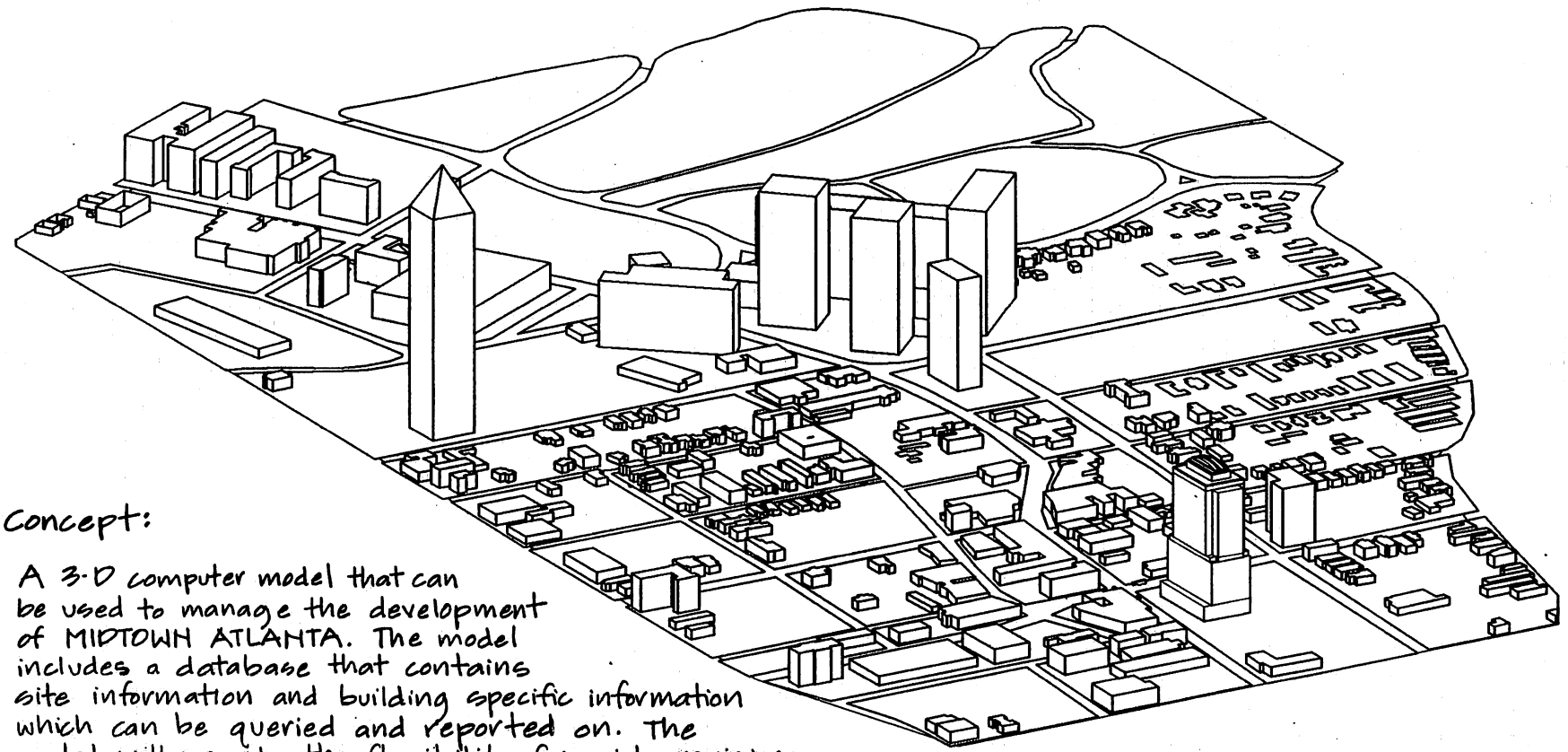
MIDTOWN CITY MODEL AND DATABASE

Problem Description :

Central Atlanta Progress is an organization that solicits and manages new business growth for Midtown Atlanta. Currently the group uses a physical model to visualize the existing buildings and potential new developments. Information about the buildings and district are keep on file. It was the desire of this group to have a better method for visualizing the growth of Midtown and store/retrieve information about the buildings and district.

