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THE KINGDOM OF THAILAND  
MINISTRY OF INTERIOR  
DEPARTMENT OF TOWN AND COUNTRY PLANNING

# CITY PLANNING MANUAL

VOLUME IX DISTRICT PLANNING

THE STUDY ON  
APPLIED TECHNOLOGY FOR  
MAKING CITY PLAN

JANUARY 1989

JAPAN INTERNATIONAL COOPERATION AGENCY

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VOLUME IX

DISTRICT PLANNING

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**INTRODUCTION**



## INTRODUCTION

This manual has been produced for use by DTCP staff for the formulation and implementation of a District Plans, i.e. to be a planning and administration guidebook for planners who already have some experience of city planning techniques.

District Planning is actually new planning technology for DTCP. The control and leading measures have been incorporated with the General Plan, Development Plan, Town Planning Act, Building Control Act, By-Laws, Ministerial Regulations etc. The application of those control measures have already been experienced by the planners on each occasion. But for the specified development objectives at district level, application of the measures may be related to as "New Planning Technology". The required measures will be selected and formulated in order to achieve the goal of development. Implementation method for the district plan shall be included in the planning procedures.

Objectives of this manual are:

- 1) To introduce the basic planning techniques for the establishment of the district planning system.
- 2) To ease understanding of the planning process.
- 3) To standardize the method and level of the planning.
- 4) To recommend guidelines for the administration of plan implementation.

In this manual, the district planning system in Japan is cited as an example. It is considered that the Japanese system may provide many leads for formulation and implementation of district plan in Thailand because the sense of value in land ownership for Thai people is found to be similar as that of Japanese. This point is the decisive difference of the land problems experienced in western countries.

The localization of the district planning is therefore proposed to keep in line with the study made on Thai legal system.



**PART I**  
**DISTRICT PLANNING**  
**SYSTEM IN JAPAN**





ESTABLISHMENT OF DISTRICT PLANNING SYSTEM

1.1 Background of the District Planning System

District Planning System was established as a supplemental provision to the Building Code and City Planning Law in 1980.

The requirements of the district planning are based on:

*The change in the awareness of the living environment*

Due to improvements in the standard of living, the creation of a better living environment, townscape, local characteristics etc. are considered to be basic values for urban development.

*Participation of the Residents to the Administration*

The participation of the residents is considered to be an indispensable basic factor for the creation of a favourable district environment. A reasonable expenditure is accepted as the cost for the quality of the social benefit.

*Problems on the Urban Development*

Since the City Planning Law was enforced, the following problems have arisen.

- a. The city planning law has contributed to the formulation of the macro urban development plan. But on the other hand, it is considered not effective enough for promoting a favourable urban environment at district level.
- b. Urban infrastructure has not been reasonably developed in the urban area. Individual small-size development and unorderly expansion of the urban area are creating an inferior urban environment.
- c. Lack of necessary urban facilities has led to inconveniences and problems concerning hygiene and safety.
- d. Rapid development in urban area requires an effective control measures to prevent and avoid the increase of unfavorable social stocks.
- e. Improvement of the unfavorable social stock has not satisfactorily progressed in the urban area. And the desirable living environment and townscape are deteriorating.
- f. The subdivision and mixed land use in the planned area disturb the investment effects for urban development.

## 1.2 Requirements and Objectives

### 1.2.1 Requirements for the District Plan

District development was in the past based on macro-view policy provided by the city planning law, while the individual buildings were controlled by the measures imposed in the building code. The co-ordination for the execution of both laws fell short of desired effectiveness due to discontinuity in ranges of control.

As a supplemental control measure of those laws, the district planning system was established to cover the discontinuity of the two laws.

### 1.2.2 Objectives of the District Planning System

The objectives of the District Planning System are to establish the control and leading measures for the planning at district level, where the control is not covered by the two laws. Such control measures are applied for planning of district facilities, buildings and structures, etc. in order to form the base of effective planning.

### 1.2.3 Characteristics of the District Planning System

- 1) District Planning System is aimed at controlling the developments at district level in terms of the public facilities, buildings, land use and zoning as one package control system for the district.
- 2) District Plan does not attach itself to any particular method or system of urban development, but the control measures will be used as planning tools in accordance with the development objectives and the existing conditions.
- 3) District Planning System is applied as a "Menu" system by integration of various control measures to ensure successful implementation of the planning objectives.
- 4) The District Planning System is implemented through initiatives of the municipalities.
- 5) It is obligatory to reflect the intentions and demands of the residents by their participation in the formulation of the district plan.

## OUTLINE OF THE DISTRICT PLANNING SYSTEM

The District Planning System is applied to a limited district of the town where development or conservation is called for.

The planning components are:

- Planning of the district facilities such as roads and parks.
- Required control measures for the land, buildings and structures.
- Additional control measures required for the specific planning objectives.
- Control and restriction of land use are integrated into one planning package. The required control measures and leading policies are prepared for the district plan to create favorable environment characteristics. The plan shall be formulated to reflect the residents' intentions and demands.

### 2.1 Role of District Plan

The district plan is generally applied to a limited area. In the event of any contradiction with the upper hierarchical plan in the city planning area, the measures applied to district planning shall supplement or reinforce current controls or restriction by zoning.

### 2.2 Area for District Planning

District Plan is basically applied to an urbanizing area, such as

- 1) The area where the urban development was implemented by large-scale building construction or land development, and it is necessary to preserve the effects of those undertakings. Land development includes land readjustment, new town development and large-scale development, etc.
- 2) Currently urbanizing area or anticipated urbanization areas where it is likely that an unfavorable environment will be created.
- 3) The area with a favorable residential and urban environment which need to be conserved.

## CONTROL MEASURES APPLIED IN DISTRICT PLANNING AREA

The objectives of the district plan will be realized by the implementation of control systems for development and building activities, in accordance with the City Planning Law and Building Code.

The control measures to be applied for district planning varies by the characteristics and existing conditions of each district. Therefore, a flexible planning system is necessary.

### 3.1 Notification and Counsel

In the district planning area, any undertaking including: changes of the site boundary or form, building activities, and changes in previously notified matters, shall be notified to the municipality, not less than 30 days before the commencement.

The municipality shall examine the notification, and if the undertaking is judged to be incompatible with district planning policy, it has the authority to cancel or order modifications to be made to be acceptable.

### 3.2 District Planning and Development Permit

A permit shall be required for development activities undertaken in the urbanization area and urbanization control area.

Where the district plan has been applied, other plans for development and building activities shall comply with the district plan.

### 3.3 Transfer of the Control Measures of District Plan to the Building Code

The control measures for the district planning concerning building site, structure, equipments and the use of a building may be transferred into the Building Code.

In this case, the measures will act as controls of the building code and be applied as part of the building permit procedures.

### 3.4 Development of District Facilities

The development of the district facilities shall be included in the controls with the notification, guidance and the development permit systems.

The road plan is provided in the Building Code as:

- 1) Establishment of new roads.
- 2) Designation of the projected roads.

#### 4.1 Base of the Formulation of District Plan

##### 4.1.1 Contents of the District Plan

The following shall be identified

1. Name, location, zone and area.
2. Goal, guideline for the improvement, development, and conservation. (development policy)
3. District improvement program.

##### *Development Policies of the District*

The "development policy" is a general guideline for the improvement, development and conservation of the district.

The following matters shall be clarified.

1. Goal of the planning.
2. Policy of the land use and zoning.
3. Policy of the development of district facilities.
4. Policy of the construction of the buildings.
5. Miscellaneous policies for improvement, development and conservation.

##### *District Improvement Program*

District Improvement Program must satisfy the following requirements:

##### a. Development program for district facilities

Allocation of the facilities to offer services for the district such as road, park, plaza, green area and public space.

##### b. Building construction program

Restriction on:

- Use of the building
- Max. / Min. of floor-area ratio
- Max. / Min. of building coverage ratio
- Min. of the building/land area
- Building line/set back
- Max. / Min. of height of the building
- Form, colour and design of the building
- Structure, height and materials of the fences

### c. Use of the specified land

Restriction on public domain:

- Forest, lake, grassy plain etc. to be protected for the conservation of a favorable environment.

#### 4.1.2 Goal of the District Plan

The Goal of the district plan is the promotion of reasonable land use and the creation and conservation of a favorable environment within the city planning area.

The functions for the control of safety and hygienic improvement shall be reviewed in accordance with the required urban development measures for district facilities, buildings, structures and specified land use.

### 4.2 Planning Procedure for Formulation of District Plan

#### 4.2.1 Work Process for Planning

District Plan will be formulated by the following work steps:

1. Preparation.
2. Selection of the planning area.
3. Formulation of plan.
4. Determination of the plan.

The residents take the initiative in planning in work steps 1 and 2, with the administrative body in charge of work step 3. The plan will be reviewed by the residents. The formulated plan will be finalized by the decision of the city planning official in work step 4.

The finalized plan is implemented along with the required controls and led by the planning administration in cooperation with the residents.

#### 4.2.2 Standard Planning Process

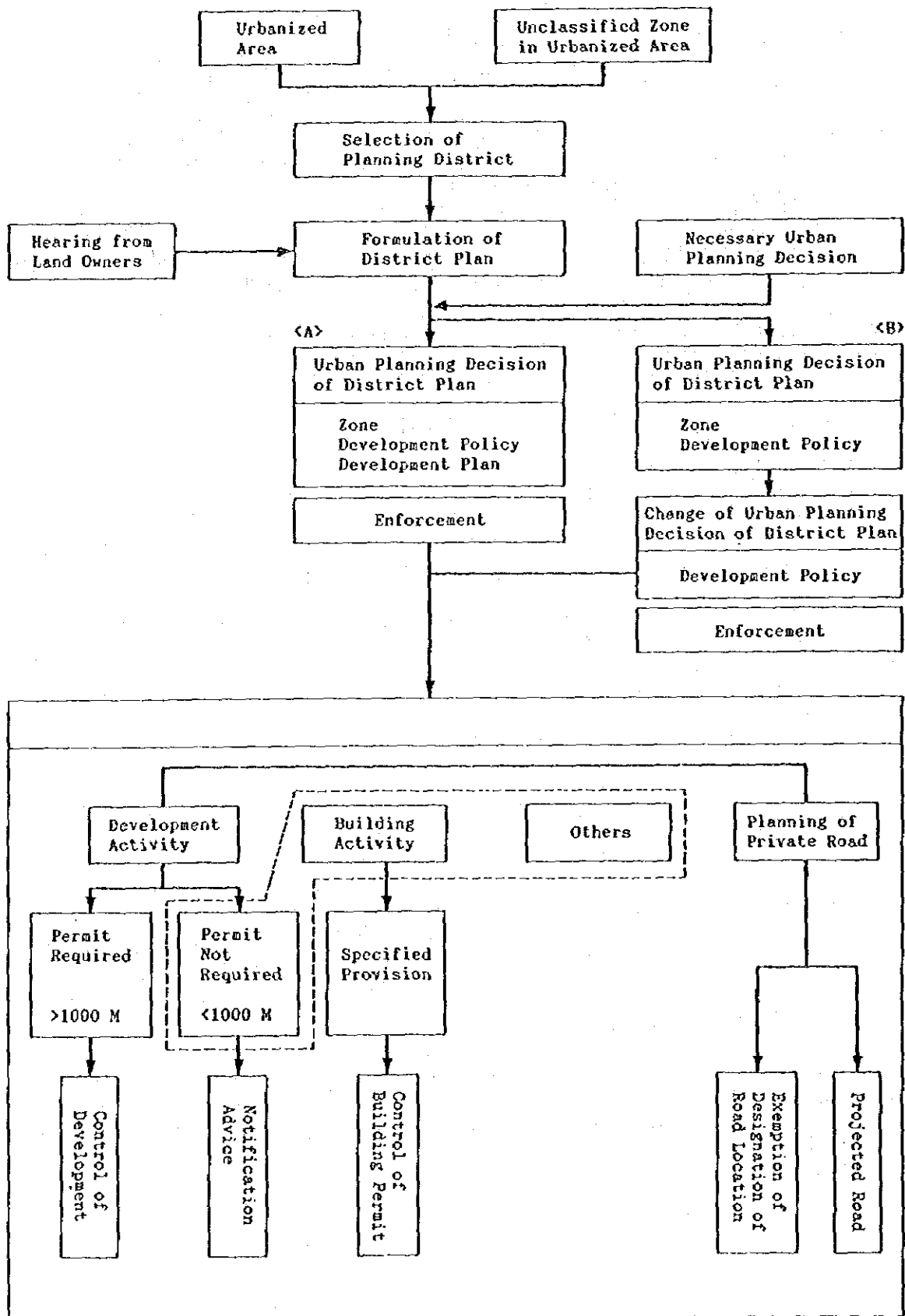
The standard planning process is shown in the Fig. 2.2-1.

### 4.3 Planning Organization

#### 4.3.1 Preparation of Planning

Prior to the formulation of a district plan, preparation and arrangement for the plan formulation will be required. The establishment of a "The Preparatory Committee for the District Planning" is recommended. The municipality will act as the secretariat of the committee.

Fig. 2-2-1 FLOW FOR THE DISTRICT PLAN FORMULATION



The preparatory committee will be in charge of the publicity work to the residents and preparation for the selection of the planning area. The committee shall act as the organization for plan formulation after the work step of the selection of planning area.

#### 4.3.2 Plan Formulation

For the work step of plan formulation, the following 2 organizational bodies shall be required.

1. The planning body, in charge of plan formulation, work related to public cooperation, and administrative work for the residents.
2. The administration body, empowered with the authority to plan and in charge of the administrative work process.

