

# **TECHNICAL SPECIFICATIONS**

# **Exhibition Hall Technical Specification**

Access (Exhibits to Hall)	Please refer details on next page	
Access (Exhibits to Hall)		
Admissible Floor Load	3,300 kgs / sqm (33kN / sqm, for a single space of up to 50 sqm (3.3t / sqm))  If there is any vertically vibrating part in the exhibit operation, the above mentioned floor load bearing capacity should be reduced at least by 50%.	
Air Compressed	Lower than 10 bar Various Outlets at 10mm(D),19mm(D), 25mm(D)	
Elevator	No elevator available, one storey construction	
Emergency Lighting	Provided	
Fire Protection	Automatic fire sprinkler system, fire detection & alarm system with riser, hose reel portable fire extinguisher, hydrant	
Floor Space Per Hall (Gross)	N1-N5: 12,340 sqm	
Flooring	Concrete floor with hardener	
Internet	ISDN (128K), cable broadband network (max individual: 10 m)	
Lighting Level	250LuX (average)	
Maximum Approved Construction Height for Raw Space Indoor Booth	One-storey booth: 4m Two-storey booth: 5m The building of three-storey booth or above is forbidden.	
Power Supply	5 line, 3 phase 380V / 220V 50HZ	
Security System	24hrs video surveillance, Security guards, sensor alarm system	
Telephone	LDD, DDD, IDD	
Ventilation	16,000 m³ / hour x 21 = 336,000 m³ / hour	

# **Outdoor Area Technical Specification**

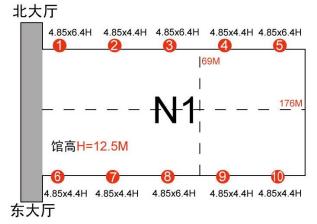
Floor Loading	5,000 kg / sqm	
Light Load Area	3,000 kg / sqm	
Heavy Load Area	20,000 kg / sqm	
	For exhibits with moving parts, the above mentioned floor load capacity shall be reduced by 50%. These loads are to be taken into account for the installation of exhibits / displays and also for the handling of equipment and exhibits.	
Maximum Approved Construction Height for Raw Space Outdoor Booth	One-storey booth: 6m Two-storey booth: 8.5m The building of three-storey booth or above is forbidden.	
Power Supply	5 line, 3 phase 380V / 220V 50HZ	
Security System	24hrs video surveillance, Security guards, sensor alarm system	



# TECHNICAL SPECIFICATIONS (CONT'D)

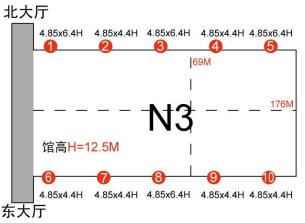
### **Height of Exhibition Hall Access**

### North Entry Hall

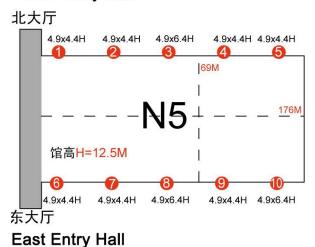


East Entry Hall

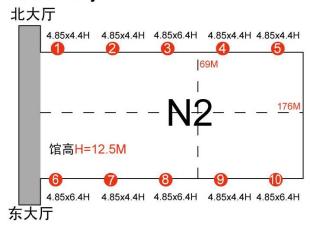
### North Entry Hall



# East Entry Hall North Entry Hall

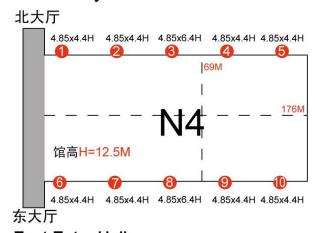


### North Entry Hall



**East Entry Hall** 

### North Entry Hall



East Entry Hall



## **CONSTRUCTION REGULATIONS AND DECLARATION OF SAFETY RESPONSIBILITY** (MANDATORY FORM FOR MOVE-IN)

In order to strengthen the safety management of SNIEC's facilities and exhibiting booth construction at the fairground and to avoid any accident, we, the raw space booth contractor, guarantee that we will strictly comply with the following regulations during the build-up/dismantling period:

To strictly adhere to the national and local governmental policies on safe production and fire prevention and to implement the

2.

related regulations.
Each stand contractor should pay relevant fees and submit respective application forms & drawings for stand construction approval according to request of the organizer and SNIEC. The booth must be built according to approved drawings submitted.

