

According to "Special Regulation n°4", this document provides the guidelines for construction, arrangements, set-up and dismantling of the [Exhibition Spaces designed and built by Official Participants](#): the Self-Built Exhibition Spaces.

"Official Participants are those Foreign Governments and International Organizations that have accepted an official invitation from the Italian Government to participate in the Exhibition." (Bureau International des Expositions – BIE – Special Regulation n°2 – Art. 2).

This document together with supplements or revisions will be simultaneously issued on the Participants Digital Management System PDMS.

Please visit the PDMS regularly for detailed information.

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Expo 2015 S.p.A.

Via Rovello, 2 - 20121 Milano, Italy

www.expo2015.org

t: +39 0289459400

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1 INTRODUCTION

The success of Expo Milano 2015 greatly depends upon the [quality](#) of the contributions by Official Participants: they represent the very [core providers](#) of content and Exhibition Space display at the Expo. Among them, Official Participants building their own Exhibition Space – the so called Self-Built – bear a particularly important responsibility as they strive to provide a truly [unique](#) experience for visitors, while [seamlessly integrating](#) in the wider Expo Smart City.

Mindful of that, and with the aim of best supporting Participants, Expo Milano 2015 has prepared this specific set of guidelines on Self-Built Exhibition Spaces. We trust they will prove useful in helping Participants throughout their [preparation work](#): from conception, through design and planning, to project finalization.

The Guide includes everything that Official Participants [need to know](#) about designing and building a Self-Built Exhibition Space at Expo Milano 2015.

As a way to introduce these Guide, we would like to call your attention on a few introductory points: we will first set the scene, by providing a general overview of the [rationale](#) behind the guidelines; we will then highlight the core contents of the Guide, as a summary of what will be developed in detail in the rest of the document; we will finally leave you to the actual Guide: it provides you with [technical details](#) on the most important steps to take in developing your Self-Built Exhibition Space project, together with the related [timeline](#) and [paperwork](#).

1.1 Rationale

Expo Milano 2015 is an [ambitious](#) project, which aims at both [preserving the value and innovating](#) the World Expo formula in the context of our time and location: [the centre of Europe at a time of profound change](#).

The project is shaped by the [prominence of its theme](#), as much as by the physical shape and functioning mechanisms of its [Exhibition Site](#).

On one hand, the theme [“Feeding the Planet, Energy for Life”](#) constitutes the backbone of all elements of the [Visitor’s Experience](#) at the Expo. On the

other hand, the [visitor](#) is the [centrepiece](#) of the Expo: in fact the Expo must be [built around the visitor](#), to guarantee that a visit to Expo Milano 2015 is both educational and entertaining in a unique and enjoyable way.

[First factor in the planning and design of Exhibition Spaces: place the visitor at the centre and build your thematic proposition around it and guarantee environmental sustainability of the whole exhibition area.](#)

Moreover, the Expo Site will be constituted by a newly built Smart City on a man-made island, organised along the traditional axes of ancient Roman cities. The Site various components will therefore be close-knitted, as in the typical Italian centre town.

We recognize that this provides a harmonious set up for the placement of Exhibition Spaces as well as some challenge in the [design and building phases](#).

As the adage goes: Rome wasn't built in a day... We do not have the same amount of time to build the Expo Site that Romans had to build Rome, nonetheless we aim at creating a place that is a *misura d'uomo* [on a human scale]: enjoyable both within built and open air spaces, [green](#) and refreshing, [nice](#) to see and [comfortable](#) to visit, sustainable and eco-compatible in the way it gets refurbished and managed, lively without being crowded, [safe](#) and [easy](#) to navigate...

Your [contribution is key](#) for Expo Milano 2015 to be able to achieve all of this.

The concept of Expo Milano 2015 lies on the idea that Participants engage in advance and cooperate with the Organizer and with each other. This is key to provide an [integrated Visitor Experience and Site setting](#).

In fact, over 80 % of the Exhibition Spaces of the Expo Site is dedicated to Official Participants and will be constituted by Self-Built and Clusters Exhibition Spaces. The way in which [any of you design and plan your space](#) will inevitably have an impact on how the various parts of the Site are [integrated](#) and can [comfortably coexist](#) both in the building phase and during the Expo opening months.

[Second factor in the planning and design of Exhibition Spaces: consider your space as part of the Expo Smart City, seamlessly integrated in the wider design of the Site.](#)

The two prominent factors described above have [influenced](#) the making of the Expo Milano 2015 concept and Masterplan. They have infused in the Expo proposal the [spirit, language and tools](#) of the modern world, while preserving the [values and goals](#) of the traditional Universal Expositions. Those two factors must influence in the same way your approach to your Exhibition Space and your process towards it. They must [guide](#) your decisions in [all aspects](#) of your participation.

In the text you will find [innovative rules and recommendations](#) for design and construction: they respond to the need of designing and building an

Expo that is innovative in many aspects related to the [use of space and the prominence of the visitors](#), due to the centrality of the Visitor Experience and the pervasiveness of the Theme.

Those rules and recommendations apply to [everybody](#) - to the whole Expo - and each one of them has a rationale, in the complex scheme of the Expo Site. We will try to illustrate the [reasons](#) behind the rules and the advantages related to the recommendations, so that you will be able to appreciate the effort by the Organizer in putting together a new formula for the Expo as well as its [commitment to support](#) your innovative participation.

We would also like to highlight that the rules and recommendations proposed for Expo Milano 2015 were also drawn considering the renewed necessity of [saving](#) as well as [optimizing](#) the use of all types of resources. In this also we have strived to make a valuable contribution to the future of Expos.

Besides the recommended courses of action, in the text you will also find the indication of [attractive optional services](#) offered by the Organizer. The newest element of the [Expo Milano 2015 innovative proposition](#): early engagement and collaborative approach have brought considerable results insofar, but the Organizer is mindful of the mind shift requested to Participants intending to [achieve the goals](#) of an innovative participation. For this reason has envisaged offering a few select services - at prices of the "City of Milan Price List for the Execution of the Public Works (January 2013)" - to support Participants in optimizing their resources, meeting the timeline and governing the complexity of their participation. This intends to [simplify](#) the design, construction and implementation processes in order to achieve better results.

1.2 Previous guides and support documents

Aware of the essential role of Official Participants, the Organizer has endeavoured to present the concept and the elements of Expo Milano 2015 from a very early stage and has provided Participants with numerous tools to support their [active engagement](#) and [cooperation](#).

In July 2011, Expo Milano 2015 issued its [International Participants Guide](#) to introduce the [concept](#) of the Expo to all interested parties. The vast array of information contained in the Guide was subsequently presented in detail at the first International Participants Meeting of Expo Milano 2015, held in October 2011. The IPG lays out the [basic pillars](#) of Expo Milano 2015, including its [most innovative proposals](#) for Participants, such as putting the theme at the centre of everything, the Clusters and itineraries, the Smart City and the use of technology and the early engagement method of work.

In order to keep prospective Participants thoroughly informed on the [development](#) of the Expo project, and in view of supporting them in the preparation of their presence, a second Guide was issued one year later, focused on the Theme. The [Theme Guide](#) provides Participants with

information on the content of the Expo and on the best way to design and display content in all components of the Participants' Exhibition Spaces.

At the same time a **Clusters Guide** was issued, to support Participants involved in Clusters in the conception and design of their participation.

It was then felt that specific Guide of a technical nature could be useful to Participants building their own Exhibition Spaces, the Self-Built. A **first draft** of the present **Design, Construction, Set-up and Dismantling Guide** was therefore brought to the attention of prospective Participants as early as in mid-2011. The document referred however to a matter under so dramatic development that such Guide proved to be ever expanding and in constant need of updating. This was also thanks to the very rich **feed-back** provided by those Participants that first started planning and designing their Exhibition Spaces and engaged us on the way forward.

We are now presenting you with an **advanced and complete version** of the initial construction Guide, one that is highly technical as well as hands-on and easy to use. The document must be consulted as an addendum to the previous Expo Milano 2015 Guides, as it very much builds on them in terms of concept and content.

At the same time, Expo Milano 2015 is also issuing its Technological Services Guide to guide the design and use of technologies at the Expo. You will find quite a few cross-references to the **Technological Services Guide** in the text. This is because both the design and construction of your Exhibition Space and the use of technologies are means towards the same end: create a thematic experience that puts the visitors at the centre.

Those documents are a part a working and evolving process and tools to help Participants **give shape to the ideas** and aspirations they envisaged when reading the previous Guides.

1.3 Content Highlights

This Guide presents **all technical information** needed to design and plan for a Self-Built Exhibition Space at Expo Milano 2015.

In **chapter 1** we present **how the theme has influenced the construction rules and parameters**. In this chapter you will find the information related to the **design parameters** of the various components of the Exhibition Space. This includes both how to design your physical space (e.g. open air and green areas, setbacks, the height of building...) and how to **better manage** it (from management of the flow of visitors to sustainable procurement).

In **chapter 2** the focus is on the **construction and dismantling process** – including environmental standards – and how the overall Site will be managed during the works phase.

In chapter 3 the Guide describes the [authorization process](#) for your project, introducing all steps and forms related to the process as well as the role of the [Technical Office](#) managed by the Organizer.

The Guide ends with an annex that includes [maps](#) and [authorization forms](#).

Dear Participant, this Guide intends to help you with the various elements that you must consider while preparing the project of your Exhibition Space.

In particular, we would like you to read the rest of the document bearing in mind our [common goals](#):

- [Optimizing the Visitor's Experience in your Exhibition Space](#)
- [Designing anything with the Theme and your thematic proposition in mind](#)
- [Planning for improving the environmental performance adopting best solutions in your Exhibition Space](#)
- [Including the presence and use of technologies in your design](#)
- [Planning the visitors' flow to minimize queuing and maximize comfort](#)
- [Integrating the food and beverage offer within the thematic proposition and the Exhibition Space content](#)

In order to make the document practical and easy to use, the text highlights what must be considered [compulsory](#) in line with the corresponding regulations, for Participants for the success of the overall project and what is [highly recommended](#), with some discretionary degree of choice left to the Participant. We have [great expectations](#) on the Exhibition Spaces you plan to set up and would like to [support](#) you as best as we can. Expo Milano 2015 staff is available to discuss how to [best tailor](#) both the compulsory and the recommended measures to your own project idea.

2 THE THEMATIC RATIONALE OF THE CONSTRUCTION PARAMETERS

The chapter describes how the thematic approach to Expo Milano 2015 must influence the construction of Self-Built Exhibition Spaces. The chapter provides technical guidance on how to design your Exhibition Space as well as plan for its realization.

2.1 General Parameters

Exhibition Spaces of Official Participants cover an area of about 170,000 square meters of the Expo Site. According to the Expo Milano 2015 Participation Model, Exhibition Spaces can be divided in two groups: spaces allocated to individual Official Participants – called Self-Built (Type 1) - and spaces allocated to multiple Countries grouped around a common thematic thread – called Clusters (Type 2).

Self-Built Exhibition Spaces are located along the **World Avenue** and are offered exclusively to Official Participants: each Participant must design, build and dismantle its own Exhibition Space lot.

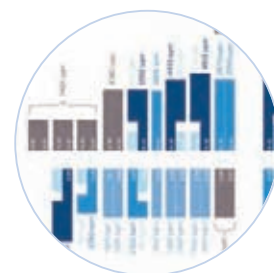
A roof structure, composed by cables and pillars covered by a special membrane, protects the Decumanus, or World Avenue, from weather phenomena to guarantee a high level of environmental comfort.

Self-Built Exhibition Spaces can be developed on a rectangular area or have an L-shape. They can follow three schemes: the choice of the matching is based on the area and shape of each Participant's lot (see figure p.41).

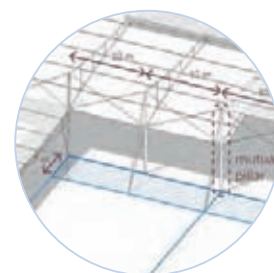
Before the signing of the Participation Contract, the Organizer has the right to change, without liability of any kind, the Site Masterplan and the allocation of Exhibition Spaces within the Expo Site in order to ensure the successful operations of the Exhibition and the harmony of the context.

Following the allocation of the Exhibition Space, the Organizer provides the Participant with the following documentation:

- map highlighting the placement of the selected Exhibition Space within the Expo Site;
- map of the surrounding of the Exhibition Space (i.e. roads, green areas, restroom facilities...);
- map of the Exhibition Space;
- detailed information about the Decumanus roofing in the proximity of the Exhibition Space;



Figures pages 38-39



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- topographical map (containing detailed information about the surface area, position of underground utilities, boundary lines, site survey report, geotechnical characteristics).

According to BIE Rules and Regulations, the lots allocated for Self-Built Exhibition Spaces are offered by the Organizer **free of charge** to Official Participants. The Exhibition Spaces are different in size, on a range that goes from 500 to 5,000 square meters (Ref. pages 38-39).

At Expo Milano 2015 Exhibition Spaces are intended as a **combination of indoor and open-air areas**: in order to ensure the fruition of the exhibition and the quality of the Visitor Experience each Exhibition Space must be based on the close relation between covered and green open areas. The goal is to create an **integrated exhibitive landscape** and to enable an **enjoyable and meaningful Visitor Experience** on the relationship between human beings and nature, the thematic content of the Expo - Feeding the Planet, Energy for Life - and the exhibition project itself.

As reported in the International Participants Guide 2011, Participants are required to satisfy within their Exhibition Space the "30% rule": **at least 30% of the whole Exhibition Space must be devoted to green and open areas**. This is one of the major innovations of Expo Milano 2015 and is derived from the prominence of the Theme of the Expo: visitors must be able to enjoy the exhibitions as much as the environment in which those exhibitions are displayed. **Expo Milano 2015 opens up the doors of pavilions to the visitors**: visit to individual Exhibition Spaces must not be confined within the perimeters of built structures, but rather fully enjoy the available space in all its forms. This responds to the goal of focusing on the Visitor Experience in a temporary, light and landscaped setting. The eco-compatibility and sustainability of the whole Site are also of paramount importance.

For each Self-Built Exhibition Space, according to the Building Coverage*, a maximum of 70% of the Buildable Area (lot area minus the required setbacks) may be set aside for the construction of built structures (the so called Covered Exhibition Space), such percentage must include overhanging balconies and/or upper floors. The Building Coverage* sets a maximum of Covered Exhibition Space; there is no specific minimum that must be built. Detailed information about this regulation can be found in the figures on page 44.

According to BIE Rules and Expo Milano 2015 "General Regulations", all Exhibition Spaces are designed to be temporary structures. Participants must return, no later than May 2016, all spaces made available to them, both covered and open, in the same condition as when they received such space, except if otherwise contractually agreed upon – in such cases reference should be

* For each lot the maximum Building Coverage (Covered Exhibition Space) square meters will be clearly indicated in the Participation Contract.



Building Area

lot area minus
the required setbacks

Building Coverage*

up to 70% of the Buildable Area

Green and Open Areas

minimum 30% of the
Buildable Area

Building Height

12/17 meters maximum



made to such agreement. For this reason, from the planning phase to the removal of buildings, Exhibition Spaces must be designed for dismantling at the end of the Event, so that the original site can be restored (ground surface and subsurface).

Architectural design shall comply with relevant Italian laws, regulations and standards, and rules formulated by the Organizer. Therefore **Participants must consult architects, designers, engineers and any others technician holding appropriate professional qualifications as required by Italian laws** (i.e. registration in the appropriate professional order).

2.2 Architecture, design and landscape

The Organizer intends to favour the seamless merging of thematic content displayed in open areas and in built structures: the content of the Expo is available both indoor and outdoor. This makes the open-air experience as enjoyable as the indoor one, creating a fluid expositive landscape with a strong relation between Participant's indoor and open-air Exhibition Spaces. **The architectural and landscape design of Exhibition Spaces shall be important components of the exhibition proposal to create a truly unique and multi-faceted experience.**

The ground floor must therefore be planned as a fluid space with as few physical barriers as possible between indoor and outdoor spaces, also including open-air food services, so that those visitors not accessing the interior Exhibition Space will nonetheless be able to experience the thematic message.

In order to enable all visitors to fully and effectively participate in Expo Milano 2015, Participants are invited to ensure persons with disabilities access, on an equal basis with others, to the Exhibition Spaces and their contents. According to this principles, and in compliance with applicable Italian laws and regulations, the Exhibition Space and the visit shall be developed following a **"Universal Design"** approach.

The use of construction materials shall be consistent with Participants' identity, traditions, culture and with the Theme of the Expo.

Materials: in removing the complicated mix of national laws, the guiding principle of the EU was to minimize harmonized legislation to the essential requirements to ensure the free movement in Europe, health and safety issues, and environmental protection. The **CE marking** guarantees the respect of these essential requirements.

Construction materials and products included in the "89/106/EEC Construction products CPD" and "Construction Products Regulation CPR 305/2011/EU" need to have the CE marking. The Construction Products Regulation, that will be completely in force after 1 July 2013, has been adopted by the European Commission and replaces the Construction Products Directive (CPD).