The planning body will be;

- a. An existing organization.
- b. The project team composed of temporary and part-time staff.
- c. Assigned with full-time staff in each division concerned in the municipality. (Organization of the Municipality will be not changed.)
- d. Composed of the staff in charge of each district.
- e. An established planning and administration board for preparation of the district plan as a part of the total development program.
- f. An established division in charge of full-time district planning. It is recommended that the plan covers each district within the administrative area.

The administration body will be:

1. An existing organization of the executive board and committees in the municipalities.
2. An established committee for examination of the the plan. Agreement to the plans shall be made by the authorities concerned for approval of the plan. The planning body will be changed later to be the committee for liaison and adjustment.

#### 4.3.3 Implementation Body

The implementation of the district plan will be carried out by the municipality, and control measure will include development permits and building permits. The committee for liaison and adjustment is required to remain in existence during the implementation period.



#### 4.3.4 City Planning Board

City planning board plays an important role in district planning. The establishment of the board is required for all municipalities where district planning will be conducted.

#### 4.3.5 Relation of Prefectural and National Government

The formulation of the district plan will be undertaken strictly in harmony with the development policy of the prefectural and national government.

## PARTICIPATION OF THE RESIDENTS

Existing conditions, objectives and intention of the residents are the main factors which form the basis of the district planning. Participation of the residents shall be required for planning and implementation.

### 5.1 Significance of Participation

A district plan is concerned with the improvement of environmental quality and enhancement of the living standard of the residents. Direct participation by the representatives of residents and landowners concerned with the development area is required to smooth away the problems that may arise at the implementation stage. Agreement and cooperation by the residents shall be the deciding factor in the planning.

### 5.2 Provision for the Participation of the Residents

In the provision 16 No. 2 of city planning law, the reflection of the land owner and the person concerned are obligatory required. The procedure for the presentation of the proposed plan and submission of the opinion are entrusted to each municipality.

Presentation of the proposed plan will be carried out as follows:

1. Inspection of the preliminary plan.
2. Publication of the preliminary plan.
3. Public hearing.

Opinions regarding the plan shall be submitted in writing by the residents and persons concerned within a certain period of time.

### 5.3 Form of Participation of the Residents

Other than the above mentioned forms of participation, the following forms are proposed.

1. Questionnaire survey of residents.
2. Public hearing.
3. Examination of draft plan by residents organization.

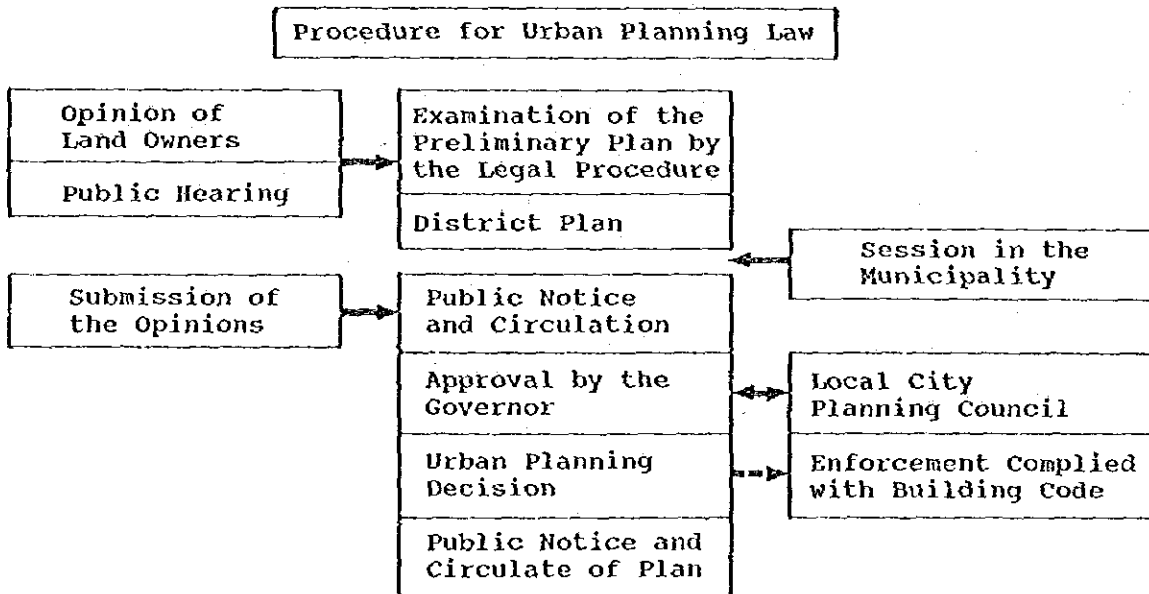
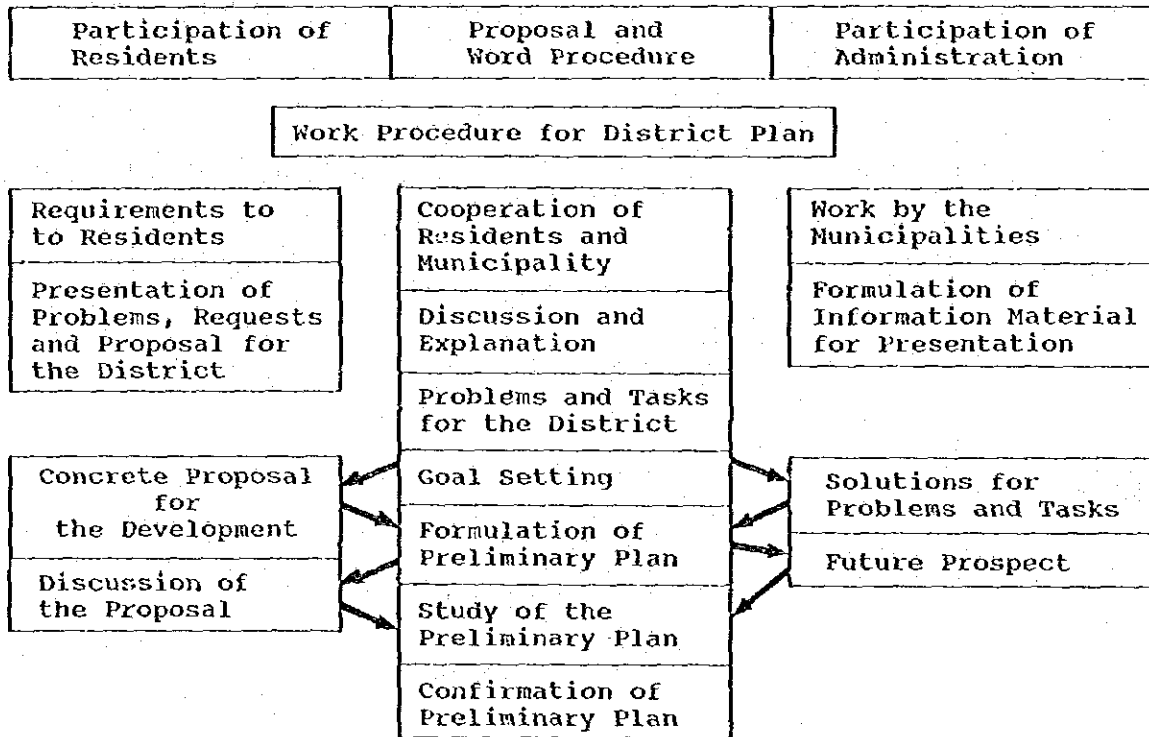
Residents organizations will be formed as follows:

- 1) Residents' representatives committee.
- 2) Informal social gathering by the free attendants.
- 3) Through existing organization body such as neighbourhood union, resident union etc.

The members of these organizations shall be required to participate from the start of the planning until the implementation.

Flow of residents participation is shown in Fig 2-2-2.

FIG 2.2.2 FLOW OF RESIDENTS PARTICIPATION





**PART II**  
**APPLICATION OF**  
**DISTRICT PLAN IN THAILAND**



### 1.1 Background

In Thailand, urban development is controlled by the following:

- Town and Country Planning Act
- Building Control Act
- By-Laws of Building Control Act
- Municipal Regulations
- Ministerial Regulations
- Sub-division Regulation (The Revolutionary Party Announcement)
- Other relevant laws such as
  - . Public Health Regulations
  - . Industrial Activities Regulations

These 7 measures are referred to for planning activities.

The control measures required for the district plan are provided in the above acts, regulations and by-laws, such as:

- 1) In General Plan,
  - a) land use classification
  - b) allocation of main road
  - c) allocation of infrastructures
- 2) In Ministerial Regulation,
  - a) restriction of the buildings
- 3) In By-Laws, Ministerial and Municipal Regulations,
  - a) building coverage area
  - b) setback of the walls
  - c) control of building height by the width of frontal road
  - d) fire prevention
  - e) height of the building by the frontal road

But the following control measures are currently not provided except for some limited area in BMA (Silom area and around the Royal Palace):

- a) zoning
- b) floor area ratio (except BMA)
- c) absolute height of building (except by-law of Chiang Mai)
- d) fencing
- e) design control (except Chiang Mai)
- f) colour control
- g) vegetation

## 1.2 Present Situation of Control System for Urban Development

### *Land Use*

Land use classification is identified in General Plan. It is classified into 17 various purposes of land utilization in compliance with the development objectives.

The classification is shown in the attached sheet in the Appendices.

The land use classification in General Plan is the basis of the planning for urban development project.

### *Building*

As mentioned in 1.1, the following acts, regulations and announcements currently act as the basis of control measures for the building activities.

- a) Town and Country Planning Act
- b) Building Construction Control Act
- c) Ministerial Regulation
- d) By-Laws
- e) Municipal Regulations
- f) Sub-division Regulations  
(The Revolution Party Announcement)
- g) Other relevant laws
  - Public Health Regulations
  - Industrial Activities Regulations

### *District Facilities*

Requirements of the urban facilities are identified in the General Plan. They are roads and public utilities. The road development plan is essential for district planning.

Allocation of the access road to the site, open space for a neighbourhood area and reserved area shall be obligatory provided in the sub-division Regulation issued by "The Revolutionary Party Announcement No. 33, B.E. 2515, such as school, children's playground, sports field etc.

This announcement shall be applied when the sub-division is undertaken for land development by more than 10 lots.

### *Others*

- a) Design Control

Chiang Mai Municipality has a set of guidelines for the design of buildings to be built in the old city.

The northern style building with Typical "Lanna Gable" and "KALAE" are recommended for the design of buildings in the old city.



The municipality of Chiang Mai conducted a design ideas competition to prepare guidelines and the examples of architectural design for buildings to be constructed in the old city. This could be done for other areas.

#### *Implementation*

##### a) Control

Implementation of the urban control in Thailand is being undertaken by the building permit procedure of the local administration concerned.

Procedure and required materials for the current building permit system are provided in the By-Laws.

##### b) Promotion Measures

Currently, there is no promotion measures for the implementation of urban development except regulations for the promotion of investment.

## APPLICATION OF DISTRICT PLANNING

According to the requirements for the urban functions and efficient urban land use, the District Plan will serve the function of promoting a favorable social stock by the public and private investors for urban development.

### 2.1 Objective of District Plan

Objective of the District Plan is to formulate the required urban control systems for the implementation of land use classification identified in the General Plan.

District Plan will function as the detailed urban control plan at the district level. The necessary control measures shall be provided for the plan implementation.

The goal of the District Planning is to develop the most appropriate control system for the urban development of the district. The control system will be prepared for the following urban development objectives.

- 1) To prevent disordered utilization and small subdivision of the land.
- 2) To prevent disordered urbanization without the control and leading of the development.
- 3) To conserve favorable land use and environment.
- 4) To conserve historical and cultural objects.
- 5) To promote the most efficient use of the land such as high-rise building, allocation of the district road etc.

### 2.2 Application of District Planning in Thailand

#### 2.2.1 Control Measures

The control measures applied for the district plan are divided into 2 different groups by function.

- 1) Control measures for collective development.

That is, control measures concerning townscape, public safety, environment and convenience for the residents:

- a. Zoning
- b. Building line
- c. Vegetation
- d. Fences
- e. Signboards
- f. District facilities
- g. Specified land use

2) Control measures for individual buildings

- a. Building coverage ratio
- b. Floor Area ratio
- c. Height of the building
- d. Design, Colour
- e. Building site

2.2.2 Application of the Control Measures

The control measures listed in 2.2.1 will be applied in compliance with the needs called for by types and degree and dimension of urbanization, and any special circumstances.

- 1) The districts where development projects have been already undertaken or are about to start;

The objective of the district plan is to prevent deterioration of the environment and improper function of the urban facilities as the result of disordered development, subdivision and unsightly building.

- 2) The underurbanized areas or where it is anticipated to be urbanized;

The district plan will function as the control measures to prevent the disordered explosion of urbanization.

- 3) The district with favorable atmosphere in the urbanized area;

The district plan will help prevent further deterioration of a favorable environment in the urbanized area by subdivision, disordered modification, unsightly alteration and rebuilding, etc. Conservation of historical and cultural identities is classified in this group.

The importance of particular measures shall be varied by the types of cities and development objectives.

2.3 Proposed Planning Procedure

Work Steps of District Planning

The planning procedure for the district plan is composed of the following stages.

- Stage 1 : Preparation
- Stage 2 : Study of Existing Conditions
- Stage 3 : Setting of the Goal of Development
- Stage 4 : Formulation of District Plan
- Stage 5 : Implementation Program

2.3.1 Stage 1 Preparation

STEP 1 Organize the Study Team

Study team shall be composed of the following experts.

