

Power-Assisted Bicycle

Official Handbook for Mandatory
Theory Test

Land Transport Authority



**SINGAPORE
POLICE FORCE**
SAFEGUARDING EVERY DAY

SINGAPORE
POLYTECHNIC | **SP**

Disclaimer

No part of this publication may be reproduced or transmitted in any forms or by any means, in parts or whole, without the prior written permission of the publisher:

Land Transport Authority

1 Hampshire Road

Singapore 219428

Hotline: 1800 2255 582

Published online by Land Transport Authority

Last updated 28 Apr 2021. The information in this handbook is accurate at the time of publication.

Contents

INTRODUCTION	5
---------------------	----------

MODULE 1: General Information on Active Mobility Devices in Singapore	6
--	----------

1.1	Introduction	8
1.1.1	Types of Active Mobility Devices	9
1.2	Personal Mobility Devices (PMDs)	9
1.2.1	Types of Personal Mobility Devices (PMDs)	10
1.2.2	E-Scooters	11
1.3	Bicycles	11
1.3.1	Non-Motorised Bicycles	12
1.3.2	Power-Assisted Bicycles (PABs)	13
1.4	Personal Mobility Aids (PMAs)	15
1.5	Types of Paths	16
1.6	Pre-Ride Preparation	17
1.7	Guidelines for Riding on Public Paths	18
1.8	Guidelines for Riding on Roads	

MODULE 2: Pre-Journey and Equipment Check for PAB Riders	19
---	-----------

2.1	Device Criteria for PABs	21
2.2	Device Standards (EN15194) and Fire Safety	24
2.3	Maintenance of a PAB	26
2.4	Pre-Ride Equipment Check on PABs	26
2.5	Safety Gear and Attire	30
2.6	Parking, Security and Storage of Device	31
2.7	Planning Your Journey	32
2.8	Third-Party Liability Insurance	33

MODULE 3: Rules and Code of Conduct for Using a PAB **34**

3.1	PAB Handling Skills	37
3.1.1	Starting and Stopping	37
3.1.2	Moving in a Straight Line	37
3.1.3	Hand Signals	37
3.1.4	Turning Left or Right	38
3.1.5	Riding at Low Speeds	38
3.1.6	Riding Uphill or Downhill	38
3.2	Types of Paths, Signs and Path Infrastructure	39
3.2.1	Recognising Footpaths and Cycling Paths	39
3.2.2	Special Zones	41
3.2.3	Path Signs and Markings	43
3.2.4	Types of Road Crossings	47
3.2.5	On-Road Traffic Signs	51
3.2.6	On-Road Ground Markings	65
3.2.7	Road Crossings from an On-Road Perspective	68
3.3	Rules and Regulations for PABs	70
3.3.1	Can You Ride a PAB?	70
3.3.2	Where Can You Ride a PAB?	70
3.3.3	Other Off-Road Regulations on Riding	71
3.3.4	Other On-Road Regulations on Riding	72
3.3.5	Other Regulations on Riding for Both Paths and Roads	75
3.4	Navigating Off-Road Scenarios	76
3.5	Navigating On-Road Scenarios	78
3.6	Good Practices and Code of Conduct – Riding a PAB on Cycling Paths and Roads	90
3.7	Identification of Potential Hazards	92
3.8	What to Do in an Accident	93

APPENDIX A **95**

Introduction

This handbook aims to provide the necessary information for users of power-assisted bicycles (PABs) to ride these devices on paths and roads in a safe and responsible manner. Knowing and applying the safety guidelines will help to reduce accidents and cultivate a gracious active mobility culture. In addition, users who do not comply with the rules may face prosecutorial action.

The handbook will cover the following modules:

Module 1

General Information on Active Mobility Devices in Singapore

Module 2

Pre-Journey and Equipment Check for PAB Riders

Module 3

Rules and Code of Conduct for Using a PAB

MODULE 1

**General Information on Active
Mobility Devices in Singapore**

Learning Outcomes

1. Identify **four** active mobility devices.
2. List the types of paths where each device can be ridden.
3. List **at least five** guidelines for riding on public paths.
4. List **at least five** guidelines for riding on roads.

Topics

1.1

Introduction

1.2

Personal Mobility Devices (PMDs)

1.3

Bicycles

1.4

Personal Mobility Aids (PMAs)

1.5

Types of Paths

1.6

Pre-Ride Preparation

1.7

Guidelines for Riding on Public Paths

1.8

Guidelines for Riding on Roads

1.1 Introduction

This module introduces the different types of active mobility devices and provides an overview of the rules pertaining to usage and ownership of active mobility devices, active mobility code of conduct and safe riding tips.

1.1.1 Types of Active Mobility Devices

Active mobility devices can be broadly categorised into the following types:

a) Personal Mobility Devices (PMDs)

- Motorised PMDs: Electric scooters (e-scooters), hoverboards etc.
- Non-motorised PMDs: Kick-scooters, skateboards etc.



b) Bicycles

- Pedal bicycles
- Power-assisted bicycles (PAB)



c) Personal Mobility Aids (PMAs)



1.2 Personal Mobility Devices (PMDs)

This group of devices covers a variety of wheeled vehicles built to transport people. They may be propelled by an electric motor, human power or both. This does not include PMAs, bicycles, inline skates or roller-skates.

All PMDs can be ridden on cycling paths but only non-motorised PMDs can be ridden on footpaths. All PMDs cannot be ridden on roads.

1.2.1 Types of Personal Mobility Devices (PMDs)

Examples of motorised PMDs include hoverboards, unicycles and motorised skateboards.



Hoverboard



Unicycle



Motorised
Skateboard



Others

Examples of non-motorised PMDs include skateboards and kick-scooters.



Skateboard



Kick Scooter

1.2.2 E-Scooters

E-scooters are motorised PMDs with handlebars. Owners should take note of the following information:

- a) E-scooters must be registered with LTA.
- b) E-scooters must be inspected for device compliance by LTA- authorised E-Scooter Inspection Centres.
- c) E-scooters must be affixed with a registration mark and identification mark. The registration mark is a sticker issued by the inspection centre bearing LTA's logo and the registration number.
- d) You need an E-Scooter Theory Test Certificate to ride an e-scooter*.
- e) E-scooters can only be ridden on cycling paths.
- f) All motorised PMDs, including e-scooters, must be certified to the UL2272 fire safety standard. You should adopt proper and safe handling habits, to minimise the risk of fire incidents.
- g) The minimum age to ride an e-scooter is 16 years old. Under-aged riders can ride under supervision by an adult (at least 21 years old) who has obtained an E-Scooter Theory Test Certificate*.



*Only applicable when theory test requirement is implemented.

1.3 Bicycles

A **bicycle**, also called a bike or cycle, is a human-powered or motor-powered, pedal-driven vehicle, having two wheels attached to a frame, one behind the other.

1.3.1 Non-Motorised Bicycles

Types of non-motorised bicycles:

- a) Road Bicycles
- b) Mountain Bicycles
- c) Track Bicycles / Fixed Gear Bicycles
- d) Hybrid Bicycles
- e) Foldable Bicycles



1.3.2 Power-Assisted Bicycles (PABs)

A **Power-Assisted Bicycle** (PAB), also commonly known as an **e-bike**, looks like a conventional **bicycle**, except that it is equipped with an electric motor to assist with pedalling.



Important Information on PABs

- a) PABs need to be type-approved, sealed and registered at an LTA-authorised Inspection Centre before use.
- b) PABs should have a clearly visible number plate affixed on the rear of the device.
- c) You need a PAB Theory Test Certificate to ride a PAB*.
- d) PABs can be ridden on cycling paths and on roads.
- e) The minimum age for riding a PAB is 16 years old; the same age limit is applied for pillion passengers on PABs.



*Only applicable when theory test requirement is implemented.

1.4 Personal Mobility Aids (PMAs)

Personal Mobility Aids (PMAs) include wheelchairs, motorised wheelchairs or mobility scooters which are designed to carry an individual who is unable to walk or has walking difficulties. PMAs can be ridden on cycling paths and footpaths.



		TYPES OF ACTIVE MOBILITY DEVICES					
RULES		PMD - e-scooter	PMD - motorised (e-unicycle, hoverboard, motorised skateboard)	PMD - non-motorised (unicycle, skateboard, kick-scooter)	Bicycle	PAB	PMA
Register with LTA?		Yes	No	No	No	Yes	No
Where to ride?	Cycling Path	Yes	Yes	Yes	Yes	Yes	Yes
	Footpath	No	No	Yes	Yes	No	Yes
	Road	No	No	No	Yes	Yes	No
Device Criteria		Max unladen wt. - 20kg			Max unladen wt. - 20kg (on paths)		
		Max width 70 cm			Max width 70 cm (on paths)		
		Certified to UL2272 fire safety standard				EN15194 compliant	
		Max speed 25km/h				Motor assist must cut off at 25km/h	Max device speed of 10km/h for motorised PMAs
Minimum Age		16 yrs old. <16 yrs, must be supervised by an adult who passed the E-scooter Theory Test*	16 yrs old	No	No	Rider: 16 yrs old Pillion: 16 yrs old	No
Theory Test required?		Yes*	No	No	No	Yes*	No

*Only applicable when theory test requirement is implemented.

The chart below summarises the **types of paths and roads**, and the **types of devices allowed on them**.

Path/ Road	Footpath Typically paths beside roads and within HDB estates	Cycling Path Paths marked with 'Cyclist' or 'PCN' logos	Road Except for expressways and road tunnels
Device type			
Bicycle			
Power-assisted Bicycle (PAB) or e-bike			
Motorised Personal Mobility Device (PMD) e.g. e-scooter, e-unicycle, hoverboard*			
Non-motorised PMD e.g. manual kick scooter			
Personal Mobility Aid (PMA) e.g. mobility scooter or electric wheelchair			

1.5 Types of Paths

- a) **Cycling Paths** have markings on the ground. These paths have a speed limit of 25km/h and can be used by all active mobility devices.
- b) **Footpaths** do not have any 'Cyclist' or 'PCN' path markings. The speed limit for footpaths is 10km/h. Non-motorised devices and PMAs can be used on footpaths.



