

# Ground Handling of Aircraft

Airside Operational Instruction (AOI) 05

DOCUMENT REVIEW HISTORY		
AOI 05	CURRENT VERSION:-	V3.0
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VERSION	REVIEW	DATE
V1.0		September 2015
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V2.0		January 2017
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	3.1	June 2019
	3.2	May 2021
	3.3	May 2022
	3.4	May 2024

❖ **AMENDMENTS**

This document will be subject to a routine review, over a period not exceeding 24 months. The latest version will be included in the annual reissue of the Aerodrome Manual; interim reviews are carried out as deemed necessary.

Only operational related amendments will prompt the issue of a new Version; pertinent amendments being highlighted in **green** text & indicated by a **green** bar in the right margin. Indication of any amendment of an administrative nature will be listed below.

❖ **REVIEW / AMENDMENT HISTORY**

AMENDMENT SUMMARY			
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PARAGRAPH	AMENDMENT
	<i>Nil</i>

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AMENDMENT SUMMARY			
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PARAGRAPH	AMENDMENT
	Incorporates AOI 06; Handling of Large Aircraft; Renamed
	New ownership

AMENDMENT SUMMARY			
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PARAGRAPH	AMENDMENT
2.1	Wing-tip Clearance noted in line with EASA guidance
Various	Update of transfer of Ground Handling services from Swissport
6.3 & 6.4	Update of handling of Military aircraft

AMENDMENT SUMMARY			
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3.1	ATC frequencies updated for 8.33 conversion

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PARAGRAPH	AMENDMENT
Various	Various role titles updated
Various	Incorporates AOP 34; parking of Wide-Bodied Aircraft & AOP 40; Stand Allocation Policy
Appendix 3	Manoeuvring of J31 aircraft on Apron; Removed

AMENDMENT SUMMARY			
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PARAGRAPH	AMENDMENT
2.3	Changed Delta to Charlie
6.3	Inserted XLR to handle RAFO aircraft

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## ❖ CONTENT

SECTION	PARAGRAPH	TITLE	PAGE
<b>1</b>		<b>Introduction</b>	<b>1</b>
	1.1	Purpose	1
<b>2</b>		<b>Apron Stand Parking Management</b>	<b>1</b>
	2.1	Parking Restrictions; General	1
	2.2	Stand Allocation	3
	2.3	Parking of Large Aircraft; Wingspan >48m, <61m	3
<b>3</b>		<b>Pushback Procedures</b>	<b>4</b>
	3.1	Contact with ATC	4
	3.2	Operating Procedures	4
	3.3	Safety Procedures	5
<b>4</b>		<b>Aircraft Parking and Safety Practices</b>	<b>6</b>
	4.1	General Principles	6
	4.2	Follow-Me Vehicles	7
<b>5</b>		<b>Ground Handling of Code D and Code E Aircraft</b>	<b>7</b>
	5.1	General Protocol	7
	5.2	Aircraft Arrival	8
	5.3	Aircraft Departure	8
	5.4	Large Cargo Aircraft	8
<b>6</b>		<b>Royal and Military / VIP Flights</b>	<b>8</b>
	6.1	Types of Flight	8
	6.2	Flight Notification	9
	6.3	Parking and Ground Handling	9
	6.4	Access Control	10
Appendix 1		Apron Layout	11
Appendix 2		Pushback Profiles; Annex A – U & Z	12

## 1. INTRODUCTION

### 1.1 PURPOSE

This AOI is established to detail the requirements and procedures for the safe operation of all aircraft ground handling activity, relating to the ground movement and parking of aircraft.

The procedures incorporate Apron Management, parking limitations and specific requirements relating to large / wide-bodied aircraft; Code D or Code E.

## 2. APRON STAND PARKING MANAGEMENT

### 2.1 PARKING RESTRICTIONS; GENERAL

The Stands on the East and West Aprons provide parking for up to a total of eleven aircraft, depending on the aircraft size / combination of aircraft.