CE marking is mandatory in Italy. According to such regulations, the requirement for CE marking will apply to: "any product or kit which is produced and placed on the market for incorporation in a permanent manner in construction works or parts thereof and the performance of which has an



The Organizer's intention is to avoid any conflict between open space and the content of the exhibition



"Feeding the Planet, Energy for Life"

effect on the performance of the construction works with respect to the basic requirements for construction works.”

For further information on CE marked construction products please refer to: <http://ec.europa.eu/enterprise/newapproach/nando/index.cfm?fuseaction=directive.annex>

Materials and products for constructions must be identified and characterized under the responsibility of the producer and verified by the Participant's Technical Supervisor (ref. Special Regulation no.4). With regard to materials and products for structural use, materials and products must meet the requirements set out in the Italian rules NTC 2008 (Technical standards for construction - D.M. of 01/14/08).

In particular, they must be:

- uniquely identified by the manufacturer in accordance with the applicable procedures;
- qualified under the responsibility of the manufacturer, in accordance with the applicable procedures.

For all the products for which there isn't a Harmonized European Technical Specialization, the manufacturer could apply for a European Technical Approval (ETA).

Whereas for materials and products for structural use without CE marking or ETA (due to lack of harmonization) an ad-hoc certification must be obtained by competent Italian Authorities (CSLP *Consiglio Superiore Lavori Pubblici* www.cslp.it).

2.3 Functional Program

In architectural terms, the core functional program consists in creating an exhibition about the Expo Theme “Feeding the Planet, Energy for Life” and its sub-themes.

During the design phase, Participants may want to bear in mind the following aspects, detailed in the “Guidelines - Hygiene and safety for food area” :

- **Food and Beverage offer:** all Participants must plan for including food service areas within their Exhibition Spaces, developing innovative food offers as part of their exhibition attractiveness. Specific requirements, differentiated according to the size of the occupied lots, will be disclosed in the “Food and Beverage Guide” under preparation. The International Participants Guide recommends that sale of food and food products in the Exhibition Space is included in the overall **commercial section**. Support spaces such as kitchens for the restaurant, restrooms for visitors and other utility rooms are not included in the commercial section. In the case of indoor food service areas, Participants are required to plan for a separate access from the visiting entrance;
- **Goods storage:** if food services are provided, supply storage areas inside the lot must be designed to ensure at least two days of service autonomy. Goods delivery will be mainly managed after Expo closing hours (overnight) through electrical or zero-emission vehicles. Supplies must be compatible in shape and weight for transport on standard European

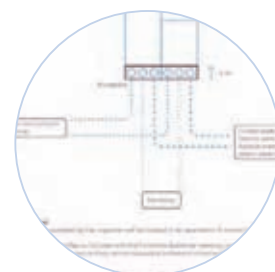


pallets (specific guidelines will follow);

- **Restrooms:** each Participant's Exhibition Space must provide restrooms for its staff. Moreover, for those pavilions in which a large visitors' turnover is expected, it is recommended to plan restrooms for visitors with special needs (e.g. persons with disabilities). **In food and beverage areas, restrooms for visitors must comply with the Italian health and safety rules appropriate to the dimension of the food and beverage areas** (please, see "Guidelines - Hygiene and safety for food area").

If spaces for children are provided, they shall be equipped with appropriate and easily accessible restrooms. Permanent staff has to be allocated to oversee such spaces, **restrooms for exclusive use of this staff must be included;**

- **Waste collection:** a collection room or intermediate storage area must be foreseen where waste packets/bags (with specific dimensional requirements and separated by type as indicated by the Organizer) can be collected before removal (specific guidelines will follow). Waste storage areas must be built and dimensioned to ensure retaining of odours and liquids over a one full day storage period. The waste collection facility must be designed to accommodate:
 1. organic waste divided by gardening waste, kitchen waste, organic fraction of municipal waste generated by staff and visitors;
 2. miscellaneous waste generated by exposition or commercial activities and personnel, partially separable into different categories following the establishment of source-separation waste collection systems (e.g. paper and cardboard, glass, wood, plastic, steel, aluminum, electrical/electronic devices, other waste). All waste fractions must be monitored in order to record the total quantities of waste that is reused, recycled, or delivered to a waste handling facility. (More information on waste collection can be found in the paragraphs devoted to sustainability, further down in the chapter).



Figures page 49

2.4 Utility systems provided

For each Participant's Self-built Exhibition Space, the Organizer will supply, for the six-months Event, the below listed utilities (please refer to the Guidelines - Technical System Requirements for further details):

- Electricity
- Condensation water for HVAC system (heating, ventilation, air-conditioning)
- Potable water
- Service water (non-drinkable groundwater) for irrigation, toilets, facilities cleaning
- Fire fighting systems (non-drinkable groundwater)
- Sanitary Wastewater outlet
- Stormwater discharge outlet

Gas will not be provided

For each of the above-mentioned services, the Organizer sets a supply limit. If Participants' needs are higher than the supply limit, Participants will have to meet their extra supply needs through the usage of appropriate eco-

compatible and sustainable devices. Participants are encouraged to use eco-compatible, innovative and highly sustainable systems and devices wherever and whenever possible also within the supply limits.

The Organizer requests each Participant **to integrate their automation systems within the Expo Site General System** with respect to:

- CCTV system
- supervision and control system
- telecommunication network

As explained in detail in the Technological Service Guide, the Organizer has developed a mandatory offer for Participants related to the **first layer of technological services** that enables Participants to be **fully integrated within the Expo Milano 2015 Smart City: the Basic package**, which includes Security and Access Safety System, Basic Smart Energy, WI-FI, Network, Internet and Fixed Voice.

Participants' safety systems **must be connected with the corresponding Expo Site system:** Emergency Voice Alarm Communications (EVAC) system, Fire Detection and Fire Alarm system.

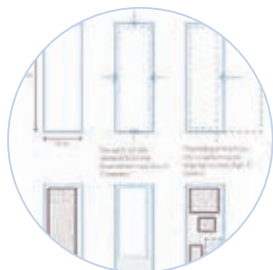


Figure page 46

2.5 Focus on Covered Exhibition Spaces

Covered Exhibition Spaces include both main buildings, if any, and accessory built structures, volumes or enclosed structures containing exhibition areas or other spaces, including all overhanging upper floors or balconies.

Underground Levels

Basement floors are not permitted. Moreover, as already mentioned, Participants' Exhibition Spaces **are temporary structures in scope** and both their ground surface and subsurface must be restored to their original condition when the buildings are removed. For this reason, and given the Theme of the Expo, **light structures and landscaped spaces** must be central to any Exhibition Space design.

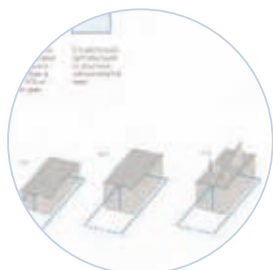
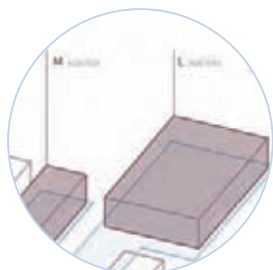


Figure page 47

Building Setbacks

Setback areas are non-buildable areas, but can be used for the set up of open-air Exhibition Spaces, gardens, furnished leisure spaces and technology areas, according to Expo Milano 2015 Theme.

- Above ground the distance between the public street and built structures must be no less than 2 meters; there must be no building concession directly to squares, streets or public spaces, without the 2 meters setback.
- Above ground the setback from the neighboring lot must be no less than 3 meters.
- The setback from the Decumanus must be no less than 10 meters, in order to create a buffer zone.
- In any case, the distance between buildings (also inside the lot) shall comply with fire control requirements.



Figures page 44

Height of Buildings

- The height of any Covered Exhibition Space (or building height) must be less than 12 meters.
- The height limit for any additional architectural elements (such as skylights, roof elements, vertical connections to the roof, sunscreens, signals, etc.) is 17 meters.

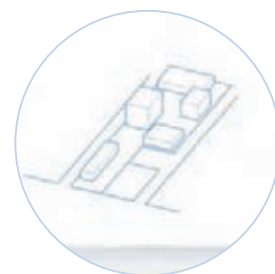
Volumetric Scenarios

Without prejudice to respecting basic rules and criteria regarding the Exhibition Space, it will be possible to build different volumetric layouts, with the intention to create an effective interaction between the landscape and architecture.

- **Scenario A:** the maximum buildable volume can be designed as a sequence of indoor and outdoor Exhibition Spaces. Therefore, it is possible to use the available Building Coverage to [build a fluid exhibition landscape with more than one built structure](#) and flexible-flow layout in the outdoor area. In this case the overall design is a statement, presenting the buildings within the landscape, in a physical continuous environment.
- **Scenario B:** the volume available can be used to realize a single indoor Exhibition Space that must have a strong relation [with the single open-air Exhibition Space](#). The lot can be designed as a traditional Expo pavilion: the classic approach of an isolated pavilion standing in the open-air area must address the design challenge to connect the indoor and outdoor space.

Roof Design and Rooftop Facilities

- Buildings may have roof terraces for visitors.
- The greening rate of roofs shall not be lower than 50%. The term “green roof” is used to indicate vegetated roof (a roof of a building with vegetation and a growing medium). Forms of green technology on the rooftops (e.g. for photovoltaic) could be used in association with the greenery.
- Rooftop facilities or structures must comply and integrate with the landscape design requirements of the rooftop.



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Indoor Natural Lighting

It is strongly suggested to promote natural lighting, especially in indoor spaces such as workspaces or offices. The quantity and quality of light must allow occupants to perform their activities in safety, efficiency and comfort, ensuring lighting levels as specified by applicable standards (please also refer to the Guidelines - Technical System Requirements).

Indoor Exhibition and Flow Management

The indoor Exhibition Space design must offer visitors a high quality immersion in the Expo Milano 2015 Theme and an efficient, dynamic and fluid experience. [A fundamental aspect of the design project consists in how to allow visitors to access and circulate within the Exhibition Space.](#)

Each Participant needs to carefully consider both the [means of content](#)



presentation and the visit mechanism. These features have a strong impact on visitor flows management and, ultimately, on queues.

Especially for those Exhibition Spaces in which a large visitors' turnout is expected, a "free-flow" visit modality or a linear visitor system with "continuous flow" should be privileged. The group-by-group flow ("pulse flow"), on the contrary, can lead to queuing in open areas. Often, a combination of the above-mentioned modalities provides for efficient solutions.

The most innovative technologies can be helpful both to support visitors while they discover the exhibition content and to manage flows.

Crowding must be assessed using pedestrian flow simulation software and must be attached to the Preliminary Design (Ref. pag.33). The Technological Services Guide includes a set of services useful to the access and queue management, among them there is an advanced visit booking system available on the basis of the real time crowding of the various parts of the Site.

Fire Prevention

The fire prevention plan must be designed taking in consideration the functional and organizational layout of the Exhibition Space, the estimated amount of visitors accessing the building, the mode of visit, with special regard to the occupation (crowding) of public areas (i.e. entrances - visit paths - exits - support services). For reference on the Italian laws on this matter and on fire protection aspects, please see:

- D.M. 19.08.96 n.149 (technical rules for public events and entertainment);
- D.M. 10.03.98 (general fire prevention criteria for workplaces);
- D.M. 12.04.96 (technical rules for heating/cooling systems);
- D.M. 13.07.11 (technical rules for electrical generators).



The landscape design shall be developed in keeping with the Theme "Feeding the Planet, Energy for Life"

2.6 Focus on Open Air Exhibition

The design of Open-Air Exhibition Spaces must be developed as an integral part of the Participant's approach to Expo Milano 2015 Theme.

The landscape must be designed bearing in mind the thematic message (e.g. abilities in food production, the biodiversity of agricultural products, food supply chains and natural heritage).

Open-air areas are meant as full-flagged Exhibition Spaces, gardens, furnished leisure spaces, technology areas pervaded by Expo Milano 2015 Theme. The design of open spaces must ensure visitors comfort, which means a constant focus on four key aspects:

- The visual appeal of the areas;
- The creation of an enjoyable microclimate within open spaces;
- The offering of various experiences, meeting the multifaceted expectations of various categories of visitors;
- The wealth of open-air exhibition in terms of quality experience.

Landscape

At least 30% of each lot must be committed to open areas and greenery. Including lot setbacks, open-air Exhibition Spaces represent around 50% of each lot. In the open-air spaces it is possible to set up:

- **structures used for plants ensuring soil permeability** (e.g. trellises, pergolas, garden structures, planters);
- **landscaping structures** (e.g. structures used to retain soil or other materials, pools, exhibition structures, art works);
- roofs, awnings, canopies, greenhouses, and open-sided patio roofs.

Such structures cannot be higher than 6 meters. Structures may settle directly on squares, greens, streets and public spaces. The setback line from the neighboring lot shall not be less than 3 meters away.

Participants willing to request any deviation from the above mentioned restrictions must contact the Organizer, which will assess the specifics of the Participant's project design.

In all open-air areas it is fundamental to guarantee an enjoyable microclimate, through the following:

- minimizing the **heat island effect** of paved areas and maximizing permeable ground areas, using natural surfaces or environmentally-friendly paving which allows water to percolate;
- choosing the **paving (porous or with an high albedo)** in combination with shading, through built structures or fast growing green pergolas;
- using **vertical gardens, green walls and green architectures**;
- a **water-spray system** could be provided to ensure a good temperature during summer days as well as to protect from insects;
- it is suggested to provide shade in the 10 meters setback area in front of the Decumanus.

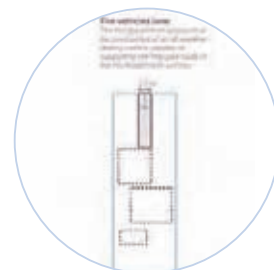
Landscape design and works must minimize the **water-use consumption** and maximize the collecting and recycling of water (see measures illustrated in the part on sustainability).

While designing the landscape project, it is necessary to take into account that water supply for irrigation is service water (non-drinkable groundwater). Water used to irrigate food crops must have the appropriate physical and chemical characteristics for this purpose.

Outdoor Lighting

As necessary for **Expo by Night** activities, Participants must pay special attention to **outdoor lighting**. The objective is to reveal a different and complementary vision of Exhibition Spaces during night opening hours, in particular for accessible areas and meeting, food and beverages places.

Outdoor lighting systems must be designed according to appropriate criteria and methods for preventing light pollution and upward light dispersion, with particular emphasis on eco-sustainability and maximization of energy savings and safety levels (e.g. equipment for the reduction of the luminous flux and remote control). The project must be drawn up in compliance with the following legislations: L.R. 17/2000 and subsequent amendments, the D.G.R.



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n. VII/6162 as of 20/09/2001. It is prohibited to set up light beams facing upwards.

The Technological Services Guide lists criteria and methodologies preventing light pollution as well as presents a set of integrated services within the Smart Energy packages.

Outdoor Furniture

It is suggested to provide outdoor furniture in the 10 metres setback area in front of Decumanus. Litterbins must be provided in the proximity of outdoor food service areas or in areas dedicated to food consumption.

Fire Prevention

The layout shall provide a [fire lane](#) (occupying part of the green and open areas) ensuring unobstructed access by Fire Department vehicles. Minimum requirements are the following: width, 3.5 meters - free height, 4 m - turning radius, 13 m - maximum slope, 10% - load rating, 20 tons minimum (8 tons front vehicle axle and 12 tons rear axle, wheelbase 4 m).

In most cases the fire lane will be built at the rear of the lot with respect to the Decumanus. Detailed requirements for special cases will be provided together with the information pertaining to each lot. The fire lane must be paved with an all-weather driving surface capable of supporting fire department vehicles (e.g. asphalt or grass block).

Boundary Fences and Barriers

Hedges -natural fences made of bushes or trees- or fixed or mobile fences can be set up within the Exhibition Space boundary line. To allow the emergency services intervention and to ensure appropriate evacuation routes, continuous fences and barriers are not permitted along paths and public spaces. [Including generous or frequent gaps \(not steps\) will ensure multiple accesses, visual permeability and a fast exodus in case of emergency.](#) The height of any type of fences must be limited allowing the view of the open air exhibition from surrounding public spaces. Along the neighboring lot continuous fences and barriers are allowed.

The Organizer suggests to use “invisible fencing” options, as:

- a deterrent strip that forms a physical and visual discouragement to access, defining a footway ‘no go’ zone (e.g. deterrent paving strip or boulder-strewn strip);
- a shallow water channel running along the boundary lines;
- a vegetated linear swale parallel to the curb, where rainwater runoff could also be diverted and water can be filtered and percolate through the soil instead of into the storm sewer (raingarden slopes).

Import of Plants and Plants Products

The import of plants, plant products and other objects used for landscape and exhibition arrangements from non-European Union (EU) Countries, is regulated by the [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES, www.cites.org). Moreover, both a EU plant

passport and an Italian phyto-sanitary certificate are required to allow free circulation of plants and plant products within the EU. Participants must adopt all protective measures required by Italian legislation and EU directives (2000/29/EC) against the introduction and spread into European territory of organisms harmful to plants or plant products.

