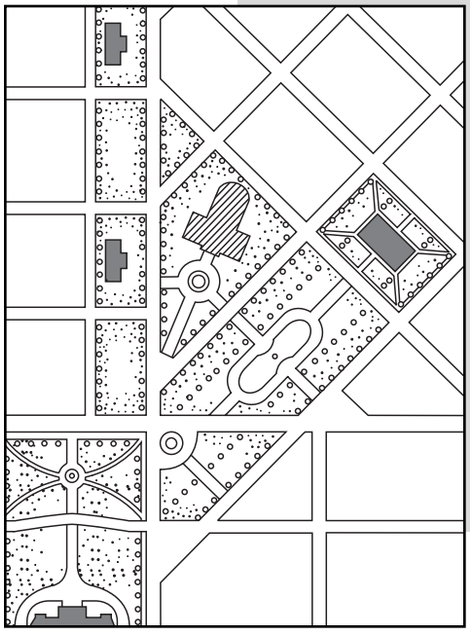


PLANS AND PLAN MAKING

Plan Making

Types of Plans

Participation

Planning Movements

Part 1

PLAN MAKING

PLAN MAKING

A plan is an adopted statement of policy, in the form of text, maps, and graphics, used to guide public and private actions that affect the future. A plan provides decision makers with the information they need to make informed decisions affecting the long-range social, economic, and physical growth of a community. This section provides an overview of plan making as applied to a wide variety of plan types.

PURPOSES AND APPLICATIONS OF PLANS

Plans are used when making decisions concerning the future of an area or of a specific topic under consideration. For example, a plan may be used to identify:

- Housing needs—and recommend a program to meet them
- Transportation needs—and propose alternative systems and modes to meet them
- Open-space preservation areas—and present mechanisms to protect these areas permanently
- Priority investment areas—and recommend programs to stimulate growth
- Strategies for a specific area, such as a downtown, corridor, or neighborhood

Some specific applications of plans include:

- Providing residents, local officials, and others with an interest in the area with an overview and projection of development and conservation in the planning area, along with a summary of trends and forecasts.
- Serving as the basis for the local government enacting and administering regulatory measures, such as zoning and subdivision laws, and establishing urban growth boundaries.
- Serving as the basis for making budget allocations for capital improvements, such as parks, utility systems, and streets.
- Serving as the basis for many other public programs, such as those relating to growth management, historic preservation, economic development, transportation systems, and open-space preservation, for example.

PLAN AUTHORITY

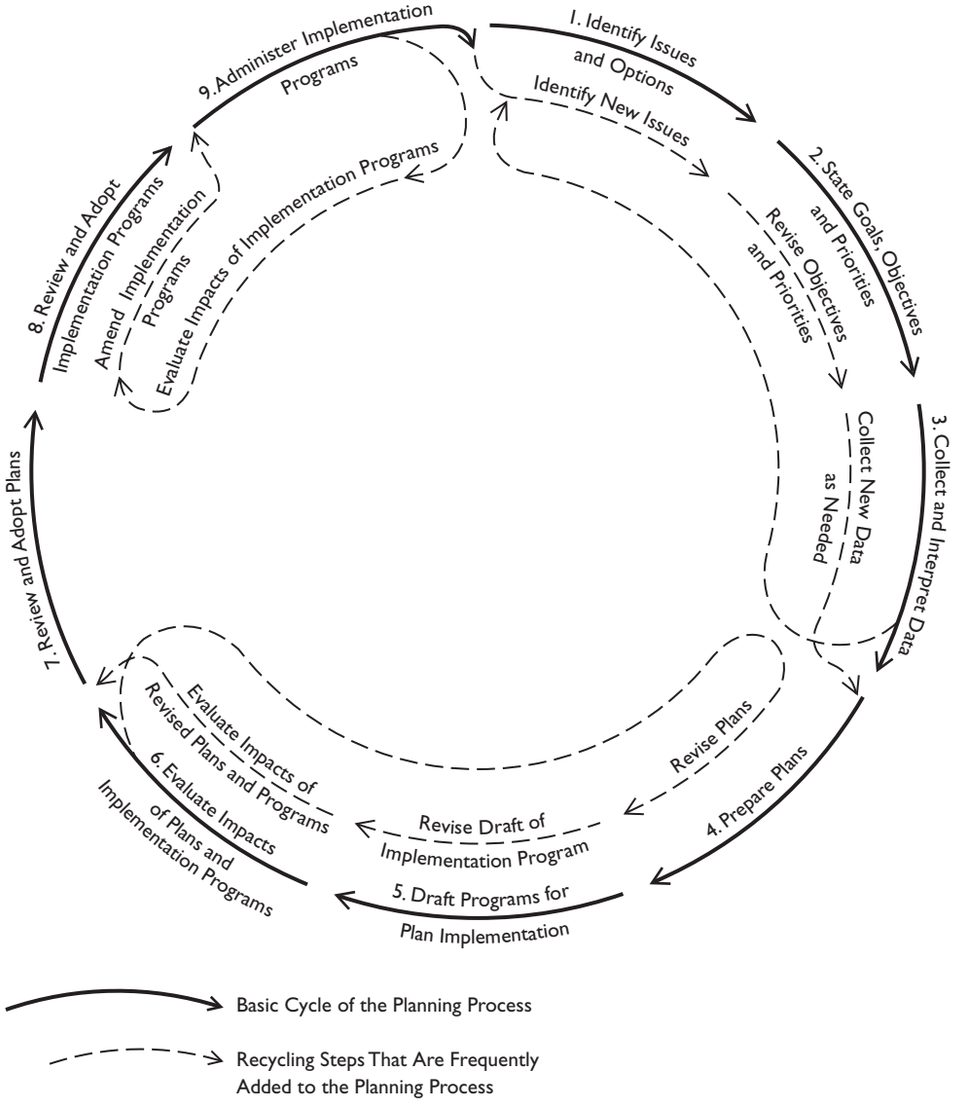
Plans may be expressly authorized or required by statute or administrative rule, depending on the type of plan and the state in which the community is located. For example, every state has its own planning statutes, one part of which authorizes or requires communities to prepare a comprehensive plan, referred to in some states as general or master plans. The statute specifies which elements are included in the plan and the process required for developing and adopting it. States also often use their administrative rule-making powers to further specify, refine, and interpret the statute.

In addition to state planning statutes, federal and state programs established by law sometimes require

EXAMPLES OF PLANS AUTHORIZED OR REQUIRED BY STATE OR FEDERAL STATUTE

PLAN TYPE	STATUTE	JURISDICTION
Conservation Element	Florida Statutes Sec. 163.3177(6)(d)	Florida
Economic Development Element	R.I. Gen. Laws Sec. 45-22.2-6(4)	Rhode Island
Hazard Mitigation Plan	42 U.S. Code Sec. 5133	Federal Emergency Management Agency (FEMA)
Housing Assistance Plan	Cal. Gov't. Code Secs. 65580 to 65589.8	California
Housing Element	N.J. Statutes Annotated Sec. 52:27D-310	New Jersey
Land Use Element	Kentucky Rev. Statutes Sec. 100.187(3)	Kentucky
Transit-Oriented Development Plan	Cal. Gov't Code Secs. 65460 to 65460.10	California
Transportation Improvement Program	49 U.S. Code Sec. 5304	U.S. Department of Transportation

Source: American Planning Association, 2004.