Project Work :

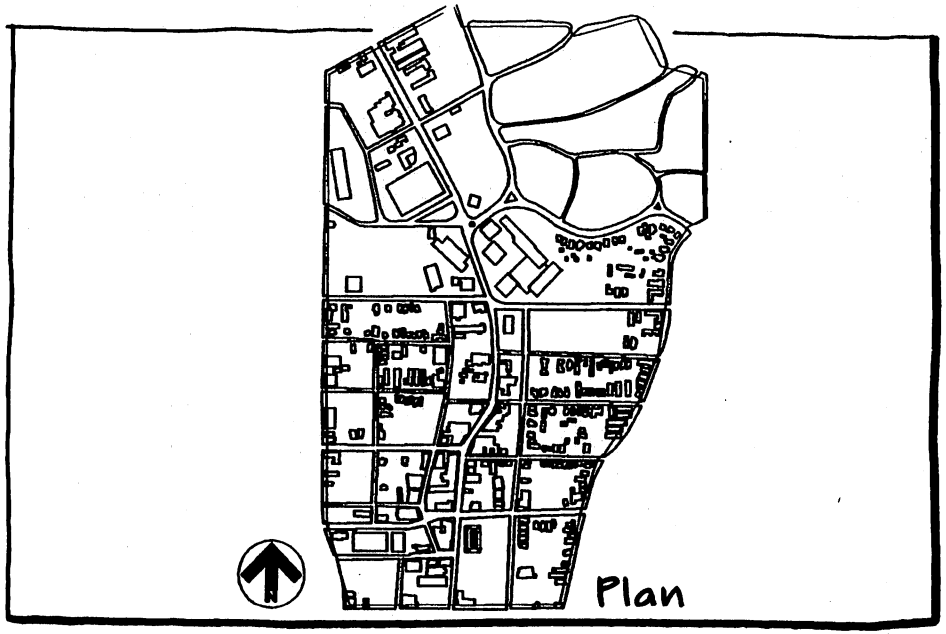
City maps were collected that illustrated street, block boundaries and building footprints. This information was digitized into a 3D drawing file. Aerial photographs were used to approximate vertical heights of buildings and the building footprints projects to generate 3D masses for each building. A preliminary custom database was developed to track building information. The database records were linked to the graphics so that building information could be reviewed from hiliting the graphic image. The database features permit the information to be queried from graphics or from a non-graphic mode allowing questions to be asked and buildings identified that meet desired criteria.

