

EXPO 2015 S.p.A.

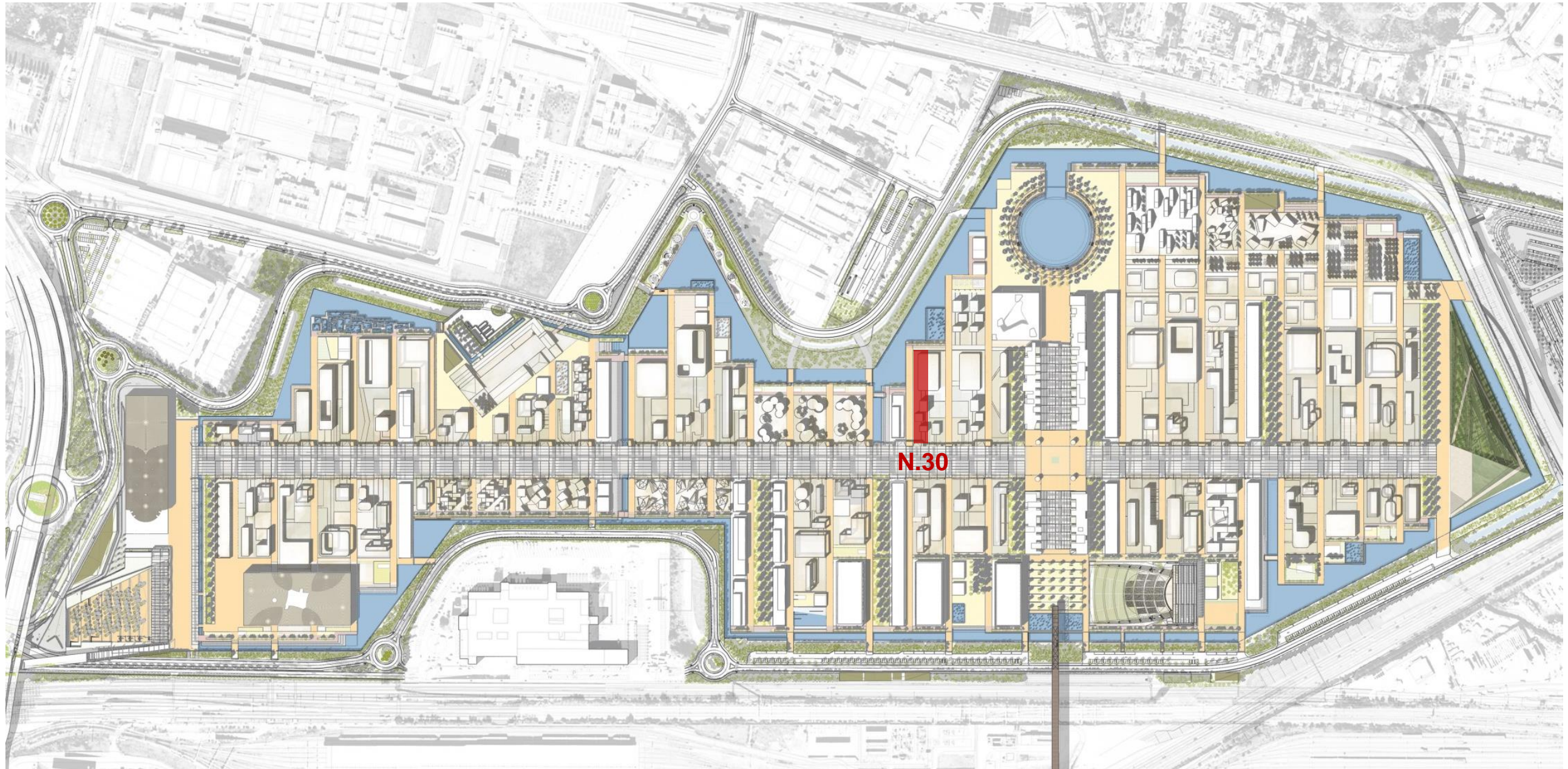
Participation of Polonia at Expo Milano 2015