The process of plan making should be viewed as a continuous cycle. There are interrelationships among the phases of the planning process. Information gained at a later phase can inform the outcome of an earlier phase. It is important to recognize the iterative nature of planning and to allow for continuous cycling to occur.

THE PLANNING PROCESS

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that plans of a certain kind be prepared as a condition for participation in the program. The table here includes examples of plans authorized or required by state or federal statute.

For the most part, however, many types of plans are not expressly authorized or required in state or federal statutes. Examples include many types of area plans, such as neighborhood plans, corridor plans, and downtown plans, and some types of functional plans, such as parks and open-space plans, bike route plans, and urban forest plans. The content and format of these plans, and many others like them, are guided primarily by professional planning practice. They also represent the kinds of plans for which there is a great deal of variation in form and content.

PLAN INNOVATION

Although state planning statutes and federal and state regulations provide general guidance about plan content and process for some plans, plans can vary greatly from the prescribed themes. In recent years, planners have begun to break away from tradition by reinventing what plans look like and do, shaping the form of plans to fit the unique content and process requirements of the community.

Moreover, some of the most exciting and effective plans in recent years take advantage of new ways of thinking about what a plan should contain and how it can be presented. Interactive electronic participation, benchmarking, Web-based plans, scenario analysis and modeling, and visualization techniques are a few of the new components and techniques found in plans today. Many of these innovations are featured in the plans described in the first part of this book.

An essential first step of any planning effort is to determine the plan's content, format, and process. The degree to which a planner crafts a plan to meet the unique needs of a situation, time, and place will determine whether a plan results in positive outcomes in the real world. An appendix to this book provides a list of award-winning plans to illustrate the breadth and scope of innovative plan making today.

SCOPING CONSIDERATIONS

The subsections to follow comprise a general checklist of some of the most basic considerations to keep in mind when determining the scope of any plan.

Time Frame

What is the time period covered by the plan? Plans almost always cover a time span of longer than a year, and usually address a period between 5 years and 20 years. The time period may be determined by statute or by the subject matter and process.

COMPREHENSIVE VERSUS STRATEGIC

Are all topics covered or just those important to the chosen strategy? Plans that employ a comprehensive approach consider a broad range of topics related to the area or function of the plan, even if some topics are only relevant in a minor way. Plans with a comprehensive orientation are sometimes more general in their treatment of a wide variety of subjects, providing depth only when needed. Alternatively, plans with a strategic approach consider only the topics and relationships that appear to have a direct relevancy to the subject of the plan, hence to the strategy. Consequently, these plans are more focused and can usually be completed more quickly and with fewer resources.

Community Involvement

The issues, findings, and recommendations of a plan should take into account the knowledge and concerns of existing residents, businesses, and other interests in the planning area, and the anticipated concerns of those interests in the future. Issues to consider are those with a connection to local, regional, statewide, and even global matters. Consequently, an important scoping task is the creation of a legitimate and effective process for involving a wide variety of interests in the preparation of a plan. Successful public involvement processes are designed to fit the unique context of the plan.

In-House versus Outsourcing

Who should prepare a plan? Choices typically include in-house staff, outside consultants, community-based nongovernmental organizations (NGOs) or volunteers, or a combination. The best mix results from a realistic assessment of in-house staff capacity in terms of hours and expertise available, funds available for outside consultant services, and the capacity to train and lead an NGO or volunteer effort.

Binding

Plans are officially adopted or endorsed by a governmental body and thereby become a statement of its policies. Depending on the state and type of local or regional governance structure, the governmental body may be the local legislative body, the planning board or commission, a council of governments, or regional planning agency. Occasionally, plans are adopted by nonprofit regional planning organizations for the benefit of the public they serve, such as the regional plans prepared by the Regional Plan Association for the New York metropolitan area or Chicago Metropolis 2020 for the Chicago region.

BASIC PLAN STRUCTURE

The structure of a plan usually consists of two basic components: a core, followed by a number of elements. The specific contents of a plan depend upon numerous factors, such as the type of plan being prepared, the purpose of the plan, and the scope being addressed. Consult the chapter on types of plans for information on plan contents for specific types of plans.

The Plan Core

The core includes the following:

- A statement of authority to prepare and adopt plan
- Background data, including area history, existing conditions and trends, and data projections
- Documentation of stakeholder interests and stakeholder involvement process
- A vision statement or statement of goals and objectives for future conditions
- An evaluation of plan and design alternatives
- A program of implementation

The Plan Elements

The elements of a plan consider, specifically, the plan's various topics. The elements that must be included depend upon the plan's purpose. For a comprehensive plan, the land use, transportation, housing, and community facilities elements are considered essential—they form the foundation of the comprehensive plan. Other elements are added as considered to be appropriate, based on the plan's scope and as required by state law.

Elements frequently included in a comprehensive plan or often prepared as separate functional plans include the following:

- Economic development
- Historic preservation
- Natural hazards
- Farmland preservation
- Parks, recreation, and open space
- Urban design

GOALS, OBJECTIVES, AND ASSUMPTIONS

Universal to all plans is an identification of the goals, objectives, and assumptions of the plan. Reaching consensus on these three components is often quite difficult, if not impossible. Sometimes, agreement can be reached only in the broadest of terms; often, participants reach "incremental" agreement using negotiation and compromise. Intensive communication between those preparing the plan and the stakeholders is required here.

Goals

A goal is a statement that describes, usually in general terms, a desired future condition.

Objectives

A set of measurable objectives should accompany the goals established for the plan. An objective is a statement that describes a specific future condition to be attained within a stated period of time. Typically, these objectives are more numerous than the goals, and they are organized according to the topics in the goals statement.

Several questions can be asked at the outset of the planning process to determine the objectives of the community. Examples of such questions include:

- What type of development pattern do the stakeholders want?
- What type of transportation system and network does the community want?
- What forms of housing do stakeholders want in the community?
- What program of uses do stakeholders want for the downtown area?

The effort to create and evaluate objectives for each of the broader goals can be instructive for communities and planners, helping all to understand the implications of goal setting as applied in a planning and implementation process.

Assumptions

An assumption is a statement of present or future conditions describing the physical, social, or eco-

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nomic setting within which the plan is to be used. At the outset of the process, it is necessary to identify the basic assumptions concerning the planning area.

On the local level, these can include the accepted boundaries of urban growth, the probable rate of growth, and the desired general character of the community, for example. At a larger scale, it is also usually desirable to state assumptions concerning national and regional economic trends. Where current research data are not available, it can be essential to state and obtain agreement on a set of working assumptions for the particular planning effort.

