

# **IRSIDE DRUGE** THEORY HANDBOOK





# **JISSIDE** Drung theory Handbook



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#### CHANGI AIRPORT AIRSIDE MAP

# INTRODUCTION

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#### 1.1. Purpose

The Airside Driving Theory Handbook (ADTH) sets out the rules and regulations governing driving in the airside of Changi Airport. The contents of this handbook apply to all drivers who operate any vehicle within the airside. For the safety of drivers, passengers onboard aircraft and any other personnel operating in the airside, the rules and regulations set out in this handbook shall be complied with.

All drivers operating in the airside shall possess a valid Airfield Driving Permit authorising him to drive vehicle(s) of the classification stated. Driving without a valid Airfield Driving Permit is an infringement of Civil Aviation Authority of Singapore By-Laws.

#### 1.2. Review and Revision of Contents

The contents of this handbook will be reviewed annually and on an as-required basis. Any supplement or revision to the contents of this handbook can be found on the Changi Airport Group website.

#### CAG ADC Website:

https://www.changiairport.com/corporate/e-services/documents.html

An Airside Operations Notice (AON) or Airside Safety Notice (ASN) will also be published to inform the airside community of any supplement or revision.

Drivers shall comply with all rules and regulations including any supplement or revision.

#### 1.3. Legislation

All personnel operating in the airside are governed by the following rules and regulations including any subsequent amendments:

- 1.3.1. The Civil Aviation Authority of Singapore Act 2009.
- **1.3.2.** The Civil Aviation Authority of Singapore (Changi Airport) By-Laws 2009, in particular By-Laws 67 and 64 for Airfield Driving Permit and Airfield Vehicle Permit, respectively.

- **1.3.3.** Civil Aviation Authority of Singapore (Composition of Offences) Regulations 2009.
- **1.3.4.** Protected Areas and Protected Places Act (Chapter 256) (Note: In addition, the Penal Code is applicable in certain traffic accidents determined by the State Police).
- 1.3.5. Workplace Safety and Health Act.

#### 1.4. Jurisdiction

All vehicles and handling operations at the airside, apron, and designated roadways are under the control and jurisdiction of Changi Airport Group (S) Pte Ltd ("CAG"), the airport licensee.

The control of aircraft taxiing from runways to aircraft stands and vice versa by Changi Tower is under the control and jurisdiction of the Civil Aviation Authority of Singapore (CAAS).

#### 1.5. Access Control

All drivers and vehicles entering the airside shall have their Airfield Driving Permit (ADP), and Airfield Vehicle Permit (AVP) or Temporary Entry Permit (TEP) validated by the Auxiliary Police Officer at the entry point.

#### 1.6. Suspension or Revocation of Airfield Driving and Vehicle Permits

CAG may suspend or revoke an ADP if

- (a) There has been a contravention of any condition of the permit;
- (b) The person to whom the permit has been issued is not competent to drive the relevant vehicle;
- (c) It would not be in the interest of public safety for him to hold a driving permit.

CAG may also at any time in its discretion suspend or revoke any AVP or ADP without assigning any reason therefore under By-Law 79 and 80 or the CAAS (Changi Airport) By-Laws 2009.

#### 1.7. Surrender of Airfield Driving Permits

The ADP holder must declare and return the ADP (if possess a physical copy) to CAG Airside Driving Centre (ADC) upon resignation, cessation

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of driving duties for his employer or if ADP has been suspended or revoked.

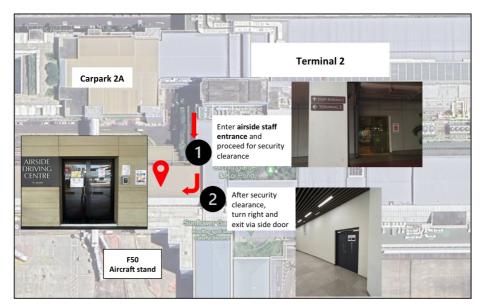
If the driver's state driving license is revoked/expired, he/she must similarly declare to CAG ADC as the state driving license is a prerequisite for holding the ADP.

The employer must also ensure that the ADP holder complies with this clause.

#### 1.8. Notice of Offence (NOO)

Any person who contravenes the CAAS (Changi Airport) By-Laws 2009 or fails to comply with the conditions of any permit or pass issued under the CAAS (Changi Airport) By-Laws 2009 will be issued a Notice of Offence. See Section 10 of this handbook. The regulations do not restrict CAG from suspending an ADP when it is deemed necessary.

#### 1.9 Directions to CAG Airside Driving Centre (ADC)



# ABBREVIATIONS AND DEFINITIONS



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## **2** ABBREVIATIONS AND DEFINITIONS

ACC means Airside Control Centre.		
Accident	means an occurrence associated with the operation or handling of an aircraft in which a person is fatally or seriously injured, or the aircraft sustains damage (adapted from the definition in ICAO Annex 13).	
ABL	means Apron Boundary Line.	
ADC	means Changi Airport Group (S) Pte Ltd Airside Drivir Centre.	
ADP or Airfield means an airfield driving permit issued by the a licensee.		
ADSCT	means Airfield Driving and Safety Compliance Test.	
Aerodrome	neans the Changi Aerodrome managed by the Authority nd includes any road or uncovered area which is within ne limits of the aerodrome, but does not include any bad or uncovered area to which the public has access.	
AES	means Airport Emergency Service.	
Aircraft Stand	means an area on an apron for parking of aircraft.	
Airside means the movement area of the airport a adjacent terrain and buildings or parts thereof, to which is controlled, but does not include the handling area.		
AMC	means Airside Management Centre.	
APD	means Airport Police Division.	
Apron	means the part of the airport, other than the manoeuvring area, to be used for accommodating aircraft for the purposes of embarkation or disembarkation of passengers, loading or unloading of mail or cargo, or fuelling, parking or maintenance of aircraft.	
ARRC means Airfield Rules and Regulations Course.		

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ARRRC	means Airfield Rules and Regulations Refresher Course.		
ART	means Airfield Rules Test.		
ASM	means Airside Management.		
ATC	means CAAS Air Traffic Control		
Authorised Person	<ul> <li>means:</li> <li>(a) Any other officer or employee of the airport licensee; or</li> <li>(b) Any person duly authorised by the airport licensee to act on its behalf.</li> </ul>		
AV	means Autonomous Vehicle, which are vehicles that are self-operated and without a Driver on Board		
AVP or Airfield Vehicle Permit	means an airfield vehicle permit issued by the airport authority.		
BHA	means Baggage Handling Area.		
CAAS	means Civil Aviation Authority of Singapore.		
CAG	means Changi Airport Group (S) Pte Ltd.		
Category One Airfield Driving Permit	is the airfield driving permit which allows the holder to enter the taxiways, subject to approval from Changi Tower. Refer to the Category One Airside Driving Theory Handbook for more details.		
Category 1R (CAT1R) Airfield Driving Permit	is the airfield driving permit which allows the driver to enter the runways and taxiways, subject to approval from ATC Changi Tower. Refer to the Category One Airside Driving Theory Handbook for more details.		
Category One Airfield Vehicle Permit	is the vehicle permit which allows the vehicle to enter the runways and taxiways, subject to approval from Changi Tower. Refer to the Category One Airside Driving Theory Handbook for more details.		
Driver	means in relation to any towed object, includes a driver of a vehicle by which the towed object is drawn. The word "drive" shall be construed accordingly.		

#### SECTION | INTRODUCTION - - - - -

EPA means Equipment Parking Area.		
ERA	means Equipment Restraint Area.	
ESA	means Equipment Staging Area.	
"Follow Me"         means a vehicle used to guide aircraft or other           Vehicle         Image: Second se		
GP	means Glide Path.	
Incident means an occurrence, other than an accide described above, associated with the operat handling of an aircraft, which affects or could affect safety of operations.		
ILSmeans Instrument Landing System.Keep Clear Zonemeans zones in aircraft stands that are marked white hatched lines and "No Parking" signs pair on the ground. These zones shall be kept clear personnel, vehicles, and equipment prior to arriva aircraft and after departure of aircraft.		
		Manoeuvring Area
Movement Area	means the part of the airport that includes both the <b>Apron</b> and the <b>Manoeuvring Area</b> .	
NOO means Notice of Offence, referring to N Composition of Offences, which is a repor- violations of the Civil Aviation Authority of Si (Composition of Offences) Regulations 200		
Perimeter Roadway	means roadways within the airside that allow vehicles to move around the airport clear of the <b>Apron</b> and <b>Manoeuvring Area</b> .	
PLB	means Passenger Loading Bridge.	

---- Section I Introduction

Primary Roadway	means roadways in front of all aircraft parking stands and baggage handling areas meant for movement of vehicles and equipment.
Runway	means a defined rectangular area prepared for the landing and taking-off of aircraft.
Secondary Roadway	means roadways behind all aircraft parking stands meant for movement of vehicles and equipment that are not allowed to use the primary roadways or unable to access the primary roadways due to height limit restrictions.
Taxiway	<ul> <li>means a defined path established for the taxiing of aircraft and to provide a link between one part of the aerodrome and another, including</li> <li>(a) Aircraft stand taxi-lane, where a portion of the apron designated as a taxiway and to provide access to aircraft stands only;</li> <li>(b) Apron taxiway, where a portion of the taxiway system located on the apron for the purposes of providing a through taxi route across the apron;</li> <li>(c) Parallel taxiway, where a portion of the taxiway system used for the purposes of providing a through taxi route to other parts of the aerodrome;</li> <li>(d) Exit taxiway, where a taxiway is connected to a runway for the purposes of providing a through taxi route into the runway; and</li> <li>(e) Rapid exit taxiway, where a taxiway is connected to a runway at an acute angle and is designed to allow landing aircraft to turn off at higher speeds than may be achieved on other exit taxiways, thereby</li> </ul>
TEP	minimising runway occupancy times. means Temporary Entry Permit.

### USEFUL CONTACT DETAILS

### **CHANGI AIRPORT GROUP (S) PTE LTD**

Airside Control Centre (ACC)6541 2151Airside Management Centre (AMC)6541 2275Airport Emergency Service (AES)6541 2525Airside Driving Centre (ADC)asm.adc@changiairport.com

### **AIRPORT ORGANISATIONS**

Medical Emergency Hotline	6543 2223
Airport Police Division (APD)	6546 0000
Changi Airport Fuel Hydrant Installation (CAFHI)	6546 4316
Fault Management Centre (FMC)	6541 2424

# CIVIL AVIATION AUTHORITY OF SINGAPORE (CAAS) AIR TRAFFIC CONTROL (ATC) Changi Tower 6541 2416 Changi East Tower 6592 2295

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#### SECTION II AIRSIDE DRIVING -



#### 3.1. Requirements for Drivers

#### 3.1.1. Eligibility for Airside Driving

Personnel who are required to drive in the airside shall:

- (a) Possess a valid seasonal Airport Pass from Airport Police Division for access to the airside.
- (b) Possess a valid Class 3 Driving License issued by the Singapore Traffic Police (TP) or state licensing authority (outside Singapore), or an International Driving Permit equivalent to Class 3. Damaged or defaced licenses are not acceptable.