During the build-up/show/dismantling period, each stand contractor should appoint an onsite full-time manager responsible for the 3. safety and fire prevention of stand construction and personnel safety. The onsite manager should be reachable by phone at all

The maximum booth construction and advertising height indoor is 4 m for one-storey booth and 5 m for two-storey booth. The maximum booth construction and advertising height in outdoor area is 6 m for one-storey booth and 8.5 m for two-storey booth. Two-storey booth can only be built when the assigned booth area is 54 sqm and above. Its upper-storey booth space must be smaller than 1/3 of ground-floor space. The building of three-storey booth or above is forbidden.

All the construction structures must be fireproof. Stand construction and decoration materials must be noncombustible with a burning diffusion rate not lower than Class R1.

5. burning diffusion rate not lower than Class B1.

- 6. 7.
- burning diffusion rate not lower than Class B1.

  All the indoor booths cannot have closed roof.

  When the ground floor area of a two-storey booth is semi or fully enclosed and above 120 sqm, two or more evacuation doors wider than 0.9m should be set up. Automatic alarm and sprinkler system should be installed for each 8sqm and a fire extinguisher for each 12sqm when outdoor booths or the 1st floor area of an indoor two-storey booth has fully enclosed construction.

  The fire protection system, electric installations, emergency exits and aisles may not be obstructed by stand constructions.

  A back wall or partition (not lower than 2.5m) must be installed for each raw space stand structure, except island stand and national pavilion structure, to separate from neighboring booth. The side of back wall facing neighboring booth must be covered with fire-proof material such as PVC and kept white, neutral and clean. The exhibitor should not use the back wall or partition of neighboring booth for his own use or for displaying his company name, logo, etc. Using the structure of the exhibition hall or neighboring stands to stabilize or to decorate the exhibitors' own stand is forbidden.

  The booth with the platform exceeding 20cm in height must install slope

neighboring stands to stabilize or to decorate the exhibitors' own stand is forbidden. The booth with the platform exceeding 20cm in height must install slope. The hanging point used for supporting booth structure is strictly forbidden, which means that structures hung from the ceiling must be separate from the booth structure on the floor. Exhibits are not allowed to be hung from the ceiling of the exhibition hall. The proposal and design drawings of exhibition stand are required to be submitted to the organizer for approval before the show. Outdoor booth or two-storey booth construction is permitted at the fairground with approval of top level certified structural engineer, who is employed by the exhibitor/contractor or recommended by the venue. The stand construction must comply with public statutory regulations, such as the Shanghai Building Regulations, as well as with the terms of participation of the organizer. Any activity which affects the safe construction is forbidden: e.g.: exhibitor appoints a private person, individual household or companies which are ungulified or do not have any permits for construction work: a stand contractor carries out work, which is not related to activity which affects the safe construction is forbidden: e.g.: exhibitor appoints a private person, individual household or companies which are unqualified or do not have any permits for construction work; a stand contractor carries out work, which is not related to its contracted exhibitors' stand in the venue without permission; a contractor uses eliminable decoration materials and facilities stipulated by national government.

For double-storey booths whose second floor exceeds 30sqm, a fire extinguisher with annual inspection approval must be prepared for each 12 sqm of both storeys from build-up period onwards.

The upper storey area above 200sqm, at least two stairways (width of stairway not less than 0.9m) must be arranged, distance between 2 evacuation exits must be 5m at least.