GOALS AND OBJECTIVES FOR BALANCED GROWTH: NANTUCKET, MASSACHUSETTS

Goal A: Open Space Acquisition
To establish and manage a communitywide network of publicly and privately held open spaces intended to protect critical land and water resources, habitat, and scenic vistas, while affording reasonable access consistent with a policy of wise stewardship.

Goal B: Protection of Water Resources
To protect the quality and quantity of the community's groundwater and surface water resources.

Goal C: Growth Management
To better manage the design, location, and rate of new residential and commercial development in a manner that: protects important natural and cultural resources; encourages development in or near village centers; promotes and preserves the vitality of the downtown; is compatible with the community's historic character; minimizes dependence on the automobile; and creates opportunities for affordable housing.

Goal D: Transportation
To provide a transportation system that will move people and goods to, from, and through the community in a way that is safe, convenient, economical, and consistent with the community's historic, scenic, and natural resources.

Goal E: Affordable Housing
To promote the development and retention of affordable housing for families, individuals, and the elderly.

Goal F: The Economy
To strengthen and diversify the local economy.

Goal G: Energy and Utilities
To provide energy and utility services to the community in a manner that is affordable, efficient, effective, and environmentally safe.

Goal H: Human Services
To facilitate, sustain, and improve the health, education, and well-being of all persons in the community by providing those public and private human services that will improve the quality of life for all age groups.

Source: Nantucket Planning and Economic Development Commission, 1990.

TYPICAL DATA NEEDS FOR PLAN PREPARATION

MAPS AND IMAGES
Base maps
Aerial photographs
GIS map layers

NATURAL ENVIRONMENT
Climate
Topography
Soils
Vegetation
Water features
Habitat areas
Natural hazards

EXISTING LAND USES
Residential
Commercial
Industrial
Institutional
Open-space lands
Vacant urban lands
Farmlands

HOUSING
Inventory of housing
Housing condition
Vacancy rate
Affordability

TRANSPORTATION
Street network
Street capacity
Traffic flow volumes
Parking supply and demand
Transit facilities by mode
Bicycle networks
Pedestrian networks

PUBLIC UTILITIES
Water supply
Wastewater disposal
Stormwater management
Solid waste management
Telecommunication services

COMMUNITY SERVICES
Administrative centers
Education facilities
Parks and recreation facilities
Health services
Public safety facilities

POPULATION AND EMPLOYMENT
Population size
Population characteristics
Vital statistics
Labor force characteristics

LOCAL ECONOMY
Employment
Retail sales
Cost of living

SPECIAL TOPICS
Historic sites and buildings
Archaeological sites
Urban design features
Existing zoning

DOCUMENT STRUCTURE

Whether published on paper, as a series of posters, or on the Web, it is important to create a clear, usable plan document. When creating a plan document, consider the reader's needs. The document should clearly reflect the planning process and serve as a useful tool for future users.

Name of the Plan
Identify a name for the plan that is simple, sensible, and incorporates the planning area or topic name.

Table of Contents
Provide a table of contents so that readers find the plan easy to use and can go directly to a topic of particular interest. Include tables and figures in the table of contents.

Time Frame
Provide the dates of all pertinent planning milestones, such as initiation of the planning process, completion of the first draft, and when certain benchmarks might be achieved. This information gives readers a sense of the plan's progression, shows investment in the planning process, and provides the plan's full time span. Include the plan adoption date on the front cover or title page.

Acknowledgments
Include an acknowledgments page that lists the names, titles, and affiliations of individuals who contributed to the production of the plan.

Glossary/Terminology Key
A glossary can explain technical or local jargon and acronyms, and describe unfamiliar places.

See also:
Analysis Techniques
Implementation Techniques
Participation
Types of Plans

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TYPES OF PLANS

COMPREHENSIVE PLANS

The comprehensive plan is the adopted official statement of a local government's legislative body for future development and conservation. It sets forth goals; analyzes existing conditions and trends; describes and illustrates a vision for the physical, social, and economic characteristics of the community in the years ahead; and outlines policies and guidelines intended to implement that vision.

Comprehensive plans address a broad range of interrelated topics in a unified way. A comprehensive plan identifies and analyzes the important relationships among the economy, transportation, community facilities and services, housing, the environment, land use, human services, and other community components. It does so on a community-wide basis and in the context of a wider region. A comprehensive plan addresses the long-range future of a community, using a time horizon up to 20 years or more. The most important function of a comprehensive plan is to provide valuable guidance to those in the public and private sector as decisions are made affecting the future quality of life of existing and future residents and the natural and built environments in which they live, work, and play.

All states have enabling legislation that either allow, or require, local governments to adopt comprehensive plans. In some states, the enabling legislation refers to them as general plans (California, Maryland, and Arizona, for example), or master plans (Colorado). Most state-enabling legislation describes generally what should be included in a comprehensive plan. However, several states, including Oregon and Florida, detail the content of plans through administrative rules promulgated by a state agency.

REASONS TO PREPARE A COMPREHENSIVE PLAN

Local governments prepare comprehensive plans for a number of reasons, which are described in the following subsections.

View the "Big Picture"

The local comprehensive planning process provides a chance to look broadly at programs on housing, economic development, public infrastructure and services, environmental protection, and natural and human-made hazards, and how they relate to one another. A local comprehensive plan represents a "big picture" of the community related to trends and interests in the broader region and in the state in which the local government is located.

Coordinate Local Decision Making

Local comprehensive planning results in the adoption of a series of goals and policies that should guide the local government in its daily decisions. For instance, the plan should be referred to for decisions about locating, financing, and sequencing public improvements, devising and administering regulations such as zoning and subdivision controls, and redevelopment. In so doing, the plan provides a way to coordinate the actions of many different agencies within local government.

Give Guidance to Landowners and Developers

In making its decisions, the private sector can turn to a well-prepared comprehensive plan to get some sense of where the community is headed in terms of the physical, social, economic, and transportation future. Because comprehensive planning results in a statement of how local government intends to use public investment and land development controls, the plan can affect the decisions of private landowners.

Establish a Sound Basis in Fact for Decisions

A plan, through required information gathering and analysis, improves the factual basis for land-use decisions. Using the physical plan as a tool to inform and guide these decisions establishes a baseline for public policies. The plan thus provides a measure of consistency to governmental action, limiting the potential for arbitrariness.

Involve a Broad Array of Interests in a Discussion about the Long-Range Future

Local comprehensive planning involves the active participation of local elected and appointed officials, line departments of local government, citizens, the business community, nongovernmental organizations, and faith-based groups in a discussion about the community's major physical, environmental, social, or economic development problems and opportunities. The plan gives these varied interests an opportunity to clarify their ideas, better envisioning the community they are trying to create.

Build an Informed Constituency

The plan preparation process, with its related workshops, surveys, meetings, and public hearings, permits two-way communication between citizens and planners and officials regarding a vision of the community and how that vision is to be achieved. In this respect, the plan is a blueprint reflecting shared community values at specific points in time. This process creates an informed constituency that can be involved in planning initiatives, review of proposals for plan consistency, and collaborative implementation of the plan.

