

## Exhibitions ( Floor Plan & Stand Design )

### Event Safety Plan

- All exhibition events are required to develop a safety plan which the hirer/show organiser is responsible for developing. Aspects of the safety plan should include:
  - a. Exhibition floor plans approval for hazards and unsafe conditions
  - b. Risk assessment associated with an exhibition
  - c. Stand plans approval control sheet and check-list
  - d. Exhibitors' activities and risk assessment

### Risk Assessments

- The hirer/show organiser, contractors and the Kuala Lumpur Convention Centre have legal obligations under the Occupational Safety and Health Act 1994, the Factories and Machineries Act 1967 and the Environmental Quality Act 1974 as well as having in place a certified occupational health and safety management system against OHSAS 18001 in order to provide a safe workplace for all employees, contractors, exhibitors, delegates and visitors.
- The hirer/show organiser hall conducts their own specific risk assessment detailing the hazard and control for that particular exhibition. Examples of common risks associated with the exhibition area are as follows:-
  - a. Multiple contractors working in a single workplace.
  - b. Falls from working at heights and working on a live edge.
  - c. Structural collapse of an exhibition stand.
  - d. Objects falling from height.
  - e. Excessive working hours.
  - f. Injury from use of work equipment.
  - g. Slip, trips and falls on a level surface.
- The risk plan must address all relevant risks and include the control measures proposed to treat the risk and be submitted to the Centre's S.H.E. Department not less than fourteen (14) days prior to the commencement of the Event.

### Occupancy Numbers

- The Centre is bound by the conditions of the building's occupancy permit which limits the total number of people allowed in the exhibition hall, concourse and kiosks (this includes all occupants including staff, exhibitors, etc.).
- Where hirer licenses a portion of the Centre's halls, the number of occupants allowed will be nominated from the occupancy permit in the BOMBA's regulation.
- It is the responsibility of the hirer/show organiser to ensure that the maximum number of occupants allowed in the licensed area does not exceed the requirements of the BOMBA's regulation.
- If the Centre's Management believes on reasonable grounds that the occupancy numbers are being exceeded, the Centre reserves the right to stop admittance into the licensed area until the excess numbers are cleared and/or request the excess number of people to be removed.

## Floor Plan Appraisal Process and Guidelines

- The hirers/show organisers are required to submit an original copy of the floor plans of proposed layouts of stands drawn to scale by one of the Centre's accredited exhibition supplier for approval.
- The hirers/show organisers shall furnish the Centre with a floor plan no later than 180 days prior to the License terms.
- A brief description of the event, including products exhibited, equipment utilised, and demonstrations and activities, must accompany your floor plan.
- Prior to this approval the hirer/show organiser must not sell floor plan space to exhibitors.

### Floor Plan Requirements

- All floor plans must be drawn to scale (1 : 1200) and have the following information clearly on the plan:
- Floor plan developer and date of initial drawing and the date(s) of any type of revision. Should a floor plan be revised, the number and date of the revision(s) should be included in the plan outlining the details of the revision and submitted to your Event/Exhibition Coordinator.
- Show name, name of the organisation, dates of the event and the name of the exhibition contractor.
- All stands/booths must be numbered.
- All exits must be clearly indicated and labeled on CAD shells.
- Primary entrance doors and emergency exits must be identified.
- Aisle width between booths shall be a minimum of 2.5 metres for all trade exhibitions and 3 metres for all consumer exhibitions.
- Stand layout must provide for access to the service pits for connection to all services required.
- Nothing must be built within areas marked on floor plans as No-Build Zones.
- No visual and/or physical obstructions to fire exit doors are permissible.
- All points of entrance and egress should have a minimum of 5 metres in width x 10 metres in length of clear space.
- Utility panels, switchgears, fire extinguishers, hose reel cabinets, lifts, fire stairs, kiosks/cafe and loading dock operable doors must be marked on CAD shells plans.
- There must be an unobstructed set back of 0.5 metres between the wall and the back of the booth to allow access to the built-in control switch panels clearly marked in the floor plan.
- Should there be a Cafe in operation in each Hall during the event, a space directly in front the designated Cafe must be left clear of any booths or displays. This clearance must be maintained at all times and be made available to allow free flow of pedestrians and visiting patrons to the Cafe.
- All temporary food service area(s), stage and seminar room seating arrangements must be clearly marked.
- The hirer/show organiser shall submit one (1) set of the plans to BOMBA (National Fire Bridge Department) for approval. A copy of the approval or permit letter from BOMBA must be submitted to the Centre no later than seven (7) days prior to the Event move-in.