February 2014



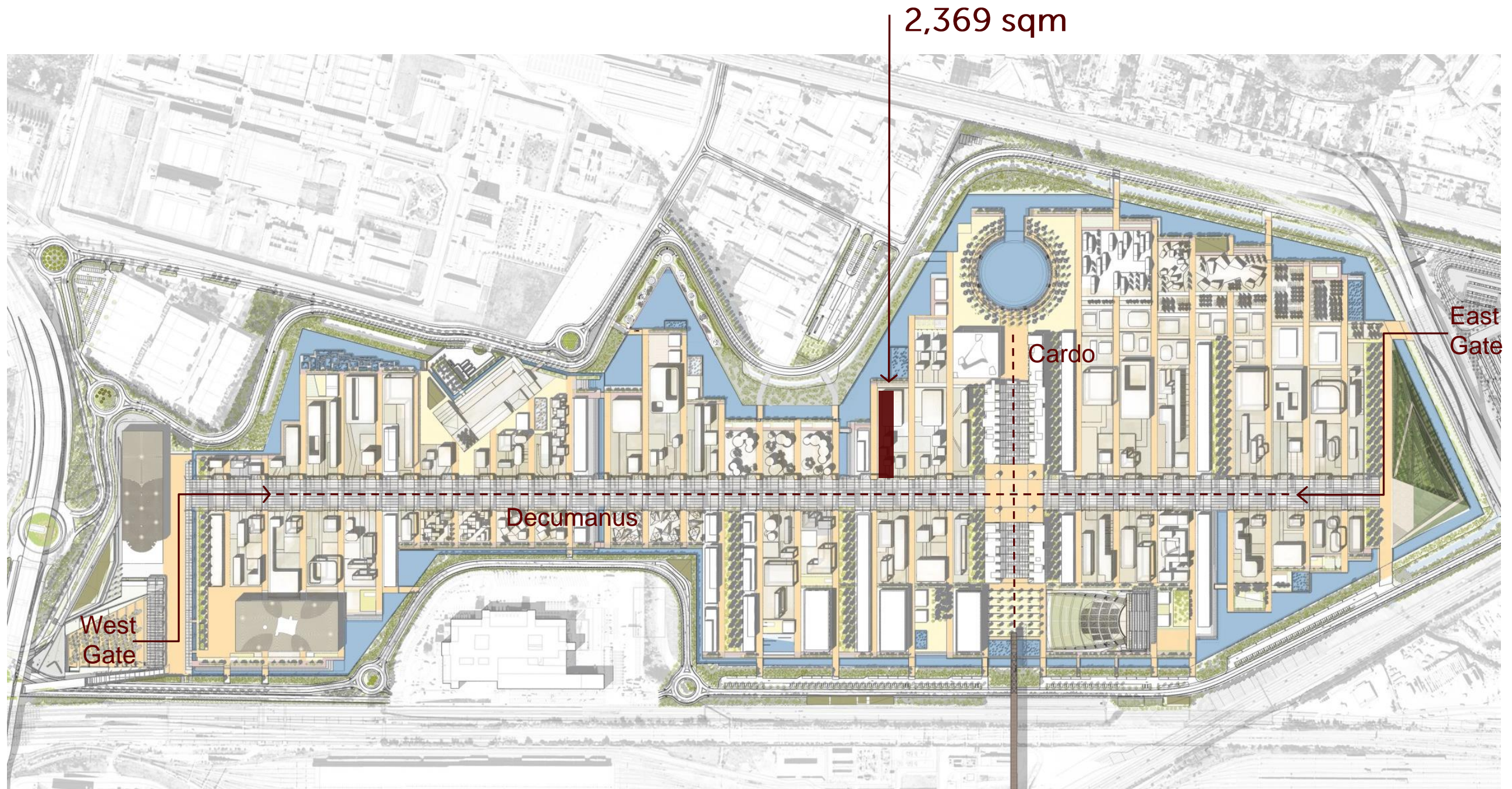
Location in the Expo Site

Suggested placement: LOT N30



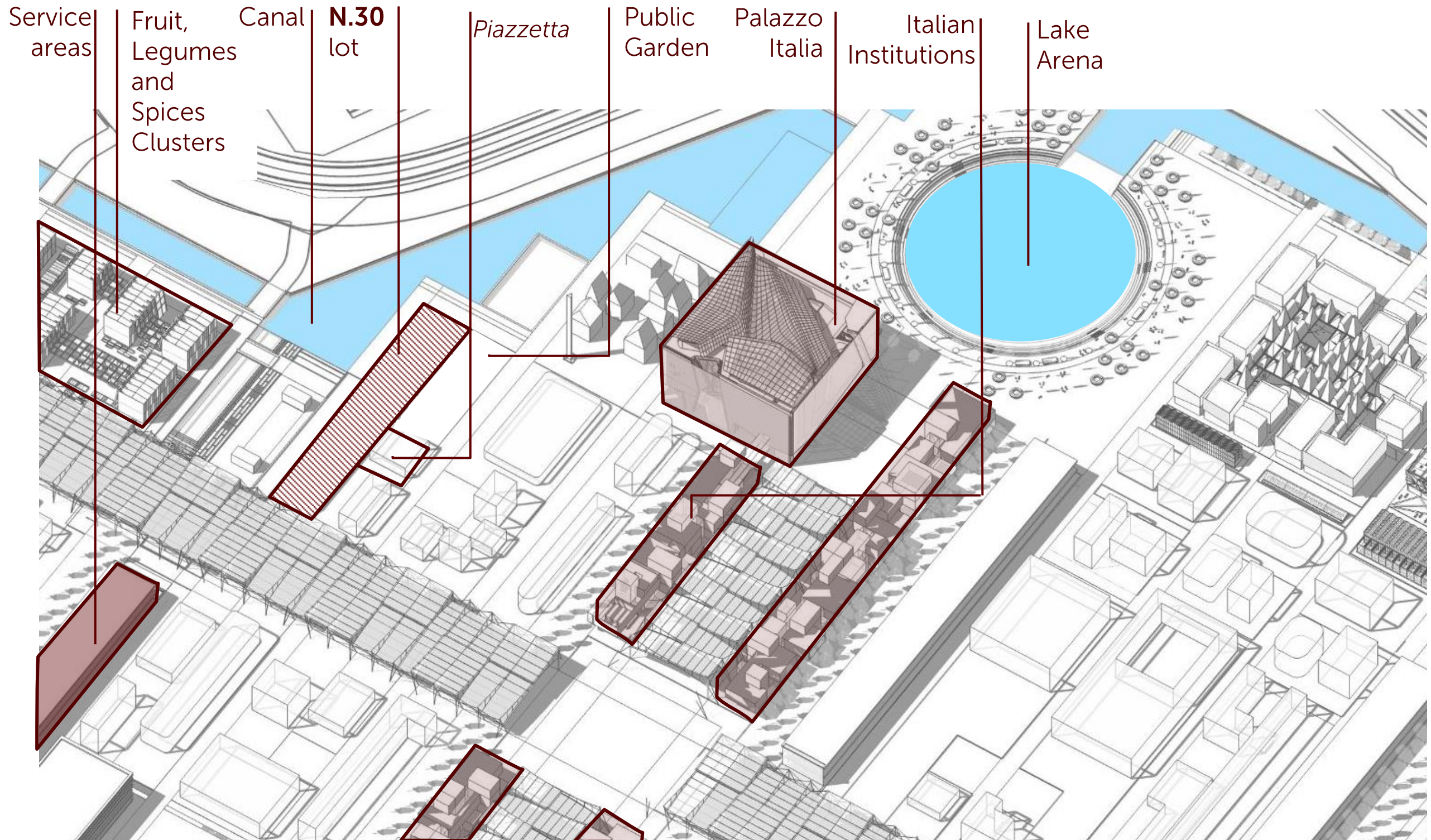
Location in the Expo Site

The lot N.30 is located close to the Italian Participation.