PLAN ELEMENTS

The scope and content of state planning legislation varies widely from state to state with respect to its treatment of the comprehensive plan. The American Planning Association has developed model state planning legislation in its *Growing Smart℠ Legislative Guidebook* (2002).

Required and Optional Elements

The guidebook suggests a series of required elements and optional elements. Required elements include:

- Land use
- Transportation
- Community facilities (includes utilities and parks and open space)
- Housing
- Economic development
- Critical and sensitive areas
- Natural hazards
- Agricultural lands

Optional elements addressing urban design, public safety, and cultural resources, for instance, may also be included. Moreover, the suggested functional elements are not intended to be rigid and inflexible. Participants in the plan process should tailor the format and content of the comprehensive plan to the specific needs and characteristics of their community.

According to the guidebook, comprehensive plans should include two "bookend" items: an issues and opportunities element at the beginning in order to set the stage for the preparation of other elements, and an implementation program at the end that proposes measures, assigns estimated costs (if feasible), and assigns responsibility for carrying out proposed measures of the plan. The level of detail in the implementation program will vary depending on whether such actions will be addressed in specific functional plans.

Issues and Opportunities Element

The issues and opportunities element articulates the values and needs of citizens and other affected interests about what the community should become. The local government then interprets and uses those values and needs as a basis and foundation for its planning efforts.

An issues and opportunities element should contain seven items:

- A vision or goals and objectives statement
- A description of existing conditions and characteristics
- Analyses of internal and external trends and forces
- A description of opportunities, problems, advantages, and disadvantages
- A narrative describing the public participation process
- The legal authority or mandate for the plan
- A narrative describing the connection to all the other plan elements

Vision or Goals and Objectives Statement

This statement is a formal description of what the community wants to become. It may consist solely of broad communitywide goals, may be enhanced by the addition of measurable objectives for each of the goals, or may be accompanied by a narrative or illus-

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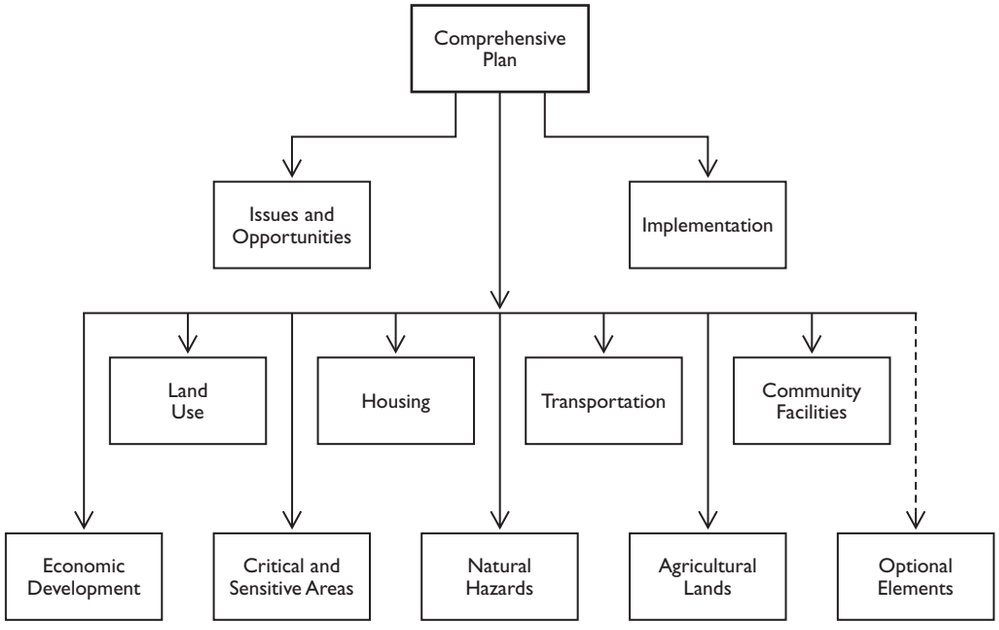

COMPREHENSIVE PLAN ELEMENTS

Source: American Planning Association.

tration that sets a vision of the community at the end of the plan period.

Existing Conditions and Characteristics Description

This description creates a profile of the community, including relevant demographic data, pertinent historical information, existing plans, regulatory framework, and other information that broadly informs the plan. Existing conditions information specific to a plan element may be included in that element's within the plan.

Trends and Forces Description

This description of major trends and forces is what the local government considered when creating the vision statement and considers the effect of changes forecast for the surrounding region during the planning period.

Opportunities, Problems, Advantages, and Disadvantages

The plan should include a statement of the major opportunities, problems, advantages, and disadvantages for growth and decline affecting the local government, including specific areas within its jurisdiction. This is often referred to as a *SWOT analysis*—a description of strengths, weaknesses, opportunities, and threats.

Public Participation

This summary of the public participation procedures describes how the public was involved in developing the comprehensive plan.

Legal Authority or Mandate

This brief statement describes the local government's legal authority for preparing the plan. It may include a reference to applicable state legislation or a municipal charter. Summaries of past planning activities may be included here (if not included in existing conditions discussion).

Connection to Other Elements

The implications of the local government's vision on other required and/or optional elements of the local comprehensive plan, including the potential changes in implementation measures, should be described in this concluding section.

SAMPLE VISION STATEMENT: OAKLAND, CALIFORNIA

The Vision for Oakland

In the year 2015, Oakland will be a safe, healthy, and vital city offering a high quality of life through:

- a dynamic economy that taps into Oakland's great economic potential and capitalizes on its physical and cultural assets;
- clean and attractive neighborhoods rich in character and diversity, each with its own distinctive identity, yet well integrated into a cohesive urban fabric;
- a diverse and vibrant downtown with around-the-clock activity;
- an active and accessible waterfront that is linked to downtown and the neighborhoods, and that promotes Oakland's position as a leading United States port and a primary regional and international airport;
- an efficient transportation system that serves the needs of all its citizens and that promotes Oakland's primacy as a transportation hub connecting the Bay Area with the Pacific Rim and the rest of the United States; and
- awareness and enjoyment of Oakland's magnificent physical setting—hills, views, water, estuary—in every district and neighborhood.

The Land-Use Element

The land-use element shows the general distribution, location, and characteristics of current and future land uses and urban form. In the past, comprehensive plans included color-coded maps showing exclusive land-use categories, such as residential, commercial, industrial, institutional, community facilities, open space, recreational, and agricultural uses.

Many communities today use sophisticated land-use and land-cover inventories and mapping techniques, employing Geographic Information Systems (GIS) and new land-use and land-cover classification systems. These new systems are better able to accommodate the multidimensional realities of urban form, such as mixed-use and time-of-day/seasonal-use changes. Form and character are increasingly being used as important components of land-use planning, integrating the many separate components into an integrated land-use form.

One example of a process that can be used to create such multidimensional mapping is the system of Land-Based Classification Standards (LBCS), developed by the American Planning Association (APA). This system creates a current land-use map using a number of data sources, including orbital and suborbital remotely sensed data, tax assessor records, U.S. Geological Survey quadrangle maps, soils maps, and other county or state mapping data, which are field-checked on the ground. See pages C-1 to C-6 of the color insert for the LBCS color codes.