### Emergency Access and Clearance

- No stand or display is to block an aisle or emergency exit or fire services. Exhibition material must not obstruct emergency exits.
- Temporary exit signage must be provided and installed by the hirer/organiser when display material obscures existing signage and access to exits. Should access to emergency exits be found to be other than obvious, or egress points are not clearly visible due to factors such as stand construction or banners, the Centre retains the right to enforce the provision of additional exit and directional sign as necessary, at the exhibitor's cost.
- All fire equipment shall be visible and accessible to the public. Access to fire emergency exits, hydrants, electrical cupboards, air returns and sensors must be kept clear at all times.

### Stands Plan Checks and Construction Guidelines

- The design and construction of exhibition stands must meet the Centre's specifications for safety.
- The hirer/show organiser must ensure that your exhibitors are fully informed of these requirements and work with the show organiser to submit and obtain approval for all stand designs.
- The hirer/show organiser must not permit the building of stands which have not been checked and approval by show organiser or official show contractor.
- The hirer/show organiser shall not permit a stand to open if the structure is considered to be unsafe.
- The show organiser's exhibitor manual must include the stand design check approval process, stand build guidelines and stand certification information.
- Stand designs which are not approved or do not conform to the technical regulations or the laws governing such items, must be altered or removed. Exhibitors or their appointed contractor will be responsible for all costs incurred with regards to the necessary alterations.
- In cases where a stand design does not comply with the Centre's requirements, the Centre will require the stand builder to obtain a structural engineer's certificate to verify the integrity of the structure or compliance with the relevant legislation.

### Raw Space Stands Definition

- A stand/booth that has any or all of the following characteristics must go through the special stand design appraisal process:-
  - a. Stand exceeds three (3) metres (9.84 feet) in height.
  - b. Upgraded shell scheme exceeds three (3) metres (9.84 feet) in height.
  - c. Fully enclosed, contains a roof or ceiling.
  - d. Contains multiple structures within one design (double-storey).
  - e. Hung from above with no ground support (hanging object).
- Hirer/show organiser shall send the stand design, along with the completed Kuala Lumpur Convention Centre Stand Design Appraisal Check-list to the Centre's Management fourteen (14) days prior to move-in date.
- [Download Stand Design Plan Appraisal Check-List here.](#)

### **Regulations for Stands Requiring Structural Engineer's Certification**

- Stand designs meeting the following criteria will need to submit a Structural Engineer's report together with the stand design:-
  - a. Double-storey.
  - b. Solid ceiling or roof area of more than 18 sq metres (193.75 sq feet).
  - c. Hanging object exceeding 500 kg.
- Written confirmation from a Structural Engineer, with adequate professional indemnity cover, that the design is safe for its purpose must be supplied together with the Structural Engineer's Certificate to the Centre's Management no later than fourteen (14) days prior to the event build-up.
- The Centre reserves the right to refuse the build-up on site if the endorsement is not received by the stipulated deadline.
- Only a structural engineer's certificate registered under the Board of Engineers Malaysia (BEM) is accepted.

### **Build Height**

- The maximum build height in Halls 1, 2, 4 and 5 and Level 3 Conference Hall, Banquet Hall and Grand Ballroom is six (6) metres (19.69 feet) inclusive of hanging objects (suspended structures) and double deck.
- Stands underneath the balconies and low-ceilings of Exhibition Halls cannot exceed three (3) metres (9.84 feet) in height.
- Stands underneath the low-ceiling of the Grand Ballroom 2 cannot exceed 3.5 metres (11.48 feet).
- Wall structures or panels in the meeting rooms cannot exceed 2.4 metres (7.87 feet).

### **Raw Space Stand**

- All space exhibitors are required to submit their stand design for inspection to ensure that it meets the requirements outlined in the Centre's Guidelines as well as the Stand Design Guidelines set out by the show organiser.
- The stand itself must have the correct dimensions to fit the allocated stand space.
- The top of all stands must, in all cases, be opened so as not to impair protection by the sprinkler system.
- The following information must be submitted for space stands:-
  - a. Detailed scale drawing with proposed 3D design, detailed dimensions and height including plan views and elevation.
  - b. Description of materials to be used for the stand construction.
  - c. A plan showing its locations within the exhibition.
  - d. A risk assessment, to include fire hazards and method statement.

### **Full-Enclosed, Covered Booth with Solid Ceiling and Roofed Structure**

- Where a stand has a solid ceiling or roof area more than 18 sq metre (193.75 sq feet), the following information must be submitted :-
  - a. Detailed scale drawing with proposed 3D design, detailed dimensions and height, including plan views and elevation.

