# Accessibility and Age-Friendly Design Considerations

*A Guide for NWT Community Governments on the Community Plan Review Process*

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Government of Northwest Territories

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# Foreword

This guide is one in a series of guides developed by the Government of the Northwest Territories Department of Municipal and Community Affairs (MACA) to support the *NWT Community Planning Framework*. It is intended to provide guidance for community governments that are in the process of reviewing their community plans, and the professional Community Planners they retain to assist with this work.

Other guides in this series:

- Archaeological Site Management and Protection
- Best Practices for Municipal Public Engagement
- Community Civic Addressing
- Climate Change and Land Use Planning
- Understanding the GNWT's Duty to Consult

# Acknowledgements

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MACA thanks the office of the NWT Fire Marshal for their contributions to this guide.

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If you would like this information in another official language, call us.
English

Si vous voulez ces informations dans une autre langue officielle, contactez-nous.
French

Kīspin ki nitawihtīn ē nīhīyawihk ōma ācimōwin, tipwāsinān.
Cree

Tłı chǪ yatı k'ęę. Dı wegodı newǪ dè, gots'o gonede.
Tłįchǫ

ʔerıhtł'ís Dëne Sųłıné yatı t'a huts'elkër xa beyáyatı theɔą ɔat'e, nuwe ts'ën yółtı.
Chipewyan

Edı gondı dehgáh got'ı e zhatié k'ęę edatł'éh enahddhę nıde naxets'ę edahłí. South Slavey
K'áhshó got'ı ne xədə k'é hederı ɔedjhtl'é yerınıwę ní dé dúle.
North Slavey

Jii gwandak izhii ginjìk vat'atr'ijąhch'uu zhit yinohthan jì', diits'àt ginohkhìi.
Gwich'in

Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqluta.
Inuvialuktun

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Inuktitut

Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit.
Inuinnaqtun

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# Purpose

The *Accessibility and Age-Friendly Design Considerations Guide* (the guide) is intended to provide guidance and direction to people involved in the planning, design, and building process in the Northwest Territories. Healthy communities need accessibility and inclusion for people of all ages and abilities. Community planning has a foundational role to play in enabling accessibility and inclusion. Planning decisions shape the physical environment, which can either foster greater accessibility, or undermine the participation of disabled people. Additionally, community planning is a public process, which relies on community engagement, therefore, planning processes that engage people with disabilities will benefit.

The goal of this guide is to inform planning processes at several different scales:

- Community-level planning decisions (e.g. community plan and zoning bylaw preparation, large-scale infrastructure planning, community housing plans, and strategic plans).
- Site selection, evaluation and design (e.g. selection of sites and site design for new major community uses such as new outdoor play areas, recreation centres or health centres).
- Review of development applications for larger scale uses (e.g. larger commercial uses, public uses, and multi-unit social housing.
- The review of development applications with universal design principles for accessible and age-friendly communities.

Disability is a challenging term that is uniquely defined by different cultures and individuals. The definition of "disability" and "persons with disabilities" is not the goal of this guide. Rather, this guide provides design guidelines based upon the principles of universal design. Universal design is an approach aiming to design products and environments that are usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. Universal design prioritizes the equitable use and enjoyment of products and environments for the development of healthy, inclusive, and diverse communities.

# Who This Guide is Designed For

Users of the guide may include:

- Community Planners who are working with communities or public agencies to develop plans, including community plans, zoning bylaws, housing plans, and other similar plans.
- Proponents of new public accessible projects (e.g. multi-unit residential affordable housing projects, health care facilities, seniors/elders homes, large commercial developments, and similar).
- Community Government Councillors.
- Senior Administrative Officers.
- Municipal Development Officials.
- Employees of Indigenous governments or Indigenous organizations.
- Employees of designated authority communities or self-governing communities.
- Municipal and Community Affairs staff.

# Why Accessibility and Age-Friendly Design Considerations Are Vital

Accessibility can be defined as the degree to which a product, activity, facility, service, or environment allows everyone to participate fully and is available to everyone on an equal basis.

The *Accessible Canada Act*[1] of 2019 envisions a barrier-free country by 2040. This guide works toward the achievement of that goal with a specific focus on the unique factors in Canada's North, including weather conditions, culture, and community size. Communities of all sizes can work toward creating accessible and age-friendly communities in a range of ways, from small-scale design changes or adaptations to large-scale policy frameworks. Each community will require unique solutions, given the context of the community and the needs of residents within the community. This guide provides a starting point to develop community-specific best practices.

Universal design seeks to design products and environments that are useable by all people, to the greatest extent possible, without the need for adaption of specialized design. This approach benefits all members of a community, whether an individual uses a mobility aid such as a wheelchair or cane, experiences low vision, pushes a stroller, or has reduced mobility as they age. This forward-thinking approach allows people to age-in-place, while continuing to participate in their community and maximize personal agency.

In an age-friendly community, both the physical and the social environments enable older people to age safely in their own home or community, to have a dignified life, and to continue to develop and contribute to their communities. Age-friendly provisions and guidelines help to create environments in which seniors and elders can participate fully in community life in the North. Age-friendly communities are also friendlier and more accessible for children and youth. The intent of this guide is to support the transformation of communities over time, so that full, dignified participation in society is enabled for people who are currently excluded by barriers found within the built environment.

The *NWT Disability Strategic Framework: 2017 to 2027*[2] contains a long-range projection that, of the total population aged 15 years and older, some 4,600 people are projected to experience a disability, representing a prevalence rate of over 12%. This represents an increase of some 1,900 or 69% from 2012. An additional 260 persons, aged 0 to 14 years, will experience a disability, representing a rate of 3% in this age group.

# Adapting Accessibility for the Northern Context

## Cultural Diversity

Half of the people living in the Northwest Territories (NWT) are Indigenous, with the other half of the population made up of people who have lived in the NWT for many years, or who have come from elsewhere in Canada or the world. About 10 percent of NWT residents are first generation immigrants,

[1] *Accessible Canada Act* (S.C. 2019, c. 10)
[2] *Equity, Accessibility, Inclusion and Participation – NWT Disability Strategic Framework: 2017-2027*, Government of the Northwest Territories, December 2017, p. 35.

coming primarily from Southeast Asia, Africa, and Europe. This cultural diversity is not spread uniformly across the NWT. All communities in the NWT have strong continuity with the Indigenous groups on whose traditional territories they are located, regardless of the governance structure. Dene, Inuit and Métis governments and institutions play a critical role in planning, development, and provision of services.

The following cultural traditions are important to consider when planning for inclusion and access:

- Different cultures have different ways of thinking about ability and disability that can help to inform how accessibility is planned for in specific communities.
    - The culture of the NWT is to value and respect elders. Ensuring that they can play an important role in the life of the community is very important to community health.
- Many communities have a higher percentage of young people, so ensuring they can access and participate in society, regardless of ability, is very important for the future.
    - Being "on the land" is very important part of the economy, culture, and community life for many in the NWT, whether they are Indigenous or non-Indigenous. Although there are specific accessibility challenges, it is very important to support access to being outdoors and to cultural land-based activities.

## Smaller Populations and Lower Densities

Just under half of the 41,000 population of the NWT lives in the City of Yellowknife, with the remainder of the population living in smaller communities and rural areas. Inuvik and Hay River, with populations of just over 3,000 people each, are the next largest population centres. The small population and spread-out nature of the communities has some important implications for accessibility planning:

    - People are more dispersed and must travel longer distances to participate in community events, access needed services and amenities and visit with each other. However, rural communities elsewhere in Canada and across the global North can provide good precedent examples.
    - Because there are fewer people in the NWT, there may be less specialized knowledge in certain areas of accessibility and design. For example, if an elevator was constructed, most communities would need to fly in an elevator technician and/or inspector from elsewhere, to ensure maintenance and upkeep.
- Infrastructure is more "rugged." For example, ice roads and dirt roads are an important part of the transportation network.
- The cost of construction for infrastructure and buildings is often much higher, due to labour shortages, the need to transport materials longer distances, and specific challenges associated with the climate and terrain.
- People with specific medical and support needs, including birthing, often need to leave their community to access appropriate care.
- Communities are tight-knit. There is a greater capacity to identify the specific requirements of people within the community and offer tailored solutions.