Future Land-Use Map

Future land uses and their intensity and density are shown on a future land-use map. The land-use allocations shown on the map must be supported by land-use projections linked to population and economic forecasts for the surrounding region and tied to the assumptions in a regional plan, if one exists. Such coordination ensures that the plan is realistic. The assumptions used in the land-use forecasts, typically in terms of net density, intensity, other standards or ratios, or other spatial requirements or physical determinants, are a fundamental part of the land-use element. This element must also show lands that have development constraints, such as natural hazards. See pages C-7 and C-8 of the color insert for examples.

Land-Use Projections

The land-use element should envision all land-use needs for a 20-year period (or the chosen time frame for the plan), and all these needs should be designated on the future land-use plan map. If this is not done, the local government may have problems carrying out the plan. For example, if the local government receives applications for zoning changes to accommodate uses the plan recognizes as needed, the locations where these changes are requested are consistent with what is shown on the land-use plan map.

The Transportation Element

The modern transportation element commonly addresses traffic circulation, transit, bicycle routes, ports, airports, railways, recreation routes, pedestrian movement, and parking. The exact content of a transportation element differs from community to community depending on the transportation context

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of the community and region. Proposals for transportation facilities occur against a backdrop of federally required transportation planning at the state and regional levels.

The transportation element considers existing and committed facilities, and evaluates them against a set of service levels or performance standards to determine whether they will adequately serve future needs. Of the various transportation facilities, the traffic circulation component is the most common, and a major thoroughfare plan is an essential part of this. It contains the general locations and extent of existing and proposed streets and highways by type, function, and character of improvement.

Street Performance

In determining street performance and adequacy, planners are employing other approaches in addition to or instead of level-of-service standards that more fairly measure a street's performance in moving pedestrians, bikes, buses, trolleys, and light rail, and for driving retail trade, in addition to moving cars. This is especially true for urban centers, where several modes of travel share the public realm across the entire right-of-way, including adjacent privately owned "public" spaces. Urban design plans for the entire streetscape of key thoroughfares can augment the transportation element. In addition, it is becoming increasingly common for the traffic circulation component of a comprehensive plan to include a street connectivity analysis. The degree to which streets connect with each other affects pedestrian movement and traffic dispersal.

Thoroughfare Plan

The thoroughfare plan, which includes a plan map, is used as a framework for roadway rehabilitation, improvement, and signalization. It is a way of identifying general alignments for future circulation facilities, either as part of new private development or as new projects undertaken by local government. Other transportation modes should receive comparable review and analysis, with an emphasis on needs and systems of the particular jurisdiction and on meeting environmental standards and objectives for the community and region. Typically, surface and structured parking, bikeways, and pedestrian ways should also be covered in the transportation element.

Transit

A transit component takes into consideration bus and light rail facilities, water-based transit (if applicable), and intermodal facilities that allow transportation users to transfer from one mode to another. The types and capacities of future transit service should be linked to work commute and nonwork commute demands as well as to the applicable policies and regulations of the jurisdiction and its region.

The Transportation/Land-Use Relationship

The relationship between transportation and land use is better understood today and has become a dominant theme in the transportation element. For instance, where transit exists or is proposed, opportunities for transit-oriented development should be included; where increased densities are essential, transit services might need to be improved or introduced. This would also be covered in the land-use element.

The Community Facilities Element

The term "community facilities" includes the physical manifestations of governmental or quasi-governmental services on behalf of the public. These include buildings, equipment, land, interests in land, such as easements, and whole systems of activities. The community facilities element requires the local government to inventory and assess the condition and adequacy of existing facilities, and to propose a range of facilities that will support the land-use element's development pattern.

The element may include facilities operated by public agencies and those owned and operated by for-profit and not-for-profit private enterprises for the benefit of the community, such as privately owned water and gas facilities, or museums. Some community facilities have a direct impact on where development will occur and at what scale—water and sewer lines, water supply, and wastewater treatment facilities, for example. Other community facilities may address immediate consequences of development. For example, a stormwater management system handles changes in the runoff characteristics of land as a consequence of development.

Still other facilities are necessary for the public health, safety, and welfare, but are more supportive in nature. Examples in this category would include police and fire facilities, general governmental buildings, and elementary and secondary schools. A final group includes those facilities that contribute to the cultural life or physical and mental health and personal growth of a local government's residents. These include hospitals, clinics, libraries, and arts centers.

Operation by Other Public Agencies

Some community facilities may be operated by public agencies other than the local government. Such agencies may serve areas not coterminous with the local government's boundaries. Independent school districts, library districts, and water utilities are good examples. In some large communities, these agencies may have their own internal planning capabilities. In others, the local planning agency will need to assist or coordinate with the agency or even directly serve as its planner.

Parks, Open Space, and Cultural Resources

A community facilities element may include a parks and open-space component. Alternatively, parks and open space may be addressed in a separate element. The community facilities element will inventory existing parks by type of facility and may evaluate the condition of parks in terms of the population they are expected to serve and the functions they are intended to carry out. To determine whether additional parkland should be purchased, population forecasts are often used in connection with population-based needs criteria (such as a requirement of so many acres of a certain type of park within a certain distance from residents). Other criteria used to determine parkland need may include parkland as a percentage of land cover or a resident's proximity to a park.

Open-space preservation may sometimes be addressed alone or in connection with critical and sensitive areas protection and agricultural and forest preservation. Here the emphasis is on the ecological, scenic, and economic functions that open space provides. The element may also identify tracts of open land with historic or cultural significance, such as a battlefield. The element will distinguish between publicly held land, land held in private ownership subject to conservation easements or other restrictions, and privately owned parcels subject to development.

The Housing Element

The housing element assesses local housing conditions and projects future housing needs by housing type and price to ensure that a wide variety of housing structure types, occupancy types, and prices (for rent or purchase) are available for a community's existing and future residents. There may currently be a need for rental units for large families or the disabled, or a disproportionate amount of income may be paid for rental properties, for example. Because demand for housing does not necessarily correspond with jurisdictional boundaries and the location of employment, a housing element provides for housing needs in the context of the region in which the local government is located. In some states, such as California, New Hampshire, and New Jersey, there may be state-level or regional housing plans that identify regional needs for affordable housing, and the local housing element must take these needs into account as part of a "fair-share" requirement.

Jobs/Housing Balance

The housing element can examine the relationship between where jobs are or will be located and where housing is or will be available. The jobs/housing balance is the ratio between the expected creation of jobs in a region or local government and the need for housing expressed as the number of housing units. The higher the jobs/housing ratio, the more jobs the region or local government is generating relative to housing. A high ratio may indicate to a community that it is not meeting the housing needs (in terms of either affordability or actual physical units) of people working in the community.

Housing Stock

The housing element typically identifies measures used to maintain a good inventory of quality housing stock, such as rehabilitation efforts, code enforcement, technical assistance to homeowners, and loan and grant programs. It will also identify barriers to producing and rehabilitating housing, including affordable housing. These barriers may include lack of adequate sites zoned for housing, complicated approval processes for building and other development permits, high permit fees, and excessive exactions or public improvement requirements.