- b. Roof loading and structural calculations.
- c. Specifications of the materials used.
- d. A risk assessment, to include fire hazards and method statement.
- e. Structural Engineer's Certificate to the Centre's Management no later than fourteen (14) days prior to the event build-up.
- f. A stand that has a roof or ceiling fitted is required to provide additional fire protection equipment (smoke detector, portable CO<sub>2</sub>, dry chemical extinguisher or sprinkler system).

### Double-Storey

- The following information must be submitted for a double-storey structure:-
  - a. Detailed scale drawing with proposed 3D design, detailed dimensions and height including plan views and elevation of each storey.
  - b. Elevations including full steelwork and staircase details.
  - c. Width and position of gangways within the stand.
  - d. Floor and/or roof loading.
  - e. Specification of materials used.
  - f. Structural calculations.
  - g. The maximum number of public visitors allowed entry to the 2<sup>nd</sup> floor or upper level.
  - e. A risk assessment, to include fire hazards and method statement.
  - f. Sufficient illuminated exit signs positioned so that they can be seen to facilitate escape in an emergency.
  - g. Written confirmation from a Structural Engineer, with adequate professional indemnity cover, that the design is safe for its purpose, must be supplied together with the Structural Engineer's Certificate to the Centre's Management no later than fourteen (14) days prior to the event build-up.
- Where more than 50 people can occupy the upper level the Centre requires a minimum of two separate staircases leading from the ground floor to the upper level.
- Smoke detectors and fire extinguishers are required for safety reasons.
- Fire extinguishers are to be of the A:B:(E) dry powder type or CO<sub>2</sub> type. Both of these extinguishers are safe to use in an environment where electricity may be present.

### Hanging Objects

- Hanging objects must be hung over an exhibitor's contracted stand space only and not over the aisles and passageways.
- If rigging points do not exist where points are required, a high beam or truss has to be installed to provide the desired rigging points.
- The Centre is the exclusive provider of rigging services. Trusses and motor chain hoists must be supplied by the Centre.
- Exhibitors must appoint qualified or experienced riggers to install the hanging objects.
- The following information must be submitted for hanging objects:-
  - a. Scale technical drawing with proposed 3D design, detailed dimensions and height including plan views and elevation of each of the hanging object.
  - b. Superimposed ceiling truss plan provided by the Show's Official Contractor showing the cables or motor hoist drop points for the hanging object.

- c. Load or weight.
- d. Specification of materials used.
- e. Structural calculations.
- f. A risk assessment, to include fire hazards and method statement.
- Rigging equipment used must be free from defects; fit for purpose, marked to indicate its Working Load Limit (WLL), adequately maintained and subject to legal requirements for inspection with valid certification.
- All hanging objects exceeding 500kg require written confirmation from a Structural Engineer, with adequate professional indemnity cover, that the design is safe for its purpose and must be supplied together with the Structural Engineer's Certificate to the Centre's Management no later than fourteen (14) days prior to the event build-up.

## Stand Construction Requirements

### Construction Materials - Drapes

- All decorations; drapes, fabric walls, signs, banners, acoustical materials or similar decorative materials used to construct the exhibition booth must be flame-retardant and must meet current fire regulations. Test certification must be available for inspection.
- Fabrics used for interior stand decoration must be fixed taut and or in tight pleated (not loosely draped) to a solid backing, secured above floor level and not touching light fittings.
- Random testing may be performed at any time by BOMBA or the Centre's Management.

### Glazing

- All glazing used in the construction of stands must consist of safety glass (laminated or tempered) with a minimum of thickness of 6mm to prevent injury from glass shattering.
- Any uninterrupted, large areas of clear glazing shall be indicated with warning stripes, dots, logos etc. Overhead glazing shall be of wired or laminated glass, or be otherwise adequately protected from shattering.

### Timber

- Timber under 25mm thick must be impregnated to be fire resistant. Treated materials should be marked as such.
- Boards, plywood, chip wood must be treated if under 18mm thick. The exception to this is MDF, which is usually accepted for use due to its density.

### Paint

- Only water-based paint may be used on site. If paint-spraying equipment is to be used, the method must be approved by the Centre. Protective measures must be taken to ensure no paint is spilt or sprayed on the building.

### Exit Signs

- There must be sufficient illuminated exit signs positioned so that they can be seen to facilitate escape in an emergency. Ideally exit signs should be: a minimum height of 200mm and minimum width of 400mm.