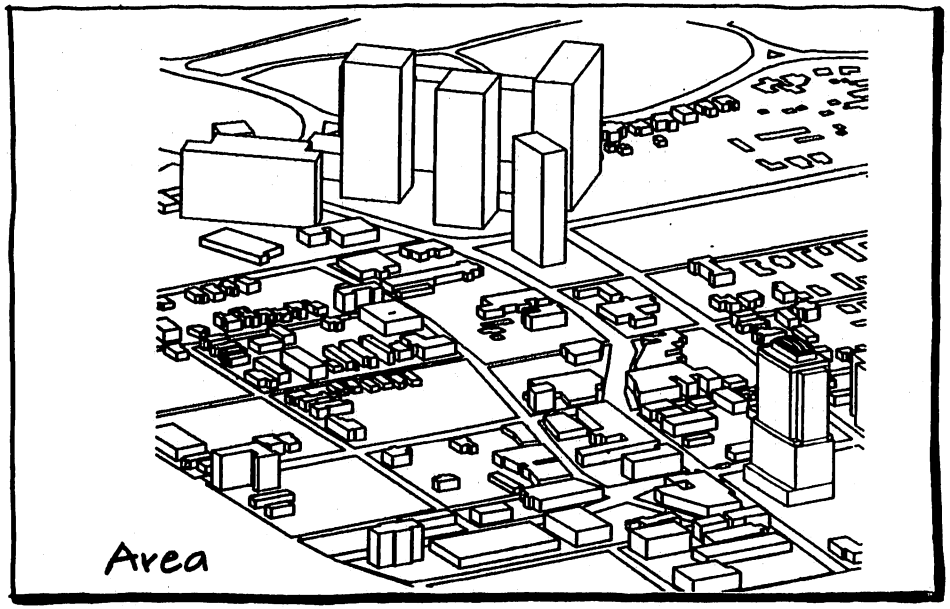


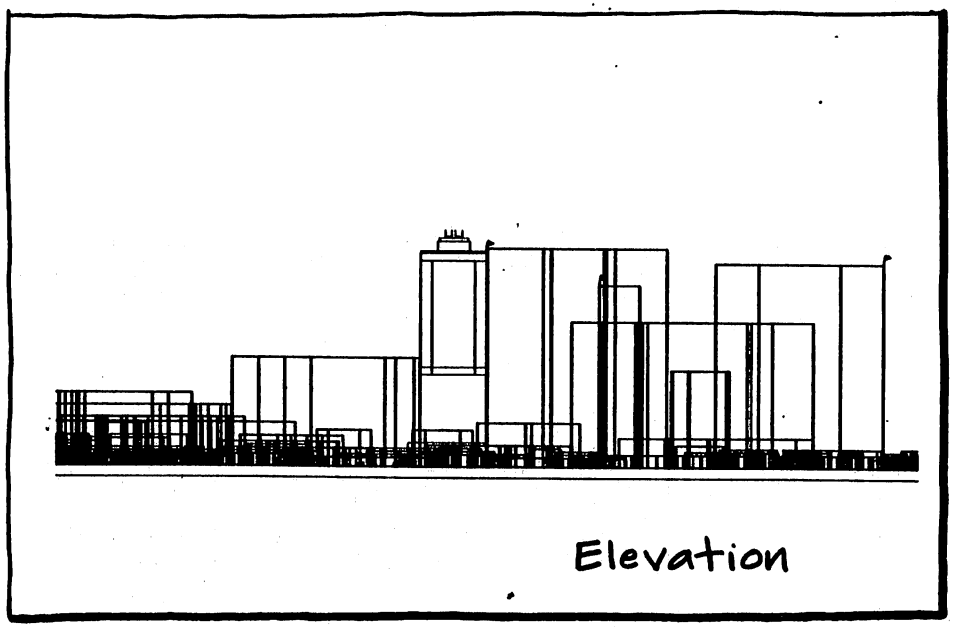
Concept:

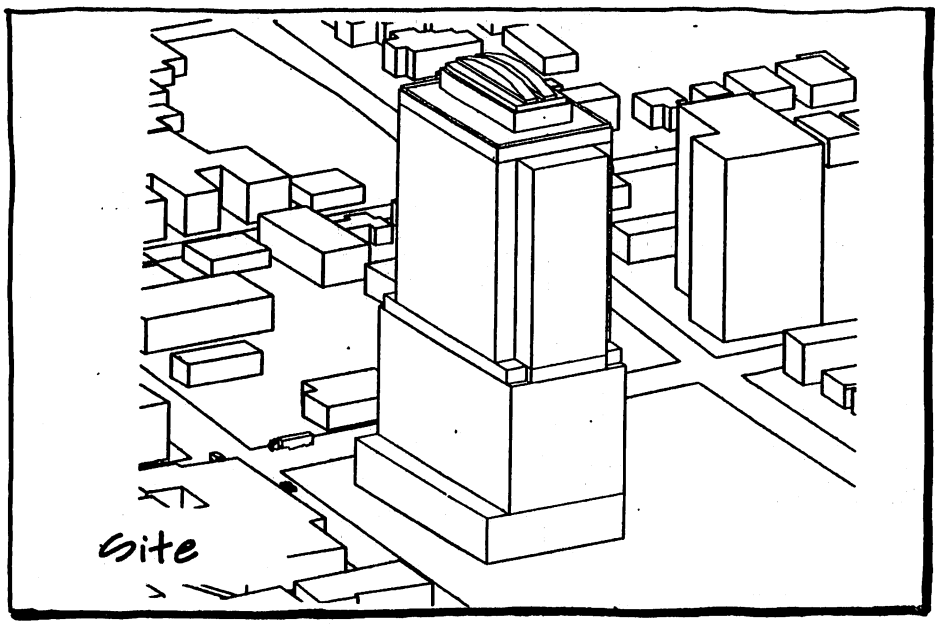
A 3-D computer model that can be used to manage the development of MIDTOWN ATLANTA. The model includes a database that contains site information and building specific information which can be queried and reported on. The model will provide the flexibility for quick revisions, site analysis and future planning.

