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너와 나의 서울

Seoul Urban Planning Information System (UPIS)

서울특별시
SEOUL METROPOLITAN GOVERNMENT

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Urban Planning Information System(UPIS)

CONTENTS

I Background

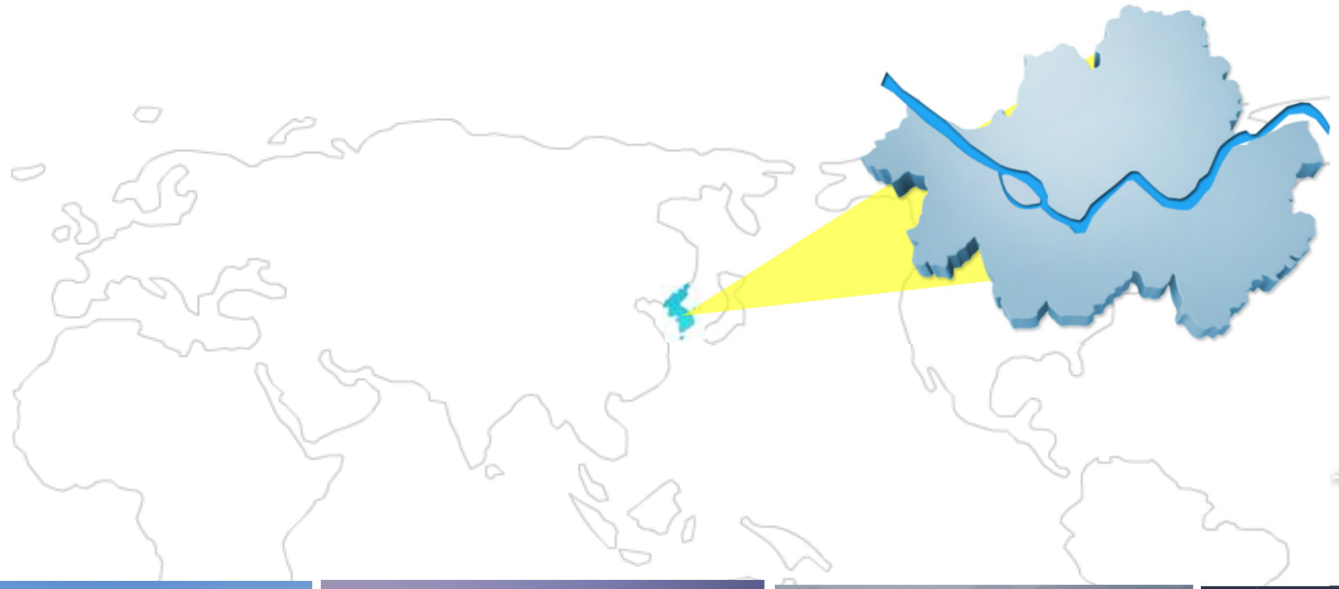
II Project overview

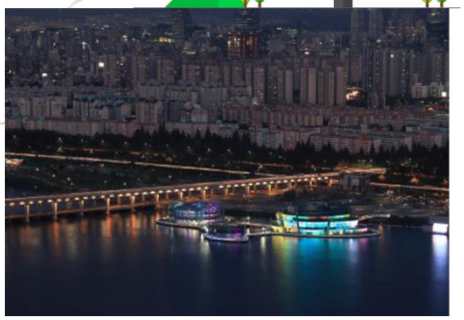
III Major functions of UPIS

IV Effects of UPIS

1. Location of Seoul

Located in the middle of Northeast Asia.
Capital City of the Republic of Korea, Seoul





2. History of Seoul

Joseon Dynasty (1394~)

Japanese occupation (1910~1945)

Restoration from Korean war (1950)

As of 2018

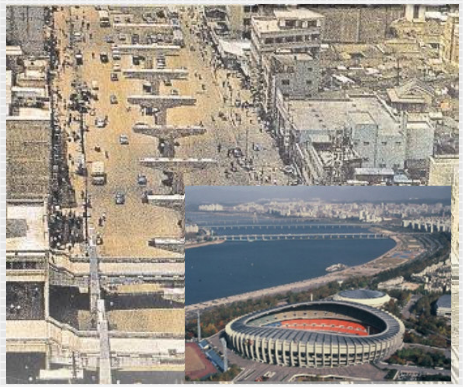
Area : 605.24㎢

Population: 10,124,579

Budget : $ 37 billion USD

Automobile: 3,116,000

A city with 600 years of history.
Seoul, a capital of S.Korea
with 10 million citizens



Rapid urbanization and urban development (1960~1980)

Global top 10 city

10 million citizens

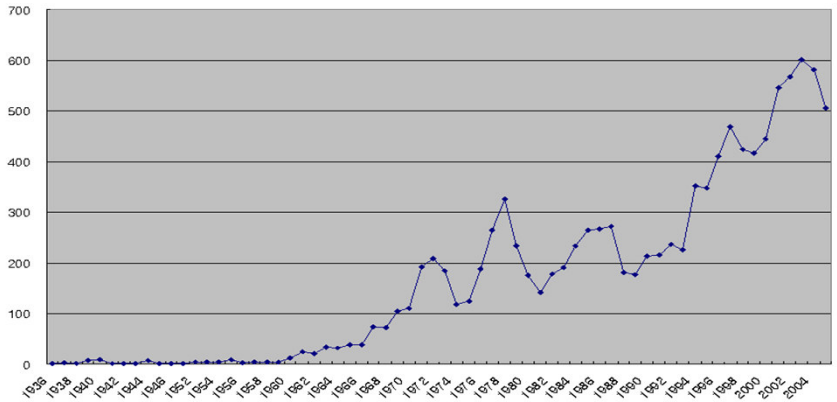
3. Before the Urban Planning Information System (UPIS)