Further information on this matter will be provided in the “Guidelines – Import of plants and plant products, for Construction and Set-up of Exhibition space”.

2.7 Focus on Queue Management

The Organizer requests Participants to carefully consider that one of the most frequent complaints by visitors at Expos concerns waiting lines and queuing time. During a valuable Visitor Experience, visitors want to be able to decide for themselves where and how to spend their waiting time, preferably within the Exhibition Space (food area, shops, open-air exhibition...), rather than in lines.

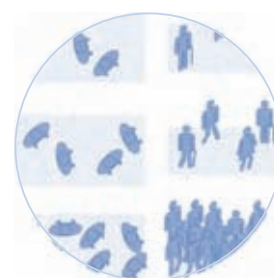
The Organizer believes that, within the Expo Site, flow and queue management are joint responsibility in the close collaboration between the Organizer and the Participants. In order to support Participants in their effort towards reducing waiting time and queuing the Organizer has defined a set of services to facilitate access and flow management within Participants’ Exhibition Spaces and throughout the whole Expo Site. Information related to such services is available in the Technological Services Guide.

While designing the Expo Site the Organizer used dynamic simulation software to estimate flows and bottlenecks. During the Event the Organizer will avail of specific technologies to support the monitoring and management of crowding, flows and a virtual queuing system to optimizing the use of waiting areas.

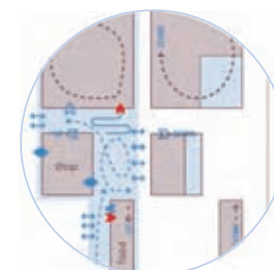
Each Participant must have a visitors in-coming and out-coming monitoring system in order to ensure compliance with Italian laws (i.e. crowding, fire prevention laws) in line with Security and Safety national guidelines. In particular for this Services, please refer to Guide for Technological Services “Security & Access” systems.

Technology does represent an important tool to evaluate the most crowded areas and estimate visitors’ behavior during possible emergencies. Queuing and crowding estimates must be assessed using pedestrian flow simulation software and must be attached to the Preliminary Design. They must include the technological solutions to be implemented in this field.

The presence of many people, following the same or very similar paths or standing in the same waiting areas or assisting to events, can be measured by the Level Of Service (LOS), a scale of values representing space occupancy, mobility ease and user comfort. **The crowd level indicator should not exceed D-level** or a restrictive fire laws level in order to guarantee an efficient service and queue management. This level can only be exceeded in extraordinary circumstances, such as special events provided that the Organizer is kept duly informed.



LOS Figure page 51



Figures page 50

Visitors' Experience and comfort might be influenced by the building layout, so that Exhibition Spaces must be designed to facilitate queue management (see figures pages 50, 51):

- **scenario A:** focuses on permeability between interior and exterior. Its continuous flow enables the visitor to transcend the material realities of the building and revel the visual experience. **Circulation takes place inside a series of continuous free flows through a sequence of indoor and outdoor spaces and fragmented Exhibition Spaces.** As a result, in the multi-buildings scenario, the open space can accommodate different types of visitors and flows, reducing queuing in open areas;
- **scenario B:** a single building with a continuous Exhibition Space, could easily create queuing in open areas;
- **hybrid Scenario** with a mix of free flow circulation and a continuous Exhibition Space with controlled flow. It can be an efficient combination of two layouts in order to reduce queues.

As previously mentioned, the use of specific digital technologies and mobile devices represent an important tool to support the design strategy. Systems that secure a visitor's place in a **virtual queue**, rather than a physical queue, do allow visitors to spend their waiting time in a personalized and more meaningful way (e.g. by taking part in events or hanging around in open-air Exhibition Spaces).

Building Entrances and Exits shall be designed taking into account the surrounding conditions and landscaping design requirements.

The **ordinary queue must be accommodated inside the lot** in a pleasant portion of the Exhibition Space (e.g. providing sun and rain protection, pleasant temperature, etc). In ad hoc occasions and upon advanced request, the Organizer can provide a comfortable queuing area outside each lot, which must not exceed two meters of the secondary path width, nor exceed the lot length and cannot occupy the Decumanus. Queuing guides and barriers that could/may be placed in public areas must be easily and fully removable.

The lot entrance/exit on the "secondary path" must be placed:

- ten meters away from the Decumanus, if the extra queue space starts from the Decumanus;
- five meters away, if the extraordinary queue starts from the end of the Exhibition Space.

Each Participant's Exhibition Space must have multiple entrances and exits on different sides of the lot, in order to increase visitors' level of comfort and decrease queuing.

- Participants must consider planning for entrances for persons with disabilities, VIPs, reserved groups, staff, suppliers, business partners and for the collection of waste and for goods entrance / exit.
- Participant must plan for dedicated entrance for the restaurant or food area. The Organizer further suggests Participants to plan "speed lanes" in the food and beverages area within the Exhibition Space. Speed lanes aim at reducing queues and at diversifying the service provided to visitors.



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- in the case of a single built structure, the building must have a minimum of two main entrances and exits for visitors, besides those created for special categories of visitors and for the food area.
- if a **main entrance** is planned onto the Decumanus, the queuing area must not occupy or overflow onto the Decumanus.
- small squares are interstitial active spaces between lots that could be used to place some accesses and exits.
- all Exhibition Spaces must be provided with **buffer exhibit areas** to welcome visitors.

Goods Entrance and Waste Removal

The Organizer plans the delivery of goods and the removal of waste during closing hours and from pedestrian access. Participants are required to build a dedicated entrance, so that waste can be exceptionally removed and special goods delivered during opening hours. The Organizer suggests Participants to place such access far from the main visitors' entrances.

Safety Distance of the Buildings from the Decumanus

Any built structure must be at least 10 meters far from the Decumanus. Landscape structures are allowed, but they cannot be more than 6 meters high. Facing the Decumanus an area should be created within each lot, so that visitors can peek at the various displayed attractions, without hindering the flow on the Decumanus. In such space it is possible to have one or more attractions visible from the Decumanus, if a free area inside the lot is dedicated to accommodate visitors so that the movement of pedestrians along the Decumanus is not hindered. This area must be at least 3 meters wide if the visitor can access the attraction or "interact" with it from the Decumanus and the structure must be placed 3 meters away from the Decumanus. In case the visitor can access the attraction or "interact" with it only from inside the exhibition area, the structure can be built within the "3-meters area".

2.8 Focus on Sustainability

Sustainability is at the heart of the Theme "Feeding the Planet, Energy for Life" and is a core value of Expo Milano 2015.

Expo Milano 2015 shows great concern for environmental and social issues and wants to reflect its sense of responsibility in each phase and activity of the Event. The Organizer encourages the co-operation of all the Participants to improve the sustainability of Expo Milano 2015. In addition to this, the Organizer **recommends Participants to design and build environmentally friendly Exhibition Spaces**, taking into account the aspects described in the following paragraphs. More specifications will be provided in the guidelines "Sustainable Solutions - Design, Construction, Dismantling and Reuse".

Energy

The Organizer recommends adopting strategies that aim at minimizing the negative environmental impact of Participants' Exhibition Spaces and considering the overall environmental impact over the lifecycle of the facility,

with particular emphasis on energy use. The six months of Expo Milano 2015 - from 1 May to 31 October - are generally warm months in Milan, therefore heating systems should not be required in the Participants' Exhibition Spaces. Systems that are generally considered environmentally sustainable -such as for example heavy insulation of the building envelope - may thus, within the context of Expo Milano 2015, have an excessive environmental impact given that the buildings will only be used temporarily and exclusively in the late spring, summer, and early autumn months. It is therefore possible to [avail of bioclimatic systems based on passive technologies for control of temperature, humidity and lighting](#) that will extend the time period in which artificial air conditioning or lighting systems will not be necessary, also making it possible to [reduce the power requirements and the related environmental impact](#). Given the importance of temperature control, the Organizer has prepared the service Basic Smart Energy, mandatory for all Participants, which is described in detail in the Technological Services Guide.



Participants that build their own Exhibition Spaces are encouraged to develop environmentally sustainable spaces

Local energy production systems based on renewable resources may be employed, provided that they can be easily installed/uninstalled and reused at the end of the Event.

In short, Expo Milano 2015 aims at:

- [minimizing energy requirements](#) and consumption by optimizing passive strategies (e.g. natural ventilation, shading, massing) and system efficiency, through the use of dynamic energy modeling;
- satisfying energy needs by exploiting the use of [renewable energy sources](#).

Materials

[Participants Exhibition Spaces](#) are temporary structures by nature. Participants must therefore choose the appropriate building materials. The type of material and the method used to construct Exhibition Spaces determine the environmental impact of any structure.

Construction materials exert an environmental impact throughout their lifecycle, from the extraction of raw materials to the dismantling and removal. Such impact can be reduced by [choosing sustainable materials, as those that are local, recycled and certified as responsibly sourced \(renewable sources, having a low carbon footprint, etcetera\)](#).

In particular, it is essential to:

- choose construction methods for built structures, envelope and utility systems that [minimize the environmental impact of the construction, decommissioning and removal phases](#);
- use low environmental impact materials for building foundations, structure, envelope (e.g. walls, roof, floors, transparent surfaces), finishes/ facing, and utility systems, supported by documents referring to an environmental impact assessment involving a Life Cycle Assessment or an Embodied Energy/Carbon methodology utilizing a country-of-origin or European system;
- use recycled or regenerated materials. [The sum of post-consumer recycled materials plus half of the pre-consumer recycled materials](#)



must reach at least 50% of the total mass of materials used for the construction (e.g. sidewalks and curbs, water storage tanks) and the base and sub-base materials used to prepare the construction (e.g. rainwater channels, sewer system, and water and electricity distribution). The recycled material content shall be defined in accordance with the ISO/IEC 14021 standard: Environmental labels and declaration, Self-declared environmental claims (Type II environmental labelling);

- assess the possibility to **prevent or reduce the production of construction and demolition waste**, implementing planning and design choices that minimize the amount of material that have to be discarded over the lifecycle of the structures. In addition, it would be appropriate to choose materials with a high potential for reuse or recycling after the structures have been dismantled and removed.

Waste Collection and Storage

The Organizer intends to minimize waste production. In particular, it is deemed necessary to minimize the amount of materials to be discarded during construction works and/or choose recycling materials.

In order to reach this objective, Participants should:

- plan and design light structures containing a **minimum amount of materials** (reducing resource needs and potential waste at the end of the lifecycle of the structure);
- choose construction **materials with low environmental impact with respect to their potential for reuse (or recycling) after demolition**;
- adopt **environmentally friendly demolition** methods (optimization of reuse);
- provide source-separated waste collection;
- **reuse or recycling of the various flows of materials from construction of buildings and other structures**.

The amounts of waste produced must be closely monitored, so as to constantly assess how much material can be reused, recycled, or must be discarded.



Water and other Environmental Issues

While planning and designing their Exhibition Spaces, Participants shall consider other aspects where overall environmental performance may be enhanced, such as water, lighting, permeability, etc. In considering the following criteria reference is made to certification credits by “**LEED 2009 - New Construction**” (the internationally recognized green building program).

In particular, Participants should:

- minimize water consumption and maximize water recycling. The aim is to achieve a minimum saving of **30% for potable water for indoor use and 50% for irrigation water**;
- maximize permeable (porous) ground areas using **natural surfaces** (which allow water to percolate through them) such as natural soil and green areas or an **environmentally-friendly paving** that mimics the natural process and allows water to filter through the soil and recharge groundwater aquifers, or, as an alternative, to use **materials that promote absorption of CO₂**;

- minimize the heat island effect using green roofs, or where shading is not available, [choosing materials with a high albedo for outdoor paving \(SRI > 30\) and roofing \(SRI > 80\)](#);
- use appropriate criteria and methods for [preventing light pollution](#) and upward light dispersion, with particular emphasis on eco-sustainability and maximization of energy savings;
- provide a [monitoring system for energy and water consumption](#), both during construction and operation activities, and communicate data in compliance with a protocol developed by the Organizer

With regard to the preventing light pollution and monitoring energy, the Organizer has introduced as mandatory services those services managing energy control and lighting, as described in detail in the Technological Services Guide under Smart Energy.



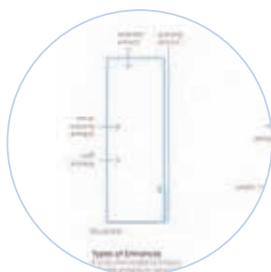
To prevent exposure to [radon gas in indoor environments](#), Participants are requested to take the preventive measures indicated by the "Lombardy Region Decree n. 12678 of 21/12/2011 - Guidelines for the prevention to gas radon indoor exposure" such as, for example, a ventilated crawl space or the laying of a membrane impermeable to radon.

Innovation and Communication to Visitors

Expo Milano 2015 intends to promote and showcase innovative solutions associated with the various areas of sustainability, as Universal Expositions have always represented occasions for acquainting visitors with the most recent developments in science and engineering aiming at improving the quality of life for human beings, their environment and resources.

[Participants' Exhibition Spaces must therefore be designed and set up with a communicative and educational approach in mind, with recommendation to think about solutions for the presentation to people with disabilities.](#)

Participants, as highlighted in the Theme Guide, are invited to present their exhibition in different languages (Italian, English, French, Participant's national languages,...) in order to reach the maximum audience.



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The architecture itself must communicate to the public the methods and contents chosen by the Participant, boosting the Visitor Experience, awareness on the Expo Milano 2015 Theme and associated issues.

Participants are encouraged to showcase the sustainable solutions adopted, in order to inform visitors and increase their awareness. It is intention of the Organizer, within the [Expo Awards](#), to provide all built structure [with a recognizable label promoting the sustainable best practices adopted](#). Moreover, Participants are requested to propose solutions for the post-event reuse of their entire exhibition facility in different contexts, enhancing the value of reuse for social purposes (e.g., temporary or permanent exhibition facilities, emergency centres and others).

3 SITEWORK MANAGEMENT

CONSTRUCTION AND DISMANTLING

3.1 Construction Techniques

Considering the sustainability goal of Expo Milano 2015, the limited size of the Expo Site, the tight work schedule and the peculiar construction operations of common buildings and Participants' Exhibition Spaces, it is highly recommended that Participants build their Exhibition Spaces using **pre-fabrication, off-site pre-assembly and on-site adhesive-free assembly methods**: those techniques also facilitate reversibility of the work and the reuse or recycling of the building components.



The Organizer highlights that the reduction of the environmental impact of construction activities and the minimization of worksite contingencies and "errors" will have enormous benefits in terms of **ease of management** and great advantages in **minimizing the construction time**.

Participants **shall use shallow foundations**, deep foundations (piles) are **not allowed**. In accordance with the environmental sustainability and to avoid adverse effects on the surrounding area, the use of **soil improvement treatments** such as columns of gravel, earth consolidated (i.e. deep mixing, jet grouting, etc.) are not allowed.

3.2 Construction Activities on the Expo Site

The boundaries of the worksites for the construction of Participants Exhibition Spaces and related facilities must necessarily be the hedges of the lot assigned to each Participant. **All cranes, vehicles, and unloading/loading of materials must be confined within the area of the lot.** Activities related to construction, including site preparation and storage, must be performed within these physical limits to prevent from occupying or obstructing spaces used for other purposes.

All Participants are likely to occupy their worksites at overlapping times: **no extra spaces will be available for supporting construction operations outside of the assigned perimeter.** As a matter of justified exception, additional space outside the worksite comprised in each Participant's area must be requested to the Organizer.

Construction lots for Official Participants must be accessed from the Decumanus. No alternative access will be provided from the secondary routes.

It is recommended to complete the construction of the built structures as early as possible so as to avoid interferences with or from the installation of the roofing that will cover the Decumanus.

Through the constitution of a dedicated Technical Office, the Organizer will provide its expertise and knowledge to support Participants in the design, construction and dismantling of their Exhibition Spaces, providing substantive contributions that will be theme-related, innovative and conceptually, intellectually and aesthetically appealing.

3.3 Environmental issues

The Organizer suggests Participants to adopt an [Environmental Management System](#) (in accordance with ISO 14001/EMAS or equivalent) in the construction and dismantling phases. In any case Participants should require their suppliers (or general contractor) to develop and adopt an [Environmental Manual for Sitework Management](#). Such manual should include:

- instructions for managing the prescriptions coming from the environmental impact assessment procedure;
- instructions concerning the environmental performance monitoring system and the collection and transmission of data about greenhouse gas emissions according to the ISO 14064 standard.

Lastly, in order to provide support in managing the construction of Exhibition Spaces, a planning scheme is developed jointly by the Organizer and Participants for the periodic assessment and auditing of relevant elements in the Environmental Manual for Sitework Management.

3.4 Excavation Management

Taking into consideration that there are obligations to report contamination of excavated material (pursuant to Articles 242 and 245 of Italian Legislative Decree no. 152 of 3 April 2006), the Participant must nevertheless observe the authorization timeline and properly manage excavated materials. The relevant Italian law is Ministerial Decree no. 161 of 10 August 2012 (*Gazzetta Ufficiale Italiana* no. 221 of 21 September 2012) and prescriptions pursuant to the Environmental Impact Assessment (VIA).