Location in the Expo Site

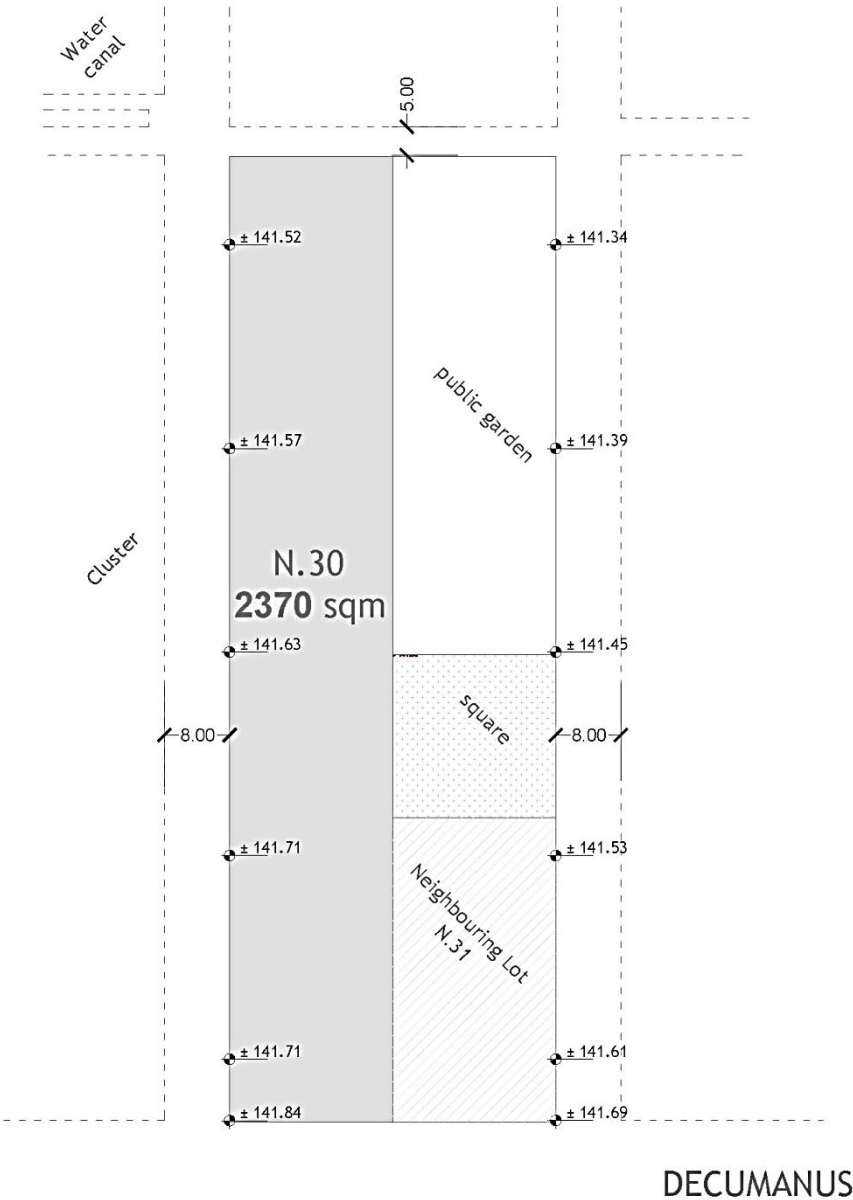
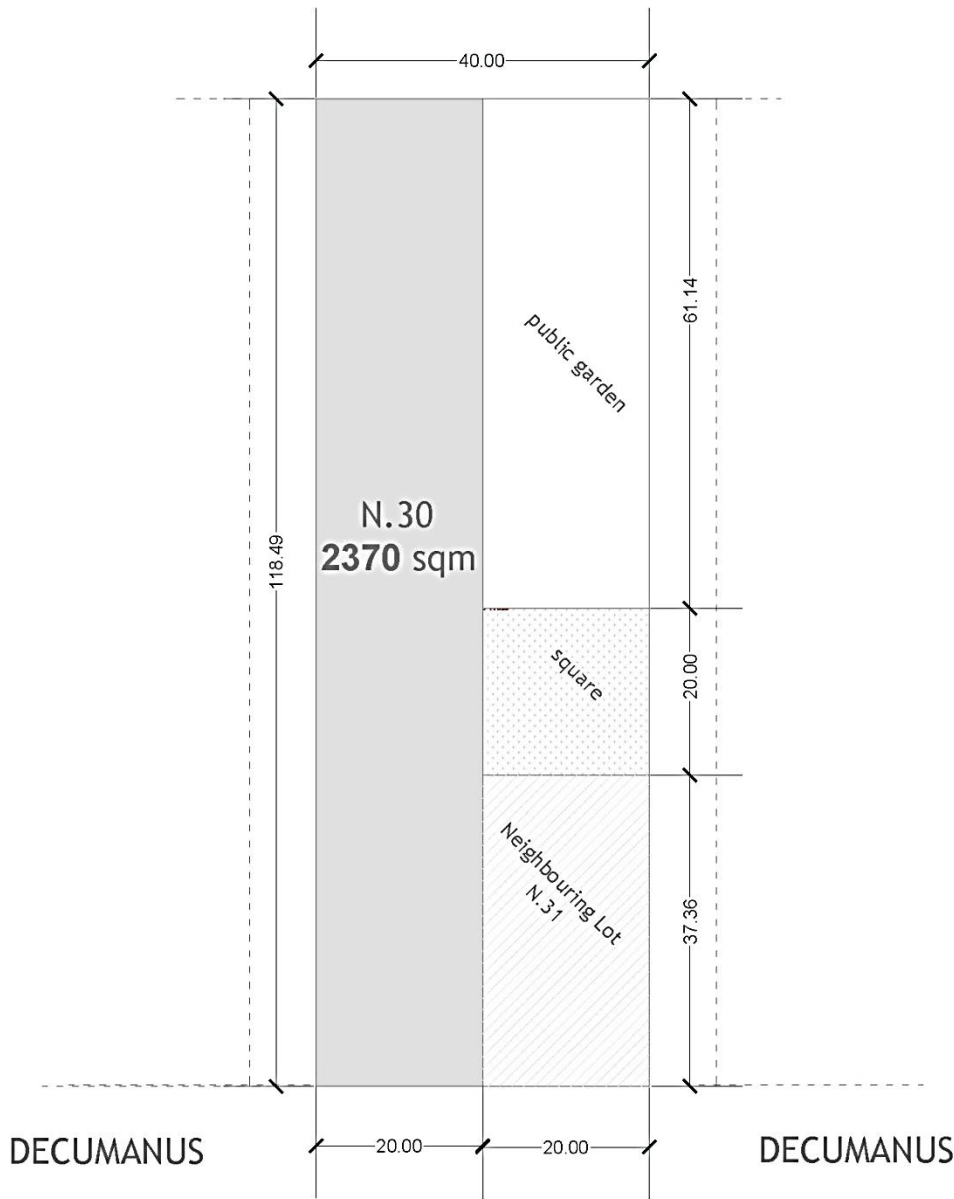
Nearby to the lot N.30 are located Palazzo Italia, the space for Italian Institutions, the Lake Arena, and Piazza Italia.