- a) Urban Planner
  - b) Architect
  - c) Landscape Architect
  - d) Civil Engineer
  - e) Transport Planner
  - f) Socio-economist
  - g) Legal Expert
  - h) Other necessary Expert
- Note  
should retain the  
original presentation  
i.e. field of expertise

Urban Planner shall act as the project leader and in charge of general management of the planning. Adjustment of the plan with authorities concerned shall be included in this duties.

Architect shall be in charge of the evaluation and recommendation of the building, townscape and other structures such as bridges, fences, signboard etc. Cooperation of the architect and urban planner is a key to successful planning.

The control of the building, townscape and structures shall be the duty of the architect. Assessment of regulations, codes, style and design, colours, new building, restoration, modification, demolition, re-building, materials and structure of fence and signboards shall be the duty of the architect.

Landscape Architect shall be in charge of townscape, vegetation, park and open space. The design of the pedestrian walk, street furniture, monuments, outdoor sculptures etc. will be controlled by this expert.

Civil Engineer shall be in charge of the planning of district facilities, and utilities. The roads, drainage, sewerage, water supply, will be included in the duties of civil engineer.

Transport Planner Transport planner shall study the existing traffic conditions and propose the improvement of the roads and traffic in the planning. Traffic analysis and traffic planning shall be considered a major base of the planning.

Socio Economist will study the impacts and effects brought about by district planning. Analysis of the existing conditions and assessment of the effects by the district planning shall be considered as a base for the planning.

Legal Expert will participate in the legalization of control measures and implementation of the urban control systems. A broad knowledge of the Thai legal system and skill in strategy formulation shall be required of this expert.

#### Other Necessary Experts

- Tourism Planner is required for district planning in tourists cities such as Chiang Mai, Ayutthaya, Sukhothai etc. The district plan will act as the guideline for the promotion and restriction of tourism development.
- Market Research Analyst is required for the study and analysis of the distribution system and the market. Impact on the market by the district plan will be one of the major interests of the land owners and tenants. The expert will coordinate his work with the socio-economist.

The following local organizations will be requested to participate in the study.

- Public Works
- Tourism
- Chamber of commerce and Industry

A coordinator shall be assigned for organizing the team's study.

The assignment of the study team is based on the requirements of the objectives and strategy of the planning.

#### STEP 2 Prepare the Working Program

Prior to the commencement of planning process, a working program shall be prepared by the study team. Data to be collected, work process, time schedule, meeting and agreement with concerning authorities etc. shall be shown in the work schedule diagram.

Planning period will be decided by the capacity of manpower and a number of important factors. Adjustment and agreement with local and other authorities concerned shall be made from time to time to avoid conflict between the planners and others.

Technical report writing shall be included into the working process as the results of the planning. The report will suggest further improvements of the planning manual.

#### 2.3.2 Stage 2 Planning Process

#### STEP 3 Setting up of Development Objectives

### 3-1 Review of General Plan

The main objective of the District Plan is to facilitate the necessary urban control system for implementation of land use classified in General Plan.

The following items will be reviewed to find the basic criteria and direction of planning.

#### *Study of General Plan*

- a) Policy, target and measures of General Plan  
Policy, target and the measures to arrive at the target are described in the General Plan. It will be considered as the base or the start of the planning.
- b) General consideration of the region and development guidance  
Administrative boundary, physical characteristics, communications, built-up conditions of the community, land use, etc. will be studied from the General Plan.
- c) Socio-economic conditions  
Economy, financial, social characteristics, social service, population, population projection, population structure, etc.
- d) General Plan  
Future land use, projects relating to and affecting general plan.
- e) Infrastructures in the region  
Roads, public facilities, utilities, social services.

Through the study of those items, objectives of district plan will be analyzed.

#### *Study of the Existing Data*

The data stocked in DTCP will be collected to undertake the pre-study, such as;

- a) Map and Existing Land Use (Mapping Division)
- b) Previous data of natural conditions and socio-economic conditions (Research and Analysis Division)
- c) Other information
  - Regional Development Division
  - Comprehensive Planning Division
  - Engineering Division
  - Specific Planning Division

Objectives of studying by the existing data are:

- To get acquainted with the study area
- To determine the availability of data
- To determine the source of data

### 3-2 Selection of the Planning Area

The study area for the district plan will be selected on the criteria of evaluation such as:

- a) Upper plans
  - National Five-Year Development Plan,
  - Regional Development Plan and General Plan.
- b) Development Objectives
  - Development,
  - Conservation,
  - Specific Plan.
- c) Availability of Data
- d) Existing land use
  - Survey map prepared by Mapping Plan.
- e) Existing Condition of the area
  - Information prepared by Research and Analysis Division.
- f) Land Ownership
  - Public land is relatively easier to handle rather than those owned by private sector. Number of the land owners in the project area is one of the decision making factors for the selection of planning area. Where owned by many small land owner shall be complicated. Limit of maximum number of land owner per hectare will be proposed in accordance with the existing condition of land ownership of the area.

The success of the introduced pilot District Plan and its remarkable effects will make a strong and positive impact on the thinking of the residents and land owners in other candidate districts.

Therefore, the success of the plan shall be a bridge to the next planning works.

For the selection of the planning area, it is recommended to start from the easiest area such

#### STEP 4 Study of the Existing Conditions

Study of existing conditions shall be composed of 3 components:

##### 4-1 Study of the Existing Conditions

Prior to the field survey and data collection in the planning area, the study of the area will be carried out with the concerning authorities in Bangkok. Major information to be collected will be:

- a) Upper Plans
  - National Five Year Development Plan,
  - Regional Development Plan,
  - General Plan,
  - Other Development Plan such as tourism,
  - Industries,
  - Social Services etc.

- b) Natural Conditions
  - Geography,
  - Climate,
  - Water resources,
  - Vegetation etc.
- c) Socio-Economic Conditions
  - Social services,
  - Social structure,
  - Education,
  - Economy,
  - Finance,
  - Industries,
  - Population,
  - Labour force,
  - Employment etc.
- d) Infrastructures
  - Road,
  - Port,
  - Airport,
  - Station,
  - Public facilities,
  - Utilities etc.
- e) Transport
  - Traffic,
  - Facilities,
  - Survey report,
  - Planning etc.
- f) Existing Legal System in Thailand
  - Institutional organizations,
  - Laws, regulations, acts, code etc.
- g) Miscellaneous
  - Tourism development plan,
  - Existing building survey,
  - Historic and cultural monuments.

#### 4-2 Field Survey

It will be carried out as the reconnaissance survey and supplemental survey to fulfill the requirements for data. The followings will be the items to be studied.

- a) Role of the district in the area
  - The existing conditions and future prospect of the surrounding area
- b) Natural conditions
  - Geographical and topographical conditions
  - Climate data of the nearest meteorological station



- c) Socio-economic conditions
  - Latest socio-economic conditions
  - Developments underway to enhance socio-economic well-being
- d) Building and structures
  - Construction material survey
  - Roof material survey
  - Building style survey
  - Material and style of fence
  - Size and colour of signboards
- e) Vegetation
  - Size, sort of plants
  - Style, design
- f) Inhabitants
  - Living standards
  - Social and public consciousness
  - Demands and intention for the district development
- g) Historical and cultural monuments
  - Temples
  - Old and classic buildings
  - Historical monuments
- h) Tourism resources
  - Natural resources
  - Cultural resources
  - Historical resources
- i) Current urban control system
  - Town Planning Act
  - Building Control Act
  - By-laws
  - Ministerial Regulations
  - Announcements
  - Miscellaneous
- j) Current procedures for building permission
  - Ordinary permit procedure
  - Specified permit procedure
  - Exemptions

#### 4-3 Data Collection

It will be carried out at the site. Required data to be collected will comply with the study items for the field survey. Data will be collected from authorities concerned, local administration, statistic year book etc.

In order to ensure the efficient collection of data, official letters requesting cooperation shall be distributed to relevant bodies during the early stages of the study.

## STEP 5 Setting the Goal of Development and Implementation Strategy

### 5-1 The Goal of the District Plan

Following items will be studied as the basis of the goal setting.

- a) Identification and analysis of urban problems  
Throughout the study until step 5, existing urban problems will be identified and analyzed.
- b) Considerable solutions  
Possible solutions to the urban problems will be examined in compliance with the development goal.
- c) Study of the collected data  
The collected data will be thoroughly studied for the setting of the development goal.
- d) Framework setting  
According to the study of the existing conditions and problems, framework for the development will be set for the goal.
- e) Goal of district plan  
Goal of the district plan will be set in compliance with the development objective and above a)-c).

### 5-2 The Strategy for Implementation

The strategy for implementation is to find the most effective action to realize the development goal. According to the development goal of each city, the most appropriate strategy will be proposed. The strategy must suggest the methods for activation of the urban area and planning district.

Development goal, existing conditions, future projection shall be the basis of the implementation strategy.

## STEP 6 Formulation of District Plan

Formulation of the District Plan shall be based on the wishes and intention of the residents and other people concerned. Therefore, the municipality should have a good and close contact with the residents to promote control measures requested by them.

### 6-1 District facilities

Planning of:

- a) Park
- b) Road
- c) Open space

shall be carried out as these facilities are necessary for large areas, including the study area.

## 6-2 Control measures for buildings and structures as the basis of the urban control system

Existing By-Laws of the Building Control Act will be considered as a basis of the urban control measures. Additional control measures required for the control system shall be studied in accordance with the development objective of the District Plan.

The following control measures will be applied for the control system.

### a) Building site

Control measures to secure the access road and subdivision shall be the major requirements of the building site.

It is required to secure the effective access road in the occasion of the sub-division. Buildings on the site without access shall not be permitted because of the public safety.

The minimum limit of area for the site will be provided in the district plan.

### b) Zoning

Zoning is not provided in the existing legal system except that the classification of 17 land uses is incorporated into the General Plan. A more detailed classification shall be applied for zoning in a district plan. The control measures provided for each zone shall be prepared in detail.

### c) Floor Area Ratio (FAR)

FAR is aimed at density control and providing security of front space. Building height may be exempted from the existing Thai regulation limiting the height of the buildings by FAR. This system is normally proposed for buildings in the urban promotion area.

### d) Building Coverage Area

The coverage ratio is proposed to conserve the space around the building and to protect the favorable living environment. It is also related to FAR.

The building coverage ratio system is recommended to apply in detail in each zoning classification.

### e) Setback of the Wall

This is proposed to form a pleasant townscape and public safety. Provision of the setback of the building will create the open space by the frontal road for the effective improvement of townscape and public safety.

### f) Height of Building

Currently the height of building is limited by the width of frontal road of the building. It is recommended to formulate a more detailed classification in accordance with each zone. The application of FAR may require the revision of existing Thai regulation limiting the height of buildings.

- g) Building Form  
Restriction of the building form by slant line does not exist in Thailand. According to the popularization of the FAR system, this measure may be required.
- h) Fire Prevention  
Fire Prevention is provided for in by-laws. Some improvements will be required for the application of the district plan. Access of the fire-engines shall be considered as the active prevention.
- i) Design Control  
Design control measures for buildings are provided in the by-laws of Chiang Mai. The application of these measures shall be based upon the consensus of the residents on the development objective and implementation because it concerns the individual taste. The key to success shall be to get the agreement of the residents concerned.
- j) Colour Control  
Control of the colour used for a building's roof and structure shall be determined by the consensus of the residents.
- k) Fencing  
Material, height and style will be the factors for the townscape. Guidelines for the kinds of plants and design shall be provided in the district plan.
- l) Vegetation  
Vegetation is one of the essential design factors for the townscape and environment. Deciding the kinds and sizes of the trees shall be one of the common tasks for the residents of the district.

Minimum number of trees to be planted per certain unit of area will form a basic standard for the vegetation.

### 2.3.3 Stage 3 Implementation Process

#### *Implementation*

##### a) Control

Implementation of the District Plan at the building permit stage is the responsibility of the local administration. That is to say implementation body of the District Plan will be the local administration.

Procedure and required materials for the current building permit system were provided in the By-Laws (Ref. APPENDICES). The items to be controlled for District Plan are mentioned in 2.3 "Proposed Planning Procedure", STEP 6, 6-2.

Supplementary materials and documents shall be studied in accordance with the objective and applied control measures.

The organization for implementation of control system shall be established in the municipalities. Assignments of the staff, required materials for the control shall be the tasks for the establishment of the implementation body.

b) Promotion Measures

The District Plan has neither financial assistance nor any financial sources as in the land readjustment. Then, the following relaxations and inducements by the government will serve as effective incentive measures for the promotion of implementation of the District Plan.

i) Taxation

- Reduction of the property tax.
- Exemption of other taxes.

ii) Financial

- Easement of the limit and conditions for financing.
- Reduction of the interest rate for the credit loan.
- Assistance for the interest for credit loan.
- Raising of the equity.

iii) Social Benefit

- Improvement and establishment of district facilities.
- Improvement of environment of the district.
- Improvement of function of the district.
- Improvement of Townscape.
- Conservation of the history and culture.
- Increase of the favorable social stock.

iv) Legal Benefit

- Compensation for the floor area caused by decreased building site.

**CONSIDERABLE EVALUATION FACTOR  
FOR THE DISTRICT PLANNING**

As was mentioned in Section 1, District Planning is to formulate the control system of the urban development to promote the favorable growth of the city through the development of each district.

In Thailand, the District Plan will be enforced by law and will provide the same legal power as a Specific Plan in order to lead the urban development.

