

# Self- Certification Training Accessibility

---



PLANNING & DEVELOPMENT  
**PRESERVE**  
**SHAPE**  
**BUILD**

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

Rost Sapon, P.E.  
Structural Plans Engineer  
Accessibility Technical Lead  
City of Phoenix  
Planning and Development Department

[rost.sapon@phoenix.gov](mailto:rost.sapon@phoenix.gov)

602-262-7802

## 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

Many of you listening have taken college classes.

So, what is the minimum grade you need to achieve in order to get credit for a class?

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

# D

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

**CODES SPECIFY MINIMUM REQUIREMENTS**



# 2018 Phoenix Building Construction Code



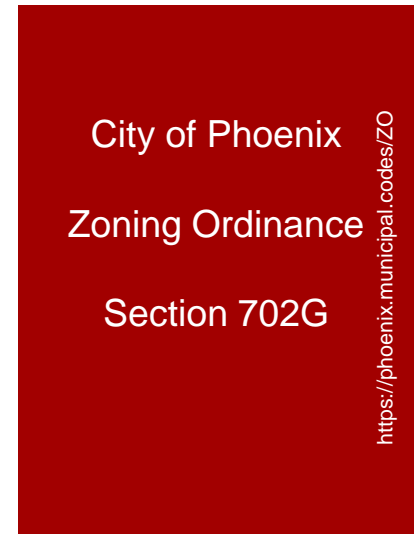
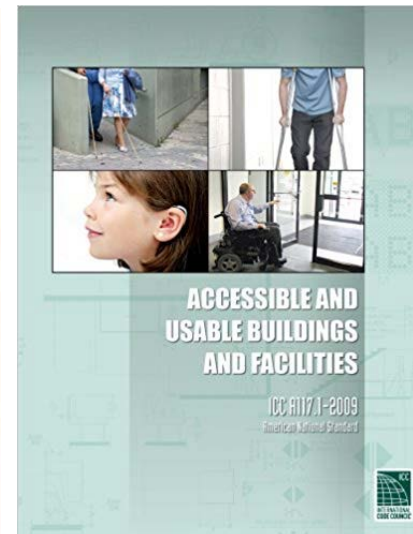
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

2018 International Building Code (IBC) with amendments

2018 International Existing Building Code (IEBC) with amendments

2009 ICC A117.1 Accessible and Usable Buildings and Facilities

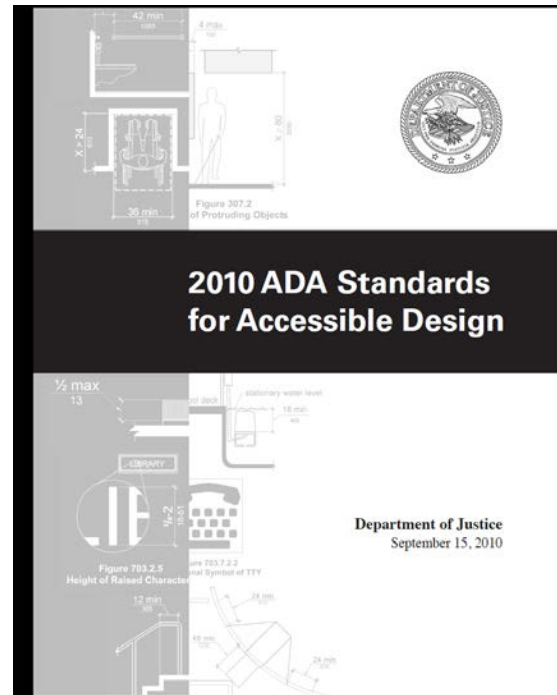
City of Phoenix Zoning Ordinance (available online)



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**



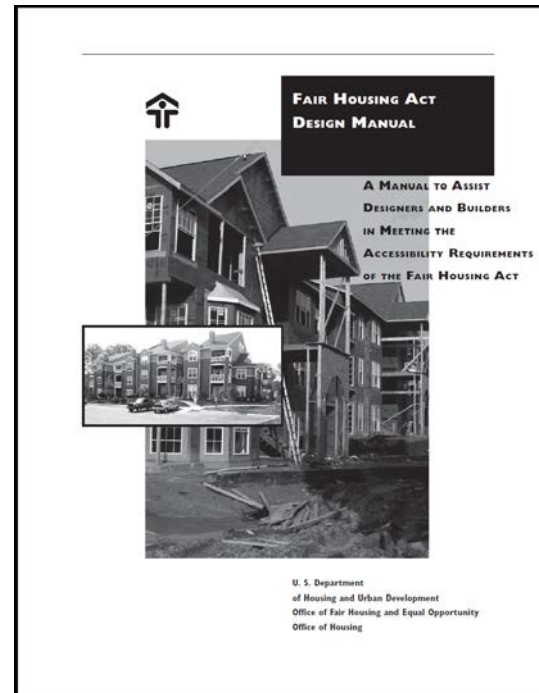
City of Phoenix  
Street Transportation  
Department