Paper-based documents and floor plans

The little bulletin board in front of government

Urban planning info which is scattered in the different city websites

Increase of changes in the urban planning and management



4. Goals of UPIS

Seoul
Urban Planning Portal &
Urban Planning Information System

Continuous Informatization of urban planning

01 To Citizens

Provide clear and accurate information about urban planning

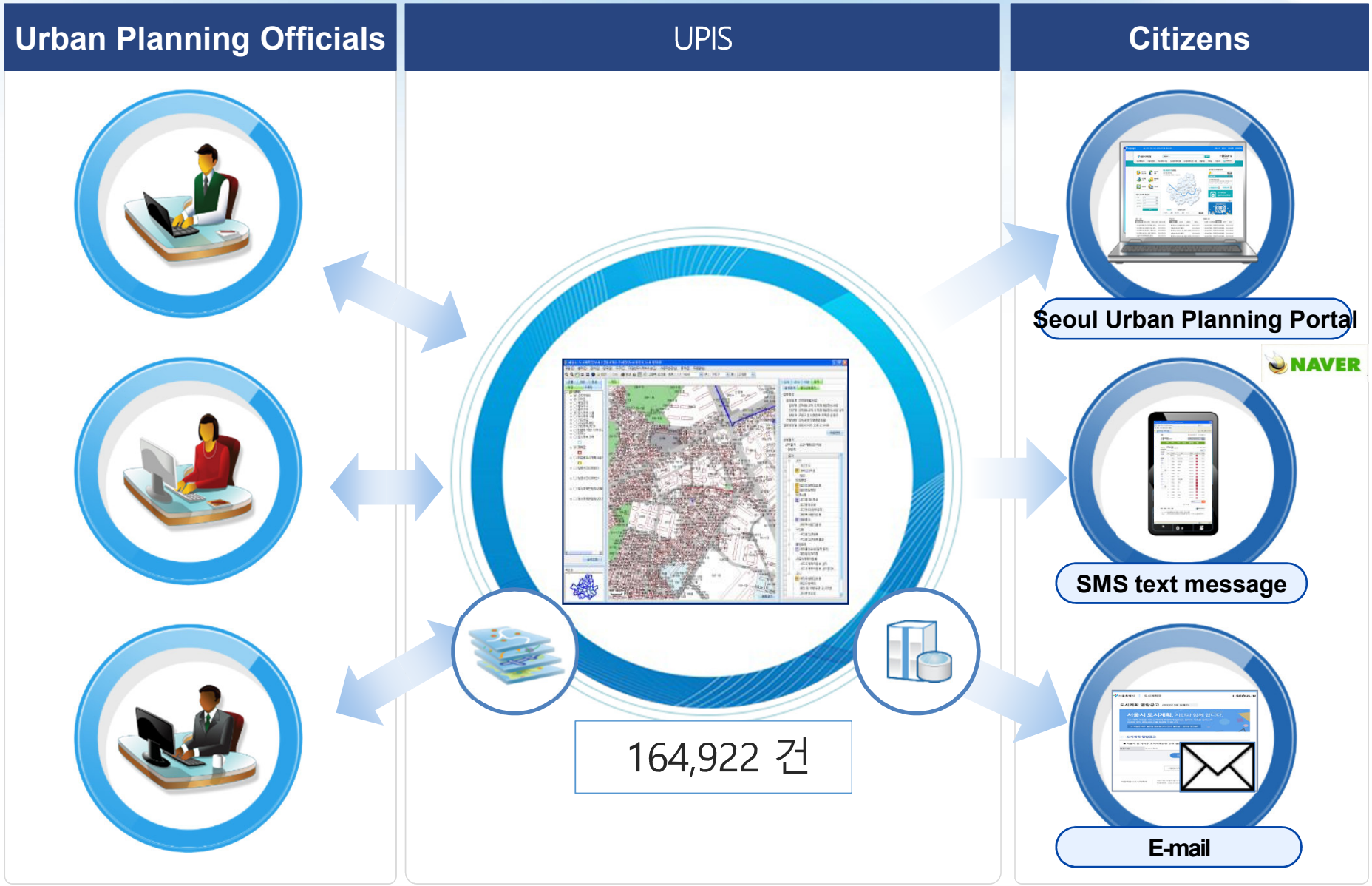
02 To Officials

Support efficient and reasonable decision making on urban planning

03 To Future generations

Management of sustainable urban planning information

5. Utilization of UPIS



6. Functions of UPIS

Providing GIS Map-Based Intuitive and Specific Urban Planning Information

- Two-dimensional(2D) or Three-dimensional(3D) maps

Delivering Customized and User-Friendly Urban Planning Information

- Through Seoul Urban Planning Portal, SMS text message and e-mail

Support Decision Making through 3D Decision Making Support System

- Analysis of sunlight, topographical profile, view shade , altitude and latitude , etc

Support Efficient Decision Making by Connecting it with Urban Planning related info from other information systems real-time

- Information such as building register, land use plan, etc

Providing Integrated Search to Find Out All Related Information at Once

Provide Explanations on the Difficult Terms and Procedures for the Citizens

7. Implementation Status of UPIS

After the establishment of UPIS in 1999,

Informatization Strategic Plan(ISP) was established in 2017 and the advancement of UPIS has been implemented since 2018

1999. ~ 2004.	2005. ~ 2020.	2018. ~ Now
Making the system : 4 years	Operation : 15 years	Upgrading

ISP in 2017

Establish annual implementation plan

- 1 stage: Establish web based operation base
- 2nd stage: Complete the upgrade
- 3rd stage: Advancement of decision making process

In-house development of unique features after upgrading the system

Adopting the standard functions from the Ministry Land, Infrastructure and Transport

First stage of upgrading in 2018

- Establish the web based operation base
- Enhancement of decision making functions
- Standard-Based DB Redesign
- Introduction of integrated GIS solution
- Data base conversion of 12 districts
- Pilot operation and user training

Second stage of upgrading(2019~21)

- Complete the upgrading of UPIS
- 도시계획 DB통합 전환완성
- 고도화 운영기반 완성

8. Operation of UPIS

Urban Planning Information System (Administrative work)

- Providing city planning information which is essential for city planning based on maps
- Urban planning status and history search and registering decisions and status about land, architecture and aerial photos

▶ **Establishing database for floor plans and decisions about city planning :164,922(as of 2018)**