For “excavated soil and rocks”, an appropriate plan (“Utilization Plan”) must be drawn and transmitted. The Participant may choose to manage - once the plot has been put in appropriate conditions and handed out - the excavated materials according to the following two methods, which may be used together in the same operation, but on clearly distinguished portions of the materials:

- **disposal as waste and reuse in another site or production process as by-products per DM 161/12**, in this case the “Utilization Plan” (Excavation Plan) must be presented to the relevant Public Authorities at least 90 days prior of the beginning of the works;
- **direct reuse as backfill on the same site** in accordance with Article 185, subsection 1, letter c of D.Lgs. 152/06 - in which case no official acknowledgement, consent or authorization is required.

Considering the abovementioned complexity of managing a worksite within the Expo Site, and of safety regulations and Italian laws regarding excavation authorization, prior to the beginning of the works, Participants are requested to communicate to the Organizer their plans for managing the excavation and foundation work for their Exhibition Space. The Participant shall submit a report detailing these management aspects together with the Preliminary Design (ref. Art. 13, Special Regulation no. 4).

For backfilling or other onsite uses, the Participant must use the excavated soil (material from the excavation on Participant's lot) within the boundary of the lot.

Any material obtained externally to the lot must meet the requisites and prescriptions contained in the VIA (Environmental Impact Assessment) document (D.G.R. 2 February 2012 n. IX/2969).

3.5 Construction Support Services

The realization of the various parts of the Expo Site is an exciting and challenging part of the life of an Expo. Expo Milano 2015 has introduced a few innovations in the way the Expo Site will be organized and the visit to the Expo will take place. Those innovations have an impact on the way the individual Exhibition Spaces are designed, set up and managed.

Mindful of the renewed commitment requested to Participants to abide to the innovative features of the Expo, the Organizer has endeavoured to prepare a series of tools to facilitate Participants in their preparation work. In addition to the early engagement and collaborative approach and to the Guides and guidelines on the various aspects of the Expo, with the objective of supporting Participants during the worksite phase and in view of simplifying the construction process of each and every Exhibition Space, the Organizer has decided to offer to all Participants a series of Construction Support Services.

The services on offer cover:

- excavation work, complete with accessory services such as excavation protection/reinforcement;
- construction of subsurface structures (foundations, prefabricated or poured in place together with any vertical subsurface structures);
- the removal of subsurface works after the Expo and restoration of the lot.

Participants interested in services provided by the Organizer are strongly encouraged to present their requests by June 2013, to allow all construction works in the Exhibition Site to be timely completed. A specific form (ref. Form, p.57) containing a detailed description of the requested services must be sent to the Organizer. A contract will then be drafted between the parties, Expo and Participant, which will include, once agreed, costs and timeline for the services.

The Organizer requests these contracts to **be signed between July, 1st and September, 30th 2013**, depending on the timeline for the lot handover and the projected construction starting date.

The contract obliges the Participant to submit a specific documentation describing the specifications of the requested services, and obliges the Organizer to meet the timeline for the execution of work per Participant specifications (see following section).

The cost of all services will be borne by the Participant. The Organizer will handle all procedural and permitting/authorization processes necessary to comply with the relevant Italian legislation.

The Organizer has arranged the Construction Support Services aimed at facilitating the construction of Exhibition Spaces in the following packages:

Service package no. 1 - Excavation work

- Authorization procedure and works management
- Worksite enclosures
- Excavation work
- Earthmoving

Service package no. 2 - Excavation and foundation work

- Authorization procedure and works management
- Worksite enclosures
- Excavation work
- Earthmoving
- Subsurface civil works (foundations)

Service package no. 3 - Removal of works in Service Packages no. 1 and 2 and restoration of lot

- Authorization procedure and works management
- Demolition, removal and dismantling of subsurface structures
- Restoration of lot

Service Package no. 1

Authorization procedure, works management and supervision

The service package includes engineering and technical services of works supervision and worksite coordination, together with management of the subcontracting and execution of works. In compliance with Italian legislation, the Organizer will attend to all procedural aspects and authorization procedures necessary for the execution of the works expressed solely at letters A, B, and C of the service, also taking responsibility for the drafting of the "Management Plan for Excavated Soil and Rock" and the management of materials removed from the excavation.

The Organizer will manage the following works:

Worksite enclosures (A)

Installation of lot worksite enclosures, including entrance/exit gates

Excavation work (B)

The Participant may choose one or both of the following types of excavation work:

- open section excavation, unprotected
- vertical excavation protected by steel sheet piles

Including works to protect the excavation from atmospheric agents, collection of water and soil treatment if necessary (compacted backfill).

Earthmoving (C)

Possible transfer to landfill and associated disposal costs.

Accumulation of soil for use as backfill on lot, compatible with the available area.

SERVICES OFFERED - Service package no. 1	Unit	Price [€] (*)
WORKSITE (lot) (A)		
Worksite enclosures (lot)	€/m	20,00
EXCAVATION WORK (B)		
Open-section excavation with excavation protection (from atmospheric agents, with collection of water)	€/m ³	21,00
Type of treatment (compacted backfill above foundation level)	€/m ³	27,50
Temporary works: project, rental, installation and final extraction of steel sheet piles	€/m ²	275,00
Backfill for foundations, with soil deposited within the worksite	€/m ³	3,00
EARTHMOVING (C)		
Transfer to landfill and associated disposal costs (soil from excavations)	€/m ³	25,50
AUTHORIZATION PROCEDURE, WORKS MANAGEMENT AND SUPERVISION		
Authorization procedure, works management and supervision.	€	(**)

The prices contained in the table are derived from the "City of Milan Price List for the Execution of Public Works (January 2013)"

() to be calculated on the basis of documentation provided by the Participant.*

*(**) approximately 20% of total works cost, to be calculated on the basis of documentation provided by the Participant.*

This table, including the service package items, is not intended to be exhaustive.

For additional items in the service packages, please consult the City of Milan Price List (January 2013)

The Organizer will deliver a work termination document to the Participant that attests to the proper execution of work and certifies that said work was executed according to relevant standards.

Service Package no. 2

Authorization procedure, works management and supervision

The service package includes engineering and technical services of works supervision and worksite coordination, together with management of the subcontracting and execution of works. In compliance with Italian legislation, the Organizer will attend to all procedural aspects and authorization procedures necessary for the execution of the works expressed solely at letters A, B, and C of the service, also taking responsibility for the drafting of the "Management Plan for Excavated Soil and Rock" and the management of materials removed from the excavation.

The Organizer will manage the following works:

Worksite enclosures (A)

Installation of lot worksite enclosures, including entrance/exit gates

Excavation work (B)

The Participant may choose one or both of the following types of excavation work:

- open section excavation, unprotected
 - vertical excavation protected by steel sheet piles
- Including works to protect the excavation from atmospheric agents, collection of water and soil treatment if necessary (compacted backfill).

Earthmoving (C)

Possible transfer to landfill and associated disposal costs.

Accumulation of soil for use as backfill (for foundations) on lot, compatible with the available area.

Subsurface civil works (foundations) (D)

Foundation works and any vertical subsurface structures of the following type: Standard foundations (installed to a maximum depth of 2.00 m below ground surface) determined in advance by the Organizer.

SERVICES OFFERED - Service package no. 2	Unit	Price [€] (*)
WORKSITE (lot) (A)		
Worksite enclosures (lot)	€/m	20,00
EXCAVATION WORK (B)		
Open-section excavation with excavation protection (from atmospheric agents, with collection of water)	€/m3	21,00
Type of treatment (compacted backfill above foundation level)	€/m3	27,50
Temporary works: project, rental, installation and final extraction of steel sheet piles	€/m2	275,00
Backfill for foundations, with soil deposited within the worksite	€/m3	3,00
EARTHMOVING (C)		
Transport to landfill and associated disposal costs	€/m3	25,50
SUBSURFACE CIVIL WORKS (foundations) (D)		
Foundations and standard subsurface structures	€/m3	350,00 /500,00
AUTHORIZATION PROCEDURE, WORKS MANAGEMENT AND SUPERVISION (E)		
Authorization procedure, works management and supervision.	€	(**)

The prices contained in the table are derived from the "City of Milan Price List for the Execution of Public Works (January 2013)"

() to be calculated on the basis of documentation provided by the Participant.*

*(**) approximately 20% of total works cost, to be calculated on the basis of documentation provided by the Participant.*

This table, including the service package items, is not intended to be exhaustive.

For additional items in the service packages, please consult the City of Milan Price List (January 2013)

The Organizer will deliver a work termination document to the Participant that attests to the proper execution of work and certifies that said work was executed according to relevant standards.

Service Package no. 3

Authorization procedure, works management and supervision

The service package includes engineering and technical services and management of the subcontracting and execution of works. The Organizer shall handle all procedural and permitting processes indicated under letters E and F of the service, in compliance with Italian laws and regulations, and will also assume responsibility for managing materials resulting from the demolition and subsequent restoration of site structures in compliance with laws and regulations in force and with the EIA document. The Organizer will also provide Works Supervision and Worksite Coordination services.

The Organizer will manage the following works:

Demolition, removal and dismantling of subsurface structures (E)

All unusable materials produced through demolition, removal or dismantling

(of Organizer properties) will be classified as waste and transported to authorized landfills.

Lot restoration (F)

The Organizer undertakes to restore the lot to its original condition using suitable materials and meeting relevant standards.

The Organizer will deliver a work termination document to the Participant that attests to the proper execution of work and certifies that said work was executed according to relevant standards, and in compliance with the Participation Contract.

SUGGESTED TIMING

Regarding the Expo Site work timeline and works supervision, Participants are strongly urged to submit the request for Services Package no. 3 when signing the contract for Services Packages nos. 1 and 2.

The design procedures and building applications must comply with General and Special Regulations issued by Expo Milano 2015, Italian laws and regulations and supplementary directives and guidelines issued by the Organizer. No works shall commence until such authorizations are fully granted.

SERVICES OFFERED - Service package no. 3	Unit	Price [€] (*)
DEMOLITION (F)		
Demolition, removal, dismantling of subsurface structures	€/m3	190,00
Transport to landfill and associated disposal costs	€/m3	26,50
LOT RESTORATION (G)		
Restoration of the lot by means of backfilling with suitable material	€/m3	27,50
AUTHORIZATION PROCEDURE, WORKS MANAGEMENT AND SUPERVISION (H)		
Authorization procedure, works management and supervision.	€	(**)

The prices contained in the table are derived from the "City of Milan Price List for the Execution of Public Works (January 2013)"

(*) to be calculated on the basis of documentation provided by the Participant.

(**) approximately 20% of total works cost, to be calculated on the basis of documentation provided by the Participant.

This table, including the service package items, is not intended to be exhaustive.

For additional items in the service packages, please consult the City of Milan Price List (January 2013)

4 DESIGN AND AUTHORIZATION PROCESS

Documents to be approved by the Organizer before starting the construction:

1. Theme Statement Application Form
2. Application for the Exhibition Space
3. Exhibition Project Application Form - Self-Built
4. Preliminary Design Application Form - Self-Built
5. Detailed Design Application Form - Self-Built

4.1 The Participation Contract

Theme Statement and Application for Exhibition Spaces:

Following the Official Confirmation and the appointment of the Commissioner General of Section, Official Participants are required to submit to the Organizer the [Theme Statement](#) and the [Application for the Exhibition Space](#). These documents, once approved, will be attached to the [Participation Contract](#).

4.2 The Design Process of a Self-Built Exhibition Space

Following the Participation Contract, the Participant can begin the design process of the Exhibition Space. The design approval is divided into three phases:

- Exhibition Project (EP)
- Preliminary Design (PD)
- Detailed Design (DD)

Exhibition Project

The Exhibition Project, as described in the Expo Milano 2015 Theme Guide, shall be a comprehensive participation proposal illustrating the architectural elements, installations, content and event programme that Participants will bring to the Expo. Conceived as an evolution of the Theme Statement, the Exhibition Project shall present the overall concept of the Exhibition Space and the participation in the Expo.

Official Participants planning to participate with a Self-Built Exhibition Space may submit the Exhibition Project to the Organizer either using the "Official Participants Exhibition Project Application Form - Self-Built" (available at p. 56 and on the PDMS) or an alternative format (e.g. text documents + sketches and renderings). Regardless of the format, Participants are expected to provide the Organizer with detailed information on all elements having an impact on the design of the Exhibition Space (see "Exhibition Plan", "Self-Built Details" in the Exhibition Project Application Form, p.56) before submitting the Preliminary Design, or, in any case, no later than the submission of the Preliminary Design.*

The Organizer will provide feedback on critical aspects of the Exhibition Project in a timely manner.

* The submission of the Exhibition Content shall be deferred to a later date, to be communicated by the Organizer and contingent to the release of subsequent guidelines.

Preliminary Design and Detailed Design

The Preliminary Design of the Exhibition Space defines the schematic design framework and the project configuration of the Participant Exhibition Space. The Detailed Design defines detailed instruction for the implementation of the project; the DD cannot be processed without the approval of the PD.

The contents for the PD and DD phases will be detailed in the following paragraphs. They must include:

- layout of the assigned lot: outdoor areas, landscaping, buildings;
- proposed use of the planned facilities;
- floor plans, elevations, sections;
- layout of indoor and outdoor exhibition design;
- preliminary underground and foundation plan for excavation;
- structure, decoration, descriptions and specifications of materials;
- utilities distribution and equipment;
- sustainability report;
- schedule of works, construction management plan;
- documents for fire prevention, accessibility, logistics, security, hygiene, and environmental protection;
- dismantle/removal plan;
- required certifications.

The technological component of the various infrastructures must be described in the project, as indicated in the Technological Services Guide.

Participants must employ professional organizations with appropriate professional qualifications as required by Italian laws as the agent entitled to obtain the approval construction permits and all other required licenses. The DD has to be certified by an entitled agent to be submitted for such approval.

The request for the approval of the PD and the DD must be submitted to the Organizer (ref. Forms, pages 58 and 59), through the Technical Office, with the whole documentation needed for the approval. Following a detailed analysis, the Organizer will send the Participant an official notification, with the necessary design instructions.

The Building Permit will be issued on the basis of the approved Detailed Design.

Further information about approvals and authorizations are contained in "Special Regulations no. 4".

Content and deadline of the Preliminary Design

As per Special Regulation no.4 and in consideration of the Expo Site timeline and construction management, **Participants must submit the PD at least 6 months prior to the beginning of works** (ref. Form, p.58). This is the key deadline to be kept in mind when designing and planning your Exhibition Space.

The contents – to be submitted to the Organizer together with the Application – must include:

- a. Descriptive documents
- Illustrative reports

b. Graphic materials

Representation of project (3D), Architectural plans (structures and open space), Lot setting, Plans, Elevations, Sections, Details and particulars, Pedestrian dynamic flow simulation

c. Technical documents

Works timeline, Technical report, Sustainability report, Construction and Logistics, Utility systems, Structures, Materials and finishes, Health, Safety and Environment Site restoration, Excavation management report

d. Fire Brigade

Fire prevention technical report, Graphic materials

The documentation shall be submitted through the Participants Digital Management System (PDMS) as well as in two complete hard copies.

Content and deadlines of the Detailed Design and issuance of the Building Permit

As per Special Regulation no.4, starting from 1 June 2013, the Organizer will communicate to each Official Participant the timeframe (3-month period) for the submission of the DD to the Organizer in view of obtaining the Building Permit (ref. Form, p.59), taking into account the date of submission of the PD and the expected construction starting date. The list of the documents - developed on the content of the Special Regulation no.4 - to be provided by Participants with the Detailed Design will be available on the PDMS in due course. The documentation shall be submitted through the Participants Digital Management System (PDMS) as well as in two complete hard copies

4.3 Conditions & Restrictions for Self-built Exhibition Spaces

Participants must observe the above-mentioned regulations, when designing and building their Exhibition Spaces. Exceptions can be granted following a detailed analysis of the specific Exhibition Project by the Organizer.

