



## **Display Of Zoning Diameter According To The Distance Approach In Zoning Plots In The Marketplace Area**

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### **Abstract**

Marketplaces are zoning islands or uniform zoning parcels created to meet the needs of people in zoned areas. These islands or parcels may have different characteristics. These are the areas that need to be created on the basis of neighborhoods, especially in areas with a high human population where there are residential areas. In our study, an examination has been made on how the drawing distances should be on the basis of parcels or islands to the market place areas. Since these places will be created in the planned areas from the outside of the parcel to the inside of the plot, it is a research on how to draw them according to their heights. As a method, it has been revealed by adding distance and showing different shots over plans with convex approaches.

**Keywords:** Marketplace Area, Distance Method, Zoning Diameter

## **Pazar Yeri Alanı İmar Parsellerinde Mesafe Yaklaşımına Göre İmar Çapı Gösterimi**

### **Özet**

Pazar yerleri imarlı sahalarda insanların gereksinimlerini karşılamak üzere oluşturulan imar adaları ya da tek tip imar parselleridir. Bu ada ya da parseller farklı özellikte olabilirler. Özellikle konut alanlarının bulunduğu insan nüfusunun fazla olduğu alanlarda mahalle bazında oluşturulması gerekli alanlardır. Çalışmamızda pazar yeri alanlarına parsel ya da ada bazında çekme mesafelerinin nasıl olması gerektiği üzerine irdeleme yapılmıştır. Mesafeler parselin dışından içerisine doğru planlı alanlarda bu yerler oluşturulacağından dolayı yüksekliklerine göre nasıl çekilebileceği araştırmasıdır. Yöntem olarak mesafe ekleyip konveks yaklaşımlarla planlar üzerinden farklı çekimlerin gösterimi ile irdelemeye ortaya konmuştur.

**Anahtar Kelimeler:** Pazar Yeri Alanı, Mesafe Yöntemi, İmar Çapı

### **1.INTRODUCTION**

The word 'İmar' comes from the Arabic umran (regularity). Dictionary meaning; it is promoting, cheering and repairing [1]. The general goal of the development plans produced for our living spaces is the public interest. The most beneficial uses of the lands for the public benefit are determined in the areas regulated by the zoning plans. In the land and land arrangement works carried out in accordance with the current zoning regulation in our country, when the provisions regarding the valuation do not include the evaluation of the parcels according to the objective criteria before the implementation, value differences occur during the distribution stage for the reallocation of the parcels, and it remains insufficient in terms of legislation and implementation. Land and land arrangement studies force the existing cadastral structure in the