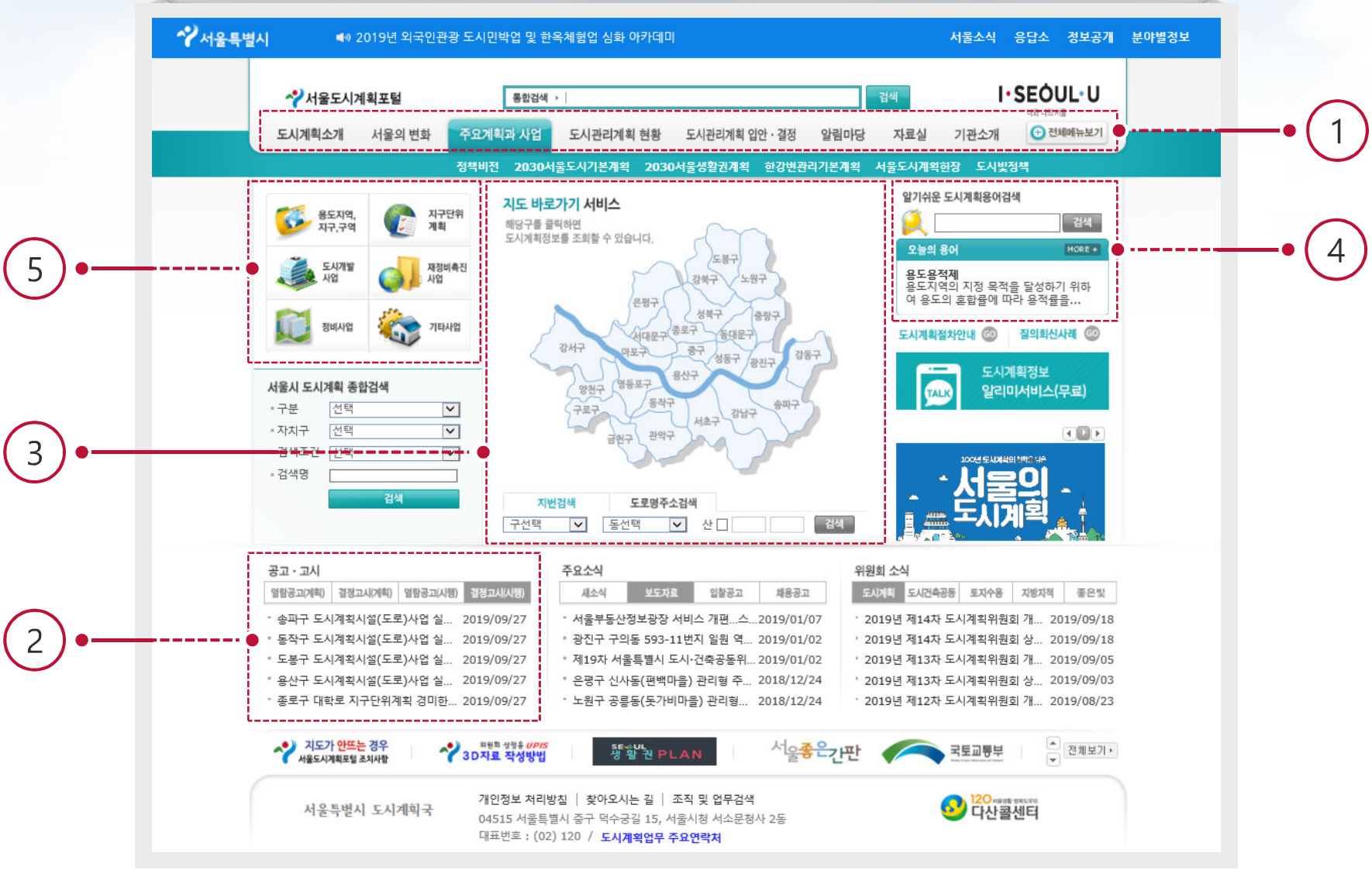
▶ **# of users in 2018 : 23,593 ※ # of users per month 1,966**

Urban Planning Portal (for citizens)

- Providing information on areas of use, districts, zones, district unit plans, city planning projects, etc
- Release of notices and data through connection with UPIS

▶ **# of users in 2018 : 401,921 ※ # of users per month: 33,493**

9. Seoul Urban Planning Portal - Full Screen



① Seoul Urban Planning Portal

Seoul Urban Planning Portal

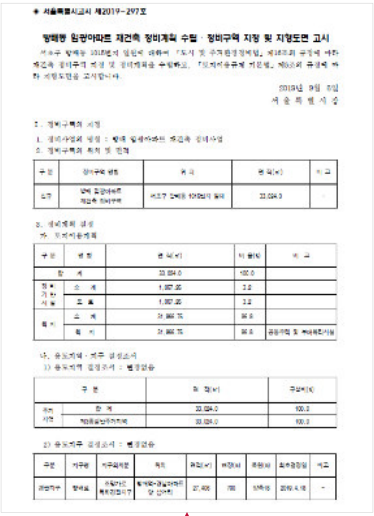
Introduction of Urban Planning	Change of Seoul	Major Plans and Projects	Current Status of Urban Management Plan	Drafting. Decision Making of Urban Management Plan	Square of Information	Archives	Introduction of Institutions
- National Land Space Planning System -Urban Management Planning -Regional planning - Development activity -Landscape Planning	-City Formation and Change -Transition of Urban Planning -History -Changes in Map	-2030 Seoul City Basic Plan -2030 Seoul plan for residential areas -Han Riversidd Management Basic Plan -Seoul City Planning Charter -Urban light policy	-Purpose Area, District, Zone -District Unit Planning -Urban Planning-related Projects	-Current Status of Drafting the Urban Management Plan -Reading Announcement - Notice of Decision - Implementation Plan	- News -Press Releases -Committee -Tendering of Notice -Recruitment Test	-Unified Search for Archives -Business Plan -Statistics -Business Resources -Urban Planning Laws -Examples of Urban Planning -Map of Ecological Status -Handbook of Civil Affairs	-Greetings -Organizations & Business -Location

② More Views on Reading Announcement of Urban Planning & Notice of Decision

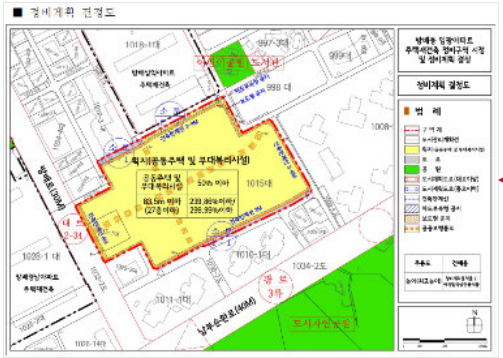
More Views on Reading Announcement of Urban Planning & Notice of Decision

All the reading announcements and decision notices of urban planning in Seoul and autonomous districts are posted together with detailed information (title, location, number of notifications, date, place of viewing, contact no. of the official, files of notice/ announcement), and the range urban planning and model are marked on the map.