The District Plan is a system of urban control measures and functions to restrict disordered development. Therefore, the enforced District Plan may act restrict or deter unfavorable development activities by the land owners and developers.

### 3.1 Advantage and Disadvantage for Land Owner and Tenants

Problems generated by the District Plan will be considered as the most serious constraints factor in the course of planning. The enforcement of the District Plan may especially restrict the economic activities in the land and curtail investment prospect among land owners. As for the tenants, the enforcement means a restriction to their freedom of building use in the most efficient manner. On the other hand, the improvement of district facilities and environment will bring the appreciation of the value of the equity and increase the capacity of mortgage. The raising of the image of the district will promote commercial activities. These will act as the advantages for the interests of the persons concerned. The following conditions will be evaluated for the application of the control measures.

#### *Advantage*

- a) Development of district facilities such as district road, park and open space.
- b) Improvement of the infrastructure systems.
- c) Improvement of the favorable living environment.
- d) Conservation of favorable living environment.
- e) Restriction of construction of unfavorable building in the district.
- f) Relief of traffic problems and danger leading to disaster.

- g) Increase in land price and land value as the result of environmental improvement. It will also increase incomes from rent.
- h) Increased patronization of commercial enterprises as the result of improved image of the district.
- i) Favorable aspect on conservation of natural historical and cultural identities of the building.

#### *Disadvantage*

- a) Decrease in usable land area.
- b) Decrease in commercial efficiency as the result of limits on the total floor area of the building.
- c) According to the appreciation of the land value, the rent will be increased. It will result in a decrease in economic efficiency.
- d) Rise in property tax payment as the result of increased land price.
- e) Restricted freedom of choice for building design and colour.
- f) Difficulty in sharing disadvantages justly among the district residents.

### 3.2 Interest by the Residents

Interest by the residents will be one of the key factors leading the planning to a successful end.

Especially, the District Planning will be based on the intention of the residents to create favorable land uses and environment of the district; the interest and understanding of the residents is therefore indispensable.

The key to success is to find the most effective means to promote interest among the residents to appreciate the development objectives.

### 3.3 Consensus for the Development Objectives

As the formulation of the District Plan shall be based on the consensus of the residents regarding the development objectives, the success of the plan therefore rests upon this key factor public consensus. Well-laid-out strategies and a lot of efforts are surely needed to win the consensus.

It is very likely that the period required to carry through this procedure will be a long and tedious one. Considerable efforts and determination are required to secure public consensus for the formulation of the District Plan.

The social pressures exerted on the formulation of the plan will certainly be considerable and make a strong impact on decision-making among the residents to proffer their consensus.

The residents' representatives and the municipality shall have frequent close contact to promote suitable control measures and legalize to be a specific plan.

### 3.4 Others

- 1) Uncalled-for feeling against the contribution to the District Plan.
- 2) Compensation to the decreased floor area.
- 3) Financial source for the district facilities.



FUTURE PROSPECTS FOR DISTRICT  
PLANNING IN THAILAND

In order to popularize the District Plan as a control and leading system for the urban development in Thailand, the following actions or activities are recommended as the tasks for the future.

#### 4.1 Institutional

##### 4.1.1 Promotion of the District Plan

Building control measures are provided in by-laws and other regulations. Some of those measures have their function as the control system of the District Plan. As a matter of fact, the methodology of the District Planning itself has been already accepted as the control systems for the building activity.

As the district plan shall be based on the residents requests, it is clearly the task of the institutional body to promote the planning objectives, methodology, and role of the urban development among the residents and land owners of the district. The public understanding of the control and leading systems for the district plan must be firmly established through consecutive communication with those persons.

##### 4.1.2 Generalization of the District Planning Method

In order to disseminate the District Planning method as an urban control system of Thailand, the planning method shall be established as a universal method, applicable to most Thai cities.

Required measures to be taken into the control system will be established through the experience of many practical planning works.

When the District Plan achieves the position of being the urban control system in Thailand, it will be easier to obtain the consensus and cooperation of the residents and land owners.

##### 4.1.3 Establishment of the Standard for Implementation

Presently, existing acts, by-laws, regulations and announcements are applied in the process of granting permission and implementation by each municipality.

Therefore, it is imperative that a common standard of judgment shall be established among the municipalities. Standardized system of control will help to avoid discrepancies. It will be the essential factor in causing the District Plan to be generally accepted as the standard urban control measure for Thailand.

#### 4.1.4 Cooperation with Other Authorities Concerned

A clear development objective is one of the essential factors for promoting cooperation with residents, land owners and tenants. District Plan will be used for various development objectives such as:

- i) Improvement of the Environment
  - ii) Conservation of the Environment
  - iii) Development of District Facilities
  - iv) Development of Commercial Area
  - v) Conservation of Historical and Cultural Identities
  - vi) Tourism Development
  - vii) Housing Development
- etc.

According to the development objectives, the cooperation with other authorities, such as TAT, NHA, BMA etc, will be required to advance the projects smoothly.

#### 4.1.5 Localization

The District Planning is to formulate the urban control system for the development at the district level. It is required to be undertaken with the familiar knowledge of local conditions and tendencies. Therefore the district planning shall be formulated in collaboration with the local residents and staff of the municipality, and to place the planning work gradually into the hands of local administration. Localization will be one of the promising factors for the establishment of District Planning methodology.

#### 4.1.6 Securing the Consensus

As was stated in 3.3, consensus of residents for the development objectives shall be the key factor for the success. Therefore, efforts to promote the public consensus shall be made in each district.

In order to obtain the positive response of the residents, clarification on the development objectives, methodology, effects and influence of the development, advantages, social and economical effects, etc. shall be presented to the land owners and investors.

Frequent close communication among the municipalities staff, the residents and land owner are definitely required.

#### 4.2 Promotion Measures

In order to promote the district plan in Thailand, it is required to emphasize the social and individual benefit generated by the district plan. Incentive factor will be used for the promotion of the interest among the residents and land owners in the Planning area.

The major incentive factors will be as follows:

#### 4.2.1 Taxation

- 1) Reduction of the property tax.
- 2) Exemption of the taxes.

#### 4.2.2 Financial

- 1) Easement of the limit and conditions for financing.
- 2) Reduction of the interest rate for the credit loan.
- 3) Assistance in securing low-interest loans.
- 4) Raising the equity.

#### 4.2.3 Social Benefit

- 1) Improvement and establishment of district facilities.
- 2) Improvement of environment.
- 3) Improvement of function.

#### 4.2.4 Legal Benefit

- 1) Compensation for the floor area as the result of the decreased building site.

Those incentive measures will be the motivating factor for the investors. The district plan will be actualized by the investors' respect for the plan.

Application of those incentive measures shall be discussed with the agencies concerned.

### 4.3 Implementation of the District Plan

As was presented in the Background (PART II, Chapter 1, 1.1), current urban control system is composed of 7 legal systems. But they do not cover all the necessary measures to prevent the occurrence of urban problems. The objective of district planning is to make up for the lack of the existing urban control systems for the urban development.

In Thailand, the required control measures shall be implemented with 2 tools such as existing legal system and specific plan. The use of those tools considered to be most effective for the implementation of district plan.

#### 4.3.1 The Measures to be implemented by the Current Urban Control System

The following measures shall be implemented by the current urban control systems.

1) Building Line and Setback

Building line and setback are provided for in the by-law of the Building Control Act. Additional restriction will be provided in the Ministerial Regulations or Specific Plan and settled to by-law.

2) Vegetation

Provision of the vegetation is aimed to protect the existing vegetation. Percentage of planting area, kind of plant etc. will be controlled by the specific plan.

3) Fence

Maximum height of fence is being controlled with by-law to be 3.00 m. The design, material and further restriction shall be provided with by-law.

4) Signboards

By-law, previous ministerial proclamation of Chiang Mai provides for the control of the height of signboard - not higher than 12 m from road level which is limit of height of ceiling of top floor. Size and fixing systems will be controllable with the by-law. But control of colours and material is considered to be difficult because of each trade mark and company has own colours such as Coca-cola, Kodak etc. Control of signboards of public facilities are currently being exempted.

5) Height of the Building

Currently, the limit of height in large area is provide for in by-law. Provision of the height in each small area shall be installed by the zoning plan as the specific plan.

6) Design and Colour

Design control is being provided for in the by-laws in Chiang Mai. The guideline of the design was issued by the municipality, to be a northern Thai style. It is actually controlled by the building permission procedure. Colour control will be proceeded same as design control.

7) Building Site

Control of the building site is being provided in by-law as the provision of open space for access to the site. Supplemental control for the access shall be required for securing of the safety and social benefit by the utility. Those supplemental controls shall be possible by additional provisions to by-laws.

4.3.2 The Measures to be Implemented by the Specific Plan

The following control measure shall be provided by the specific plan.

#### 1) Zoning

Zoning is the most basic control measure for land use for the actualization of the General Plan. The concept of zoning is not included in the current Thai legal system but restriction of land use is controlled by the ministerial regulation for the general plan area. The provision of the zoning shall be provided by the specific plan.

#### 2) Vegetation

According to the provision in by-law further detailed items shall be provided in the specific plan, such as percentage of planting area, kind, size, place of plants etc.

#### 3) District Facilities

Required facilities for social benefit shall be provided in the specific plan. Especially the facilities which concern the property of the private land owner, such as designated district road, shall be implemented by the specific plan which aims at increasing social benefit.

#### 4) Specified Land Use

It is to be applied for the specified land use in the district as the development objectives. The provision of the land use restriction deeply concerns the rights of land owners. So that it must be implemented by the specific plan.

#### 5) Building Coverage Ration

It is provided in compliance with the zoning. The aim of this provision is to secure open space and contribute to the limit of population density.

#### 6) Floor Area Ratio

It is provided in relation to the zoning classification. It is used as a promotion measure and at the same time for the limit of the population density. It is also provided to promote the frontal open space in the urban area.

#### 7) Restriction of Demolition and Alteration

Restriction of demolition is provided in the Building Control Act from the safety point of view. Another purpose of the measure is to prevent the demolition of the historical and cultural monuments. The demolition of the privately owned historic property shall be controlled by the specific plan.

#### 4.4 Recommendations

##### Proposal to the Implementation

According to the study of Thai legal system for urban control and measures, it was understood that the formulation and implementation of the district plan was capable within the current control system such as by-laws and the specific plan.

Implementation of the district plan shall be conducted with the permit procedure for development and building which is being carried out by the municipality.

Enforcement of the specific plan shall be proceeded in compliance with the enforcement process provided in Town Planning Act.

As the specific plan is directly concerned with the personal interest and right of the residents and land owner, it is essential to justify the requirements of the development objective for the district for obtaining their agreements. It must be the duty of the municipality. The municipality shall have to maintain close communication with the residents and land owners, and listen to their intentions for development and assist them to realize their intentions, because the restriction of their rights and feelings of unfairness are major constraints for district planning which must be overcome.

## **APPENDICES**





## CLASSIFICATION OF LAND USE PLAN IN DTCP

## Classification of Land Use Plan in DTCP

Series	Categories	Colour
1.	Preservation Area for Residential Purposes	Diagonal yellow strip
2.	Low Density Residential Area	Yellow
3.	Medium Density Residential Area	Orange
4.	High Density Residential Area	Dark Brown
5.	Commercial and High Density Residential Area	Red
6.	Industrial and Warehouse Area	Purple
7.	Specific Industrial Area	Light Purple
8.	Warehouse Area	Violet
9.	Rural and Agricultural Area	Green
10.	Preservation Area for Rural and Agricultural Purposes	Green strip on white
11.	Agricultural Land Reformed Area	Brown strip on green
12.	Open Space for Recreation and Conservation of Environmental Quality	Light Green
13.	Educational Institution Area	Dark Green
14.	Open Space for Conservation of Environmental Quality and Fishery	Light Blue
15.	Conservation of the Thai Identity, Art and Culture Area	Brown
16.	Religious Institution Area	Light Grey
17.	Governmental Institution, Public Utility and Facility Area	Blue

## RESEARCH SURVEY SHEET

## RESEARCH SURVEY SHEET

1. Name of Project	
2. Location	
3. Surface	4. Population
ha	
5. Attachment, (Land Use, Historical and Culture Monuments, Buildings and Structure, Vegetation etc.)	
6. Development Policy	
7. Policy of District Facility Development	
8. Policy of Control of Building	

**9. District Facilities**

- |   |            |
|---|------------|
| a | Road       |
| b | Park       |
| c | Open Space |
| d | Green Area |

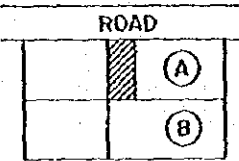
**10. Building Control System**

- |   |                    |
|---|--------------------|
| a | Land               |
| b | Zoning             |
| c | F/A Ratio          |
| d | Coverage Area      |
| e | Setback of Wall    |
| f | Height of Building |
| g | Building Form      |
| h | Fire Prevention    |
| i | Design Control     |
| j | Colour Control     |
| k | Fencing            |
| l | Vegetation         |
| m | Land Use           |
| n | Miscellaneous      |

**11. Miscellaneous**

## EXISTING URBAN CONTROL MEASURES (BY LAWS)

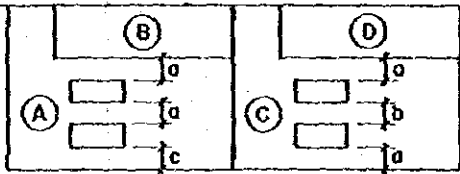
EXISTING URBAN CONTROL MEASURES  
(By-Laws of Building Control Act , Bangkok)

