (Conceptual)
    b. Design Development
    c. Construction Drawings
    d. Other (specify) _____

Accessibility Review Process

6. Design presented to GBP Accessibility Committee (or others – specify date and group)
    a.
7. Does the project meet the legislated accessibility requirements such as the OBC? AODA?
   Yes or No
8. Does the project meet the FADS guidelines at this stage?

   Yes or No

9. Are you seeking an exception to comply with FADS at this stage?

   Yes or No

10. Specify the details of the exception:

a. Renovation Compliance Alternatives (RCA) implemented (list all RCA numbers i.e. [R-1.1.1.1]:
    i. _____
b. Technically infeasible design elements (list which FADS requirements were not met and rationale):
    i. _____
c. Other supporting documents:

Acknowledgement of Submission and Receipt

Submitted by: _____

Organization: _____

Signature: _____

Date: _____

Received by: _____

Organization: George Brown Polytechnic

Department: _____

Signature: _____

Date: _____

GBP's Use of Space Authority Proposed Alternative Solutions:

1. [List here]
2. [List here]
3. [List here]
4. [List here]
5. [List here]

Next Steps:

1. [List here]
2. [List here]
3. [List here]

4. [List here]
5. [List here]

Received by: _____

Organization: George Brown Polytechnic

Department: _____

Signature: _____

Date: _____

END of FORM

Attestation Form

The GBP FADS attestation form confirms that the project has been designed and documented in compliance with FADS or that any deviations have been formally reviewed and approved through the FADS Alternative Solutions Process.

The Attestation Form should be submitted at:

- Building permit submission and/or at commencement of Construction Administration. A Vendor Bid Acknowledgement form should be completed at the procurement phase.

Consultant and Vendor Attestation Form

Project Information: _____

Project Name: _____

Project Number: _____

Campus / Location: _____

Project Manager (GBP): _____

Prime Consultant / Vendor: _____

Consultant Discipline (if applicable): _____

Date of Submission: _____

Consultant / Vendor Declaration

1. The design documents for this project have been reviewed against the current version of FADS.
2. All applicable architectural, interior, structural, mechanical, electrical, landscape, signage, millwork, furniture, and life safety components within the scope of work comply with FADS requirements.
3. Any elements that do not fully comply with FADS have been identified, documented, submitted at 50 percent Design Development, and received formal written approval prior to inclusion in permit and or issued for construction documents.
4. The final Alternative Solutions Form submitted with this attestation accurately lists all approved alternative solutions applicable to this project.

5. No additional deviations from FADS are included in the permit submission or Construction Administration documents beyond those formally approved.
6. The design complies with all applicable accessibility legislation, including the Accessibility for Ontarians with Disabilities Act and the Ontario Building Code.

Alternative Solutions

☐ No alternative solutions were required for this project.

☐ Alternative solutions were required and have been reviewed and approved in accordance with the FADS Alternative Solutions Process.

If applicable, attach final approved Alternative Solutions Form.

Acknowledgement

I understand that failure to comply with FADS or failure to obtain approval through the Alternative Solutions Process may result in redesign at the Consultant's or Vendor's expense and may delay permit submission or construction.

Authorized Signatory Name: _____

Title: _____

Company: _____

Signature: _____

Date: _____

END of FORM

Refer to the "Figure 5.1.2-B FADS Forms and Design Phases" below for when forms should be used during the design phases.