1.6 Pre-Ride Preparation

- a) Wear bright-coloured clothing to increase your visibility to other vehicles and pedestrians.
- b) Check that your lights, brakes and tyres are in good working condition before setting off.
- c) Check that you are comfortable and in full control of your device. Adjust your seat or handlebars before setting off.
- d) Check that all loads and accessories are properly secured and do not affect your ability to control the device.
- e) Plan your ride ahead of time and pick the safest route. On paths, choose a route with cycling paths as much as possible. For bicycles and PABs on roads, avoid heavy traffic for your own safety.



1.7 Guidelines for Riding on Public Paths

Be gracious to other users to keep everyone safe. When riding on paths, always give way to more vulnerable users such as pedestrians. Riders are encouraged to adopt the following guidelines when riding on public paths:

- a) Always give way to pedestrians.
- b) Watch your speed and go slow around others.
- c) Slow down when approaching bus stops and/or intersections of public paths.
- d) Dismount and walk your device in crowded areas.
- e) Gently alert others before overtaking.
- f) Keep left on paths unless overtaking.
- g) Keep a safe distance from other path users, especially when overtaking, to avoid a collision.
- h) Avoid shining your lights onto the face of other path users.
- i) Keep both hands on the handlebars. Signal your intention to change course or make a turn ahead of time.
- j) Ride on cycling paths and bicycle crossings when available.
- k) Park your device at designated parking places such as bicycle racks and yellow boxes.

1.8 Guidelines for Riding on Roads



Road safety is a shared responsibility. Cyclists and PAB riders should adopt the following practices to safeguard themselves and share the roads safely with motorists.

- a) Always ride as close as practicable to the left-hand edge of roads, and allow traffic to overtake you safely. Keep a straight course, do not weave through traffic and avoid sudden swerves.
- b) Obey all traffic signals and travel in the same direction as the flow of traffic.
- c) Always use bicycle lanes when available.
- d) Keep a safe distance behind moving vehicles and maintain awareness of traffic when riding.
- e) Do not squeeze between the kerb and a bus that has stopped at a bus stop, or between a turning vehicle and the kerb.
- f) Slow down and look out for other road users when approaching bends, junctions, bus stops and pedestrian crossings or when passing a parked car.
- g) If a hill is too steep, get off and walk your device. Control your speed when riding downhill.

MODULE 2

**Pre-Journey and Equipment Check
for PAB Riders**

Learning Outcomes

1. List the **PAB device criteria**.
2. Explain the **safety reasons** for the device criteria.
3. List **at least 4 guidelines** in preventing device fires.
4. Describe at **least 3 pre-ride checks** on a PAB.
5. Be able to plan your journey using a PAB.

Topics

2.1

Device Criteria for PABs

2.2

Device Standards (EN15194) and Fire Safety

2.3

Maintenance of a PAB

2.4

Pre-Ride Equipment Check on PABs

2.5

Safety Gear and Attire

2.6

Parking, Security and Storage of PABs

2.7

Planning Your Journey

2.8

Third Party-Liability Insurance

2.1 Device Criteria for PABs

PAB Device Criteria and Illegal Modification

- a) All bicycles and PABs must comply with the following device criteria while travelling on public paths. Do not modify your device.
- Maximum unladen weight of 20kg to reduce the risk of serious injuries in the event of collision. Unladen weight refers to the device's weight before any additional loads, but includes attached accessories (e.g. a water bottle holder counts towards the unladen weight, but a water bottle does not).
 - Maximum width of 70cm to allow devices to cross each other safely on public paths.
- b) The following table summarises the device requirements for PABs to be type approved and registered.

PAB (blue seal) <i>Can no longer be registered</i>	PAB (orange seal)
Maximum unladen weight of 20kg (applies only on public paths)	Maximum unladen weight of 20kg
Maximum width of 70cm (applies only on public paths) to allow devices to cross each other safely on public paths	
PABs must not be equipped with any start-up assistance features or throttles	
The motor power of the PAB can only cut in when the rider starts to pedal	
The motor power of the PAB must cut off when the PAB rider stops pedalling	
The electric motor must stop providing further power assistance when the PAB attains a speed of 25 km/h, or the speed at which the PAB's electric motor is designed to stop providing power assistance, whichever is lower	
The aggregate maximum power output rating of the electric motor of the PAB must not exceed 200 watts	The maximum continuous rated power of the PAB's electric motor must not exceed 250 watts
-	Must comply with EN15194 , a European safety standard for electrical power-assisted bicycles

- c) When purchasing a PAB, verify that it is installed and supplied with an original battery model. You can compare the battery specifications against the list of approved PAB models on LTA's One Motoring website.
- d) Do not modify or tamper with a PAB's original electrical or mechanical components. Examples of such components include, but are not limited to:
- Batteries
 - Electric cables/connections and wirings
 - Motor
 - Handlebar, frame and suspension
 - Saddle and seat post

PAB Registration

- a) PABs must be approved, sealed and registered at an LTA-Authorised Inspection Centre before use. The type approval process will check for compliance with the device criteria.
- b) All PABs must be affixed with a blue or orange seal bearing LTA's logo and a serialised number. Do not tamper with or remove the seal.



- c) The number plate bearing the registration number must be permanently affixed on the rear of the PAB and clearly visible.



2.2 Device Standards (EN15194) and Fire Safety

- a) PABs must comply with EN15194, a European safety standard for electrical power-assisted bicycles.
- b) Owners should practise proper and safe handling to prevent overheating and minimise the risk of fire incidents, such as:
- Charge on hard, open and flat surfaces away from combustible materials.
 - Charge in a cool room and away from heat.
 - Do not cover the device with any fabric during charging as it slows heat dissipation.
 - Avoid overcharging. Do not leave batteries or devices to charge overnight. Overcharging the battery could result in overheating that may result in a fire.

- Allow for heat dissipation. Avoid charging the device when it is hot (e.g. immediately after use) as it may lead to unforeseen damage that compromises the safety of the device.
- Avoid charging the battery when wet. Allow the device to dry before charging it to prevent short circuits.
- Check batteries for any damage or deformities (e.g. corroded or powdery batteries) regularly.
- Keep and store devices properly. Batteries should be stored at room temperature.
- Do not modify or tamper with the device's original electrical components, such as retrofitting additional lights and electrical/ electronic accessories that draw power from the PAB electrical system.
- Only use power adaptors that are recommended by the PAB manufacturer and have a SAFETY MARK.



2.3 Maintenance of a PAB

- a) PABs should be maintained about once a month to keep the device in good riding condition. Refer to the device manual for instructions.
- b) You should bring your PAB for servicing at least once every 3 to 6 months.
- c) Do not replace any PAB parts with third-party parts, as it poses a fire risk. Replacement of parts should be done by an authorised retailer who can replace the worn-out parts with the original manufacturer's parts. For example, worn-out batteries should only be replaced with an original battery according to the approved specifications.

2.4 Pre-Ride Equipment Check on PABs

Before riding a PAB, you should check that the PAB is:

In Good Working Condition

- a) Check that the brakes are working properly and are not worn out. Squeeze the brake levers to check that they are working properly and that they provide resistive force on the wheels.
- b) Check that wheels are properly inflated. They should be hard to squeeze. There should be no visible cracks or tears on the tyre rubber, and tire grooves should be clearly visible. Also check for cracks on the body frame.

- c) For foldable devices, check that all latches are locked properly.
- d) Ensure that the seat is at a comfortable height. If you cannot touch the ground with your feet on either side of the PAB, you will not have full control of your device when stopping.
- e) Adjust the height of the seat such that there will be a slight bend at the knee on the extended leg (about 20 degrees) when your foot is on the pedal at the lowest position.



- f) The seat angle can also be adjusted to your comfort. If it is tilted too far forward or backward, it can cause numbness or injury.

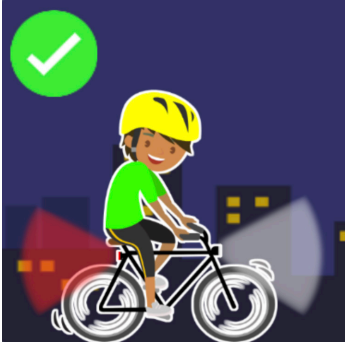


Managing Loads

- a) Loads and accessories (e.g. saddle bags, phone mount etc.) must be properly secured.
- b) They should not block your view or affect your steering. Heavy loads can make it hard to control your device. They also should not block your lights or number plate.
- c) Only carry passengers if your device has proper seats for passengers. Passengers should not block your view.
- d) Pillion riding is only allowed if the PAB is originally designed for it. Pillion seats should not be retrofitted on your PAB. Pillion riders must be minimally 16 years old.

Checking on Lights

- a) Bicycles and PABs should be equipped with a front white light and rear red light.



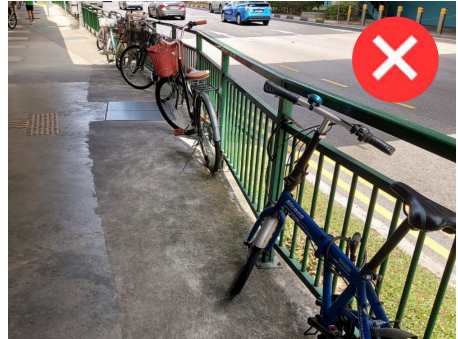
- b) Lights must be turned on when riding between 7 p.m. to 7 a.m. for visibility. Check that the lights are working before starting a ride. It is an offence to ride without lights at night.
- c) Your lights should not be too bright or projected into the face of others as they may cause momentary blindness.
- d) Do not retrofit your device with lights that tap on the battery of the device. This is considered illegal modification.

2.5 Safety Gear and Attire

- a) Wearing of helmets is compulsory on roads and encouraged on paths for safety. A helmet reduces the chance of severe head injuries in the event of an accident.
- Ensure that your helmet fits well and secure it properly.
 - Do not use a cracked or damaged helmet. You should replace a helmet that has been in an accident as it may be damaged.
 - You should use a helmet approved by recognised testing standards.
- b) Wear bright coloured, fluorescent or reflective clothing to increase visibility.
- c) You should carry an In Case of Emergency (ICE) card or an ID tag containing information such as name, NRIC, blood group, emergency contact and drug allergies (if any) which may be needed in an emergency.
- d) Do not wear loose clothing, such as ponchos, that may get caught in the wheels.