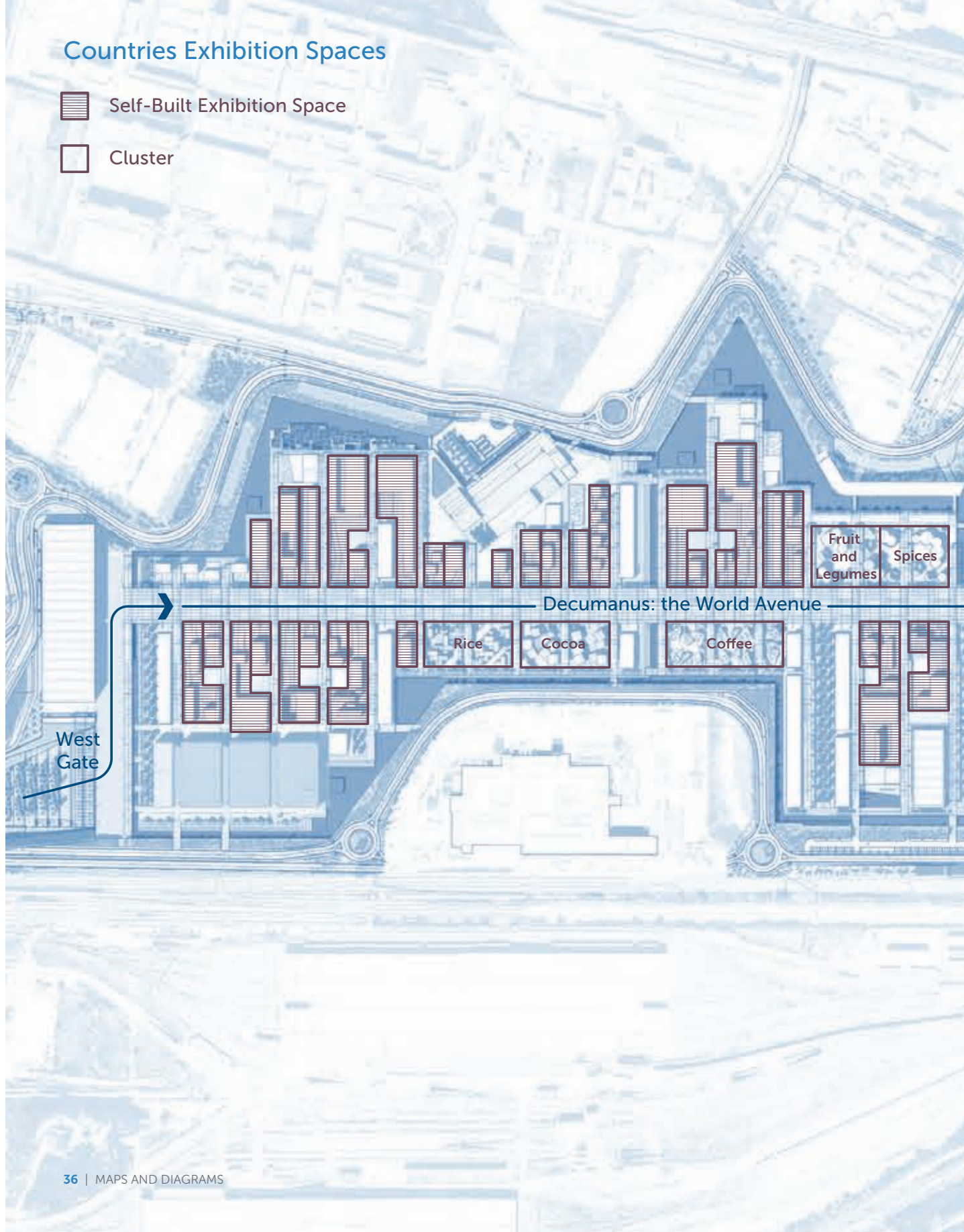
The Organizer will produce various documents to support Participants, providing instructions and recommendations concerning various aspects of the Expo. Among those:

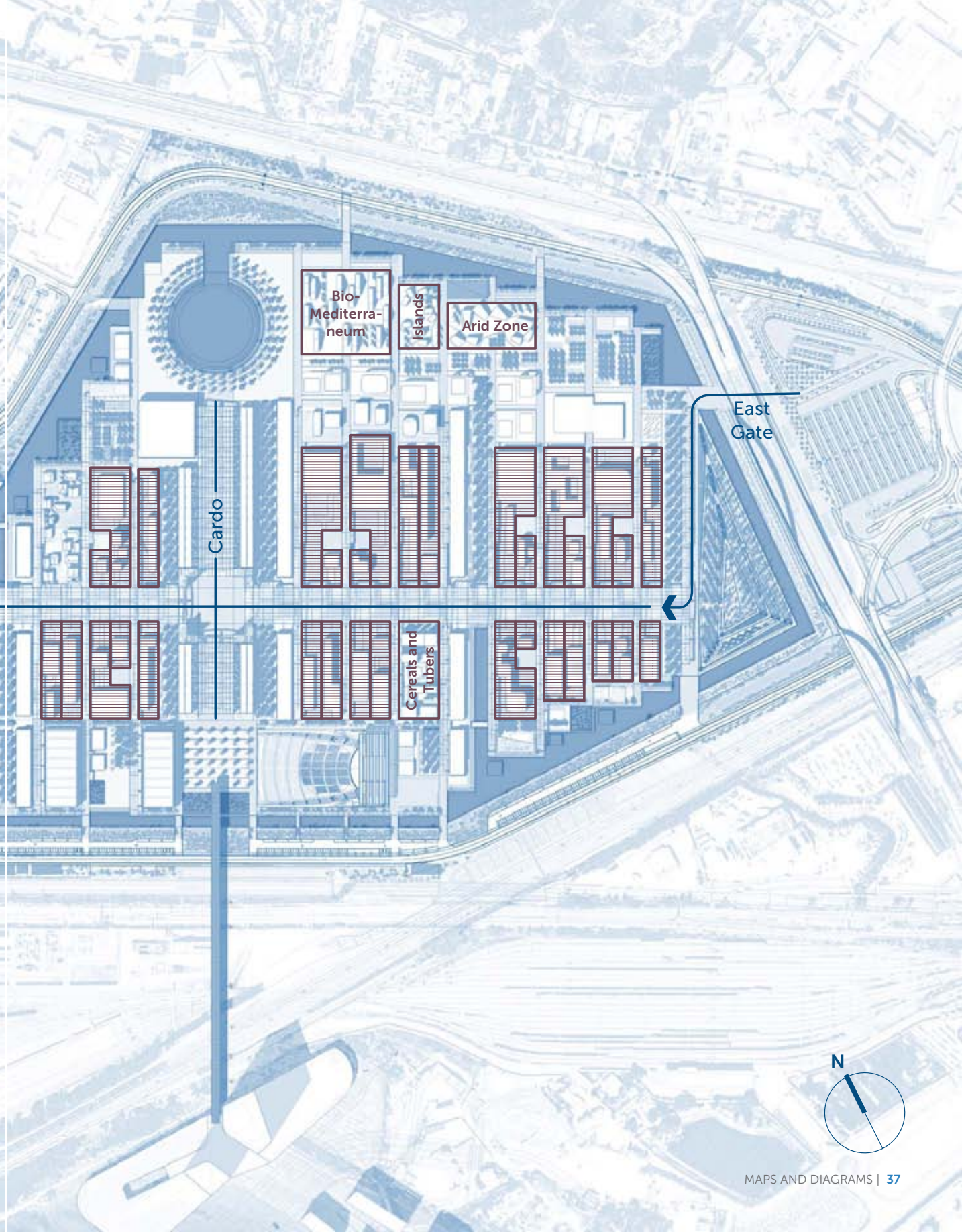
- Utility service and supply
- Food hygiene and safety
- Design standards for barrier-free facilities
- Construction management, safety and risk prevention
- Environmental protection
- Dismantling of exhibits and pavilions
- Environmental sanitation, public health and medical emergency

Please also refer to the Technological Services Guide for specific reference to the minimum set of services requested to Participants in their Exhibition Space (Basic package).

Countries Exhibition Spaces

- Self-Built Exhibition Space
- Cluster





Bio-Mediterraneum

Islands

Arid Zone

East Gate

Cardo

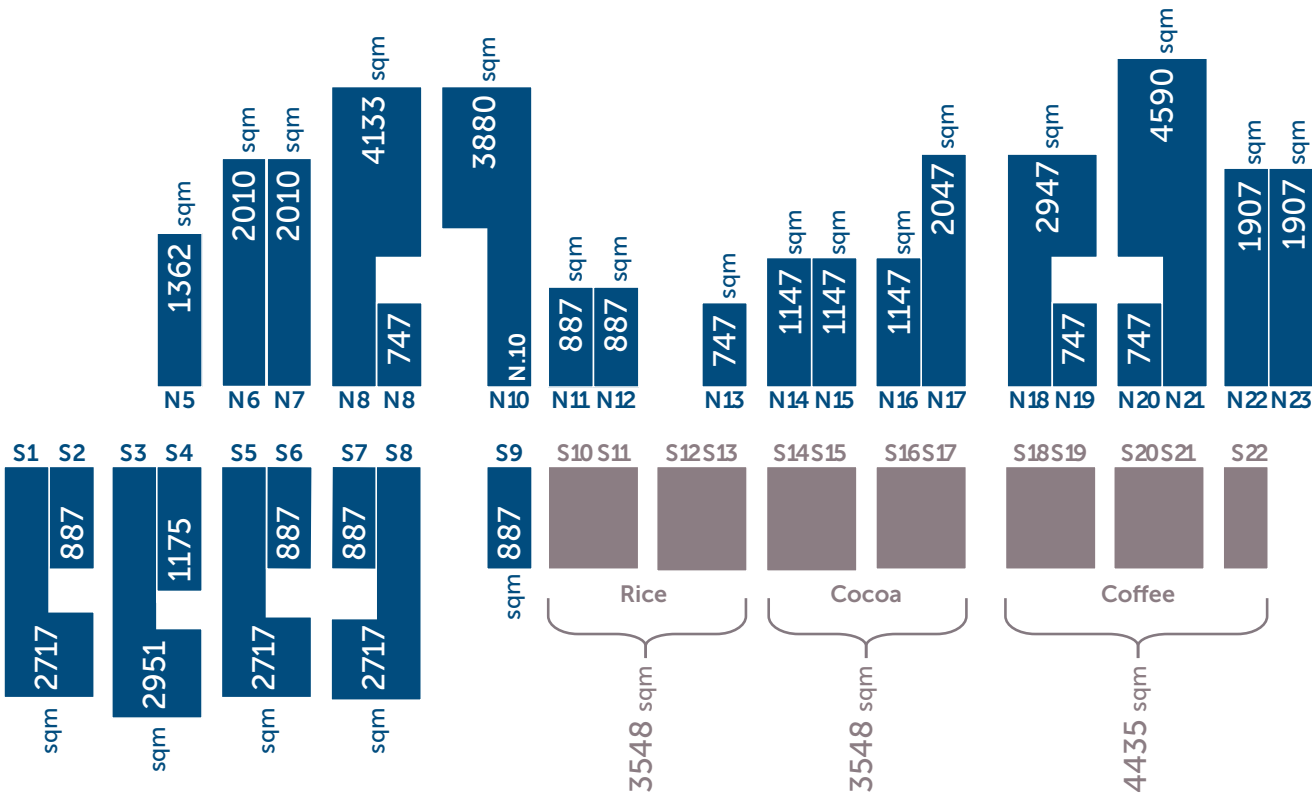
Cereals and Tubers

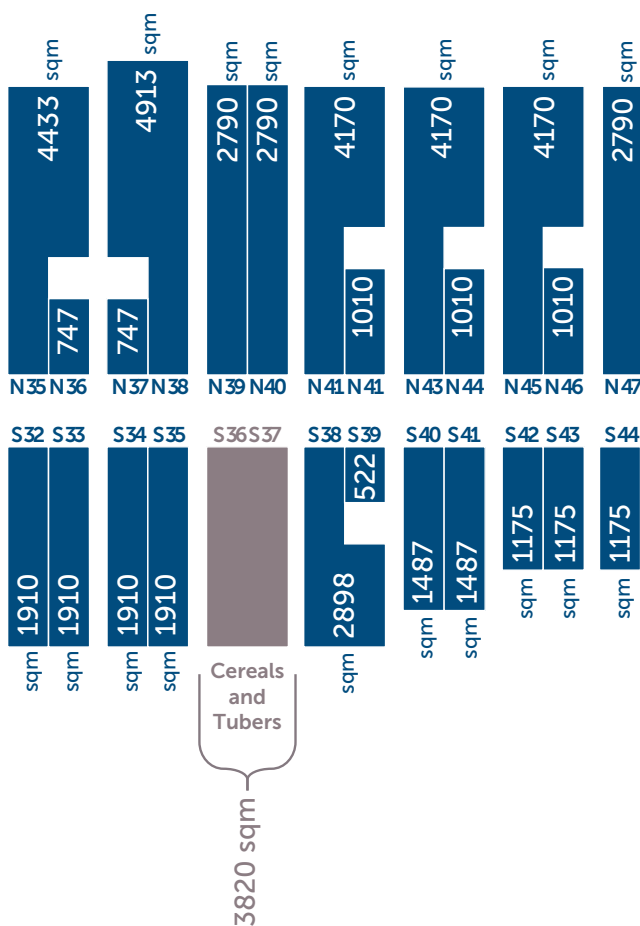
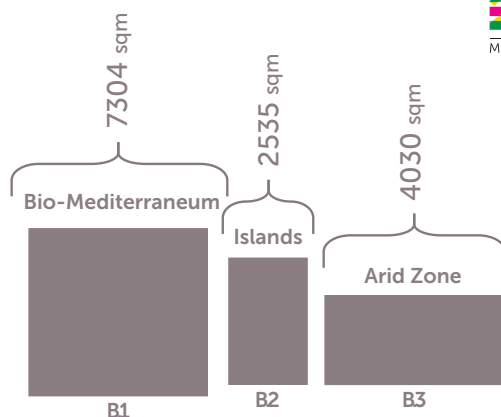
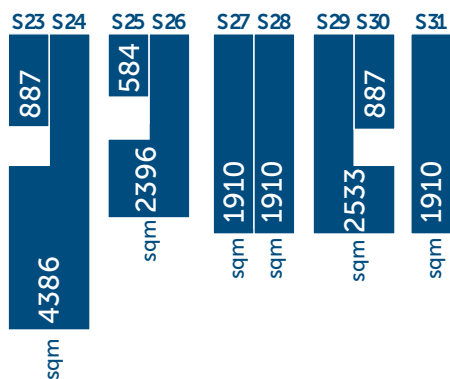
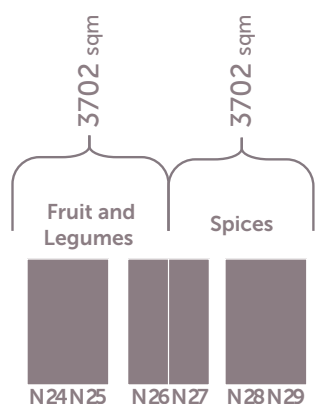


Countries Exhibition Spaces

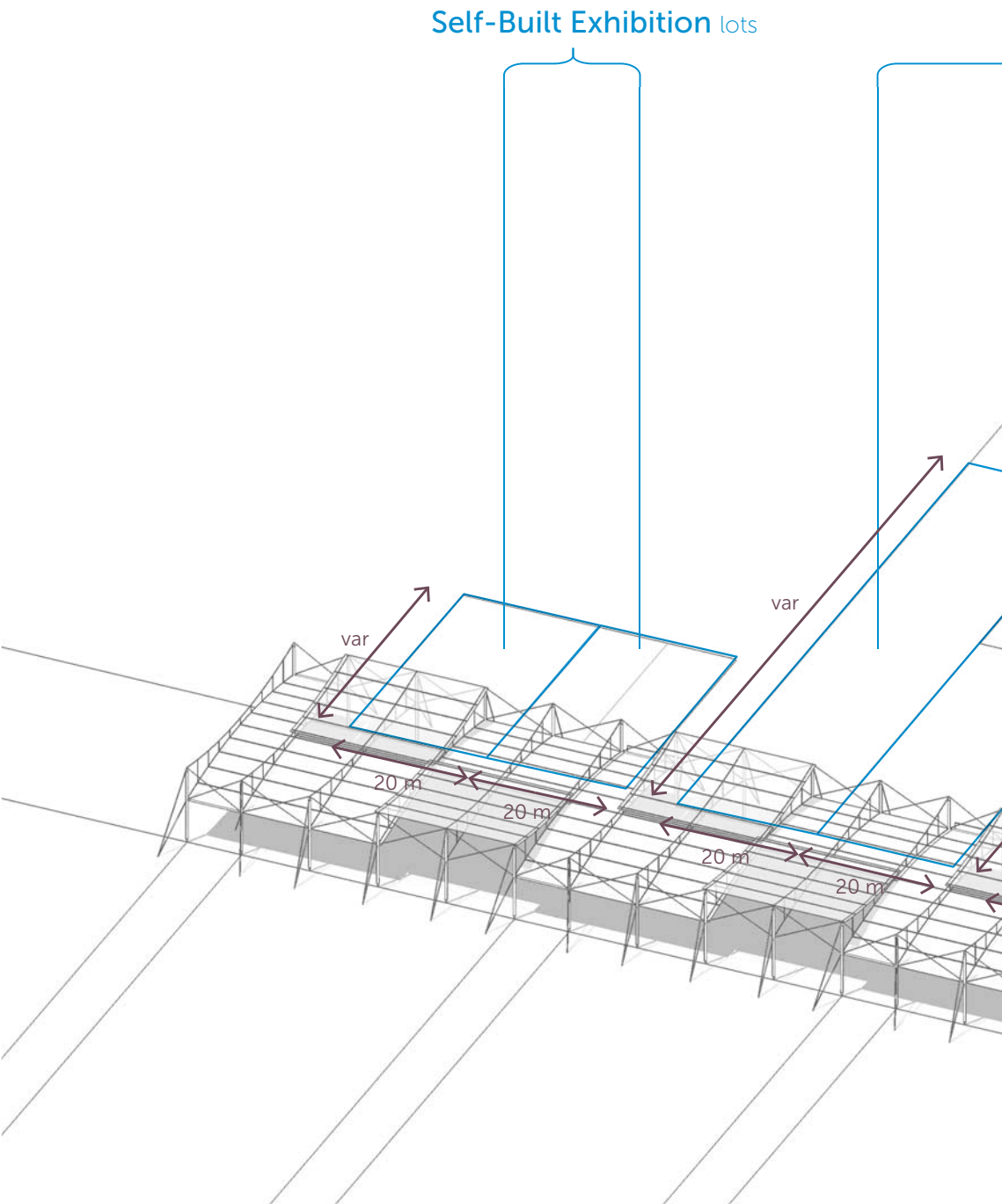
For information on availability of Lots please contact the Organizer

