Dear Sir/Madam

CODE ON ACCESSIBILITY IN THE BUILT ENVIRONMENT 2019

Objective

1. This circular is to inform the building industry on the announcement of the Code on Accessibility in the Built Environment 2019.

Background

2. The Code on Accessibility (“the Code”) was reviewed by a tripartite working committee comprising representatives from government agencies, industry stakeholders, academic institution and voluntary welfare organizations. In this fifth revision, there are enhanced provisions to improve accessibility in the built environment for persons with disabilities and the elderly. The key changes to the Code are listed in Annex A.

Effective date

4 The Code on Accessibility in the Built Environment 2019 will be effective from 06 January 2020. The provisions of the Code will apply to new buildings and existing buildings undergoing major retrofitting works, where the first set of plans are submitted to BCA for regulatory approval on or after 06 January 2020.

For clarification

5 I would appreciate it if you could convey the contents of this circular to members of your organization. For clarification, please email to BCA_UD@bca.gov.sg or call 1800 3425222.

Yours faithfully

SERENE PEH (MS)
DIRECTOR
BUILDING PLAN AND UNIVERSAL DESIGN DEPARTMENT
BUILDING PLAN AND MANAGEMENT GROUP
for COMMISSIONER OF BUILDING CONTROL
BUILDING AND CONSTRUCTION AUTHORITY
## Annex A

### KEY CHANGES TO ACCESSIBILITY CODE

<table>
<thead>
<tr>
<th>NO</th>
<th>NEW/ REVISED PROVISION IN CODE 2019</th>
<th>PROVISION IN CODE 2013</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td><strong>SANITARY PROVISION</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1.1 | *(New Clause 5.8)* Mandatory provision of Accessible Changing Room at selected building types such as:  
   - a) Hospitals, health-care centres, polyclinics;  
   - b) Major transport terminals/ interchanges, e.g. airport, bus & MRT interchanges/ railway stations, cruise centres;  
   - c) Sport complexes;  
   - d) Theme parks, purpose-built family amusement centres, community clubs and country clubs; and  
   - e) Shopping complexes of size 20,000 sqm or more in gross floor area.  
   At least one Accessible Changing Room of minimum size (2.6m X 2.3m) shall be provided at appropriate location. | No provision | This is a new requirement to support adults with disabilities and elderly who may need the help of caregivers to clean-up and change diapers.  
*Note 1: Accessible Changing Room is a combined toilet & changing room for use by adults with disabilities or elderly who require the help of caregivers.* |
| 1.2 | *(New Clause 5.1.3)* At least one larger accessible individual washroom shall be provided at every floor where clusters of toilets are provided for the selected building types as:  
   - a) Shopping complexes, multi-purpose complexes;  
   - b) Sport complexes, places of public resort, public swimming pools;  
   - c) Markets, hawker or food centres;  
   - d) Transport stations, interchanges, passenger terminals;  
   - e) Hospitals, health-care centres, polyclinics; and | *(Clauses 5.1.1 and 5.1.2)* At every level of a non-residential building where toilets are provided, at least one accessible individual washroom of minimum size 1.75m wide X 1.75m deep shall be provided.  
Where two or more clusters of toilets are provided at the same level but at different locations, the corresponding number of accessible individual washrooms shall be provided. Each accessible individual washroom may be replaced with one | This is a new requirement to address the growing trend of the elderly and persons with disabilities using motorised wheelchair and scooters. The current accessible toilet size has to be increased as the current provision was based on standard manual wheelchair. |
<table>
<thead>
<tr>
<th>NO</th>
<th>NEW/ REVISED PROVISION IN CODE 2019</th>
<th>PROVISION IN CODE 2013</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f) Universities or institutions of learning, colleges. The minimum size of such toilet shall be 1.8m wide X 2.1m deep.</td>
<td>accessible water closet compartment (minimum size 1.50m wide X 1.75m deep) in the male and female toilet clusters provided that there is at least one accessible individual washroom on the same level.</td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>FAMILY-FRIENDLY FACILITIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td><em>(New Clause 6.9.1.3)</em> At least one lactation room for nursing women at appropriate location shall be provided to the following buildings:</td>
<td><em>(Clause 6.9.1.1)</em> Provision of family-friendly facilities for nursing women, young children and their caregivers shall be provided at the following building types that are frequented by general public:</td>
<td>Enhanced requirement to require more building types to be provided with lactation room. For example, lactation room to be provided at outpatient areas in hospitals and polyclinics to cater to parents with young children. While lactation room to be provided in office buildings of certain size for working mothers who may need to express milk.</td>
</tr>
<tr>
<td></td>
<td>a) Hospitals, health-care centres and polyclinics;</td>
<td>a) Transport stations, interchanges and passenger terminals;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Offices and Business Parks where GFA ≥ 10,000m²; and</td>
<td>b) Sport complexes and public swimming pools;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Mixed development where GFA for “non-residential component” ≥ 10,000m². Each non-residential component shall be provided with at least one lactation room.</td>
<td>c) Community Club, theme parks and purpose-built family amusement centres;</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>The GFA of non-residential component for mixed development is to exclude building types specified under clause 2.3.11.1.</em></td>
<td>d) Large scale shopping and multi-purpose complexes of size more than 10,000m² in GFA.</td>
<td></td>
</tr>
</tbody>
</table>