Announcements



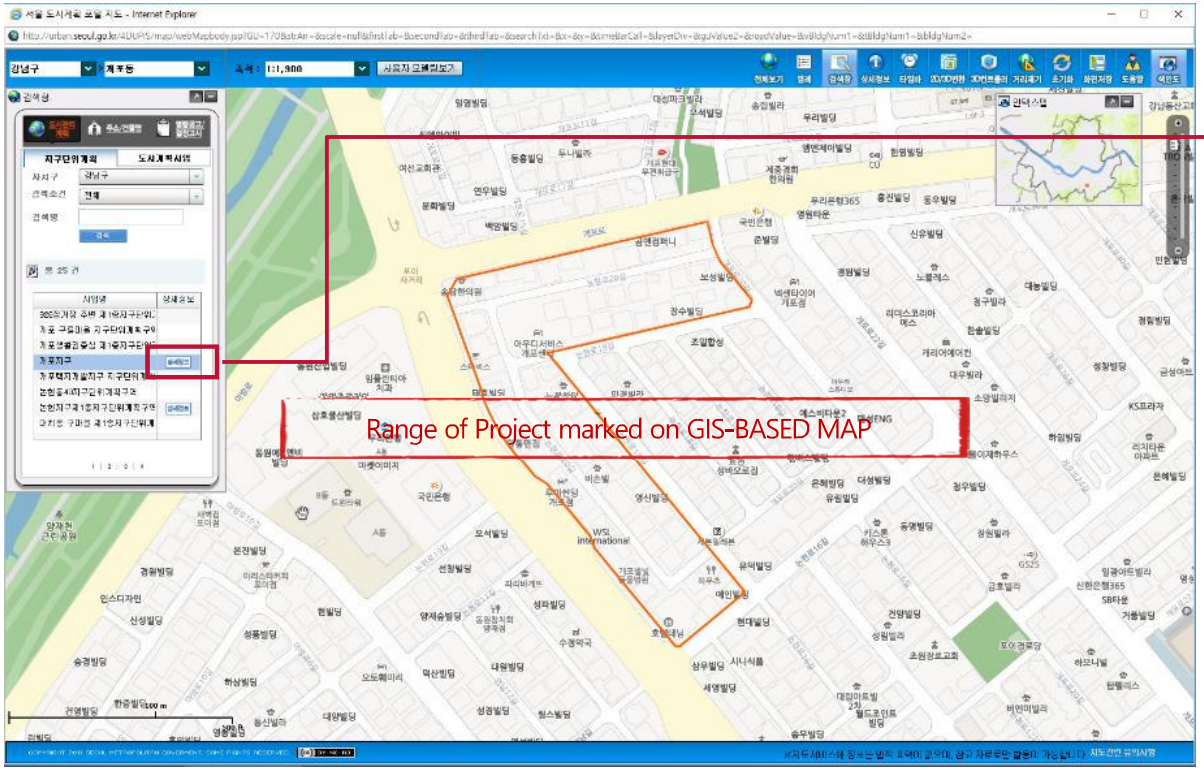
decision notices

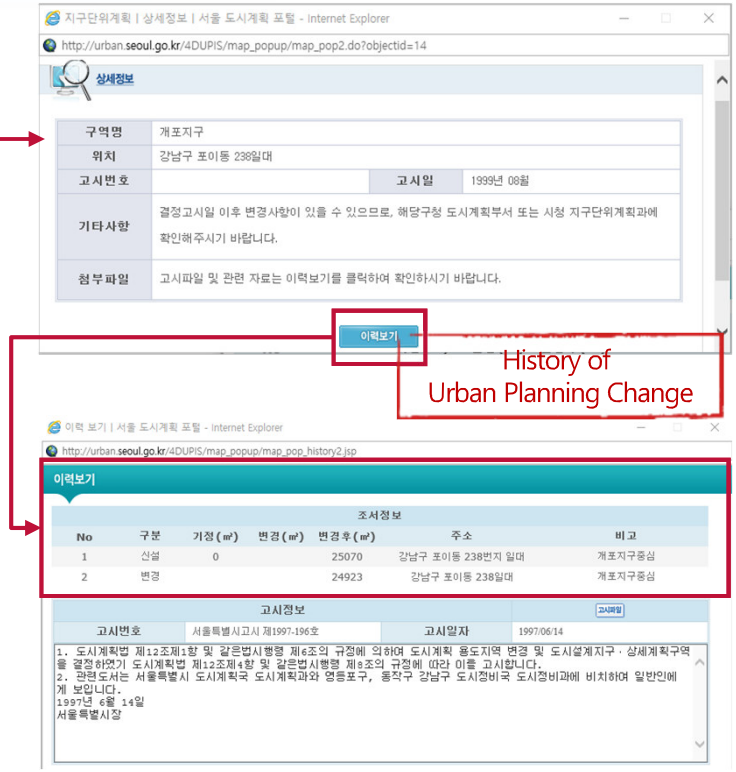


③ Viewing the Map of Urban Planning

Viewing the Map of Urban Planning

- Enables searching for the current status of district unit plan designation by autonomous districts in Seoul and urban planning projects(urban development, improvement projects, etc.)
- Pressing "More Views" in the search results will display the project scope on the GIS-based map with the review of the history of changes from the beginning(related files of ancement/notification).





