Evaluation and Discussion on the Standard Land Price of Public Service Project Land in Small Town

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Abstract: Starting from the perspective of research on price of public service project land and method analysis, this paper elaborates the valuation of public service project land, including evaluation method, determination of standard land price and analysis of results, providing reference for the evaluation and research of the standard price of the public service project land in small town.

1. Introduction

At present, there are clear technical specifications for the standard land price evaluation of urban commercial, residential and industrial construction land but a lack of land price theory and valuation methods in determining benchmark land price of public service project land. On the basis of concluding benchmark land price assessment dilemma of public service projects in small towns, this paper puts forward the idea and techniques of "evaluation and discussion on the benchmark land price of small town public service project". An empirical study was conducted in Alihe town, Inner Mongolia Autonomous Region to solve the existing problems in practical operation and provide references of benchmark land price evaluation for public service projects in small towns.

2. Land grading for public service projects

2.1 Research overview

Taking Alihe downtown as an example, the area of residential land is 405.99 hm^2, accounting for 22.76% of urban construction land while industrial land area is 299.4 hm^2, accounting for 16.78% of urban construction land. Industrial land is mainly distributed in the southeastern corner and the north of the town while residential land is mainly distributed at Yucai Street and North Youth Road, including administration, culture, education and various public service project land. This paper evaluates ten land types of public service project in Opinions on expanding paid use scope of state-owned land [land-resource planning(2016)No. 20]. That is public service project land I (energy, water facilities, gas supply, heating facilities and land of environment protection) and public service project land II (affordable housing project and land for retirement, education, culture and sports)

2.2 Determination of land grade

Public service project land in Alihe town would apply multi-factors integrate appraise methods with residential and industrial land grades instead of separately conducting land gradating. Public service project land is divided into 2 parts according to guidance for evaluation and practical situation. Public service projects land I is divided into four levels, directly adopting industrial land grading results while public service projects land II is divided into four levels adopting residential land grading results.

3. Evaluation of benchmark land price of public service projects

3.1 Measure benchmark land price using cost approach

Cost approach is an assessing method that determines the price of land based on the sum of

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land development and acquisition costs plus land ownership benefits, taxes payable, interest and profits. The basic formula is as follows: V=La+Lb+T+R1+R2+R3, of which V is the price of land to be appraised, La is Land acquisition fee, Lb is land development fee, T is taxes, R1 is profits, R2 is interest and R3 is land increment income. Average grade 3 land price of public service projects is set at 85 RMB/m^2. Based on grade coefficient between each level in industrial land, all levels of land price for public service project I in Alihe town has been determined. The land price measured by cost approach for public service project II is close to the price of the last grade of residential land. All levels of land price for public service project II in Alihe town has been determined according to grade coefficient between each level in residential land.

Land price of public service project I has been assessed at 85 RMB/m^2 with cost approach and the term of use is set as the legal maximum of 50 years. Affordable housing project land price has been assessed at 91 RMB/m^2 and the term of use is set as the legal maximum of 70 years. Price and use term of land for retirement, education, culture and sports should be revised on this basis to those of 50-year level.

3.2 Measure benchmark land price using market comparison

The public service project land I is assessed with market comparison, with reference to the price of industrial land. In the past 3 years, there were only two cases of the transferred industrial land in Alihe town, which were located in the range of first-grade land and third-grade land respectively. The sale price was 84 RMB/m^2. Since the release of Notice on the issuance and implementation of the lowest price standard for the transfer of industrial land by Ministry of Land and Resources at December 23, 2006, the sale price of the first-grade industrial land in Alihe town is higher than limited 84 RMB/m^2 and the other grades of industrial land are all transferred at 84 RMB/m^2. Therefore, the price of studied public service project land I measured by market comparison is 84 RMB/m^2. Corresponding to the benchmark land price is the price of 3-grade industrial land, that's to say, the average price of the 3-grade public service project land is 84 RMB/m^2. The land price of the other grades is calculated according to the proportion coefficient of industrial land.

Using market comparison, the public service project land II is assessed with reference to the price of residential land. 3 recent trading examples are selected to make each revision and comparative factors are selected based on the local practical situation, including remaining land-lease period, land use, trading date, trading mode, trading condition, regional factor and individual factor. After revision and calculation, the average market comparison approach value is used as the price of each public service project land. Market comparison approach value of each example is gotten by adopting factor revision method to revise transaction prices of comparable cases. Arithmetic average of market comparison approach value of 3 comparable cases is taken as average rank price of public service project land II under market comparison.

4. Determination of benchmark land price of public service project

Assessment result of benchmark land price of public service project

The cost approach and market comparison is adopted to assess the benchmark land price of public service project and average land price of each grade is taken as grade price. Benchmark land price of each grade in Alihe town's public service project land is determined according to grade coefficient between each garde of industrial land and residential land.

According to principles of fit and coordination, the average of results got from above 2 methods is determined as result of benchmark land price assessment of public service project land I and II(see Table 1)

Table 1 Benchmark land price of public service project land in Alihe town

Land grade	Types of land	Evaluated price(yuan/m^2)
I	Public service project land I (energy, water facilities, gas supply, heating facilities and land of environment protection)	143
II		111
III		85
IV		72
I	Public service project land II (affordable housing project)	208
II		164
III		129
IV		94
I	Public service project land II (land for retirement, education, culture and sports)	201
II		158
III		124
IV		91

5. Analysis of benchmark land price valuation results of public service project

5.1 Analysis of benchmark land price of public service project 1

Benchmark land price of public service project 1 in Alihe town ranges from 143 RMB/m^2 to 72 RMB/m^2, distributing in the 4 grades. The benchmark land price is the lowest in public service project land I and II with the minimal variation, in line with the actual situation of Alihe town and its economic development. It shows that characteristics of classification and valuation of urban industrial land can be reference of public service project land I, that is, land profits and sensitivity to land location of public service project I is low. With the land grade going down, its benchmark land price and variation range are decreasing and the grading and benchmark land price valuation are in line with actual situation from the aspect of change law.

5.2 Analysis of benchmark land price of public service project II

Benchmark land price of public service project II in Alihe town ranges from 208 RMB/m^2 to 91 RMB/m^2, distributing in the 4 grades with a largest change range in price. The benchmark land price is the highest in public service project land I and II with the greatest variation. The benchmark land price of public service project II is higher than that of project I, which indicates that that characteristics of classification and valuation of urban residential land can be reference of public service project land II. It can be seen that land profits and sensitivity to land location of public service project II is high. Its grading and benchmark land price valuation are in line with actual situation from the aspect of change law.

6. Conclusion

This paper studied the grading and valuation of public service project land, referring to the classification and valuation of industrial land and residential land in Alihe town, adopting cost approach and market comparison in combination with local policy and transferred cases. The main conclusion is：

1) The characteristics of classification and valuation of urban residential land can be reference of public service project land II while those of urban industrial land can be reference of public service project land I. However, it is necessary to combine the characteristics of transferring industrial land

and residential land.

2) Land price of public service project II is more sensitive to the land quality that that of public service project I.

3) There are no uniform regulations in grading and valuation of public service project land,which needs government regulators' further guidance and standardization. Through the discussion on the benchmark land price of the public service project, the scope of the allocated land has been narrowed, and the enterprise has gained the right to lease, mortgage and transfer, which benefits the market operation of enterprises and strengthens the leverage investment function of government land assets.

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