### Climate and Terrain

Geographic and climatic conditions vary widely across the NWT. However, the challenges of difficult terrain, harsh weather, and great seasonal variability are shared by most communities. This has impacts on accessibility planning:

- Winter weather (e.g. snow, high winds, extreme cold) limits the mobility of many people with disabilities.
- Mobility in and out of the community for medical or support needs may be limited at some times of the year.
- Living independently can require more work for basic home maintenance due to the weather conditions.
- Climate change is causing more unpredictability in the weather, which can make it harder for disabled people and service providers to plan (e.g. ensuring snow clearing/packing after storms).
- Emergency planning (e.g. evacuation in the case of wildfires or floods) must include disability considerations).

## Accessible and Age-Friendly Policy Development

The development of new policy documents, such as community plans or zoning bylaws, should have consideration for universal design principles incorporated into the foundation of the policies, by including relevant provisions. This approach promotes universal design as a primary design approach, rather than relying on retrofitting buildings or environments in the future to meet diverse needs. Reactive retrofitting does not result in the highest quality design and is significantly more costly than incorporating these design standards into the beginning of a development.

The following considerations should be made when developing accessible and age-friendly policy in communities:

### Inclusive Consultation

Seeking the insights and wisdom of the community in the development of future planning and development policy provisions supports the creation of healthy, liveable communities. Consider incorporating the following into public engagement and planning processes:

- Seek accessibility advocates, elders, and seniors to participate in the development of new community plans and zoning bylaws.
- Review broader policy provisions (i.e. not just accessibility provisions) with accessibility advocates, elders, and seniors to broaden the depth of perspective on the policy provisions to create increasingly inclusive and healthy communities.
- Assess the current universal design practices within the community, identifying opportunities for improvements.
- Provide information in multiple media and, where appropriate, local Indigenous languages (e.g. with posters, on the community Facebook group, and by radio) so people with differing levels of English fluency, literacy, and vision, and differing auditory processing abilities, can get information.

- Keep language and messages clear and concise, so they are easy to understand.
- Be willing to adapt community engagement events to meet people where they are at (e.g. holding a circle at the Elder's centre or offering to meet with people in their homes or where they are comfortable).
- Use existing resources to share information and seek input – for example, the NWT Disabilities Council, or local community groups.

What makes a built environment accessible is unique to each person. The principles of universal design seek to create spaces usable by all, but the implementation of fully universally accessible spaces is not always feasible. Where tailored solutions to accessibility are sought, based upon the unique needs of an individual or small group of individuals, meaningful public engagement must occur. Cultural engagement should always be included in the design of new spaces and buildings, including universal design features.

### Inclusive Language

By using the most appropriate and inclusive language, all people are respected, and situations are eliminated wherein people are inadvertently or deliberately excluded, dismissed or stigmatized:

- State the community's commitment to building accessible and age-friendly communities within the community plan.
- Update language around disabilities and universal design within policy documents to align with the *Accessible Canada Act*.

## How to Use This Guide

This guide provides an overview and structure for how to integrate accessibility and age-friendly considerations into the planning process, from the community level down to the site level. Appendix B provides further design considerations for the interior of buildings. This is beyond the scope of community planning but is provided as a resource for project proponents. The recommended designs within this guide are separated into these scale categories.

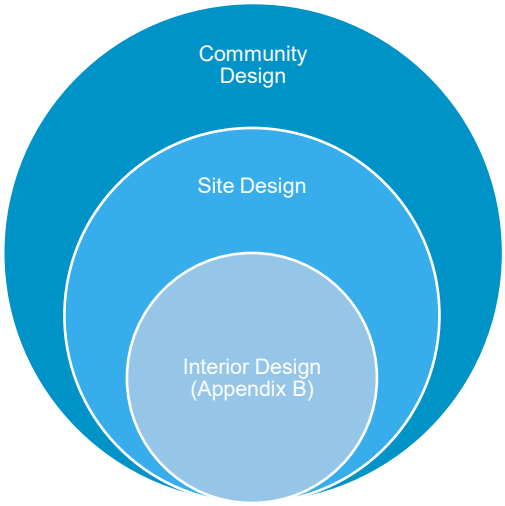



***Figure 1: Scales for considering Accessibility and Age-Friendly Design***

These guidelines provide both prescriptive design standards (e.g. minimum widths of a ramp) and other elements of universal design without measurable design standards (e.g. the co-location of services). Sample policy provisions are provided within the suggested design section to demonstrate how these design standards can be included within policy documents. Implementing all recommended designs from this guide into future projects will not be appropriate, practical, or possible. However, the goal of this guide is to bring awareness to how universal design can be achieved at a variety of scales. Incremental changes toward universal design will still provide real, positive impacts to the community.

The following icons are provided throughout the guide to indicate when the element design should be considered within the planning and design process. The icons are as follows:

**Community Plan**
These elements are considered as part of the wider community design, connecting different land uses, and building healthy communities.

**Zoning Bylaw**
These are typically development-specific site design elements that can be facilitated, encouraged, or required by the zoning bylaw to ensure functional and safe sites.

**Development Permit**
These are elements which can be addressed during the review of individual development permit applications.

Some elements may be considered at multiple stages of the planning and design process. For example, exterior stairs may be considered at the zoning stage and then later designed through site plan control. In this case, two icons have been placed next to the element.

Additionally, Appendix A contains definitions of key words used in this guide. Words defined in Appendix A are shown in orange.

## Universal Design Development Checklist

A universal design development checklist, found on page 29, corresponds to the recommended designs found in this guide. This checklist can be used as a stand-alone document for the review of development applications, or in collaboration with the community planning and site design recommendations. The checklist is a tool to assist review rather than a list of prescriptive development standards.

## Ask the Important Questions

Each policy, planning, and development project is unique in scale, purpose, budget, and intended users. At the outset of each project, ask the following questions to frame how universal design can be appropriately and realistically applied. These questions are not an exhaustive list, rather a starting point for vital, collaborative conversations:

- Who in the community will be using this facility or infrastructure?

- What barriers could they face?
- How can disabled and senior community members be engaged in the planning process?
- How can universal design principles be applied at the beginning or projects rather than requiring retrofits in the future?
    - What accessibility standards already exist in the community? How can this guide complement existing frameworks?
- What funding opportunities are currently available for universal design elements? What resources (e.g. NWT Association of Communities, NWT Disabilities Council, GNWT, Government of Canada) could be used to find funding opportunities and other supports?
- What unique factors (geographical, environmental, social, etc.) exist in our community that need to be considered?

# Principles of Universal Design

The seven principles of universal design provide consideration of how different products and environments can be collectively used by a population. This approach fosters equity of use and independence, regardless of a population's diverse mental or physical abilities or ages. These principles can be applied to both small-scale design details and large-scale community-oriented design patterns.

## Equitable Use

The design is useful to everyone, regardless of ability. The design does not exclude or disadvantage any user group.

***Examples:***

- *Public pathways consistently have firm, stable surfaces of appropriate widths to permit the safe passage of those using mobility aids to all areas of a community.*
- *Including street furniture along pathways creates rest and socialization areas.*
- *Accessible main entrance to a building provides a common entrance for all users of the space.*

## Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

***Examples:***

- *When a single washroom is provided, make this a universal washroom, or include as many accessible features as possible to permit the safe use of the washroom by all or nearly all members of the community.*
- *Locate ramps and stairs next to each other to ensure all users can share the main entrance.*

## Simple and Intuitive Use

The design is easy to understand regardless of the user's experience, knowledge, language skills, or cognition level.

***Examples:***

- *Signage with symbols and plain language.*

- *Main entrance has a direct barrier-free route and is clearly indicated by the building design (e.g. the main entrance is served by a ramp and a stair and has a porch overhang to indicate it is a principal entrance).*

## Perceptible Information

The design communicates key information in a variety of formats (pictorial, verbal, tactile) to users, regardless of ambient conditions or the user's sensory abilities.

***Examples:***

- *Braille signage in addition to visual signs includes more people with vision impairment.*
- *Tactile attention indicators at the top of staircases and curb ramps create a detectable warning surface for the visually impaired.*

## Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

***Examples:***

- *Outward opening doors are protected by a door guardrail or a recess to protect low-vision, blind, or distracted pedestrians from collisions with the door.*
- *The location of parking and pathways minimizes potential conflicts between pedestrians and vehicles.*

## Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

***Examples:***

- *Co-locating community uses in a single location or building, and close to the highest-density residential areas, to minimize the effort and distance required to travel to community gatherings, services, and commercial needs. Efficiently grouping community uses provides greater independence and lowers the level of effort required for those with limited energy and/or mobility to participate fully in their community.*
- *Automated doors.*

## Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use, regardless of user's body size, posture or mobility.