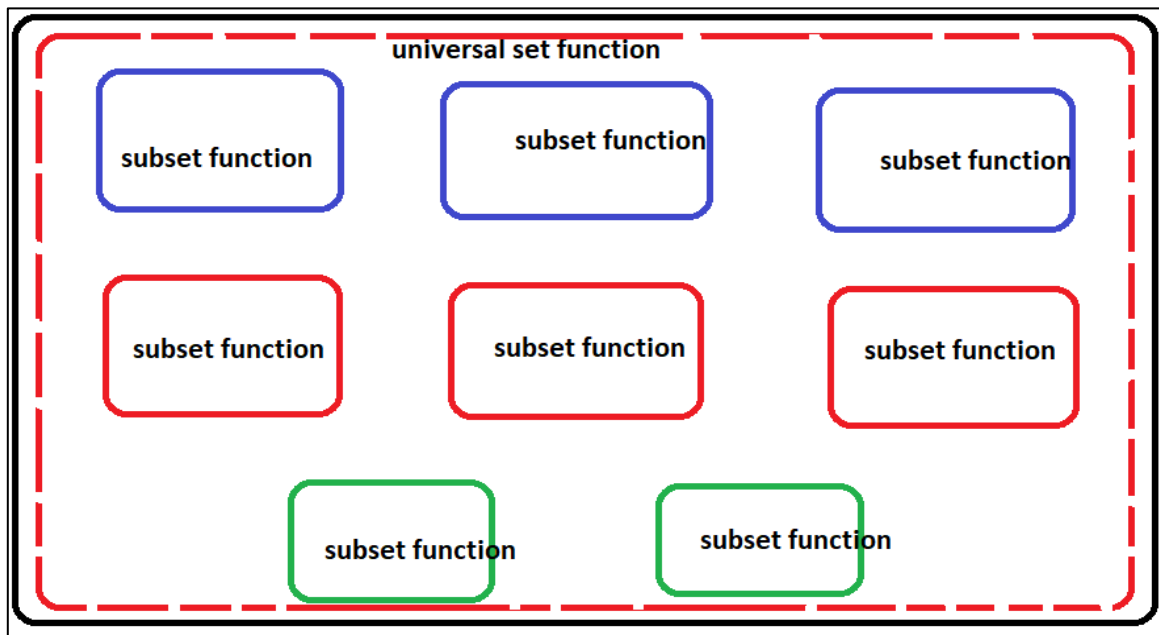
application area to change with the zoning plan. Therefore, with the implementation, not only the borders of the cadastral parcels in that region, but also the existing economic values of the property are changing [7]. Zoning plans are indispensable for modern and healthy cities. Zoning plans are legal documents that achieve their main purpose as long as they can be associated with the existing property structure and applied to the land. Therefore, by developing various zoning implementation methods in our country, it is aimed to establish a property relationship with the zoning plans, to form modern and healthy cities and to rehabilitate the built-up areas that emerged illegally [17]. The most important condition for a healthy development of a city; zoning pattern, urbanism principles and planning principles are in accordance with the public interest. It is clear that well-developed cities in line with the provisions of the zoning plan facilitate human life. In addition, the implementation of the zoning plan is closely related to the property concept. For these reasons, it is necessary to determine the zoning plans that determine the usage decisions in a residential area by keeping the public interest at the highest level and to make the zoning plan applications considering this issue [6]. Land and land arrangement (AAD) is a zoning plan implementation tool that enables the transformation of cadastral parcels, which have a useless structure in terms of city planning, into a more economically usable structure. The basic principle in land and land arrangement is to bring the existing cadastral parcels in a regulation area into a single mass, arrange them as new zoning parcels in accordance with the zoning plan data and return them to the owners. As a result of this practice, it is ensured that the public areas are also offered to the public service [20]. The general principles of land and land arrangement are regulated by Articles 18 and 19 of the Zoning Law No. 3194, and the principles regarding the implementation are regulated by the provisions of the Regulation on the Principles of Land and Land Arrangement to be Made pursuant to Article 18 of the Zoning Law No. 3194. Some issues that are the subject of hesitation in practice have also been clarified by the jurisprudence of the Council of State [10]. In order to make land and land arrangement, first of all, the area to be applied must be determined. While determining the regulation limit, the development direction of the city and the elements suitable for intensive construction are taken into consideration. Then, the municipal committee within the boundaries of the municipality and the adjacent area, and the provincial administrative board outside it, a decision regarding the determination of the regulation limit is taken. [4]. Changes in planning approaches, especially in countries that are in the development process, cause the concept of plan to increase and as a result, each group produces its own plan [2]. In the regulatory planning system, planning and implementation are two processes that follow each other [19]. After the parceling plans are finalized, the necessary documents are submitted to the Land Registry and Cadastre Directorates of the relevant municipalities for registration, and the residual ownership is determined according to these documents [3]. Practitioners; municipalities and the relevant municipalities if they are within the borders of the adjacent area, and the governorships outside these areas. In addition to these, they are other administrations that are authorized by law to implement zoning practices. [18]. Within the framework of urban plans in our country, it is aimed to implement the zoning and urban planning activities in accordance with the principles of honesty and compliance, in the light of laws and regulations, by transforming the 1/100,000 environmental plan and the 5000 or 2000 master development plans of the areas open to development in the cities into 1000 implementation plans through local governments. [12.] Rapid urbanization has brought about unplanned development. This process has revealed an urban texture where social and technical equipment areas are insufficient, transportation planning cannot be made, and industrial facilities are intertwined with living and resting areas [13].

## 2.MATERIAL AND METHOD

The Distance Method is a series of steps that enable the building residence area to be determined by drawing distances, thanks to the convex geometry shape formulas according to the parcel shape, in order to make the construction calculations suitable for the parcels located on the zoning island where the land and land arrangements are completed.

In order to find more general and new limits in inequality theory studies, limitations can be made on the hypothesis conditions for the function class studied, or the usage areas of the results can be expanded by introducing some additional features. Because functions can provide many features at the same time, or some function classes can be similar to each other in certain features. In the studies, it is seen that the integral inequalities proved for different types of convex functions 19 provide in different convexity classes for certain special conditions [8]. Therefore, it is reached from here that there is a hierarchy among the convex functions in terms of their properties. However, since it is difficult to consider all convexity classes together in this hierarchy, the relationship between them can be created as follows using their definitions and properties [8].