Lot number - N.30

Lot Surface* – Lot Dimensions

Surface Levels



* Rounded value ± 0.5

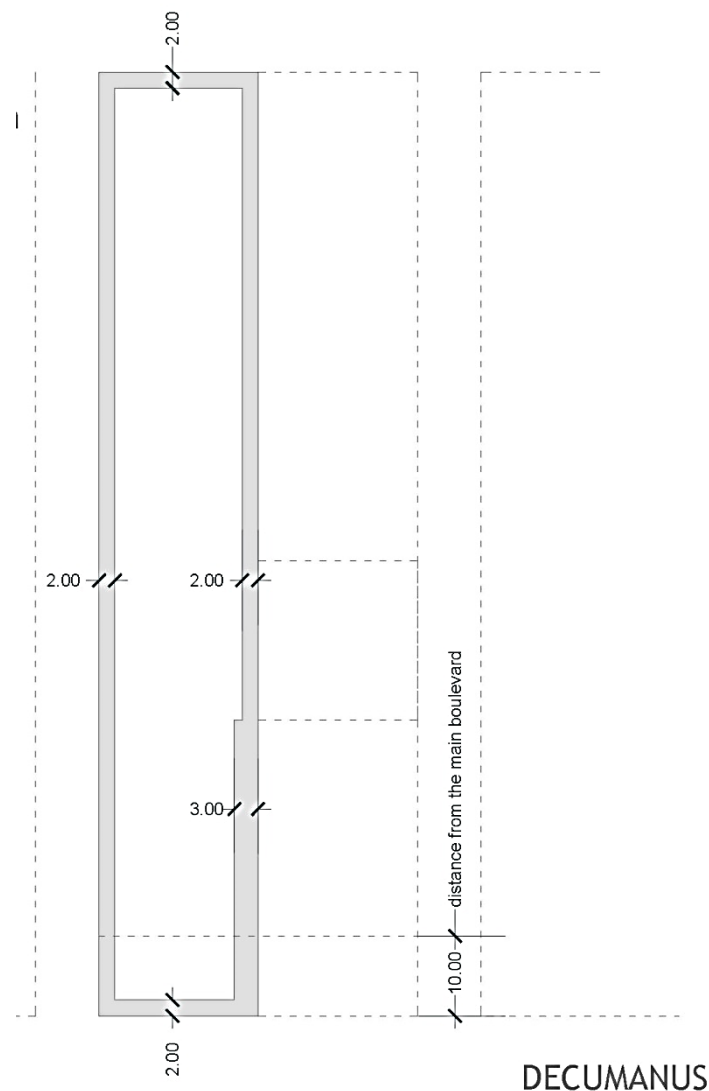


Lot number - N.30

Setbacks – Lot Coverage – Green and Open Area



- Lot area* 2,370sqm
- Lot area excluding setback: 1,796 sqm
- Max. lot Coverage: 1,257.4 sqm
- Green & Open areas:
at least 1,112.6 sqm



Open areas and greenery must occupy at least 1,112.6 sqm

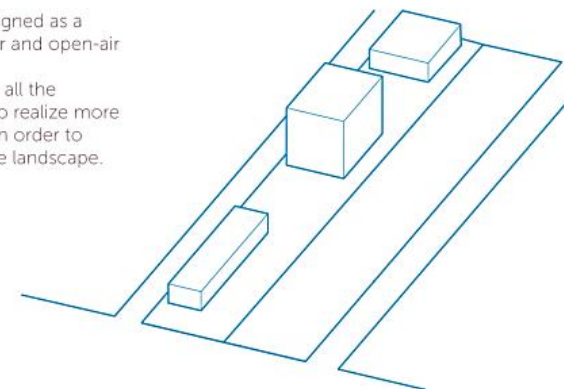
Using the maximum Lot Coverage (1,257.4 sqm), the Participant may decide to build.

- more than one building (covered exhibition space)
- and more than one level

Covered Exhibition Spaces are buildings or enclosed structures containing exhibition areas or other spaces (including all overhanging upper floors or balconies)

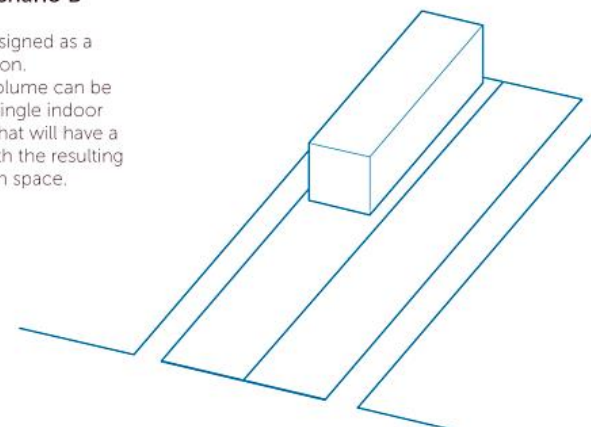
Volumetric Scenario A

The lot can be designed as a sequence of indoor and open-air exhibition spaces. It is possible to use all the available volume to realize more than one building in order to create an expositive landscape.