standards and policies

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

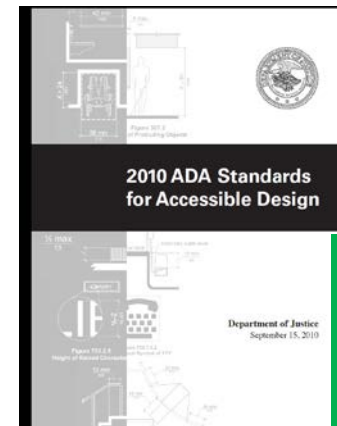
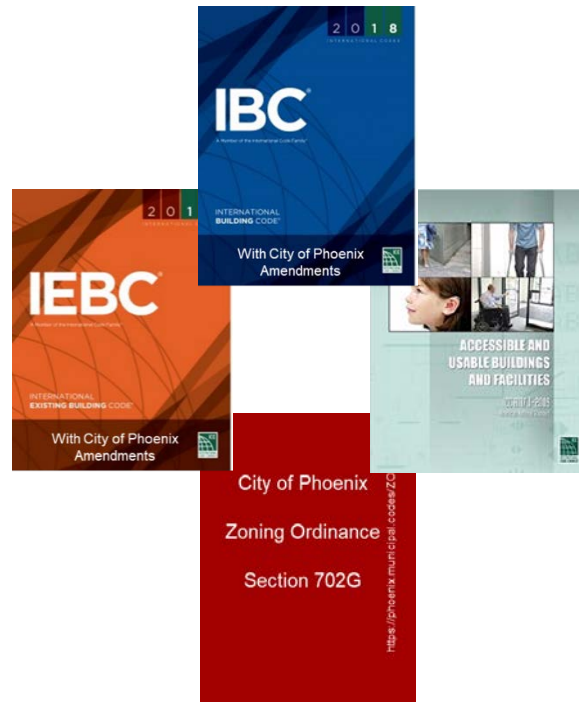




# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**



City of Phoenix  
Street Transportation  
Department

standards and policies

For work not in the Public  
Right-of-Way

For work in the Public  
Right-of-Way

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

IBC document specifies the scope for the required accessibility features.



What type of dwelling units are required.

How many Type A dwelling units are required.

# 2018 Phoenix Building Construction Code

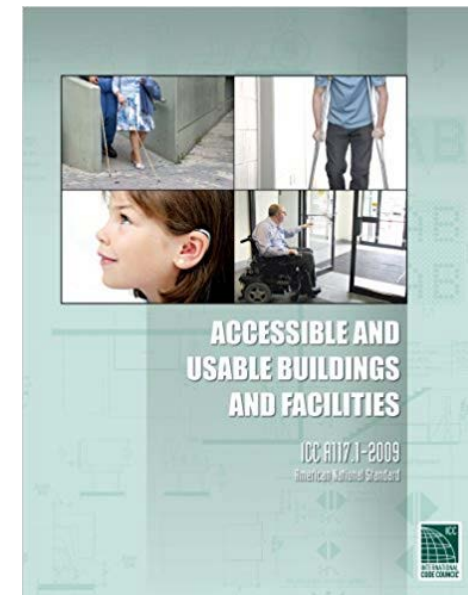


PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

ICC document gives you the minimum technical standards on how to make each required feature accessible.

How high the kitchen counters in a Type A dwelling unit.

Where the grab bar reinforcements need to be placed in the bathroom of a Type A dwelling unit.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

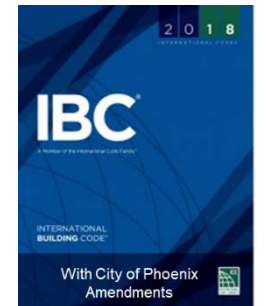
## 2018 International Building Code

- CHAPTER 10 - MEANS OF EGRESS

Section 1009 Accessible Means of Egress

- CHAPTER 11 - ACCESSIBILITY

- APPENDIX E - SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS

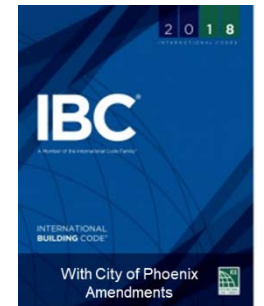


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility



1103.1 Sites, buildings, structures, facilities, elements and spaces, temporary or permanent, shall be accessible to individuals with disabilities.