***Examples:***

- *An appropriate turning radius is provided at the tops and landings of ramps, so people using mobility aids such as wheelchairs and walkers, as well as others (such as those pushing strollers) can use ramps.*
- *Benches and other kinds of public furniture are designed to be used by a variety of people (e.g. benches have room for a person in a wheelchair to pull up beside the bench).*

Universal design is the best approach because it makes spaces easier to use for everybody. Universal design accommodates changing needs, as different people come to the community, are born, develop disabilities, and age. A universal design approach is recommended for all new and major projects. However, sometimes it can be challenging to implement universal design (e.g. a small renovation to an existing building where there aren't enough resources for a complete redesign or retrofit). If that is the case, big improvements to accessibility can still be achieved using an approach that is tailored to community context and community members' requirements. Universal design should be considered in all projects, but achieving complete universal accessibility is rare. Projects should begin by considering the users of the space and engaging with them on what unique needs should be accommodated and how.

Improvements in accessibility will vary in scale and scope, but even minor universal design features improve the everyday lives of all community members.

# Recommended Design

This section adapts common best practices of universal design implemented across Canada to create accessibility at the community and site scale. Accessibility laws vary by territory and province but are all driven by the mandates of the *Canadian Human Rights Act*[3] and the *Accessible Canada Act*. These acts seek to diminish discrimination against persons with disabilities and address the need to achieve accessibility. The northern context, as previously outlined, means that best practices created for an urban context may need to be adapted to the NWT. This guide recognizes that the scale of infrastructure, size of the population, and climate make full compliance with all best practices challenging, but also that the intended outcomes can still be achieved.

These best practices can be used to create community-specific provisions in community plans and/or zoning bylaws and may also be used in conjunction with the universal design development checklist to review development applications for opportunities to increase overall site design and accessibility. Following the recommended design, sample policy provisions demonstrate how the principles can be used within community plans and/or zoning bylaws.

The guide organizes recommended design from the largest scale (community level) to the smaller scale (site design). Further recommendations for interior building design can be found in Appendix B; however, these design details are often beyond the scope of community planning and development permitting.

# Community Design

## Housing

Affordable and appropriate housing is one of the pillars of a healthy community. Finding housing can be even more challenging for individuals with disabilities, as much of the housing stock is not barrier-free.

[3] *Canadian Human Rights Act* (R.S.C., 1985, c. H-6).

- Community plans should contain provisions supporting the development of affordable housing and encouraging housing developments to include barrier-free units.
- Community plans should contain provisions encouraging new developments to make all units "visitable" where feasible. These are units with an accessible entrance and at least one barrier-free washroom on the main level, to allow community members with disabilities to visit friends and family.
- Community plans may enable incentives or provide a basis for additional support for multi-unit housing projects which incorporate a high proportion of accessible units.

***Figure 2: This building in K'asho Got'ine provides a ramp to the main entrance.***

*Although this building may not meet all accessibility standards (including for a barrier-free, cleared pathway), the inclusion of a ramp means that more people in the community can access.*

***Example Community Plan Provisions:***

- *"Amenity areas, access to parking, and laundry facilities within buildings containing barrier-free units, shall be universally accessible."*
- *"Age-friendly design considerations will be integrated into site plans by considering the needs of children and older adults and supporting aging-in-place."*
- *"Provisions in policies and plans shall ensure that communities and places are designed to consider a diversity of experiences, including children, older adults, people with disabilities, women, gender-diverse persons, and people living with lower incomes."*

## Pedestrian Pathways and Trails

Public pathways and trails should be spaces for all people with consideration for partial or total parts of the trail to be navigable by mobility aids such as wheelchairs.

***Figure 3: Extract from the Land Use Designations in the draft Fort Simpson Community Plan**, showing proposed pedestrian improvements on 100 Street, as well as new pathways and connections that will connect Simpson Island to neighbourhoods on the mainland.*

### Planning

- At a community planning level, aim to design a pathway system that lets people with mobility aids (and/or who cannot drive) access important locations.
- Plan for pathways that connect residential neighbourhoods to community services and features.
- Include policy provisions and regulations that require that new community uses, large commercial uses, and larger- scale housing projects provide a connection to the pathway system, where they are close to existing and planned pathways.
- Direct, convenient pedestrian pathways connecting parking and buildings should be provided separately from vehicular routes.
- Aim to provide at least one accessible pathway that will let people with mobility issues get to a natural feature, park, or vista.
- A portion of municipally owned or maintained trails should be accessible to those using mobility aids.

**Design**

To be accessible, pathways must be a minimum of 1600 mm wide, with an ideal width of at least 1800 mm. This allows someone using a mobility aid to pass people without moving off the pathway or trail.

- Accessible pathways must have a hard, flat and stable surface – paving is ideal, but chip-sealed, rolled fine-grained gravel, packed dirt, or packed and gritted snow are acceptable, provided they are regularly maintained to avoid ruts and ridges.
    - Slopes are difficult to navigate for those in wheelchairs and using other mobility devices. Pathways and trails should be designed to minimize slopes, for example by using switchbacks. Where there are long slopes, provide short, flat areas where wheelchair users, or people with other mobility challenges can rest. The maximum slope should be kept below 5%, to the greatest extent possible. Also seek to minimize the slope side-to-side on a trail (cross-slope[4]). Cross-slopes of more than 5% are barriers to people with wheeled mobility aids or balance issues.
- Provide trailhead signage at key entrances indicating the length of the accessible portion of the trail and warning about any extended slopes, hills or other obstacles.
- Where there is a potential conflict (e.g. at a high-volume intersection) provide convex mirrors at corners in the pedestrian path of travel to increase the ability to detect oncoming traffic for people who are hard of hearing, deaf, or wearing thick clothing over their heads.
- If a sidewalk is used, ensure a curb ramp connects the parking area to the pedestrian pathway.
- If no sidewalk is present, define the pedestrian pathway using low cement safety barriers.
- Where possible, follow the specific requirements outlined in CSA *B651-18 Accessible Design for the Built Environment*[5] (or latest version) by the Standards Council of Canada.

**Lighting for Pathways**

- Fixtures should provide indirect lighting.
- Ground-oriented lighting should be used to define the pathway.

***Example Community Plan/Zoning Bylaw Provisions:***

- *"The community plan will provide maintained pedestrian pathway networks connecting residents to amenities and services that offer a viable alternative to the use of a private vehicle."*
- *"The clear width of a pathway should be a minimum of 1600 mm."*

These spaces consider a wide range of purposely designed community spaces that allow people to gather for socialization and recreational opportunities. Universal design provides opportunities for all

[4] As per NBC-2020, 1:12, allowed up to 9m, below 5% is ideal. Cross slope 1:50, 2%.

[5] *CSA B651-18 (National Standard of Canada) Accessible Design for the Built Environment*, Standards Council of Canada, November 2018.

members of the community to participate in these gatherings, ensuring the built environment does not inhibit participation in community building.

**Outdoor Furniture**

Providing outdoor furniture, such as benches or picnic tables, provides spaces for everyone to enjoy nature while also providing rest spaces.

- Provide benches or other forms of seating with back support to the side of paths for rest areas.
- Bench design should offer varied armrests, inclusive of three seat benches with armrests at either end and one additional armrest separating one seat to provide users with dual arm rests for support while sitting and standing.
- Stable, level areas adjacent to seating areas should be provided to allow entrance and exit space for mobility aids to roll next to permanent fixtures, or to allow mobility aid users to sit next to the bench.
- Seating should contrast visually with the surrounding area for people with low vision.
- A compact, level area should be provided surrounding the seating area to provide additional space for those using mobility aids.
- Provide shelters protecting from sun, snow, wind, and rain.

**Play Areas**

Play areas in park settings provide recreational space for younger community members. Designs should consider that children of all ages will use the space. Therefore, providing a variety of elements is best practice.

- Provide stable, level paths of travel to and around the play elements/structures.
- Provide varied play elements/play structures that consider sensory experience and include features that can be used by children with a range of physical abilities.
- Locate seating around the exterior of the play elements/structures oriented for caretakers to watch the play area.

**Public Washrooms**

- Communities should have a minimum of one universal public washroom that serves public gathering spaces.
- Washroom facilities should provide options that are suitable to all, although not every washroom unit will meet every individual need.
- The public washroom should be co-located with other community amenities such as a play area, park, or trailhead. Ideally all major public and recreational facilities (e.g. band office, recreation centre, major park) should have an accessible washroom.
    - Provide signage indicating which equipment is in a washroom (e.g. grab bars, change tables etc.) rather than by labelling who can use the space.