Clusters



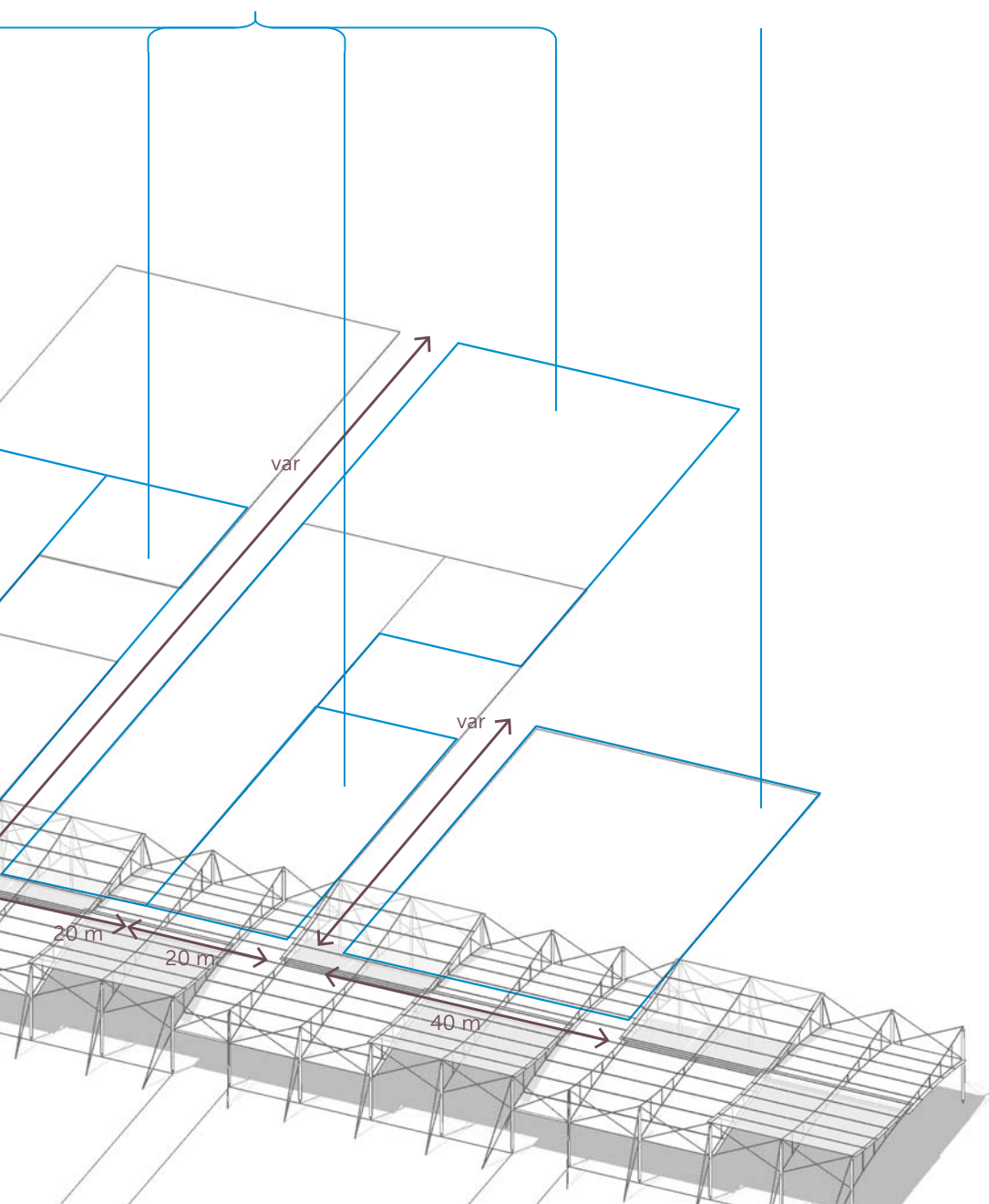


Exhibition Spaces - Dimension Comparison



Self-Built Exhibition lots

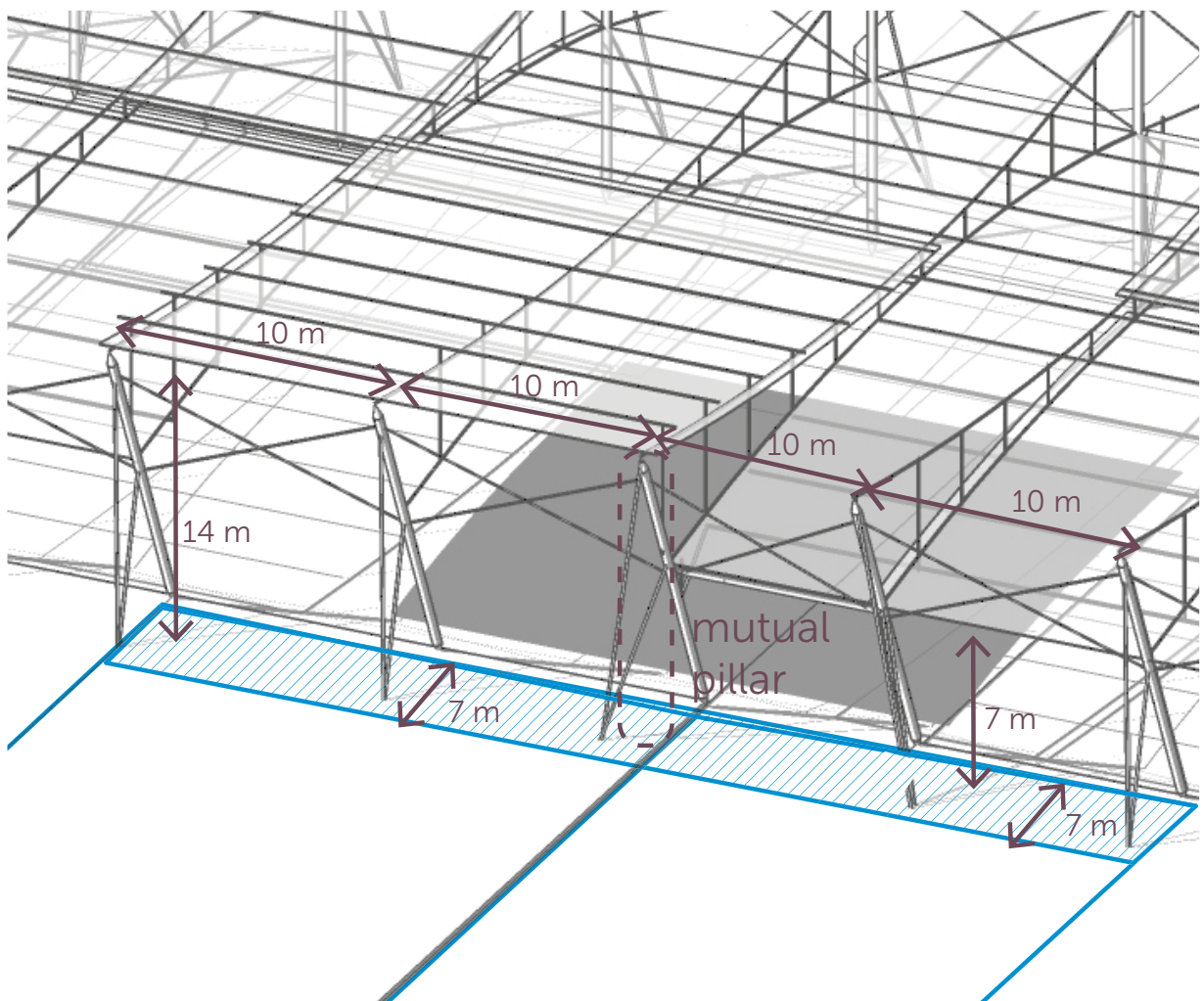
Cluster lot



Roofing Structure Scheme

In order to ensure sun and rain protection, the World Avenue is completely covered by a roofing structure. The tensile roof structure, composed by cables and pillars covered by a special membrane, is able to guarantee a high level of environmental comfort.

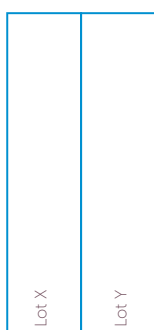
- Pillars are placed every **10 meters**, so that each individual Country lot has two pillars in front of its Exhibition Space on the side facing the Decumanus and one shared with the neighboring lot.
- The cable structures above ground are located in the first **7 meters** of the side facing the Decumanus.



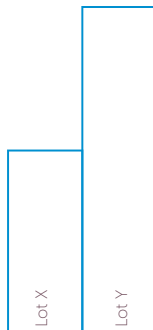


Scheme A lot arrangement **Scheme B** lot arrangement **Scheme C** lot arrangement

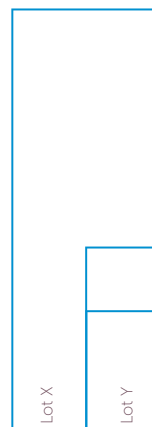
Countries Self-Built Exhibition Spaces are paired lots.



Scheme A
Lots with the same area



Scheme B
Lots with different area

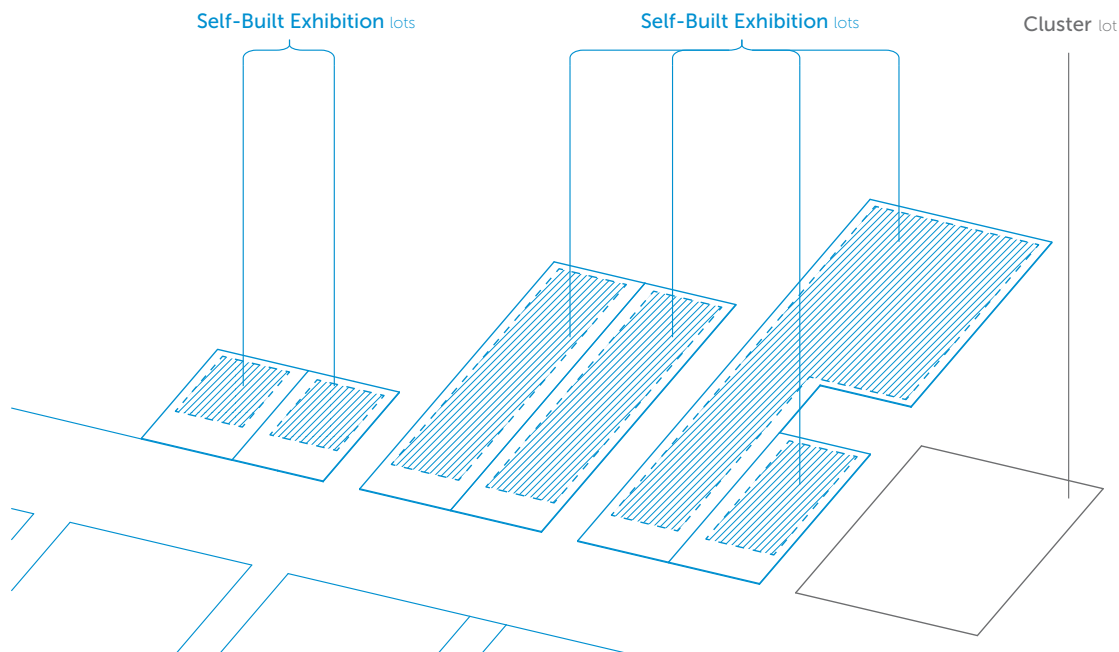


Scheme C
Lots with different area and shape.

Exhibition Spaces - Buildable Lot Areas

The Building Coverage or Lot Coverage (maximum of 70% of the Buildable Area) is an equal rule adopted for all the Official Participant lots.

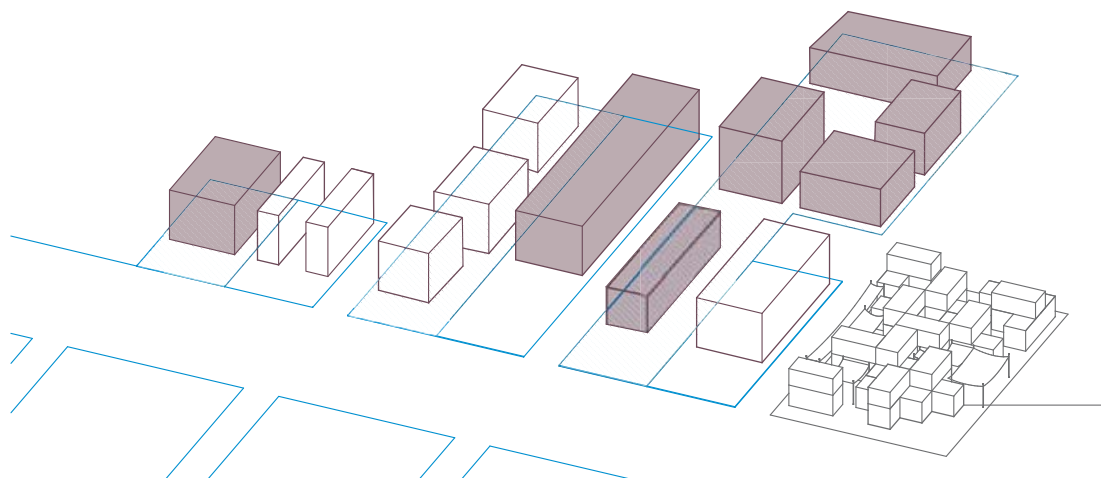
For each lot Building Coverage square meters will be clearly indicated in the Participation Contract.



Exhibition Spaces - Buildable Lot Volume

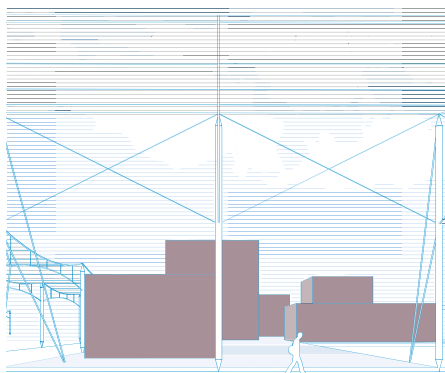
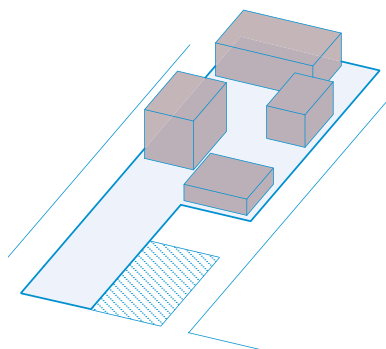
- Indoor Exhibition Space
- Open-air Exhibition Space

Cluster lot
individual participant space



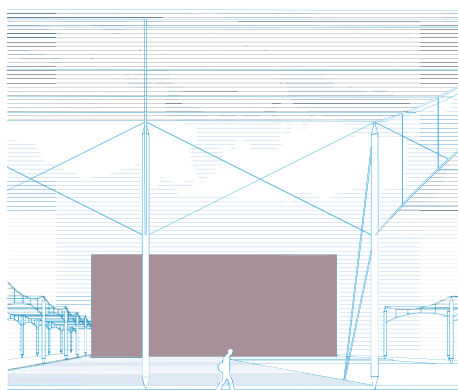
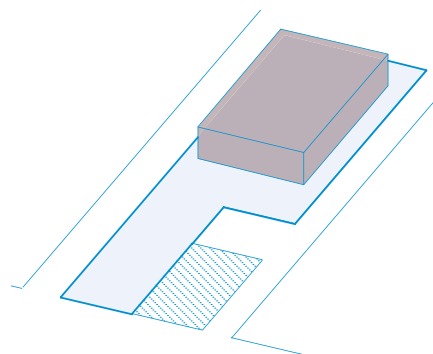
Volumetric Scenario A

The maximum buildable volume can be designed as a sequence of indoor and outdoor exhibition spaces. Therefore, it is possible to use the entire flooring area ratio available to build a fluid exhibition landscape with more than one building and flexible-flow layout in the outdoor area.