The following safety clearances apply:-

- A minimum wingtip clearance of 4.5 metres is to be maintained whenever any Code C aircraft is moving onto, or being pushed back from stand; a clearance of 7.5 metres is required for Code D or Code E aircraft
- A clearance of 36 metres from the Apron Taxi-lane centreline will be maintained at all times, whenever aircraft are using the East or West Apron parking Stands
- A clearance of **39 metres** from the Apron Taxi-lane centreline will be maintained at all times, whenever aircraft with a wingspan greater than 48m but less than 61m are using the East Apron parking Stands; this is achieved by **closure of the Rear of Stand Roadways for the East and West Aprons**

Stand Layout chart is contained at Appendix 1.

#### 2.1.1 AIRCRAFT SIZE:-

ICAO Annex 14 makes reference to aircraft from Code A upwards; the largest recognised code being Code F. Each code designates specific aircraft wingspan and outer main gear wheel span dimensional parameters. BOH has the capacity to handle aircraft up to Code E.

The following table details the wingspan of the most commonly operated aircraft, which can operate from the Airport and which can be accommodated on the East or West Aprons.

A more detailed list is available from ATC.

AIRCRAFT	WINGSPAN (M)	OTHER EQUIVALENT AIRCRAFT		
B737- 300	28.88	B737-200	BAE 146	F100
B737- 800 WL	36.00	A320	MD 82	TU 134
B757-200	38.04			
B767-200	45.57	A300	A310	
B787-8	60.1	B777		
B787-9	60.1			

### 2.1.2 EAST APRON PARKING RESTRICTIONS:-

STAND	DEPARTURE RUNWAY	STAND RESTRICTION	AIRCRAFT TYPE
1	08	No use if Stand 1R is utilised	B737/800 WL
	26		
1R	08/26 Entrance / exit to Apron via Romeo and Southern Apron Taxi-lane	No use of Stands 1 or 2 if Stand 1R is utilised	B767/300; B787-8; B787-9
2	08	No use if Stand 1R is utilised	B737/800 WL; BAE J 31
	26		
3	08	No use if Stand 3R is utilised	B737/800 WL; BAE J 31
	26		
3R	08/26 Entrance / exit to Apron via Romeo and Southern Apron Taxi-lane	No use of Stands 3 or 4 if Stand 3R is utilised	B767/300; B787-8
4	08	No use if Stand 3R is utilised	B737/800 WL
	26		
5	08	No Restriction	B737/800 WL
	26		
6	08	No Restriction	B737/800 WL
	26		



## 2.1.3 WEST APRON PARKING RESTRICTIONS:-

STAND	DEPARTURE RUNWAY	STAND RESTRICTION	AIRCRAFT TYPE
7	08	No Restriction	B737 /800 WL
	26		
8	08		B737 /300
	26		
9	08		B737 /800 WL
	26		
10	08		B737 /800 WL
	26		
11	08		B737 /800 WL
	26		

## 2.2 STAND ALLOCATION

Stand planning and allocation is the responsibility of the Airside Duty Operations Manager (ADOM). Plans are produced on a weekly basis and made available to relevant Airside operators.

When allocating the Stands, consideration will be given to aircraft schedules and the mix of aircraft expected to be on Stand at the same time. For the purposes of forward planning and re-utilisation of any Stand, a minimum buffer time of 15 minutes will be required between an aircraft's STD and the next aircraft's STA.

Amendments to the Plan will be advised accordingly.

Non-scheduled flights will not be parked on the East Apron unless there is assurance that this will not adversely affect any scheduled flight.

## 2.3 PARKING OF LARGE AIRCRAFT; WINGSPAN &gt;48M, &lt; 61M

In order to facilitate aircraft within the above category, the following procedures are to be followed: -

- Rear of Stand roads on East and West Aprons are to be closed, using blockers and NED lights if during the hours of darkness
- All aircraft parked on East and West Aprons are to be clear of the Rear of Stand Apron line markings

- Prior to inbound or out bound activities, the RFFS are to complete a full inspection of the East and West Aprons, to ensure that the required wing-tip clearances are available
- ATC are to be informed of Rear of Stand roads being clear and this is to be recorded in the VCR Logbook.