The Economic Development Element

An economic development element describes the local government's role in the region's economy; identifies categories or particular types of commercial, industrial, and institutional uses desired by the local government; and specifies suitable sites with supporting facilities for business and industry. It has one or more of the following purposes:

- Job creation and retention
- Increases in real wages (e.g., economic prosperity)
- Stabilization or increase of the local tax base
- Job diversification (making the community less dependent on a few employers)

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A number of factors typically prompt a local economic development program. They include loss or attraction of a major employer, competition from surrounding communities or nearby states, the belief that economic development yields a higher quality of life, the desire to provide employment for existing residents who would otherwise leave the area, economic stagnation or decline in a community or part of it, or the need for new tax revenues.

An economic development element typically begins with an analysis of job composition and growth or decline by industry sector on a national, statewide, or regional basis, including an identification of categories of commercial, industrial, and institutional activities that could reasonably be expected to locate within the jurisdiction. It will also examine existing labor force characteristics and future labor force requirements of existing and potential commercial and industrial enterprises and institutions in the state and the region in which the local government is located. It will include assessments of the jurisdiction's and the region's access to transportation to markets for its goods and services, and its natural, technological, educational, and human resources. Often, an economic development element will have targets for growth, which may be defined as number of jobs or wages, or in terms of targeted industries and their land use, transportation, and labor force requirements.

The local government may also survey owners or operators of commercial and industrial enterprises, and inventory commercial, industrial, and institutional lands within the jurisdiction that are vacant or significantly underused. An economic development element may also address organizational issues, including the creation of entities, such as nonprofit organizations, that could carry out economic development activities.

The Critical and Sensitive Areas Element

Some comprehensive plans address the protection of critical and sensitive areas. These areas include land and water bodies that provide habitat for plants and wildlife, such as wetlands, riparian corridors, and floodplains; serve as groundwater recharge areas for aquifers; and areas with steep slopes that are easily eroded or unstable, for example. They also can include visually, culturally, and historically sensitive areas. By identifying such areas, the local government can safeguard them through regulation, incentives, purchase of land or interests in land, modification of public and private development projects, or other measures.

The Natural Hazards Element

Natural hazards elements document the physical characteristics, magnitude, severity, frequency, causative factors, and geographic extent of all natural hazards. Hazards include flooding; seismic activity; wildfires; wind-related hazards such as tornadoes, coastal storms, winter storms, and hurricanes; and landslides or subsidence resulting from the instability of geological features.

A natural hazards element characterizes the hazard; maps its extent, if possible; assesses the community's vulnerability; and develops an appropriate set of mitigation measures, which may include land-use policies and building code requirements. The natural hazards element may also determine the adequacy of existing transportation facilities and public buildings to accommodate disaster response and early recovery needs such as evacuation and emergency shelter. Since most communities have more than one type of hazard, planners should consider addressing them jointly through a multihazards approach.

The Agriculture Element

Some comprehensive plans contain agriculture and forest preservation elements. This element focuses on the value of agriculture and forestlands to the local economy, although it can also include open space, habitat, and scenic preservation. For such an element, the local government typically inventories agriculture and forestland, and ranks the land using a variety of approaches, such as the U.S. Department of Agriculture's Land Evaluation and Site Assessment (LESA) system. It then identifies conflicts between the use of such lands and other proposed uses as contained in other comprehensive plan elements.

For example, if an area were to be preserved for agricultural purposes, but the community facilities element proposed a sewer trunk line to the area, that would be a conflict, which if not corrected would result in development pressure to the future agricultural area. Implementation measures might include agricultural use valuation coupled with extremely large lot requirements (40 acres or more), transfer of development rights, purchase of development rights, conservation easements, marketing programs to promote the viability of local agricultural land, and programs for agricultural-based tourism.

IMPLEMENTATION

A local comprehensive plan must contain an implementation program to ensure that the proposals advanced in the plan are realized. Sometimes referred to as an "action plan," the implementation program includes a list of specific public or private actions organized by their scheduled execution date—short-term (1 to 3 years), medium-term (4 to 10 years), and long-term (11 to 20 years) actions. Typical actions include capital projects, changes to land development regulations and incentives, new programs or procedures, financing initiatives, and similar measures. Each listed action should assign responsibility for the task and include an estimate of cost and a source of funding.

Some communities produce comprehensive plans that are more broadly based and policy-driven. These plans will require a less detailed implementation program. The individual functional plans produced as a result of the comprehensive plan address the assignment of costs or specific tasks.

REFERENCES

Meck, Stuart (gen. ed.). 2002. *Growing Smart℠ Legislative Guidebook: Model Statutes for Planning and Management of Change,* 2 vols. Chicago: American Planning Association.

See also:

Community Facilities Plans
Critical and Sensitive Areas Plans
Economic Development Plans
Hazard Mitigation Plans
Housing Plans
Land-Based Classification Standards
Mapping
Parks and Open-Space Plans
Participation
Plan Making
Projections and Demand Analysis
Regional Plans
Transportation Plans
Urban Design Plans

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URBAN DESIGN PLANS

Urban design is the discipline between planning and architecture. It gives three-dimensional physical form to policies described in a comprehensive plan. It focuses on design of the public realm, which is created by both public spaces and the buildings that define them. Urban design views these spaces holistically and is concerned with bringing together the different disciplines responsible for the components of cities into a unified vision. Compared to comprehensive plans, urban design plans generally have a short time horizon and are typically area or project specific.

Key elements of an urban design plan include the plan itself, the preparation of design guidelines for buildings, the design of the public realm—the open space, streets, sidewalks, and plazas between and around buildings—and the "public interest" issues of buildings. These include massing, placement, and sun, shadow, and wind issues.

Urban design plans are prepared for various areas, including downtowns, waterfronts, campuses, corridors, neighborhoods, mixed-use developments, and special districts. Issues to be considered include existing development, proposed development, utility infrastructure, streets framework, open space framework, environmental framework, and sustainable development principles. Urban design plans require interdisciplinary collaboration among urban designers, architects, landscape architects, planners, civil and environmental engineers, and market analysts. The central role of the urban designer is to serve as the one who can often integrate the work of a diverse range of specialists.

REASONS TO PREPARE AN URBAN DESIGN PLAN

An urban design plan must respond to the circumstances under which the project will be conducted, including the goals of the sponsors of the plan, the political or social climate in the community, and financial and marketing realities. Below are a few examples of reasons to prepare an urban design plan.

Forging Visions

Urban designers are often asked to provide a vision for communities to attract investment and coordinate many disparate and even discordant interests. By providing such a vision, urban designers can bring individual efforts together to create a whole that is greater than the sum of its parts. Creating such a vision needs to be a public process, to cultivate widespread enthusiasm for the vision and build a "bandwagon" of support.

Devising Strategies

In addition to an overall vision, an urban design plan must also include a strategic implementation plan, with both short- and long-range initiatives. To keep the momentum going, it is also important to assign specific tasks or projects to groups conducting implementation.