Volumetric Scenario B

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

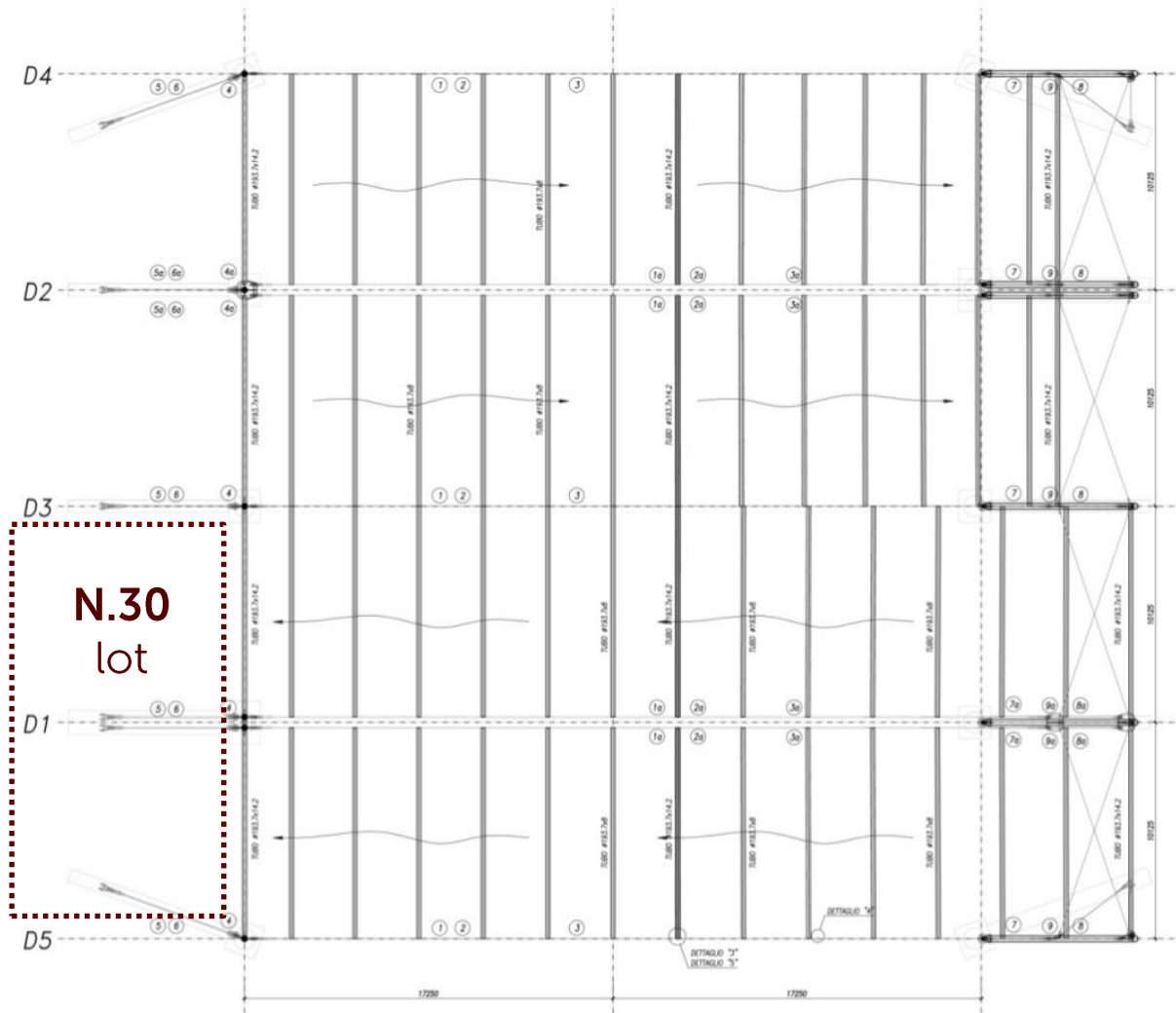


*Rounded value ± 0.5

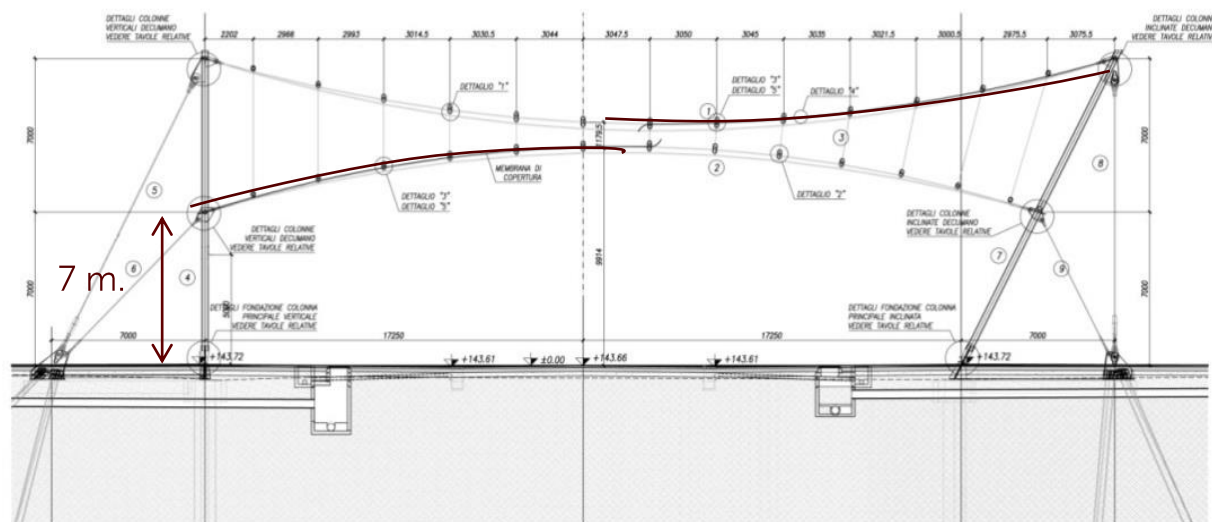


The Roofing System

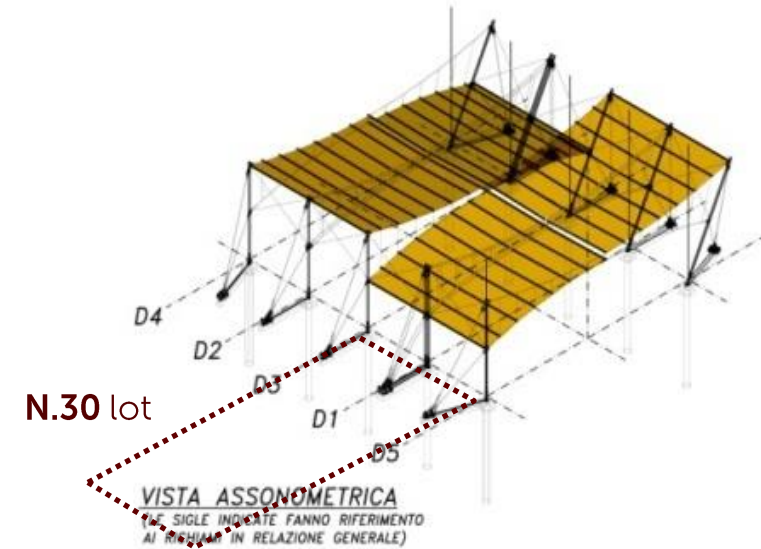