$I \subseteq \mathbb{R}$ , Log –convex functions class, convex functions class, quasi –convex functions class, p – functions class and Godunova-Levin functions class  $\mathcal{A}(I)$ ,  $C(I)$ ,  $QC(I)$ ,  $P(I)$  (If  $I$ ) is denoted by  $Q(I)$ ;  $\mathcal{A}(I) \subset C(I) \subset QC(I) \subset P(I) \subset Q(I)$  [8].



**Figure 1.** Theoretical representation of the relationship between area and distance

$f: \Delta \rightarrow \mathbb{R}$  function  $\forall (x, y), (z, w) \in \Delta$  and  $\lambda \in [0,1]$  if  $f(\lambda x + (1 - \lambda)z, \lambda y + (1 - \lambda)w) \leq \lambda f(x, y) + (1 - \lambda)f(z, w)$ , then  $f$  is said to be convex on  $\Delta$  (Dragomir 2001). for  $\forall x \in [\alpha, b]$  and  $\forall y \in [c, d]$  if  $f_y: [\alpha, b] \rightarrow \mathbb{R}$ ,  $f_y(u) = f(u, y)$  and  $f_x: [c, d] \rightarrow \mathbb{R}$  If the partial transformations of  $f_x(v) = f(x, v)$  are convex, then the function  $f: \Delta \rightarrow \mathbb{R}$  is convex in coordinates (Kaplan, 2016).

(Convex Function in Coordinates):  $f: \Delta \rightarrow \mathbb{R}$ . If  $f(tx + (1 - t)y, sv + (1 - s)w) \leq tsf(x, u) + s(1 - t)f(y, u) + t(1 - s)f(x, w) + (1 - t)(1 - s)f(y, w)$  inequality  $\forall t, s \in [0,1]$  and  $(x, u), (x, w), (y, u)$  If  $(y, w)$  are provided for  $\in \Delta$  [8],  $f$  is called a convex function in coordinates on  $\Delta$  [11].

### 3.FINDINGS AND DISCUSSION

In order for citizens or official institutions to build on a land, they have to get permission from the municipalities within the boundaries of the municipality zoning and adjacent area, and from the special provincial administrations outside the boundaries of the municipality zoning and adjacent area [14]. If it is a cadastral parcel, the relevant immovable, that is, if the application of the 18th article and the unification of the land, its abandonment to the road or its creation from the road have not been made, the construction permit cannot be granted in its current form [21]. If the parcel is in the shape of the land within the normal zoning limits, and if it has a frontage to at least one road outside of the zoning limits, it is allowed for construction if it is unaccompanied or uncreated [21]; [14].

Regardless of the type of construction, residential, commercial, industrial, residential + trade or vineyard areas outside the zoning borders, or whatever will be done outside the zoning contiguous borders, the first step of the process is the zoning scale. Zoning diameter is the process of giving the drawing distances in accordance with the building regulation, in the national coordinate or local coordinate system, within the framework of the planned type or unplanned type areas regulation. After the zoning diameter is given to a plot, the project phase is started. It is the basic initial zoning diameter for construction in a place [15].

Zoning diameters are given in 3 main axes as separate, adjacent and in block order. If the front, depth and corner coordinates and the raw data obtained from the existing land correspond to where they correspond on the plan, the drawing distances are given according to the construction order of that plan [16]. According to the mechanical results among these, shape changes, knot and vector analyzes can be examined and compared [14]. The same structures with the same geometric shapes, different supports and different geometric shapes, the same structures were compared and examined [16].