Creating Good Locations

Many projects begin with sites that are compromised or deteriorated. An urban design plan illustrates how a site is linked to surrounding strengths, and it can show how the site can become a great location.

Marketing Sites or Areas

Urban design plans often work to transform an area, creating a new image for an area once overlooked or blighted. Urban design documents, illustrations, and publicity around the process all become part of the overall marketing effort to attract development and residents.

Forming "Treaties"

Urban design plans are sometimes born as a result of a conflict; for example, a proposed redevelopment project may result in displacing existing businesses or residents. An urban design document can serve as a "treaty," to bring about a truce among warring parties. By focusing on the issues, presenting thoughtful analysis, and urging parties to come forward with their concerns and ideas, urban designers can use an urban design plan to help resolve problems in a nonconfrontational way.

THE URBAN DESIGN PLANNING PROCESS

An urban design planning process has much in common with a comprehensive planning process; both include basic elements such as data collection and analysis, public participation, and involvement of other disciplines. However, urban design differs in the use of three-dimensional design tools to explore alternatives and communicate ideas. Below are the essential attributes of an urban design planning process.

Public Outreach

Because urban design plans usually involve multiple stakeholders, public participation in the planning process is essential. A representative steering committee is one mechanism to ensure involvement of a cross section of interests. Among the various public outreach techniques used are focus groups and public meetings. Input from the public informs the urban design team about assets, liabilities, and visions for the project area.

Involvement of Major Stakeholders

In addition to the public outreach process, one-on-one meetings with key representatives of the major stakeholders, such as elected officials, community leaders, and major institutions, are important for both sides—the urban design team gains insight into the stakeholders' concerns and goals, and the major stakeholders develop confidence in the team and the planning process.

Features such as waterways and adjacent land features influence street grid orientation.

EXISTING STREET PATTERNS

Source: Urban Design Associates.

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Multi-Disciplinary Team

Urban design is a collaborative process involving urban designers, architects, planners, and landscape architects. However, other disciplines are usually required, such as transportation planners and engineers, civil and environmental engineers, residential and commercial market analysts, construction cost consultants, and public/private finance consultants. When such a team has been assembled, the individual consultants should be coordinated so that their expertise permeates the planning process from beginning to end.

Focus on Implementation

Urban design projects are often complicated plans with multiple projects and participants. Implementation can be difficult, even when all the forces are aligned properly. The process should begin with implementation in mind. Develop a plan that is tied to the realities of receiving funding, obtaining approval, and getting the project built.

Design as a Tool for Decision-Making

By exploring alternatives—the "what ifs" of a site or district—the design process allows for speculation, brainstorming, and innovative thinking. Alternatives can be tested against various factors, including physical constraints, regulatory controls, the market, overall costs and benefits, economic feasibility, property valuation, phasing, public input, and experience elsewhere. The consensus vision will then reflect those realities.

Block patterns of an area, presented here as a figure ground map, show the building coverage of a site.

BUILDING COVERAGE

Source: Urban Design Associates.

COMPONENTS OF AN URBAN DESIGN PLAN REPORT

As a general rule, an urban design report should be light on text and heavy on graphics. Diagrams, charts, rendered plans and sections, and perspective drawings are often the most effective communicators of the plan's elements. Below are brief descriptions of the typical sections of an urban design plan report.

Executive Summary

Key images from the body of the report and summary text can convey the "big ideas" of the plan in just a few pages.

Existing Conditions

Assemble all existing conditions data related to the project area, including streets, building coverage, land use, topography, vacant buildings and land, and environmental constraints. This information is documented in the report as the existing conditions "portrait" of the area.

Analysis Drawings

Analysis drawings can be some of the most influential materials of an urban design initiative. Creating these drawings involves professional review of existing conditions data and mapping, to translate this information into findings that will influence the plan. More information on analysis drawings can be found in *The Urban Design Handbook* (2003).

Summary of Issues

During the planning process, involve citizens and stakeholders in focus groups and public meetings to learn about the strengths and weaknesses of the project area and the community's vision for the future. The issues and opportunities that arise from these meetings are summarized in the report, in both narrative and diagrams.

Development Program

Market studies, forecasting demand for residential and commercial development, are frequently done concurrently with the urban design planning process. These studies are summarized in the urban design plan. If such studies were not commissioned, the client's development program is described in the development program.

Urban Design Plan

The urban design plan is a color rendered plan showing existing and new buildings, parking, streets, trails, and landscape planting. The urban design plan presents a two-dimensional vision of the final project build-out. For an example of an urban design plan, see page C-9 of the color insert.

Streets Framework Plan and Street Sections

The streets framework plan identifies existing and new streets. It includes cross sections of streets indicating sidewalks, parking, travel lanes, and medians. See page C-10 of the color insert for an example of a street section.

Open Space Framework Plan

The open space framework plan illustrates parks; trails; "green streets," which are streets designated for enhanced landscape planting and pedestrian amenities; plazas; public space; and the connections between them.

Perspective Drawings

Three-dimensional perspective drawings are essential in conveying the sense of place of an urban design plan. Often the general public cannot easily interpret plan drawings; however, eye level and bird's eye view perspectives are often more readily understandable. See page C-10 of the color insert for an example.

Design Guidelines

Urban design plan reports often contain a section on design guidelines, including massing, height, building setbacks, architectural style, parking, streetscapes, signage, materials, and sustainable design.

Implementation and Phasing Plan

The implementation section details the mechanisms to make the plan a reality. Among the tools typically included are public and private partnerships, funding sources, regulatory issues, conceptual budgets, and a phasing plan with early action and long-range projects described.