2.6 Parking, Security and Storage of Device

- a) Park your device responsibly and do not cause obstruction or inconvenience to others. Do not park on walkways, at bus stops or by trees and lamp-posts.



- b) You should park at designated parking spaces such as yellow boxes or bicycle racks in a neat and orderly fashion. You can use the MyTransport.SG mobile app to search for public bicycle parking spaces near you.



- c) If your parked device causes obstruction or inconvenience, you may be fined and your device may be impounded.
- d) Secure your device to prevent theft.

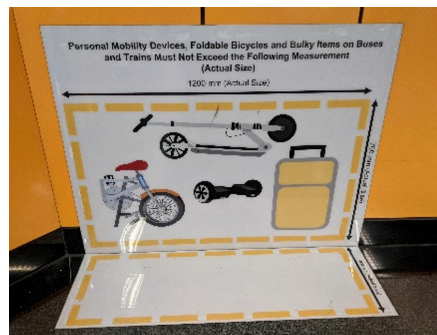
2.7 Planning Your Journey

Moving on Cycling Paths and Roads

- a) PABs are not allowed on footpaths. They are allowed on roads and cycling paths.
- b) Riding on expressways or in tunnels is strictly prohibited for riders' safety. A list of expressways and tunnels can be found on LTA's One Motoring website.
- c) If part of the route is on footpaths, PAB riders must dismount and push their PABs or move to the road when traversing across such sections.
- d) You should plan your route before riding on roads or cycling paths. A map of the cycling path networks is available on the LTA website on the MyTransport.SG mobile app.
- e) Avoid roads with fast-moving vehicles.

Bringing PABs on Public Transport

- a) PABs and bicycles are allowed on public buses and trains if they do not exceed the size limit (120cm by 70cm by 40cm). Use the size checkers at MRT stations and bus interchanges.



- b) Foldable devices must be kept folded as protruding parts may injure others or damage property.
- c) Motorised devices must be switched off on board buses and trains.
- d) Devices are not allowed on the staircase or upper deck of buses.
- e) Do not ride in MRT/LRT stations, bus interchanges/ terminals, or on trains and buses. Dismount and push, wheel or carry your devices at these areas.
- f) Do not block aisles and doors. You should move towards less crowded train cars.

2.8 Third-Party Liability Insurance

- a) Third-party liability insurance covers claims against you in the event of an accident (e.g. costs results from injuries to others or property damage). Some products also cover your personal accident expenses.
- b) If you ride any active mobility devices in the course of your work, you must be covered by third party liability insurance. Please refer to go.gov.sg/am-insurance for more information about approved products.
- c) Even if you are riding for leisure, you are encouraged to buy third-party liability insurance.

MODULE 3

**Rules and Code of Conduct for
Using a PAB**

Learning Outcomes

1. Describe briefly how to handle a PAB.
2. Recognise different path types, signs and infrastructure and explain the appropriate actions to take when encountering them.
3. List **at least 3 rules** for riding a PAB on paths.
4. List **at least 3 rules** for riding a PAB on roads.
5. Describe the steps to take in **3 different off-road scenarios**.
6. Describe the steps to take in **9 different on-road scenarios**.
7. Recognise different hazards when riding and explain how to react to them.
8. Describe the actions to take in an accident.

Topics

3.1

PAB Handling Skills

3.2

Types of Paths, Signs and Infrastructure

3.3

Rules and Regulations for PABs

3.4

Navigating Off-Road Scenarios

3.5

Navigating On-Road Scenarios

3.6

Good Practices and Code of Conduct – Riding a PAB on Paths and Roads

3.7

Identification of Potential Hazards

3.8

What to Do in an Accident

3.1 PAB Handling Skills

3.1.1 Starting and Stopping

- Maintain control of handlebars.
- When stopping, come to a gradual stop by braking gently. Avoid braking suddenly as you may lose control.
- Do not swerve from side to side.

3.1.2 Moving in a Straight Line

- Look forward and ahead rather than down.
- Keep your shoulders relaxed when steering.
- Do not jerk the handlebars.

3.1.3 Hand Signals

- Raise your hand early to indicate which direction you are turning to.



I intend to
move out to
the right or turn
right.



I intend to
move out to
the left or turn
left.



I intend to
slow down.



I intend to
stop.

- b) Maintain control of your handlebars when signalling.
- c) Do not swerve from side to side while signalling.

3.1.4 Turning Left or Right

- a) Keep pedalling to manoeuvre smoothly when turning.
- b) Look out for oncoming path users behind you before turning.
- c) Inform nearby path users of the direction you are turning to by using the hand signals. Ring your bell or call out if needed.

3.1.5 Riding at Low Speeds

- a) Keep your shoulders relaxed and do not jerk the handlebars.
- b) Dismount and push the device if you feel unstable or uneasy.

3.1.6 Riding Uphill or Downhill

- a) If you are not confident of controlling your device when going uphill or downhill, dismount and push instead.
- b) Brake gently while going downhill to control your speed.
- c) Do not brake suddenly or jerk the handlebars as you may lose control.

3.2 Types of Paths, Signs and Path Infrastructure

- a) There are 2 types of public paths: footpaths and cycling paths.
- b) PABs can **only** be ridden on cycling paths and roads (except expressways, expressway tunnels and road tunnels).
- c) Dismount and push your PAB when on footpaths.
- d) Obey all path markings, signs and traffic signals.

3.2.1 Recognising Footpaths and Cycling Paths

Footpaths

- a) **Footpaths** are generally grey and do not have markings or treatments.
- b) Open spaces connected to paths, e.g. courtyards, community/ town plazas and squares are also footpaths.



- c) Only PMAs, bicycles and non-motorised PMDs are allowed on footpaths.
- d) The speed limit on footpaths is 10km/h.



Cycling Paths

- a) **Cycling paths** can be identified by the cyclist, bicycle or “PCN” logos painted at the start of the cycling path. All active mobility devices are allowed on these paths.
- b) **Cycling paths** along the road are generally grey or red. Some **cycling paths** in public housing estates may come in a variety of colours (e.g. blue, green and orange).



3.2.2 Special Zones Paths

Pedestrian Priority Zones

- a) **Pedestrian Priority Zone** is applied on **cycling paths** where conflicts between riders and pedestrians often occur (e.g. pedestrian crossings, behind bus stops). They are marked by a break in the coloured cycling paths and red dashed lines.
- b) Watch out for other path users and slow down to walking speed or dismount and push if there are many pedestrians.



School Zones

- a) **School Zone** is applied on **footpaths** outside some schools to create a safer environment for children. They are marked by a “School Zone” logo, “Slow” markings and rumbling strips on the ground to remind path users to slow down.



- b) Motorised PMDs (including e-scooters) and PABs are not allowed in these zones as they are footpaths.








Pedestrian-Only Zones

- a) Pedestrian-only zones are marked by “No Riding” signs and red triangle markings on the ground. For example, parts of Bedok town centre are designated as pedestrian-only zones.
- b) Only PMAs can be ridden in these zones. Riding other devices in these zones is an offence.



3.2.3 Path Signs and Markings

Types of Path Signs

Prohibitory Signs	
   <p>No Riding</p> <ul style="list-style-type: none"> ● Riding is not allowed in this area. All device users (except PMA users) are required to dismount and push. ● These signs can be found at pedestrian overhead bridges and pedestrian-only zones. ● It is an offence to ride in areas or paths with “No Riding” signs. 	  <p>Pedestrian or Cyclist Crossing Prohibition</p> <p>Pedestrians and riders are not allowed to cross at this location. Use the crossing ahead instead.</p>

Warning Signs



Go Slow and Give Way to Pedestrians

Slow down and give way to pedestrians.



Watch Out for Vehicles

Slow down and look out for approaching vehicles.



Slow

Slow down and ride cautiously beyond the sign.



Caution – Low Headroom

Be cautious of the low headroom ahead.



Slope Ahead – Slow Down

Slow down and take caution on the slope ahead.

Advisory Signs



Stay on Track

- Segregated pedestrian and cycling paths provided. Stay on your respective paths and keep left.
- Typically denotes the start of a cycling path.

Shared Track

- The path is shared by both riders and pedestrians.
- Keep left and give way to pedestrians when riding.
- Typically denotes the start of a cycling path.

Information Signs/ Markings/ Signals



PCN logo



Pedestrian and cyclist logo



Cyclist logo



Bicycle logo

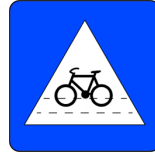
Information Signs/ Markings/ Signals



Pedestrian-Only Markings

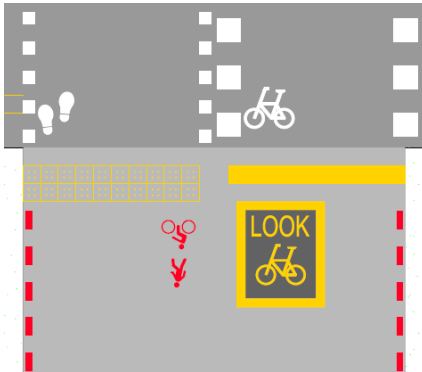
Riding is not allowed in areas marked by these red triangles. The red triangles point towards the pedestrian-only area.

All device users (except PMA users) must dismount and push.



Bicycle Crossing

Riders are to use the bicycle crossing provided.



Bicycle Crossing with 'Stop' or 'Look' box

Riders should use the bicycle crossing provided. Wait behind the solid yellow line for the lights to turn green.

3.2.4 Types of Road Crossings

Use proper crossings as much as possible. All riders must slow down, stop and look out for approaching vehicles before crossing the road at walking speed. It is an offence not to stop before crossing the road.

Signalised Crossings

Bicycle Crossings



- Riders should keep left and stay within the dedicated cycling lane.
- Do not attempt to cross when the “Red Bicycle” lights up or when the “Green Bicycle” light is flashing.

Pedestrian Crossings



- These crossings do not have dedicated cycling lanes.
- Riders should keep to the left and ride in an orderly manner.
- Always look out for and give way to pedestrians.

Non-Signalised Crossings

Marked Crossings



These crossings are also known as zebra crossings. They are indicated by thick solid white lines on the road and flashing yellow beacons.

Informal Crossings



These crossings do not have any indications or markings. They can be found at junctions where the path intersects with a road such as carpark accesses and minor road junctions.