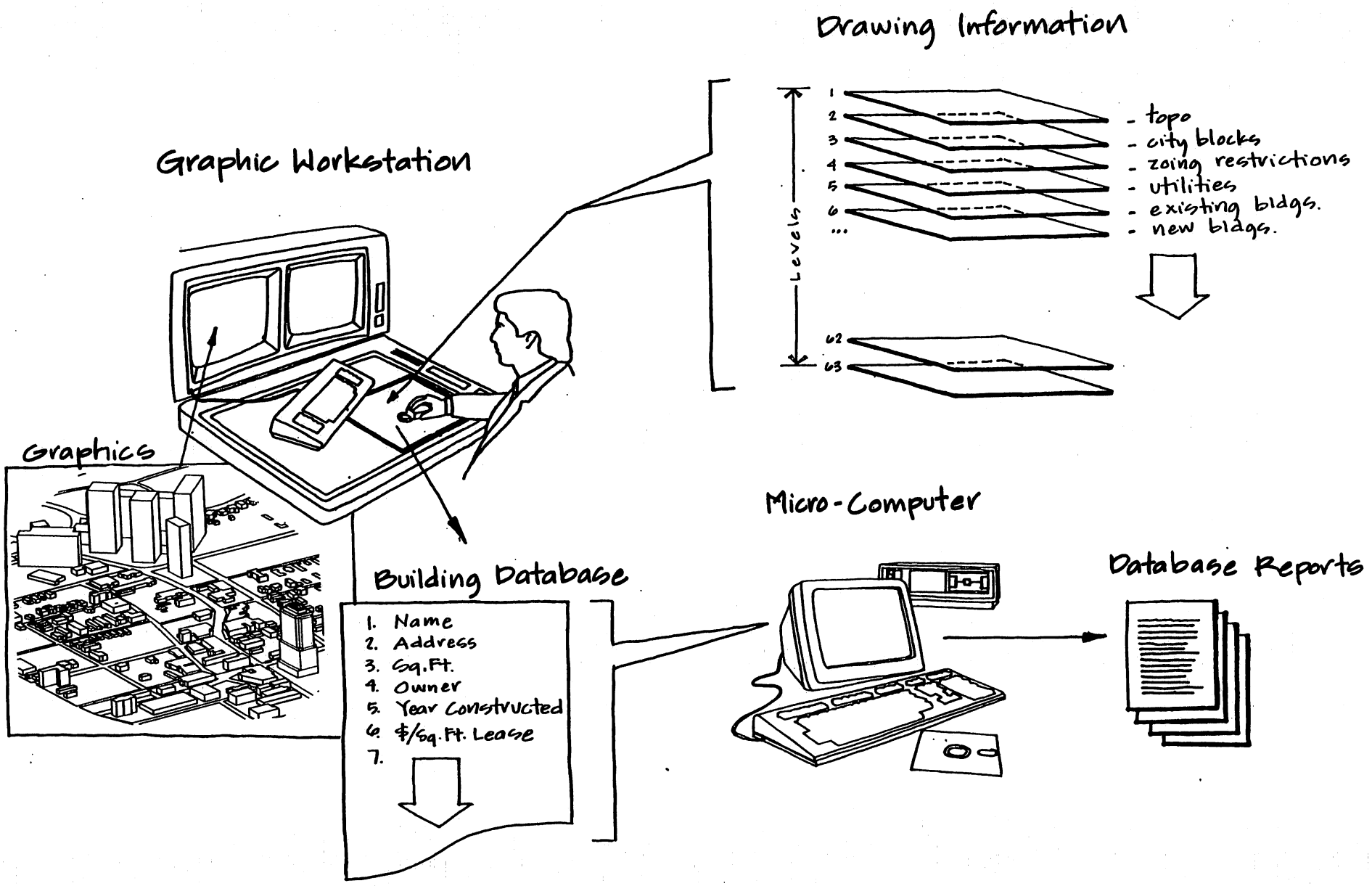
MIDTOWN ATLANTA


Plan

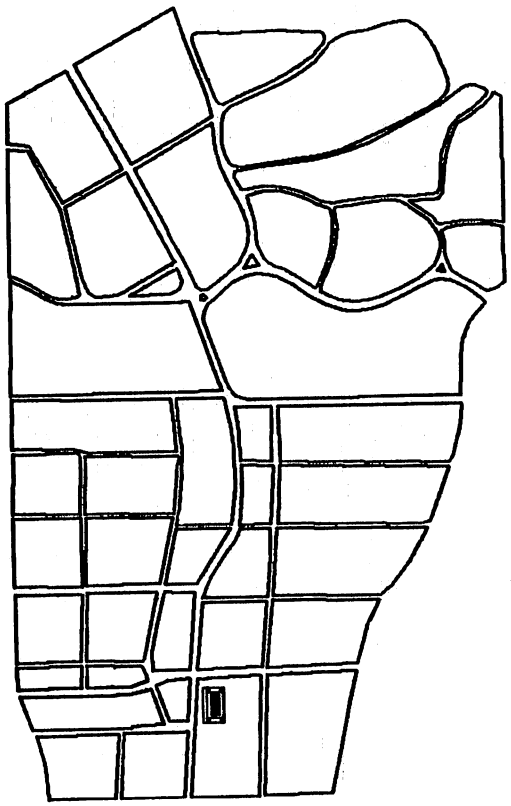

Area


Elevation

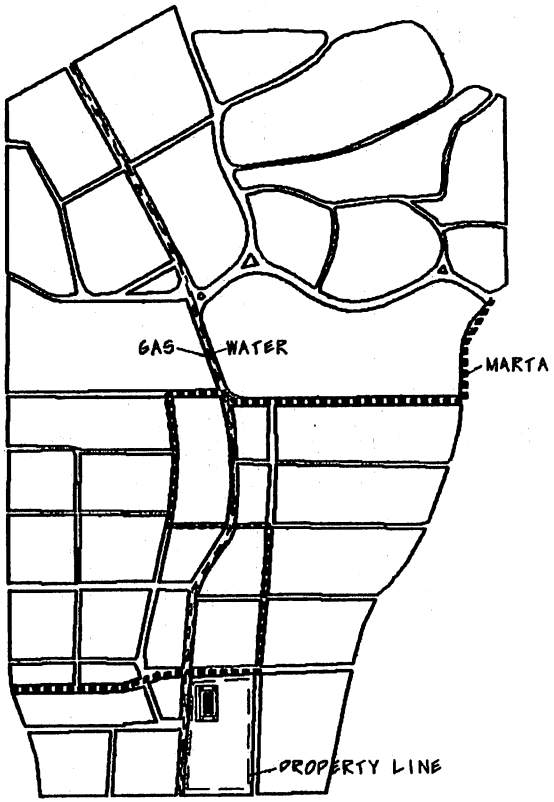

Site


Drawing Information
Graphic Workstation
Levels
1
2
3
4
5
6
...
62
63
- topo
- city blocks
- zoning restrictions
- utilities
- existing bldgs.
- new bldgs.
Graphics
Micro-Computer
Building Database
1. Name
2. Address
3. Sq.Ft.
4. Owner
5. Year Constructed
6. $/Sq.Ft. Lease
7.
Database Reports

