A Study on the Planning Criteria of Block-Unit Redevelopment to Improve Residential Environment - Focused on Redevelopment Project in Seoul -

Hong-Nam Choi, Hyeong-Wook Song, Sungwan Hong, Hong-Kyu Kim

Abstract—In Korea, elements that decide the quality of residential environment are not only diverse, but show deviation as well. However, people do not consider these elements and instead, they try to settle the uniformed style of residential environment, which focuses on the construction development of apartment housing and business based plans. Recently, block-unit redevelopment is becoming the standout alternative plan of standardize redevelopment projects, but constructions become inefficient because of indefinite planning criteria.

In conclusion, the following research is about analyzing and categorizing the development method and legal ground of redevelopment project district and plan determinant and applicable standard; the purpose of this study is to become a basis in compatible analysis of planning standards that will happen in the future.

Keywords—Shape Restrictions, Improvement of Reagulation, Diversity of Residential Environment, Classification of Redevelopment Project, Planning Criteria of Redevelopment, Special Architectural District (SAD).

I. INTRODUCTION

In Korea, elements that decide the quality of residential environment are not only diverse, but show deviation as well. However, people do not consider these elements and instead, they try to settle the uniformed style of residential environment, which focuses on the construction development of apartment housing and business based plans. Recently, block-unit redevelopment is becoming the standout alternative plan of standardize redevelopment projects, but constructions become inefficient because of indefinite planning criteria.

In December 2011, the Built Environment Renewal Development Act was amended to move away from whole demolish method and keep the existing current urban function by maintaining and managing its quality, but planning criteria that corresponds to amended act is not clear; standard setting and establishment is needed immediately [1], [2].
III. VERIFY THE EFFECTIVENESS OF PLANNING CRITERIA

We want to reveal correlation on building standard about how criteria and elements of legal urban management plan are limited by Building Act and Housing Act, thus seek the coordination of standard urban management plan [4], [5].
A. Simulation – JeonNong11 Housing Redevelopment Maintenance business

**TABLE I**

<table>
<thead>
<tr>
<th></th>
<th>Current laws Application</th>
<th>Special Architectural District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project site area</td>
<td>28,142.50㎡</td>
<td>28,142.50㎡</td>
</tr>
<tr>
<td>Construction area</td>
<td>3,399.40㎡ (Building coverage) (17.09%)</td>
<td>6,728.51㎡ (Building coverage) (33.82%)</td>
</tr>
<tr>
<td>Top Stories</td>
<td>29 F</td>
<td>40 F</td>
</tr>
<tr>
<td>Total floor area</td>
<td>56,889.81㎡</td>
<td>56,831.16㎡</td>
</tr>
<tr>
<td>Households</td>
<td>567(household)</td>
<td>567(household)</td>
</tr>
</tbody>
</table>

Current regulations apply to layout plan (draft)
Special Architectural District apply to layout plan (draft)

![Fig. 5 JeonNong 11 Housing Redevelopment Maintenance business layout plan](image)

Bird's-eye view Current regulations
Bird's-eye view Special Architectural District

![Fig. 6 JeonNong 11 Housing Redevelopment Maintenance business Bird's-eye view](image)

B. Simulation – YoungA Apt. Housing Redevelopment Maintenance business

**TABLE II**

<table>
<thead>
<tr>
<th>Performance criterion</th>
<th>Current regulations</th>
<th>Special Architectural District</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Street Rate</td>
<td>10.7%</td>
<td>39.2%</td>
<td>28.5% Up</td>
</tr>
<tr>
<td>Activating the Urban Street</td>
<td>20.4%</td>
<td>76.6%</td>
<td>56.2% Up</td>
</tr>
<tr>
<td>Southward ratio</td>
<td>78.5%</td>
<td>100.0%</td>
<td>21.5% Up</td>
</tr>
<tr>
<td>Dissatisfied sunshine</td>
<td>13.8%</td>
<td>1.8%</td>
<td>12.0% Down</td>
</tr>
<tr>
<td>Elevation Blockage</td>
<td>63.1%</td>
<td>47.1%</td>
<td>16.0% Down</td>
</tr>
</tbody>
</table>

![Fig. 7 YoungA Apt. Housing Redevelopment Maintenance business layout plan](image)

Bird's-eye view Current regulations
Bird's-eye view Special Architectural District

![Fig. 8 YoungA Apt. Housing Redevelopment Maintenance business Bird's-eye view](image)

IV. CONCLUSION

In conclusion, the following research is about analyzing and categorizing the development method and legal ground of redevelopment project district and plan determinant and applicable standard; the purpose of this study is to become a basis in compatible analysis of planning standards that will happen in the future.

One other significance is that we prove the relationship between planning elements and process of spatial hierarchy from site planning to building planning using simulation analysis of different types to prove and raise the reliability on this data [6].

REFERENCES