Underpasses



Underpasses with 'Give Way to Pedestrian' signs are considered footpaths. Users of motorised PMDs (including e-scooters) and PABs must dismount and push.



- Riding is prohibited in underpasses with the 'No Riding' sign.
- All device users, except PMA users, must dismount and push.

Overhead Bridges



Pedestrian Overhead Bridges

- Riding is not allowed on all pedestrian overhead bridges and their connecting ramps unless they are marked with the bicycle logo.
- Do not ride across overhead bridges.



Pedestrian Overhead Bridges with Wheeling Ramps

- Wheeling ramps make it easier to bring devices across overhead bridges. Use the wheeling ramp to push your device up the stairs.
- Do not ride across overhead bridges.



Pedestrian Overhead Bridges Without Wheeling Ramps

- You should carry your device up the stairs. If you are unable to do so, use the next available road crossing.
- Do not ride across overhead bridges.















Bicycle Bridges

- These have dedicated pedestrian and bicycle lane markings.
- Ride within the demarcated bicycle lanes in an orderly manner.

3.2.5 On-Road Traffic Signs

PAB riders must obey all mandatory and prohibitory signs. Non-compliance is an offence.

Mandatory Signs	
<div style="display: flex; align-items: center;">  <div> <p>STOP</p> <p>Stop before the WHITE line. Give way to traffic from the right and the left.</p> </div> </div>	<div style="display: flex; align-items: center;">  <div> <p>GIVE WAY</p> <p>Slow down and stop if necessary. Give way to traffic on major road.</p> </div> </div>
<div style="display: flex; align-items: center; justify-content: center;">  </div> <p>STOP-CHILDREN</p> <p>Stop and look out for pedestrians crossing the road.</p>	<div style="display: flex; align-items: center; justify-content: center; margin-bottom: 10px;">   </div> <p>LEFT TURN ON RED</p> <ul style="list-style-type: none"> ● Indicate your intention to turn. ● Stop at the red light and give way to pedestrians crossing. ● Give way to traffic approaching from the right. ● Look out for left-turning vehicles behind you. ● Proceed only when it is safe to do so.

Mandatory Signs	
 <p>TURN RIGHT ONLY</p>	 <p>TURN RIGHT AHEAD</p>
 <p>TURN LEFT ONLY</p>	 <p>TURN LEFT AHEAD</p>
 <p>AHEAD ONLY</p>	 <p>KEEP LEFT</p>
 <p><i>SPLIT TRAFFIC</i></p> <p>You may pass on either side of the road. Use the appropriate hand signals to indicate to other road users your intent to keep left or right.</p>	

Prohibitory Signs



NO ENTRY



NO OVERTAKING



NO RIGHT TURN













NO LEFT TURN



**NO ENTRY TO
MOTORCYCLES AND
PEDAL CYCLES**
(including bicycle and
PABs)

Warning signs are used to warn on-road users of possible danger ahead. All cyclists (both pedal cyclists and PAB riders) should slow down and proceed cautiously.

Warning Signs	
	<p>BEND TO THE LEFT AHEAD</p> <p>Slow down and keep left. Do <u>NOT</u> overtake, U-turn or park/stop.</p>
	<p>BEND TO THE RIGHT AHEAD</p> <p>Slow down and keep left. Do <u>NOT</u> overtake, U-turn or park/stop.</p>
	<p>SIDE ROAD TO THE LEFT AHEAD</p> <p>Slow down. Beware of vehicles joining from the left. Be extra cautious when your vision is obstructed by trees or signs.</p>
	<p>SIDE ROAD TO THE RIGHT AHEAD</p> <p>Slow down. Beware of vehicles joining from the right. Be extra cautious when your vision is obstructed by trees or signs.</p>

 <p>Y-JUNCTION</p> <p>Slow down. Use the appropriate hand signals to indicate to other road users on your intent to keep left or right. Beware of traffic joining from left or right.</p>	 <p>DOUBLE BEND AHEAD</p> <p>Slow down and keep left. Do NOT overtake, U-turn or park/stop.</p>
 <p>CROSS ROADS AHEAD</p> <p>Slow down. Beware of traffic when approaching the junction.</p>	 <p>T-JUNCTION AHEAD</p> <p>Slow down. Give way to traffic from the right and the left.</p>
 <p>ROUNDBABOUT AHEAD</p> <p>Give way to traffic on the right. Keep a look out for vehicles that are changing lanes to exit, are too large or are travelling too fast.</p>	 <p>STAGGERED JUNCTION</p> <p>Slow down. Beware of vehicles joining from the right and the left.</p>



**TWO WAY
TRAFFIC
AHEAD**

Slow down.
Keep left.
Beware of
oncoming
traffic.



**TWO WAY
TRAFFIC ON
A ONE WAY
CARRIAGEWAY
AHEAD**

Slow down.
Beware of traffic
joining from the
right and the left.



**LANES
MERGING**

Slow down.
Beware of
traffic merging
from the right
or the left.



**TRAFFIC
MERGES
FROM THE
LEFT AHEAD**

Slow down.
Beware of
traffic joining
from the left.









**ROAD
NARROWS ON
RIGHT AHEAD**







Slow down.
Do **NOT** over-
take, U-turn
or park.



**ROAD
NARROWS
ON LEFT
AHEAD**

Slow down. Do
NOT overtake,
U-turn or park.

 <p>ROAD NARROWS ON BOTH SIDES AHEAD</p> <p>Slow down. Do NOT overtake, U-turn or park.</p>	 <p>DUAL CARRIAGEWAY ENDS AHEAD</p> <p>Slow down and keep left. Beware of merging traffic.</p>
 <p>SLIPPERY ROAD AHEAD</p> <p>Slow down and cycle carefully.</p>	 <p>TRAFFIC SIGNALS AHEAD</p> <p>Slow down. Beware of traffic lights changing. Obey the traffic light rules.</p>
 <p>PEDESTRIAN CROSSING AHEAD</p> <p>Slow down. Stop for pedestrians at designated crossings.</p>	 <p>EXPRESSWAY AHEAD</p> <p>Do NOT enter. Bicycles and PABs are prohibited on expressways.</p>

 <p>U-TURN AHEAD</p> <p>Slow down and stop if necessary. Beware of on-coming traffic.</p>	 <p>U-TURN AHEAD (FROM OPPOSITE DIRECTION)</p> <p>Slow down and stop if necessary. Beware of U-turning vehicles from opposite direction.</p>
 <p>UNEVEN ROAD AHEAD</p> <p>Slow down and keep left. Do <u>NOT</u> overtake.</p>	 <p>ROAD HUMP AHEAD</p> <p>Slow down and keep left. Do <u>NOT</u> overtake.</p>
 <p>STEEP UPWARD SLOPE AHEAD</p> <p>Keep left and change to a lower gear. Dismount and push your bicycle by the left side of the road if necessary. Do not overtake or make a U-turn.</p>	 <p>STEEP DOWNWARD SLOPE AHEAD</p> <p>Keep left and change to a lower gear. Maintain control of the speed of your bicycle and do <u>NOT</u> free-wheel. Do not overtake or make a U-turn.</p>



**RAISED
ZEBRA
CROSSING**

Slow down.
Stop for
pedestrians
crossing at
the raised
zebra
crossing.



**VEHICLE
BREAKDOWN**

Slow down
and stop if
necessary and
prepare to
overtake stalled
vehicle by using
the appropriate
hand signals.



**CHILDREN
AHEAD**

Slow down.
Keep a
look out
for children
crossing the
road.



**ELDERLY OR
HANDICAPPED
PEDESTRIANS
AHEAD**

Slow down.
Keep a look out
for mobility-
impaired
or elderly
pedestrians
crossing the
road.



SCHOOL ZONE

Slow down. Keep a look out for children crossing the road.



SILVER ZONE

Slow down. Keep a look out for mobility-impaired or elderly pedestrians crossing the road.



QUAYSIDE OR RIVER BANK AHEAD

Slow down. Beware of road ending ahead.



ANIMALS AHEAD





Slow down and stop if necessary. Beware of animals.









LOW FLYING AIRCRAFT AHEAD





Beware of sudden noise from low flying aircraft.

Regulatory Signs are used to help regulate traffic movement on the carriageway.

Regulatory Signs	
	<p>REDUCE SPEED NOW</p>
	<p>KEEP LEFT UNLESS OVERTAKING</p> <p>Keep and stay to the left side of the road and leave the outermost right lane for overtaking vehicles.</p>
	<p>ROAD WORKS AHEAD</p> <p>Slow down and beware of obstruction ahead due to road works.</p>
	<p>SINGLE LANE TRAFFIC</p> <p>Slow down and give way as traffic converges into a single lane.</p>

 <p>DETOUR AHEAD 50M</p> <p>Slow down and get ready to detour ahead.</p>	 <p>DETOUR</p>
 <p>SHARP DEVIATION</p> <p>Slow down and cycle in the direction indicated.</p>	 <p>ONE WAY TRAFFIC</p> <p>One-directional movement along this road. Beware of vehicles joining the traffic from the left and the right.</p>
 <p>ONE WAY STREET TO THE LEFT</p> <p>One way street begins from this sign. Beware of vehicles turning into the one way street.</p>	 <p>CURVE ALIGNMENT MARKER</p> <p>Slow down and ride carefully at bends.</p>

Information Signs provide useful information to cyclists and other motorists on the carriageway.

Information Signs	
	<p>NO THROUGH ROAD ON SIDE ROAD TO RIGHT</p> <p>Road on the right does not lead to another road.</p>
	<p>NO THROUGH ROAD</p> <p>Road ahead ends within a short distance.</p>
	<p>U-TURN</p> <p>U-turn is available ahead. Filter into the appropriate lane in preparation of U-turning movement.</p>
	<p>START OF EXPRESSWAY</p> <p>Look out for and avoid entering into the expressway. Bicycles and PABs are <u>NOT</u> allowed on expressways.</p>



PEDESTRIAN CROSSING

Keep a look out for pedestrians crossing. Slow down to a stop if there are pedestrians crossing or about to cross the road.



RAIN SHELTER

Rain shelter for motorcyclists and on-road cyclists.



WHITE WALKING STICKS

Slow down and be prepared to stop. Give way to visually-impaired pedestrians in the area.