Licenses and supporting documents not in English shall be supported by translation from recognised authorities.

(c) Possess an Airfield Driving Permit (ADP) issued by Changi Airport Group (CAG) Airside Driving Centre (ADC) with authorised vehicle classes\* displayed.

No person shall drive vehicle of any description in the airside unless he is the holder of a valid ADP for the appropriate class of vehicle.









*VEHICLE/EQUIPMENT CLASSIFICATION		
Α	Passenger Loading Bridge (PLB)	
В	Passenger Loading Bridge (PLB) – For cleaning and maintenance contractors.	
F	Forklift/Fork Truck	
3	Motor Vehicle (Unladen weight ≤ 2,500kg).	
3A	Motor Vehicle with automatic transmission (Unladen weight ≤ 2,500kg).	
3C	Issued only to foreigners <sup>1</sup> who wish to drive Class 3 vehicles after converting their foreign driving licence. Not valid for driving light goods vehicles, mini vans and small buses.	
3CA	Issued only to foreigners <sup>1</sup> who wish to drive Class 3C vehicles with an automatic transmission. Not valid for Class 3 vehicles with manual gear transmission, light goods vehicles, mini vans and small buses.	
4/4D	Motor Vehicle constructed to carry load or passengers (Unladen weight > 2,500kg).	
4T	<b>Motor Tractor Only</b> (Unladen weight $> 2,500$ kg but $< 7,250$ kg).	
5/5S	<b>Motor Vehicles not constructed to carry any load</b> (Unladen weight > 7,250kg).	

Note: 4D, 4T and 5S are internal vehicle classes restricted for group of personnel authorised by CAG and certified by SATS, dnata and SIAEC only. Minimum age applies for these, in accordance with relevant Traffic Police requirements.

#### 3.1.2. Passenger Loading Bridge (PLB) Operator Permit

In order to operate a PLB, an operator must possess a PLB permit. To obtain this, operator shall undergo a PLB course provided by SATS, dnata or ShinMaywa and pass a practical test conducted by CAG.

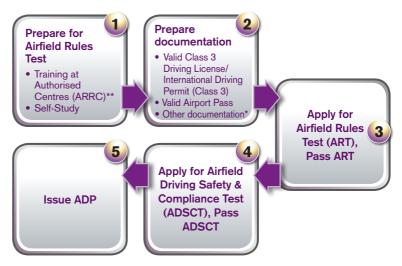
<sup>1</sup> For foreign state licenses, only Class 3 or equivalent are recognised.

#### 3.1.3. Access Zones

ADP holders are only allowed to drive within the apron areas and airside roadways. A Category 1 or Category 1R ADP is required to drive in the manoeuvring area, which consists of the runway, taxiway, and taxi-lanes. Refer to the Changi Airport Airside Map in Appendix for roadways accessible by non-CAT1 drivers. For more information on qualifying requirements for Category 1 and Category 1R ADP, please contact CAG ADC or refer to the Category One (CAT 1) Airside Driving Theory Handbook.

#### 3.1.4. Airfield Driving Permit (ADP) Application Process

To register for a new ADP, application shall be submitted on APIES, the Airside Driving/Vehicle Permit Management System. The system can be accessed via <u>https://apies3.changiairport.com/APIES/Login</u>



The general qualification process is described below:

- \* For details on documentation required, refer to Conditions of Application available on CAG APIES website.
- \*\* SATS and DNATA Training Centres (refer to Section 3.1.4.4).

Details of the process are described in the sections below.

#### 3.1.4.1. Medical Declaration

All drivers aged 65 years and above shall produce a medical declaration/certificate from any general practitioner stating that he or she is **fit to drive**. This declaration/certificate shall be produced when applying for a new ADP or renewing an existing ADP<sup>2</sup>.

#### 3.1.4.2. Airfield Rules Test (ART)

The ART is a computerised theory test to assess drivers on airside driving safety and regulations learnt from this ADTH. The test consists of multiple choice questions to be completed in one hour. The ART is offered in English, Chinese, Malay, Tamil and Burmese.

#### 3.1.4.3. Airfield Driving and Safety Compliance Test (ADSCT)

The ADSCT is a practical driving test to assess drivers on their competency to drive in the airside and adherence to airside driving safety and regulations. The test duration is approximately one hour.



#### 3.1.4.4. Preparation/Training

There are two ways to prepare for the ART and ADSCT:

#### (a) Self-study

Drivers can choose to download a copy of this ADTH and do self-study. The ADTH can be downloaded from CAG website (refer to Section 1.2 for the link).



<sup>2</sup> Drivers who are 64 years old and above would be issued with ADP of 1-year validity.

#### SECTION II AIRSIDE DRIVING - - - - -

Drivers shall not attempt the ART and ADSCT without studying the rules laid out in this ADTH.

#### (b) Attend the Airside Rules and Regulation Course (ARRC) conducted by training centres authorised by CAG.

The authorised training centres are listed below. CAG might request proof of attendance from those who attends the ARRC during course of ADP application.

TRAINING CENTRE	ADDRESS	CONTACT NUMBER
Singapore Airport Terminal Services Limited (SATS)	SATS Maintenance Centre 34 Changi North Crescent Singapore 499614	+65 6548 2011
DNATA Singapore Pte Ltd	50 Airport Boulevard Singapore Changi Airport Singapore 819658	+65 6511 0152

The authorised training centres also conduct the Airside Rules and Regulations Refresher Course (ARRRC), which drivers are required to attend before renewal of ADP.

It is the responsibility of the employers to ensure all drivers are properly trained and familiarised with the operating environment prior to undergoing the tests and official deployment thereafter.

#### 3.1.5. Issuance of ADP

Upon passing the ART and ADSCT, drivers shall be issued with an ADP valid for driving in the apron areas and airside roadways. This ADP is not valid for driving on manoeuvring areas, which require a CAT 1/1R ADP.

For more information on driving in the manoeuvring areas, refer to the Category One (CAT 1) Airside Driving Theory Handbook.

#### 3.1.6. SWEET

Drivers may use the mobile application derived from CAG's Service Workforce Empowerment and Experience Transformation (SWEET) initiative to view useful information related to airside driving and safety such as the Airside Operations Notices (AONs), Airside Safety Notices (ASNs), pushback procedures and flight schedules.



As part of CAG's Safety Management System which also aims to bring everyone in the airport community on board Changi Airport's safety culture, drivers may also use SWEET to report hazards via the iFeedback module. For confidential reporting, drivers may also choose to report hazards via e-mail, safety@changiairport. com, or via internet on <u>http://www.changiairportgroup.com.sg/</u>.

Prior to issuance of the ADP, it is mandatory for all drivers possessing smart mobile devices to download the SWEET mobile app.

#### 3.1.7. Latest Aerodrome Chart

The latest aerodrome chart issued by CAAS Aeronautical Information Publication (AIP) website should be located in the vehicle. This chart serves as a map to help drivers determine their location in the airfield. Subscribe to the website to receive alerts on the latest updates. TThe latest aerodrome chart may be found on SWEET app or downloaded here: https://aim-sg.caas.gov.sg/eaip.html

#### 3.1.8. Validity of ADP and Renewal Process

#### 3.1.8.1. ADP Validity Period

Drivers may choose an ADP validity period of one or two years from the date of issuance, subject to prevailing CAG policy and/or regulations. Corresponding fees apply.

#### 3.1.8.2. Refresher Training and Renewal of Airfield Driving Permit

If a driver wishes to renew his ADP, he shall attend the Airfield Rules and Regulation Refresher Course (ARRRC) conducted by the authorised training centres and fulfill other requirements as may be required by CAG within three months before the ADP expiry date. Drivers shall submit the Application for Renewal of Airfield Driving Permit via APIES.

Drivers who do not fulfill all necessary requirements for ADP renewal and do not renew their ADP by the expiry date shall have their ADP voided. Drivers are advised to renew their ADP in a timely manner to avoid disruption of their daily duties.

For example, if a driver's ADP is issued on 31 Dec 2016 and expires on 31 December 2018, he should fulfill all necessary requirements for ADP renewal and renew his permit between October 2018 and December 2018.

An example of the renewal process is as follows:



Drivers whose ADP had expired more than 2 years are required to retake his/her ART and ADSCT prior to ADP renewal.

#### 3.1.8.3. Renewal of PLB Operator Permit

If a PLB operator wishes to renew his PLB operator permit, he shall submit the refresher course certificate within three months before the permit expiry date, together with the application for renewal of ADP via APIES. Operators who do not fulfill all necessary requirements for PLB permit renewal and do not renew their PLB permit by the expiry date shall have their PLB permit voided, or PLB class removed from their ADP. Operators are advised to renew their permits in a timely manner to avoid disruption of their daily duties.

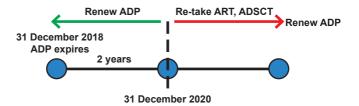
#### 3.1.8.4. Change of Employment

- (a) The ADP is not transferable. Upon leaving his employer, the driver shall declare to CAG ADC either personally or through his employer and return his ADP (if holding a physical copy). Failure to do so is a violation of CAAS By-Laws.
- (b) If the driver is required to drive in the airside by his new employer, he shall proceed to CAG ADC and produce a proof-of-employment letter from his new employer as a supporting document to have his ADP details updated.

#### 3.1.8.5. Expiry of ADP

If a driver does not renew his ADP within two years of the ADP expiry date, he shall retake the ART and ADSCT to qualify for a new ADP.

Example: ADP expires on 31 December 2018;



#### 3.2. Requirements for Vehicles

#### 3.2.1. Airfield Vehicle Permit (AVP)\*

Vehicles operating in the airside must be issued an AVP.

A Temporary Entry Permit (TEP) can be obtained for short-term operation of less than 60 days per calendar year, subject to ADC discretion.

(a) AVP



(b) TEP

Vehicles with TEP must be escorted by an ADP holder driving a separate vehicle. Both the escorting and escorted vehicles must follow proper escort procedures. Refer to **Section 5: Escorting Vehicles in Airside** for more information on escort requirements and procedures.



<sup>\*</sup> e-AVP found in APIES would not bear any logo. The permitted access zones would be stated instead.

#### 3.2.2. Types of Airfield Vehicle Permits, Access Zones\*

There are three types of AVP providing different levels of access in the airside.

#### (a) No Aircraft Logo

- Airside Roadways Only.
- No access to manoeuvring areas and aircraft stands.

#### (b) With Aircraft Logo

- Airside Roadways.
- Aircraft Stand (for ground handling/maintenance only).
- No access to manoeuvring areas.

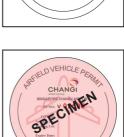
#### (c) With Aircraft Logo & CAT 1 Stamp

- Airside Roadways.
- Aircraft Stand (for ground handling/maintenance only).
- Manoeuvring Areas (refer to CAT1 ADTH).

\* e-AVP found in APIES would not bear any logo. The permitted access zones would be







#### - SECTION II AIRSIDE DRIVING

#### 3.2.3. AVP Application and Vehicle Safety Requirements

#### 3.2.3.1. AVP Application

To register for a new AVP or renew an existing AVP, an application shall be submitted on APIES, the Airside Driving/Vehicle Permit Management System. The system can be accessed via <u>https://apies3.changiairport.com/APIES/Login</u>

#### 3.2.3.2. Vehicle Requirements

To be issued with an AVP, vehicles shall comply with the requirements listed in the "Conditions of Application" which can be downloaded from the APIES website.