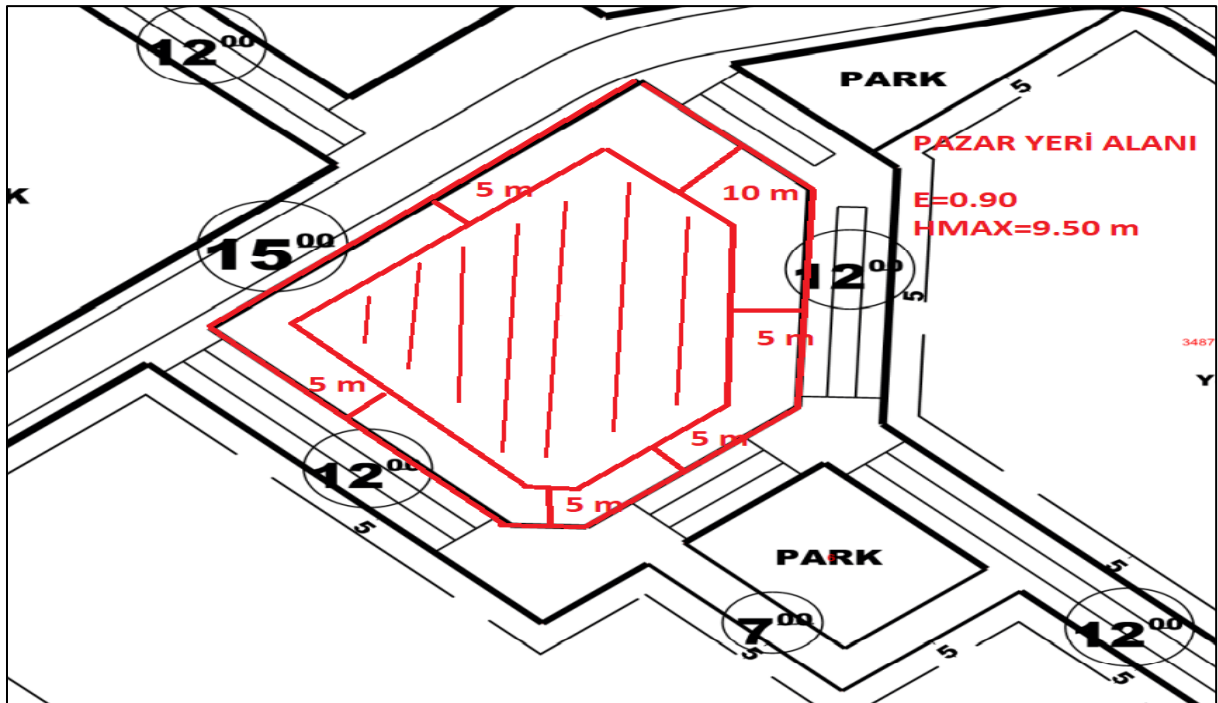


Figure 2. Zoning diameter view

In Figure 2., the relevant immovable is included in the zoning plan as a market area. Its equivalent is 0.90, that is, it is understood that the total construction area to be built will be obtained by multiplying the title deed area with this coefficient. With the maximum height of

9.50 m, it is understood that the height of the facility to be built will be this way. The market place is the creation of fixed areas that will meet the needs of people living in that region, especially fresh vegetables and fruits. According to the planned type zoning regulation, the zoning diameter is shown by drawing 5 meters from the parts facing the road and 10 meters from the point where the main entrance and exit will be made.