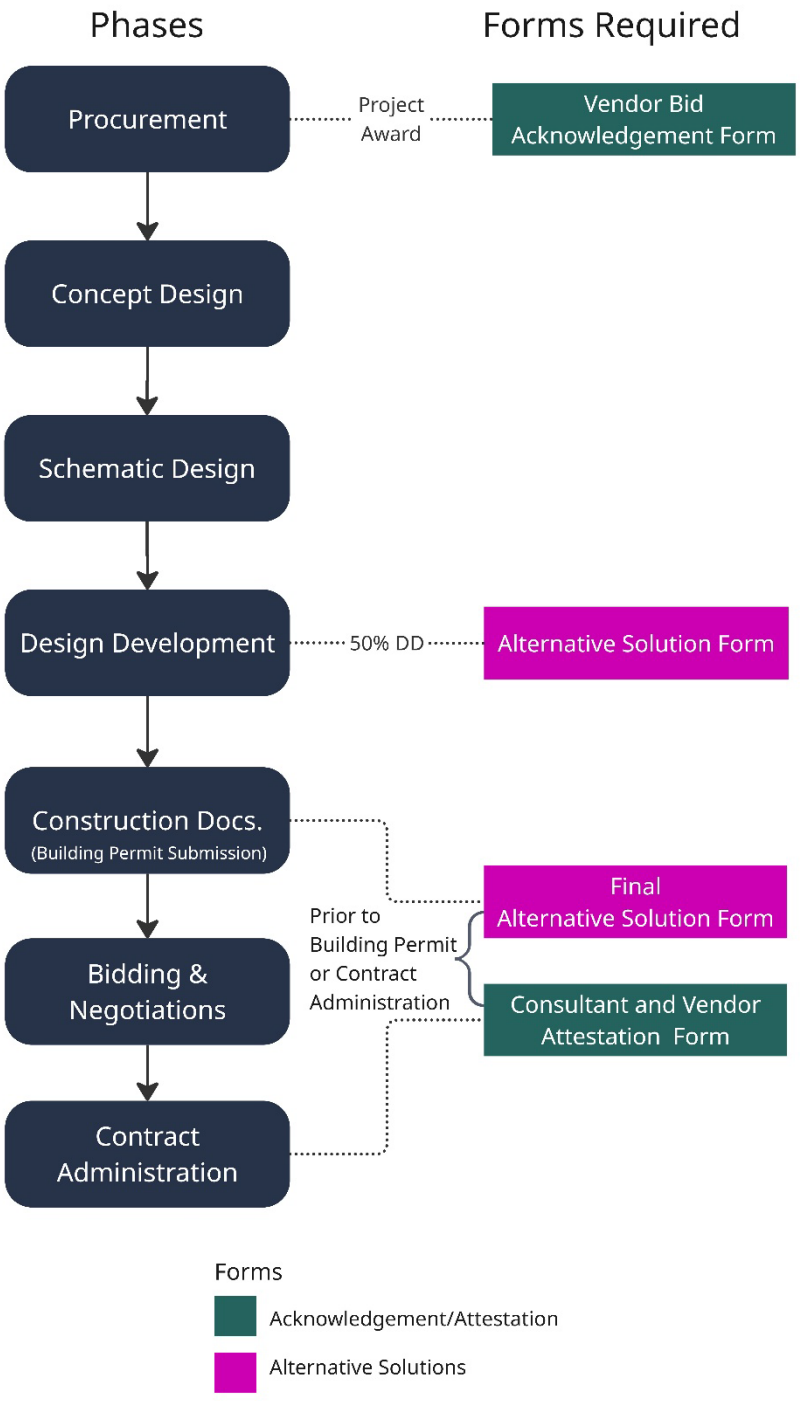


Figure 5.1.2-B FADS Forms and Design Phases

5.1.3. Renovation Compliance Alternatives

Where the renovation of existing buildings becomes difficult to meet the requirements of the GBP FADS or such guideline applications are claimed as technically infeasible, the renovation compliance alternatives section provides an alternate solution more suitable and in compliance with the Ontario Building Code minimum.

If a building is listed as heritage, the renovation compliance alternatives provided in GBP FADS only apply if the requirement does not impact the heritage value. See section "Historical or Heritage Building Renovation, Retrofit or Alterations" for more details.

In both cases, approval to proceed using the renovation compliance alternative or technically infeasible exemption permission must refer to the procedure outlined in "Appendix A–Application, Exceptions and Approvals" and follow the procedure for approval and compliance documentation required.

In the text of this guideline, renovation compliance alternatives (RCA) are identified in a square bracket, with 'R-' and the section number referenced; for example, [R-1.1.1.1].

[R-1.1.1. (1)(a)]

"1.1.1. Exterior Accessible Paths of Travel"

Where it is technically infeasible to provide an accessible path of travel (or a pedestrian clearway) that has a minimum clear width that is 1800 mm minimum for local roads, a reduction to existing conditions or 1500 mm, whichever is greater, is permitted.