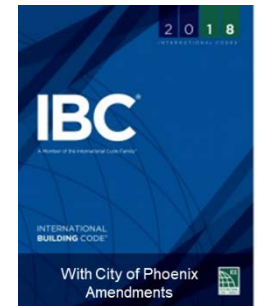
# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – General Exceptions

- Employee work areas.
- Detached one- and two- family dwellings, their accessory buildings, facilities, and sites.
- Group U occupancies.
- Construction sites.
- Raised areas
- Limited access spaces.



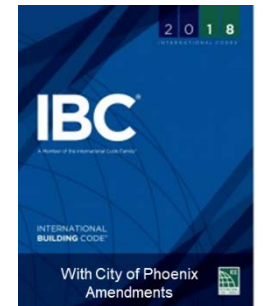
# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – General Exceptions

- Raised / lowered areas in places of religious worship.
- Equipment spaces.
- Highway tollbooths.
- Residential Group R-1.
- Day care facilities.
- Detention and correction facilities.
- Walk-in coolers and freezers.



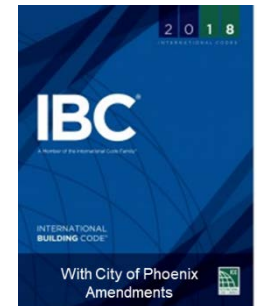
# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Accessible Route

- Walking surfaces with slope not steeper than 1:20
- Doors and Doorways
- Ramps
- Curb Ramps excluding the flared sides
- Elevators
- Platform Lifts





# 2018 Phoenix Building Construction Code



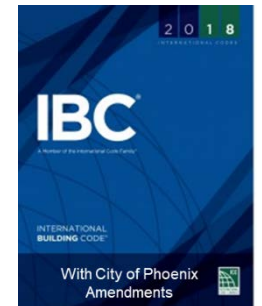
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Accessible Route

At least one accessible route is required to the accessible building entrance served from:

- public transportation stops
- accessible parking
- accessible loading zones
- public streets or public sidewalks

An accessible route is not required where only a vehicular way is provided with no pedestrian access. However, an accessible route is required if the building has, or serves, Type B units.



# 2018 Phoenix Building Construction Code

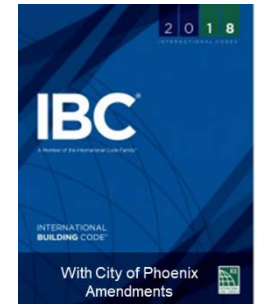


PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Accessible Route

At least one accessible route shall connect accessible buildings, accessible facilities, and accessible spaces on the same site.

An accessible route is not required where only a vehicular way is provided with no pedestrian access.



# 2018 Phoenix Building Construction Code



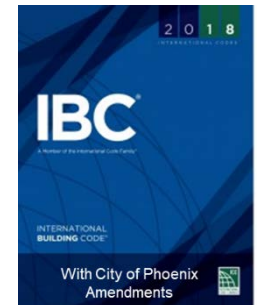
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Accessible Route

Common use circulation paths within employee work areas shall be accessible routes. (See exceptions)

Press boxes shall be on accessible routes. (See exceptions)

Stories, mezzanines and occupied roofs shall be connected by accessible routes. (See exceptions, and exceptions to the exceptions)



# 2018 Phoenix Building Construction Code

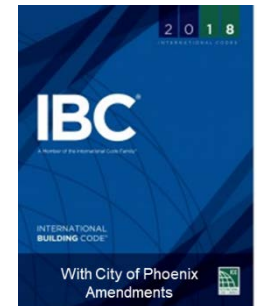


PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Accessible Route

Accessible routes shall be located in the same area as the general circulation path. (See exceptions)

Security barriers, bollards, check points shall not obstruct accessible routes. (See exceptions)



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility - Entrances

At least 60% of public entrances shall be accessible.

Other required accessible entrances are also listed.