④ "Urban Planning Terms Made Easy" Service

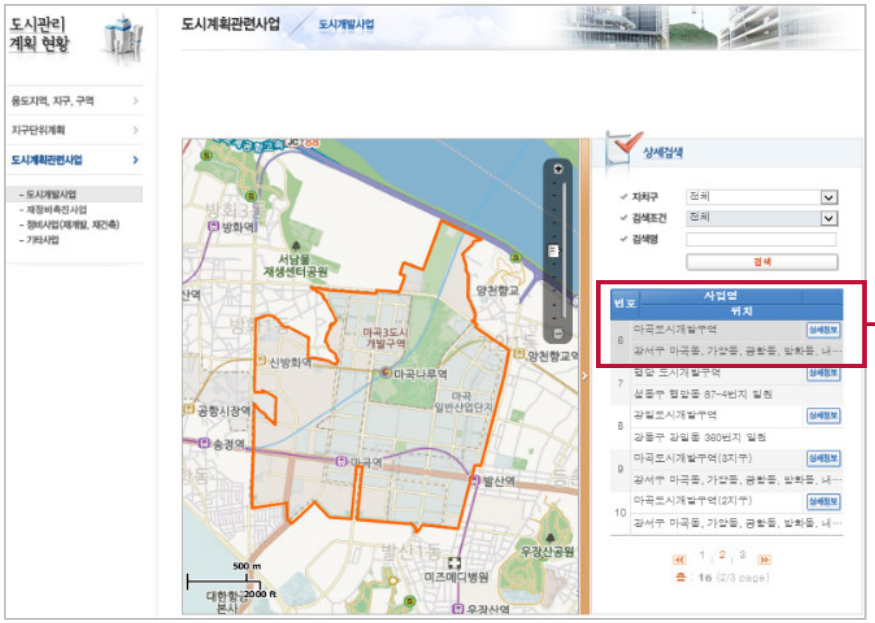
"Urban Planning Terms Made Easy" Service

- Search window for "urban planning terms made easy," which explains the urban planning terms through pictures.

5 Current Status of Urban Management Plan

Current Status of Urban Management Plan

- Decisions in Urban Planning entered from UPIS are updated in real time(district unit plan, urban development, redevelopment facilitation projects, other projects), and regions and types of urban planning can be used to search by clicking the title of decision notification or moving to the search window.
- Each notification of decision provides the range of district marked on the map and detailed information from the first establishment to the changes including the size of area, address, reason for change, and notification letter.