Additionally, whenever a B787-9 is parked on the East Apron, stand 1R, the northern entrance to the Apron is to be closed off with barriers; positioned at the junction of Taxiway **Charlie** and Taxiway Golf, south of the "Dirty Road". The barriers will be removed prior to the aircraft commencing pushback.

East and West Apron clearances are to be monitored by RFFS whilst the aircraft are taxiing in or taxiing out of the East Apron parking position.

Aircraft might also be parked remotely on Taxiway Bravo, Taxiway Romeo or Taxiway Tango, as necessary and approved by the Airport Authority

### **3. PUSH-BACK PROTOCOL**

The various push-back profiles are illustrated in Appendix 2; Annex A-U & Z.

Appendix 3; Annex K3, K4, K5 & K6 show profiles for J31 aircraft manoeuvres.

#### **3.1 CONTACT WITH ATC**

All aircraft must have ATC permission before starting any push-back or self-manoevre. This can be obtained on frequency 125.605 Mhz (Tower) or when in operation, 121.705 MHz (Ground). Once the movement has started, all aircraft are under the guidance of ATC and therefore, must comply with ATC instructions. Speech communication should be maintained between the aircraft flight deck and the push-back crew, so that any ATC instruction during push-back can be acted upon promptly.

Occasionally, the procedures may have to be modified due to work on the aircraft Movement Area, or for operational reasons. Operators should be aware that the issue of a NOTAM &/or an Operational Advice Notice will advise of such temporary conditions. In order that safe operation may be assured, it is essential that flight and push-back crews are kept briefed on these published procedures. This is the responsibility of the operator.

#### **3.2 OPERATING PROCEDURES**

BOH does not seek to influence the detailed technical content of push-back procedures, which are the clear responsibility of the airline or operator concerned. However, the following general requirements are to be met:-

- a) Operators or airlines must ensure that they have comprehensive, written procedures for each aircraft type operated, for use by their crews for push-backs.

- b) Operators must ensure that they have carried out a suitable and sufficient risk assessment of their pushback operation and must ensure that all measures have been taken to control any potential risks.
- c) All ground crew must be trained in the use of the procedures and be certified as competent by a suitably qualified instructor.
- d) Operators should nominate a person in charge of the push-back operation.

### 3.3 SAFETY PROCEDURES

The following procedures are to be followed:-

- a) Aircraft must only be pushed-back on receipt of instruction from ATC and unless otherwise agreed, in accordance with the pushback plans in Appendix 2. When any change or deviation from the standard procedure is required, ATC and the push-back crew are all to be thoroughly briefed before the manoeuvre is commenced.
- b) Prior to any aircraft movement, anti-collision & navigational lights must be switched on.
- c) Turboprop and jet engine aircraft may only start engines on stand with the prior permission of ATC; permission will only be given with assurance that the safety of all users of the Apron roadway system can be ensured through suitable precautions.
- d) Aircraft known to have an unserviceable APU and requiring an air start will not be parked on any stand that adjoins a Rear of Stand road; Aircraft, which are parked on such a stand and subsequently require an air start, will be repositioned to a remote stand before beginning the air start procedure.
- e) In order to ensure that no ground handling personnel, employed as part of a push-back crew are exposed to unsafe levels of jet blast, ATC will only issue simultaneous push / start clearances where it is clear that this can be safely achieved.
- f) While the pilot is ultimately responsible for the safety of their aircraft realistically, they cannot be fully aware that the area into which they are being pushed is safe; nor necessarily be fully aware of the hazards their jet blast/prop wash etc. may create. ATC have no jurisdiction over Apron activity but will ensure that conflicts do not occur between moving aircraft. However, ATC do not have sufficient view of the Apron to ensure that individual equipment, vehicles or personnel are clear of the stands; especially at night or in poor visibility. It is the responsibility of the push-back crew to ensure that the push-back area is clear and there is no risk of collision or potential jet blast/prop wash problems. The push-back crew must ensure that the pilot is informed of any potential hazard to or from the aircraft and advise them to use minimum breakaway thrust, where they can see that a blast hazard may exist.