# DRIVING TRATOPS IN THE AIRSIDE

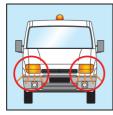
SECTION II AIRSIDE DRIVING - -

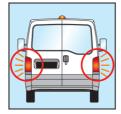
### **DRIVING IN THE AIRSIDE**

#### 4.1. Pre-Driving Checks

Before starting driving duties, drivers shall conduct pre-driving checks. This is to ensure that the vehicle is safe for driving. Several examples of pre-driving checks are as follows:

- Check tires are in good condition and inflated to correct pressure.
- Check steering and brakes are working normally.
- Ensure no warning/fault lights (engine light, brake light, etc.) are on.
- Ensure headlights, brake lights, signal lights, and flashing yellow lights are working normally.







 Ensure serviceable fire extinguisher(s) is/are in easily accessible location.

Vehicles experiencing any abnormal or unsafe operating conditions shall not be used.

#### 4.2. Passenger Load

- **4.2.1.** Passengers shall be seated in a passenger seat provided in the vehicle or standing in a section constructed for standing passengers.
- **4.2.2.** Maximum Passenger Capacity (MPC) label shall be displayed on the vehicle to indicate the maximum number of passengers that can be transported. Lorries shall not carry more workers than approved by LTA.



#### - - - - Section II Airside Driving

#### 4.3. High Visibility Vest/Raincoat Specifications

#### 4.3.1. High Visibility Safety Vest

High visibility safety vest shall be worn and properly fastened when entering or performing work within the apron or BHA, unless the company uniform incorporates safety vest requirements. Vests shall have the following specifications:

- (a) Bright coloured (yellow, orange, lime green are recommended).
- (b) Meets minimally Class 2 of EN ISO 20471:2013, which requires a minimum 0.5m<sup>2</sup> fluorescent surface and 0.13m<sup>2</sup> reflective surfaces.
- (c) Imprinted with company logo for easy identification.

#### 4.3.2. High Visibility Raincoat/Suit

High visibility raincoat/suit shall be worn and properly fastened during inclement weather. If raincoat/suit does not meet the below requirements, a Class 2 high visibility vest shall be worn over the raincoat/ suit. Raincoats shall have the following specifications:

- (a) Meets minimally Class 3 of EN ISO 20471:2013, which requires a minimum of 0.8m<sup>2</sup> fluorescent surface and 0.2m<sup>2</sup> reflective surfaces.
- (b) Cover torso and have, as a minimum, either sleeves with retro reflective bands or full length trouser legs with retro reflective bands.





Section II Airside Driving -

#### 4.4. General Driving Conduct (Dos and Don'ts)

#### (a) Always Carry Valid State Driving License

All drivers shall carry their state driving license and show upon request by CAG authorised personnel.

Drivers shall declare to CAG ADC immediately if their state driving license is no longer valid, i.e. revoked or expired.



#### (b) Always Fasten Seat Belt

Unless exempted by CAG, all vehicles shall be installed with seat belts. All drivers and all passengers shall fasten their seat belts when the vehicle is in motion.

#### (c) Always Exercise Care and Vigilance When Driving

All drivers shall be alert when driving in the airside. Drivers shall also be responsible for the safety of all passengers in the vehicle.

Drivers are not allowed to overtake other vehicles unless the road is clear, and never do so at bends and corners. Drivers shall also signal early.





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#### (d) Always Maintain a Safe Following Distance

All drivers shall maintain a safe following distance from the vehicle in front. The recommended following distance is at least a two-second gap. DO NOT Tailgate!

#### (e) Always Check Before Reversing

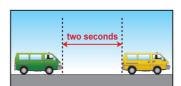
All drivers shall check their surroundings and ensure area is clear before reversing.

#### (f) Always Check Blind Spots Before Moving Off/Changing Lanes

All vehicles have blind spots which are not visible using the rear view/ side mirrors. Drivers shall check blind spots by physically turning and looking over shoulders, and ensure the vicinity is clear before moving off or changing lanes.

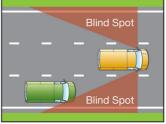
#### (g) Always Secure Loads Properly

To minimise risk of damage to infrastructure and vehicles and injury to persons, drivers shall ensure all loads and covers are properly secured, such as vehicle and baggage container tarps.

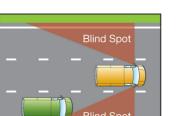


SECTION II AIRSIDE DRIVING









#### <u>Driving in the Airside</u>

#### SECTION II AIRSIDE DRIVING -

#### (i) Always Follow Road Markings and Signs

All drivers shall follow road markings and signs in the airside.

#### (i) No Alcohol and Drugs

Drivers under the influence of alcohol, drugs, and medicine causing drowsiness shall not operate a vehicle in the airside. If feeling unwell or tired, drivers must not drive either.

#### (j) No Eating and Drinking

Consumption of food and drinks in any form in the airside is strictly prohibited.

#### (k) Hand-Held Communication Devices

While driving in the airside, use of mobile phones without hands-free devices (for example, holding a mobile phone with one hand while driving with the other hand) when the vehicle is in motion is strictly prohibited.

#### (I) Driving Over Fuel Hydrant Pit

Driving over fuel hydrant pits is strictly prohibited as this can cause damage to the fuel hydrant covers and the pit valves inside, and may impact safety of the refueling operations. Parking equipment on the fuel hydrant pit would also cause obstruction and delay to maintenance work or emergency response. Fuel hydrant covers in the airside must be kept clear at all times.







- - - Section II Airside Driving

#### 4.5. Speed Limits Around the Airside (Kilometres per hour)



In addition to the general speed limits in the areas indicated above, drivers shall adhere to speed limits displayed on the speed limit signs throughout the airside. Where speed limits indicated on signs and general speed limits indicated above are different, speed limits indicated on signs installed throughout the airside shall be adhered to.

Drivers shall not operate vehicles with faulty speedometers, as they must be aware of the speed at which they are travelling.

#### 4.6. Right of Way

#### 4.6.1. Giving Way to Aircraft and Emergency Vehicles

Drivers shall always look out for and give way to:

(a) Aircraft taxiing, on tow, or on push-back. Drivers MUST NOT attempt to travel in parallel to the aircraft or to cut the path of the aircraft.



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(b) Emergency Vehicles responding to emergencies.



#### 4.6.2. Autonomous Vehicles (AV)

Drivers should look out for and exercise caution around AV in operation, stationed or parked at the aircraft stand, roadways and BHA.

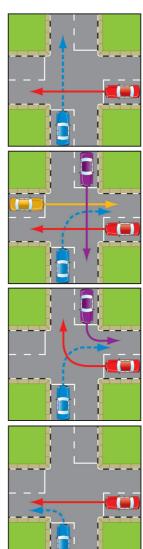


#### 4.6.3. Giving Way at Junctions

There are unsignalised junctions in the airside. These refer to junctions where traffic flow is not controlled by traffic lights. At these junctions, drivers shall exercise safe driving and judgment, and give way to other vehicles in accordance with basic driving rules:

 (a) If going straight, driver shall give way to vehicle going straight from the right.

- (b) If turning right, driver shall give way to:
  - Traffic going straight from all directions;
  - Traffic turning right from the right;
  - Traffic turning left from the opposite direction.
- (c) If turning left, driver shall give way to traffic going straight from the right.

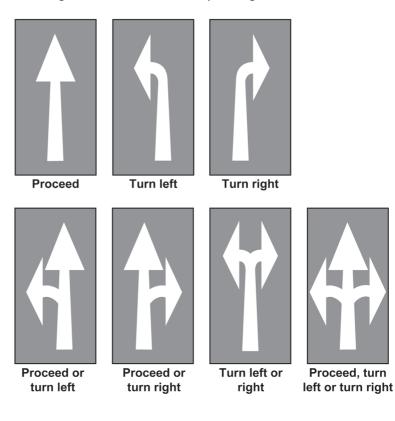


SECTION II AIRSIDE DRIVING - -

#### 4.7. Driving on Airside Roadways

#### 4.7.1. Ground Markings

Drivers shall only proceed in the directions shown by the road markings, unless the vehicle is operating inside an aircraft stand.



#### 4.7.2. Height Restrictions

Refer to the Appendix for height limits in the airside. In addition to height limits in areas indicated in the Appendix, drivers shall look out for height limit, vehicle restriction signs and gantries in the airside.

Drivers of tall vehicles or towing tall equipment (for example A-Frame, Pax Step, Maintenance Step, A380 Catering Truck) shall:

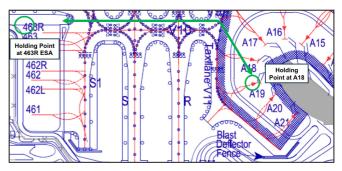
- Be aware of overall height of vehicle being driven.
- Observe height limit signs displayed in the airside.
- Plan driving route and avoid roads with height limit lower than vehicle or towed equipment height.

Only drivers of vehicles that exceed the height limits on primary roadways shall use the secondary roadways to complete their trip.





4.7.2.1. Movement of Vehicle/Equipment Exceeding 4.5m in Height To and From South Apron Aircraft Stands



# SECTION II AIRSIDE DRIVING -

For vehicles and equipment more than 4.5m in height, there is no roadway access between South Apron and Terminal 3. These vehicles and equipment shall use the Airside Operations Follow-Me-Service (FMS) to travel between South Apron and Terminal 3 using Taxiway V10.

Request for FMS shall be made to the Airside Duty Manager at the Airside Management Centre at least 60 minutes before the intended crossing time.

The designated holding points for FMS are:

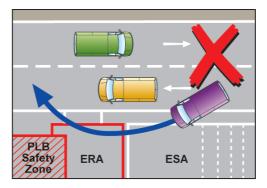
- 463R ESA
- A18 ESA

#### 4.7.3. Primary Roadways

Primary roadways are located in front of aircraft stands.



(a) Drivers shall not enter an aircraft stand as a short cut or to overtake vehicles.



(b) Drivers shall observe height restrictions at aerobridges and other fixed structures at all times.

#### 4.7.3.1. Primary Roadways in Front of Baggage Handling Areas

There are primary roadways which are located in front of baggage handling areas. Drivers are to observe the speed limit and look out for tractors entering and exiting the baggage handling areas.



Vehicles e.g. tow-tugs and heavy tractors weighing >45 tonnes (45,000kg) are not allowed to use the primary roadway in front of Terminal 3 baggage handling area. Drivers shall use an alternate route.

#### 4.7.4. Secondary Roadways

Secondary roadways are located behind aircraft stands. Because the secondary roadway lies in the path of aircraft taxiing in and out of the aircraft stands, as well as aircraft taxiing/ being pushed/ on tow on the taxiway/taxi-lane, vehicles using the secondary roadway are exposed to the risk of collision with aircraft.

Therefore, secondary roadways shall only be used by vehicles or vehicles towing equipment (for example, maintenance steps) that exceed the height limits on primary roadways, or by vehicles that are authorised by CAG.