**Sun and Wind**

- Consider sun levels in summer months in relation to the directional placement of outdoor furniture to provide options for accessible spaces to sit fronting or backing direct sunlight.
- Provide screening from prevailing winds for public outdoor sitting or play areas in summer months.

**Outdoor Winter Recreation**

Where there are publicly supported outdoor winter recreation programs or facilities, consider how people with disabilities can be meaningfully included.

***Example Community Plan Provisions:***

- *"In outdoor gathering spaces, public seating will be provided and located on a level, firm, and stable area that does not obstruct circulation routes."*
- *"New parks and playgrounds and improvements to existing recreation areas will provide accessible seating and a variety of play components including sensory components that promote active play experiences."*

## Parking

Parking areas must be safe and convenient, whether they are used by vehicles, snowmobiles, or all-terrain vehicles (ATVs). Parking areas should be level, well maintained areas with direct linkage to the associated building or amenity.

**Parking Area Design**

- Parking areas should have a stable, level, and firm surface, ideally with a slip-resistant coating.
- Ensure an even surface with minimal irregularities to reduce the potential for water accumulation, which can create a slippery surface.
- Provide parking spaces for alternative motorized and non-motorized vehicles (e.g. ATVs, golf carts, e-bikes, regular bikes).

**Accessible Parking Spaces**

- The zoning bylaw should include requirements for accessible parking spaces which are:
    - Located nearest to the main entrance of the building.
    - Served by 1500 mm wide access aisles which run along an accessible parking space (one access aisle may be shared between two accessible parking spaces).

      Clearly marked with the international symbol of access (see Figure 4) on a vertically-mounted sign[6] and on the pavement (if applicable).

[6] Signage should be not less than 2400 mm wide, mounted at not less than 1500 mm above the ground, (NBC-2020, 3.8.2.5. and notes).

- Signs should be mounted out of the pedestrian path of travel.
- Signs will be detectable by cane or walking stick if mounted on a pole.
- Signs remain visible when vehicles occupy the spaces.
- The updated dynamic accessibility symbol is the recommended symbology depicting an independent and active wheelchair user, as this symbol places the individual as the focus of the symbol rather than the depicted disability.

***Figure 4: International Symbol of Access (left) and Dynamic Accessibility Symbol (right)***

- Where at least two accessible parking spaces are required or provided, at least one should have a minimum width of 3400 mm to accommodate vans and larger vehicles.
- Avoid placement of spaces where they may be less visible to incoming traffic.
- Avoid pedestrian routes which require pedestrians to walk behind parked cars.

**Lighting**

- Parking area should be well-illuminated without sudden contrast between well-illuminated areas and dimly-lit or shady areas.
- Lights should always be on when the building is open for use.

***Example Community Plan Provisions:***

- *"Accessible parking spaces shall be located conveniently to the principal entrance and will be connected to the associated use by an access pathway of at least 1600 mm."*
- *"The zoning bylaw will set out requirements for the number, location and design of accessible parking spaces."*
- *"In addition to the minimum parking requirements, additional spaces that can accommodate alternative vehicles, such as ATVs, snow machines, bicycles and e-bikes must/should be provided for commercial, community and multi-residential uses."*
- *Parking lots and pedestrian access paths must/should provide illumination and be illuminated when it is dark outside."*

***Example Zoning Bylaw Provisions:***

- *"Where parking for visitors and members of the public is provided, accessible spaces shall be provided at the following rate:*
    - *For 1-25 parking spaces, 1 accessible space shall be provided.*
    - *For 26-50 parking spaces, 2 accessible spaces shall be provided.*
    - *For 51-75 parking spaces, 3 accessible spaces shall be provided.*
    - *For 76+ spaces, 5% of the spaces shall be accessible."*
- *"An additional accessible parking space, exceeding the minimum requirement identified above, shall be provided for medical clinics, schools and major transportation facilities, and other similarly critical community use facilities."*
- *"All accessible spaces shall be served by an access aisle that is at least 1500 mm wide. The access aisle may be shared by two spaces."*
- *Where at least two accessible spaces are provided, at least one should have a minimum width of 3400 mm.*
- *All accessible spaces shall be clearly marked with a pole-mounted sign with the dynamic accessibility symbol."*

## Signage and Wayfinding

High-quality signage and wayfinding designs use consistent thematic indicators and patterns to allow for those with diverse abilities to navigate spaces independently.

**Signage**

Universal design of signage contemplates how key messages can be communicated with little or no language.

- Signage should be able to communicate key messages to users of the space regardless of one's spoken language, literacy, age, or comprehension levels.
- Consider multi-lingual signage, including in Indigenous languages.
- Symbols, pictures, and maps can be used to show users of the space a message rather than present it in text.
- Descriptive signage should include Braille or raised characters/symbols.
- Outdoor directional signage should include approximate distances.
- Blade-style signage provides maximum visibility.
- Use of a consistent visual language can aid in comprehension, as well as supporting community identity (e.g. Ulukhaktok has adopted a customized ulu-shaped sign for all home and building numbers).
    - Facilities and services for persons with disabilities identified with appropriate symbols (e.g. availability of assistive listening devices).

**Plain Language**

Using plain language increases access to information for a wider audience. Plain language assists in the quick interpretation of messages, is easier to understand by those with low literacy levels and is easier to use with assistive translation and speaking devices.

- Where text is necessary on signage, use plain language to communicate key messages.
- Combine plain language with symbols, maps, or other graphics when possible.
- Offer key messages in two or more languages when possible.

**Wayfinding**

Effective wayfinding allows people to intuitively understand the layout of a building or area regardless of their experience with the site, language skills, or concentration levels.

- At a community scale, consider using visual features (e.g. a spire) to identify significant community buildings or gathering locations. Visual signage (e.g. an airport sign pointing in the direction of an airport, or the red plus sign indicating the roadways leading to a hospital) should also be used. Features should be culturally appropriate.

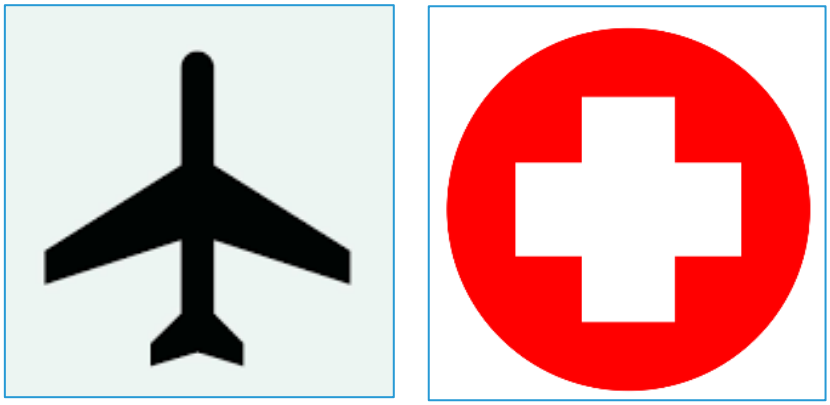


*Figure 5: Standard Airport Symbol (left), Standard Hospital/Medical Clinic Symbol (right)*

- Clearly identify the main entrance of a building with signage.
- Use architectural wayfinding methods such as:
  - Clearly define pathways or zones by differentiating materials and colours.
  - Place unique markers such as art pieces, high ceilings, or large windows at the main entrance to highlight it as a common space.
- Assistive listening systems should be available in public facilities such as hospitals and libraries.

***Example Community Plan Provisions:***

- *"New major community use facilities, such as municipal or band offices, recreation centres, medical clinics and similar uses, are encouraged to include a high-quality architectural feature that creates an identity for the building and can be seen from multiple vantage points."*
- *"Any community civic addressing bylaw adopted by Council will include a consistent visual identity for signage."*
- *"When developing new roads, or conducting major repairs on existing roads, the municipality will install signage, with directional arrows and distances to key community infrastructure (e.g. ferries, airport, hospital/clinic, etc.). Signs will have a matte or satin finish, to avoid glare off reflective surfaces."*

## Docks and Water Access

Where a municipal or public dock or water access is provided, consider incorporating the following features to make it accessible:

- An accessible path or trail to the dock or waterfront, which has been designed in accordance with best practices for the design of pathways.
- A gangway and ramp to the dock which meets best practices for the design of exterior ramps.
- Ensure that docks are sufficiently sized to allow a wheelchair user (or other mobility aid user) to safely navigate, and to allow sufficient room for support people to be present on the dock with the disabled user.
- Docks should have edge protection, in the form of a 100 mm lip on the edge of the dock to prevent wheelchairs from rolling off the dock.
- Where there is an identified community need, consider installing accessible boat launch or access systems.
- Where there is a community beach and an identified community need, mobility mats should be considered to allow wheelchair users, and those with limited mobility on rough surfaces, to have access directly to the water.