- g) The Stands are multi-use configuration; extra care must be used when push-back / self-manoeuving takes place. When push-back is complete, the tug and crew must return to the Apron roadway, via the shortest possible route. Reversing is to be kept to an absolute minimum.
- h) The tail/wing man should be in a position to direct traffic on the Apron roadway system as soon as the push-back tug is attached to the aircraft and the aircraft doors are closed. They should allow traffic to continue to use the Apron roadway system until the aircraft is ready to start engines or to commence push-back.
- i) Code D aircraft from the East Apron are always to be pushed back to face south; this is the only permitted exit route from the Apron to the Runway.

#### **4. AIRCRAFT PARKING AND SAFETY PRACTICES**

##### **4.1 GENERAL PRINCIPLES**

The following requirements and protocol must be followed:-

- a) All fixed-wing aircraft / helicopters, wishing to park on either Apron, are to be marshalled onto stand; marshalling to be carried out by Ground Handling staff; or by BOH RFFS personnel when required.

Only staff holding a current Marshalling Licence are allowed to carry out marshalling duties; with the exception of Staff undergoing training, providing they are accompanied by a qualified Marshalling Licence holder.

- b) Standard aircraft marshalling signals, as laid down in CAP 393, are to be used in all instances; by day, any such signals shall be given by circular bats and at night, by illuminated wands with a minimum luminosity of 30 candelas.
- c) All stands are designed such that the marshaller should park the aircraft with the nose level with the Taxi-lane "T" bar. On certain stands, dedicated nose-wheel markings are available; these should only be used for the appropriate aircraft type.

In normal situations, marshallers must aim to ensure that they indicate to the aircraft to follow the markings painted on the Apron, so as to ensure that they maintain adequate safety clearances from fixed obstacles; this is a minimum 20% of aircraft wingspan.

Before marshalling aircraft onto stands, marshallers must ensure that the parking area is free from any obstructions, including pre-staged equipment. All service equipment should be a minimum of 4.5m from the "T" and must not encroach into the stand area.

- d) When an aircraft arriving on stand requires the marshaller to stand in, or near to an Apron road, the marshal shall use their vehicle to assist in safeguarding the road, if practical. To further protect the marshal and also to ensure there is no distraction to the flight crew, vehicles are not permitted to drive behind the marshal, unless given permission by the marshal or in emergency situations.

Marshalls are to ensure that no personnel or vehicles approach an aircraft, which has just arrived onto stand, until the anti-collision lights have gone out, the aircraft has been chocked and the engines have run down.

- e) In the case of simultaneous arrivals onto 2 adjacent stands, disembarking passengers from the first arriving aircraft must be held until the second arriving aircraft is stationary on its allocated stand.

For simultaneous arrival and departure from 2 adjacent stands, the departing aircraft is to be held until the arriving aircraft is stationary on stand.

#### **4.2 FOLLOW-ME VEHICLES**

When Low Visibility Procedures are active and when, in accordance with ATC procedures, it is deemed necessary by the Aerodrome Controller, aircraft entering the Apron will be provided with a follow-me vehicle; provided by BOH Safety personnel. The marshaller will take responsibility for the final positioning of the aircraft, once it has entered the stand area.

### **5. GROUND HANDLING OF CODE D / CODE E AIRCRAFT**

#### **5.1 GENERAL PROTOCOL**

The ground movement handling of Code D or Code E aircraft is carried out in accordance with measures documented in Safety Assurance Document (SAD)18:- Apron Operations; Aircraft with Wingspan 48-61m.

During ground movements and parking manoeuvres, safety margins of Code D aircraft are maintained for both aircraft-to-aircraft and aircraft-to-obstacles.

Aircraft parking arrangements are executed with due regard to safe distances being maintained between obstacles and Code E aircraft.

ICAO Annex 14 requires that the minimum clearance between a manoeuvring aircraft and any obstruction is **20%** of wingspan.

## 5.2 AIRCRAFT ARRIVAL

Code D and Code E aircraft will vacate the Runway via Taxiway Bravo, Taxiway Romeo or Taxiway Tango, depending on the agreed parking area & or as directed by ATC.

Code D aircraft are permitted to park on specified Stands on the East Apron (see Para 2.2 above); during this activity, all aircraft will be under full marshal control until shut down in the parking position.