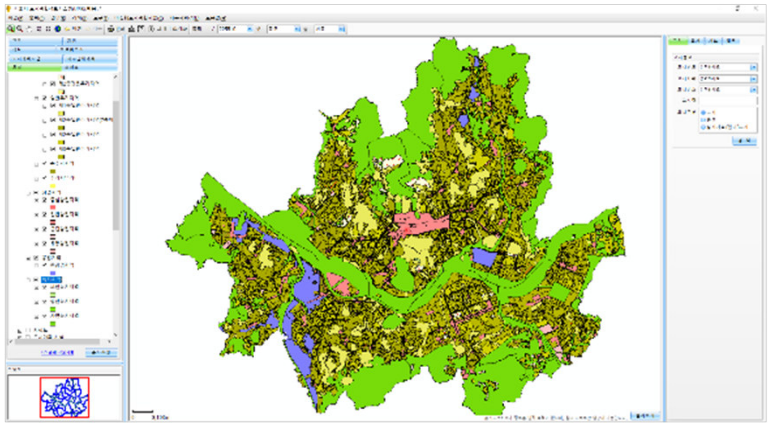
History of Urban Planning Change

10. Urban Planning Information System(UPIS)

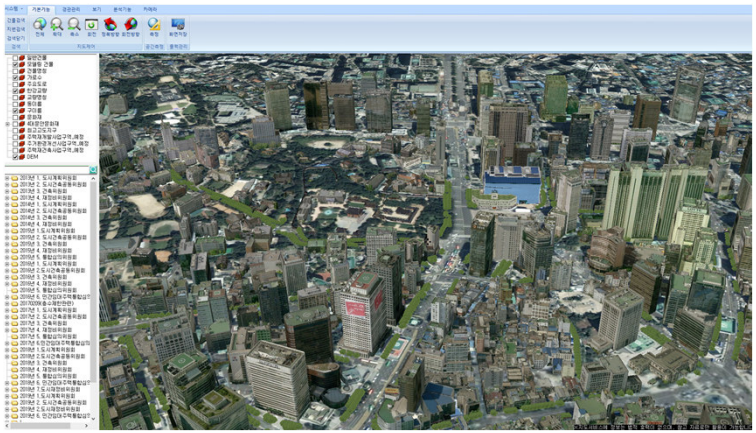
***Chebiji management system**

* area of land secured by the authorities in recompense of development outlay

Urban planning plan & decision system

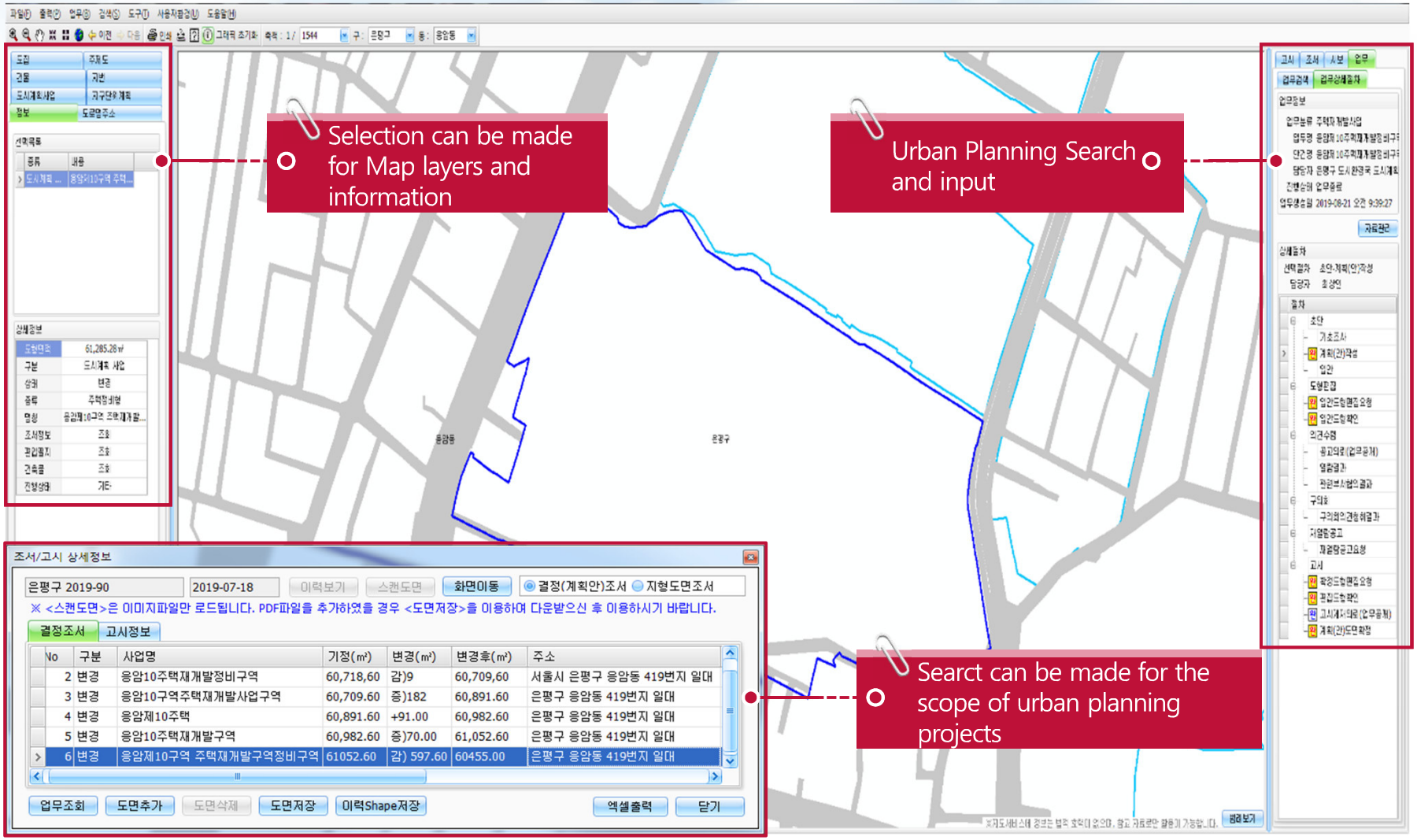


3D Decision Making Support System



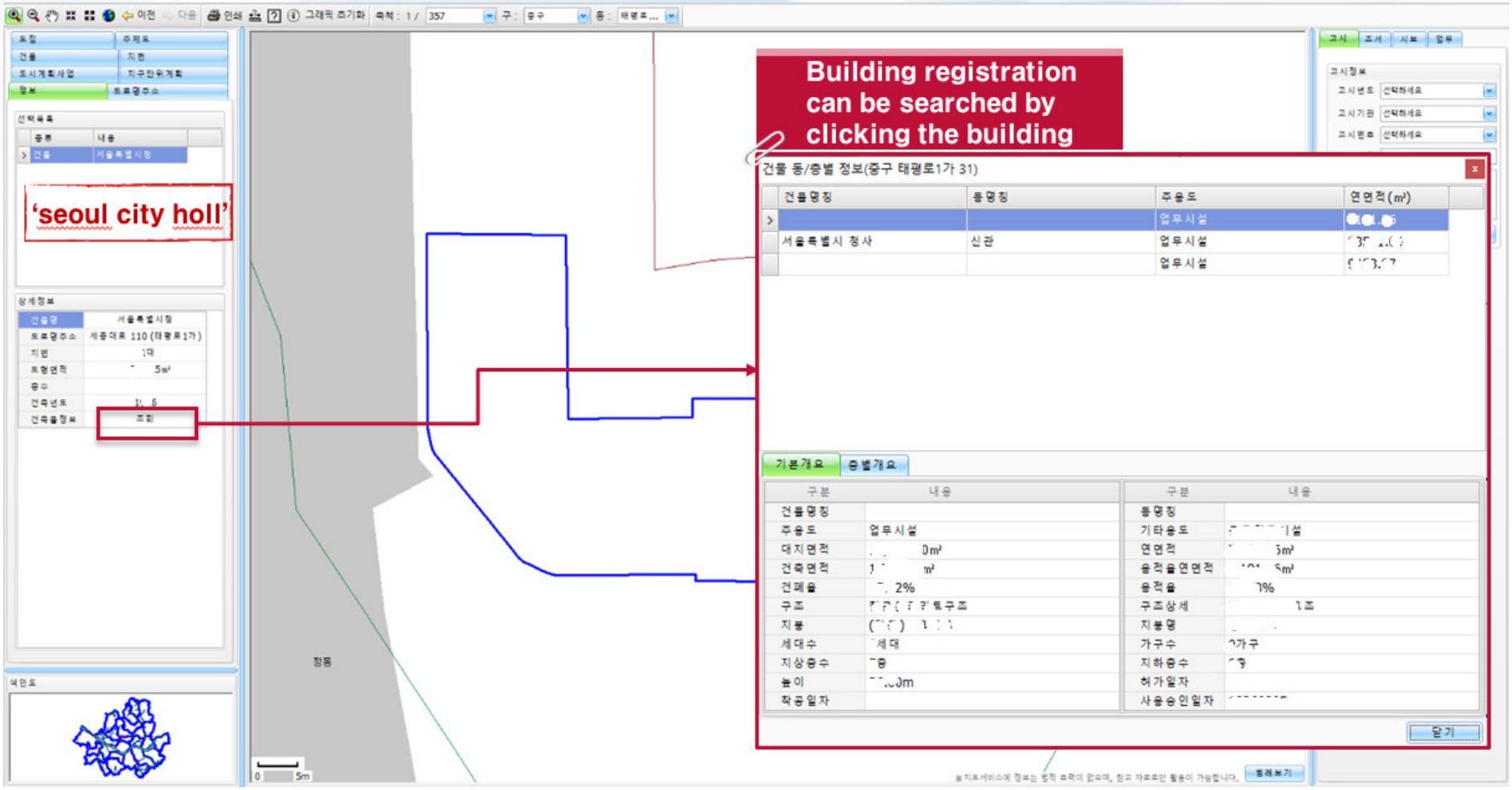
10. UPIS - Input Screen

Search can be made for the scope of urban planning projects (model), related references, and history.