TRAFFIC SIGNAL OPERATING HOURS

Traffic Signals are operational only during the stated hours.



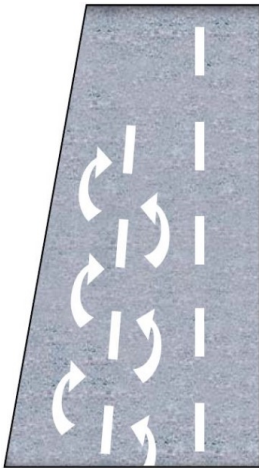
SPEED REGULATING STRIPS AHEAD

Slow down.

3.2.6 On-Road Ground Markings

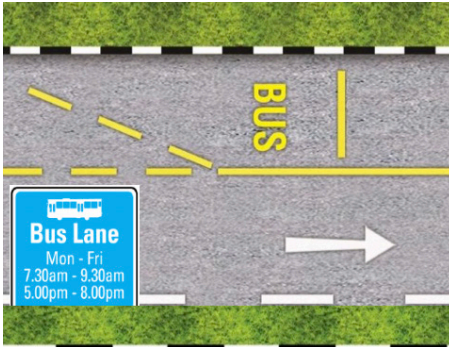


Directional arrows on the lanes of the carriageway indicate the direction riders can move.



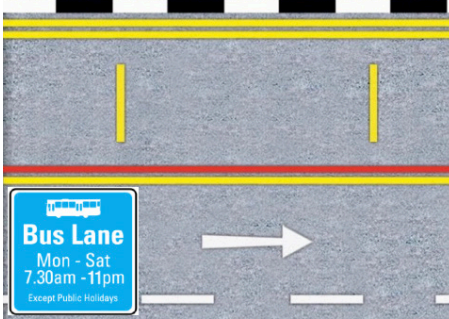
Merging arrows indicate that two traffic lanes are merging into one traffic lane. Alternate vehicles from the two lanes have the right-of-way into the single lane.

Keep a look out for incoming vehicles from the rear and the side when entering the merged lane.



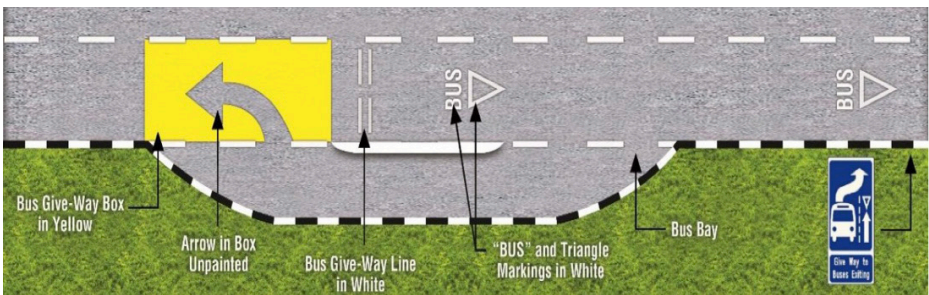
Normal bus lanes are marked by a continuous yellow line. Ride in single file during the bus lane operating hours.

Monday to Friday:
7.30am – 9.30am
5.00pm – 8.00pm



Full day bus lanes are marked by a red and yellow line. Ride in a single file during the bus lane operating hours.

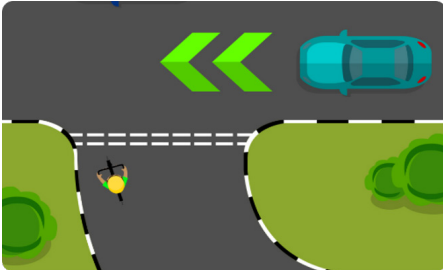
Monday to Saturday:
7.30am – 11.00pm



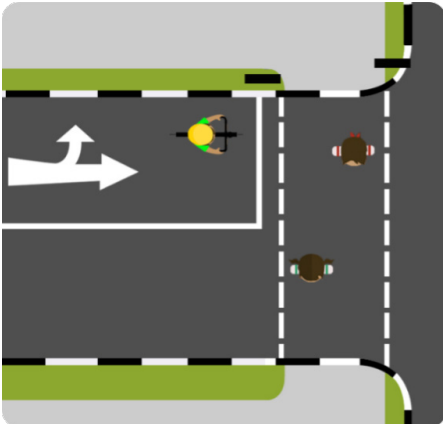
Bus Priority Box, Give Way lines and Give Way Triangle marking are placed at the exit of a bus bay to mark a mandatory give-way to buses area.

- a) Slow down when approaching the first give way triangle marking and look out for buses exiting the bus bay.

- b) Stop after the second give way triangle marking and before the give way lines to give way to buses exiting the bus bay.
- c) Continue onwards after all buses have fully exited the bus bay.



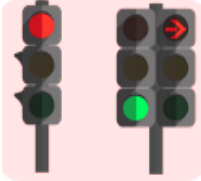
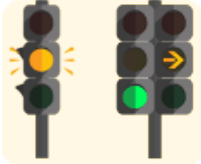
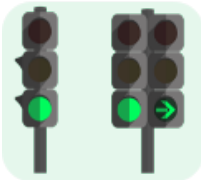
Parallel broken white lines indicate the end of a minor junction as it joins with a major road. Give way to traffic on the major road.

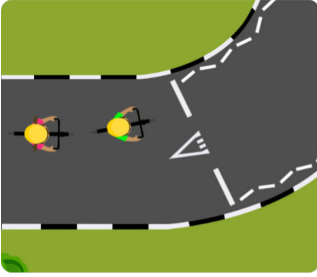


Dashed pedestrian crossing lines indicate a pedestrian crossing. Stop before the solid white line.

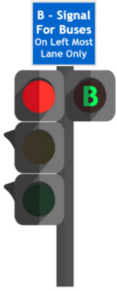
3.2.7 Road Crossings from an On-Road Perspective

When riding on roads, you must obey the traffic light signals.

	<p>Red Light/Arrow</p> <p>Stop and do not proceed.</p>
	<p>Amber Light/Arrow</p> <p>Slow down and be prepared to stop.</p> <p>Flashing Amber</p> <p>Traffic light signals are out of order. Give way to traffic on the right.</p>
	<p>Green Light/Arrow</p> <p>Look out for oncoming traffic. Only proceed when it is safe to do so.</p> <p>If you are turning, you must give way to pedestrians crossing the road when the “Green Man” signal is lit.</p> <p>Flickering Green Arrow</p> <p>Signal is about to be cancelled. Do not proceed if you have not crossed the stop line.</p>



Pedestrian crossing ahead
 markings indicate a zebra crossing ahead. Watch out and give way to pedestrians.



Bus Signal Priority

A green “B” light indicates a bus signal priority. Only buses are allowed to proceed when the green “B” lights up.



Advanced Warning Lights

Flashing amber lights indicate that there are traffic lights ahead. Slow down and be prepared to stop.

3.3 Rules and Regulations for PABs

These rules and regulations are legal requirements. Non-compliance is an offence and may result in penalties such as fines and/or jail terms. Refer to Appendix A for a list of penalties.

3.3.1 Can You Ride a PAB?

- a) PAB riders must pass and obtain the PAB Theory Test Certificate before riding*.
- b) Both riders and pillion riders of PABs must be at least 16 years old.

3.3.2 Where Can You Ride a PAB?

- a) PABs can only be ridden on cycling paths and roads.
- b) Do not ride on footpaths, areas with “No Riding” signs, expressways, expressway tunnels or road tunnels.
- c) When to dismount and push:
 - Footpaths
 - Overhead bridges and ramps that are not bicycle bridges and underpasses
 - Any locations with “No Riding” signs and pedestrian-only zones
 - When passing through high pedestrian traffic areas (e.g. town centres, neighbourhood centres, bus stops)

*Only applicable when theory test requirement is implemented.

- When passing through void decks and common corridors and spaces in HDB estates
- At bus interchanges/terminals and train stations

3.3.3 Other Off-Road Regulations on Riding

a) **Speed limit**

- Keep within the speed limit of 25km/h on cycling paths.

b) **Reckless riding**

- Ride in an orderly manner. Do not ride recklessly or endanger others or yourself.

c) **Stop at crossings**

- All riders must slow down and stop at all crossings (signalised and non-signalised) to look out for traffic before crossing.

d) **Riders' duties in an accident**

- If you are in an accident where a person is injured or property is damaged, you must stop to render assistance, provide your particulars and report the accident. More details can be found in section 3.8.

e) **Obey instructions of enforcement officers**

- Obey the instructions of enforcement officers. Stop and move to the side of the path when asked by an enforcement officer.
- Do not obstruct, delay or hinder enforcement officers performing their duties.

3.3.4 Other On-Road Regulations on Riding

a) **Manner of riding on the roads**

- Obey all traffic signals and rules
- Do not ride against the flow of traffic
- Ride as near as practicable to the far-left edge of the road
- Ride in a straight and orderly manner
- Do not make sudden unpredictable movements

b) **Wearing of helmets**

- All riders and pillion riders **must** wear a helmet when riding on the road.



c) **Travelling side by side with other bicycles, PABs, trishaws or tricycles**

- Ride in single file on single lane roads unless overtaking.
- You may ride up to 2 abreast if the road has 2 or more lanes.



d) **Travelling on bus lanes**

- During bus lane operation hours, riders must ride in a single file.

e) **Overtaking**

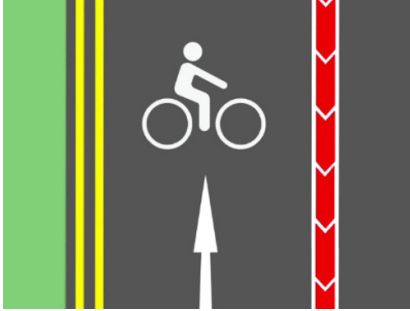
- Do not ride on the right side of a motor vehicle unless overtaking that motor vehicle.
- Never overtake on the left of a moving motor vehicle that is about to turn left.

f) **Prohibition of riding on expressways and road tunnels**

- PABs are not allowed on expressways, expressway tunnels and road tunnels.

g) **Travelling on on-road bicycle lanes (only at Tanah Merah Coast Road)**

- Riders shall use the bicycle lane and not use any other part of the roadway.