Decumanus structures



STRALCIO PIANA COPERTURA
SCALA 1:100



SEZIONE TRASVERSALE (SP13)
SCALA 1:100



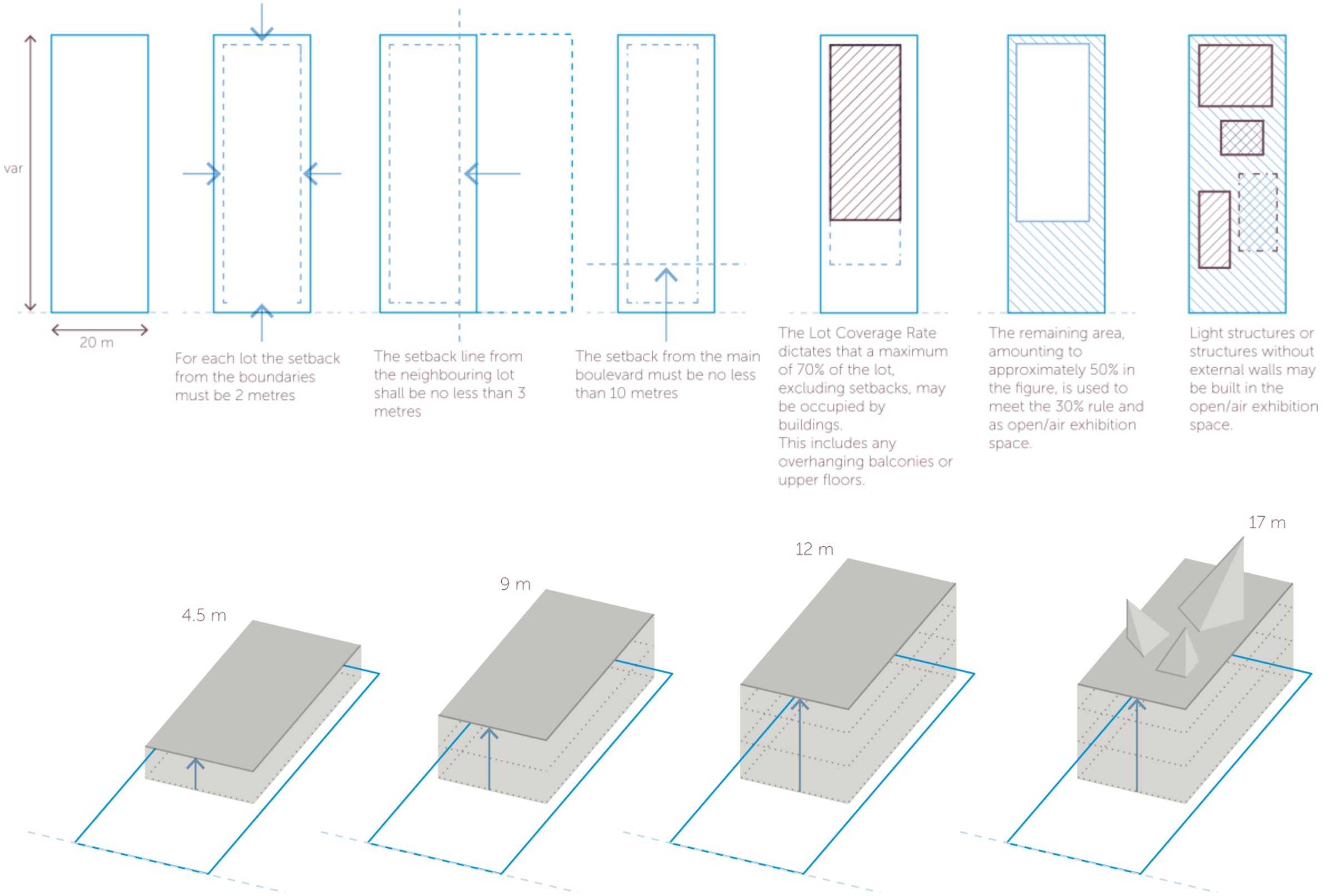
N.30 lot

VISTA ASSONOMETRICA
(LE SIGLE INDICATE FANNO RIFERIMENTO
AI RICHIEDI IN RELAZIONE GENERALE)