*3.0 CARPARK*  

<p>| 3.1 | <em>(Revised Clause 2.1.1 – Table 1)</em> For vehicle parking buildings and buildings with vehicle parking facilities, car parking areas are to be made accessible. This includes interconnectivity of the car parking areas to lift lobbies and entrances as well as to adjacent buildings. | <em>(Clause 2.1.1 – Table 1)</em> For vehicle parking buildings, at least 50% of car park decks are to be made accessible. | Enhanced requirement to ensure that all car parking areas and interconnection to adjacent lobbies/buildings are accessible. |</p>
<table>
<thead>
<tr>
<th>NO</th>
<th>NEW/ REVISED PROVISION IN CODE 2019</th>
<th>PROVISION IN CODE 2013</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0 ACCESSIBLE PARKING LOTS FOR HOSPITALS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td><strong>(New Clause 3.5.1.2 – Table 2A)</strong></td>
<td></td>
<td>The ratio of accessible parking lots is enhanced for hospitals as the probability of persons in wheelchairs visiting such places is higher.</td>
</tr>
<tr>
<td></td>
<td>The number of accessible parking lots for hospitals shall be increased and provided as follows:</td>
<td><strong>(Clause 3.5.1.1 – Table 2)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Table 2A</strong>&lt;br&gt;Accessible Parking Lots</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Number of vehicle parking lots</strong></td>
<td><strong>Number of accessible lots</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First 50 lots (1-50)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Next 50 lots (51-100)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Every subsequent 200 lots or any part thereof</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>(Clause 3.5.1.1 – Table 2)</strong></td>
<td>The current provision is as follows:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Table 2</strong>&lt;br&gt;Accessible Parking Lots</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Number of vehicle parking lots</strong></td>
<td><strong>Number of accessible lots</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First 50 lots</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Next 50 lots</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Every subsequent 200 lots or part thereof</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5.0 RAMP</td>
<td></td>
<td></td>
<td>Received feedback that it was difficult for wheelchair users to wheel up a 1:12 ramp with a horizontal run of 9m. The revision is to have a 1:12 ramp with a shorter horizontal run of 6m to enable wheelchair users to wheel up the ramp with less difficulty.</td>
</tr>
<tr>
<td>5.1</td>
<td><strong>(Revised Clause 4.6.5.2 – Table 5)</strong></td>
<td><strong>(Clause 4.6.5.2 – Table 5)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ramp with gradient of 1:12 shall have a length of horizontal run of not more than 6m instead of 9m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>(Clause 4.6.5.2 – Table 5)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The current 1:12 ramp shall have a length of horizontal run of not more than 9m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0 RESTING AREAS</td>
<td></td>
<td></td>
<td>Relaxed requirement for footpaths, park connectors, parks and open spaces.</td>
</tr>
<tr>
<td>6.1</td>
<td><strong>(Revised Clause 4.2.5.1)</strong></td>
<td><strong>(Clause 4.2.5.1)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resting area with seats shall be provided along long paths of travel. The maximum intervals for the resting areas:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) shall be 50 m around and within the buildings;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) should be 50 m for footpaths and park connectors; and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(c) should be 30 m in parks and open spaces.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>NEW/ REVISED PROVISION IN CODE 2019</td>
<td>PROVISION IN CODE 2013</td>
<td>REMARKS</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------</td>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>6.2</td>