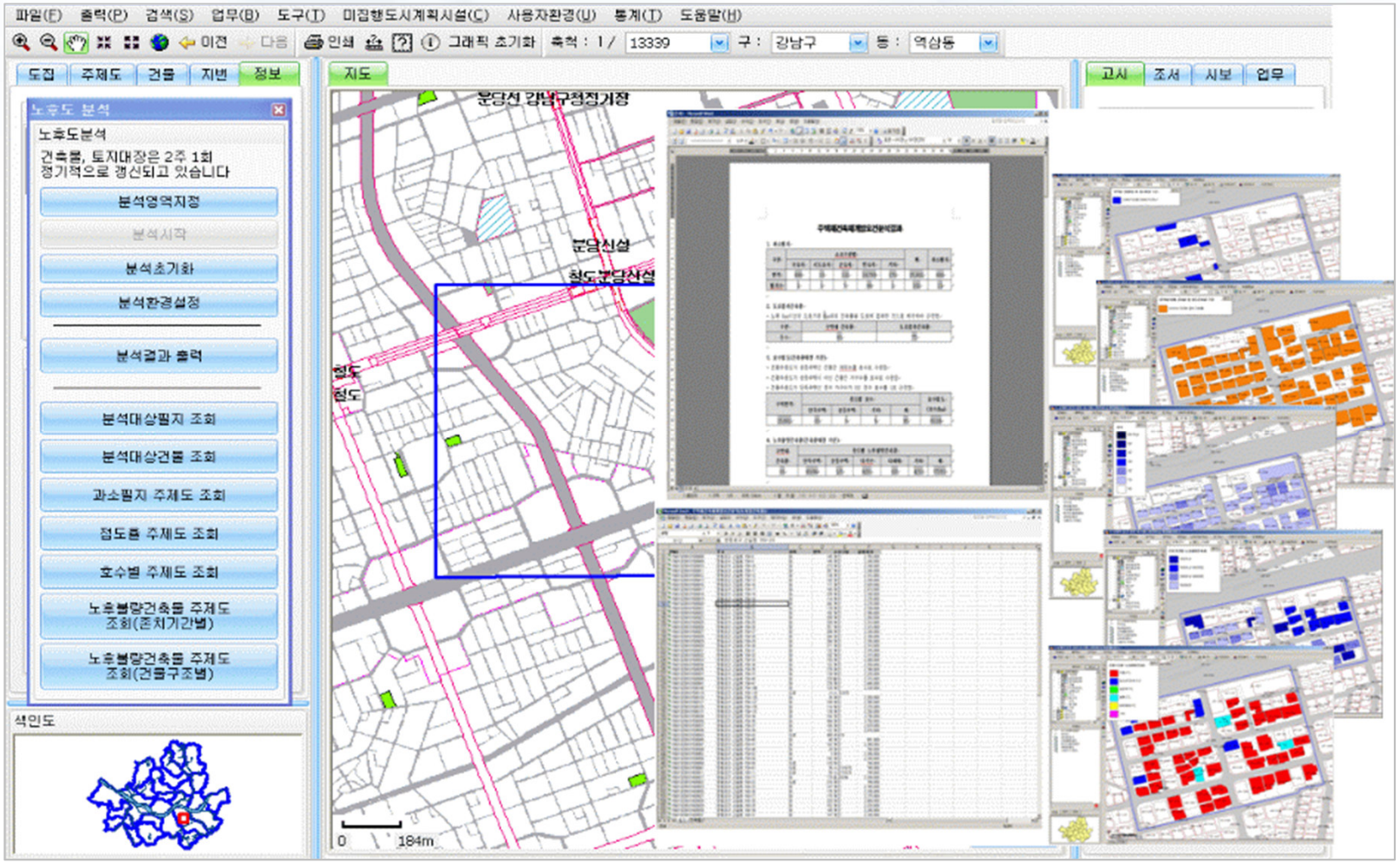
10. UPIS – Search Related documents

- Enabling search for building registration (purpose, structure of building, building area, floor area, coverage ratio, floor area ratio, completion date, etc.)



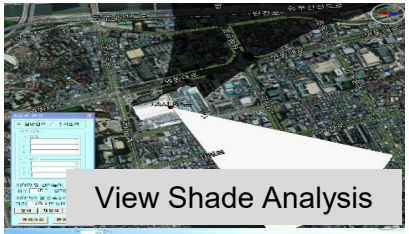
10. UPIS – Information of land and buildings

- Specifying the area will present information regarding the land and buildings within the area and analyze the necessity of rebuilding or redevelopment with the current status of deteriorated buildings in this region.



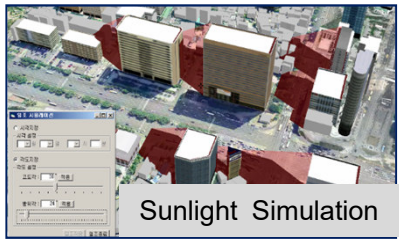
10. UPIS – “3D Decision Making Support System”

This 3D modeling program can be utilized by urban planning officials to make decisions in the urban planning committee and by the general public through the 3D materials in the Urban Planning Portal.