The stand contractor should have in place windproof measures to ensure the safety and stability of outdoor stand structure. For outdoor stands, the lighting fixtures should be rainproof and the control switch must be combined with leakage protection devices.

- Exhibitors/contractors of raw space booths must cut off the electrical power supply before leaving the booth during build-up/show/dismantling period. An electrical master switch must be installed.

  No smoking is allowed in the halls. Easily flammable and explosive materials may not be used. All work with open flames is
- forbidden.

- forbidden.

  The use of airships and balloons is not permitted in the halls and in the outdoor exhibition grounds.

  All workmen on site must wear contractor badges. Workers for specific-type work must possess Specific-type Operator Certificate. Every exhibitor, contractor and freight forwarder must wear the helmet on site during move-in and move-out period at the fairground (indoor & outdoor). In addition, all personnel must wear safety belts when working on construction in height. Otherwise, the security guards of SNIEC reserve the right to refuse against entrance. All the helmets and safety belts should be self-prepared. Builders working on construction in height of 2m and above must comply with safety rules and regulations of construction in height. To ensure the constructions and facilities of the venue are in good condition and working areas are kept clean. In case of any damage or pollution, the contractors should compensate according to "Venue Compensation List for On-site Damaged Facilities" and "Venue Compensation List for On-site Damaged Constructions".

  During the dismantling period, the booth must be totally torn down without rubbish and damage.

  The organizer and hall owner will reserve the right to carry on the onsite inspection and forbid those booths disobeying the regulations build up in the scope of the exhibition centre.

regulations build up in the scope of the exhibition centre.

The stand contractor will be to blame and take all responsibilities for any damage and accident injury during the build-up/show/dismantling period or in the course of transportation if violating the above regulations.

We, the raw space exhibitor and stand contractor, have studied this Exhibitor Manual, including this form. We hereby accept that all terms in the Exhibitor Manual are recognized as legally binding in all parts and declare that the stand construction will comply with all regulations stated in the manual. We will be to blame and take all responsibilities if violating the relevant regulations and will accept all penalties from the management of the organizer and SNIEC

	Exhibitor	Stand Contractor
Company Name & Booth No.		
Onsite Safety Manager (Name)		
Committed and Signed by Onsite Safety Manager (Valid with Company Stamp only)		



### FIRE PROTECTION REGULATIONS AND SAFETY RULES

#### Fire Protection Safety Regulations

The stand design drawings of outdoor booth or two-storey booth must be reviewed and approved by Grade A National Registered Structural Engineer.

The proposal and design drawings of exhibition stand are required to be submitted to the organizer / official contractor for approval before the

The maximum booth construction and advertising height indoor is 4 m for one-storey booth and 5 m for two-storey booth. The maximum booth construction and advertising height in outdoor area is 6 m for one-storey booth and 8.5 m for two-storey booth. Two-storey booth can only be built when the assigned booth area is 54 sqm and above. Its upper-storey booth space must be smaller than 1/3 of ground-floor space. The building of three-storey booth or above is forbidden.

Ultra-high or overweight exhibits are not permitted in the halls.

All the indoor booths cannot have closed roof. When the ground floor area of a two-storey booth is semi or fully enclosed and above 120 sqm, two or more evacuation doors wider than 0.9m should be set up. Automatic alarm and sprinkler system should be installed for each 8sqm and a fire extinguisher for each 12sqm when outdoor booths or the 1st floor area of an indoor two-storey booth has fully enclosed construction.

Stand construction and decoration materials must be noncombustible with stand construction and decoration materials must be noncombustible with a burning diffusion rate not lower than Class B1. Normal flammable decoration material is allowed to be used in partial area only if it is flame proofed and its burning diffusion rate up to Class B1. During build-up/show/dismantling period, the carpet to be paved must be noncombustible with a burning diffusion rate not lower than Class B1.