Drivers shall not use the secondary roadway as short-cut to access aircraft stands. Instead, drivers shall enter and exit aircraft stands using the primary roadways as far as practicable. Misuse of secondary roadways is an offence and offenders will be subject to issuance of NOO and may have their ADP suspended.

#### SECTION II AIRSIDE DRIVING -



# 4.7.4.1. Giving Way To Aircraft



Drivers authorised to travel on secondary roadways shall exercise vigilance by keeping constant lookout and give way to aircraft moving in and out of aircraft stands. Failure to give way to aircraft may result in serious incidents, e.g. collision between aircraft and vehicles, injuries/damage arising from exposure to jetblast from aircraft with engines on. The figure above shows an aircraft on pushback moving across the secondary roadway. Aircraft ready for pushback out of the aircraft stand may have the following features:

Aircraft anti-collision light is on.



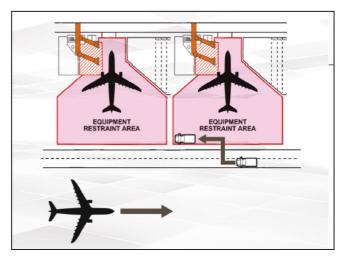
- Passenger Loading Bridge (PLB) is not connected to aircraft.
- Ground Support Equipment (GSE) removed from aircraft.
- ✓ Safety cones, including cone at aircraft tail removed.
- Tow-tug attached to aircraft.

If an aircraft is about to taxi into an aircraft stand, the following may be observed:

- Safety cones and pole positioned at the front of ERA.
- ✓ Wheel chock placed next to stop line.
- ✓ GSE staged in the ESA.
- Apron staff, including ADGS operator on standby near PLB plinth.
- ADGS pilot display panel lit up.

# SECTION II AIRSIDE DRIVING - -

If any of the above conditions is met, or if there is an aircraft taxiing or being towed/pushed on the taxiway/ taxi-lane, drivers must not proceed onto the secondary roadway. Drivers who are already travelling on the secondary roadway shall immediately stop and move to the edge of the nearest available aircraft stand to give way to the aircraft.



#### 4.7.5. Perimeter Roadways

Perimeter roadways are located near the perimeter fences surrounding the aerodrome boundary. As there are taxiway crossings at various points and access to Fire Stations, drivers shall exercise vigilance when travelling on perimeter roadways.

Drivers shall obey all warning signs, markings and speed limits located along the roadways. When approaching the taxiway crossings, drivers shall also ensure they stop fully



at holding position (before stop line), check the warning light AND visually scan the surroundings to confirm that there is NO AIRCRAFT on or approaching the taxiway before proceeding.

#### 4.7.6. Tunnel Roadways

Tunnel roadways allow drivers to traverse between Terminal 1 and the Cargo terminals. Drivers using the tunnel roadways shall observe the following:

- (a) Check the gantry at the tunnel entrance. Tunnel roadways shall not be used when the red light is on.
- (b) Height limit of tunnel roadways is 4.5m.
- (c) Waiting, parking, making a U-turn or reversing, and



overtaking at the bends are strictly prohibited.

There are certain vehicles which are not allowed to use the tunnel roadways; these vehicles and vehicles which exceed the tunnel

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# SECTION II AIRSIDE DRIVING -

height limit shall use the taxiway crossings instead. Drivers must check for aircraft movement before moving onto the taxiway crossing. Refer to Section 4.10 for more details.

The following vehicles are not allowed in tunnel roadways:

(a) Joint Container Pallet Loaders (JCPL).

(b) Main Deck Loaders.

- (c) Tankers/bowsers carrying flammable liquid with flash point ≤61°C (Jet A-1 fuel, Avgas, Petrol).
- (d) Vehicles transporting radioactive materials, chemicals, and explosive items.



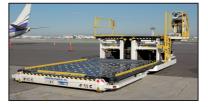












#### 4.8. Driving In Aircraft Stands

#### 4.8.1. General Driving Conduct

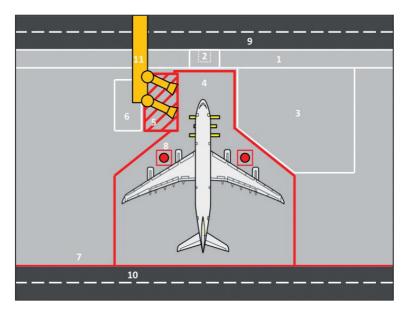
Drivers operating in the aircraft stands shall observe the following:

- (a) Vehicle shall possess valid AVP with aircraft stand access.
- (b) Drivers shall perform brake test before entering ERA. The approach to an aircraft shall be such that collision will be avoided in the event of vehicle brake failure. Drivers shall additionally comply with procedures stipulated in the Ground Operations Safety Manual (GOSM) when positioning and removing equipment from an aircraft.
- (c) Drivers shall not drive over any hose or bonding cable used for refueling of aircraft.
- (d) Drivers shall not reverse towards aircraft unless under the direction of a vehicle marshaller.
- (e) Unless it is required for refueling/maintenance services, drivers shall not park vehicle under the aircraft wings or fuselage.
- (f) Drivers shall observe the speed limit of 5km/h.



(g) Drivers shall not drive through an aircraft stand to reach other aircraft stands. Entry is only allowed for aircraft servicing or for other valid work purposes. Aircraft stands shall be accessed using the primary roadways as far as practicable and safe.

# 4.8.2. Layout of an Aircraft Stand

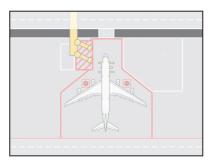


1	Holding Strip	7	Apron Boundary Line (ABL)
2	No Parking Area	8	Fuel Hydrant Pit
3	Equipment Staging Area (ESA)	9	Primary Roadway
4	Equipment Restraint Area (ERA)	10	Secondary Roadway
5	Passenger Loading Bridge (PLB) Safety Zone	11	Passenger Loading Bridge (PLB)
6	Equipment Parking Area (EPA)		

# - - - - Section II Airside Driving

# 4.8.3. Holding Strip

The holding strip is used for vehicles conducting aircraft servicing, but do not have a valid AVP with aircraft stand access. Vehicles shall not be parked in the holding strip more than 20 minutes before arrival of aircraft.

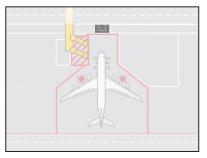




# 4.8.4. No Parking Area

This area is used for towtugs to manoeuvre and connect to aircraft preparing for pushback. Other vehicles shall not park here at all times.





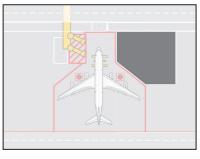


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SECTION II AIRSIDE DRIVING

#### 4.8.5. Equipment Staging Area (ESA)

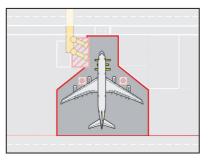
The equipment staging area is for staging of ground handling equipment or vehicles conducting aircraft servicing. All vehicles and equipment shall be parked in an orderly manner at all times, with handbrakes engaged. additionally Drivers shall comply with procedures stipulated in the Ground



Operations Safety Manual (GOSM).

#### 4.8.6. Equipment Restraint Area (ERA)

The ERA is defined as the area of the apron bordered by a red line. It shall be kept clear at all times for the safe movement of an aircraft in and out of the stand. Personnel, vehicles and/or GSE are only allowed to enter when servicing the aircraft or for other work purposes.



Drivers shall enter the ERA only when it is safe to do so.

# 4.8.6.1. Procedure for Entering ERA

The ERA shall be kept clear before an aircraft arrives or after an aircraft departs. After an aircraft has entered the aircraft stand, drivers shall confirm the following before entering the ERA:

- (1) Aircraft has come to a complete stop.
- (2) Aircraft engines switched off and are spooling down.
- (3) Aircraft anti-collision lights switched off.

(4) Aircraft wheel chocks and grounding cables positioned.



- (5) Headset Man gives 'thumbs-up' signal.
- (6) Safety cones placed.



4.8.7. Passenger Loading Bridge (PLB) Safety Zone

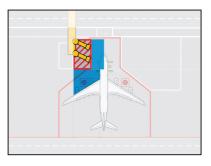


#### SECTION II AIRSIDE DRIVING

The PLB safety zone is demarcated by the red hatched area. Drivers operating in the aircraft stand shall observe the following:

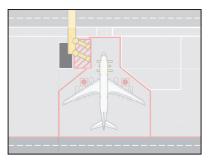
- (a) Keep clear of the PLB safety zone at all times.
- (b) After PLB has docked to aircraft, only vehicles and equipment authorised by CAG may be positioned in the PLB safety zone.
- (c) Alert the PLB operator if there is any obstruction in the PLB safety zone before PLB operations begin.

In addition to the above, PLB operators shall not dock or retract the PLB when there is any obstruction between the parked aircraft and the PLB (refer to the blue area in the diagram).



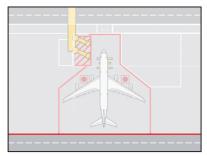
# 4.8.8. Equipment Parking Area (EPA)

The equipment parking area is reserved (via lease) for parking of vehicles and ground handling equipment.

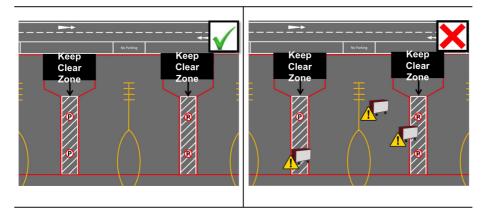


# 4.8.9. Apron Boundary Line

The apron boundary line demarcates the boundary between the aircraft stand and the aircraft manoeuvring area.



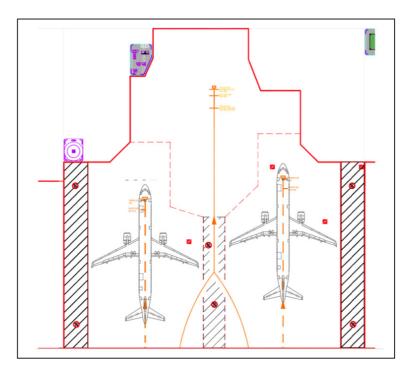
4.8.10. Keep Clear Zone (KCZ)



The KCZ is marked with white hatched lines and "No Parking" signs painted on the ground. During aircraft movement (including at the adjacent bay), the KCZ shall be kept clear of personnel, vehicles and/or GSE at all times.

For avoidance of doubt, personnel and vehicles, during flight handling, are allowed to enter the KCZ for manoeuvring only, and only if there is no aircraft movement (including at the adjacent bay).

Parking and staging are strictly prohibited at all times.



# 4.8.11. Layout of Multiple Aircraft Receiving Stand (MARS)

MARS stands are configured to receive either one Code E/F aircraft or two Code C aircraft at any one time. The area between the Left and Right Code C ERAs is a KCZ and must be kept clear when there is an aircraft entering or exiting either Code C ERA of the MARS, as per the section above.

# 4.9. Baggage Handling Areas (BHA)

Vehicles operating in the Baggage Handling Areas shall observe the following:

- (a) Only vehicles authorised by CAG are allowed to operate in the BHA.
- (b) Only electric tractors are allowed to operate within the BHA. Petrol/ diesel tractors are prohibited from entering.
- (c) Height limit in the BHAs is 2.3m, except for T2 BHA where the height limit is 2.2m.