## Snow and Ice Considerations

Given the geographic context of the NWT, snow and ice impacts must be considered for all development regardless of all other recommended universal design approaches. Snow and ice can easily isolate people with disabilities, or older members of the community, within their homes if snow and ice clearing is not prioritized. Improper or inadequate clearing and right-of-way maintenance is a safety hazard, which impacts those with lower mobility and strength the most.

**Snow and Ice Clearing**

Paths of travel can be made inaccessible by snow and ice, making it difficult or impossible for some community members to access public amenities, services, and spaces. If snow and ice clearing

and/or packing is not prioritized, people may become housebound and separated from their community, their work, and their access to goods and services. While snow clearing is typically an operational concern, rather than a community planning issue, effective snow clearing is easier in well-designed areas with adequate room for snow removal and storage. Therefore, it is important for accessibility that community governments consider both together.

- Community wide, prioritize snow clearing/packing of routes to important community locations (e.g. schools, health centre, Elders' homes, etc.). Where applicable, snow-clear sidewalks to community locations).
- Snow clearing of exterior stairs and ramps must be a priority, particularly for stairs, ramps, pathways and entrances to public areas and daily necessities (e.g. pharmacies, grocery stores).
- Cleared/packed pathways should be gritted, especially if these surfaces are sloped.
- The width of a cleared and/or packed pathway shall correlate with the width of the snow clearing mechanism which must be a minimum of 1 metre.

**Snow Storage**

Site planning for community, commercial and multi-residential uses must consider where snow will be stored to ensure the value of snow clearing is not undone by snow being stored in the accessible path of travel.

Snow storage shall be outside of the following elements:

- Paths of travel.
- Accessible parking spaces and associated access aisles.
- Entrance and exit areas for exterior stairs and ramps.

**Snow drifting**

- When planning accessible pathways, consider how snow drifting will impact useability.
- Installing snow fences to help maintain clear paths, where appropriate and feasible.

***Example Community Plan Policy:***

- *"Where the zoning bylaw requires a site plan to be submitted as part of a development permit application, snow storage locations must be identified on the site plan."*

## Emergency Planning

Emergency planning for communities is typically conducted separately from the community planning process. However, community planning has significant implications for emergency planning, particularly when considering safety for community members with disabilities. Therefore, it is recommended that the following are considered as part of the community planning and emergency planning processes:

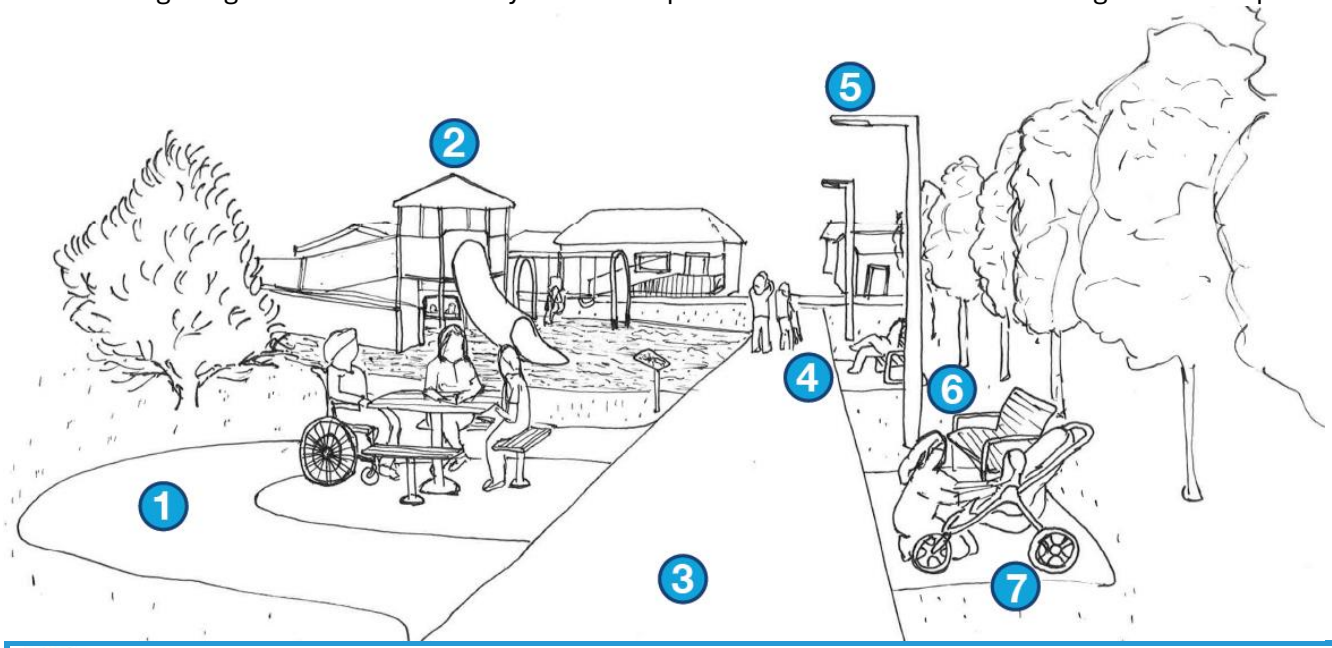
- Organize facilitated engagements with senior and Elder community members and community members with disabilities to understand:

    - What barriers these groups faced during previous emergencies and ideas to address these challenges,
    - What essential equipment and items might be required during an emergency (e.g. the evacuation location should have emergency power to charge life-maintaining medical equipment).
- Evacuation routes and muster points, and how they will be navigated by adaptive/accessible vehicles, as well as how community members who do not drive/have access to a private vehicle can be evacuated.
- Snow and ice clearing along evacuation routes.
- Consider how individuals, who may have routine or urgent out-of-community medical or support needs, can be safely transported out of the community during freeze-up, break-up, or extreme weather.
- Consider adopting a community civic addressing bylaw or policy[7], to ensure emergency services personnel can quickly identify locations where emergency services are required.
- Consider using public engagement through the emergency planning process, to ensure that there are systems to assist individuals who may need support in preparation for and during evacuation. Ensure that everyone knows that there are supports available and make it easy to sign up.

[7] For more information on the process of adopting a community civic addressing scheme, please see the companion guide in this series on *Community Civic Addressing*.

## Community Design Example

The following image illustrates how many of the best practices noted above can be integrated into a public space in the community.




1. Stable, level paths of travel provided around the play structure and seating options.
2. Varied play structures and elements provided at raised and ground levels.
3. Wide pathway permitting two-way pedestrian flow with flat, stable surfacing (ideally paved), connects housing and recreational area.
4. Seating provided to look onto the play area.
5. Overhead lighting onto the pathway increases the safety and comfort for pathway users by illuminating the path of travel, potential hazards, increasing the hours of usability of the space. The overhead placement permits lighting to maintain functionality in varied snow levels.
6. Outdoor furniture with back support and handrails in various configurations provides resting and social spaces along the pathway.
7. Additional stable, level ground adjacent to outdoor furniture provides space for mobility devices, bikes, or strollers to join rest area.

# Site Design

Site design considers the features and contexts for parcel of land how the design of a proposed development will fit well on the site. Consideration should be given to how the site will integrate into the wider community context. The following best practices apply to exterior elements in a development design.

## Main Entrance

The main entrance of each community service and essential commercial business should be barrier-free, co-locating stairs and ramps, if necessary, to reach the main entrance. Meaningful access means all users of the space may share the common entrance. Design should not relegate some users to a rear entrance or bar them completely from the building.

The location of the main entrance should be intuitive, through design mechanisms such as building placement in relation to site context, signage, door massing, or colour.

The recommended design standards below can be translated into policy provisions in the community plan and zoning bylaw. They may also be requested as part of the development permit application for larger-scale or community-oriented projects.

