

ISTANBUL AND HIGH-RISE BUILDINGS

By Sefa Targit

Planning Istanbul's development has always been a major topic in the country's general agenda and also a subject of fierce controversy due to the potential value afforded by the city's development works.

The recent drive for building a twin towers in Istanbul with a height of three hundred meters each and projected to be called "Dubai" has also stirred a heated discussion in the public.

The most critical component of such buildings is their elevators. Feasibility of the construction of high buildings should first be decided by the vertical transportation technologies before other factors in the realm of the municipality and public. Thanks to the fact that modern vertical transport techniques allow the construction of very high buildings, what should be discussed here are those other factors.

I thought it would be proper that we, as elevator industry, should take this subject to our agenda. Members of the elevator industry which creates the most vital part of the high-rise buildings should join to this discussion as they sure have a word to say on it.

The projects which participated to the Elevator Design Competition organized by AYSAD have once again proven that the future of the cities shall be shaped by vertical transport technologies.

Each innovative solution formulated in reply for the needs generated as a result of the development of the construction technology or the demographic movements has also roused controversy.

We can see from the archives that similar arguments have been raised during Prots's zoning plans of Istanbul in 1939; during the construction of Barbaros Boulevard, which is the main cause behind the present development of the city to the direction of Maslak; and during the planning of the Bosphorus Bridge connecting the two sides of the City.

13 percent of Turkey's population inhabits in this city which covers only 0.7 percent of the country's total land. This fact alone signifies that vertical construction in Istanbul is unavoidable.

One of the focal points of the discussions is whether or not it is appropriate to build high rises in Istanbul. Keeping in mind the fact that buildings having a height of over 35 meters are called high buildings, we see that Istanbul already ranks high in the league of the global cities according to the number of its high buildings (1).

	City	Buildings	points
1.	Hong Kong	7,504	117,038
2.	New York City	5,467	35,738
3.	Seoul	2,839	15,850
4.	Chicago	1,045	15,562
5.	Singapore	3,523	13,477
6.	Shanghai	738	11,314
7.	Bangkok	711	11,105
8.	Tokyo	2,175	9,404
9.	São Paulo	3,063	7,987
10.	Guangzhou	370	6,805
11.	Toronto	1,628	6,803
12.	Beijing	819	5,380
13.	Kuala Lumpur	517	5,114
14.	Rio de Janeiro	1,941	5,103
15.	Shenzhen	260	4,978
16.	Chongqing	247	4,704
17.	Sydney	823	4,140
18.	Houston	331	3,626
19.	Istanbul	2,112	3,590
20.	Curitiba	628	3,520

(*) Following criteria have been used in scoring the cities according to their high buildings:
 12-19 stories: 1 point; 20-29 stories: 5 points; 30-39 stories: 25 points; 40-49 stories: 50 points; 50-59 stories: 100 points; 60-69 stories: 200 points; 70-79 stories: 300 points; 80-89 stories: 400 points; 90-99 stories: 500 points; and over 100 stories: 600 points.

Let's have a look at the similar cities in Europe in regards with the height of the buildings.

There are 31 buildings having a height of above 100 meters in Paris. Construction of 210-meter high Tour Montparnasse had caused great discontent and led to endless controversy in Paris.

There is no building having a height more than 100 meters in Rome, which can be categorized in the same class with Istanbul. The highest 10 buildings in Rome are:

- 1- Plazzo Eni – 80 meters,
- 2- Piazza Santa Maria - 75 meters,
- 3- Telecom Italia – 73 meters,
- 4- INAIL Tower – 72 meters,
- 5- Plazzo della Civiltà – 68 meters.

London has 32 buildings above 100 meters of height. The highest building in London is One Canada Square building with a height of 235 meters.

12 buildings are at and over 100 meters in Madrid. The highest building is 231 meter high Torrespana.

As for Istanbul; there are 30 buildings over 100 meters. The highest building in Istanbul is the Isbank Tower 1, which is 181 meters high. This building, which is the pride of the City in terms of many factors from its owner to its architectural type, shall be overshadowed by Dubai Towers.

Zoning plan of Istanbul, prepared by French Architecture Henry Prost at the end of 30s, aimed to protect the natural silhouette of the city and hence provided that buildings to be constructed at or above an altitude of 40 meters should not be above 9.5 meters in height. Notes of this plan use the term "all buildings" in its restriction provisions in order to ensure complete conformance to its stipulations regarding the height.

This plan seeking to protect particularly the peninsula of the old town which is surrounded by the ancient walls has been infringed in time, and it was never conformed to during even restorations of the old buildings in Bosphorus.

Draft of new Istanbul Zoning Plan describes high building as: *"This is a building which in general affects its immediate and peripheral surrounding physically and in terms of urban structure and infrastructure. Buildings having a height above 30.50 meters as measured from any one of their sides or having more than 13 stories including the basement floors whether seen from outside or not are accepted as high buildings."*

Past Experience has shown that the condition of 9.5 meters implemented for the protection of the natural silhouette of the city is impracticable. When you look at the city from Asian side, you can see that buildings over 35 meters high are less spoiling the silhouette compared with the groups of ordinary apartment buildings. One reason for this is that minimum setback distance for high buildings is established as height/2, whereas minimum setback for the other buildings is only 4 meters. This means the distance of a 100-meter high building to the border of its parcel should be at least 50 meters, while the same distance in a 20 meter-high building suffices to be only 4 meters.

Istanbul Zoning Plan sets forth that the distance between two high buildings to be constructed on the same parcel should at least be at the height of the higher of the two.

This shows that high buildings offer better chances for increasing green areas and for protection of the silhouette of the city, as long as Metropolitan Municipality does not use its authority for lowering these minimum requirements.

There have always been, and will always be, arguments related with the development of the city. However, objecting merely to high buildings fails to establish a convincing argument in a city which has constructed its Archeological Museum building and Mayoralty building on top of a land that is anticipated to contain unearthed archeological riches.

Istanbul was not a fishing village hundred years back. Deep-rooted Istanbulites have an urban experience and culture far better than nations with histories shorter than 100 years, and hence they possess the qualities required for dealing with the income that lies in the development of the city in a mature way. Each of the modern inhabitants of this city is its owner as much as Justinian the First was; therefore, inhabitants of Istanbul should be allowed to enjoy the authority and respect at least as much as Justinian the First did.

Istanbul should add modern structures of the century to its portfolio just like it did Hagia Sophia some 1500 years ago. It should reinforce its architectural richness with buildings constructed at the most accurate points by the most able architects, as conforming to the tradition of the city...just like Hagia Sophia and the Süleymaniye Mosque.

Elevator engineers should naturally take the side of high rise buildings. Here, I would like to remind you the words of Prof. Mustafa İnan, one of the legendary professors of Istanbul Technical University: "For some, 'force' is equal to multiplication of money by organization; however, for us, force is a magnitude related with acceleration and the mass. Do not mistake these two formulas with each other, would you kids?"

Elevator engineers should not meddle with political and financial aspects, instead should interest themselves with technical issues regarding the buildings. Our primary motive should be to produce the required elevator components as such elevators are/shall be erected in Turkey.

(1).Statistical datas received from emporis database.

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