- (d) Towing of pallet dollies is not allowed.
- (e) Vehicles or towed equipment parked in the BHA shall not obstruct traffic flow.
- (f) Drivers shall always look out for pedestrians and perform blind spot checks when manoeuvring vehicles.
- (g) Drivers shall ensure sufficient clearance between equipment on tow and the structures within the BHA.
- (h) Drivers shall always check for oncoming traffic before exiting the BHA and joining the primary roadway.

#### 4.10. Taxiway Crossings

Drivers shall exercise extra vigilance when driving on roadways that cross taxiways, due to potential aircraft movement. Drivers shall give way to aircraft at all times and give maximum clearance to aircraft. Failure to give way to aircraft may result in serious incidents, e.g. collision between aircraft and vehicles, injuries/damage arising from exposure to jetblast from aircraft with engines on. The locations of taxiway crossings are shown in the Appendix.





# SECTION II AIRSIDE DRIVING -

The 'Give Way to Aircraft' ground marking warns drivers of taxiway crossing ahead.



When approaching taxiway crossings, drivers shall:

- (1) Slow down.
- (2) Make a complete stop at the stop line (MUST DO!). This is regardless of the status of the warning lights (where provided).
- (3) At taxiway crossings where traffic lights are provided, drivers shall observe the following:

Steady Red: Stop at the stop line. Do not cross.

**Flashing Amber**: Stop at stop line. Check that there are no approaching aircraft before crossing. This includes taxiing aircraft, aircraft on tow and pushback.



Even if taxiway crossing warning lights are not red, DO NOT PROCEED if an aircraft is approaching the crossing. This include aircraft that is taxiing, on tow or being pushed back. Drivers can only proceed after the taxiway/taxi-lane is clear of aircraft.

Drivers are to remain in their holding positions, wait and give way even if the aircraft on the taxiway is stationary.

At taxiway crossings where warning lights are not provided, drivers MUST STILL STOP at the stop line and VISUALLY CHECK that there are no approaching aircraft as per the point below.

- (4) Visually check for aircraft movement (taxiing, pushback and towing) on the taxiway / taxi-lane. Look left, right, left.
- (5) Confirm that the roadway ahead is not obstructed.
- (6) Proceed to cross within the speed limit, ONLY AFTER CONFIRMING THAT THERE IS NO APPROACHING AIRCRAFT (taxiing, on tow or being pushed back).

When crossing taxiways, drivers SHALL NOT:

- X Attempt to cross in front of approaching aircraft.
- X Attempt to cross within 250m behind a taxiing aircraft.
- **X** Travel parallel to moving aircraft (taxiing, on tow or being pushed).
- **X** Stop on any part of the crossing.
- Overtake or follow other vehicles without conducting own visual checks.

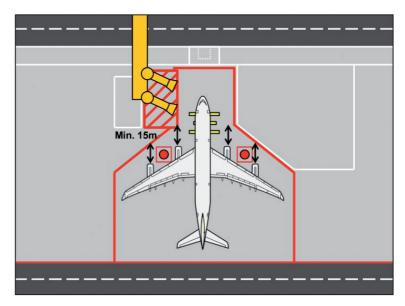
#### 4.10.1 Mobile Enforcement Camera Locations

To mitigate incidents where drivers fail to stop at designated taxiway crossing stop lines and perform proper scanning of aircraft before crossing taxiways, mobile cameras have been deployed at various locations. The aim is to deter drivers from failing to stop at holding positions and conducting proper checks for aircraft movement before crossing taxiway/taxi-lane.



SECTION II AIRSIDE DRIVING -

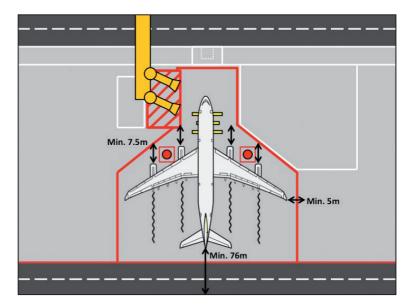
# 4.11. Safety Distances from Aircraft



# 4.11.1. Stationary Aircraft Being Refueled

Drivers shall not start vehicle engines when it is within an unsafe area around any refuelling point or fuel tank vent of an aircraft being refuelled An unsafe area is such area which is deemed to be at risk of fire or otherwise dangerous.





# 4.11.2. Stationary Aircraft with Engine Running

Drivers and airside personnel must be aware of the dangerous effects of jet/prop blast injuries that could be caused by being behind rotating propellers and jet/turbofan engines. There is also potential for engine ingestion when in close proximity to aircraft with its engines running.

No driver shall drive a vehicle towards an aircraft when its engines are running.

When an aircraft is stationary with its engines running, the following clear distances shall be adhered to:

- (a) 7.5m from front of aircraft engine.
- (b) 76m from rear of aircraft.
- (c) 5m from wingtip.

#### SECTION II AIRSIDE DRIVING

#### 4.12. Vehicle Refueling

If a vehicle runs out of fuel while operating, it shall be towed to a designated refueling location for refueling. Refueling shall only be done at designated refueling locations declared to AES.

Fuel spillages shall be cleaned immediately. Spillages larger than 4m<sup>2</sup> shall be reported to Airport Emergency Service at 6541 2525 and Airside Control Centre at 6541 2151.



#### 4.12.1. Vehicle-to-Vehicle (V2V) Refueling

Vehicle-to-Vehicle refueling using mobile bowser trucks is allowed in the airside subject to the following conditions:

- (a) Drivers of mobile refueling trucks shall have undergone fire patroller/Hazmat Transport Driver Permit (HTDP) training.
- (b) Mobile refueling trucks shall be equipped with firefighting equipment such as fire extinguisher(s) and spillage prevention kit, as a minimum.
- (c) Refueling of vehicles is not allowed within an aircraft stand (including holding strip) if an aircraft is parked within the stand or adjacent to the stand.

#### 4.13. Electric Vehicle Charging Facilities

Electric charging stations and charging bays are situated throughout the airside for charging of electric vehicles. These bays shall be kept clear at all times unless needed for electric vehicle charging. Vehicles shall be parked for charging purposes only and shall vacate the bays once charging is complete.



Drivers are to exercise care when approaching these facilities and to look out for vehicles slowing down to enter or exit.

#### 4.14. Driving in Low Visibility Conditions

#### 4.14.1. Vehicle Lighting

During periods of low visibility (e.g. haze, heavy rain, at night), drivers shall observe the following:



- (a) Slow down to a safe speed.
- (b) Switch on headlights at low beam at all times.
- (c) Ensure flashing yellow lights at the highest point of the vehicle are switched on.

#### 4.14.2. Category II Instrument Landing System (ILS) Operations

In the event of prolonged low visibility (for example, haze), Changi Tower may declare CAT II ILS Operations to aid aircraft landings. Vehicle movement restrictions will take effect:

- (a) Vehicles shall keep clear of CAT II ILS Critical and Sensitive Areas (LSA) and CAT II ILS Out of Bound Area, unless instructed to enter those areas by Changi Tower. Failure to do so may result in interference with aircraft navigation systems and potentially serious aircraft incidents/accidents.
- (b) Vehicles including tow tractors shall turn on flashing yellow lights and/or headlights at all times.
- (c) Non-essential airside activities and vehicle movements shall be minimised.

Refer to the Appendix for location of CATII ILS Out-of-Bound areas.

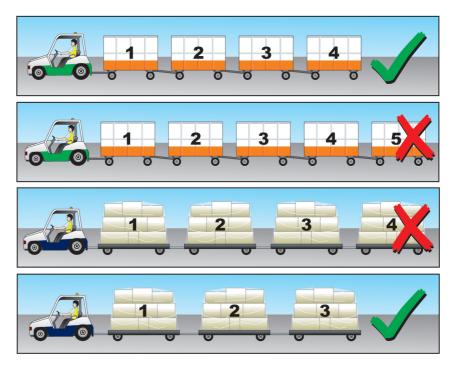
# 4.15. Towing

Drivers shall ensure that all towed loads are properly secured and covers or tarps are securely lashed before moving off. If the towed loads cannot be properly secured, driver shall stop operations and notify his control centre for maintenance.

Drivers shall also observe the following towing restrictions:

Type of Towed Load	Maximum No. of Towed Units
Container Trailers or Baggage Trolleys	4
Pallet Dollies	3*

\* On designated routes, towing of 4 pallet dollies may be allowed subject to prior approval of CAG Airside Management.



If problems are encountered during towing, drivers shall stop at a location that will not obstruct aircraft operations and traffic flow.

# 4.16. Operation of Forklifts

Forklift drivers shall observe the following guidelines:

- Drivers shall be Workforce Singapore (WSG) certified.
- Conduct pre-driving checks to ensure forklift is fully operational.
- Lower tynes to the ground as far as possible.
- When approaching blind corners or intersections with obstructed view, stop and proceed with caution.
- ✓ Observe the height limits of the surrounding structures.
- ✗ Forklifts shall not be driven along airside roadways unless authorised by CAG.



# 4.17. Operation of Boom Lifts and Scissors Lifts



Boom lift (left) and scissors lift (right) drivers shall observe the following guidelines:

- ✓ Drivers shall be Workforce Singapore (WSG) certified.
- Vehicles shall be annually certified by an approved person authorised by the Ministry of Manpower (MOM).
- Drivers without a valid Class 3 ADP shall be escorted by a vehicle with a valid AVP driven by a driver with a valid Class 3 ADP and who is certified for escort duties.
- Actual height of the boom lift or scissors lift shall be displayed prominently.

SECTION II AIRSIDE DRIVING

- Conduct pre-driving checks to ensure vehicles are fully operational.
- When approaching blind corners or intersections with obstructed view, stop and proceed with caution.
- ✓ Observe height limits of the surrounding structures.
- Drivers shall look out for the height limits of the surrounding structures when operating the boom lift and scissors lift.



# 4.18. Operation of Baggage Handling Area Buggies

Buggy drivers shall observe the following guidelines:

Buggy operation is only allowed in the Baggage Handling Areas.

Buggy shall not be driven in the airside. If required to be transported on the roads, it shall be towed using a trailer or flatbed truck.

# 4.19. Vehicle Parking in the Airside

When parking vehicles in the airside, drivers shall observe the following:

- (a) Park only in designated parking lots approved by CAG Airside Management.
- (b) Ensure engine is switched off, gear set in "Parked", engage handbrake and position wheel chocks, whichever are applicable.



R. R. 99

# ESCORTING VEHICLES IN AIRSIDE

#### Section II Airside Driving



#### 5.1. Objectives

During the course of work vehicles may need to enter the Airside temporarily. These vehicles may possess a valid TEP, but drivers of those vehicles may not possess a valid ADP. In this case, these vehicles must be escorted by drivers with a valid ADP. Only escort drivers briefed and endorsed by CAG Airside Driving Centre (ADC) may perform escort duties.

This section covers procedures for escort in airside roadways only.