Control Items	Ref.		Contents												
① Definition	B/L	4	Definition of the words												
② Procedure of Permission	B/L	5-10	Application, Order of Change Required Drawings and Scale												
③ Access Road and Site			 <p>Only by Agreement of (A) and (B)</p> <p>open space without covering as a connected passage</p>												
④ Zoning Ministerial Regulation	G/P	4-17	<ol style="list-style-type: none"> <li>1) Low density residential zone</li> <li>2) Med. density residential zone</li> <li>3) Commercial and high density residential zone</li> <li>4) Industrial zone and warehouse</li> <li>5) Warehouse zone</li> <li>6) Rural and agricultural zone</li> <li>7) Preserve area</li> <li>8) Open space zone</li> <li>9) Educational zone</li> <li>10) Religious zone</li> <li>11) Administrative Institutional zone utility and facility</li> </ol>												
⑤ F/A Ratio	BMA		1) Silom Road (400%)												
⑥ Coverage Area (Open Space) by Bldg.	B/L	76 (1) (2)	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">coverage</th> <th style="text-align: center;">open space</th> </tr> </thead> <tbody> <tr> <td>1) Residential</td> <td style="text-align: center;">70%</td> <td style="text-align: center;">(30%)</td> </tr> <tr> <td>2) Commercial (w.o. resid)</td> <td style="text-align: center;">90%</td> <td style="text-align: center;">(10%)</td> </tr> <tr> <td>3) Commercial (w resid)</td> <td style="text-align: center;">70%</td> <td style="text-align: center;">(30%)</td> </tr> </tbody> </table>		coverage	open space	1) Residential	70%	(30%)	2) Commercial (w.o. resid)	90%	(10%)	3) Commercial (w resid)	70%	(30%)
	coverage	open space													
1) Residential	70%	(30%)													
2) Commercial (w.o. resid)	90%	(10%)													
3) Commercial (w resid)	70%	(30%)													
⑦ Setback of Walls (Building Line)	B/L	71	1) 2 metres distance from public road boundary												
	B/L	72	In case public way less than 6 m wide, 3 m distance from centre line of the road												

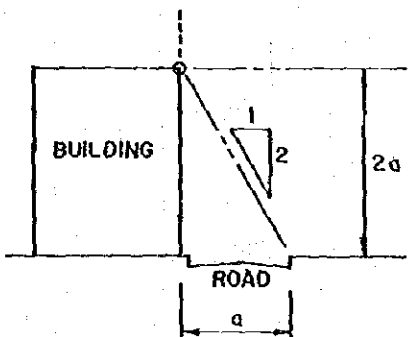
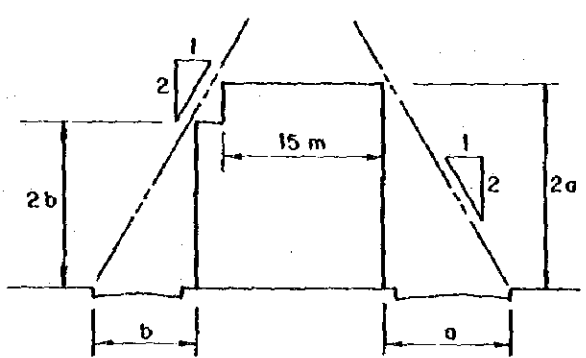
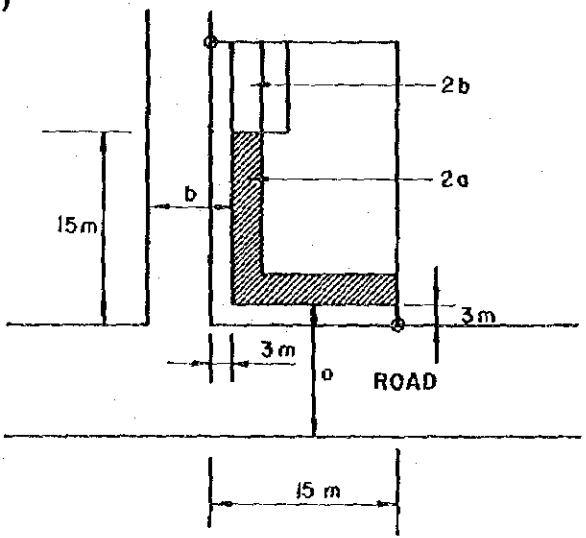
B/L : By-Law

G/P : General Plan

BMA : Bangkok Metropolitan Administration

Control Items	Ref.	Contents
		<p>In case less than 10 m, teukteo hongteo, commercial bldg., industry and public bldg., 6 m distance from centre line of the road</p> <p>In case, 10 m w 20 m, teukteo hongteo, commercial bldg., industry and public bldg., w/10 m distance from boundary of the road</p> <p>In case, w 20 m, above bldg., at least 2 m distance from boundary of the road</p>
	B/L 74	<p>1-2 F, 2 m distance from the boundary of another property</p> <p>more than 3 F, 3 m distance from boundary of another property</p> <p>(Walls with the opening)</p>
	B/L 75	<p>Walls without opening permitted to be adjoining another boundary with solid wall but no part extend over the land. Solid wall adjoining side not less than 1.50 m height.</p>
	76 (3) (4)	<p style="text-align: center;">ROAD</p>  <p>a. upto 2 F 6.0 m more than 2 F 12.0 m b. 4.0 m c. 2.0 m</p>
	B/L 76	<p>Hongteo, teukteo and commercial bldg. situated at the corner of intersection of two roads, 1) within 15 m from the corner 2) one is more than 10 m width</p> <p>rear open space not necessary</p>

Control Items	Ref.		Contents
③ Height of the Building	B/L	78	A building used for lubrication service, not less than 5.0 m distance. Stall shall be not less than 2.00 m distance from one another
	B/L	79	not less than 20 m distance in all directions: 28 specified industries
	B/L	80	not less than 10 m uncovered open space in all direction . Commercial buildings . Industrial factories employing furnaces or machinery in manufacturing
	B/L	81	Storage for material of commerce or manufacture . not less than 10 m in two sides . less than 5.0 m with 20 cm thick solid wall in other two sides
	B/L	82	Sign boards 1) Not less than 6.0 m away from boundary of the public way 2) Not higher than building, not extended over boundary 3) No sign under canopy, only flashed sign of business
	B/L	83	By-Laws comes into force for previous built building No modification and additional
	BMA		No control except in BMA, Height control around the Royal Palace

Control Items	Ref.		Contents
⑨ Control of the Form of Building Height of the Building	B/L	71	(1) 
		73	(1) 
			(2) 

Control Items	Ref.	Contents
(10) Fire Prevention		1) Not specified as the area 2) Specified for building unit
		21 . Not being constructed mainly permanent or fire resisting materials. <u>Kitchen must be built apart from the main structure.</u>  24 . A theatre, a meeting hall or a building of more than two stories shall be constructed of mainly permanent or fire resisting materials.
(11) District Planning		Not specified
(12) Particular	B/L	21 Construction Material not being constructed mainly by permanent or fire resisting material 1) Kitchen must be apart from the main structure
		22 2) Not more than 2 stories
		23 3) Lower floor not more than 1.00 m from G.L.
		24 Theatre, meeting hall or more than 2 stories buildings 1) Constructed with permanent and fire resisting material
		27 Fence or walls, not higher 3 m.



APPENDIX 4  
Procedure of Permission (By-Laws)

5. Any person desirous of constructing a building shall apply to the Bangkok Metropolis Governor for a permission.  
  
Such application must be made by the owner of the building to be constructed or his legal representative.
6. The application is to be submitted on form "Aw. 1" as indicated at the end of these Bye-laws, together with four sets of site-plans, construction drawings and specifications of the proposed building.
7. In applying for a temporary permit, the applicant shall, besides making such a specific request, indicate clearly the sequence of the working steps and the period of time for completion of the various steps of work on the site-plans, construction drawings and specifications.
8. A permit for constructing a building shall be made out on form "Aw. 2" as indicated at the end of these Bye-laws.
9. Any order of the Bangkok Metropolis Governor to modify the site-plans, construction drawings or specifications shall be made out of form "Aw. 3" as indicated at the end of these Bye-laws and such order is to be sent to the applicant for acknowledgement of receipt, but if it could not be sent, a notification will be posted up on the Notice-board at the Bangkok Metropolis Office or the Khet Office at which the application was submitted.
10. For a building as specified under Section 14 of the Building Construction Control Act B.E. 2479, it is required of the official in charge of the work of construction or the Abbot to inform the Bangkok Metropolis Governor in writing of the proposed erection not less than thirty days before the commencement of the work, and at the same time to transmit two sets of site-plans and construction drawings to the Bangkok Metropolis Governor.

If the Bangkok metropolis Governor has any order to modify the building, he shall notify the official-in-charge of the work of construction or the Abbot to that effect within fifteen days after the receipt of the information from the official.

CHAPTER 3

Site-Plans, Construction Drawings and Specifications

11. The site-plan is to be drawn on a scale not smaller than 1 in 500 showing all boundaries of the plot of land for the building and its neighbourhood. The outlines of any existing building and those applied for permission are to be marked out differently and clearly together with a magnetic bearing.
12. Complete details of adjoining public ways, and the lines of drainage from the proposed building to a public drain, indicating the direction of flow and the gradient, are to be shown on the site-plan.

13. The level of the lowest floor of the building and the relative levels between such floor and the public road or the ground surface of the site are to be shown in the site-plan.
14. The construction drawings are to be made to a scale not smaller than 1 in 100, showing foundation plan, a plan of every floor, at least two adjacent elevations or cross-sections and a detail drawing of any important number of the structure, giving sufficient particulars and dimensions and marking the nature of the materials, so that quantities could be taken out and calculations could be checked from such drawings.

The construction drawings showing the elevations and a plan of every floor of an industrial factory building may be made to a scale no. smaller than 1 in 200.

15. The construction drawings of a commercial building and public building or a building constructed mainly of permanent and fire resistant materials must be accompanied by a complete set of calculation sheets for all major members of the structure.

The construction drawings of a special building, besides having to comply with the laws providing particular control, shall be also required to be accompanied by detailed calculation sheets.

16. For the purpose of addition or alteration to an existing building, the construction drawings must show clearly the difference between the present structure and the proposed works.
17. Sketches will be accepted as construction drawings for a temporary building that is to be used during construction works or for any other purpose. Such building shall be dismantled by the applicant within the time fixed by the permit or if it be found necessary to continue its use, an extension of the permit can be requested and shall be granted for a period not exceeding six months at a time.
18. The specifications shall indicate the nature of the main construction materials which compose the building in clear detail.
19. All scales, dimensions, distances, weights and units of calculation used on the site-plan, construction-drawings, specifications or calculation sheets are to be in metric system conforming to the laws on weights and measures.
20. The name and office or address of the designer responsible for the site-plan, construction drawings, specifications and calculation sheets are to be appended and given on the site-plan, construction drawings and the specifications with marks of qualifications and the profession permit.

APPLICATION FOR A BUILDING PERMIT

Written at.....

Date.....

I....., residing at No.....  
Trok/Soi....., Road....., Tambon/Khwaeng  
Changwat.....

Hereby apply to the Bangkok Metropolis Governor for  
permission in the following particulars:

To construct a building....., at No.....,  
Trok/Soi....., Road....., Khwaeng.....,  
Khet....., in the Title Deed No....., Land No.....  
owned by....., for.....  
by....., the owner, by.....  
the architect, by....., the engineer, by.....

It is requested that for the construction of a building  
according to the four sets of site plan, construction drawings  
and specifications herewith submitted.

(Signature).....Applicant

A PERMIT FOR CONSTRUCTION OF A BUILDING

No.....

Written at.....

Date.....

Permission is given to.....,residing at No.
Tambon/Khwaeng.....,Amphor/Khet.....
Changwat.....,as follows:-

To construct a building.....
at No.....,Trok/Soi.....,Road.....,
Khwaeng.....,Khet....., in the Title Deed
No.....,Land No.....,owned by.....,
for.....by.....,the owner,
according to the site plan and construction drawings.....
sheets, annexed hereto; building space.....sq.m.,fees.....
baht.

This permit expires on.....and the
conditions hereunder, which is part of this permit, is required
to be complied with.

(Signature).....Grantor
of Permit
Bangkok Metropolis Governor

CONDITIONS

.....
.....

ORDER TO MODIFY BUILDING

No.....

Written at.....

Date.....

Notice is hereby given to....., residing at No. Tambon/Khwaeng....., Amphor/Khet..... Changwat.....;

That according to your application for permission to construct a building dated....., at No....., Trok/Soi....., Road....., Khwaeng....., Khet....., Kind of building..... Title Deed No....., Land No....., owned by

Same is found to be not in accordance with the provisions of the Building Construction Control Bye-Laws in the following particulars:-

.....

You are therefore instructed to modify or alter the site plan, construction drawings and specifications to be correct and proper and then re-submit same for further inspection within.....days. Upon your failure to comply within the prescribed, it shall be deemed that you abandon your wish to construct the building and your application for permission for construction of this building shall be suspended.

(Signature).....

Governor, Bangkok Metropolis

ORDER TO MODIFY OR ALTER BUILDING

No.....

Written at.....

Date.....

Notice is hereby given to....., residing at No.
Tambon/Khwaeng....., Amphor/Khet.....
Changwat.....

Whereas it has appeared that the building.....
constructed at No....., Trok/Soi.....,
Road....., Khwaeng....., Khet.....,
for use as....., by....., the owner,
Title Deed No....., Land No....., owned by.....

