## **Universal Design Checklist**

# **Parking**

Accessible parking and drop-off provisions are needed to cater for a variety of users. Cycle parking and associated facilities should also be provided to assist in health promotion and wellness. All parking should be located and designed for convenience, safety and easy wayfinding.

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## **Accessible Parking Provision**

- ☐ Supply the following minimum number of accessibility car parks (NZS 4121):
  - 1 accessible car park for 20 car parks or less.
  - 2 accessible car parks for 21-50 car parks.
  - 1 accessible car park for every additional 50 car parks.
  - Better practice is to provide a minimum of 1 accessible car park for every ten carparks or dwellings. (SNZ)
- Locate accessible parking spaces close to building/ facility entrances and provide an accessible route from parking spaces to entrances (CEUD).

### **Other Parking Provision**

Provide drop off points

- ☐ Supply larger parking bays in a convenient location for users with special access needs, such as caregivers with young children (CEUD)¹.
  - These should be located on an accessible route close to main building/facility entrances and should be well sign posted for both drivers and
    - pedestrians (NZS 4121).
  - Wherever possible, drop off points should be covered to provide protection from the weather.
  - Ensure the adjacent pavement is wide enough to cater for different users, including those with wheelchairs, and that there is a kerb cut or it is level with the road (MBIE).
- Provide short term visitor bicycle parking at main entrances to buildings.
- ☐ Provide secure bicycle parking for building occupants. This parking should:
  - be easily accessible from the building.
  - allow for the easy and safe movement of cyclists to and from the site. Prioritise pedestrian routes over cyclists as they are more vulnerable (MBIE).
  - be co-located with showers, changing rooms and lockers if used by commuters arriving at work.

## **Accessible Parking Design**

Perpendicular (90°) accessible parking spaces should have a minimum dimension of 2400mm x 4800mm, with additional 1200mm wide access aisles on both sides and at the end of the parking space (CEUD). $^2$
Parallel parking spaces should have a minimum dimension of 3600mm wide x 7000mm long. Ensure street furniture, lamp posts etc. do not obstruct the pavement side of car parks $(CEUD)^3$ .
Wherever possible, accessible parking spaces should be covered to provide protection from the weather NZS4121 <sup>4</sup> .
Provide a minimum vertical clearance of 2600mm to accessible parking spaces (accessible vehicles such as vans require higher clearance). Provide signage to indicate any height restricted routes to parking and direct users to an alternative 2600mm accessible route (CEUD).
Surfaces of car parks and surrounding transfer spaces should be level, firm and slip resistant (MBIE).

## **Other Design Considerations**

Integrate the principles of CPTED into the design of any car parks and related accessways.
Make sure ticket dispensers and prepay machines are accessible.
Ticket machines should be conveniently located, highly visible, and easy for all users to understand and use.
Include an assistance intercom and visual display for all ticket machines (CEUD).
Apply the principles of passive surveillance and utilise CCTV coverage to provide for users' safety.
Lighting above car parks and simple sensors are an effective way to indicate availability. Blue indicates an accessible carpark, green indicates an available carpark and red indicates that a carpark is occupied

<b>Moving</b> 1	from	the	Car	<b>Park</b>	to	the	<b>Building</b>
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Provide a firm and level pedestrian surface with a maximum cross-fall gradient of 1:50 (NZS 4121).	
Ensure the route between the car parking and the entrance to the building/facility is clear and easy to navigate (CEUD).	
<ul> <li>Accessible routes to the building/facility entrance should be supplied from all accessible car parks.</li> <li>These routes should have a minimum width of 1200mm (1800mm preferred) and should always be physically separated from vehicle maneuvering areas.</li> <li>People using accessible car parks should never have to pass behind parked cars when moving to an accessible route or when approaching an entrance (NZS4121)<sup>5</sup>.</li> <li>The site and buildings should be designed to maximise passive surveillance over accessible parking and access areas.</li> </ul>	
Ensure car park levels are served by lifts providing access to all floors (CEUD).	

Signage using the International Symbol of Access should guide users to accessible car parking. This should include signage that is readily visible to vehicles at the entrance to the car park (NZS 4121).
For multi-level car parks, provide wayfinding signage on each level. Consider using colour to differentiate
hetween levels <sup>6</sup> .

#### **Endnotes**

- 1 Large bays are helpful for a number of users including those with large vehicles and caregivers with children.
- Access aisles are very important. If adequate access aisles are not provided, vehicle side entry ramps cannot be extended, rendering the parking space unusable.
- Wheelchair accessible vans with a rear loading hoist need additional space for the hoist to deploy and for the person in a wheelchair to move safely on/of of the hoist.
- Older adults and disabled people take longer to transfer in and out of vehicles and often have mobility aids. Providing cover for accessible parking spaces increases safety and comfort.
- 5 People who use wheelchairs are at a lower height than those walking and are at higher risk for being hit by vehicles reversing.
- 6 Different options can be used to differentiate between car parking levels including numbering and colouring.
  Good differentiation between levels helps all users, particularly older adults and visitors.

#### **Reference List**

Ministry of Business Innovation & Employment (MBIE) (2019). Buildings for everyone: Designing for access and usability. Wellington, NZ: MBIE <a href="https://www.building.govt.nz/building-code-compliance/d-access/d1-access-routes/buildings-that-must-be-accessible-for-people-with-disabilities">https://www.buildings.govt.nz/buildings-code-compliance/d-access/d1-access-routes/buildings-that-must-be-accessible-for-people-with-disabilities</a>

Standards New Zealand (2001). NZS: 4121 Design for access and mobility - Buildings and associated facilities. Wellington, NZ: SNZ

https://www.standards.govt.nz/shop/NZS-41212001

Statistics New Zealand (2013). Disability survey <a href="https://www.stats.govt.nz">https://www.stats.govt.nz</a>

Crime Prevention through Environmental Design (CPTED) <a href="https://environment.govt.nz/publications/national-guidelines-for-crime-prevention-through-environmental-design-in-new-zealand/">https://environment.govt.nz/publications/national-guidelines-for-crime-prevention-through-environmental-design-in-new-zealand/</a>

The Centre for Excellence in Universal Design (CEUD) (n.d.) Building for everyone. Dublin, Ireland: https://universaldesign.ie

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