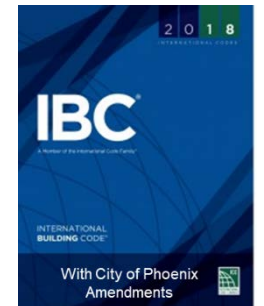
- Parking garage entrances

- Restricted entrances

- Service entrance (if it is the only entrance into a building or tenant space)

- Tenant space entrances

- Dwelling unit entrances (for Accessible, Type A, Type B units)



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

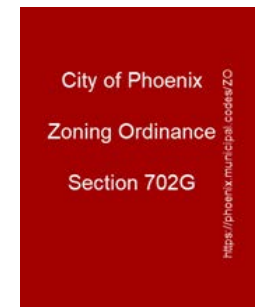
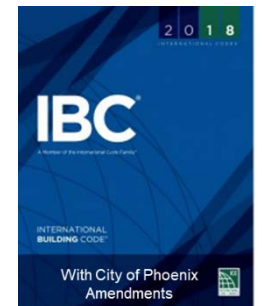
## Chapter 11 Accessibility - Parking

Amendment deletes Section 1106 entirely and refers to –  
City of Phoenix Zoning Ordinance (section 702G)

Other helpful documents:

City Parking Requirements Guidelines. TRT/DOC/00070

Accessibility Parking Standards. TRT/DOC/00433



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

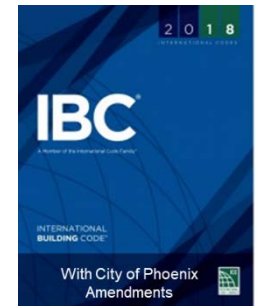
## Chapter 11 Accessibility – Dwelling Units and Sleeping Units

Dwelling Unit – a unit that includes:

living  
sleeping  
eating  
cooking  
sanitation

Sleeping Unit – a unit that includes:

sleeping  
and either  
cooking or sanitation



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

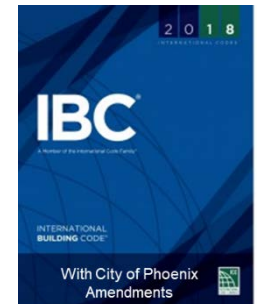
## Chapter 11 Accessibility – Dwelling Units and Sleeping Units

### Types of Dwelling / Sleeping Units

Accessible Unit - Ready to use fully accessible features

Type A Unit - Adaptable unit

Type B Unit - Adaptable Unit (Fair Housing Act unit)





# 2018 Phoenix Building Construction Code



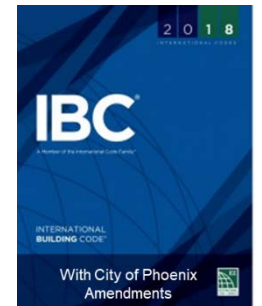
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Dwelling Units and Sleeping Units

Quantity and type of units depends on the occupancy classification ( Group I and Group R), the specific use, and the total quantity of units in the building and on the project.

“Transient” – used for less than 30 days

“Intended to be occupied as a residence”



# 2018 Phoenix Building Construction Code



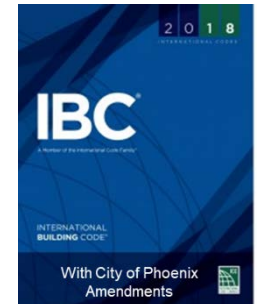
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Special Occupancies

Assembly occupancies with fixed seating –

If a service or facility is provided that is not accessible, it shall also be provided on an accessible level and be accessible.

Each wheelchair space shall be provided with a companion seat.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

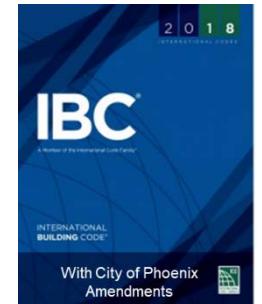
## Chapter 11 Accessibility – Special Occupancies

Lawn seating assembly areas without fixed seats –

Shall have an accessible route to the lawn area but wheelchair spaces and companion seats are not required.

Exterior overflow assembly seating areas without fixed seats –

Shall have an accessible route to the exterior area but wheelchair spaces and companion seats are not required.

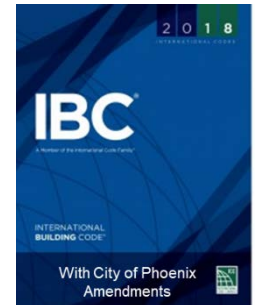


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Special Occupancies



Dining and drinking assembly areas –

All interior and exterior floor areas shall be accessible. (See exceptions)

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

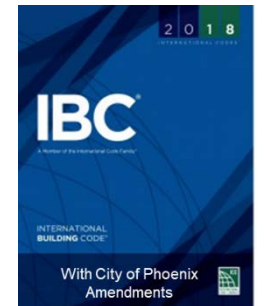
## Chapter 11 Accessibility – Special Occupancies

### Self-service storage facilities –

Accessible individual self-storage spaces shall be provided.