For more information on the on-road cycling lane, visit go.gov.sg/tmrcyclinglane.

h) **Load limitations**

- Do not carry loads that may cause danger, obstruction or annoyance to other road users.
- All loads must be properly secured to the PAB.

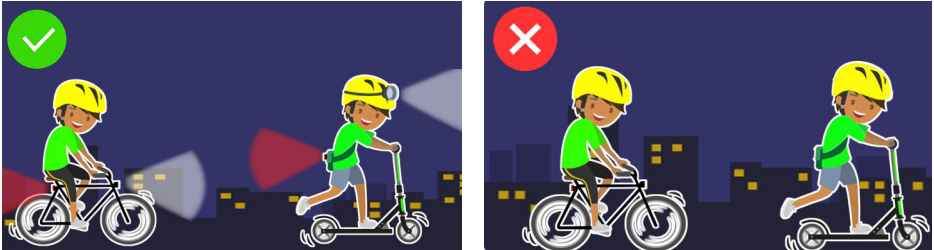
i) **Towing not permitted**

- Do not tow another vehicle or be towed by another vehicle.
- You must not hold onto a moving vehicle on the road.

3.3.5 Other Regulations on Riding for Both Paths and Roads

a) Lights when riding at night

- PABs should be equipped with a front white light and a rear red light or reflector. Lights must be turned on between 7 p.m. to 7 a.m. for visibility.



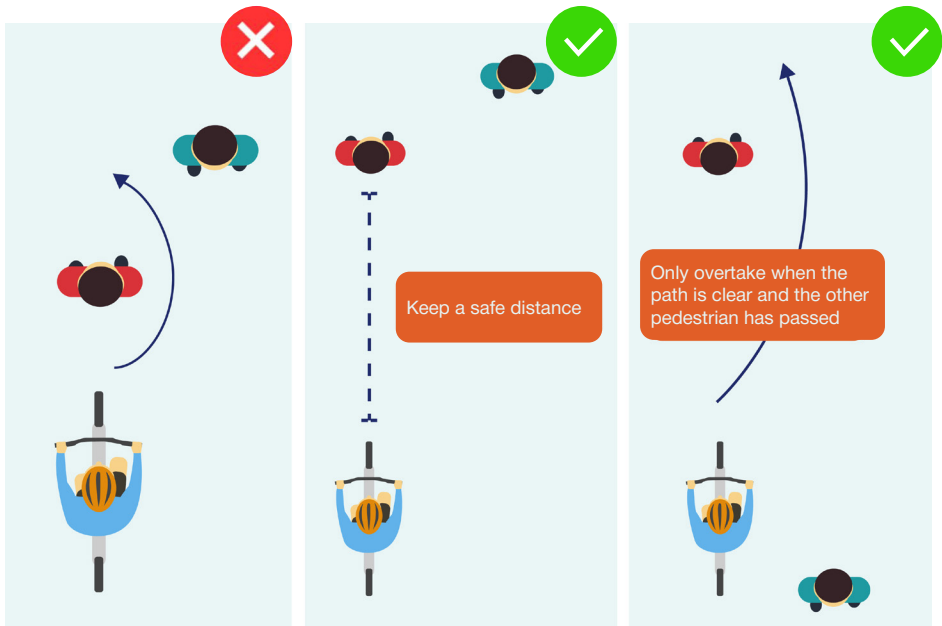
b) Mobile communication devices

- Do not use mobile communication devices while riding.
- This refers to any device that can be used for communication purposes, including tablets and any hand-held devices or wearable device (e.g. smart watches).
- Mobile communication devices can be mounted or used in a hands-free manner while riding, but it is safer to stop if you need to use it.

3.4 Navigating Off-Road Scenarios

- a) **Moving through high pedestrian traffic areas**
- Slow down and be prepared to stop when approaching high pedestrian traffic areas (e.g. bus stops, traffic crossings or crowded streets).
 - Ride at walking speed or dismount and push your PAB when passing through such places.
 - Keep a safe distance and always give way to pedestrians.
- b) **Riding behind other path users**
- Keep a safe distance from other riders and do not tailgate. If the person in front stops suddenly, you may not be able to stop in time which may cause an accident.
- c) **Overtaking other path users**
- Slow down as you approach path users ahead of you.
 - Gently alert the other party that you intend to overtake them when you are about 5 to 10 m away.
 - Check that there is no one approaching from in front or behind you before overtaking.
 - If there is not enough space to overtake, keep a safe distance behind the other party and wait until it is safe to overtake.

- Do not overtake others when approaching places such as pedestrian crossings, bends and blind corners.



d) **Approaching oncoming path users**

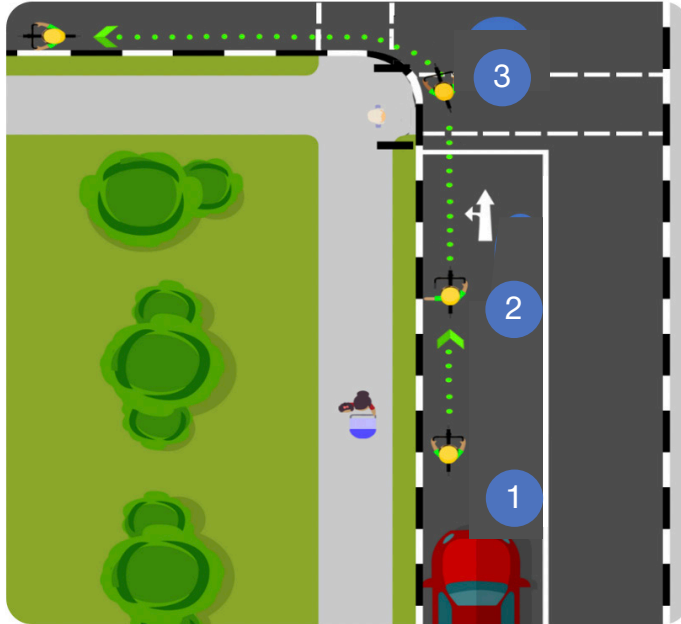
- Keep to the left side of the path.
- When approaching oncoming path users, slow down and be prepared to stop.
- Give way to oncoming pedestrians.
- Stop and move to the side of the path if there is insufficient space on the path.

e) **Stopping along the path**

- Move to the side of the path to avoid obstructing other path users if you wish to stop riding.

3.5 Navigating On-Road Scenarios

a) Left turn at junction with traffic light crossing



- 1 Keep to the left.
- 2 Show the left turn hand signal early to indicate your intention to turn.
- 3 Obey traffic rules and only turn when the light turns green for vehicles to move.

Keep a safe distance from the rear of other turning vehicles. Do not squeeze between a turning vehicle and the kerb.

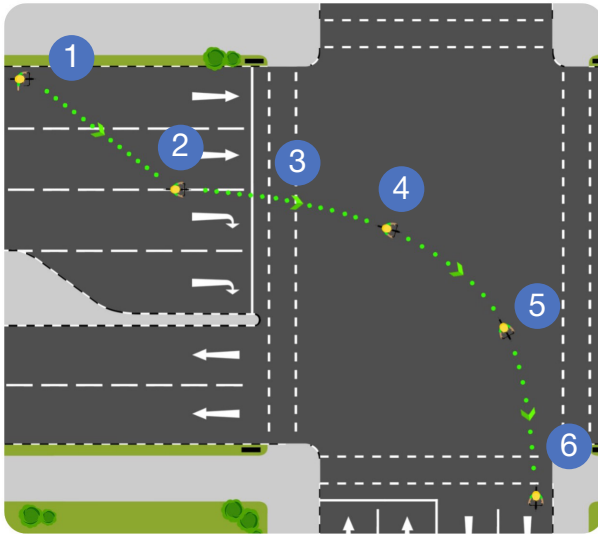
Always give way to pedestrians crossing the road.

b) Straight through at a junction with traffic light crossing – Straight / left turn lane



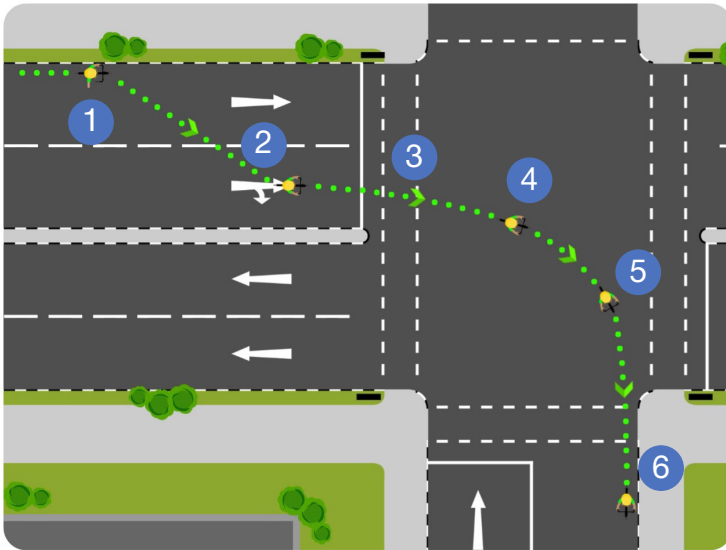
- 1 Show the right turn hand signal. Check for vehicles behind, then move right to the centre of the lane as you approach the junction.
- 2 Obey traffic rules and proceed to cross the junction only when the green light for vehicles lights up.
- 3 Look out for oncoming right turning vehicles. Only cross the junction when it is safe.
- 4 Filter back to the left-hand side of the road after the junction.

c) Right turn at a junction with traffic light crossing – Right turn ONLY lane



- 1 Show the right turn hand signal to show that you are turning right at the junction.
- 2 Check for vehicles behind you, then filter to the **leftmost right turning lane** when approaching the junction and stay on the **left** side of the lane.
- 3 Obey the traffic rules. Proceed to turn right only when the green light for vehicles to turn lights up.
- 4 Look out for oncoming vehicles and pedestrians when turning right. Proceed only when it is safe to do so.
- 5 Use a wider turning radius to give space for other right-turning vehicles to overtake you on your right.
- 6 Complete your right turn by moving into the left side of the road.

d) Right turn at a junction with traffic light crossing – Straight / right turn lane



- 1 Show the right turn hand signal to indicate that you are turning right at the junction.
- 2 Check for vehicles behind, then filter to the **leftmost right turning lane** when approaching the junction and stay in the **centre** of the lane.
- 3 Obey the traffic rules. Turn right only when the green light for vehicles to turn lights up.
- 4 Look out for oncoming vehicles and pedestrians when you turn right.
- 5 Use a wider turning radius to give space for right-turning vehicles to overtake you on your right.
- 6 Complete your right turn by moving into the left side of the road.