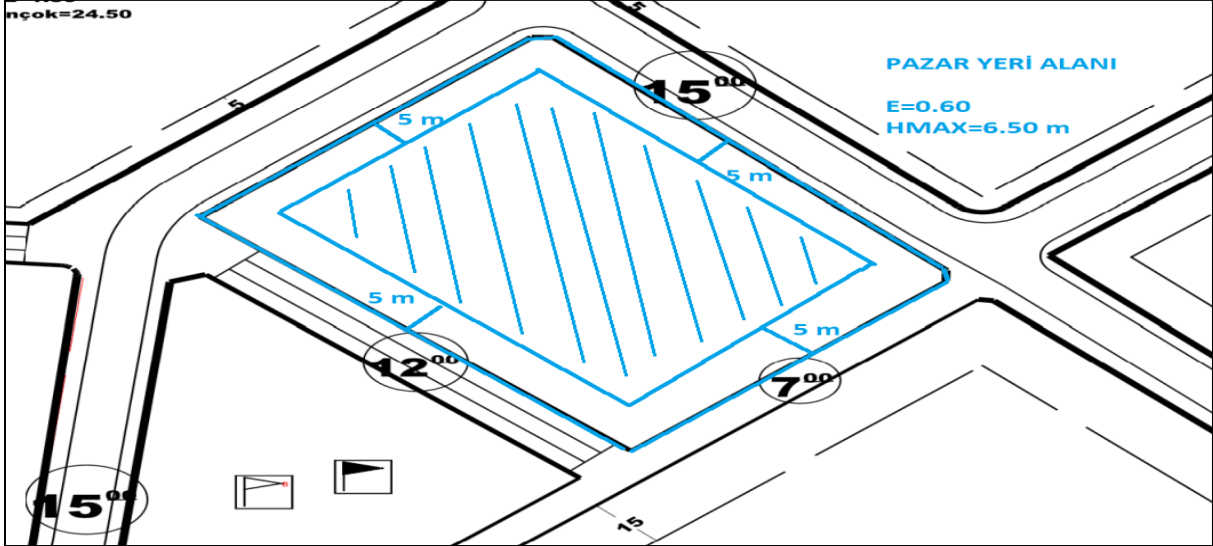


Figure 3. Zoning diameter view

In Figure 3, the zoning diameter of the parcel is shown in the middle by drawing 5 meters from each 4 side of the immovable, which is in the form of a single zoning island and parcel. It is understood that structures with a maximum height of 6.50 meters can be built and the total construction area will be determined by 0.60 of the parcel area.

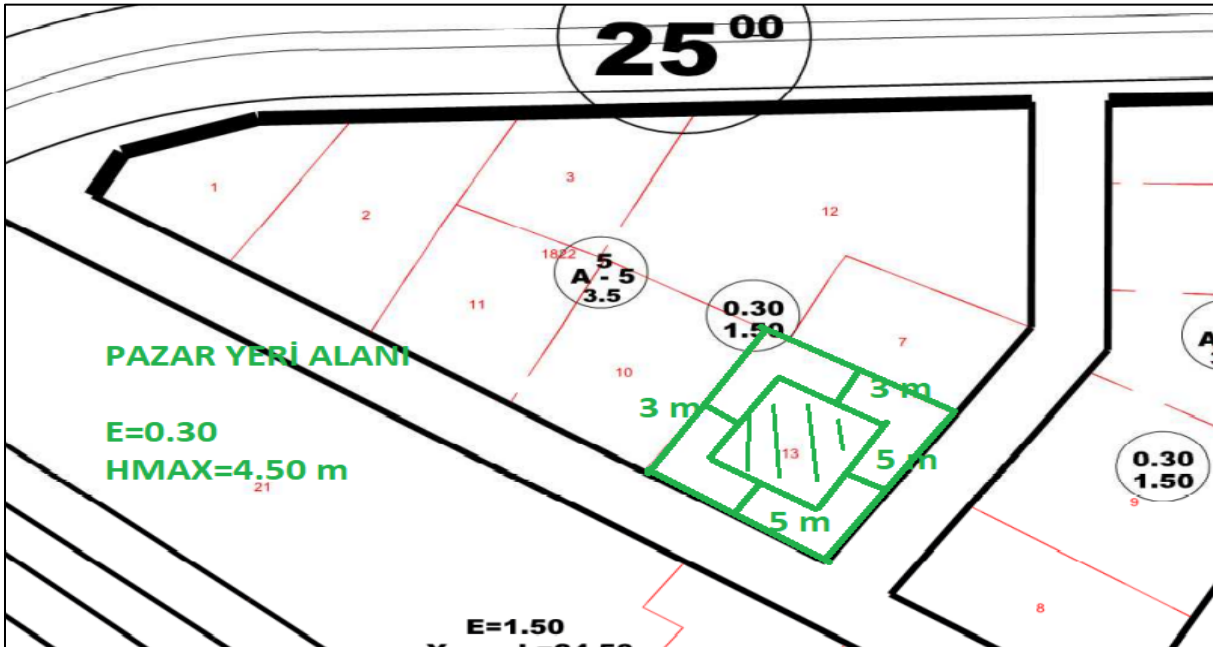


Figure 4. Zoning diameter view

In Figure 4., the immovable is located in a 5-storey zoning island and is processed only as a market place on a parcel basis. Since it is a point where the population of the population is high, it has been acted in this way. In this parcel, where a maximum of 4.50 meters is allowed and

the total number of floor areas is 0.30, the zoning diameter has been given by drawing 3 meters, since the front drawing distance will be 5 meters and the side garden distance will be up to 3 meters in places where the distance is up to 12.50 meters.