Code E aircraft, with dimensions no greater than 68.5 m (i.e. B747-8), should be positioned on a pre-designated and agreed parking position on Taxiway Bravo, Taxiway Romeo or Taxiway Tango; the Taxiway then closed and clearly marked.

## 5.3 AIRCRAFT DEPARTURE

Code D aircraft, parked on the East Apron, will be pushed back to face south and then taxi via Taxiway Bravo or Taxiway Romeo to the Runway.

Aircraft with wingspan no greater than 68.5m should be towed from the parking to a position along the centre-line of the Taxiway to allow a safe start up and taxi.

## 5.4 LARGE CARGO AIRCRAFT

Freight aircraft with a wingspan > 65 metres / < 80 metres are defined as Large Cargo Aircraft (LCA); specifically, these aircraft are the Antonov 124 and Boeing 747-8F. These aircraft can be handled as per Code E passenger carrying aircraft.

# 6. ROYAL AND MILITARY / VIP FLIGHTS

## 6.1 TYPES OF FLIGHTS

Military flights using BOH will include fixed-wing / helicopters from each branch of the Armed Services; namely the Royal Air Force, Royal Navy and Army (Air Corps).

These include the following:-

- Freight / Trooping flights
- Fast Jets; Tornado, Typhoon etc.
- Royal / VIP / Military Executive flights
- Helicopters / The Queen's Helicopter Flight
- Commercially registered aircraft operating in support of the Military
- Aircraft operating under agreement of the NATO Movement Coordination Centre Europe (MCCE), which may include the USA or other NATO military aircraft and/or commercially registered, chartered aircraft operating in support of the Military

## 6.2 FLIGHT NOTIFICATION

Military, particularly Military VIP flights, are often of a sensitive nature and as such, the flow of and access to information on these flights requires strict controls.

Details of all Royal and Military / VIP flights, due within the following seven days, will be sent via e-mail from the designated Handling Agent to the Terminal Operations Manager and copied to the Manager Air Traffic Services.

Details of forthcoming flights should include the following:-

- Time of Arrival or Departure
- Aircraft type
- Parking arrangements
- Person(s) or Cargo carried

Bournemouth Airport Ground Handling is the point of contact for handling requests for Military aircraft and for flights carrying military passengers &/or cargo through the Airport.

On receipt of the information, the Terminal Operations Manager should inform the following:-

NATURE OF FLIGHT	TO BE INFORMED (•)				
	ATC	RFFS	SECURITY	PRESS OFFICE	SPECIAL BRANCH
FREIGHT / TROOPING	•	•	•	•	
FAST JETS	•	•	•		
MILITARY EXECUTIVE / VIP	•	•	•		
HELICOPTERS	•	•			
QUEEN'S FLIGHT	•	•	•	•	•

## 6.3 PARKING AND GROUND HANDLING

Military aircraft will generally be parked remotely, on Taxiway Bravo or Taxiway Romeo.

Royal Flights and aircraft carrying foreign Heads of State / dignitaries should be parked on the East or West Apron. Aircraft will generally be handled by Bournemouth Airport Handling; exceptionally, certain aircraft such as **RAFO** may be handled by XLR.

On receipt of flight details from the Terminal Operations Manager, the Airport Duty Operations Manager, in conjunction with Ground Handling, will allocate a suitable aircraft parking stand / area.

Certain Military flights may arrive unannounced (i.e. AAC helicopters). In such circumstances, ATC should advise the Handling Agent immediately, in order to facilitate ground handling on arrival. Should the Handling Agent not be immediately available, the aircraft / helicopter will be marshalled onto stand / parking area by the RFFS and then await the Handling Agent's arrival.

#### **6.4 ACCESS CONTROL**

Control Point 2 is the access point to the designated parking area for all Military / VIP flights.