<td>(Note 2 under Clause 4.2.5)</td>
<td>(Note under Clause 4.2.5) Resting areas should be recessed from the long paths of travel which can also act as a passing space for two wheelchair users to pass each other as illustrated in Figure 21.</td>
<td>For safety and security reasons.</td>
</tr>
<tr>
<td></td>
<td>(1) Resting areas should be recessed from the long paths of travel which can also act as a passing space for two wheelchair users to pass each other as illustrated in Figure 21.</td>
<td>(Note under Clause 4.2.5) Resting areas should be recessed from the long paths of travel which can also act as a passing space for two wheelchair users to pass each other as illustrated in Figure 20.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) Resting areas do not apply to the passageway linking transport stations within the interchange and passageway of underpass/linkways from entrance to concourse of transport stations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.0</td>
<td>DETECTABLE WARNING SURFACE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>(Additional Notes 4 and 5 under Clause 4.11.3 to specify that detectable warning surface shall not apply to staircases that lead to areas of certain building types; and new setback dimension for staircase storey shelter respectively)</td>
<td>(Notes under Clause 4.11.3) (1) Strongly patterned carpets shall not be used for stairs as they obscure the definition of the tread edges and can cause danger to users.</td>
<td>Additional Note 4: To ensure clarity for compliance as persons with vision impairment are unlikely to access these areas.</td>
</tr>
<tr>
<td></td>
<td>(1) Strongly patterned carpets shall not be used for stairs as they obscure the definition of the tread edges and can cause danger to users.</td>
<td>(2) Bright stainless steel or polished brass should not be used for nosing strips as glare reflection can cause disorientation to persons with visual impairments.</td>
<td>Additional Note 5: To allow setback flexibility due to design of staircase storey shelter.</td>
</tr>
<tr>
<td></td>
<td>(2) Bright stainless steel or polished brass should not be used for nosing strips as glare reflection can cause disorientation to persons with visual impairments.</td>
<td>(3) The detectable warning surface is to alert persons with visual impairments that they are approaching steps and to be extra careful.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) The detectable warning surface is to alert persons with visual impairments that they are approaching steps and to be extra careful.</td>
<td>(4) Clause 4.11.3 shall not apply to stairs that lead to areas specified under clauses 2.3.11.1, 2.5.1 and workers’ dormitory.</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>NEW/ REVISED PROVISION IN CODE 2019</td>
<td>PROVISION IN CODE 2013</td>
<td>REMARKS</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------</td>
<td>------------------------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>(5) If it is due to blast door of staircase storey shelter, the detectable warning surface can be set back more than 300mm away from the step.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 8.0 HEARING ENHANCEMENT SYSTEM

#### 8.1 [Revised Clause 6.8.1(a)]
A hearing enhancement system shall be provided in buildings with halls and auditoriums used for conferences, lectures, performances or films.

#### 8.2 (Revised Note 2 under Clause 6.8.1)
Hearing enhancement systems that operate with induction loop, infrared and radio frequency are commonly used to provide enhanced level of sound. Other systems that provide similar performance outcome can also be considered.

#### 8.3 (Additional Note 4 under Clause 6.8.1)

1. A hearing enhancement system enables sound signals to be transmitted to a hearing impaired person without interference of background noise or excessive reverberation.

2. Hearing enhancement systems that operate with induction loop, infrared and radio frequency are commonly used to provide enhanced level of sound. Other systems that provide similar performance outcome can also be considered.