#### 5.2. Requirements for Escort Drivers

To be certified for escort duties, drivers shall:

- Possess a valid ADP.
- Successfully complete escort briefing by CAG ADC.
- Be endorsed by CAG ADC.
- Ensure vehicles of escort drivers possess a valid AVP.

Escort briefings are conducted at the Airside Driving Centre. Briefings are conducted in English only. Attendees must sign up via <u>https://adceb.youcanbookme.com/</u>.

Upon endorsement by CAG ADC, drivers will have their ADP endorsed with escort qualification.



### 5.2.1. Renewal of ADP

Validity of the escort endorsement is concurrent with the ADP. Upon renewal of the ADP, drivers shall re-attend the escort briefing to ensure currency with escort procedures to obtain escort re-endorsement.

# 5.3. General Roles & Responsibilities of Escort Drivers/Drivers Under Escort

Drivers are responsible for the following:

Escort Drivers	Drivers Being Escorted
Have a clear understanding of purpose of escort and number of vehicles being escorted.	Stay close to Escort Lead Driver at all times.
<ul> <li>Brief the escorted drivers on:</li> <li>Route.</li> <li>Objective of task.</li> <li>Escort procedures.</li> <li>Means of communication.</li> <li>Airside rules and regulations.</li> <li>Contingency procedures.</li> </ul>	Never drive in the airside without an Escort Driver.
Have mobile telephone number(s) of all escorted driver(s) prior to commencement of escort.	<ul><li>Do not:</li><li>Overtake.</li><li>Drive ahead of Escort Lead Driver.</li><li>Break away from convoy.</li></ul>
Be in a separate vehicle with a valid AVP.	Comply with airside rules and regulations as briefed by the Escort Lead Driver.
Be contactable at all times throughout the duration of escort.	Have mobile telephone number of Escort Lead Driver prior to the commencement of escort.
Be responsible and liable for safe operations of the driver(s) and vehicle(s) under escort.	<ul> <li>In the event of a driver breaking away from the convoy:</li> <li>Flash vehicle headlights.</li> <li>Sound vehicle horn to alert the Escort Lead Driver.</li> </ul>

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#### Section II Airside Driving - -

Each escort driver shall escort a maximum of two (2) vehicles at any time.	
Stay close to the escort convoy and observe operations closely.	
<ul> <li>Should any escorted driver break away from the convoy, the escort driver shall:</li> <li>Steer any remaining vehicle in the convoy to a designated approved holding/parking area.</li> <li>Contact the break-away driver immediately.</li> <li>Report incident to Airside Management Centre (6541 2275) by any means of communication.</li> </ul>	

#### 5.4. Escorting Vehicles on Airside Roadways

All escort vehicles shall possess a valid AVP. Vehicles under escort shall possess a valid TEP. Each escort vehicle may escort up to two vehicles with a valid TEP, for example:

Number of Escort Vehicles (with AVP)	Maximum Number of Escorted Vehicles (with TEP)
1	2
2	4

Vehicles without a valid AVP shall not be driven as a lead escort, even if the driver possesses a valid ADP with serialised 'Escort' sticker.

# 5.5. Briefing by Escort Driver

Before proceeding with the escort, escort drivers shall brief all escorted vehicle drivers on their roles and responsibilities set out in paragraph 5.3.

# TRAFFIC Markings And Signs



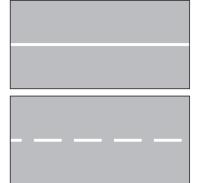
SECTION II AIRSIDE DRIVING - -



# 6.1. Airside Road Markings

# (a) Continuous/Broken White Line

Centre of a two-way road. Vehicles shall keep left of this line.



# (b) Double Continuous White Line

Centre of a two-way road. Vehicles shall not cross these lines at all times. Overtaking is not allowed.

# (c) Zig-Zag Lines

Pedestrian crossing ahead. Vehicles shall not overtake, wait, or park within these lines.

#### (d) Parallel White Broken Lines

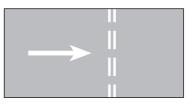
Prepare to give way to traffic ahead.

# (e) Single White Line

Vehicles shall stop before this line.









# 6.2. Manoeuvring Area Signs and Roadway Markings

# (a) Entry into Taxiway Ahead

Only authorised vehicles may enter.



# (b) Give Way to Aircraft

Look out and give way to aircraft.





# (c) No Entry Runway Ahead

Only drivers with CAT1 ADP may enter subject to clearance from Changi Tower.



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SECTION II AIRSIDE DRIVING - - -

#### 6.3. Traffic Signs



**Turn right only** 



Turn right ahead



Split traffic (Vehicles may pass on either side)



necessary. Give way to traffic on major road)



Turn left only



Turn left ahead



Stop (Stop before the white line. Give way to traffic from the right and left)







Keep left



No entry for all vehicles



No waiting (Vehicles may stop to allow boarding or alighting only)







Height limit (Vehicle of height 4.5m or vehicle carrying load exceeding height of 4.5m is not allowed to enter)



Right bend (Slow down. Keep left. Do not overtake, make a U-turn or park your vehicle)



Side road (Slow down. Beware of vehicles from the left)



Road narrows on both sides (Slow down. Do not overtake, make a U-turn or park your vehicle)



No entry to Passenger Steps Vehicle



Left bend (Slow down. Keep left. Do not overtake, make a U-turn or park your vehicle)



Two-way traffic ahead (Slow down. Keep left. Beware of oncoming traffic)



**Tunnel ahead** 

(Slow down and

Side road (Slow down. Beware of vehicles from the right)



Lanes merging (Slow down. Beware of traffic merging from right or left)

SECTION II AIRSIDE DRIVING - -



Curve alignment markers (Slow down and drive carefully at bends)

#### 6.4. Work Zone Signs



These signs indicate road works ahead. Drivers shall exercise vigilance and obey all traffic instructions and signals.

#### 6.5. Traffic Instruction by Authorised Officer

Drivers must comply with instructions given by an authorised officer. Authorised officers may be from the following organisations:

- (a) Changi Airport Group
- (b) Airport Emergency Services
- (c) Airport Police Division / Auxiliary Police

#### 6.6. Speed Regulating Device

To encourage safe driving, speed indicators have been installed at various locations. These display the real-time speed of the vehicle to alert drivers if they are approaching the speed limit. This is to help remind drivers to keep within the speed limits.

To enforce speed limits, speed cameras may be installed at various locations. Drivers found to be exceeding the speed limits shall be issued with a Notice of Offence (NOO).





Airport Emergency Service

AMBULANCE

## INCIDENT CHANGE REPORTING

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#### 7.1. Vehicle Breakdown

#### (a) Report

In the event of a breakdown of a GSE in movement areas such as taxiways, taxi-lanes, Equipment Restraint Area (ERA), Keep Clear Zone (KCZ) or any other operational areas, drivers are to call CAG Airside Management Centre (AMC) at 6541 2275 to report breakdown.

If vehicle is in the Manoeuvring Area (e.g. taxiway, taxi-lane), driver should also inform ATC immediately.



#### (b) Remove

The driver shall contact his company to have the vehicle removed immediately.

#### (c) Recover

While waiting for vehicle removal, the driver shall observe the following:

- Try to move the vehicle to the side of the road so that traffic is not obstructed. If the vehicle is the aircraft movement area, try to move the vehicle out where possible.
- The driver shall not leave the vehicle unattended. Remain in a safe place while waiting for vehicle removal.

#### 7.2. Vehicle Incidents

#### (a) Report

In the event of an incident in the airside, including runway/taxiway incursion, ERA infringement, failure to give way to aircraft, damage to aircraft and fire sighting, the driver shall immediately inform Airside Management Centre (AMC). Additionally, if there are injuries, the driver shall immediately call the Medical Emergency Hotline. Near misses with potential impact to safety of personnel or aircraft shall be reported too.



#### (b) Remain

Personnel involved in the accident shall remain at the scene until a CAG authorised person arrives to handle the situation.



#### (c) Preservation of Accident Scene

In the event of an accident, the drivers shall observe the following:

Do not remove the vehicle or equipment involved in the accident until permission is granted by an APD officer or CAG authorised personnel on-site.



Vehicle or equipment may only be moved as far as necessary to:

- ✓ Free/release/extract trapped persons or animals.
- Remove mail.
- Prevent fire or damage.
- Prevent obstruction to other airside users.

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SECTION II AIRSIDE DRIVING -

#### 7.3. Fuel and Hydraulic Oil Spillages

#### 7.3.1. Aircraft Fuel Spillage

In the event of fuel spillage with spill area more than four square metres, the drivers shall immediately report to:

	Airport Emergency Service	▶ 6541 2525
	Airside Control Centre	▶ 6541 2151
	Airside Management Centre	▶ 6541 2275
	*	

#### 7.3.2. Fuel Hydrant Pit Spillage

In the event of fuel spillage from underground fuel hydrant pit, the drivers shall report immediately to:

í.	Airport Emergency Service	▶ 6541 2525
	Airside Control Centre	▶ 6541 2151
	Airside Management Centre	▶ 6541 2275
	Changi Airport Fuel Hydrant Installation (CAFHI)	▶ 6546 4316

#### 7.3.3. Hydraulic Oil Spillage

In the event of large hydraulic oil spillage, the drivers shall report immediately to:



For smaller spillages, driver responsible shall clean the area with an approved absorbent material (sawdust shall not be used). BEWARE OF REVERSING TRACTORS

# AIRSIDE HOTSPOTS



## 8 AIRS

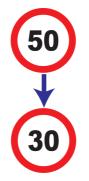
## **AIRSIDE HOTSPOTS**

Drivers are advised to exercise extra care at the following known airside driving hotspots.

(a) Terminal 3

Roadways from South Perimeter Road towards T3, near A21

Speed limit changes from 50km/h to 30km/h.



#### (b) Between Terminal 1 and Cargo Terminals Taxiway N

Only one vehicle is allowed in the holding zone. Drivers intending to cross the taxiway shall ensure that the holding zone is clear before entering.









#### (c) Terminal 3 Roadway R1S between B1 and B5, in front of T3 BHA

**AIRSIDE HOTSPOTS** 

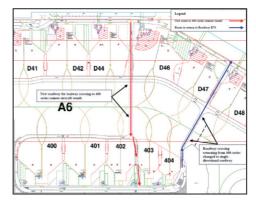
No through road for all vehicles except tractors and emergency vehicles.



#### (d) Terminal 2 400 Series Remote Aircraft Stands

Access to 400 series remote aircraft stands is one-way only. Drivers shall follow the prescribed paths to (red) and from (blue) 400 series remote aircraft stands.





To ensure safe crossing of the taxi-lane and to prevent failure to give way to aircraft or ERA infringement, drivers shall follow the steps below.

- a) Stop at the holding position between Stands D44 and D46 to check if there is impending pushback or aircraft arrival (taxiing or towing) from these stands.
- b) Check if there is aircraft movement (taxiing or towing) on the taxi-lane as far as possible.
- c) Check if there is aircraft pushback or arrival (taxiing or towing) to/from the 400-series remote stands across the taxi-lane.
- d) Drivers can only proceed past the holding position if there is no aircraft movement as checked in steps a to c.
- e) Drivers must do another check when they get to the Apron Boundary Line (ABL) where they have better visibility of the aircraft movement (taxiing, towing and pushback) on the taxilane and surrounding aircraft stands.
- f) Drivers are only allowed to proceed if they have checked that there is no aircraft movement.