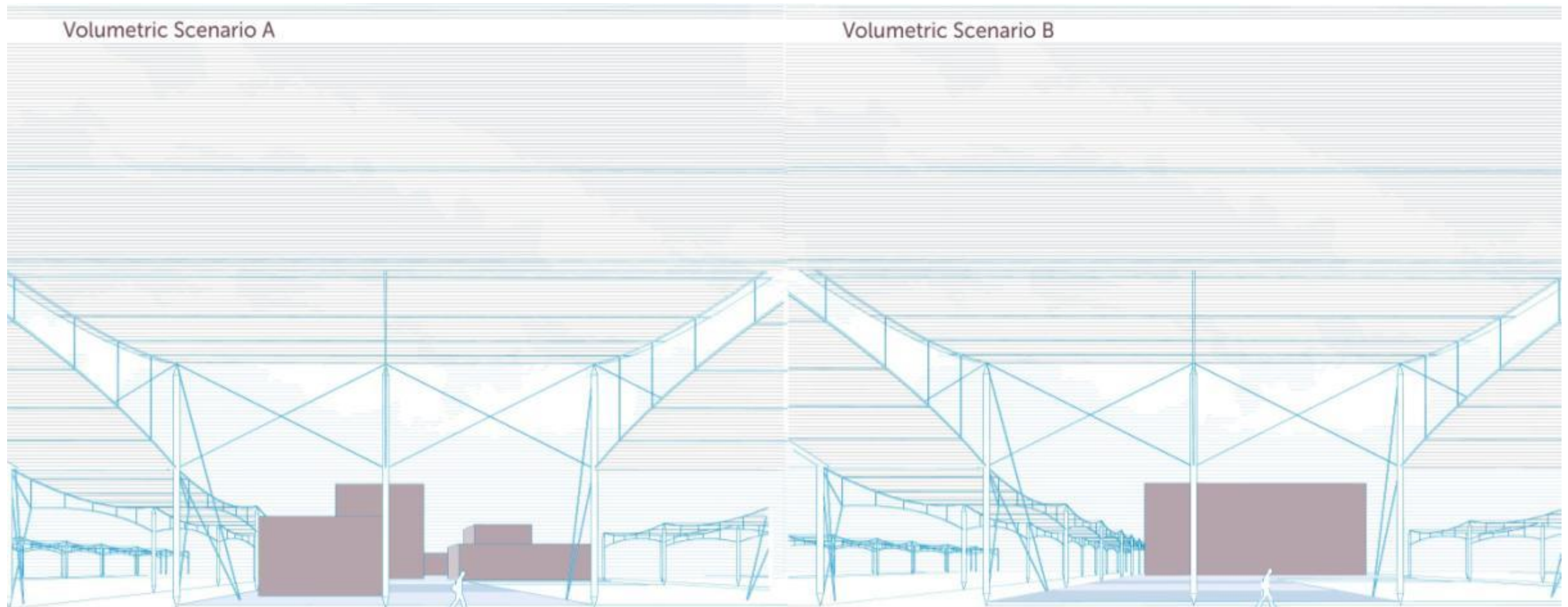
General Guidelines and Criteria for the construction of Exhibition Spaces



General Guidelines and Criteria: Basic Rules



Volumetric scenarios

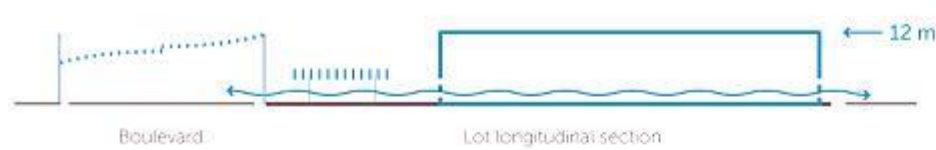


The height of the buildings must be less than **12 metres** .

The height limit for architectural elements, such as skylights, roof elements, vertical connections to the roof, sunscreen protections, signals...) is **17 metres**

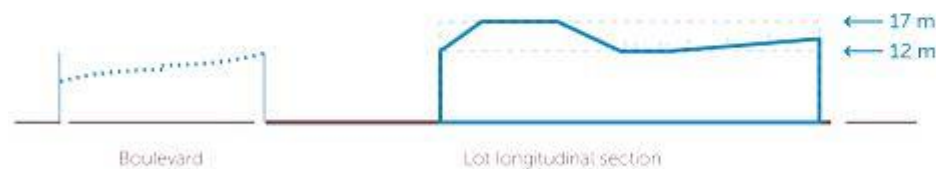


General Guidelines and Criteria



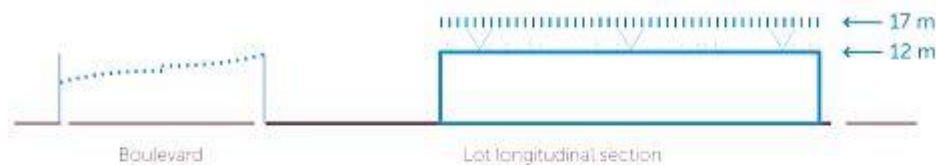
Permeability

The Covered part of the Exhibition Space must ensure the permeability of the expositive system



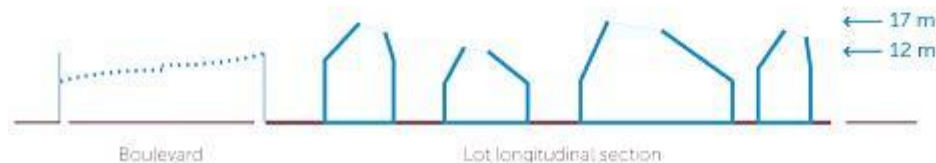
Roof Design and Facilities 1

The height of the Covered part of Exhibition Space must be less than 12 metres.
The height limit for buildings is 17 metres including all architectural elements such as skylights, roof elements, vertical connections to the roof, sunscreen protections, signals, etc.



Roof Design and Facilities 2

The Covered part of Exhibition Space may have roof terraces for visitors.
The greening rate of roofs shall not be lower than 50%.
Rooftop facilities or structures must comply with integrated landscape design.



Roof Design and Facilities 3

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

Sustainability General Guidelines
" Maximise permeable (porous) ground areas."

Subsurface Structures
According to the rules of the BIE and the common practice of the previous expositions, all Country pavilions are temporary structures.
Underground levels are not allow

Crowd Level Indicators

LOS



The presence of many people, following the same paths or standing in same waiting areas or events, can be measured by the Level Of Service (LOS), which is a scale of values representing space occupancy, mobility ease and user comfort.

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 paths and exhibit areas

| 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. | |

Level of Service in pedestrian waiting/queueing areas

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

The Organizer has used the dynamic simulation software *Legion Studio®*, widely used in transport analysis for check of complex buildings, underground stations, airports as well as LOS analysis of some Olympic Games area in London.