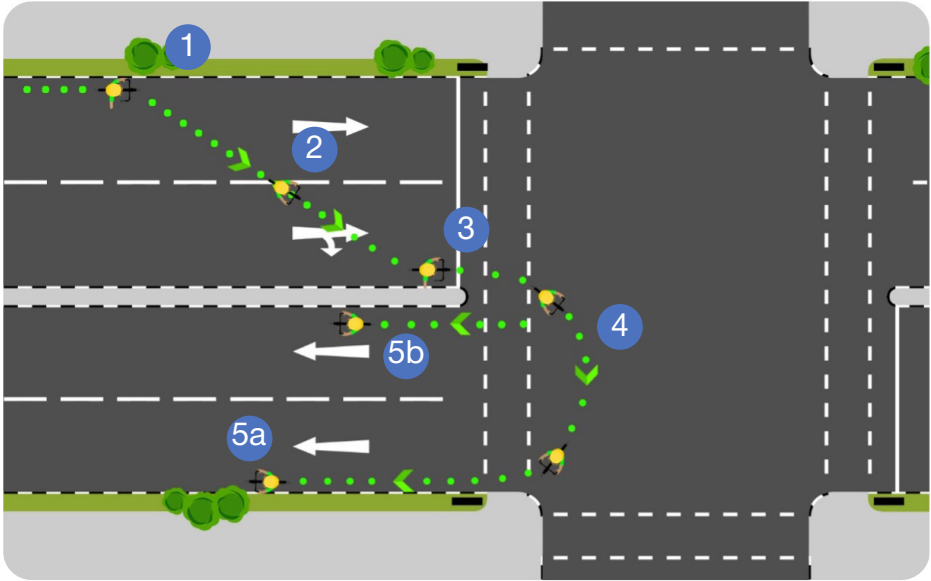
e) Right turn at junction with traffic light crossing - Using pedestrian crossings

If you are not comfortable navigating the junction on the road, you should use the pedestrian crossing instead.



- 1 Show the stop hand signal. Look out for vehicles behind you.
- 2 Stop by the side of the road, then dismount and push your PAB onto the pavement. If the path is not a cycling path, continue to push your PAB.
- 3 Obey the pedestrian crossing signal. Cross at a walking speed, keep left and give way to pedestrians.
- 4 Push your PAB back onto the road, keeping to the left side of the lane. Look out for vehicles before going onto the road.
- 5 Check for vehicles approaching from behind and move off only when it is safe to do so.

f) U-turn at junction

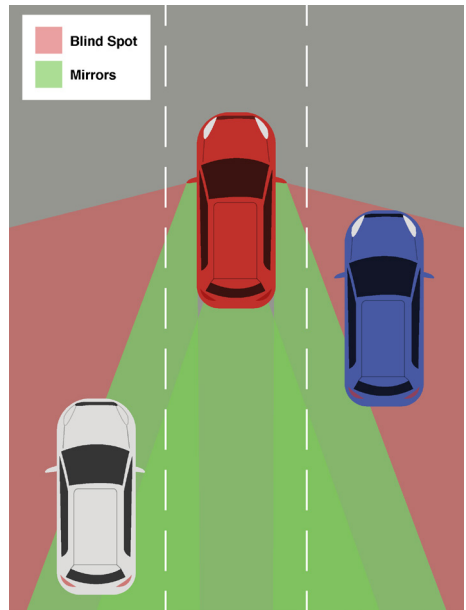


- 1 Show your right hand signal to indicate that you are moving right.
- 2 Check for vehicles behind, then filter to the **rightmost right turning lane** when approaching the junction. Stay in the **right hand side** of the lane. Position yourself in front of a car instead of next to it as the car may hit you when it is turning.
- 3 Obey the traffic rules. Turn right only when the green light for vehicles to turn lights up.
- 4 Look out for oncoming vehicles when turning right. Proceed to U-turn only when it is safe to do so.

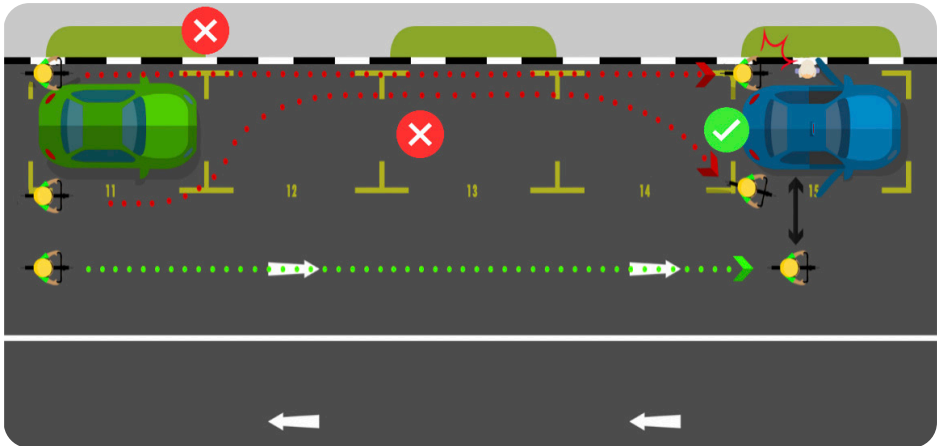
- 5a Complete your U-turn by moving into the left-hand side of the road.
- 5b If there are other vehicles U-turning with you, complete your U-turn on the **right hand side** of the road. Check for vehicles behind you and filter back to the left side of the road afterwards.

g) Vehicles' blind spots

- All vehicles have blind spots where the driver cannot see you through the mirrors. Be careful when approaching any vehicle from behind.
- Heavy vehicles have especially large blind spots.
- If you are unable to see the driver's face in the side mirror, the driver cannot see you.
- Do not try to overtake a heavy vehicle. Stay behind it and keep to the left side of the road.

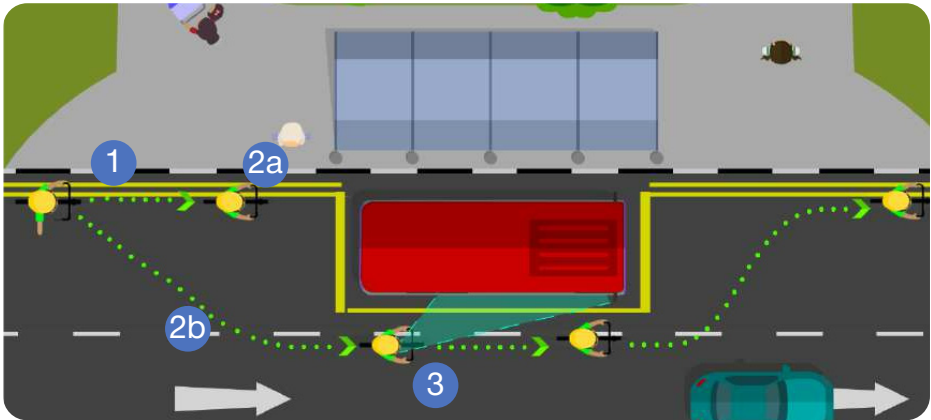


h) Passing parked vehicles



- Do not squeeze in between the parked vehicle and the kerb. You may collide with opening vehicle doors.
- Do not cycle in a zig-zag manner in and out of the parked vehicles.
- Keep **at least 1.5m away** from parked vehicles to prevent collisions with opening vehicle doors.

i) Manoeuvring through bus stops without a bus bay



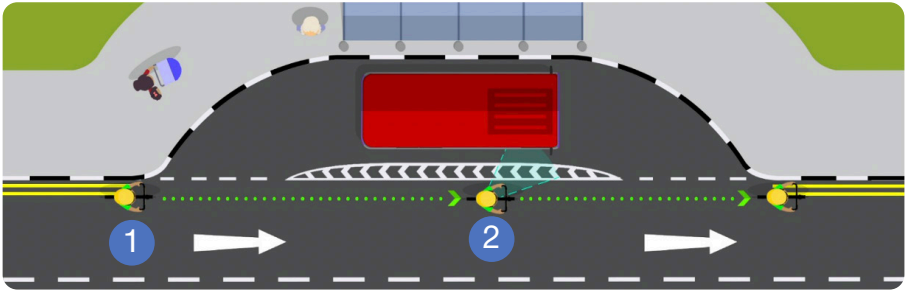
- 1 Slow down and assess whether the bus is about to move off. Look out for turn signals or indications that the bus is about to move off.
- 2a **If the bus is moving off or about to move off:**
 - Slow down and be prepared to stop. Keep left and maintain a safe distance behind the bus.
 - Do not squeeze between a stopped bus and the kerb.
 - Wait for the bus to move off. Allow buses to overtake on your right.
 - Move off only when there are no more buses overtaking or if the bus driver behind indicates that you may move off.

2b

If the bus is not moving off:

- Show the right turn hand signal to indicate that you are moving right to overtake.
- 3
- Check if there are any vehicles approaching from behind. Overtake on the right of the bus only if it is safe to do so.
- When overtaking, check if the bus is about to move off.
 - If the bus is not moving off, proceed to overtake. After overtaking, show the left turn hand signal and return to the left side of the road.
 - If the bus moves off while overtaking, slow down and **allow the bus to move off first**. Show the left turn hand signal and return to the left side of the road.