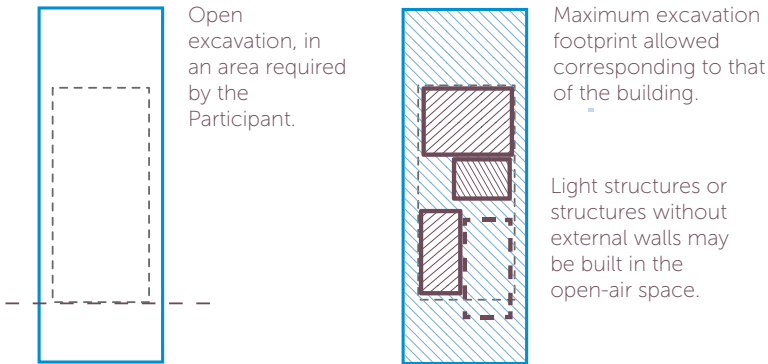
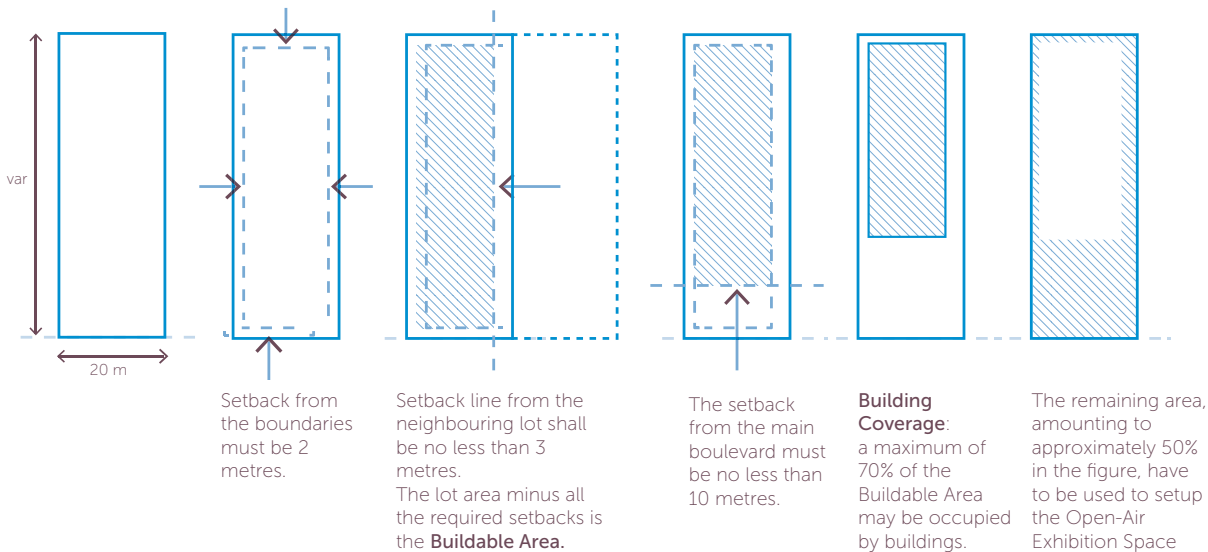


Volumetric Scenario B

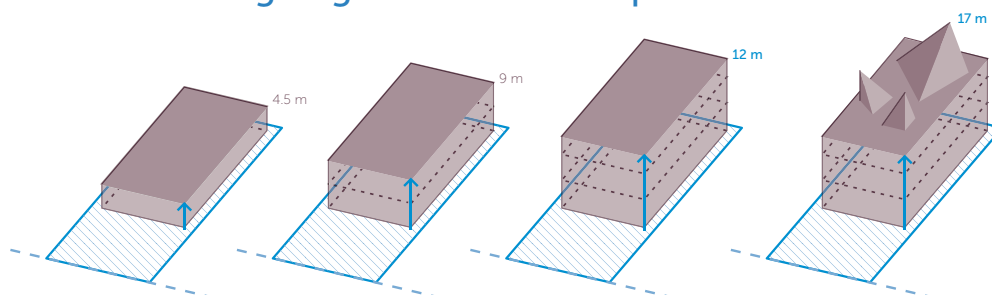
The lot can be designed as a traditional Expo pavilion, the volume available can be used to realize a single indoor exhibition space that must have a strong relation with the single open-air exhibition space.



Basic Rules to designing the Exhibition Space



Basic Rules to designing the Exhibition Space



Number of levels

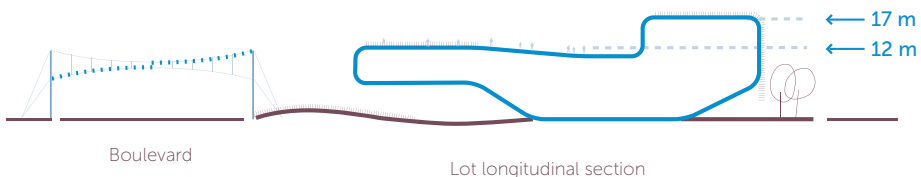
Participants are free to decide to build more than one level within the Building Coverage, according to:

- the maximum building height, fixed on 12 metres;
- 3 meters minimum floor-to-ceiling height for indoor spaces, referring to Italian laws and ordinances.



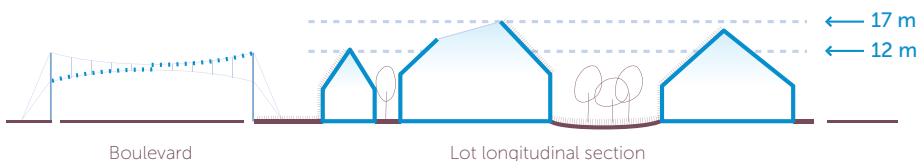
Building Height

The Building Height must be less than 12 metres. The height limit for any additional architectural elements (such as skylights, roof elements, vertical connections to the roof, sunscreen protections, signals...) is 17 metres.



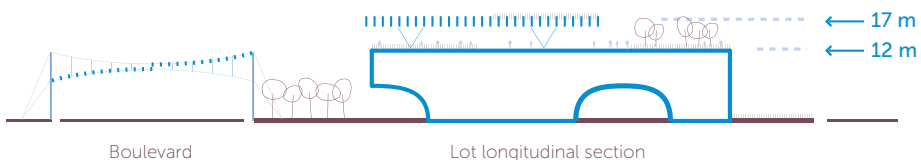
Building Height - Roof Design

Even if the buildable volume is split into more than one volume the height limit for parts or any architectural elements, portions of the building is 17 metres.

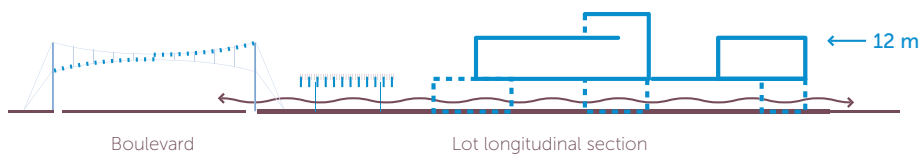


Roof Design

Buildings may have roof terraces for visitors. The greening rate of roofs shall not be lower than 50%. Rooftop facilities or structures must comply and integrated with the landscape design requirements of the rooftop.

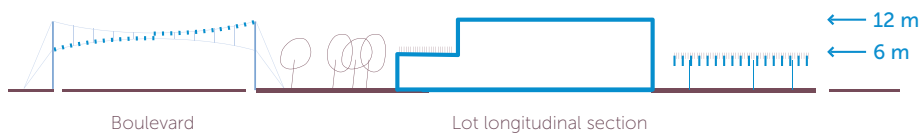


Basic Rules to designing the Exhibition Space



Permeability

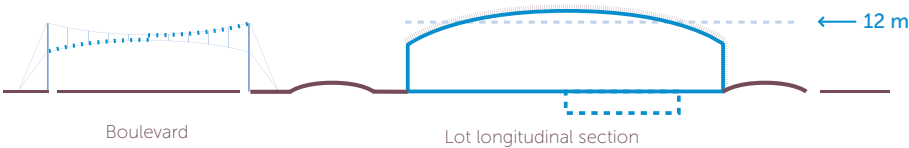
The indoor Exhibition Space must ensure the permeability of the indoor/outdoor exhibition system



Light structures

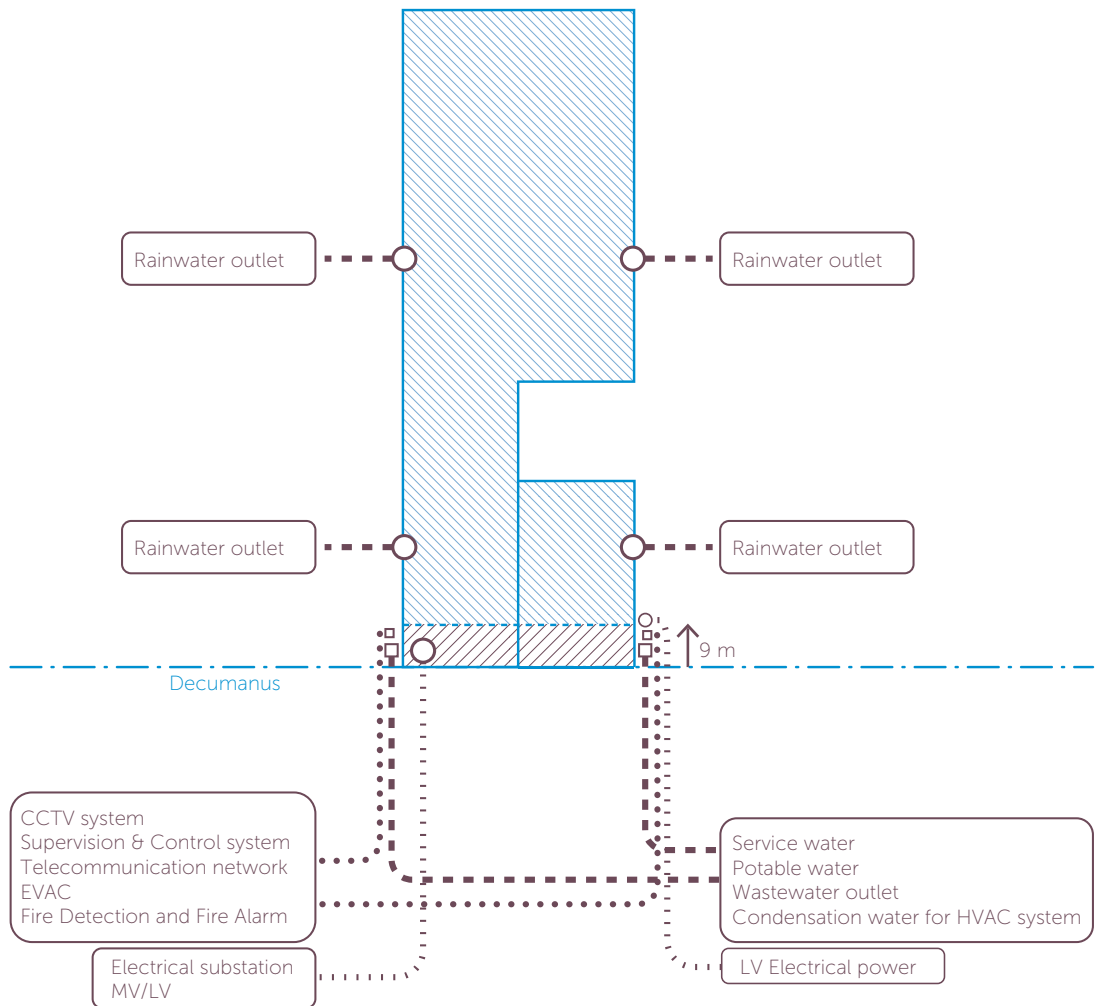
Roofs, awnings, canopies, greenhouses, and open-sided patio roofs can also be built.

These structures cannot be higher than 6 metres; structures may abut directly on squares, greens, streets and public spaces.



Subsurface Structures

Basement floors are not permitted. The construction of a technical room depends on the specific authorization by the Organizer.



Utility Systems Provided

The utility hook-ups provided by the Organizer will be located in an area within 9 metres from the main boulevard, with the exception of rainwater outlets.

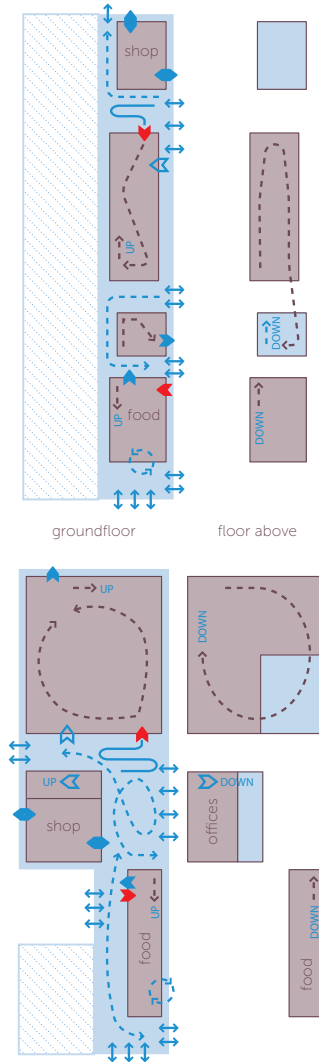
For each of the services mentioned above, the Organizer will set a **supply limit**. In case Participants need to go over the supply limit, they have to meet their extra supply needs through the usage of **appropriate ecologic and sustainable devices**.

Of course, within the supply limits also, Participants are encouraged to use ecological and innovative and more sustainable systems and devices wherever and whenever possible.

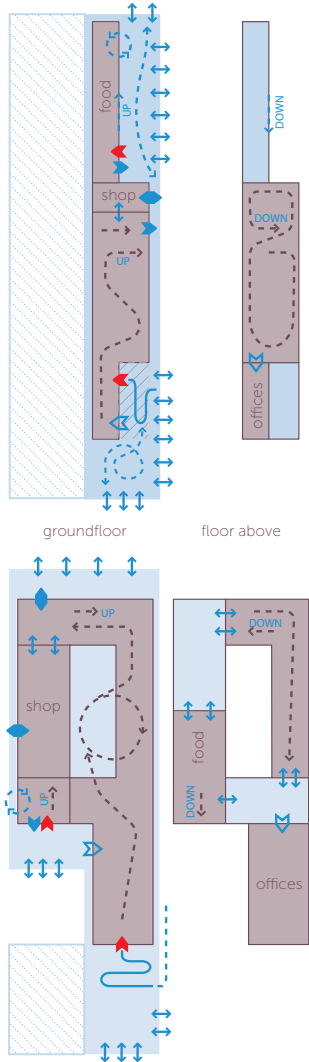
Pedestrian mobility - example lot plan diagrams



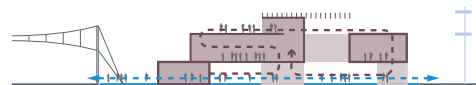
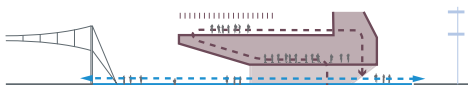
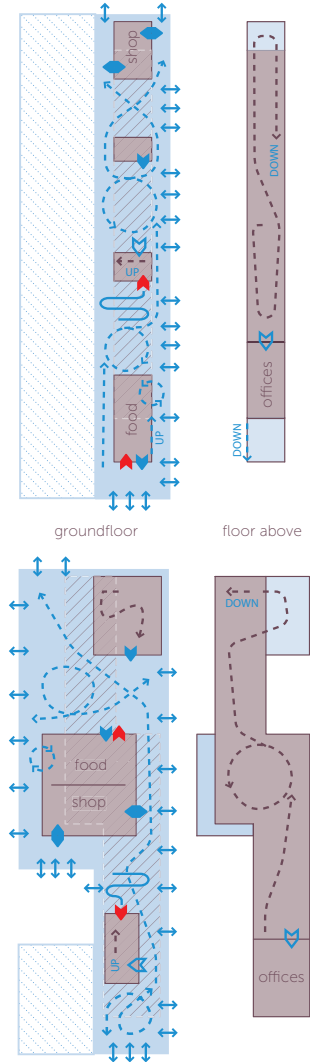
SCENARIO A: multi-building scenario with a fragmented exhibit spaces



SCENARIO B: single-building scenario with a continuous exhibit spaces









HYBRID SCENARIO continuous & fragmented







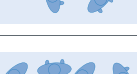

Level of Service in pedestrian paths and exhibit areas

Except in special circumstances, the crowd level indicator should **not exceed D-level** or a restrictive fire laws level.

LEVEL OF SERVICE	Flow features	Pedestrian space [sqm/ped]	Pedestrian flow [ped/min/m]	
A	Free	> 5.6	≤ 16	
B	Free less space	5.6 - 3.7	16 - 23	
C	Stable	3.7 - 2.2	23 - 33	
D	Conditioned	2.2 - 1.4	33 - 49	
E	Forced	1.4 - 0.75	49 - 75	
F	Jam	≤ 0.75	variable	

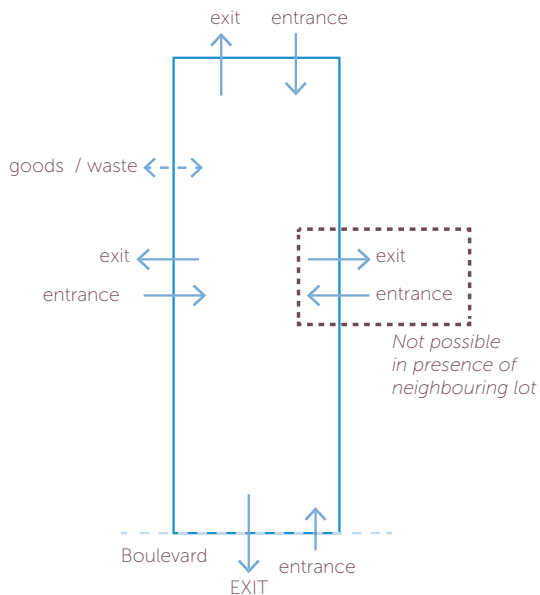
Level of Service in pedestrian waiting/queueing area

Except in special circumstances, the crowd level indicator should **not exceed D-level** or a restrictive fire laws level.