Accessible self-storage spaces shall be of the various classes of spaces available.

Accessible spaces can be located in one building and on one single story.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Special Occupancies

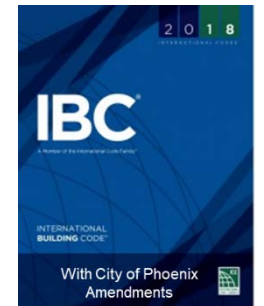
### Judicial facilities –

Courtrooms shall be accessible.

Jury box shall have a wheelchair space. (no companion)

Fixed gallery seating shall have wheelchair spaces and companion seats.

Elevated work stations can be accessed with wheelchair lifts.



# 2018 Phoenix Building Construction Code



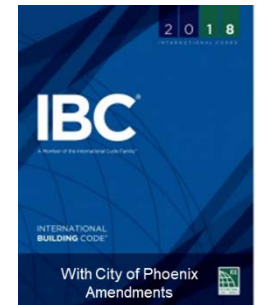
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Other Features and Facilities

### Toilet and bathing facilities –

All toilet and bathing rooms shall be accessible. (See exceptions)

Single-user facilities also required in assembly and mercantile.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Other Features and Facilities

Sinks – 5% but not less than one shall be accessible.

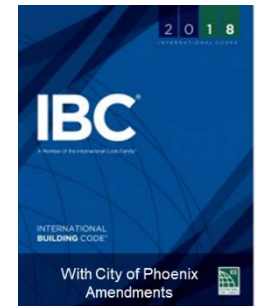
Kitchens and kitchenettes shall be accessible.

Drinking fountains provided in wheelchair / standing pairs

Saunas and steam rooms shall be accessible.

Elevators on accessible route shall be accessible.

Fixed / built-in storage – 5% but not less than one shall be accessible.





# 2018 Phoenix Building Construction Code

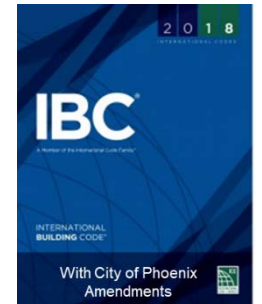


PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Other Features and Facilities

### Platform Lifts

1. Maintain accessible route to performing areas and speaker platforms
2. To fixed seat assembly areas for required WC space dispersion
3. Maintain accessible route to lawn & overflow assembly seating areas
4. Maintain accessible route inside dwelling and sleeping units
5. Maintain accessible route to raised courtroom stations
6. On accessible routes at load / unload areas for amusement rides
7. Maintain accessible route to play areas
8. Maintain accessible route to team / player seating in sports activity areas
9. Maintain accessible route to boating and fishing piers and platforms
10. Maintain accessible route on exterior sites where ramps and elevators are not infeasible



# 2018 Phoenix Building Construction Code



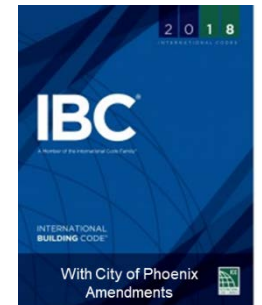
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Other Features and Facilities

Detectible warnings - only required at passenger transit platform edges bordering a drop-off that is not protected by guards or screens.

Not required at bus stops.

For Public Right-of-Way refer to the ADA and the standards and policies of the City of Phoenix Street Transportation Department



# 2018 Phoenix Building Construction Code

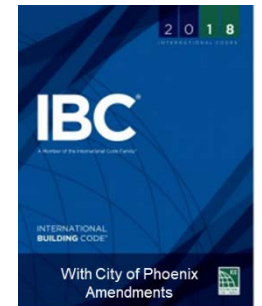


PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Other Features and Facilities

Seating at tables, counters and work surfaces – 5% but not less than one.

At drinking establishments, a fixed bar does not need to have an accessible counter if a fixed table with accessible features is located in the immediate area of the bar, and the fixed table is serviced by the bar staff.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Other Features and Facilities

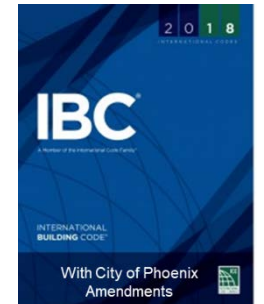
Dressing, fitting, and locker rooms – 5% but not less than one of each type shall be provided.

Accessible check-out aisles shall be provided.