3. Expert advice should be sought when selecting a hearing enhancement system appropriate for the situation and purpose.

---

52 Jurong Gateway Road #11-01 Singapore 608550
Tel: 1800 3425222 Fax: (65) 6334 4031 Email: bca_enquiry@bca.gov.sg
www.bca.gov.sg
An MND Statutory Board
<table>
<thead>
<tr>
<th>NO</th>
<th>NEW/ REVISED PROVISION IN CODE 2019</th>
<th>PROVISION IN CODE 2013</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| (4) | The area of coverage for loop system is recommended to be not less than 75% of the total area. | (3) Expert advice should be sought when selecting a hearing enhancement system appropriate for the situation and purpose. | |}

9.0 ACCESSIBLE LIFT

9.1 *(New Clause 4.9.2.2)*
Non-breakable mirror or mirror like finish surface shall be provided at the rear of lift car interior to allow visual feedback for wheelchair users when reversing backwards into the lift lobby. The bottom edge of the mirror shall be at the maximum height of 1000 mm from finished floor level.

*Note under Clause 4.9.2.1*
It is a recommendation to provide non-breakable mirrors in the lift interior to allow visual feedback for wheelchair users when reversing backwards into the lift lobby.

To convert a current recommendation to mandatory requirement. This would allow visual feedback for wheelchair users when reversing backwards into the lift lobby.

9.2 *[New Clause 4.9.5.1(c)]*
The lift car control buttons located inside the lift:

(a) shall be placed at a height of between 900mm and 1200mm from the floor level;
(b) may be placed vertically or horizontally or both vertically and horizontally; and
(c) at least one shall be placed to the side of lift car.

*(Clause 4.9.5.1)*
The lift car control buttons located inside the lift:

(a) shall be placed at a height of between 900mm and 1200mm from the floor level; and
(b) may be placed vertically or horizontally or both vertically and horizontally.

The current Code does not specify explicitly where the lift control buttons are placed and this is left to the suppliers and owners to locate them either at the front or side. However, wheelchair users’ feedback on challenges faced in turning their wheelchairs around to reach the lift control buttons if these were placed at the front. This is more so when the lift is crowded. Hence, revised Code indicates explicitly that the lift control buttons are to be located to the side of lift car to facilitate access.
<table>
<thead>
<tr>
<th>NO</th>
<th>NEW/ REVISED PROVISION IN CODE 2019</th>
<th>PROVISION IN CODE 2013</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.3</td>
<td><strong>(Revised Clause 4.8.2.5)</strong> Lift landing call and car control buttons shall not be touch-sensitive but shall require a light positive pressure to activate them. <strong>These buttons shall have colour-contrast against the background of either the lift control panel or wall finish.</strong></td>
<td><strong>(Clause 4.8.2.5)</strong> Lift landing call and car control buttons shall not be touch-sensitive but shall require a light positive pressure to activate them.</td>
<td>This is to allow elderly and low vision users to differentiate the lift buttons from the background when calling for a lift at landing and/or when entered into the lift.</td>
</tr>
<tr>
<td>10.0</td>
<td>RESIDENTIAL UNITS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.1</td>
<td><strong>(Revised Clause 7.2.1)</strong> The doorway of the entrance shall be 850 mm minimum for a single leaf door. If the doorway has two independently operated door leaves, at least one active leaf shall be 850 mm minimum.</td>
<td><strong>(Clause 7.2.1)</strong> The doorway of the entrance shall be 800 mm minimum for a single leaf door. If the doorway has two independently operated door leaves, at least one active leaf shall be 800 mm minimum.</td>
<td>The current Code specifies the minimum width of door opening at the main entrance of residential unit as 800 mm. However, this entrance is also an exit and has to meet SCDF’s minimum door width of 850 mm. The revised Code specifies a minimum width of 850 mm door opening to align with SCDF’s requirement for consistency.</td>
</tr>
</tbody>
</table>
DISTRIBUTION (via e-mail):

President
Institution of Engineers, Singapore (IES)
70, Bukit Tinggi Road
Singapore 289758
ies@iesnet.org.sg

President
Association of Consulting Engineers, Singapore (ACES)
18 Sin Ming Lane #06-01
Midview City
Singapore 573960
secretariat@aces.org.sg