Ramps leading to the common passage at the edge of the platform within the range of booths shall be set up during the construction of platform to prevent public injuries caused by the gap between the platform and the ground.

For the stands decorated with glass materials, tempered glass must be used to ensure the strength and thickness of the glass (glass curtain wall thickness is not less than 8mm) and installations of the glass should be reasonable and reliable with metal frame structures or specialized hardware. Elastic materials need to be used as cushion between the frames or hardware and the glass materials to ensure the safety of glass. Large areas of glass materials should be clearly marked to prevent crushing injuries. If glass floor is used, the structural support columns and walls must be fixed under the floor. Directly building structures above the smooth glass surface is prohibited to ensure a stable structure.

For steel columns, seamless tubes with diameters over 100mm should be used with the chassis welded to the bottom, the flange welded to the upper part, in order to increase contact area of the connection point and ensure the firmness of the booth structure.

The main wall landing width of the stand structure should be not less than 120mm to ensure the contact area between the wall and the ground. Connecting beams should be set up at the top between the wall spanning more than 6m long and steel frame structure. Supporting columns should be added in the lower part to ensure the overall stiffness and stability of the

The installations and maintenance of electric fixture and connections, gas equipment and pipelines may only be carried out by authorized specialists with operation certifications. All workers for specific-type work, such as electric welding and other tasks that might be in link with fire hazard and etc, must possess Specific-type Operator Certificate and strictly accord with fire prevention operation rules.

Painting, welding, Chainsaw are forbidden to use in the venue.

The contractors must strictly comply with the approval procedure for open flames work and take required safety measures on spot. At the place where the electric welding is carried out, the flammable materials must be cleaned up at the surrounding area. A safety manager must be assigned onsite for supervision. The welding and cutting are prohibited to the pipelines in operation or to the containers with flammable and explosive materials inside. The onsite safety manager shall inspect and make sure there's no remnant tinder or unburned material after the work. Pyrotechnics and open fires are not permitted at the fairground during build-up/show/dismantling neriod.

Fire-resistant cables and insulate casing must be used during wiring works; insulation porcelain and plastic connectors must be used during branch circuit connections. Aerial laying must be used when laying the wires, ground laid wires should be protected by cubes or by bridge plates.

The electric and gas connections should be fixed and isolated from constructions. The electric and gas connections should be installed in pipe or protected by a cable bridge if those connections are on the ground. Double-sheath insulated conductor must be used but may not be directly connected with each other, only can be connected by insulating porcelain instead.

The safe distance between lighting fixture and flammable exhibits must be kept more than 50cm. High-power equipments may only be installed and operated upon the approval of the venue and with a written undertaking letter from the exhibitor regarding on the premise of safety operation

The exhibitors/contractors shall clean up the flammable materials in time. The storage of flammable packaging materials of exhibits is prohibited to be kept at the fairground. The flammable and explosive construction materials (e.g. painting) shall be stored in safe place outside of the fairground.

Flammable and explosive materials shall not be exhibited at the fairground. The flammable and explosive exhibits can be replaced with incombustible models. Any exhibiting combustible vehicles or machines cannot be repaired or operated. Only 10% of the gasoline can be stored inside.

Any behavior which could occupy, obstruct or block out the escape ways and emergency exits is forbidden during the build-up/show/dismantling period.

#### General Safety Regulations

According to the newest regulation from Shanghai New International Expo According to the newest regulation from Snanghai New International Expo Centre, every exhibitor, contractor and freight forwarder must wear the helmet on site during move-in and move-out period at the fairground (indoor & outdoor). In addition, all personnel must wear safety belts when working on construction in height. Otherwise, the security guards of SNIEC reserve the right to refuse against entrance. All the helmets and safety belts should be self prepared.