Accessible point-of-sale counters and service counters shall be provided.

Food service lines shall have accessible features.

Controls, operating mechanisms, and hardware shall be accessible. (See exceptions)

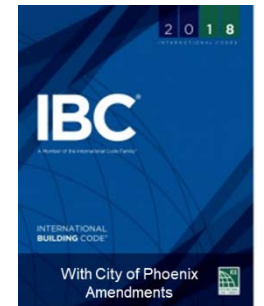


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Chapter 11 Accessibility – Recreational Facilities



Listed recreational facilities shall be accessible in the quantities specified.

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

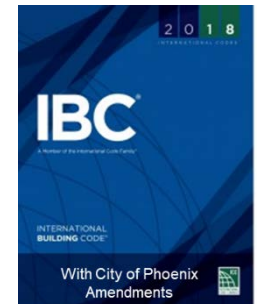
## Chapter 11 Accessibility – Signage

Signs shall identify required accessibility features as listed.

Directional signs to the nearest accessible element shall be located in listed locations.

Other signs shall be provided as listed.

Appendix E has more sign provisions.

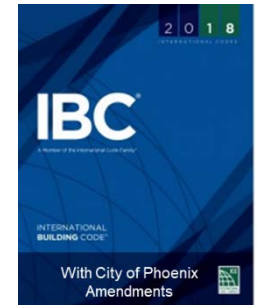


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress



This presentation assumes that an NFPA 13 or NFPA 13R automatic sprinkler system is present in the building.

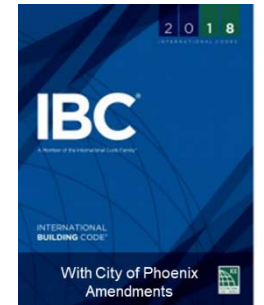
# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress

*Accessible Means of Egress* is required from all accessible spaces.



1. If one means of egress is required, then it shall be an ***Accessible Means of Egress***.
2. If more than one means of egress is required, then not less than two ***Accessible Means of Egress*** shall be provided.

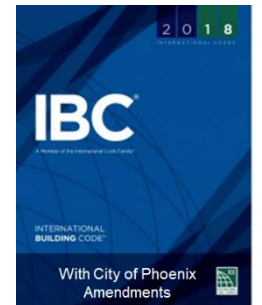


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress



### Accessible Means of Egress

≠

### Accessible Route

- Accessible Routes
- Interior Exit Stairways
- Interior Exit Access Stairways  
*Between Stories Only*
- Exterior Exit Stairways
- Horizontal Exits
- Areas of Refuge (not required when sprinklered)
- Exterior Area for Assisted Rescue

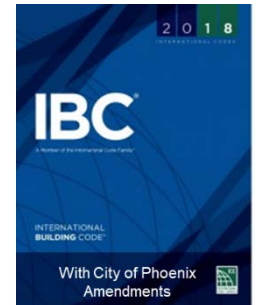
- Walking surfaces with slope not steeper than 1:20
- Doors and Doorways
- Ramps
- Curb Ramps excluding the flared sides
- Elevators
- Platform Lifts

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress



*You do not need assistance on an Accessible Route*

*But you might need assistance when on an Accessible Means of Egress*

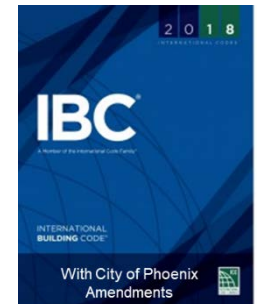
# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress - Stairways

Differences between an *Accessible Means of Egress Stairway* and a regular means of egress stairway?