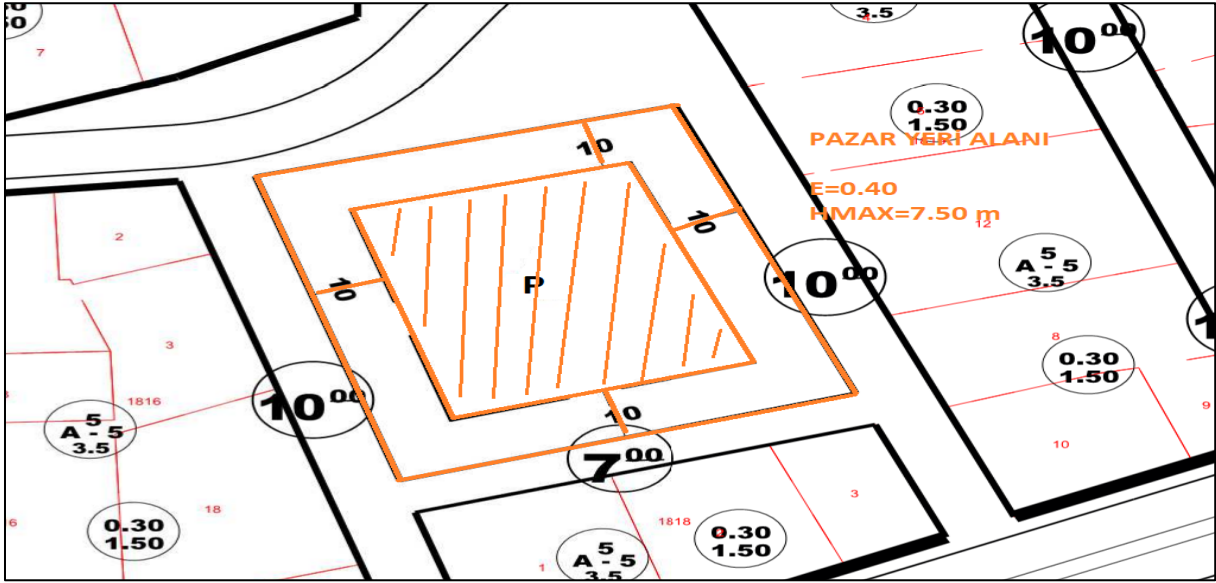


Figure 5. Zoning diameter view

In Figure 5., as the relevant parcel is a single island and parcel with the decision taken by the municipal council, the drawing distances are recorded as 10 meters each. It is stated that the construction area is determined with a precedent of 0.40 and a maximum height of 7.50 meters.