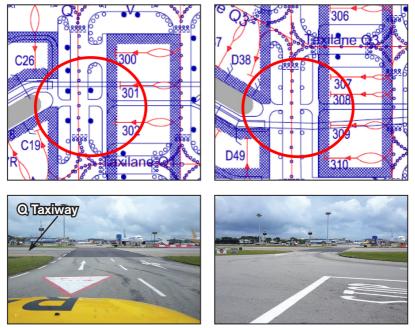
To 400 Series Stands



From 400 Series Stands

#### (e) 300 Series Remote Aircraft Stands

Drivers using the taxiway crossings to access the 300 series remote aircraft stands shall exercise caution, adhere strictly to the roadway markings and warning systems (if available), and strictly follow taxiway crossing procedures. Drivers shall not use the taxiway crossings unless accessing the remote stands or operating vehicles that are restricted on the tunnel roadways.



To 300 Series Stands

To 300 Series Stands

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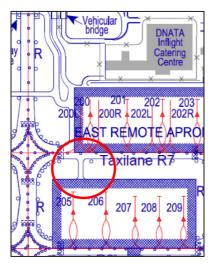
#### SECTION II AIRSIDE DRIVING -

Drivers shall additionally note that they are not allowed to make a left turn onto the taxiway crossing from the junction near Aircraft Stand C26 due to potential blind spot.



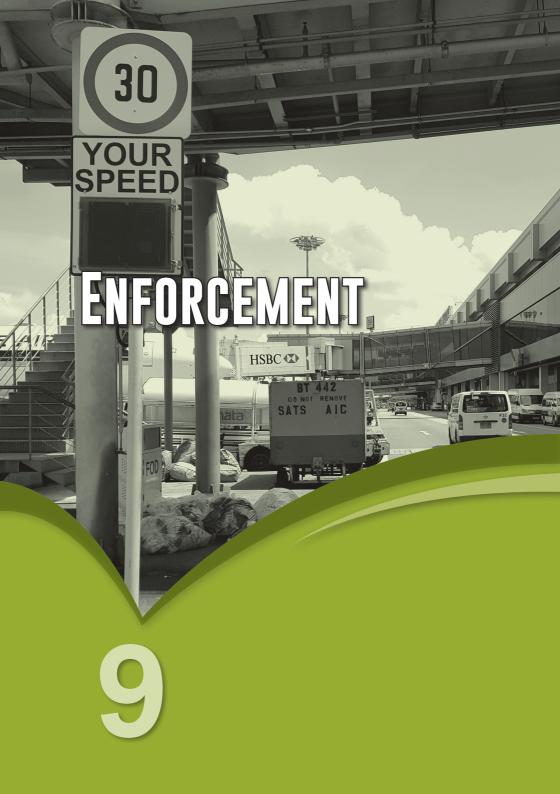
#### (f) Terminal 2 200 Series Remote Aircraft Stands

Drivers travelling from the terminal building to 200 series remote aircraft stands shall exercise caution, adhere strictly to the "Give Way to Aircraft" roadway markings, and strictly follow proper taxiway crossing procedures, including checking for aircraft movement approaching from Taxiways R and S.





To 200 Series Stands





## **ENFORCEMENT**

#### 9.1. Suspension or Revocation of ADP

CAG may, at any time at its discretion, suspend for such a period as it deems fit or cancel any ADP. CAG may suspend or cancel an ADP if:

- (a) There has been a contravention of any condition of issuance or possession of the permit;
- (b) The person to whom the permit has been issued is deemed not competent to drive the relevant vehicle;
- (c) It would not be in the interest of safety of the airside community for him to hold a driving permit.

#### 9.2. Suspension Framework

Refer to Chapter 10 for a schedule of all offences and their corresponding severity. If the person to whom the ADP has been issued commits offences as specified in the below table, his ADP may be suspended for the corresponding periods:

Number of High Severity Offences	Duration of ADP Suspension
2 within 12 months	3 months
3 within 24 months	6 months
4 within 24 months	ADP revoked and no re-issuance for 1 year
Any offences leading to Death/ Aircraft Damage	ADP revoked and no re-issuance for 1 year

Suspended drivers shall retake the ART before being re-issued an ADP at the end of the suspension period.

Drivers whose ADP has been revoked shall not be re-issued with an ADP for a period of one year. After the one year period, drivers shall retake the ART and ADSCT before being re-issued with an ADP.

#### 9.3. Drivers Involved in Incidents

Drivers with less than six months of airside driving experience who are involved in incidents shall have their ADP suspended. To have their ADP returned, drivers shall retake the ART and ADSCT.

During the suspension period, offenders may be required to attend training, counselling, or workshops as CAG deems necessary.

## CHANGI BY-LAWS COMPOSITION OF OFFENCES



## **10 CHANGI BY-LAWS COMPOSITION OF OFFENCES**

BY-LAW NO.	OFFENCE	FINE AMOUNT
	LOW SEVERITY	
10	Driver failing to allow free and uninterrupted passage to aircraft passenger within the airside or failing to give precedence to aircraft passenger.	\$50
19	Driver failing to keep the vehicle to the right side of the runway or taxiway, in so far as it is practicable, when proceeding along a runway or taxiway.	\$50
26	Vehicle towing another vehicle within the airside without the use of a suitable towbar for that purpose.	\$50
30	Parking a vehicle anywhere within the airside except within a parking space set out in Part I of the 1 <sup>st</sup> schedule and in a parking lot in that parking place specifically designated by the airport licensee for the category of vehicles to which the vehicle belongs or failing to pay the parking fee specified in the 2 <sup>nd</sup> schedule or driver failing to obey traffic signs exhibited in the parking places or parking the vehicle in such a manner causing the vehicle to protrude beyond the boundaries of the parking lot or to obstruct the entrance or exit of a parking lot or parking place set out in Part I of the 1 <sup>st</sup> schedule.	\$100
31(2)	Parking a vehicle, or cause or permit a vehicle to remain at rest, in a parking place within the airside in such a condition or circumstances as to appear to the airport licensee to have been abandoned without lawful authority.	\$100

## SECTION III ENFORCEMENT - -

BY-LAW NO.	OFFENCE	FINE AMOUNT
36	Person in charge of any equipment or vehicle used in connection with the servicing of the aircraft failing to immediately remove equipment or vehicle from the aircraft stand and any other related parking space, after the servicing of an aircraft, the aircraft has taxied or been towed away.	\$50
48(4)	The driver of a vehicle on any road in the cargo handling area or in any part of the cargo handling area shall comply with all the traffic signs placed or erected in the cargo handling area.	\$100
50(1)	<ul> <li>No person shall park a vehicle anywhere in the cargo handling area except –</li> <li>(a) Within a parking place set out in Part II of the 1<sup>st</sup> Schedule; and</li> <li>(b) In a parking lot in that parking place specifically designated by the airport licensee for the category of vehicles to which the vehicle belongs.</li> </ul>	\$100
50(2)	Any person who parks a vehicle in a parking place shall pay such parking fee as may be set by the airport licensee and displayed on signs affixed or placed in a conspicuous position at the entrance of the parking place.	\$100
50(3)	Any person who parks a vehicle in a parking place shall obey all the traffic signs exhibited in the parking place.	\$100
50(4)	No person shall park a vehicle in such a manner as to cause the vehicle to protrude beyond the boundaries of the parking lot, or to obstruct the entrance or exit of a parking lot or parking place set out in Part II of the 1 <sup>st</sup> Schedule.	\$100

#### **CHANGI BY-LAWS COMPOSITION OF OFFENCES**

## ---- SECTION III ENFORCEMENT

BY-LAW NO.	OFFENCE	FINE AMOUNT
50(5)	No person shall park a vehicle in a season parking lot unless he – (a) Is an authorised person; or (b) Is in possession of, and displays visibly on the vehicle for inspection, a valid season parking label issued by the airport licensee for the use of such parking lot.	\$100
50(6)	No person shall park a vehicle in a reserved parking lot unless he – (a) Is an authorised person or; (b) Is in possession of, and displays visibly on the vehicle for inspection, a valid reserved parking label issued by the airport licensee for the use of such parking lot.	\$100
51(2)	No person shall park a vehicle or cause or permit a vehicle to remain at rest in the cargo handling area in such condition or circumstances as to appear to the airport licensee to have been abandoned without lawful authority.	\$100
40	Passenger embark onto or disembark from an aircraft entering the airside without being escorted by an employee or agent of an airline.	\$50
47(1)	No person or vehicle shall enter or leave the cargo handling area except through an entrance or exit designated by the airport licensee.	\$50
49	Except with the prior permission of the airport licensee, no person shall park or stop a vehicle in any loading or unloading bay of any warehouse unit in the cargo handling area.	\$100

## SECTION III ENFORCEMENT - - -

BY-LAW NO.	OFFENCE	FINE AMOUNT
14	Driver reversing vehicle towards an aircraft in the movement area, except where the vehicle is used for servicing that aircraft and such reversing is carried out under the direction of a vehicle marshaller.	\$50
16(1)	Driver failing to keep the vehicle at least 5 metres away from any wing-tip of a stationary aircraft (shall not apply where the vehicle is directly below the wing-tip of the aircraft).	\$50
24	Driving any vehicle (other than of a type preapproved by the airport licensee for use in Baggage Handling Area) into a baggage handling area within the airside.	\$100
15	Driver causing a vehicle to approach an aircraft which has its engines running.	\$50
25	Travelling in any vehicle in the airside otherwise than seated in a passenger seat provided in the vehicle or standing in a section of the vehicle which has been constructed for standing passengers.	\$50
32	Person walking within or crossing the movement area at any time, unless he is permitted by the airport licensee to do so.	\$50
33	Person (other than a member of the maintenance staff working on an aircraft), failing to keep clear of the aircraft's engines and passing within a radius of 7.5 metres from the air intake of the aircraft or within a radius of 76 metres from the rear of a running jet engine of the aircraft.	\$50
43(1)	Person entering or performing work within the apron, including aircraft stands and compass swing area, failing to wear a high visibility safety vest at all times.	\$50

## ---- SECTION III ENFORCEMENT

BY-LAW NO.	OFFENCE	FINE AMOUNT
43(2)	Person cycling on any roadway within the airside failing to wear a high visibility safety vest.	\$50
52	No person other than the driver of a vehicle shall travel in any vehicle in the cargo handling area unless he is seated in a passenger seat provided in the vehicle or standing in a section of the vehicle which has been constructed for standing passengers.	\$50
	MID SEVERITY	
5(1)	Driver failing to comply with the directions or verbal instructions given by an authorised officer regulating traffic within the airside.	\$120
5(2)	Driver failing to comply with restrictions on and stipulations for vehicle loads (relating to height, weight, distribution, packing, adjustment of vehicle loads and no. of passengers allowed to be carried in vehicles) within the airside.	\$150
5(4)	Driver failing to obey all traffic signs placed or erected in the movement area, or on or along the road or other part within the airside.	\$120
7	Driver leaving broken-down vehicle unattended within the airside, failing to immediately inform Duty Apron Controller (if breakdown occurs in apron) and Duty Tower Controller (if breakdown occurs in manoeuvring area) and the owner of the vehicle and failing to arrange for immediate removal of the vehicle or failing to ensure aircraft or other vehicles are not obstructed by the breakdown.	\$120