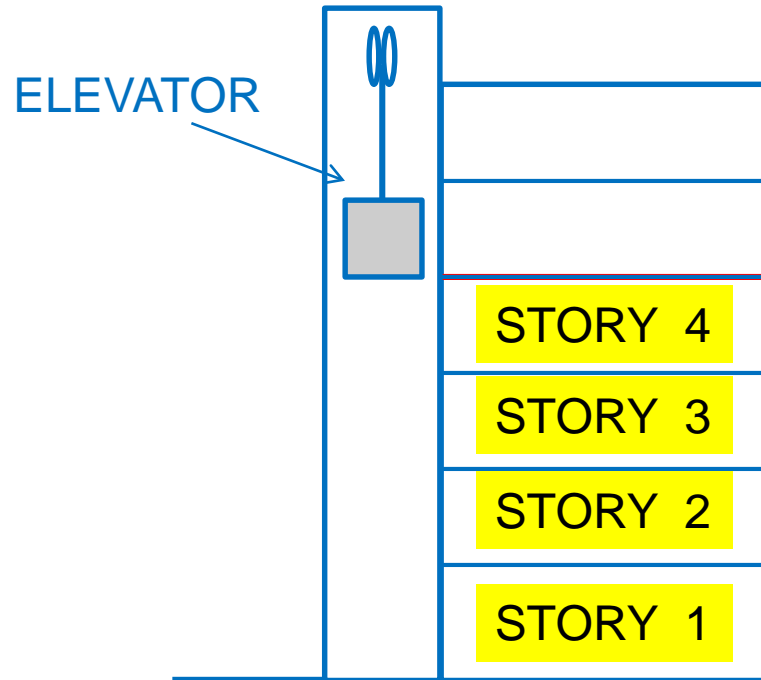
1. Risers shall be solid.
2. Cannot be an exit access stairway connecting two levels in the same story except from a mezzanine.
3. Cannot be an exterior exit stair within the Exit Discharge-to-Public Way portion of the means of egress unless an Exterior Area for Assisted Rescue is provided on the egress side of the stair.

# 2018 Phoenix Building Construction Code



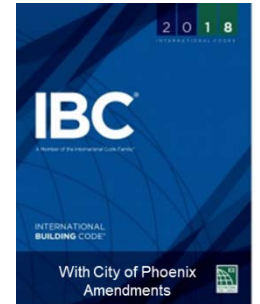
PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress - Elevators



Not less than one elevator is required to all stories that do not have a horizontal exit.

Elevators require standby power, and 2-way communications.



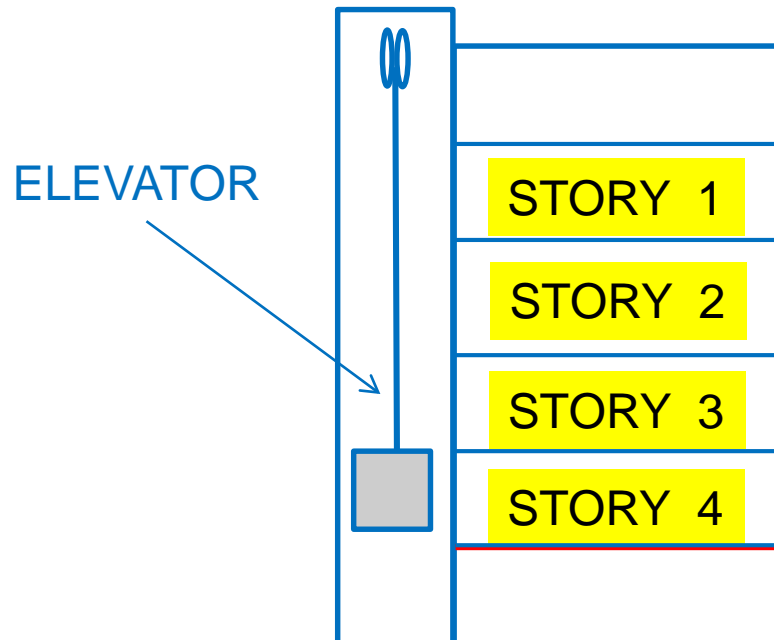
LEVEL OF EXIT DISCHARGE

# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

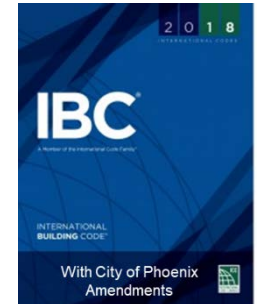
## Section 1009 Accessible Means of Egress - Elevators



LEVEL OF EXIT DISCHARGE

Not less than one elevator is required to all stories. **Horizontal exit exception does not apply for basement condition.**

Elevators require standby power, and 2-way communications.

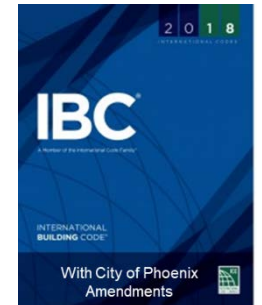


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress - Platform Lifts



# 2018 Phoenix Building Construction Code

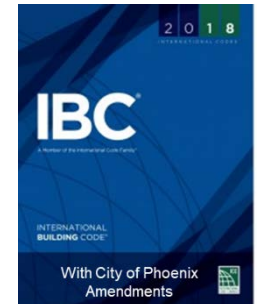


PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress - Platform Lifts

### Platform Lifts

1. Maintain accessible route to performing areas and speaker platforms
2. To fixed seat assembly areas for required WC space dispersion
3. Maintain accessible route to lawn & overflow assembly seating areas
4. Maintain accessible route inside dwelling and sleeping units
5. Maintain accessible route to raised courtroom stations
6. On accessible routes at load / unload areas for amusement rides
7. Maintain accessible route to play areas
8. Maintain accessible route to team / player seating in sports activity areas
9. Maintain accessible route to boating and fishing piers and platforms



Platform lifts require standby power when they are used as a component of the accessible means of egress.