Is not strong or safe as provided by the Building
Construction Control Act B.E. 2479, namely:-

You are therefore instructed to.....
to be completed within the date.....

(Signature).....Grantor
Governor, Bangkok Metropolis

**APPENDIX 5**  
**BASIC KNOWLEDGE ON DISTRICT PLANNING IN JAPAN**

by Masami YAMASHITA  
JICA Expert for DTCP

**Contents**

1. Background and Purpose of District Planning System
2. Position of District Planning in Whole Planning System
3. Contents of District Planning
4. Regulation of the Building, etc. in the Area for the Implementation of District Plan
5. Procedure for Determination of District Plan
6. Example of District Plan in Japan
7. Annex

## 1. Background and Purpose of District Planning System

City Planning in Japan has emphasized the provision of urban infrastructure and public facilities, and the land use planning from the view point of the whole city area over a long time period. Recently, policy has shifted toward control and improvement of community level (district level, block, neighborhood, etc.).

The area division, zoning, development permission system and building permission system have contributed considerably to that purpose, so far, however, they are to some extent insufficient to regulate substandard development and building activity. Small-scale development was increasing because it does not require development permission. Unsystematic building activities are carried out because building regulations are provided only to control the respective site development.

Planning at the district level was, therefore, requested to supplement control measures of those developments, and also to improve the district facility such as small park, and ordinary street.

In this sense, the District Plan means a plan to improve and conserve each block with regard to comfortable living environment which is suitable for the character of each district as a whole in view of building form, arrangement of public facilities, etc.

District Planning is effective for the comprehensive design of living environment. Amenity and urban beauty will be realized in response to the desire for quality of life. Furthermore, District Planning serves to promote community consciousness through public participation in the planning process.

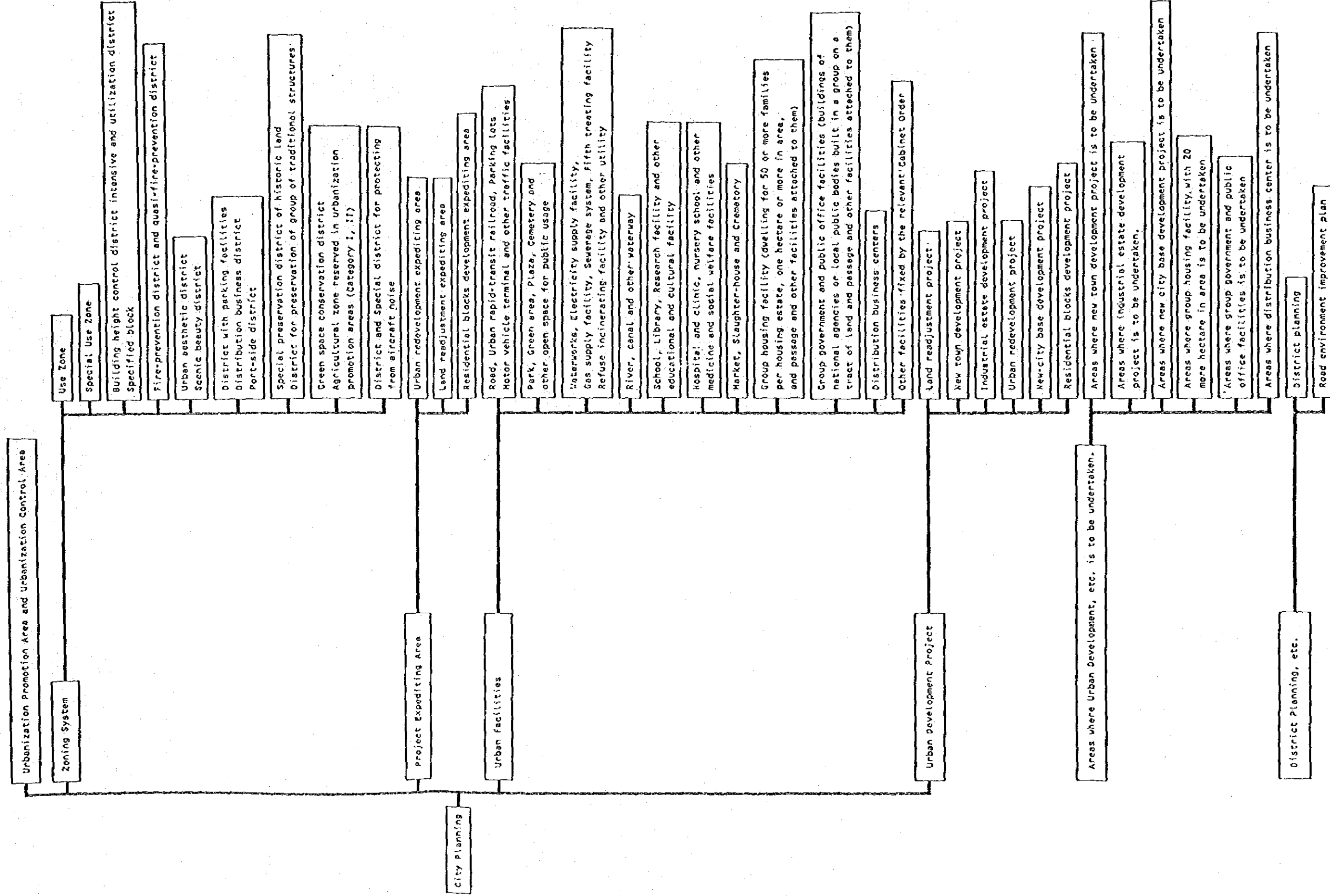
For the above-mentioned purpose, the District Planning System was legalized upon the revision of the City Planning Act and Building Standard Act in 1980.

## 2. Position of District Planning in Whole Planning System

Before 1980, the content of the city planning stipulated by the City Planning Act was composed of 1) Urbanization Promotion Area and Urbanization Control Area, 2) Zoning System, 3) Project Expediting Area, 4) Urban Facilities, 5) Urban Development Project, 6) Area where Urban Development, etc. is to be undertaken. The district planning was newly added to the content of city planning as "District Planning etc.," together with "Roadside Environment Improvement Plan" stipulated by Act concerning the Improvement of Roadside Area along Arterial Roads. Therefore, it is considered to be placed as the 7th City Planning (Table 2-1).



Table 2-1 CONTENTS OF CITY PLANNING





### 3. Content of District Plan

With regard to the District Plan, the following items, besides name, location and area, shall be fixed in the city plan.

a. Planning target and other policies of improvement, development and conservation of the district concerned. (hereinafter referred to as the "District Planning Policies")

b. District Improvement Plan

"District Planning Policies" shows the basic direction of the improvement for the district concerned and its contents do not have the direct restrictions to the residents of the district but have the characteristics to restrict the administrative bodies.

On the other hand, "District Improvement Plan" shows concrete contents to improve the district concerned in line with the District Planning Policies and also a detailed plan to be provided for actual development and building activities. In other words, "District improvement plan" places certain legal restrictions on the residents of the district.

The contents of the District Plan are composed of the above-mentioned "District Planning Policies" and "District Improvement Plan". In principle, both of them must be fixed together in the District Plan, however, in some case, District Improvement Plan can be designated in some part of the whole District Plan area.

#### *District Planning Policies*

The following items are considered to be fixed as the contents of District Planning Policies.

- (a) Target of the District Plan
- (b) Policies of the land use
- (c) Policies of improvement for the district facilities
- (d) Policies of improvement for the buildings, etc.
- (e) Other policies of improvement, development and conservation of the district concerned.

#### *District Improvement Plan*

In the "District Improvement Plan" shall be fixed the matters necessary to achieve the purpose of the District Plan out of the matters listed in the items below.

(a) Items with regard to the District Facilities

Location and scale of the 1) road, 2) park 3) square, 4) green area and 5) other public open space

(b) Items with regard to buildings, etc.

1) Restriction on the use of buildings, etc., 2) the maximum or minimum limit of the ratio of total floor area of buildings to the site area (the maximum or minimum limit of floor area ratio), 3) the maximum limit of the ratio of the buildings area of buildings to the site area (the maximum limit of coverage ratio), 4) the minimum limit of the building area of buildings or the site area of buildings, 5) the restriction on the location of the wall surface of buildings, 6) the maximum or minimum height of the buildings, etc., 7) the restrictions on the form or design of buildings, etc. and 8) the restrictions on the structure of fence or enclosure. (see Fig. 3-1)

(c) Items with regard to the land use other than (a) and (b)

The restrictions or the conservation necessary for obtaining comfortable living environment in the existing woodland, grassland, etc.

District facilities are ones besides "city planning facilities" fixed in a city plan.

In the items with regard to buildings, etc. more detailed restrictions than usual use control or form restrictions can be made (see Table 3-1)

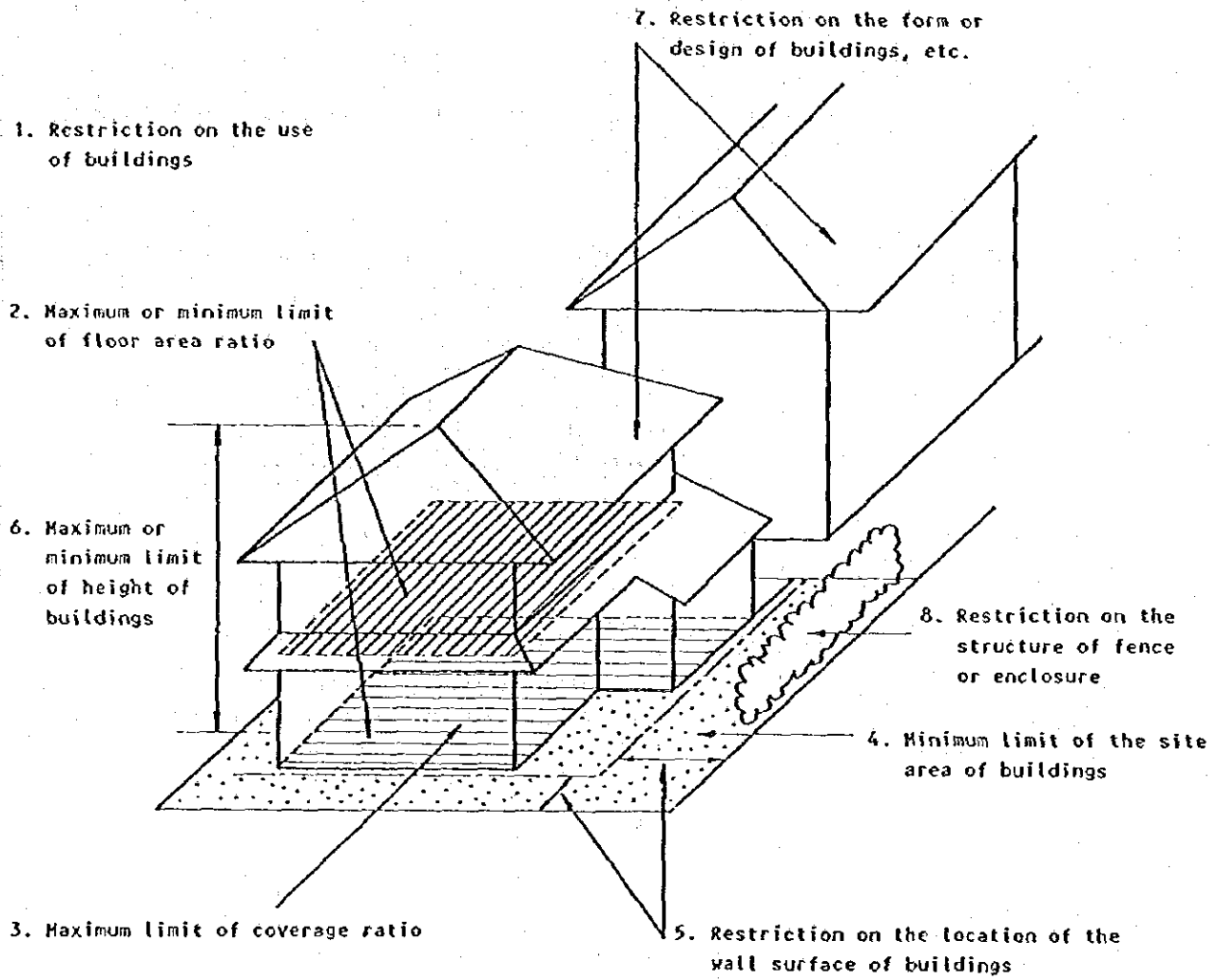
For example, 1) in order to obtain the good living environment, more strict restrictions than those on Category I exclusive residential zone, 2) in order to keep prosperity of commercial area, restriction on the use of the first floor of buildings, 3) in order to promote the supply of housing in the central area of the city, the limit of floor area ratio variable according to the use of buildings 4) in order to deter construction of "pencil buildings" and promote the consolidation of the building sites, limit of floor area ratio variable according to the scale of the site 5) in order to prevent the mini and disorderly-development, minimum limit of the site area of buildings and so on can be fixed.

4. Regulation of the Buildings, etc. in the Area for District Plan (see Fig. 4-1)

In the District Planning System, a relatively flexible "Report and Advice System" of building or development activities is adopted and the current development permission system is applied to certain development activities. In addition, as for the building activities, etc., especially important matters can be liked with the building permission system though the provision of by-laws decided by local government.

Japan doesn't have a long experience of such a detailed planning regulation at district level as the afore-mentioned so it is considered necessary to be flexibe in using control measures to correspond to the characteristics of the planning items and the existing situation of each District Plan Area.