**Design**

- The main entrance should be a focal point of the building through massing, position, colour, and/or signage to clearly indicate the main entrance.
- Provide a stable, level landing of a minimum 1700 mm by 1700 mm in front of the door(s).
- The main entrance must be connected to the network of pedestrian pathways.
- The door should be a power operated or easy-to-open door:
    - Easy-to-open doors include doors requiring minimal force and designed to incorporate large D-pull handles, for ease of use for those with low grip strength, using a mobility aid, or wearing mittens.
    - Power door controls are located between 900 mm and 1300 mm from the ground, operable from a height between 150 mm to 300 mm as well as between 900 mm and 1100 mm above the floor, per NBC-2020.
    - Power doors must have an emergency power or fail-safe system.
    - If the entrance is through doors in a series, leave more than 1200 mm plus the width of the door between doors to allow a mobility aid to occupy the vestibule while opening the subsequent door.
- Signage at all non-accessible entrances should clearly indicate location of barrier-free entrance.

**Accessible Main Entrance Location**

- The accessible entrance should be the main entrance, co-locating exterior stairs and ramps when required.
- Avoid single-step entrances into buildings: entrances should be level or gently graded.
- Preferably, buildings should be designed so that the main entrance is at-grade.
    - Where elevated buildings are required (e.g. due to permafrost or flooding considerations), policy provisions should encourage designers to locate the principal entrance as close to grade as possible and should ensure that buildings are designed with sufficient room to provide ramps for an accessible main entrance.
- Zoning bylaw provisions and design guidelines should ensure that ramps and other exterior structures required for accessibility are permitted (e.g. under a "permitted projections" section of the zoning bylaw).

***Figure 6: K'asho Got'ine Office Main Entrance demonstrating many universal design site features:***

- *Entrance is accessible by both stairs and ramp, which are located together.*
- *The difference in elevation between the ground and the main entrance has been minimized.*
- *The ramp and steps have been snow cleared and the paths are gritted.*
- *Sturdy railings have been provided for safety.*
- *The main entrance location is indicated by an attractive canopy, and the location of the office is signaled by the flagpole.*

***Example Community Plan Provisions:***

- *"New public, commercial, mixed-use and multi-residential development projects are encouraged to highlight the main entrance with an architectural feature such as a larger canopy."*
- *"New community-purpose, public, commercial, and multi-residential buildings should be designed based on the principles of universal accessibility, to ensure all community members can visit and use services. At a minimum, the following features should be considered:*
    - *The main door will be designed to be barrier free, with an accessible path of travel.*
    - *Every door that provides an accessible path of travel through an entrance, including the interior doors of a vestibule where provided, shall be equipped with a power door operator that allows persons to activate the opening of the door in the intended direction of travel.*
    - *Access structures will be designed in accordance with the best practices for ramps."*

***Example Zoning Bylaw Provisions:***

- *"Any ramp, railing or other feature that is required to provide barrier-free access to a building may project to a lot line, regardless of the minimum setback requirements of the zone."*
- *"New community, public and institutional developments shall include barrier-free entrance and an accessible path of travel".*
- *"Definition: Accessible path of travel means a route that connects pedestrian sidewalks or pathways, and/or accessible parking to the entrance of a building, and which provides ramps or other access structures that are designed in accordance with the provisions for access ramps."*
- *"Definition: Barrier-free entrance means an entrance which is reached by an accessible path of travel, has a power door or easy-to-open door, and provides access for all users, regardless of mobility, to the main functions of the building."*

## Exterior Stairs

Exterior stairs can quickly become a hazard due to snow and ice. Proper design of the stairs is vital, to ensure stairs are easy and safe to use while also being easy to maintain. The recommended design standards below can be translated into zoning bylaw requirements.

**Design**

- Slip-resistant stripping used on the nosing of each step and landing.
- Handrails should:
    - Be provided along both sides of the staircase with a central handrail if distance from an exterior handrail is greater than 2200 mm[8].

    - Be provided at 860 mm to 920 mm in height.
    - Be constructed with low thermal conductivity materials.
    - Be composed of a rounded design, with a width appropriate to be grasped by an adult hand.
    - Provide horizontal handrail projection of at least 300 mm ending turned down into the ground or in a loop at the top and bottom to provide support and orientation.
- Provide a landing at the midpoint of the staircase if more than 12 steps are required.
- Place tactile attention indicators at the top of staircases.
- Uniform riser height and tread depth:
    - Rise of 180 mm or less.
    - Tread depth of 280 mm or more.
    - Stairs should be designed to have closed risers and minimum nosing overhang.

## Exterior Ramps

Ramps are a vital accessibility tool to link the public realm and private or public buildings, especially in areas where buildings are situated above the ground, on stilts. Ramp design must consider the level of physical effort required for someone to use independently and should connect the user to the main entrance of the building.

**Design**

- Ramps must be sloped 8.3% (1:12) or less, a 5% (1:20) slope is preferable:
    - Ramps with a slope of more than 1:16 may pose challenges for non-motorized mobility devices, especially in cold climates. 1:20 is safer, Article 3.8.3.5. permits slopes on ramps as greater as 1:12 for distance up to 9 m. When limited space available during ....1:12 allowed but shall be restricted to lengths not exceeding 3 m, wherever possible.
- Configured in one of the following layouts:
    - Straight.
    - 90-degree turn.
    - Switchback, or 180-degree turn.
    - If a ramp uses more than one consecutive slope, the slopes must be the same degree with an intermediate landing area of 1700 mm by 1700 mm between the slopes.
- Ramp should not exceed 9 m per slope. At intervals not more than 9 m, along the length of a ramp, level area not less than 1350 mm long and at least the same width as the ramp, also at abrupt change in the direction. Uniform slope of 1:20 is safer, but in case of restriction, 1:16 preferred, but if it is 1:12, length restricted to 3 m wherever possible.

    - If the ramp is between 1:12 and 1:16, the ramp should not exceed 3 m per slope.
- Ramps should use an appropriate anti-slip surface material.
- Handrails should:
    - Be provided on both sides of the ramp for the continuous length of the ramp.
    - Be constructed with low thermal conductivity materials.
    - Be provided at not less than 865 mm and not more than 1070 mm.
    - Be composed of a rounded design with a width appropriate to be grasped by an adult hand.
    - Provide horizontal handrail projection at least 300 mm ending turned down into the ground or in a loop at the top and bottom to provide support and orientation.
- Use slip-resistant and colour-contrasting stripping is used at each landing.
- A minimum of a 100 mm barrier along the ramp's surface edge to prevent users from rolling/slipping under the handrails and off the ramp.
- The ramp area should be fully illuminated.

**Placement**

- Ramps should be provided at the main entrance.
    - Avoid placing the ramp to the side or rear yard entrance, inhibiting the use of the main entrance.
    - Provide signage indicating ramp location if the ramp is not placed at the main entrance.
- Have a clear turning space of 1350 mm by 1350 mm, free of obstructions at the top and bottom of the ramp, to permit maneuverability.

***Example Community Plan/Zoning Bylaw Provisions:***

- *"The zoning bylaw will contain a section or definition with provisions for 'access ramps' that incorporate the best practices noted above."*
- *"The community plan and/or zoning bylaw will specify the land uses and types of development where access ramps and other universal design elements are required to be included in development permit applications."*

## Passenger Drop-off and Pick-up Zone

Certain educational, recreational, or medical services should include a designated drop-off and pick-up zone that permits passengers to safely enter and exit vehicles outside of zones of moving traffic.

- Provided at locations that do not offer on-site parking, particularly for buildings containing medical services, airports, or hotels.
- Provided located close to the main entrance on level ground.