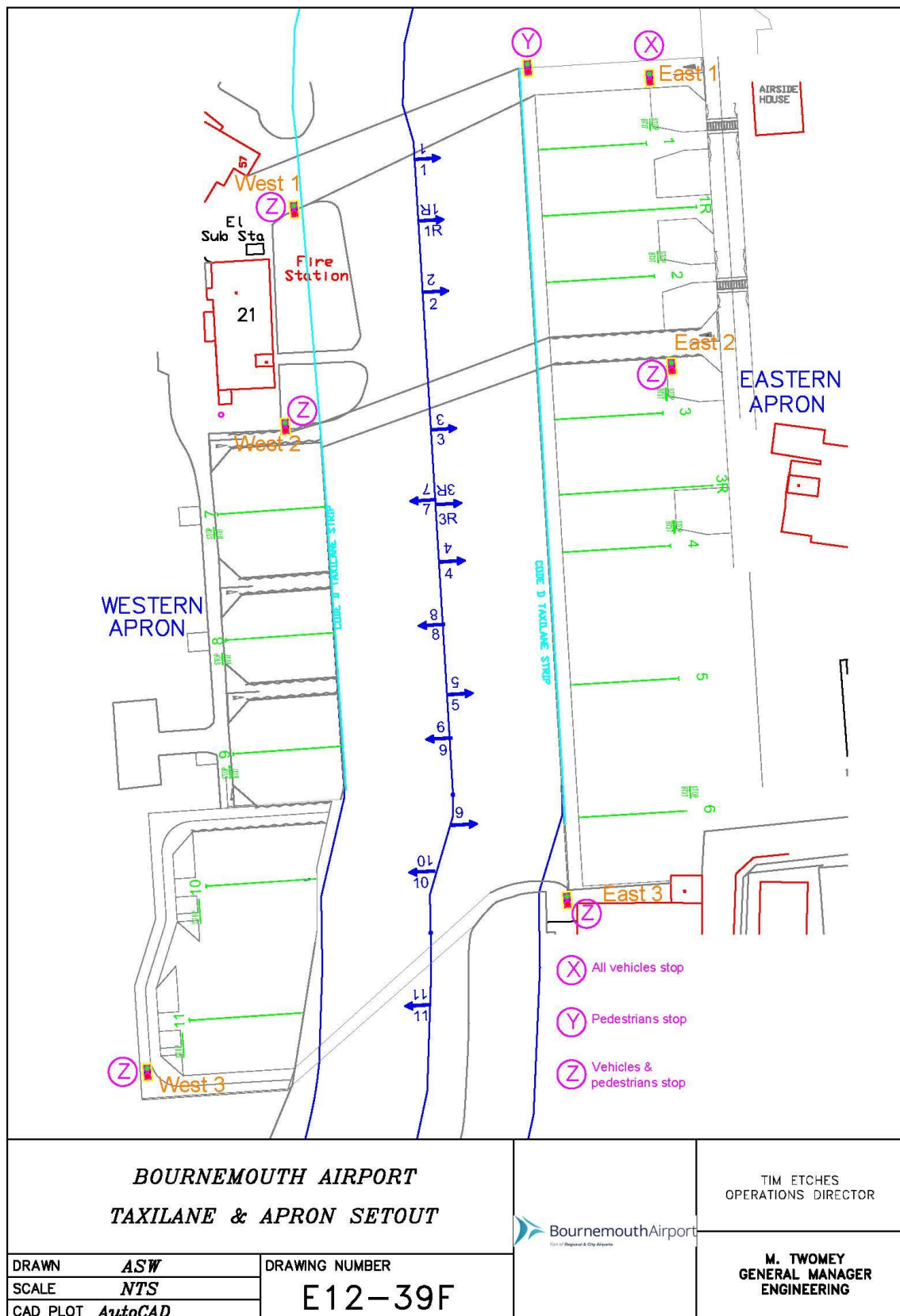
Access will be controlled in line with the UK National Aviation Security Programme and as detailed in the BOH Airport Security Programme.

Unless otherwise instructed, all vehicles accessing Airside areas will be required to comply with the vehicle and driving procedures, as detailed in the relevant Airside Operational Instruction :-

- AOI 12; Airside Vehicle Permit Scheme
- AOI 13; Airside Driving



## APPENDIX 1    APRON LAYOUT



## APPENDIX 2     PUSH-BACK PROFILES; ANNEX A-U &amp; Z