[R-1.1.1. (1)(b)]

"1.1.1. Exterior Accessible Paths of Travel"

Where it is technically infeasible to provide an accessible path of travel (or a pedestrian clearway) that has a minimum clear width that is 2100 mm minimum for collectors and arterials, a reduction to existing conditions or 1800 mm, whichever is greater, is permitted.

[R-1.1.2. (1)(a)]

"1.1.2. Trails, Pathways, Boardwalks, and Beach Access Routes"

Where it is technically infeasible to provide an accessible path of travel (or a pedestrian clearway) that has minimum clear width dimensions, pinch points are permitted for a clear width that is 1800 mm minimum if path is for only pedestrians, 2700 mm minimum if path is for pedestrians and cyclists, and 3000 mm minimum if path is for pedestrians, cyclists, and maintenance vehicles.

[R-1.1.4. (2)(a)]

"1.1.4. Exterior Paths of Travel to Entrances and Exits"

Where it is technically infeasible to provide a secondary entrance or exit at grade level (i.e., not the principal entrance or one of the required barrier-free entrances as per the Ontario Building Code (OBC)) and the existing condition/site does not allow for a ramp as per this guideline, a sloped surface up to the door with flared sides that meets the OBC requirements for curb ramps is permitted. The width of the sloped transition should be the width of the exit or 1500 mm minimum, whichever is greater. The edges of the sloped transition should be demarcated with 70% colour/brightness contrast to identify the change in slope and the edges.

[R-1.1.9. (2)(a)]

"1.1.9. Exterior Ramps"

Where it is technically infeasible to provide an 1800 mm ramp width, a ramp as close to 1800 mm but no less than 1500 mm is permitted.

[R-1.1.9. (2)(c)]

"1.1.9. Exterior Ramps"

Where it is technically infeasible to provide a clear space of 2500 mm long by 2500 mm wide landing at straight run and at 90-degree turn locations and 2500 mm by the width of ramp at 180 degree turns, landings should be 1800 mm long by 1800 mm wide or 2500 mm long by the width of the ramp. A landing that is as large as possible should be provided.

[R-1.1.9.(3)(a)]

"1.1.9. Exterior Ramps"

Where a slope between 1:20 (5%) to 1:15 (6.7%) cannot be provided, a slope between 1:15 (6.7%) to maximum 1:12 (8.3%) is permitted at interior ramps only.

[R-1.3.1. (6)(d)]

"1.3.1. Off-Street Parking"

Where it is technically infeasible to provide the vertical clearance of 2200 mm from the beams, pipes, or sprinkler heads to the surface for covered or underground 'Type A' and 'Type B' parking spaces, a reduction is permitted for a minimum 2100 mm vertical clearance.

[R-1.3.1. (8)(d)]

"1.3.1. Off-Street Parking"

Where it is technically infeasible to provide the vertical clearance of 2200 mm from the beams, pipes, or sprinkler heads to the surface for covered or underground parallel parking spaces, a reduction is permitted for a minimum 2100 mm vertical clearance.

[R-1.3.1. (9)(d)]

"1.3.1. Off-Street Parking"

Where it is technically infeasible to provide the vertical clearance of 2200 mm from the beams, pipes, or sprinkler heads to the surface for covered or underground access aisles, a reduction is permitted for a minimum 2100 mm vertical clearance.

[R-1.3.2. (11)(a)]

"1.3.2. Passenger Pick-Up and Drop-Offs"

Where it is technically infeasible to provide the vertical clearance of 5000 mm from overhead objects for covered or underground access aisles, a reduction is permitted for a minimum 3600 mm vertical clearance.

[R-1.4.3. (1)(a)]

"1.4.3. Play Spaces"

Refer to 'Renovation Compliance Alternative' for "[R-1.1.2. (1)(a)]".

[R-1.4.8. (1)]

"1.4.8. Balconies, Terraces, and Patios"

Refer to 'Renovation Compliance Alternative' for "[R-1.1.4. (2)(a)]".

[R-2.1.6. (1)(a)]

"2.1.6. Limited Use, Limited Application (LULA) Lifts"

Where it is technically infeasible to provide a Limited Use, Limited Application (LULA) lift, a platform lift as permitted by the Ontario Building Code should be used.