Fig. 3-1 ITEMS WITH REGARD TO BUILDINGS, ETC. (I)



**Table 3-1 ITEMS WITH REGARD TO BUILDINGS, ETC. (II)**

Item	Example of restriction
1. Restriction on the use of buildings, etc.	<p>(e.g.1) Buildings which may be allowed to construct                      . House . Row houses with two units                      Multi-purposes houses</p> <p>(e.g.2) The first floor of building should not be used for following use                      . Houses . Warehouse</p>
2. Maximum limit of floor area ratio	<p>(e.g.1) Building, two third of total floor area of which, is used for houses and the site area of which is more than 300 m<sup>2</sup>.....300 %                      others.....200 %</p> <p>(e.g.2) Site area of building is                      more than 250 m<sup>2</sup>.....500 %                      more than 150 m<sup>2</sup>.....450 %                      less than 150 m<sup>2</sup>.....400 %</p>
3. Maximum limit of coverage ratio	(e.g.) 50%
4. Minimum limit of site area of buildings	(e.g.) Site area of building should be 150 m <sup>2</sup> or more than 150 m <sup>2</sup>
5. Restriction on the location of the wall surface of buildings	(e.g.) The distance from the surface of any external wall to boundary line of the site shall be not less than 1 m.
6. Maximum height of buildings	(e.g.) 9 m.
7. Maximum limit of floor area ratio/and minimum height of buildings	<p>(e.g.) minimum limit of floor area ratio                      (e.g.) minimum limit of height of buildings</p>
8. Restriction on the design or form of buildings	<p>(e.g.1) Colour of the roof shall be quiet based on black, brown and dark green.</p> <p>(e.g.2) Billboard or signboard for private shall not be more than 0.5 m<sup>2</sup></p>
9. Restriction on the structure of fence or enclosure	(e.g.) Fence shall be a hedge.

### *Report and Advice System*

The person who intends to develop the land or construct buildings in the area of the District Plan, must make a report of its contents to the head of the municipality 30 days in advance of the scheduled conduct.

The head of the municipality may advise the person who made the report to take necessary measures such as a change of the design, etc. if he deems that the reported conducts are inadequate for the District Plan.

This "Report and Advice System" is not such a strict control measure as to realize the District Plan.

### *Development Permission System*

According to the City Planning Law, the person who intends to conduct the land development, the scale of which is not less than 1,000 m<sup>2</sup> in an Urbanization Promotion Area, must get the permission of the prefectural governor beforehand. The criteria to give the development permission are stipulated in the City Planning Law.

In addition to that criteria, in the case where the land development is conducted in the Area for the District Plan (limited to District Improvement Plan), the contents of the District Plan shall become the criteria to give the permission.

### *Building Permission System under the Enforcement of Building Ordinance*

Municipality may stipulate the especially important matters among the items with regard to buildings, etc. by ordinance if it is deemed necessary to achieve the purpose of the District Plan.

In the case where the ordinance is enforced, its contents shall be criteria to give the building permission in addition to the usual criteria stipulated in Building Standard Law.

### *(Improvement of the District Facilities)*

The realization of the District Facilities is brought through the "report and advice system" or development permission, however, especially as for the road construction, the following measures are prepared to promote the realization of its plan in the Building Standard Law.

### *Special Rules Regarding Designation of Location of Roads*

Any building site shall abut on a road for 2 meter or more. If there is no road to meet with this condition in case of intending to construct buildings, the necessary road must be constructed through the designation of the location by the special administrative agency.

In the area for the District Improvement Plan, the location of the roads must be designated according to the location of the road fixed in the Plan.

### Designation of the Planned Road

The special administrative agency may designate the important roads as the Planned Road among the roads fixed in the District Plan. This Planned Road is regarded as the road defined in Building Standard Law. As a result, the construction of the building is prohibited within the area of Planned Road. So, the road site can be secured.

### 5. Procedure for Determination of the District Plan

The District Plan shall be determined by municipality city, town or village.

Procedure for determination of a District Plan is shown in Fig. 5-1.

### 6. Example of the District Plan

Since the District Planning System was legalized in 1980, about 230 District Plans were determined (as of March 1987).



Fig. 4-1 SYSTEM OF DISTRICT PLANNING

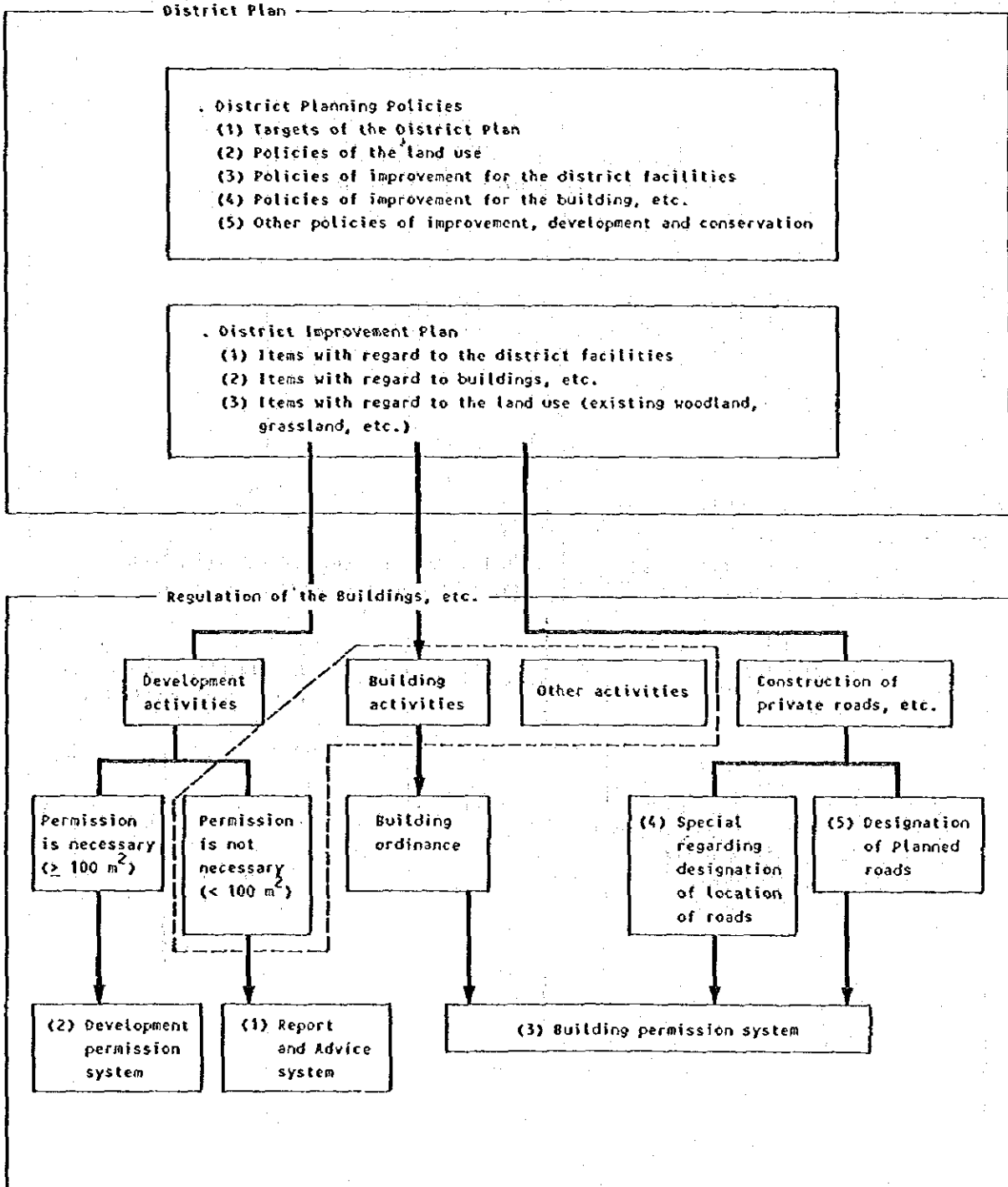
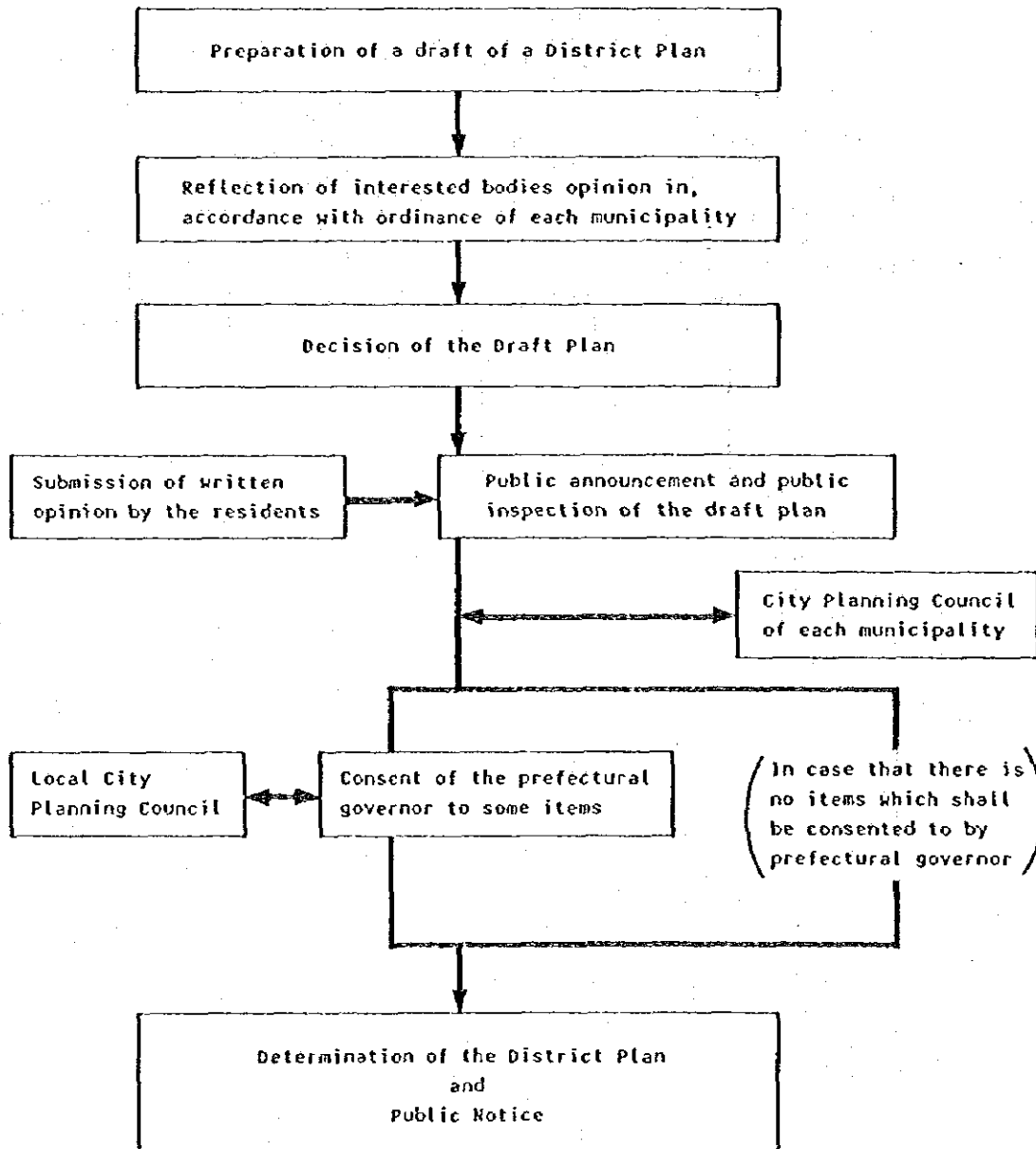


Fig. 5-1

PROCEDURE FOR DETERMINATION OF A DISTRICT PLAN



**Table 6-1 DETERMINATION OF FUJMI CITY PLAN DISTRICT PLAN  
(determined by Ohi-machi)**

**City Plan "Tsurugaoka District Plan" is determined as follows  
(March 4, 1983)**

Name		Tsurugaoka District Plan
Location		Within the area of Kamigumi and Shimogumi, Tsurugaoka, Ohi-machi
Area		around 17.5 ha.
District Planning Policies	Target of the District Plan	Land readjustment project has been implemented in this area, and disorderly urbanization is supposed after the project. The target of the District Plan is to realize building-up on planned basis and to improve the necessary district facilities and get good living environment.
	Policies of land use	<ol style="list-style-type: none"> <li>1. To utilize the land intensively such as medium-high storied apartment and commercial facility along prefecture road "Tokorozawa-Fukuoka-Omiya street" and "street in front of West Exit of the station."</li> <li>2. To utilize the land intensively such as medium-high storied apartment and commercial facility along "Tsurugaoka-street", as a core area of this district.</li> <li>3. To promote the good living environment for one-and two-storied houses in other blocks.</li> <li>4. To use the super block within this district as an agricultural land for the time being and to realize building-up at the stage of the second development on planned basis.</li> <li>5. To conserve the existing woodland for the time being and to realize building-up at the stage of the second development on planned basis.</li> </ol>
	Policies of Improvement for district facilities	The district facilities have been constructed through land readjustment project. Consequently, the ordinary roads shall be constructed in the super-block in order to guarantee the planned basis second development.
	Policies of Improvement for buildings, etc.	<ol style="list-style-type: none"> <li>1. To induce the construction of medium-storied apartment and commercial facilities, etc. in the area along "Tsurugaoka-street" and to improve the open space through unifying the pavement and the open space kept by external wall retrecession in order to make the area suitable for a core area.</li> <li>2. To realize and conserve the good living environment in the low-storied residential area through the minimum limit of the site, keeping the open space within the site, restriction on the structure of fence and enclosure and planting in the site, etc.</li> <li>3. To promote the consolidation of the building sites in the construction of the apartments.</li> </ol>

