

# Police Interview Rooms

A complete range of sound proofed rooms for conducting recorded interviews



MAKING  
THE  
WORLD  
A QUIETER  
PLACE

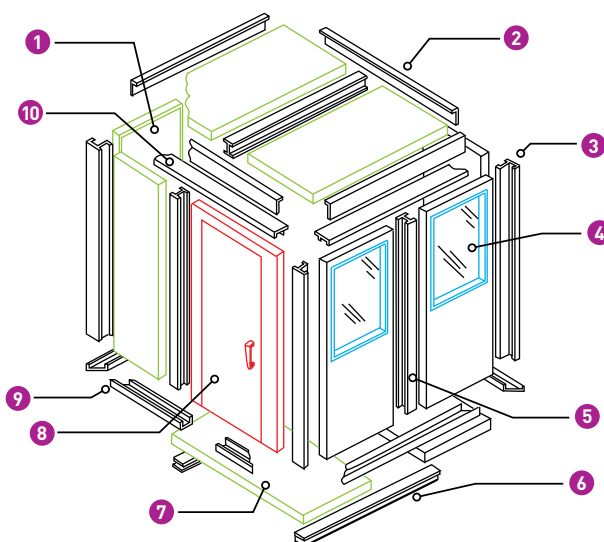
# Police Interview Rooms

## Why acoustic performance is so important

The high cost involved in preparing evidence and bringing criminal cases to court means that the quality of the recorded evidence cannot be compromised. This is particularly apparent in cases involving serious offences because as interviews tend to be more probing and longer in duration, the probability that recordings will be compromised by background noise interference and disturbance increases.

Statements, phrases and critical words uttered during an interview on a poor quality recording will undoubtedly be regarded with suspicion by a legal adversary. It also becomes immeasurably more difficult to transcribe the contents of a sub-standard recording, causing delays and increasing the margin for error / inaccuracy.

- 1 Panel - inner surface typically perforated
- 2 Roof apron
- 3 Corner joiner
- 4 IAC Noise-lock® acoustic window
- 5 IAC 'H' panel joiner
- 6 Isolation rail
- 7 Floor panel
- 8 IAC Noise-lock® acoustic door
- 9 Floor channel
- 10 Roof channel



## Room Construction: The IAC Acoustics Moduline™ System

The specification for recorded interview rooms from IAC Acoustics has been based on the Moduline panel system. This system comprises a range of high performance acoustic components – including wall and roof panels, structurally isolated floors, doors, windows and silenced ventilation systems, which integrate readily with one another. Moduline has been used extensively for many years to build structures of every kind, from broadcasting studios to hearing test rooms; and offers several major advantages over the use of traditional building materials.



## **Guaranteed Acoustic Performance**

IAC Moduline structures achieve a guaranteed level of acoustic performance based on laboratory and field proven test results.

## **Design Flexibility**

Rooms of almost any size and configuration can be designed and constructed using IAC's Moduline panel components.

## **Demountability**

Modular structures are easily dismantled, moved, reconfigured and re-erected, with no loss in acoustic performance.

## **Robust but Lightweight Structural Qualities**

An IAC Moduline structures are approximately one third the weight of conventionally built structures of equal size. This makes the modular approach particularly suitable where the load bearing on an existing floor is a key concern.

## **Rapid, Clean Installation**

Moduline rooms are typically erected, decorated and equipped, ready for occupation in a fraction of the time needed when conventional building materials are used. The modular construction is clean and dry, eliminating the inconvenience caused by wet and dusty building techniques.

# Design Considerations

In many cases, for practical reasons, an interview room must be located within, or close to, a secure area; it is undesirable, time wasting and perhaps even dangerous to have to escort suspects or witnesses vast distances between cells and the interview room.

Noise problems in secure areas tend to be considerable – raised voices, shouting, heavy footsteps and doors and gates closing suddenly, are all sources of unwanted noise. Main design considerations for such areas can be summarised as follows:

## Reverberation Problems

Floors, walls and ceilings all reflect sound and therefore reduce the rate at which sound decays. Subjectively this has the effect of prolonging the sound, and encourages sound transmission in to adjacent areas. A highly reverberant field within an interview room will artificially colour recorded speech and impair intelligibility.

## Air-Bourne / Structural Noise Transmission

The most obvious way in which noise is transmitted is through the atmosphere (air). Frequently more serious however are loud and sudden noises (a door slamming shut for example) transmitted into surrounding areas through the structure of the building; such sounds are likely to be both audible on the tape and cause disruption to interview proceedings.