[R-2.2.1. (4)(a)(ii)]

"2.2.1. Entrances"

Where it is technically infeasible to provide a clear turning space that is 2500 mm in diameter plus the width of the door within a vestibule, a minimum clear turning space that is 1800 mm in diameter plus the width of the door is permitted.

[R-2.2.3. (1)(a)]

"2.2.3. Doors and Doorways"

Where it is technically infeasible to provide a clear width that is 950 mm for doors, the minimum clear door width should meet current Ontario Building Code requirements.

[R-2.2.3. (1)(c)]

"2.2.3. Doors and Doorways"

Where it is technically infeasible to remove existing revolving doors, a door that meets the criteria in this section should be provided immediately adjacent to the revolving doors.

[R-2.2.3. (7)(b)]

"2.2.3. Doors and Doorways"

Where it is technically infeasible to provide doors that can be recessed or the provision of cane detectable guards would reduce the accessible path of travel to less than 1800

mm, then textural strips on the floor in the shape of the door swing that have colour/brightness contrast should be provided.

[R-2.2.4. (1)(h)]

"2.2.4. Door Controls and Devices"

Where it is technically infeasible to be installed on a wall, or a pedestal, the power door operator should be installed within the required distances and the available surface, such as mullion or glass.

[R-2.3.1. (3)]

"2.3.1. Multi-Stall Washrooms"

Where it is technically infeasible to provide multi-stall washrooms that meet the criteria in this section, then at least one universal washroom located on the same floor level that meets the criteria in section "2.3.9. Universal Washrooms" should be provided.

[R-2.3.2. (1)]

"2.3.2. Accessible Water Closet Stalls and Enclosures"

Where it is technically infeasible to provide accessible water closet stalls and enclosures that meet the criteria in this section, then at least one universal washroom located on the same floor level that meets the criteria in section "2.3.9. Universal Washrooms" should be provided.

[R-2.3.2. (2)(a)]

"2.3.2. Accessible Water Closet Stalls and Enclosures"

Where it is technically infeasible to provide a stall door that has a minimum clear width of 950 mm, a minimum clear width opening of 900 mm should be provided.

[R-2.3.3. (5)(a)]

"2.3.3. Ambulatory Water Closet Stalls and Enclosures"

Where it is technically infeasible to provide L-shaped grab bars, then the installation of two fold-down grab bars that are wall or floor mounted may be used provided the

minimum clearance over the centre of the water closet is maintained and meets the criteria in section "2.3.4. Accessible Water Closets" except for the clear floor spaces.

[R-2.3.5. (5)]

"2.3.5. Accessible Urinals"

Where it is technically infeasible to provide vertical grab bars on either side of the urinal, a horizontal grab bar mounted at maximum 1200 mm AFF should be provided.

[R-2.3.6. (3)(a)(ii)]

"2.3.6. Accessible Lavatories"

Where it is technically infeasible to recess washroom accessories, they should have colour/brightness contrast from their background and be cane detectable.

[R-2.3.9. (5)]

"2.3.9 Universal Washrooms"

Where it is technically infeasible to provide a clear turning circle that is 2500 mm in diameter, a minimum clear turning circle that is 1800 mm in diameter or greater is permitted.

[R-2.3.9. (8)]

"2.3.9. Universal Washrooms" [Reserved - Emergency Call Systems]

[R-2.3.9. (9)(c)]

"2.3.9. Universal Washrooms"

Where it is technically infeasible to provide space for an adult change table, a removable adult change table that is not stored in the room should be provided.

[R-2.3.12. (3)]

"2.3.12. Accessible Change Room Stalls"

Where it is technically infeasible to provide a clear turning circle that is 2500 mm in diameter, a minimum clear turning circle that is 1800 mm in diameter or greater is permitted.

[R-2.3.14. (1)(a)]

"2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains"

Where it is technically infeasible to provide all new accessible interior water bottle filling stations and drinking fountains, a minimum of one accessible unit should be provided, where more than one water bottle filling station and drinking fountain is provided.

[R-2.3.14. (4)(e)]

"2.3.14. Interior Water Bottle Filling Stations and Drinking Fountains"

Where it is technically infeasible to provide existing drinking fountains that are cane detectable or recessed, cane detectable elements or guards around the existing drinking fountain should be provided.