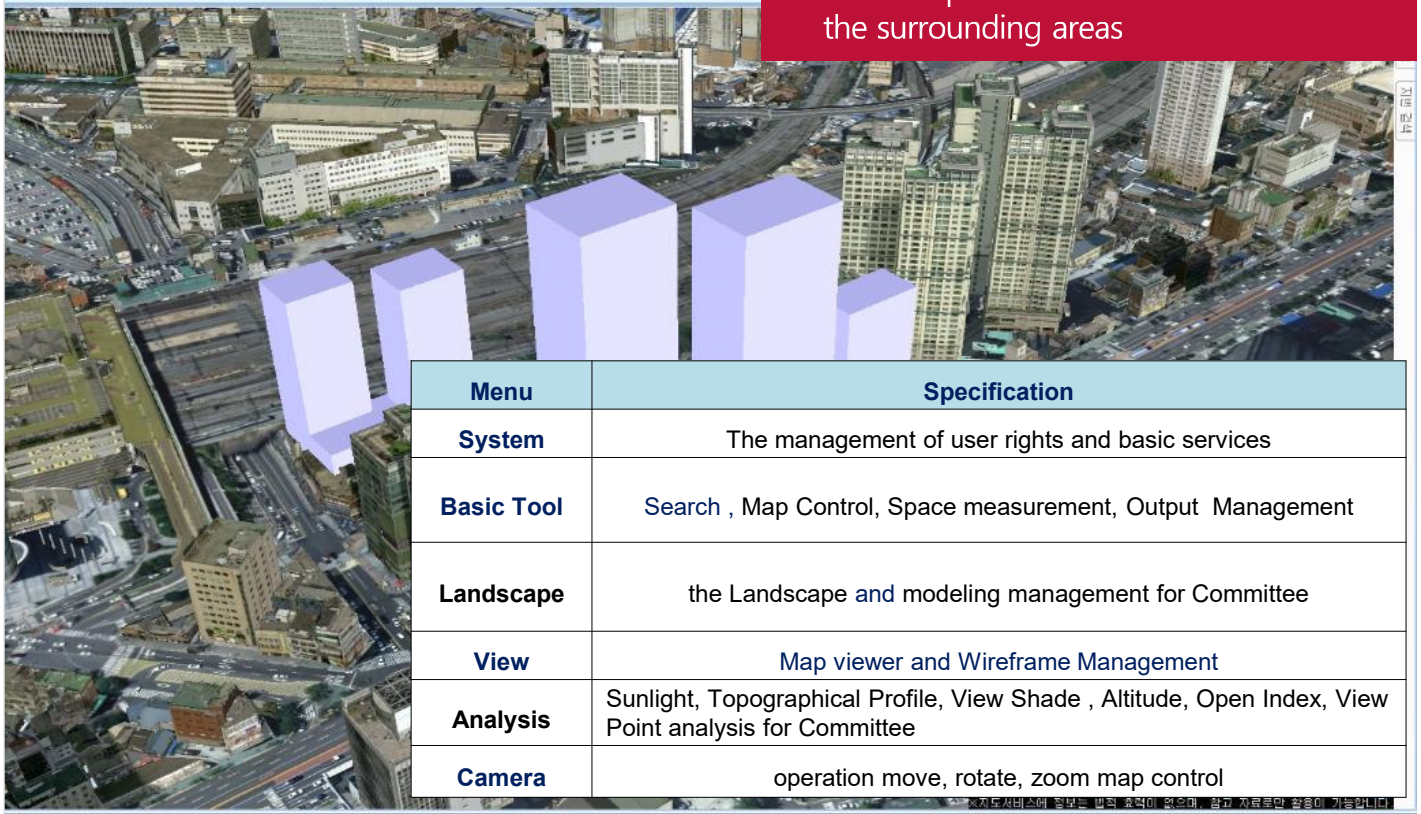

View Shade Analysis

Altitude Analysis

View Point Analysis


Sunlight Simulation

3D modeling and demonstration to see how the plan to be decided will affect the surrounding areas



Menu	Specification
System	The management of user rights and basic services
Basic Tool	Search , Map Control, Space measurement, Output Management
Landscape	the Landscape and modeling management for Committee
View	Map viewer and Wireframe Management
Analysis	Sunlight, Topographical Profile, View Shade , Altitude, Open Index, View Point analysis for Committee
Camera	operation move, rotate, zoom map control

11. Great Change

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Type of information

Paper-based text and images	Computerized documents and drawings and GIS Map-based information

Phase of information

One to be searched by citizens difficult and formally	One can be delivered by government promptly and accurately

Distribution of information

On the little bulletin board and Scattered websites	Computer, Cellular- phone at home and in one place

Citizen

Spectators of information	Direct consumers and participators

Urban planning Officials

Passive publishers	Active communicators

12.Effectiveness of Urban Planning Information System

Provision and utilization of city planning information with good quality

Effects of Establishing UPIS

Quality improvement

- Improvement in transparency and trust toward public administration
  - Ensure consistency of work
  - Shorter working hours
- Reduced review time through modeling
- Field survey in advance
- Evidence based decision making

Increased productivity

- Sharing GIS-based Urban Planning Knowledge
  - Knowledge Asset Sharing
  - Shorter working hours
- Shorten response time
- Reviewing real-time status
- Respond to inquiry real-time and reduce cost

13. Success Factors of UPIS

Decision makers' interest and will	The quality of performance is different based on decision makers' interests and wills
Organizing a dedicated and practical group for UPIS	The designated group which consists of specialists for UPIS are given the responsibility and authority for the job
Interdepartmental cooperation	Collaboration between departments is essential because the UPIS requires expertise and data by other departments
Academic support	Academic support, for example, from outstanding personnel of municipal development research institutes, is important

14. Awards for UPIS

2013 Asia-Pacific Future Government Award

Future Government Awards 2013

2006 Presidential Award

The 9th Informatization Innovation Contest by the Ministry of Government Administration and Home Affairs

서울 도시계획정보시스템 대통령상

서울시는 행정자치부에서 주최한 제9회 자치정보화 혁신경진대회에 '도시계획정보관리시스템(UPIS)'을 출품, 대통령상을 수상했다고 8일 밝혔다.

서울시 도시계획정보관리시스템은 도시계획과 관련된 고시문, 결정조서, 도형, 이미지 등을 데이터베이스(DB)로 구축해 도시계획업무 처리 및 의사결정을 지원해주는 시스템이다.

서울시는 1999년 12월부터 2004년 11월까지 데이터베이스 및 시스템 구축을 마치고, 지난해 9월부터 올 2월까지 일부 자치구의 시범운영을 거쳐 3월부터 25개 자치구에서 시스템을 운영 중이다.

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Urban Planning Information System(UPIS)

Thank you!