President
Real Estate Developers’ Association of Singapore (REDAS)
190 Clemenceau Avenue
#07-01 Singapore Shopping Centre
Singapore 239924
enquiry@redas.com

President
Singapore Contractors Association Limited (SCAL)
Construction House
1 Bukit Merah Lane 2
Singapore 159760
enquiry@scal.com.sg

President
Singapore Institute of Architects (SIA)
79 Neil Road
Singapore 088904
info@sia.org.sg

President
Society of Project Managers (SPM)
Macpherson Road P.O. Box 1083
Singapore 913412
societyofprojectmanagers@gmail.com

President
Singapore Institute of Building Limited (SIBL)
20 Maxwell Road
#08-06 Maxwell House
Singapore 069113
josephine@sibl.com.sg
President
Singapore Institute of Surveyors & Valuers (SISV)
110 Middle Road #09-00
Chiat Hong Building
Singapore 188968
sisv.info@sisv.org.sg

President
Singapore Structural Steel Society (SSSS)
1 Liang Seah Street
#02-11/12 Liang Seah Place
Singapore 189022
secretariat@ssss.org.sg

President
Professional Engineers Board, Singapore (PEB)
52 Jurong Gateway Road
#07-03
Singapore 608550
registrar@peb.gov.sg

President
Board of Architects (BOA)
5 Maxwell Road
1st Storey Tower Block, MND Complex,
Singapore 069110
boarch@singnet.com.sg

Chief Executive Officer
Urban Redevelopment Authority
45 Maxwell Road
The URA Centre
Singapore 069118
Lim_eng_hwee@ura.gov.sg

Deputy Chief Executive
Infrastructure & Development
Land Transport Authority (LTA)
1 Hampshire Road Block 8 Level 1
Singapore 219428
Chua_chong_kheng@lta.gov.sg

Deputy Chief Executive Officer (Building)
Housing & Development Board (HDB)
480 Lorong 6 Toa Payoh
HDB Hub
Singapore 310480
Fong_chun_wah@hdb.gov.sg
Deputy Chief Executive Officer
Sentosa Development Corporation
33 Allanbrooke Road, Sentosa
Singapore 099981
Agencies_circul ars@sentosa.com.sg

Assistant Chief Executive
Policy & Planning Group
Singapore Tourism Board
1 Orchard Spring Lane
Tourism Court
Singapore 247729
Yap_chin_siang@stb.gov.sg

Group Director
Policy and Planning Division
National Parks Board
Singapore Botanic Gardens
1 Cluny Road
Singapore 259569
Ang_wei_ping@nparks.gov.sg

Director
Fire Safety & Shelter Department
Singapore Civil Defence Force
HQ Singapore Civil Defence Force
91 Ubi Avenue 4
Singapore 408827
Chris_tan@scdf.gov.sg

Director
Building and Infrastructure
Defence Science & Technology Agency
1 Depot Road
Defence Technology Tower A
Singapore 109679
Lee_eng_hua@dsta.gov.sg

Director of Infrastructure
School Campus Department
Ministry of Education
1 North Buona Vista Drive
Singapore 138675
Choo_boon_chiao@moe.gov.sg
Director
Engineering Development and Procurement Department
Public Utilities Board (PUB)
40 Scotts Road #18-01
Environment Building
Singapore 228231
Young_joo_chye@pub.gov.sg

Director
Hawker Centres Division
National Environment Agency
480 Lorong 6 Toa Payoh
#26-01 HDB Hub East Wing
Singapore 310480
Ivy_ong@nea.gov.sg

Director
Leasing Division
Singapore Land Authority
55 Newton Road
#12-01 Revenue House
Singapore 307987
Nelson_liew@sla.gov.sg

Director
Technical Services Division
JTC Corporation (JTC)
8 Jurong Town Hall Road
The JTC Summit
Singapore 609434
Tan_su_chern@jtc.gov.sg

Director
Building & Estates Management Division
People’s Association
9 King George’s Avenue
Singapore 208581
David_low@pa.gov.sg

Chief
Sport Infrastructure Group
Sport Singapore
3 Stadium Drive
Singapore 397630
Lim_hong_khiang@sport.gov.sg

All CORENET e-Info subscribers