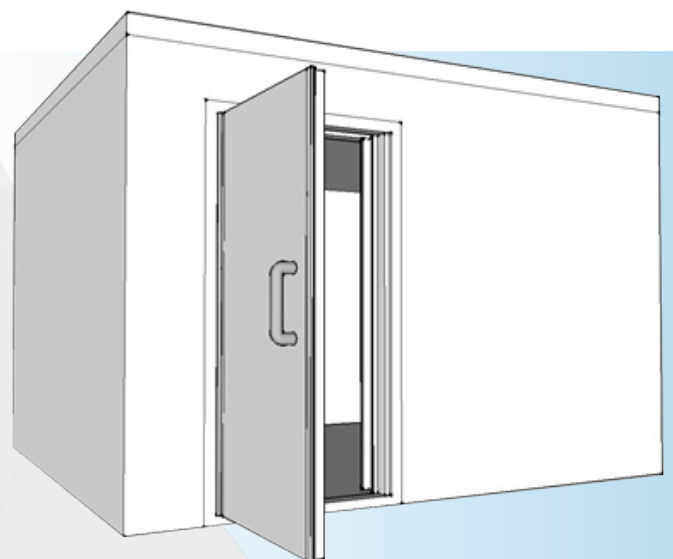
## Noise Reduction

Interview rooms should be designed to provide a noise reduction (room to room or room to corridor) of 80dB.

In practice, this has been successfully achieved by a double skin structure, with fully isolated inner room, built from the IAC Acoustics Moduline system.

## Reverberation Times

Reverberation times within an interview room should average 0.25s across speech frequencies and background noise levels with air conditioning running should be less than NR20.







### **Air Conditioning / Ventilation Noise**

In simple terms, a soundproof room is also required to be airtight. Basic, inexpensive silenced ventilation systems can, of course, be incorporated in the rooms design but in practice this may prove inadequate.

Full air conditioning is therefore recommended because temperature, humidity and clean air controls assist in creating a more suitable environment in which to conduct long, and both mentally and physically exacting interviews. It is important to ensure that background noise levels from air conditioning plant do not mask softly spoken words during an interview.



### **Unnoticed Sound**

Within the context of noise entering a room, further consideration should be taken to the internal / ambient acoustics. There may even be occasions when a noise, picked up by the recording equipment, has gone unnoticed by the interviewer. This gives rise to the possibility that a suspect may at a later date, argue that vital words or phrases were unintelligible or that they made a statement as a result of a noisy distraction. This situation of unnoticed sound could occur several times during the course of a single interview because other forms of communication, visual contact for example, are frequently deployed to overcome subjectively such noise interference and enable conversation to flow without interruption. Whilst well trained and experienced interviewers would be alert to the potential dangers of this, the possibility of producing a recording which contains noises unexplained by the interviewer, remains a reality.

# Turnkey Design & Build Packages

In practical terms, the construction of police interview rooms is likely to involve several specialist trades, including builders, air conditioning engineers, decorators etc. To guarantee the acoustic integrity of the finished room(s) it is vital to ensure that all contractors are monitored and co-ordinated throughout the building programme.

IAC's design and build package has been developed specifically to overcome the difficulties associated with appointing and controlling a range of contractors. The turnkey project management service available, encompasses every stage from the initial preparation of designs to the final commissioning of a facility. A single contract placed with IAC Acoustics ensures that the multi-disciplinary expertise required at the construction stage is managed smoothly, efficiently, economically and to budget.

## Summary of Design and Build Service

- Initial appraisal of client requirement
- On-site acoustic survey
- Advice on alternative design solutions
- In-house design of rooms / suites to suit individual client specification and budget
- Provision of detailed quotation with full cost breakdown
- Installation and commissioning of finished facilities, fully equipped, ready for occupation

## Air-Conditioning / Ventilation

IAC Acoustics recommend the installation of a complete air-conditioning system with independent control for heating, cooling and full fresh air intake. It is important for such equipment to be compatible, acoustically, with the overall performance characteristics of the room itself and for this reason it is an integral part of IAC's design and build package. IAC recommend the following design performance for air-conditioning:

Internal temperature -  $20^{\circ}\text{C} \pm 2^{\circ}$ , relative humidity -  $50\% \pm 10\%$ , fresh air flow - 12 litres per person/second

## Electrical Equipment/Services

IAC Acoustics also take responsibility for all electrical requirements including:

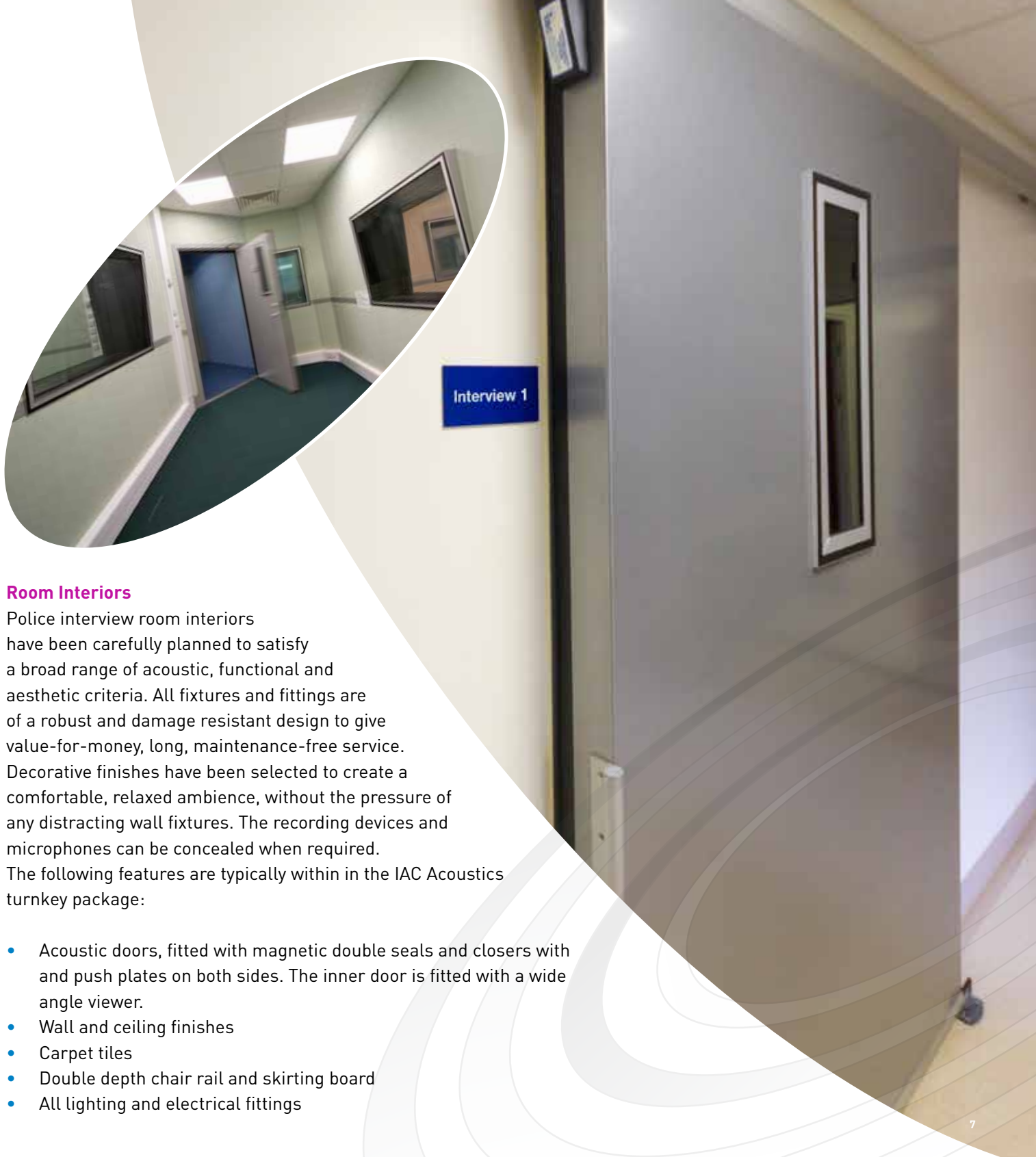
- Electrical wiring inside rooms
- Power points (13amp sockets)
- Fire alarm system
- Recording light box
- Room lighting and control
- Control panel (duty officer call button etc)
- Panic buttons
- Emergency light pack



## Mobile Facilities

A compact, mobile, 'plug and play' vehicle or trailer mounted facility is the ideal design solution where space within an existing building is at a premium. A portable interview room has the added advantage that

it may be taken, when necessary, to an event where an on the spot need for interview facilities is anticipated. It may also be used as an incident support room.



### Room Interiors

Police interview room interiors have been carefully planned to satisfy a broad range of acoustic, functional and aesthetic criteria. All fixtures and fittings are of a robust and damage resistant design to give value-for-money, long, maintenance-free service. Decorative finishes have been selected to create a comfortable, relaxed ambience, without the pressure of any distracting wall fixtures. The recording devices and microphones can be concealed when required. The following features are typically within in the IAC Acoustics turnkey package:

- Acoustic doors, fitted with magnetic double seals and closers with and push plates on both sides. The inner door is fitted with a wide angle viewer.
- Wall and ceiling finishes
- Carpet tiles
- Double depth chair rail and skirting board
- All lighting and electrical fittings

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