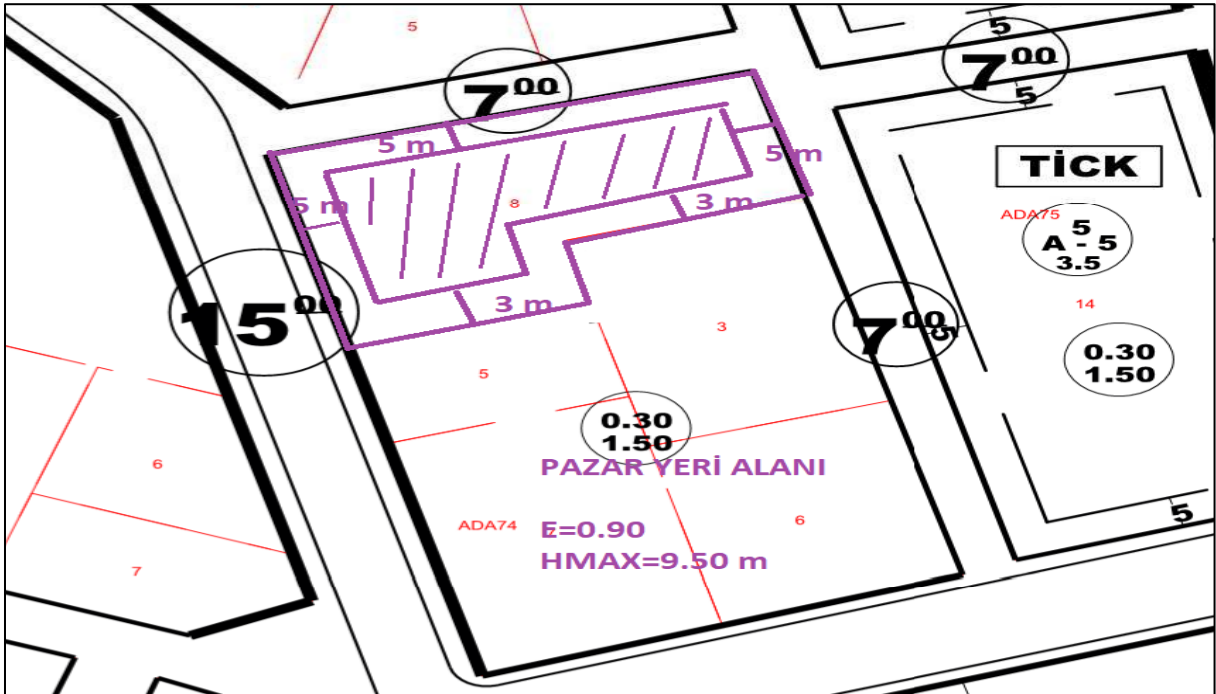


Figure 6. Zoning diameter view

In Figure 6, the immovable is the market area. This point, which is located within the zoning island with a 5-storey area, was plotted on the plot-based plan in this way. The front towing distances are given as 5 meters and the side garden distances as 3 meters, and the zoning diameter is specified. The precedent is 0.90 meters and the maximum height is 9.50 meters.

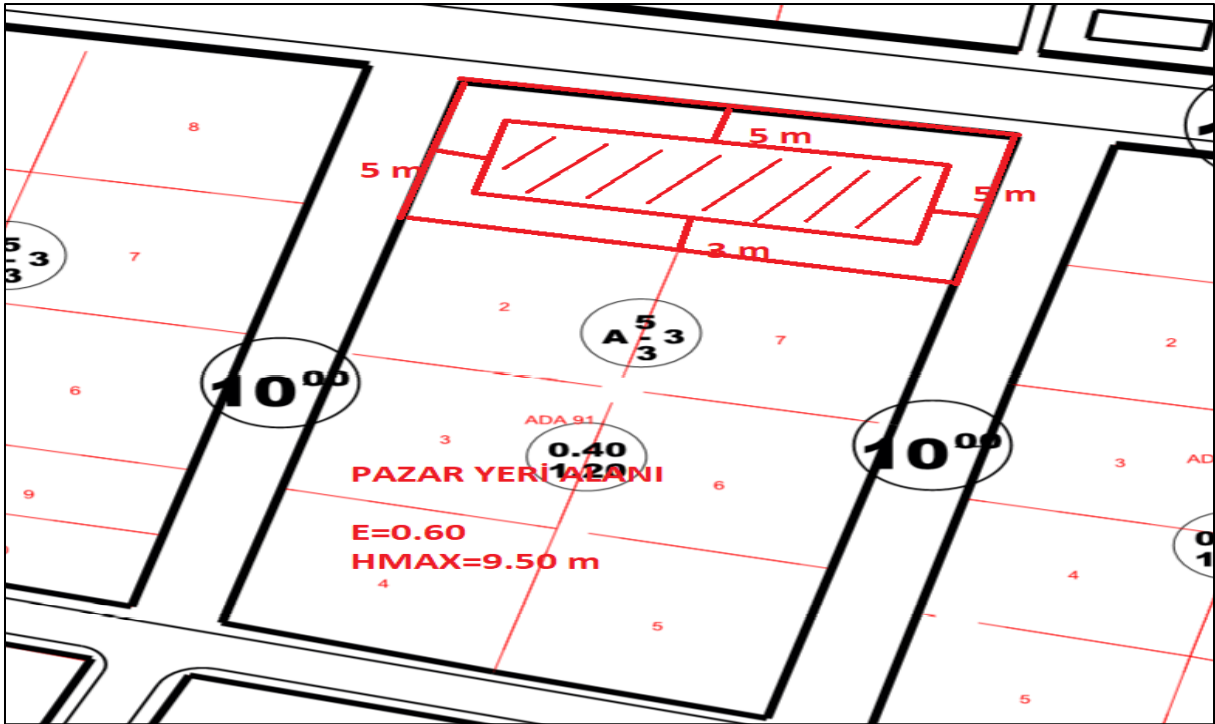


Figure 7. Zoning diameter view

In Figure 7., the zoning parcel located in the north of the zoning island is processed as a market place. The front towing distances of the market area have been increased by 5 meters, and the distance to the side garden has been withdrawn by 3 meters since it provides a maximum height of 9.50 meters.