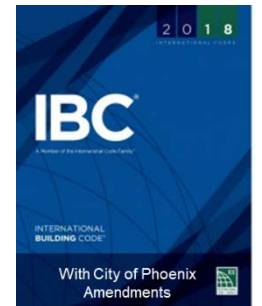


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Section 1009 Accessible Means of Egress - Platform Lifts



Cannot use lifts  
on sites instead of  
Ramps for Accessible  
Means of Egress.





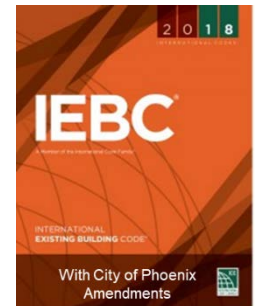
# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Accessibility

**Reducing accessibility below the level required for a new building is prohibited.**



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

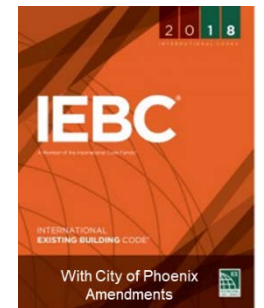
## Accessibility

**Alterations** – Required to be accessible per IBC Chapter 11.

If it is structurally technically infeasible, accessibility shall be provided to the maximum extent that it is technically feasible.

**Alterations to Area of Primary Function** – Accessible route to the area of primary function is required per IBC Chapter 11.

Cost of providing an accessible route to the area of primary function can be limited to 20% of the cost of the alterations of the area of primary function.



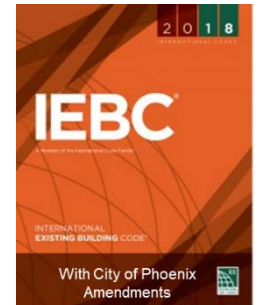
# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Accessibility

**Additions** – Required to be accessible per IBC Chapter 11.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Accessibility

### **Complete Change of Occupancy –**

To the maximum extent structurally technically feasible, provide:

- At least one accessible entrance,
- At least one accessible route from entry to primary function area,
- Signage per IBC section 1111,
- Accessible parking (where parking is provided),
- Accessible loading zone (where loading zones are provided),
- At least one accessible route from parking and loading to entry.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

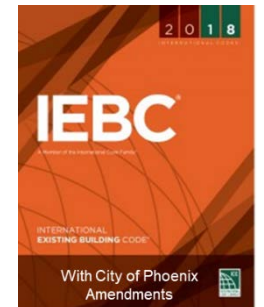
## Accessibility

## Historic Buildings

Refer to Section 305.9 and,

Refer to Section 507 when using Prescriptive method.

Refer to Chapter 12 when using Class of Work method.



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

## Accessible Means of Egress

**Additions** – Required in new construction per IBC section 1009.

**Alterations** – Not required. Shall not reduce existing egress facilities.

**Repairs** – Not required. Shall not reduce existing egress facilities.

**Change of Occupancy** – Required per IBC section 1009 if change is to a higher-hazard occupancy.

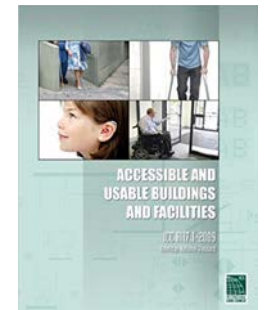


# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

- Chapter 3 – Building Blocks
- Chapter 4 – Accessible Route
- Chapter 5 – General Site and Building Elements
- Chapter 6 – Plumbing Elements and Facilities
- Chapter 7 – Communication Elements and Features
- Chapter 8 – Special Rooms and Spaces
- Chapter 9 – Built-in Furnishings and Equipment
- Chapter 10 – Dwelling Units and Sleeping Units
- Chapter 11 – Recreational Facilities



# 2018 Phoenix Building Construction Code



PLANNING & DEVELOPMENT  
**PRESERVE  
SHAPE  
BUILD**

**POP QUIZ !** Is this an accessible route?