## Escape Routes

- There must be adequate escape routes from any points of the stand or structure. Escape routes must be clear of obstruction. Ideally escape routes should :-
- Have a minimum, unobstructed height of 2.1 metres.
- Not be less than 2 metres wide, except within stands of less than 100m<sup>2</sup>, where gangways must be not less than 1 metre wide.
- Have a travel distance from any part of a stand to an open side, exit or gangway which does not exceed 12 metres.

## Stairs

- Stairways for visitor and public access must be safe and comply with one of the following combinations of rise and tread;-
- The tread and riser of each step should be consistent throughout a flight.
- The riser of each step should be between 150mm and 170mm.
- The tread of each step should be between 280mm and 425mm.
- A continuous handrail must be provided on each side of flights and landings.
- A single staircase shall not exceed 1.8 metres in width.

## Raised Floors

- Raised flooring can become a tripping hazard.
- The raised floor surface or ramped edge must not contain sharp or dangerous edges and must not be a trip hazard.
- Raised flooring must have rounded edges or protective covering to the sharp edges.
- No raised floors or overhanging roof lines are permitted to cross the aisles.

## Ramps

- Ramps should be of a gradient that is not too steep for use by pedestrians and wheelchairs. The following are the ideal requirements:-
- Ramps should not be greater than 10 metres or raised more than 500mm.
- Ramps should have a minimum, unobstructed width of 1.5 metres.
- The ramp's surface must be slip resistant.

## Tunnels

- Tunnels are strictly prohibited at all times.

## Lighting

- Where lighting equipment is fitted to the stands as part of decors or exhibits, it be kept within the boundaries of the stand; and be placed more than 500mm from flammable material (for high-powered lights).
- All electric lighting must be at least 2.2 metres above floor level.
- All lighting must be kept to within the confines of the exhibition booths, no lighting shall protrude out into the aisle ways.
- The hirers are responsible for ensuring all lights are switched off at the end of each day and

you will be asked to participate in a daily inspection with Centre's security to ensure this has been done.

### **Air Space**

- The air space of adjacent booths is not to be used by the exhibitor without prior approval by the Centre's Management.

### **Carpet Protection**

- Raw space stands located on permanent carpeted floors must have adequate protection before construction activities start.
- No adhesives are to be used on permanent carpeted floors, stone and concrete floors or walls. The exhibitor will be responsible for the removal of all tapes and residue marks on the premises.

### **Cutting Materials**

- Construction materials should not be cut or sawn on permanent carpeted floor.
- Cutting devices should be fitted with a vacuum mechanism to remove sawdust and the area should be cleaned afterwards.

### **Fixing**

- No items or material shall be taped, tacked, stapled or otherwise affixed to any surface of the Centre (eg. floor, wall, ceiling and glass panel).
- No core drilling or fixing into any floor is allowed or permitted. No structure can be fixed to the venue structure.
- No pins, nails, tape or tacks are to be used on any surface of the venue. Velcro tape is the only approved method for affixing to fabric material.



## Four-Tier Risk Assessment for Raw Space Stand Design Compliance

- In order to regulate the compliance of temporary structures, the Centre has developed a risk profile for custom-built stand designs (structures) at exhibitions and events based on a four-tier risk assessment and compliance as per table below:-

<b>Risk Determination</b>	<b>Description of Custom Built Stand or Booth Design</b>	<b>Recommended Compliance</b>
Low	Standard shell scheme or octonorm below a height of 2.5 metres (8.2 feet) and standard modular design.	No compliance documents required.
Medium	Stand above 3 metres (9.84 feet).	3D dimensioned plans. Method statement
Medium to High	Stand with a solid ceiling over 18 sqm (193.75 sq feet).	3D dimensioned plans. Method statement and risk assessment Structural calculation Structural Engineer's drawing and certificate.
High	Double-storey with public access to upper level.	3D dimensioned plans. Method statement and risk assessment Structural calculation Structural Engineer's drawing and certificate.
High	Stand with hanging objects.	3D dimensioned plans. Method statement and risk assessment Structural Engineer's drawing and certificate.

## Design of Works and Structures

- The hirer/show organiser guarantees the Centre that all due care has been exercised in the design of any works or structures to be constructed in the Centre and that all due care will be exercised during construction.
- The Centre will endeavour to inspect all exhibition booths to ensure that they are safe and do not pose a hazard to any user of the Centre.
- The Centre's Management reserves the right to request modification or close any stand which is deemed to be a safety hazard.
- Each stand will be inspected prior to the opening of the exhibition and amendments for any unsafe booth structure must be completed or to be rectified immediately upon request by the Centre.
- It is the hirer/show organiser and exhibitor's responsibility to ensure each stand is presented to the public in a safe manner and maintained as such.