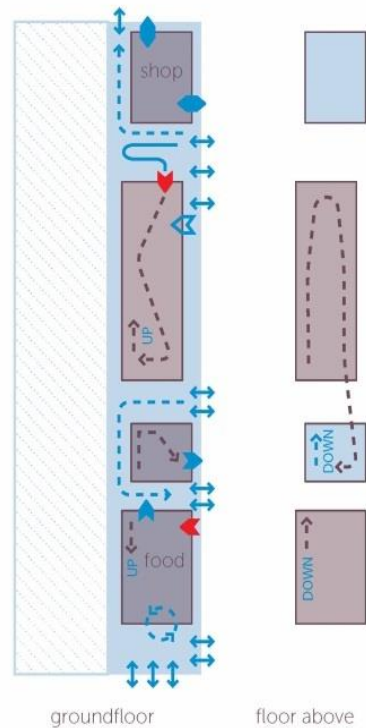


Pedestrian mobility

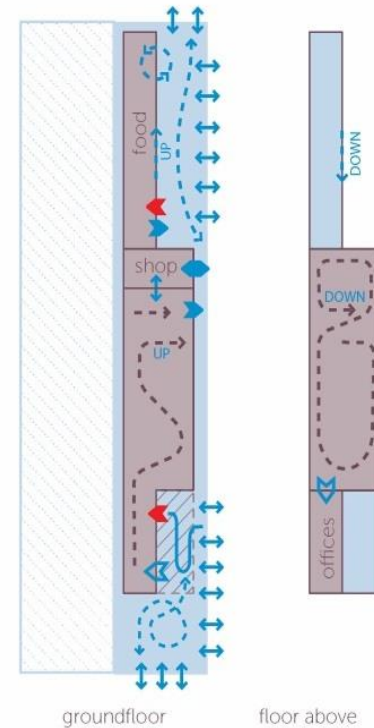
Example lot plan diagrams



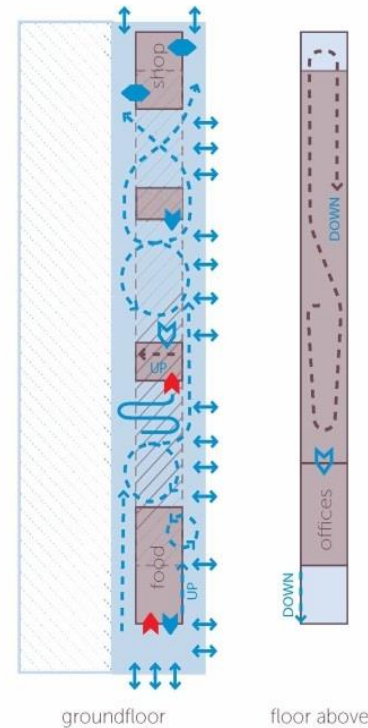
SCENARIO A: multi-building scenario
with a fragmented exhibit spaces



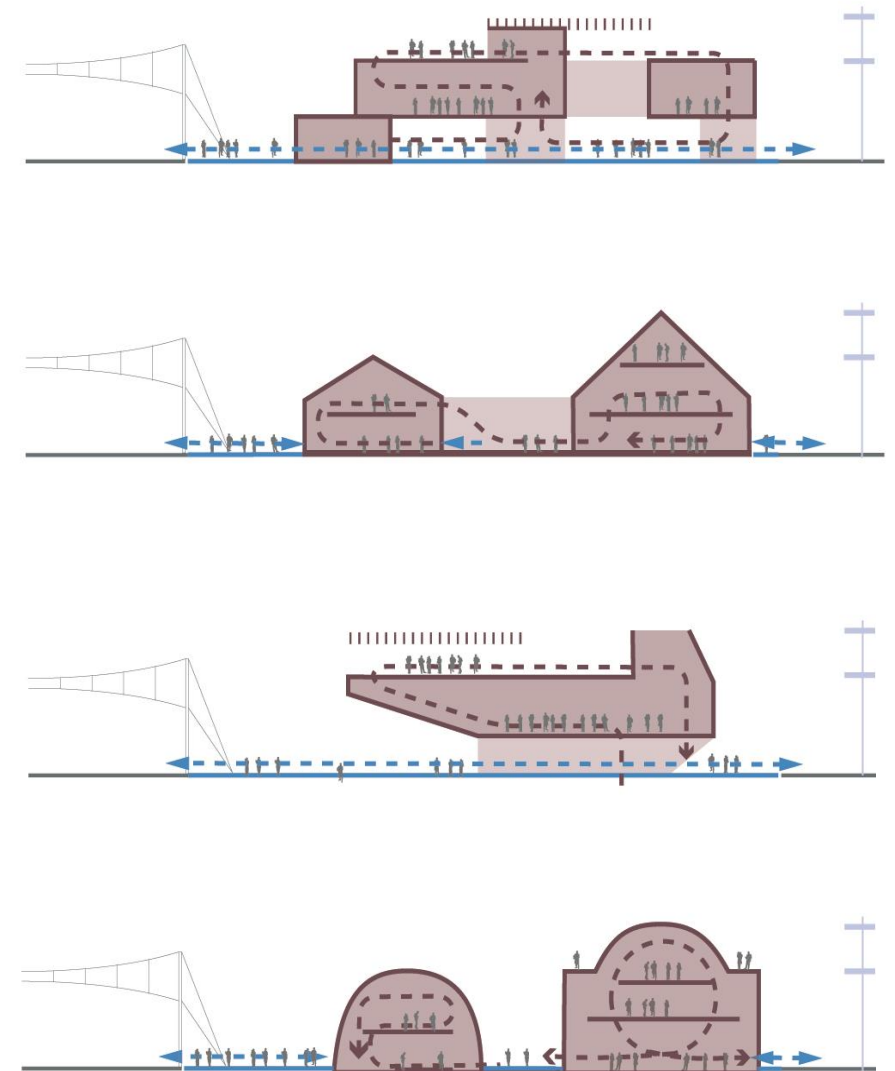
SCENARIO B: single-building scenario
with a continuous exhibit spaces



HYBRID SCENARIO
continuous & fragmented



Pedestrian mobility_ Example of section lot



NB: the functions shown on these diagrams are purely indicative

- outdoor exhibition
 access w queue
 reserved access
 free spread access/exit
 indoor exhibition
  free access/exit
  circulation
  queue
  speed lane