(continue)

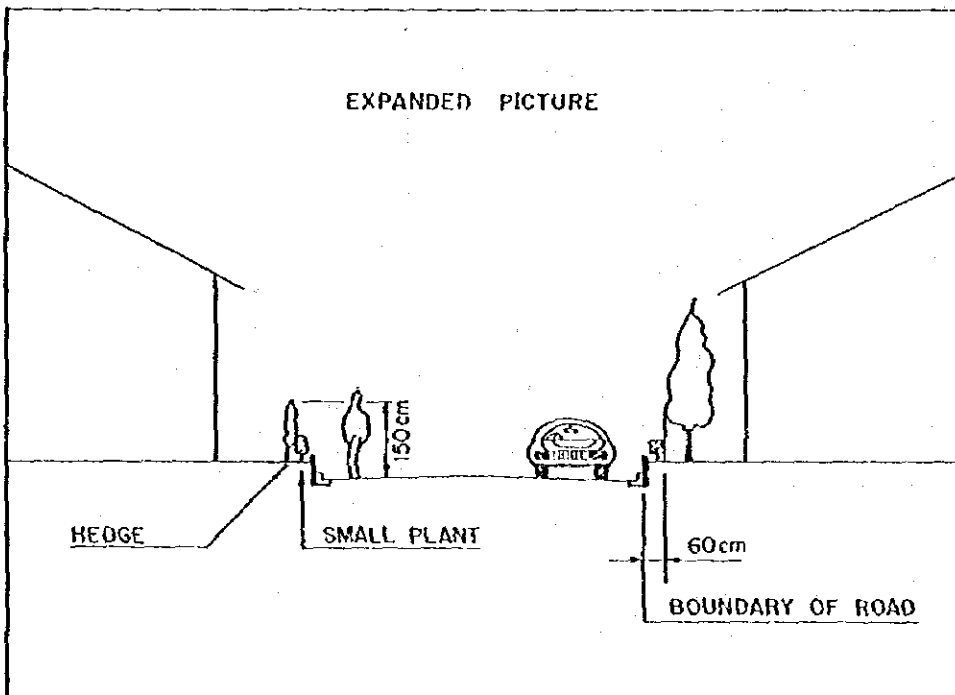
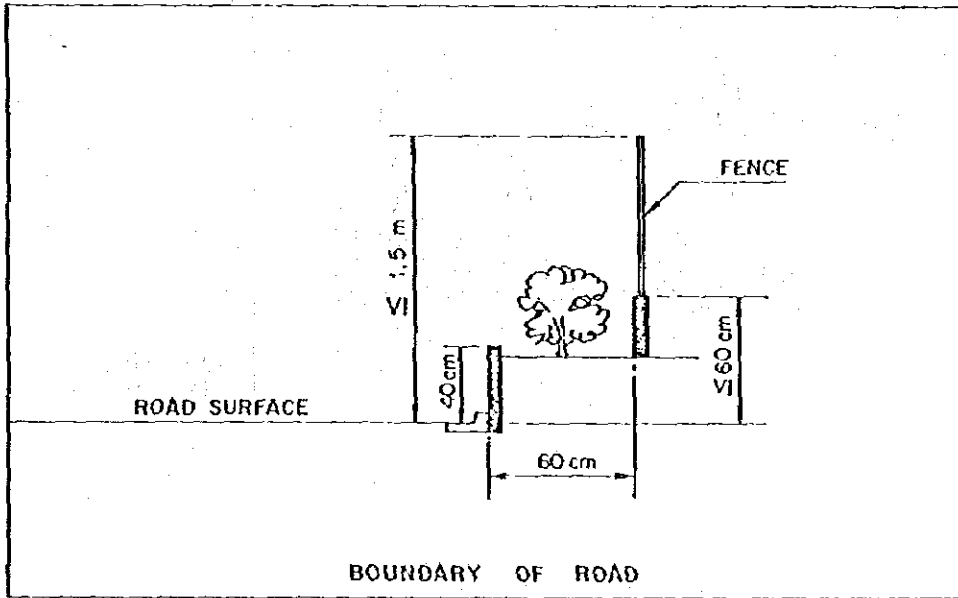
Table 6-1 DETERMINATION OF FUJMI CITY PLAN DISTRICT PLAN  
(determined by Ohi-machi)

City Plan "Turugaoka District Plan" is determined as follows  
(March 4, 1983) (continue)

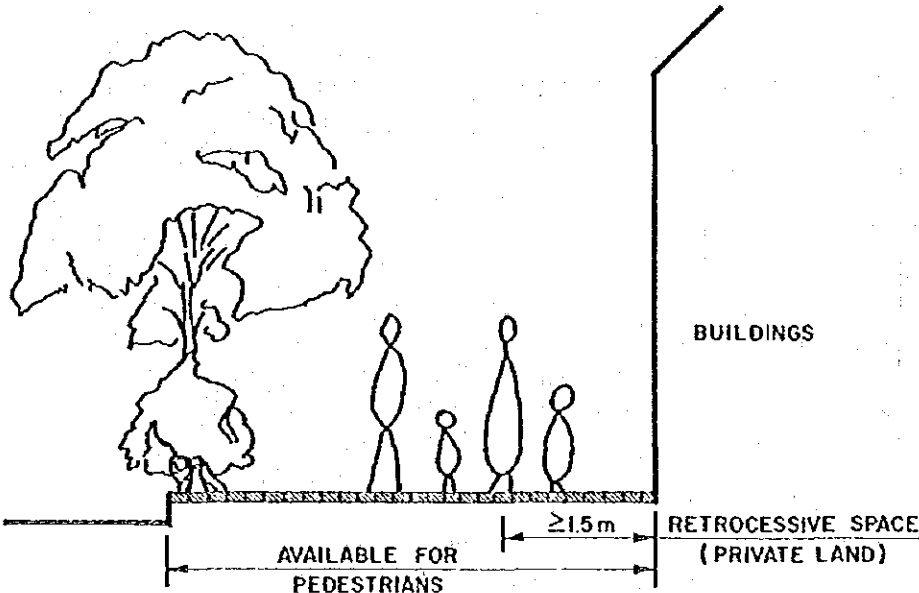
District Improvement Plan	Location and Scale of District Facilities	Road	Ordinary road; Width 4.2 m, 2 lines, Total length 270.5 m as shown in planning map (4)		
	Division of District	A district	B district	C district	
	Area	around 3.0 ha.	around 3.4 ha.	around 11.1 ha.	
	Restriction on the use of buildings	Following building is prohibited Hotel, Inn	/		
	Minimum limit of the site of buildings	150 m <sup>2</sup>			
	Restriction on the location of the wall surface of buildings	The wall of buildings or the fence with the height of 2 meter or more shall not be constructed beyond the wall alignment shown in planning map (2)-(a), (b)	Retrocessive distance of external wall from boundary line in the area shown in the area shown in planning map (2)-(c) is 1 meter or more		
	Maximum limit of height of buildings	15 m.		/	
	Restriction on the structure of fence and enclosure	Fence and enclosure in planning map (3) area shall be as follows;  (a) Fence and enclosure shall not be made of concrete blocks.  (b) The height of fence and enclosure shall not be made than 1.5 meter.  (c) fence and enclosure facing the road shall be located at the line retroceded by 60 cm. from the boundary line of the road and this open space kept by retrocession shall be planted.			
	Restriction on the land use	To conserve the woodland (area; about 5,900 m <sup>2</sup> ) for the time being			
	Remarks: The area boundary, detail division of the area, the location of the district facilities, the location of the wall surface of buildings and the area of restriction on the structure of fence or enclosure and the restriction on the land use are shown in the planning map.				

ANNEX

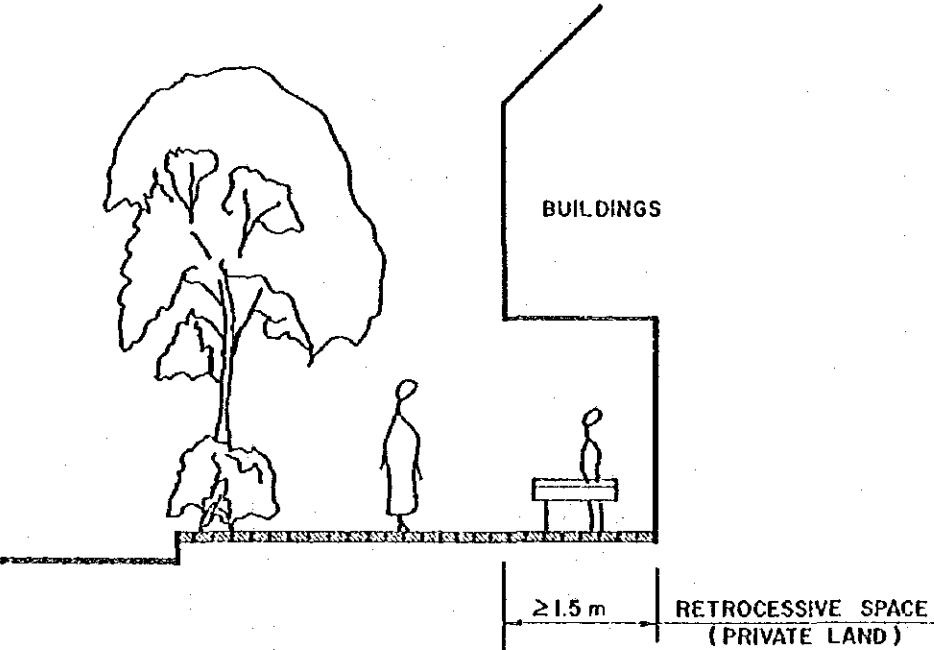
(1) Example of structure of fence and enclosure



SIDE WALK

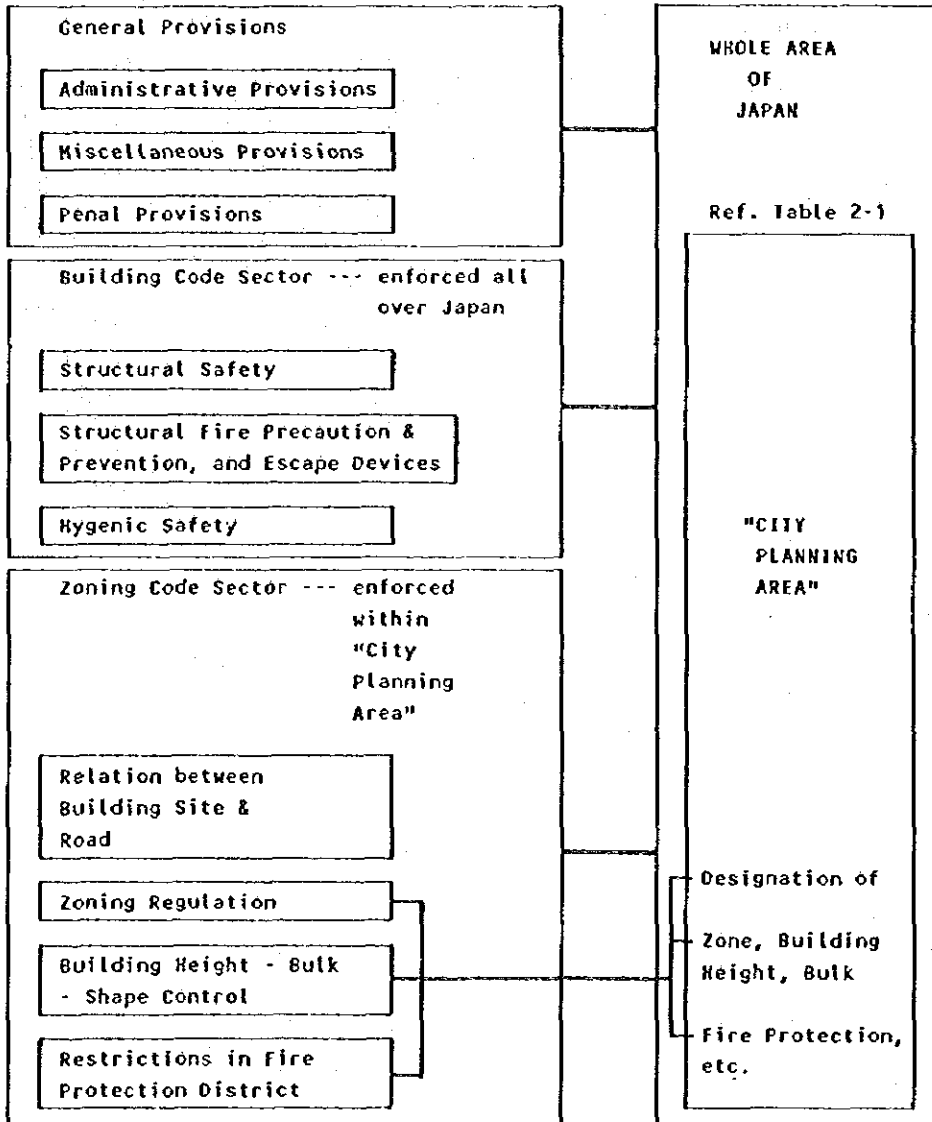


COMMERCIAL AREA



ANNEX

(2) Composition of the Building Standard Law



JICA