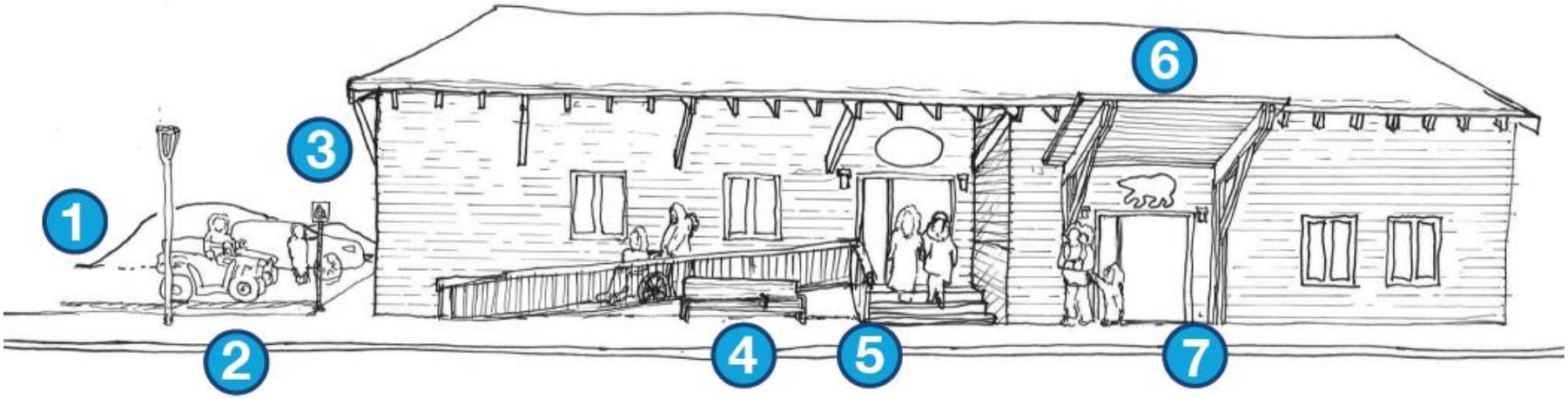
    - Connected to the main entrance by a curb cut and accessible path of travel outside of the vehicular path or travel.
- The area should be a minimum of 7 m in length and a minimum of 1500 mm wide.
- Consider pedestrian paths of travel to minimize conflict between vehicles and pedestrians.

***Example Zoning Bylaw Provision:***

- *"Passenger loading zones are encouraged to be provided in the front yard or exterior side yard for land uses with frequent unloading and loading of passengers. Design of these features should take into consideration pedestrian paths of travel to minimize potential conflicts."*

## Commercial Site Design Example

The following image illustrates how many of the best practices noted above can be integrated into a commercial development.




1. Store snow outside of paths of travel, and clear paths of travel.
2. Consideration for connecting main entrances to nearby pedestrian pathways. Create the shortest path of travel between accessible parking spaces and accessible main entrances.
3. Provide raised signage to ensure accessible parking spaces are visibly marked in all weather conditions. Provide additional spaces, beyond what is required for accessible and vehicular parking, for alternative vehicles such as ATVs and bicycles.
4. Provide rest areas near main entrances and close to drop-off/pick-up areas
5. Main entrances should always be barrier free. Where the main floor is elevated, provide an accessible path of travel to the main entrance, co-locating stairs and ramps. Stairs and ramps should be protected by overhangs/canopies and/or regularly cleared of snow and ice.
6. Use architectural elements to define the main entrance and provide protection from the elements.
7. Where possible, provide main entrances directly at grade. Ensure clear, stable ground in front of main entrances.

# Universal Design Development Checklist

The **universal design development checklist** is a tool for municipal development throughout the planning application process. The checklist provides an overview of universal design principles discussed in the Recommend Design Section of this guide.

The checklist does not provide prescriptive development standards; rather, it provides areas of review throughout the development process, to ensure consideration for accessibility and age-friendly development. Not all items in the checklist may be applicable to all developments – discretion should be applied based on the scale of development and type of use, as well as community context.

It is recommended that Development Officers and Council use the relevant sections of this checklist at the time of development submission.

| 1. | Parking Spaces and Parking Lots | Yes/No | N/A |
|---|---|---|---|
| **1.1** | The number of accessible parking spaces meet the zoning bylaw requirements. | | |
| **1.2** | Accessible space dimensions meet the zoning bylaw requirements. | | |
| **1.3** | Accessible spaces are marked by the **international symbol of access** on a vertically mounted sign in front of the space and on the pavement (when applicable). | | |
| **1.4** | Access aisle provided per the zoning bylaw requirements. | | |
| **1.5** | Designated accessible spaces are located as close as possible to the main/accessible entrance of the associated use. | | |
| **1.6** | Stable, level, and firm surfaces are provided throughout the parking area. | | |
| **1.7** | The parking layout does not propose parking spaces that back out over the pedestrian walkway. *If this cannot be avoided due to constraints of the site, work with the applicant to identify if safety measures can be implemented (e.g. slightly raised walk, warning signage, etc.).* | | |
| **1.8** | The site plan shows adequate areas for snow storage located away from paths of travel, and away from areas where they will drift towards pathways and structures. | | |
| **2.** | **Exterior Paths of Travel** | Yes/No | N/A |
| **2.1** | Curb ramps/cuts are provided. | | |
| **2.2** | Barrier-free paths of travel from parking and/or drop-off/pick-up zone to entrance(s). | | |
| **2.3** | Paths of travel connect private and public spaces for continuous pedestrian connectivity. | | |
| **2.4** | The accessible entrance to the building is connected by a barrier-free path to any nearby barrier free pathways or sidewalks that are located on or adjacent to the site. | | |
| **3.** | **Exterior Ramps** | Yes/No | N/A |
| **3.1** | Ramp sloped less than 1:12, preferably 1:20. | | |

| | | | |
|---|---|---|---|
| **3.2** | Minimize or avoid tight turns or switchbacks. | | |
| **3.3** | Handrails and ramp edging are provided on both sides of the ramp. | | |
| **3.4** | Slip-resistant and colour-contrasting stripping is used at each landing. | | |
| **3.5** | Ramp to main entrance is co-located with staircase. | | |
| **4.** | **Exterior Stairs** | Yes/No | N/A |
| **4.1** | Slip-resistant, tactile finish or strips contrasting in colour and texture on all landings, tread edges/stair nosings. | | |
| **4.2** | Handrails are provided on both sides of the staircase. | | |
| **4.3** | No more than 12 steps in succession without a landing. | | |
| **4.4** | Uniform riser height and tread depth. | | |
| **5.** | **Building Entrances** | Yes/No | N/A |
| **5.1** | The primary entrance is barrier free. | | |
| **5.2** | Signage at all non-accessible entrances should clearly indicate location of barrier-free entrance. | | |
| **5.3** | Stable level landing in front of the exterior door and appropriate space within a vestibule to permit barrier-free access. | | |
| **5.4** | The main entrance is identifiable through massing, colour, positioning, and contrast. | | |
| **5.5** | For uses that are likely to have a high volume of pick-ups and drop-offs (e.g. transportation facilities, medical clinics, etc.), a pick-up/drop-off loop is provided. | | |
| **6.** | **Lighting** | Yes/No | N/A |
| **6.1** | Illumination is positioned to minimize glare and shadow. | | |
| **6.2** | Provide illumination along paths of travel and in parking areas. | | |
| **7.** | **Signage** | Yes/No | N/A |
| **7.1** | Facilities and services for persons with disabilities are identified with appropriate symbols. | | |
| **7.2** | Signage should communicate key messages in plain language and with pictures or symbols when appropriate. | | |
| **7.3** | General and wayfinding signage is consistent in design and easily identifiable. | | |

# Appendix A – Key Definitions

### Accessibility

The degree to which a product, activity, facility, service, or environment allows everyone to participate fully and is available to everyone on an equal basis.

### Assistive Listening Systems

Assistive listening systems, cover a wide variety of devices that may help improve communication for a person with hearing loss or a speech or language disorder. Unlike hearing aids, which amplify sounds, assistive listening devices separate sounds like voices or television dialogue from background noise. These devices can augment hearing aids for people with profound or total hearing loss by providing visual alerts or vibrations, to help with the detection of sounds in a user's environment.

### Barrier

Anything (including anything physical, architectural, technological, or attitudinal; anything that is based on information or communications; or anything that is the result of a policy or a practice) that hinders the full and equal participation in society of persons with a physical, mental, intellectual, learning, communication or sensory impairment or a functional limitation.

### Blade Signage

A wall mounted, double-sided sign.

### Curb Cut

A ramp cut into a street curb to provide access between a sidewalk and the street.

### Disability

The United Nations *Convention on the Rights of Persons with Disabilities* recognizes that disability is an evolving concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others. There are a range of health and activity limitations that result in a reduced ability to participate in the day-to-day activities of community life, and the limitations can be temporary or permanent, visible, or invisible.

### Gritting

Winter gritting is the process of spreading salt or grit on roads, car parks, footpaths and other surfaces to prevent ice from forming, or to melt existing ice and snow. Grit and de-icing salt work by lowering the freezing point of water, meaning that it takes a lower temperature for water to freeze when it is mixed with salt or grit. This helps to prevent ice forming, which makes surfaces such as roads, car parks and footpaths safe for pedestrians and vehicles.

### Inclusion

The idea that everyone should be able to use the same facilities, take part in the same activities, and enjoy the same experiences, including people who have a disability or other disadvantages.