### • Safety rules and regulations of construction in height

- It is requested that all builders get the physical examination certificate for construction in height. Builders contracting mentally ill, epileptic, hypertensive, or vision and hearing impaired personnel, are strictly forbidden to be assigned to construction in height! No exceptions
- Builders working on construction in height, should take educational safety course, and should pass all required exams before being assigned to such construction.
- Builders must wear safety helmets and belts, wear soft bottom shoes, and the clothing should be suitable for construction in height. They should always be aware of the following rules:
  - All rules and regulations for construction in height must be adhered to at all times
    Alcohol is prohibited when working at the fairground.
    Prohibited to take breaks in unsafe areas.
    Prohibited to deliberately drop items.
    Prohibited to work if too exhausted or sleep-deprived.
    No horseplay or gambling.
    Prohibited to remove fire extinguishing equipment from designated places

  - designated places
  - Prohibited to disregard personal safety equipment regulations. Prohibited to dismantle or damage safety devices and
  - installations
  - Prohibited to use herring bone ladder up to 2m
    Prohibited to use movable scaffolding without guardrail on the
    top or with guardrail lower than 1.2m on the top
- It is very important that all builders are ever aware of potential hazards and unsafe situations.
- Builders should check the scaffolding, ladders and steel cables carefully to ensure they are reliable before starting construction.
- Tools such as hammers, hoisting jacks etc. should be handled carefully by the builders. 6.
- Builders are required to clean the construction area when their work is finished.
- Warning signs must be in place around constructional hazard zones. It is prohibited to walk underneath cranes and payloads.
- At night, sufficient lighting must be provided for construction in height.
- Builders should avoid the overlapping, and have the reliable isolation measure when the overlapping construction is unavoidable.
- Builders must strictly adhere to regulations for handling electric devices and power supplies, as well as for working in hazard zones.
- The construction should be stopped immediately if heavy weather such as rainstorms, heavy fog, and above level storms etc. should occur.
- Builders should be aware of the risks of heatstroke in summer and frostbite in winter.
- All levels of construction leaders should surmount the violation of regulations in management, because there are a lot of accidents which were caused by the violation of regulations in management.
- Lifting machines/vehicles used in the construction shall be allowed in the centre only with prior consent of the venue.

All workers entering into the Centre for specific-type work must possess "Shanghai Specific-type Operator Certificate" (workers in height, electricians, welders or forklift drivers and others). Operators without certificates are not allowed to work. All relative operation rules and procedure must be strictly obeyed. Non-complying operation and supervision are strictly forbidden.

# OUTDOOR STAND & TWO-STOREY STAND CONSTRUCTION REGULATIONS

General conditions



Outdoor stand or Two-storey stand construction is permitted at the fairground with approval of top level certified structural engineer, who is employed by exhibitor/contractor or recommended by the venue.

Approval for the two-storey stand depends on the position of the

stand within the hall and the area occupied. Since consideration must be given to the overall I appearance of the hall in question, the visibility of signs, and the visual affect on neighbouring stand, two-storey constructions may be limited in number or prohibited altogether.

Two-storey constructions must be designed in such a way, that it is possible to install and dismantle them within the designated time period. No upper storey may be built across the aisles.

Two-storey booth can only be built when the assigned booth area is 54 sqm and above. Its upper-storey booth space must be smaller than 1/3 of ground-floor space.

The total two-storey booth height cannot be more than 5 m (indoor) or 8.5 m (outdoor). The structures of booth cannot be hung on the structures of the hall. The building of three-storey booth or above is forbidden.

The price of the usable space on the upper floor is 50 % of the raw space price for the ground floor space.

In the case of infringement of any of the conditions specified here, the organizers reserve the right to take action in accordance with the general terms of participation.