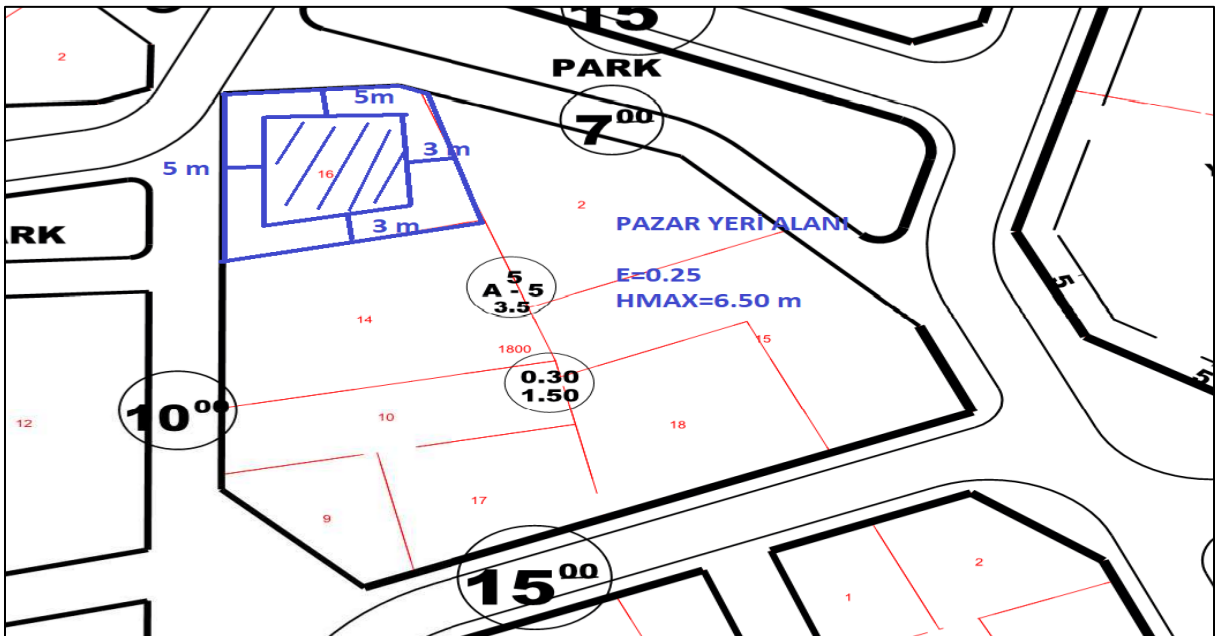


Figure 8. Zoning diameter view

In Figure 8., the relevant real estate has been processed as a market place in the northwest of a 5-storey zoning island to meet the needs. It is considered as a 2 storey building and has a maximum height of 6.50 meters and is included in the zoning plan. The zoning diameter has been given so that the front towing distance is 5 meters and the side garden distance is 3 meters.

#### 4. CONCLUSION AND RECOMMENDATIONS

The development plans are put into effect in places where there are municipalities such as provinces, districts and towns, according to their scales in the form of master and implementation, and the right understanding of urbanism is tried to be revealed. In these zoning plan legends, zoning islands such as housing, residential trade, trade, socio-cultural, sports facility, DOP areas are created so that cadastral parcels can be converted into zoning parcels by properly dumping them into these islands, and they can get a license for construction. On the islands in the market place areas, the area should be opened from the inside out and the building sessions should be appropriate by giving the distance approximations of these parcels with nested clustering. For this reason, housing development islands are created in the adjacent areas in the regional centers, and in the areas that will be opened for new settlements, with distinctive building regulations such as blocks and separate layouts. In these islands, it is explained how the zoning diameters should be given according to the planned type zoning regulation and the plan notes approved by the councils of the municipalities. In the examples in the study, the appropriate zoning diameter has been shown by showing how the zoning parcels should be given in general in different building regulations. TAKS and KAKS calculations and the total equivalent calculations to be used in architectural projects are also tried to be shown and the correct structure formation is examined. Our suggestion is that the zoning diameters should be given in accordance with the convex geometries of the zoning distances and distance approaches specified in the law and regulation, by considering all the parcels in the zoning island, paying attention to the existing structures on the other parcels, without victimizing the neighboring parcels.

#### 5. ACKNOWLEDGMENT

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