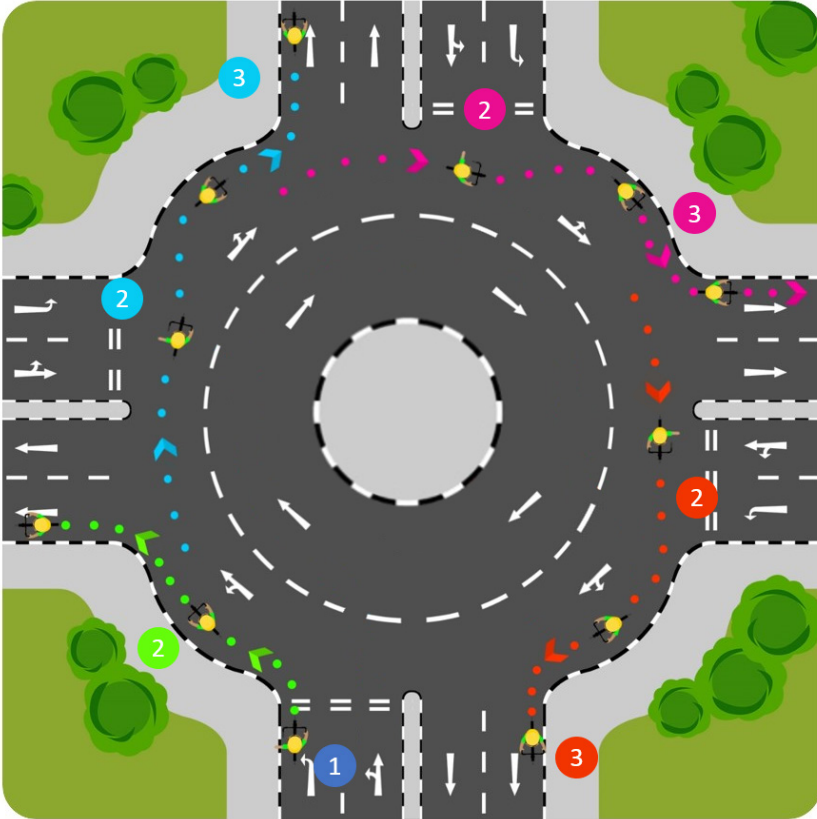
j) Manoeuvring through bus stops with a bus bay



- 1 Slow down and assess whether the bus is about to move off. Look out for turn signals or indications that the bus is about to move off. **Do not enter the bus bay.**
- 2 **If the bus is moving off or about to move off:**
 - Slow down and be prepared to stop. Stop a safe distance away from the exit of the bus bay. Allow the bus to exit the bus bay as the bus driver may not be able to see you.
 - Move off only after the bus has exited the bus bay.

If the bus is not moving off: Proceed to overtake the bus.

k) Manoeuvring through a roundabout



If you are not comfortable with riding in a roundabout, **dismount and get off the road**. Pass through the roundabout on the pavement instead.

- 1 Slow down when approaching a roundabout and give way to traffic on your right.
- 2 **If exiting on the 1st exit**, enter the roundabout on the leftmost lane. Keep to the left side of the road and exit accordingly.

- 2 2 **If exiting on the 2nd, 3rd or making a U-turn** at the roundabout, for cyclists' safety, enter on the leftmost lane. Position yourself in the centre of the lane.
- 3 3 To exit, show the left turn hand signal early, then **filter to the left of the lane** when approaching the exit.

Exit accordingly.

3.6 Good Practices and Code of Conduct – Riding a PAB on Paths and Roads

3 Tips for Safe and Enjoyable Riding

TIP1: Be Alert

- Be alert and minimise distractions. Do not look at your handphone.
- Scan your surroundings, including behind you, for potential dangers so that you can take preventive action early.
- Do not ride if you are tired or have consumed alcohol as your judgement and reflexes may be impaired.

TIP 2: Adjust Your Speed to Your Surroundings

- The speed limit on cycling paths is 25km/h, but you should adjust your speed according to your surroundings, especially around pedestrians. At crossings, slow down and stop to give drivers time to react.
- Slow down or dismount and push at crowded areas like bus stops or crossings.
- Slow down and prepare to stop when approaching intersections or blind corners.

TIP 3: Give Way and be Gracious

- Everyone has a part to play in making journeys on shared spaces safe and pleasant.
- Look out for those who are slower and more vulnerable. Always give way to more vulnerable users, such as pedestrians.
- Do not weave in and out between other path users or vehicles on the road.
- Be gracious. Gently alert others of your presence using your bell (or other warning devices) when passing or overtaking. Do not use it excessively.
- Keep to the left unless overtaking to allow others to pass.
- Keep a safe distance from others and do not tailgate. If the person in front stops suddenly, you may not be able to stop in time.

- When on the road, maintain a safe distance from other vehicles for your own safety.

3.7 Identification of Potential Hazards

- a) Look out for potential hazards and expect the unexpected. Do not assume that others will take the correct action. Slow down so that you have time to react. Examples are:
- **Other path users.** They may not move out of your way or may suddenly change direction and step in front of you even after you have alerted them of your presence.
 - **Other road users.** Do not assume that drivers can see you or will give way to you.
 - **Oncoming vehicles at all road crossings.** Not all vehicles will stop at crossings. Always stop at crossings to look out for oncoming vehicles. Cross at designated crossings where possible.
 - **Look out for blind spots** where your vision is obstructed (e.g. around a bend, obstacles like trees or other vehicles on the road). Slow down and be prepared to stop as others may emerge from the blind spot.



- **Obstacles** or the **kerb** when crossing the road may cause you to lose control of your device.

b) Be conscious of your riding conditions.

- Riding in heavy rain may affect the electrical components and battery of your device. Braking distance (distance needed to come to a complete stop) will increase. Slow down so that you can manoeuvre safely.
- When visibility is poor (e.g. at night or in the rain), turn on your lights for better visibility. Slow down so that you can manoeuvre safely.
- Perform pre-ride equipment checks to minimise risk of equipment failure.

3.8 What to Do in an Accident

- Stop to render assistance.
- Call for an ambulance if anyone needs immediate medical attention.
- Gather evidence of the accident (take photos/ videos of the accident scene, vehicles involved and damages caused) only when it is safe to do so.
- Remove the device to avoid causing obstruction (but only after you have obtained all necessary evidence).

- Exchange particulars [name, contact, residential address and insurance information (if any)] with involved parties.
- For accidents on public paths, if no Police officer, authorised officer or public path warden is present, report the accident to the police.
- Failure to stop, render assistance, exchange particulars or report the accident to the authorities is an offence.

What to Do in an Accident

Fatal Accident

Do not touch victim or move vehicle/device. Call 999 or 995.

Injury Accident

Call 995 and report accident to Police.

Property Damaged

Report all accidents with property damage to Police.

Appendix A: Maximum Penalties for Common Active Mobility Offences

This is a non-exhaustive list of the maximum possible penalties in terms of fines and prison terms for some active mobility offences.

Actions	1st offence	Subsequent offences
<p>Riding Behaviour</p> <ul style="list-style-type: none"> ● Using mobile communication device while riding on path ● Riding bicycle, PMD or PAB without appropriate lights at night ● Failure to stop and look at crossings ● Cyclist or PAB towing or being towed on roads ● Riding against the flow of traffic on roads ● Riding without helmets on roads (includes passengers) 	<p>\$1,000 and/ or 3 months</p>	<p>\$2,000 and/ or 6 months</p>

Actions	1st offence	Subsequent offences
<ul style="list-style-type: none"> Using mobile communication device while riding on road 	\$1,000 and/or 6 months	\$2,000 and/or 12 months
<ul style="list-style-type: none"> Speeding on public paths 	\$2,000 and/or 6 months	\$5,000 and/or 12 months
<ul style="list-style-type: none"> Failure to carry out driver's duties in an accident on public paths 	\$3,000 and/or 12 months	\$5,000 and/or 2 years
<ul style="list-style-type: none"> Dangerous or reckless riding on public paths 	\$10,000 and/or 12 months	
<p>Riding in Prohibited Areas</p> <ul style="list-style-type: none"> Riding bicycle/PAB on expressways, or in expressway tunnels or road tunnels 	\$1,000 and/or 3 months	\$2,000 and/or 6 months
<ul style="list-style-type: none"> Riding in areas with "No Riding" signs Riding motorised PMD or PAB on footpath Riding PMD or PMA on roads 	\$2,000 and/or 3 months	\$5,000 and/or 6 months

Actions	1st offence	Subsequent offences
<p>Device Criteria and Ownership</p> <ul style="list-style-type: none"> Riding without displaying registration mark or identification mark Failure to send e-scooter for scheduled inspection 	\$1,000 and/or 3 months	\$2,000 and/or 6 months
<ul style="list-style-type: none"> Riding or allowing unregistered e-scooter to be ridden on public paths Keeping unregistered PAB 	\$2,000 and/or 3 months	\$5,000 and/or 6 months
<ul style="list-style-type: none"> Riding unregistered PAB on cycling paths 	\$5,000 and/or 6 months	\$10,000 and/or 12 months
<ul style="list-style-type: none"> Riding non-compliant device on public path 	\$10,000 and/or 6 months	\$20,000 and/or 12 months
<ul style="list-style-type: none"> Illegal modification of active mobility device to be non-compliant 	\$20,000 and/or 2 years	\$40,000 and/or 4 years

Actions	1st offence	Subsequent offences
<p>Loads and Passengers</p> <ul style="list-style-type: none"> ● Improperly secured/ oversized loads on bicycle/PAB ● Carrying too many passengers on bicycle/PAB ● Carrying passengers on bicycle/PAB without proper seats ● Carrying under-aged passenger on PAB 	<p>\$1,000 and/ or 3 months</p>	<p>\$2,000 and/ or 6 months</p>
<p>Under-Aged Riding</p> <ul style="list-style-type: none"> ● Under-aged riding of motorised PMD or PAB ● Facilitating under-aged riding of motorised PMD ● Failure to properly supervise under-aged e-scooter rider 	<p>\$1,000 and/ or 3 months</p>	<p>\$2,000 and/ or 6 months</p>

Actions	1st offence	Subsequent offences
<p>Theory Test Certificate*</p> <ul style="list-style-type: none"> Riding or causing e-scooter/PAB to be ridden on public path without theory test certificate Riding or causing PAB to be ridden on roads without theory test certificate 	<p>\$2,000 and/ or 6 months</p>	<p>\$5,000 and/ or 12 months</p>
<ul style="list-style-type: none"> Unlawful use of theory test certificate 		
<p>Others</p> <ul style="list-style-type: none"> Obstructing public path (e.g. indiscriminate parking) 	<p>\$2,000</p>	
<ul style="list-style-type: none"> Obstruction of enforcement officers on public paths Provision of false information 	<p>\$5,000 and/or 12 months</p>	

*Only applicable when theory test requirement is implemented.