#### Approval procedure

The construction application must be submitted to the official contractor until **3 June 2016.** The following documents must accompany the application

- Forms 1.1, 1.2 and 2.1 of the exhibitor manual
- Perspective
- Plan of ground floor Plan of upper floor (Two-storey booth)

- Elevations and Cross-sections
  Cutaway View (Outdoor booth / Two-storey booth)
  Structural drawing (Outdoor booth / Two-storey booth)
- Electricity layout
- Specification of construction together with the materials

All documents are to be submitted in Chinese and English and all drawings are to be specified scale (m). **Documents submitted by fax cannot be processed.** 

The cost of the approval procedure is to be borne by the exhibitor. Please note that irrespective of approval by the organizers, the installer and/or operator of an exhibition stand is responsible for compliance with public statutory regulations, such as the Shanghai Building Regulations, insofar as applicable to exhibition stand, as well as with the terms of participation of the organizers.

#### Stand construction

Stands may be installed conventionally or using modular system elements. Materials standard in exhibition stand construction are to be used for floor and well coverings and ceilings.

#### Positioning of cabins / Design of upper storey

Stairways, open cabins, terraces and hospitality zones must be set back a distance of at least 1 m from any aisles. A distance of at least 3 meters must be maintained between neighbouring stands. If it is not possible to maintain this distance, a closed partition of at least 2 m in height must be installed here as a screen. The side facing the neighbouring stand must be finished in white, of neutral and clean appearance. The neighbour is permitted to use this surface for promotion purposes.

In general, areas where you can walk and also borders directly to areas, which are more than 0.20 m lower, must be provided with balustrades. These must be at least 1.10 m high. An upper chord, middle chord and lower chord must at least be provided.

In the upper storey, rolling safeguards in a height of at least 0.05m must be installed on the floor in the area of balustrades if required. To prevent object (such as wine glasses) being placed on balustrades where they can eacily fall off, the bandrails or tops of balustrades must be circular of

can easily fall off, the handrails or tops of balustrades must be circular of rounded in shape.

#### Load-bearing capacity

#### Ceiling strength:

The following should be estimated for the storey ceiling of a two-storey trade fair stand in a trade fair hall: When upper-decker is used for meetings and customer support, i.e., furnishing with tables and chairs arranged freely or in meeting cabins, the first-storey ceiling must be designed for a live load of 3.5 kN/sqm. If there is unrestricted use as exhibition or sales room, as meeting room or a great number of chairs, the first-storey ceiling must be designed for a live load of 5.0 kN/sqm. The use should be entered clearly recognizable in the plans, which are submitted for approval.

<u>Strength of stairways:</u> The construction must be capable of resisting 1/20 of the load-bearing capacity in horizontal direction (point of attack: surface of upper floor). All stairways are to be constructed in accordance with Shanghai Building Regulations and with a live load of 5.0 kN/sqm.

<u>Strength of balustrades / railings:</u>
Balustrades and railings should be designed for 1 kN/sqm at railing height. Proof must be submitted that the bearing load of the supports does not exceed the permissible bearing load of the hall floor.

#### Fire prevention

The upper storey area above 200sqm, at least two stairways must be arranged, distance between 2 evacuation exits must be 5m at least.

Do not store any frames or other stuff at the bottom of the stair. Spiral stairs are not allowed to be used as evacuation stairs.

For double-storey booths whose second floor exceeding 30sqm, a fire extinguisher must be prepared for each 12 sqm of both storeys from build-up period onwards.

None of the areas in the upper storey may have a closed ceiling/sail. MAII cabins and enclosed areas must permit clear sight of the outer exhibition hall.

When the ground floor area of a two-storey booth is semi or fully enclosed and above 120 sqm, two or more evacuation doors wider than 0.9m should be set up. Automatic alarm and sprinkler system should be installed for each 8sqm and a fire extinguisher for each 12sqm when outdoor booths or the 1st floor area of an indoor two-storey booth has fully enclosed construction.

Up until final approval of the completed stand, additional measures of safety or fire prevention may also be imposed if deemed necessary.

For other rules, please refer Form 1.2 "Construction Regulations and Declaration of Safety Responsibility" with its attachment "Fire Protection Regulations and Safety Rules" as well as Section II Technical Guidelines.