[R-2.4.2. (1)(b)]

2.4.2. Queuing Guides and Waiting Areas

Where it is technically infeasible to provide a clear turning circle that is 2500 mm minimum in diameter, a clear turning circle that is 1800 mm minimum in diameter or greater is permitted.

[R-2.4.6. (1)(a)]

2.4.6. Kitchens and Kitchenettes

Where it is technically infeasible to provide a clear turning circle that is 2500 mm minimum in diameter in the space, a clear turning circle that is 1800 mm minimum in diameter or greater is permitted.

[R-2.4.9. (3)(c)(iii)]

2.4.9. Meeting Rooms

Where it is technically infeasible to provide 100% of an entire meeting room table as accessible to persons using a mobility device, at least 25% of the table should be accessible, however at least one of each type (determined by function) of amenities

within the meeting room should remain accessible and be connected to the accessible path of travel.

5.2. Appendix B–Recognition, References and Resources

Section Summary

This section provides a complete list of internal and external collaborators, including project team and advisory committees, directly involved with the preparation and review of these guidelines. It includes related references, which is a list of reference documents that were cited within the text, as well as, the bibliography, which is a list of reference documents that were consulted or read throughout the duration of creating the document. Additionally, included are matrices, checklists, forms, pictogram references for signage, and construction specifications and drawings.

Contents in Section

5.2.1. List of Collaborators

5.2.2. Related References

5.2.3. Bibliography

5.2.4. Log of Changes to Standard

5.2.5. Change Proposal Form

5.2.6. Construction Specifications and Drawings

5.2.7 Future Considerations

5.2.1. List of Collaborators

Engagement Partners

This list identifies the interested parties consulted to date in the development of the GBP FADS:

(2) AODA Committee
(3) AODA Student Subcommittee
(4) Ancillary Business Services
(5) Facilities Management
(6) Health, Safety and Wellness
(7) Information Technology
(8) Office of Anti-Racism, Equity and Human Rights (OAREHRS)
(9) Operations Managers (Faculty and Academic Operations)
(10) People and Culture
(11) Student Association
(12) Student Success
(13) Teaching and Learning Exchange (TLX)

5.2.2. Related References

Rationale

Related references include the reference documents that were cited within the Related References within each section.

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5.2.3. Bibliography

Rationale

The bibliography is a list of reference documents that were consulted or read throughout the duration of creating the document.

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5.2.4. Log of Changes to Standard

Rationale

This log tracks changes made to the GBP FADS.

Sources of changes are:

- Accessibility for Ontarian with Disabilities Act, (year of update) Part IV.1 Design of Public Spaces Standards (Built Environment)
- Ontario Building Code (OBC), year of update
- GBP: Lessons learned from the use of the Standard by GBP

Section and Revision **(Organized by section)**	**Date**	**Source**
Preface		
Introduction		
How to Read this Standard		
Glossary		
Space and Reach Ranges		
1. Exterior		

2. Interior		
3. Systems and Controls		
4. Exterior and Interior Maintenance		
5.Appendices		

5.2.5. Change Proposal Form

The form should be used to identify any changes required to the GBP FADS.

Please submit all changes to:	Campus Planning: campusplanning@georgebrown.ca
Your contact information:	Name: Division, Role at GBP: Phone Number: Email:
Proposed Change – Section Number	Identify Section Number
Proposed Change – Description of the Accessibility Intent	
Proposed Change – Rationale for change	

5.2.6. Construction Specifications and Drawings

This table identifies the City of Toronto's Construction and Specification Drawings referenced in the FADS.

Drawing No.	Drawing Title
T-310.010-10	Pedestrian Clearway Widths on Sidewalks
T-310.010-2	Concrete Sidewalk with Boulevard
T-310.030-10	Tactile Walking Surface Indicator and Curb Ramp Detail
T-310.030-11	Tactile Walking Surface Indicator and Depressed Curb Detail
T-310.030-5	Zebra Pavement Marking Detail at Signalized Intersections
T-310.030-7	Signalized Intersection Configurations of Pedestrian Crossings
T-310.030-8	Controlled Non Signalized Intersection Configuration of Pedestrian Crossings
T-310.030-9	Location of Dropped Curbs at Controlled Intersections
T-900.200	Pedestrian Bridge

5.2.7. Future Considerations

George Brown Polytechnic (GBP) Facility Accessibility Design Standards (FADS) is a living document that will adapt to the changes of GBP's diverse students and employees, and is an important step towards achieving GBP's commitment to an accessible campus.