## International Symbol of Access

Pictorial sign featuring a wheelchair user, typically on a blue background, indicating building features that are suitable for people with disabilities. The updated dynamic **international symbol of access** is the preferred symbolic choice.

## Mobility Mat

A mobility mat ("mobi-mat") is a non-slip, relocatable, assistive device that allows wheelchair users, and those with limited mobility on rough surfaces, to access sandy beaches, dirt trails, or other surfaces that may be challenging for people with limited mobility, such as the wooden deck of an ocean pier, or a path covered in wood chips.

## Stair Nosing

Stair nosing is the horizontal, protruding edge of a stair where most foot traffic frequently occurs. Stair nosing, especially in commercial and industrial settings, is typically fitted with a non-slip surface to increase traction and prevent injury or even death from slips, trips, and falls.

### Plain Language

An approach to writing and developing communication materials so that they are understood by as many people as possible.

### Sensory Experience

The perceptions and responses, generated through sensory stimuli, that an individual encounters from their environment. These stimuli engage the senses – including sight, hearing, touch, taste, and smell – allowing individuals to interact with and interpret the world around them.

### Switchback

A switchback is a type of path that follows a zigzag pattern up a steep stretch of terrain such as a hill or mountainside. Rather than climbing directly up the slope, switchbacks run from one side of the slope's face to the other before "switching back" and continuing in the opposite direction.

### Universal Design

The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

### Wayfinding

A combination of elements that together enable people to orient themselves and navigate from place to place with ease. Wayfinding is more than signs. Working together with other elements of the public realm such as street furniture and public art, it includes names, landmarks, conventions, maps, and new media. It contributes to making a city more "legible" for residents, commuters, and tourists alike.

# Appendix B – Recommended Interior Building Design

## Washrooms

Appropriate washroom facilities permit everyone to be out in public spaces for extended periods of time in a safe, comfortable, and dignified way. Improper washroom facilities create hazards for people with disabilities and discourage active participation in community activities and spaces.

**Signage**

- Provide tactile signage on the wall next to the washroom door or opening to the washroom.
    - If the nearest universal washroom is not adjacent to the washroom, provide signage identifying the location of the accessible washroom inclusive of a map.
- Blade signage assists in identifying washroom location.
- Provide a change table for children in public washrooms. The only children's change table should not be in a single-gender washroom. Consider increasing the size and strength of the change table so older children with developmental disabilities or delays can be accommodated.

## Universal Washroom

At least one universal washroom should be provided in each public building.

- A universal washroom should contain the following elements:
    - Power operated or screen wall door.
    - Stall door opening width of a minimum of 850 mm.
    - Accessible stall door hardware such as a D-loop handle.
    - L-shaped wall-mounted grab bar alongside the toilet and rear-mounted grab bar hung at 600 mm.
    - Toilet with solid back support.
    - Washroom accessories mounted on the wall between 600 mm and 800 mm from the floor and within 600 mm reach from associated uses.
    - An emergency call button.
    - If an accessible urinal is provided, it must have grab bars mounted on either side, extending the length of the urinal, and provide a minimum of 1700 mm of clear area behind the urinal.
    - Knee clearance should be provided to be a minimum of 800 mm wide, 480 mm deep, and 685 mm high allowing a wheelchair user to get as close as possible to the table or counter surface.
- Universal washrooms may also include signage to accommodate gender-diverse individuals.
- Engagement with the community may identify additional accessible features for washrooms that would benefit community members, such as adult change tables.

**Location**

- Washrooms should be situated in easy-to-find locations near building entrances.
- In multi-storey buildings, washrooms should be in a repeating location on each floor.

## Interior Stairs

Stairs are the most common design mechanism facilitating the movement of users between building storeys. Design details focusing on multi-sensory elements and firm handrails can improve the accessibility of staircases.

**Design**

- Slip-resistant stripping should be used on the nosing of each step and landing.
- Handrails should:
    - Be provided along both sides of the staircase, with a central handrail if staircase if distance from an exterior handrail is greater than 2200 mm.
    - Be provided at 860 mm to 920 mm in height.
    - Composed of a rounded design with a width appropriate to be grasped by an adult hand.
    - Provide horizontal handrail projection at least 300 mm ending turned down into the ground or in a loop at the top and bottom to provide user support and orientation.
- Provide a landing at the midpoint of the staircase if more than 12 steps are required.
- Place tactile attention indicators at the top of staircases.
- Uniform riser height and tread depth:
    - Rise of 180 mm or less;
    - Tread depth of 280 mm or less.
- Stairs should be designed to have closed risers and minimum nosing overhang.

## Interior Ramps

Ideally, interior floorplates are a consistent elevation, however, ramps may be used within buildings to address minor elevation differences.

**Design**

- Ramps must be sloped 8.3% (1:12) or less; a 5% (1:20) slope is preferable.
- Ramps should be configured in one of the following layouts:
    - Straight;
    - 90-degree turn; or,
    - Switchback or 180-degree turn.
- If a ramp uses more than one consecutive slope, the slopes must be of the same degree, with an

intermediate landing area of 1500 mm by 1500 mm between the slopes.

- Ramps should not exceed 9 m per slope.
- Ramps should use an appropriate anti-slip surface material.
- Handrails should:
    - Be provided on both sides of the ramp for the continuous length of the ramp;
    - Be provided at 860 mm to 920 mm in height;
    - Be composed of a rounded design, with a width appropriate to be grasped by an adult hand; and
    - Provide horizontal handrail projection of at least 300 mm, ending turned down into the ground or in a loop at the top and bottom to provide support and orientation.
- Slip-resistant and colour-contrasting stripping should be used at each landing.
- A minimum of a 100 mm barrier along the ramp's surface edge should be included, to prevent users from slipping under the handrails and off the ramp.

**Location**

- Ramps should be located adjacent to the stairs.

## Elevators

Elevators are the preferred design mechanism facilitating access by users to all floors of a multi-storey building.

**Design**

- Clear space, a minimum of 1700 mm by 1700 mm, should be provided in front of the doors.
- Provide tactical elevator signage to the side of the elevator doors.
- Call button located between 900 mm and 1300 mm from the ground.
- The interior of the elevator should provide colour contrasting walls and floors.
- Elevator serves all levels of the building, inclusive of employee only spaces.
- Audible location indicators within elevators.

**Location**

- Co-located with the main entrance and staircase.

## Circulation

The arrangement of uses throughout a building or site should ensure the layout is logical, understandable, and follows patterns permitting movement horizontally and vertically throughout a building. Circulation should be as straight and predictable as possible benefiting those who are blind or with low vision.

- Hallway should be a minimum of 1 m wide.
- Interior door widths or entryways should be a minimum of 850 mm.

- Interior doors should have vision panels increasing safety.
- Avoid split-level design when possible.
- Ideally, hallways will permit two people to walk side by side allowing people to utilize sign language while moving.

## Public Tables and Counters

Spaces in which the public may gather around tables or access information at counters, should consider accessible heights and knee clearance for those using mobility aids.

**Design**

- Tables and counters should be at a height between 730 mm and 860 mm from the floor.
- Counters may have a split-level design, providing a standing height section and seated height section.
- Knee clearance should be provided to be a minimum of 800 mm wide, 480 mm deep, and 685 mm high allowing a wheelchair user to get as close as possible to the table or counter surface.

## Lighting and Sensory Considerations

**Lighting**

Appropriate light levels provide safety to users of a site by eliminating or reducing dim areas of potential hazards and increasing the feeling of security. Measurements of the lumens are not required to be mechanically read, rather the lighting can be assessed as meeting an acceptable light level and coverage area as perceived by the eye.

**Sensory Considerations**

Environments that are noisy, brightly lit, or have many distracting features may be overwhelming to neurodiverse people. Interior environment design is complex and will need to be guided by the architect or designer. The specific use and users will need to be considered, as the needs of different users may conflict and need to be balanced or carefully resolved through design. Look to minimize the echoing of noise. Soft surfaces such as carpeting or curtains aid in absorbing noise while hard surfaces such as concrete and tile reflect noise throughout a space. Consider that overly bright or “blue” light may cause headaches or sensory overload.

Some facilities, such as schools or community centres, may benefit from having a “quiet” or “sensory” room that can provide a respite area for users. Consider the internal placement of quiet areas in the building to ensure that the louder acoustics of one environment do not interfere with the functionality of a quieter acoustic space nearby.

# Contacts

For additional information or help with questions on the *NWT Community Planning Framework* or its associated guides, please contact the Regional Superintendent with Department of Municipal and Community Affairs:

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