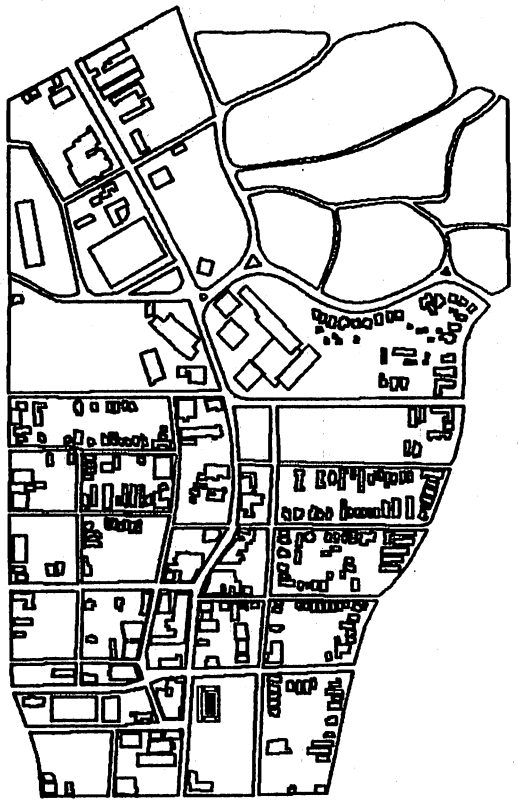
Levels of Information



City blocks
Streets
Topo

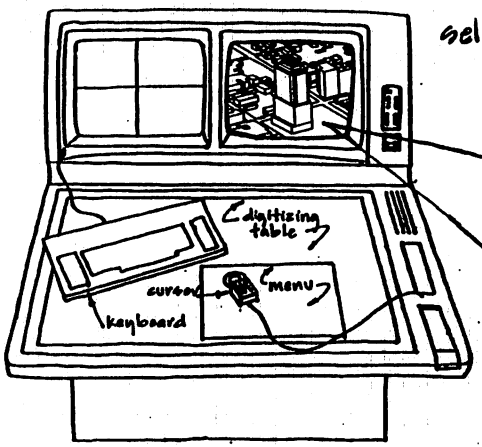


Utilities
Transportation



Existing building
New developments

Interactive Graphic Reporting



select graphics

fence

individual

Plan

Bldg. Database

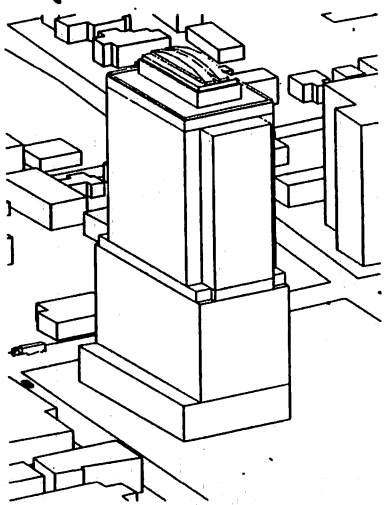
Report

```
  .NAME = 'COLONY SQUARE'
.STREET = '14TH STREET'
  .SQFT = '900000'
  .MISC = 'EXISTING'

  .NAME = 'CAMPANILLE BLDG'
.STREET = 'PEACHTREE STREET'
  .SQFT = '450000'
  .MISC = 'CONSTR DATE SEPT 87'

  .NAME = 'IBM TOWER'
.STREET = 'SPRING STREET'
  .SQFT = '1000000'
  .MISC = 'CONSTR DATE FEB 88'
```

Bldg. Database



Report

```
  .NAME = 'HEERY INTERNATIONAL'
.STREET = '999 PEACHTREE STREET'
  .SQFT = '650000'
  .MISC = 'CONSTR DATE SEPT 87'
```

Examples of Database Queries and Reports

Q. Find all the bldgs.

A.

```
DMRS>USE DB='DS1:[30,1]MIDTOWN.DBS'!

DMRS>FIND 1:MIDTOWN.*:.* !

DMRS>LIST 1* !


1. MIDTOWN.
    .1          .NAME = 'HEERY INTERNATIONAL'
    .2        .STREET = '999 PEACHTREE STREET'
    .3          .SQFT = '650000'
    .4          .MISC = 'CONSTR DATE SEPT 87'
1. MIDTOWN.
    .1          .NAME = 'COLONY SQUARE'
    .2        .STREET = '14TH STREET'
    .3          .SQFT = '900000'
    .4          .MISC = 'EXISTING'
1. MIDTOWN.
    .1          .NAME = 'CAMPANILLE BLDG'
    .2        .STREET = 'PEACHTREE STREET'
    .3          .SQFT = '450000'
    .4          .MISC = 'CONSTR DATE SEPT 87'
1. MIDTOWN.
    .1          .NAME = 'IBM TOWER'
    .2        .STREET = 'SPRING STREET'
    .3          .SQFT = '1000000'
    .4          .MISC = 'CONSTR DATE FEB 88'
```

Q. Find all the bldgs. that have a CONSTR DATE of SEPT 87.

A.

```
DMRS>FIND 1:MIDTOWN.*:.MISC='CONSTR DATE SEPT 87' !

DMRS>LIST 1* !


1. MIDTOWN.
    .1          .NAME = 'HEERY INTERNATIONAL'
    .2        .STREET = '999 PEACHTREE STREET'
    .3          .SQFT = '650000'
    .4          .MISC = 'CONSTR DATE SEPT 87'
1. MIDTOWN.
    .1          .NAME = 'CAMPANILLE BLDG'
    .2        .STREET = 'PEACHTREE STREET'
    .3          .SQFT = '450000'
    .4          .MISC = 'CONSTR DATE SEPT 87'
```

Q. Find all the bldgs. that have SQ.FT. greater than or equal to 750,000.

A.

```
DMRS>FIND 1:MIDTOWN.*:.SQFT>='750000' !

DMRS>LIST 1* !


1. MIDTOWN.
    .1          .NAME = 'COLONY SQUARE'
    .2        .STREET = '14TH STREET'
    .3          .SQFT = '900000'
    .4          .MISC = 'EXISTING'
1. MIDTOWN.
    .1          .NAME = 'IBM TOWER'
    .2        .STREET = 'SPRING STREET'
    .3          .SQFT = '1000000'
    .4          .MISC = 'CONSTR DATE FEB 88'
```

Q. Find all the bldgs. that have a CONSTR DATE of SEPT 87 and will have a SQ.FT. greater than 500,000.

A.

```
DMRS>FIND 1:MIDTOWN.*:.MISC='CONSTR DATE SEPT 87' & .SQFT>'500000' !

DMRS>LIST 1* !


1. MIDTOWN.
    .1          .NAME = 'HEERY INTERNATIONAL'
    .2        .STREET = '999 PEACHTREE STREET'
    .3          .SQFT = '650000'
    .4          .MISC = 'CONSTR DATE SEPT 87'
```