LEVEL OF SERVICE	Pedestrian space [sqm/ped]		
A	> 1.20	You can move in the waiting area without disturbing the people standing in the queue	
B	1.20 - 0.90	Although the space available is less, it is still possible to cross the area without disturbing standing people	
C	0.90 - 0.60	At this level of service can happen to disturb some waiting pedestrians. However, the density in the waiting area guarantees still personal comfort.	
D	0.60 - 0.30	It is impossible to wait without interfering with other people; circulation within the area is heavily restricted and crossing is only possible in a group. Density causes discomfort.	
E	0.30 - 0.20	It's inevitable physical contact with other pedestrians; circulation within the area is impossible. This density cannot be sustained for long without serious discomfort.	
F	≤ 0.20	All people in the waiting area are in physical contact. Density gives a sense of extreme discomfort and people cannot move. There is the possibility of panic.	

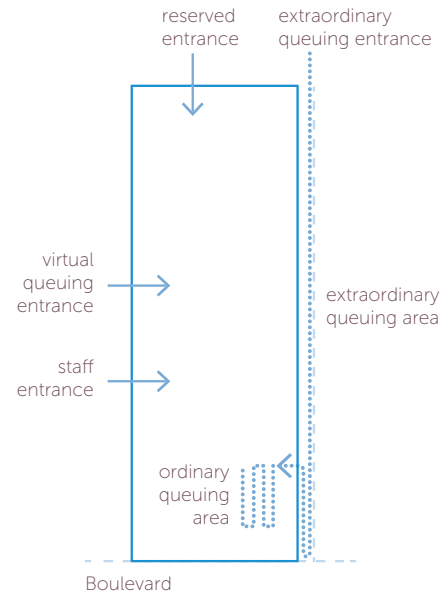
data processed from: AA.VV., *Highway Capacity Manual*, National Research Council, Washington D.C., 2000

Entrance and Exit - Queue Management



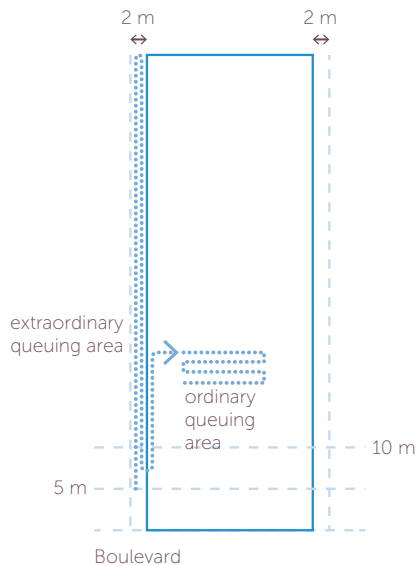
Entrances and Exits

Multiples entrances and exits may be placed on each free side of the lot. It is preferred to have only exit onto the main boulevard. If a main entrance is planned onto the Decumanus, the queuing area must not occupy or overflow the Decumanus.



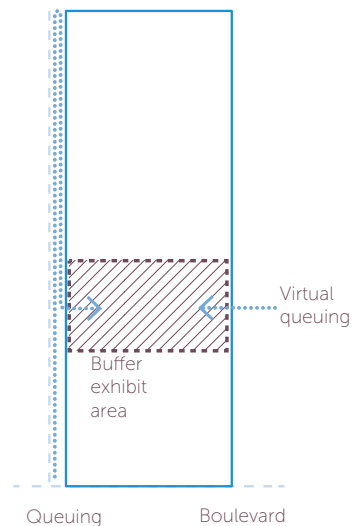
Types of Entrances

Entrances should be differentiated on the basis of user type. The ordinary queuing area must be accommodate inside the lot.



Extraordinary queuing

The ordinary queuing area must be accommodate inside the lot. An extraordinary queuing area outside the lot must not exceed 2 metres of the secondary path width. The queue length must not exceed the lot length.



Buffer exhibit area

A buffer exhibit area should be planned to accomodate and welcome different types of visitors.

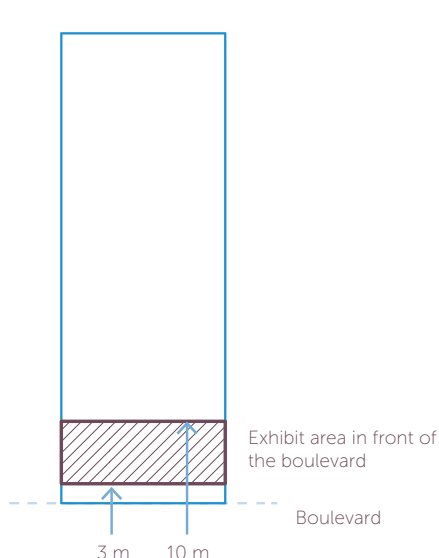
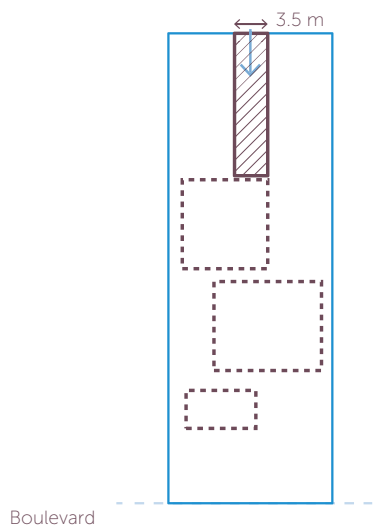


Exhibit area in front of boulevard

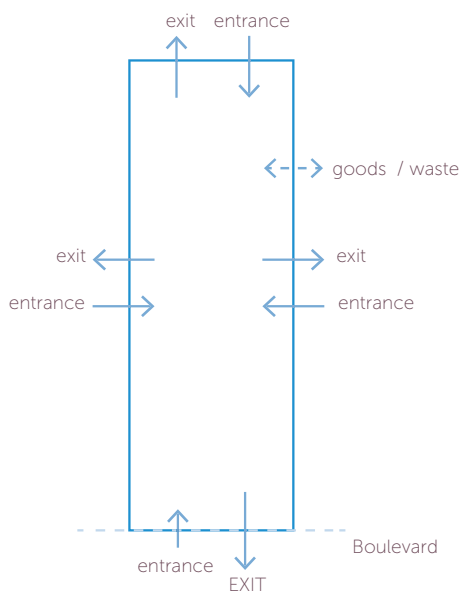
In the 10 meters setback area, it is possible to have one or more attractions visible from the Decumanus if a free area inside the lot is dedicated to accommodate visitors so that the movement of pedestrians along the Decumanus is not hindered.



Fire lane

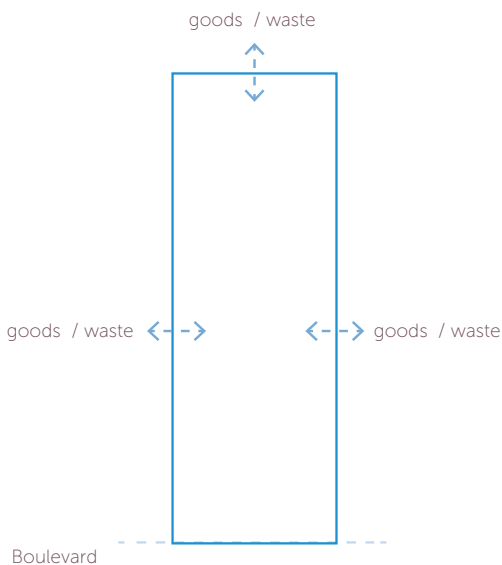
A 3.5 meters fire department access will be part of the green and open areas of each lot, and shall be constructed on an all-weather driving surface (e.g. paving or grass paving grid) capable of supporting fire department vehicles.

Entrance and Exit - Logistic Management



Day scenario

During opening hours it is possible to have only one gate dedicated to goods and waste management.



Night scenario

Except the Decumanus gate, during the night (closing hours) all gates can be used for delivery of goods and removal of waste.

APPLICATION FORMS



Dear Participants, in the following pages you can find the Facsimile Application Form for Self-Built Exhibition Space :

- Application Form for Self-Built Exhibition Space Lot Request
- Exhibition Project Application Form - category: Self-Built
- Request for Construction Support Services
- Application for Approval of the Preliminary Design
- Application for Approval of the Detail Design and Building Permit

Participant can download all the original and updated application and authorization forms in the Participants Digital Management System, PDMS. Participants are kindly asked to complete the forms detailing as much information as possible.

Note: For additional information regarding the PDMS, please refer to the International Participants Guide.

Application Form for Self-Built Exhibition Space Official Participants

Name of Official Participant	
Date of Participation Notification	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>
Date of Application (submission)	<div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; display: inline-block;"></div>
Type of Exhibition Space	Self-built Exhibition Space
Requested Lot	<div style="border: 1px solid black; height: 40px;"></div>
Size	<div style="border: 1px solid black; height: 40px;"></div>
Participant Comments	<div style="border: 1px solid black; height: 70px;"></div>
Applicant's Contacts	
Name	<div style="border: 1px solid black; height: 20px;"></div>
Address	<div style="border: 1px solid black; height: 20px;"></div>
Telephon	<div style="border: 1px solid black; height: 20px;"></div>
E-mail	<div style="border: 1px solid black; height: 20px;"></div>
Fax	<div style="border: 1px solid black; height: 20px;"></div>
Commissioner General of Section (signature)	<div style="border: 1px solid black; height: 30px;"></div>
Organizer's Notes	<div style="border: 1px solid black; height: 70px;"></div>

Before submitting the Application Form please check the availability of Lots with the Organizer.

Official Participants Exhibition Project Application Form - Self-Built

Name of Official Participant			
Date of submission of the Theme Statement			
Date of Application (submission)			
Theme of Participation			
Exhibition Plan			
Architectural Project			
Technology Plan			
Sustainability			
Open Spaces			
Post-event Reuse of Exhibition Facilities			
Exhibition Content*			
Self-Built Details			
Projected Construction Starting Date			
Preliminary Construction Budget			
Special Requests			
Commissioner General of Section (signature)			

(*) The submission of the exhibition content shall be deferred to a later date to be communicated by the Organizer and contingent to the release of subsequent guidelines.

Request for Construction Support Services Self-Built Exhibition Space

Name of Participant

Lot number

Date of Application (submission)

Projected Construction Starting Date of Participant Exhibition Space

Services Packages

Service Pack 1 ☐

Service Pack 2 ☐

Service Pack 3 ☐

Service package no.1

Excavation work

- ☐ Authorization procedure and works management
- ☐ Worksite enclosures
- ☐ Excavation work
- ☐ Earthmoving

Service package no.2

Excavation and foundation work

- ☐ Authorization procedure and works management
- ☐ Worksite enclosures
- ☐ Excavation work
- ☐ Earthmoving
- ☐ Subsurface civil works (foundations)

Service package no.3

Removal of works and restoration of lot

- ☐ Authorization procedure and works management
- ☐ Demolition, removal and dismantling of subsurface structures
- ☐ Lot restoration

Participant Request, specifications and Comments

Participant/authorized proxy (signature)

Application for Approval of the Preliminary Design

Self-Built Participant Exhibition Space

ref. Art. 13 Special Regulation. 4 - "Application for Approval of the Preliminary Design"

Name of Official Participant

Lot number

Participant declares:

cognizant of the civil and criminal penalties provided for in Italian law
(Art. 76, D.P.R. n. 445 of 28 December 2000 and Art. 21, L. n. 241 of 7 August 1990) in the event of false statements:

DEVELOPMENT OF SELF-BUILT EXHIBITION SPACE

The Participant intends to entrust the project to (Qualified Technician): _____

THE QUALIFIED TECHNICIAN DECLARES

that the project complies with the relevant Italian laws in force, with the General Regulations, the Special Regulations, the relevant laws and ordinances of Italy, and the supplementary instructions, directives and Guidelines issued by the Organizer and attaches the following compulsory supporting documentation:

- a. Descriptive documents
 - ☐ Illustrative report
- b. Graphic materials
 - ☐ Representations of project (3D and renderings)
 - ☐ Architectural plans (structures and open space) and exhibition set-up
 - ☐ Lot setting
 - ☐ Plans 1:200
 - ☐ Elevations 1:200
 - ☐ Sections 1:200
 - ☐ Pedestrian dynamic flow simulation
- c. Technical documents
 - ☐ Technical report
 - ☐ Utility systems
 - ☐ Structures
 - ☐ Materials and finishes
 - ☐ Sustainability report
 - ☐ Health, Safety and Environment
 - ☐ Dismantling and Site restoration
 - ☐ Excavation management report (if Construction Support Service Package 1 or 2 was not signed)
 - ☐ Fire Brigade
 - ☐ Fire prevention technical report
 - ☐ Graphic materials
 - ☐ Construction phases
 - ☐ Works timeline
 - ☐ Logistics graphic materials

The documentation shall be submitted through the Participants Digital Management System PDMS, in digital format (pdf, xls, dwg, doc) and 2 hard copies.

Qualified Technician (signature)

Date of Application (submission)

Milan,

Commissioner General of Section / authorized proxy (signature)

Participant Comments

Request for authorization to initiate work of the temporary Self-Built Participant Exhibition Space

ref. Art. 14 Special Regulation. 4 "Application for Approval of the Detailed Design and Building Permit"

Name of Official Participant

lot number

Commissioner General of Section

or authorized proxy (the use of a proxy is optional)

Participant requests:

☐ Authorization to undertake the temporary works necessary to build the self-built exhibition space of the Expo Milano 2015 Participant;

or

☐ Authorization to undertake works representing a variant of the authorized project; declaring that with respect to the authorized project, said works do not represent:

1. a greater fire risk (Art. 4, subsection 7, D.M. 7.8.2012)
2. a modification of the building footprint or position
3. a modification of the height or volume of the buildings
4. a modification of the building silhouette.

WORKS MAY NOT BEGIN BEFORE THE AUTHORIZATION IS ISSUED

Participant declares:

cognizant of the civil and criminal penalties provided for in Italian law
(Art. 76, D.P.R. n. 445 of 28 December 2000 and Art. 21, L. n. 241 of 7 August 1990) in the event of false statements:

part A_ OWNERSHIP

Participation Contract signed on

Participant (signature)

part B_ DEVELOPMENT OF PLAN FOR SELF-BUILT EXHIBITION SPACE

The Participant intends to entrust the project to (qualified technician): _____

THE QUALIFIED TECHNICIAN DECLARES that the project complies with the relevant Italian laws in force and attaches the following compulsory supporting documentation: _____

The documentation shall be submitted through the Participants Digital Management System PDMS, in digital format (.pdf, .xls, .dwg, .doc) and 2 hard copies.

Qualified Technician (signature)

part C_ ENVIRONMENTAL PROVISION

THE QUALIFIED TECHNICIAN DECLARES complies with "Laws and Regulation"

Qualified Technician (signature)

part D_ WORK EXECUTIVE PHASE

The PARTICIPANT intent to entrust the supervision and execution of works to:

DIRECTOR OF WORKS: _____

Director of Works (stamp and signature)

CONTRACTOR OF WORKS: _____

Contractor of Works (stamp and signature) or Participant

Participant (signature)

part E_ TESTING

Participant (signature)

The Participant also declares:

- to be cognizant of the fact that the following information, taken together, constitutes notification of initiation of proceedings;
- that the approval or rejection of the request will be communicated to the requester, per Special Regulation no. 4, within 60 days of the date of submission of the request

Participant (signature)

Date of Application (submission)

Milan,

Participant / authorized proxy (signature)

Participant Comments

Legal abbreviation and acronyms



L. (Legge - Law)

D.L. [Decreto Legge – Law Decree]

D.Lgs. [Decreto legislativo – Legislative Decree]

D.M. [Decreto ministeriale – Ministerial Decree]

D.P.R. [Decreto del Presidente della Repubblica – Presidential Decree]

L.R. Lombardia [Legge Regionale, Regione Lombardia – Regional Law, Lombardy Region]

D.P.G.R. Lombardia [Decreto del Presidente della Giunta Regionale Lombarda - Decree issued by the Chairman of the Regional Committee -Lombardy Region]

D.G.R. Lombardia [Deliberazione della Giunta Regionale, Regione Lombardia - Regional Committee Resolution, Lombardy Region]

V.I.A. [Valutazione di Impatto Ambientale - EIA Environmental Impact Assessment]

s.m.i. [successive modifiche e integrazioni – subsequent amendments]