## SECTION III ENFORCEMENT - - -

BY-LAW NO.	OFFENCE	FINE AMOUNT
27	Owner of vehicle failing to ensure that a vehicle used within the airside is maintained in good working condition and failing to ensure that condition and all its parts and accessories is such that no danger is caused or likely to be caused to any person in or on the vehicle, or any person on any road within the airside.	\$120
31(1)	Parking a vehicle or causing or permitting a vehicle to remain at rest, on any road within the airside in such a position, condition or circumstances as to be likely to cause danger, obstruction or undue inconvenience to other users of the road or to traffic within the airside.	\$120
41	Person driving or employing or permitting any person to drive, any vehicle within the airside unless the person driving the vehicle has been properly trained and certified to meet the standards approved by the airport licensee for driving within the airside.	\$120
46(2)	No person shall load or unload any fuel tank in the cargo handling area.	\$120
48(1)	The driver of a vehicle in the cargo handling area shall comply with any direction or verbal instruction given by any authorised person who is for the time being engaged in the regulation of traffic in the cargo handling area.	\$120

## ---- SECTION III ENFORCEMENT

BY-LAW NO.	OFFENCE	FINE AMOUNT
48(2)	The driver of a vehicle in the cargo handling area shall comply with such restrictions on and stipulation for vehicle loads (relating to the height, weight, distribution, packing, adjustment of vehicle loads and the number of passengers allowed in each vehicle) in the cargo handling area as may be imposed by the airport licensee.	\$150
51(1)	No person shall park or cause or permit a vehicle to remain at rest on any road in the cargo handling area in such a position, condition or circumstances as to be likely to cause danger, obstruction or undue inconvenience to other users of the road or to traffic in the cargo handling area.	\$120
53(1)	<ul> <li>The driver of a vehicle shall ensure that at all times –</li> <li>(a) The number of passengers carried in or on the vehicle and the manner in which any such passenger is carried; and</li> <li>(b) The weight, distribution, packing and adjustment of any load on the vehicle, is such that no danger is caused or is likely to be caused to any person in or on the vehicle, or any person on any road in the cargo handling area.</li> </ul>	\$150
53(2)	<ul> <li>The driver of a vehicle shall ensure that any load carried by the vehicle is at all times secured or placed in a position such that danger is not likely to be caused to any person, vehicle or aircraft –</li> <li>(a) By reason of the load or any part thereof falling from the vehicle, or</li> <li>(b) By reason of any other movement of the load or any part thereof in relation to the vehicle.</li> </ul>	\$150

## SECTION III ENFORCEMENT - - -

BY-LAW NO.	OFFENCE	FINE AMOUNT
53(5)	The driver of a vehicle shall ensure that no part of a load on the vehicle or any covering of such load causes or is likely to cause danger, obstruction or annoyance to other persons using the road.	\$150
53(6)	<ul> <li>Except as otherwise permitted by the airport licensee, the driver of a vehicle shall ensure that no part of a load on the vehicle or any covering of such load –</li> <li>(a) Trails along the road;</li> <li>(b) Projects in front of the vehicle; or</li> <li>(c) Projects laterally beyond the body or wheels of the vehicle or any authorised fitting permanently attached to the vehicle.</li> </ul>	\$150
55(1)	Except with prior permission of the airport licensee, no person shall leave any cargo or cargo handling and transporting equipment on a roadway, driveway, vehicular ramp or parking place in the cargo handling area.	\$150
55(2)	No person shall leave any refuse or litter in the cargo handling area.	\$150
69(1)	No person shall – (a) Drive vehicle of any description in the cargo handling area unless he is the holder of a valid driving license for the appropriate class of vehicles issued under Road Traffic Act (Cap. 276); or (b) Employ or permit another person to drive a vehicle in the cargo handling area unless the person so employed or permitted to drive is the holder of a valid driving license for the appropriate class of vehicles issued under the Road Traffic Act.	\$120

## ---- SECTION III ENFORCEMENT

BY-LAW NO.	OFFENCE	FINE AMOUNT
69(2)	<ul> <li>Without prejudice to paragraph (1), no person shall –</li> <li>(a) Drive a forklift in the cargo handling area unless he is the holder of a valid forklift driving permit; or</li> <li>(b) Employ or permit another person to drive a forklift in the cargo handling area unless the person so employed or permitted to drive is the holder of a valid forklift driving permit.</li> </ul>	\$120
	HIGH SEVERITY	
4(1)	Driving at a speed exceeding the speed limit of 30km/h on roads in the vicinity of aircraft stands or 50km/h on roads away from vicinity of aircraft stands or 5km/h within 10 metres from an aircraft parked at aircraft stand.	\$170
6	Driver failing to give way to an aircraft at all times or give maximum clearance to the aircraft.	\$170
8	Driver failing to obtain prior clearance from the Duty Tower Controller before proceeding to any part of the manoeuvring area.	\$170
9	Driver failing to stop at point of entry to the manoeuvring area or failing to ascertain that there is no aircraft movement before driving into the manoeuvring area.	\$170
12	Driver starting up a motor vehicle in the movement area within 15 metres of any aircraft that is being refueled.	\$170

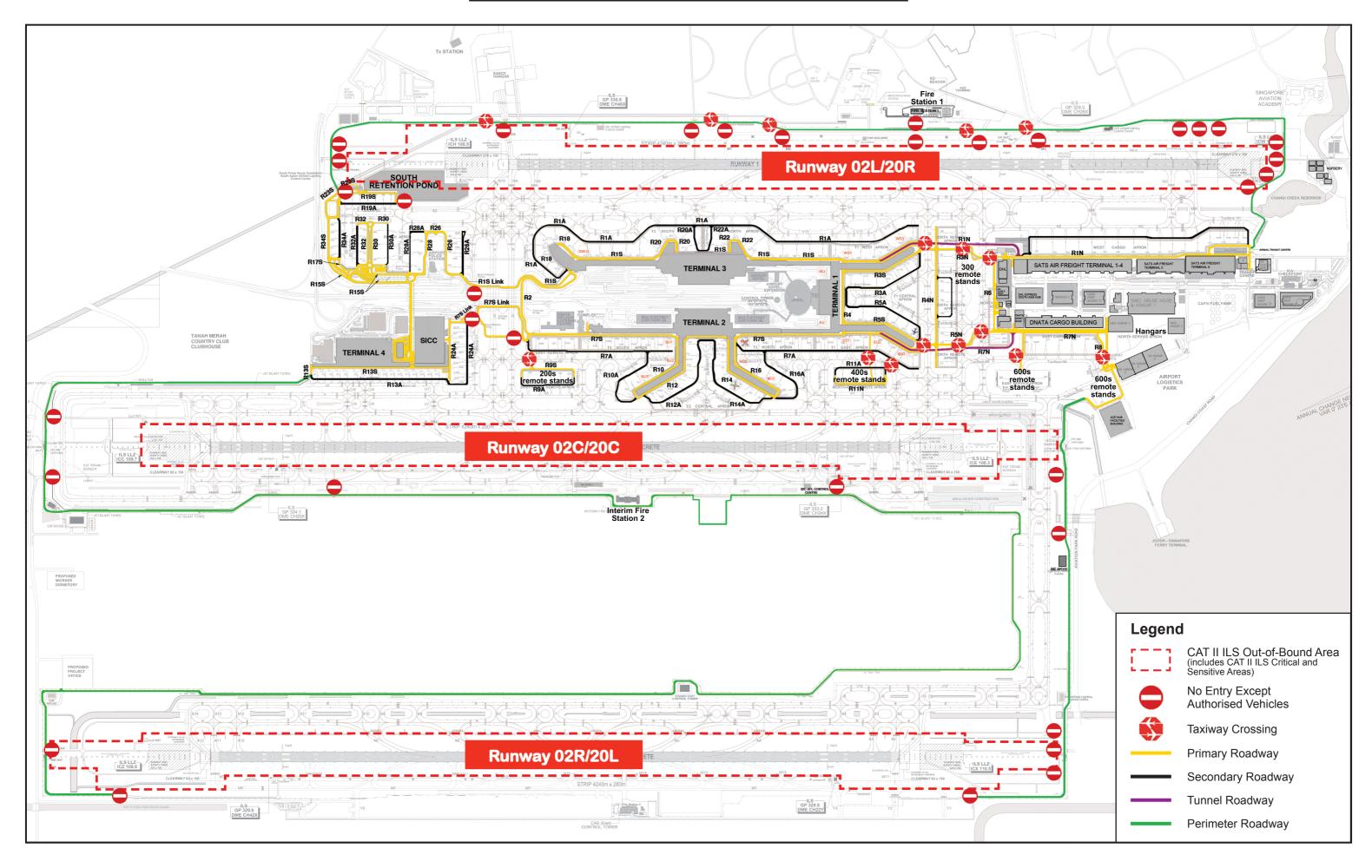
## SECTION III ENFORCEMENT - - -

BY-LAW NO.	OFFENCE	FINE AMOUNT
17	Driver failing to keep the vehicle within the red apron boundary line that separates the taxiway from the apron and away from the manoeuvring area when driving the vehicle in the movement area parallel to an aircraft taxiing on the taxiway or driver failing to keep the vehicle in the movement area at safety distance of at least 200 metres in front of or at least 250 metres behind any aircraft taxiing on the taxiway.	\$170
21	Driver failing to observe the red traffic light signals installed at various locations within the airside where vehicular traffic lanes cross the taxiways or failing to slow the vehicle down when the vehicle approaches the taxiway or failing to stop the vehicle before the stop line at the crossing and keep a lookout for any aircraft that is taxiing towards the crossing whether or not the red traffic light signals at the crossing are illuminated or failing to ensure it is safe to proceed across the taxiway only if the red traffic light signals are not illuminated.	\$200
22	Driver failing to ensure vehicle is equipped with a 2-way radio communication system when driving on any runway or taxiway or driver failing to comply with respective light signals when driving a vehicle not equipped with a 2-way radio (only when permitted by the airport licensee) on a runway or taxiway.	\$170
23	Driver of a vehicle crossing the movement area in front of the path of a taxiing aircraft or an aircraft on tow.	\$170
34	Person proceeding onto the apron without obtaining prior clearance from the Duty Apron Controller.	\$170

## ---- SECTION III ENFORCEMENT

BY-LAW NO.	OFFENCE	FINE AMOUNT
37	Person leaving or causing or permit to be left, any material, handling or transporting equipment, refuse or litter on any roadway, driveway or vehicular ramp, or in any other part of the airside.	\$200
44(1)	Person using a mobile telephone while driving a vehicle or operating equipment within the airside.	\$200
45	Person consuming any food or beverage in the movement area except in the offices located on the apron or on board an aircraft or feeding any bird or animal within the airside.	\$170
91(1)	Any person who drives a vehicle or operates any equipment in any part of the airport shall do so with care and attention and with reasonable consideration for other persons in the airport.	\$170

## CHANGI AIRPORT AIRSIDE MAP





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