The development of GBP FADS included the review and integration of some of the recommendations from the Design of Public Spaces Standards Development Committee's review of the accessible built environment standards in the Accessibility for Ontarians with Disabilities Act and the barrier-free accessibility requirements under the Ontario Building Code. Many of the recommendations made require further development or consensus across the industry.

GBP will continue to monitor the updates to the accessible built environment standards, and consider recommendations that were not integrated in this version of GBP FADS including, but not limited to the following:

1. Recommendation 10: bilingual signage
2. Recommendation 11: adoption of Unified English Braille (UEB) and Code Braille Français Uniformisé (CBFU)
3. Recommendation 13: expand definitions section
4. Recommendation 15: amended definitions for trails and sidewalks
5. Recommendation 19: definition of firm and stable
6. Recommendation 35: technical requirements for portable ramps
7. Recommendation 52: increased parking requirements
8. Recommendation 54: maintenance requirements for accessible parking
9. Recommendation 58: electric vehicle charging stations
10. Recommendation 59: repainting accessible parking spaces
11. Recommendation 71: maintenance requirements
12. Recommendation 76: amend exemption section to prevent arbitrary decisions
13. Recommendation 77: environmental sustainability and accessibility
14. Recommendation 78: impact of connected/autonomous vehicles
15. Recommendation 115: back-up power in residential buildings
16. Recommendation 123: retrofit of emergency systems
17. Recommendation 125: ensuring access during temporary disruptions

5.3. Appendix–C: Roadmap

Section Summary

This section provides the compliance plan and will act as a roadmap for addressing the identified barriers, fostering an inclusive and accessible environment within George Brown Polytechnic.

Contents in Section

5.3.1FADS Future Application across GBP

5.3.1. FADS Future Application across GBP

Audits

Requirements:

(a) All accessibility audits completed for GBP owned facilities/properties shall use the GBP FADS as the benchmark for the highest level of accessibility performance.

(b) Implementation of alterations or upgrades required to improve accessibility based on audits shall be part of each GBP state of good repair project and shall include for all capital costs to implement the highest-level accessibility performance.

Multi-Year Accessibility Plan (MYAP)

Requirements:

(a) The GBP Multi Year Accessibility Plan requires compliance with the GBP FADS in order to meet its targeted commitments for improving accessibility throughout the GBP.

GBP Funded Private or Public Developments, Spaces and Land (Section 37)

Requirements:

(a) Compliance with the GBP FADS for Section 37 Agreements and/or other legally binding agreements between developer and/or beneficiary organization and GBP is required where GBP will occupy and operate, or lease out space, and recommended in all other areas of the development such as public spaces or common element amenity, commercial and retail spaces.

(b) Any other development or agreement giving GBP dedicated space or land for its use in delivering services to the public or occupied by its staff.

Procurement Process

(1) RFP's and RFQ's Consultants + Vendors Contracts

Requirements:

(a) Ensure that GBP FADS compliance is part of Request for Proposal (RFP) or Request for Quotation (RFQ) for design consultants.

(b) GBP shall ensure compliance to the GBP FADS during the preplanning, design, construction documents preparation and contracts administrative phase.

(2) Training Support and Education

Requirements:

(a) Training and Support on How/When to use GBP FADS and follow the Renovation Compliance Alternatives (RCA) and Technically Infeasible (TI) exemption process.

(3) Major Projects Review + Consultation

Requirements:

(a) Project review by the GBP Accessibility Advisory Committee for large and or complex projects. Compliance with the GBP's Corporate Accessibility Policy and Multi-Year Accessibility Plan found here: https://www.georgebrown.ca/media/2021-2022-aoda-status-report-pdf

(4) GBP Staff Delivering Capital Projects

Requirements:

(a) Declared on Project Charters prior to project approval and/or during the intake phase of the procurement process when retaining consultants, and declared on Close Out documentation when projects are completed.

(5) Building Permits for GBP Owned Properties

Requirements:

(a) Declaration + Automatic Notification for Planning and Building Permit applications for GBP Owned properties.