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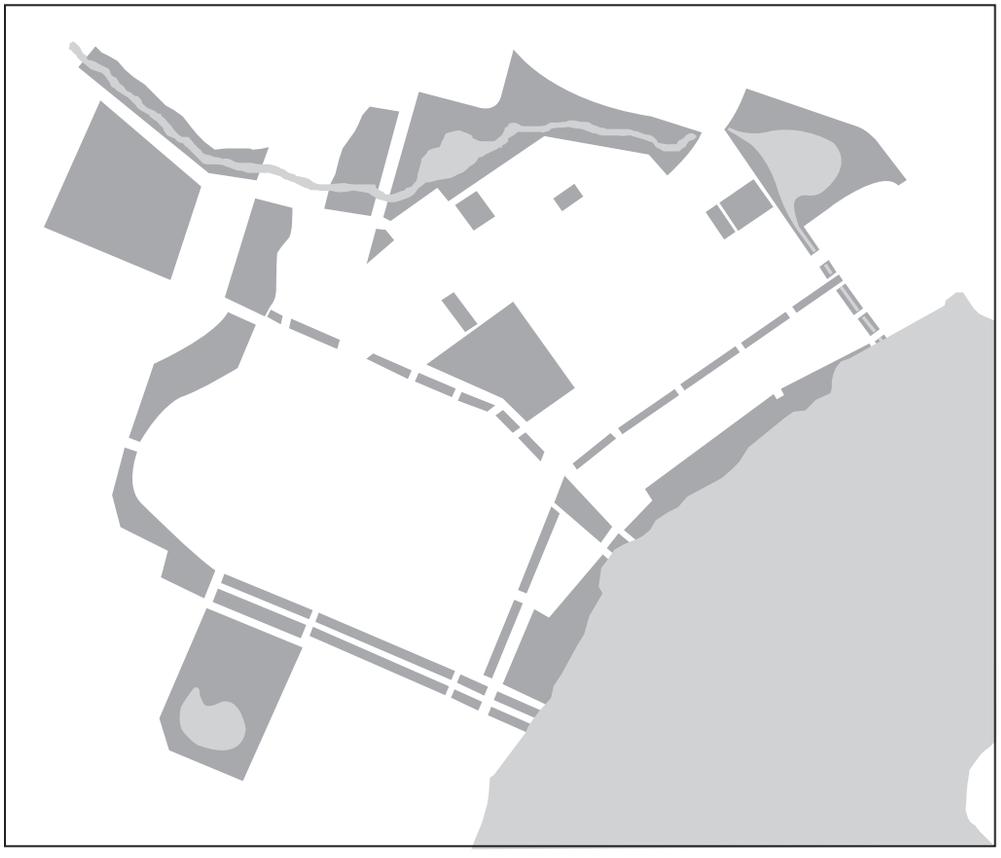

The street framework is upgraded to follow the patterns that the existing street patterns, building coverage, and open space framework define for the place.

STREET FRAMEWORK

Source: Urban Design Associates.

THE ROLE OF URBAN DESIGN IN IMPLEMENTATION

By translating general planning policies into three-dimensional form, urban design makes the connection between planning and architecture, this makes it possible to test the feasability of projects through a variety of mechanisms, described below.

Public Support

If the community perceives the various images and three-dimensional form of a development to be consistent with its goals and policies, then gaining support for the various public approvals needed for the development will be strengthened. Developing the urban design for a project in an open public forum helps to facilitate this outcome.

Zoning Enforcement and Regulatory Approvals

Use vivid and explicit representations of the proposed development to assist the various agencies responsible for zoning enforcement and regulatory approvals to support implementation. In many communities there are a number of agencies, with different mindsets, involved in administering the approval and implementation process The urban design plan, especially if developed in a process that engaged the approval agencies as a group, can provide a common framework within which governmental decisions can be made.

Investment and Finance

Urban designs are often developed to a level of detail sufficient to determine the amount of space being built and to develop conceptual cost estimates for buildings and public improvements. Therefore, the economic feasability and fiscal impact of developments can be effectively evaluated.

Marketing

A project's feasibility is directly related to the effectiveness of its marketing program. The character and quality of its address is one factor in how successfully a development can capture the market potential of an area. The products of an urban design project are often used in marketing programs to communicate the new image of the place and to promote the development.

Framework for Implementing Agencies

An urban design project often serves as a "road map" for the implementing agencies. It becomes a standard reference for developing budgets, setting priorities, funding projects, and granting regulatory approvals.

EXAMPLES OF URBAN DESIGN PLANS

Described below are three of the most commonly produced urban design plans: neighborhoods, downtowns, and mixed-use developments.

Neighborhood Plans

On the neighborhood scale, urban design plans often address the location and design of infill housing, new parks, and community institutions; main street revitalization; housing rehabilitation guidelines; and street reconfiguration. Sponsors of neighborhood plans include cities, community development organizations, foundations, and private developers.

Downtown Plans

Downtown urban design plans are usually part of a larger economic development strategy focused on attracting jobs, residents, and visitors to a downtown. The development scale is relatively dense and multistory, which requires sensitive treatment of the public realm for pedestrians. Topics covered in downtown urban design plans include mixed-use buildings, historic preservation, adaptive reuse, height and density, setbacks, views, parking strategies, transit corridors and nodes, streetscapes, waterfronts, street networks, highway access, redevelopment policies, zoning overlays, incentive districts, new stadiums and convention centers, and entertainment and cultural districts.

Cities, downtown organizations, business improvement districts, and regional agencies all may sponsor downtown urban design plans.

Mixed-Use Developments

Mixed-use developments are typically one-owner, site-specific projects. Among the various types are infill projects in downtowns, brownfield reclamation projects, lifestyle centers (also called specialty retail centers), and office/technology developments. Office, retail, and housing are among the typical uses in mixed-use developments. Project sizes can range widely, from a few acres to hundreds of acres. A central goal is to develop a pedestrian-friendly place to live, work, and play. Sponsors of mixed-use developments are often private developers, redevelopment agencies, and large institutions, such as universities and medical centers.

KEY AND EMERGING ISSUES

Housing Density

As the smart growth movement and rising housing costs have become determining forces in residential planning and development, density has emerged as a major issue. While there is still the great American desire for the single family home and the cul-de-sac subdivision, regulatory controls and environmental restrictions have begun to limit available land for such development. Smaller lot sizes, attached housing, and multi-family housing have become contentious issues in many communities. Urban design planning processes can help test different residential densities in the context of a holistic solution that includes housing, amenities, and place making.

Recognizing the Value of Urban Design

Urban design is a strong strategic planning tool. However, many cities and developers approach

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The open space of a site shows the green network that helps define a place.

OPEN SPACE FRAMEWORK

Source: Urban Design Associates

development on a project-by-project basis, often in isolation from adjacent uses and without a comprehensive view of all the forces impacting or impacted by the project. While urban design plans are not always regarded as essential pre-development projects, experience in the field has demonstrated that the new ideas and approaches that emerge from an urban design planning process can add significant value to a development and appreciably ease and shorten the public approval process.

Urban Design Education

Because of the three-dimensional building design and the physical transformation of the public realm aspect of urban design practice, an urban designer should have an architecture degree. Ideally, an urban designer has either received a master of architecture degree in urban design or has completed an internship in an urban design firm.

RESOURCES

Urban Design Associates. 2003. *The Urban Design Handbook: Techniques and Working Methods*. New York: W.W. Norton and Co.

See also:
Places and Place Making
Viewshed Protection

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REGIONAL PLANS

Regional plans cover geographic areas transcending the boundaries of individual governmental units but sharing common characteristics that may be social, economic, political, cultural, natural-resource-based, or defined by transportation. They often serve as the skeleton or framework for local government plans and special district plans, supplying unifying assumptions, forecasts, and strategies. The information that follows is adapted from the American Planning Association's *Growing Smart℠ Legislative Guidebook* (2002).

DEFINING THE REGION

The following factors may define a region:

- Geographic and topographic features, especially watersheds
- Political boundaries, especially county boundaries
- Transportation patterns, especially those related to the journey to work
- Region-serving facilities, such as hospitals, airports, trail terminals, and wastewater treatment plants
- Interrelated social, economic, and environmental problems
- Population distribution
- Existing intergovernmental relationships, usually expressed in the form of written agreements
- Metropolitan area or urbanized area boundaries as identified by the U.S. Census Bureau
- Boundaries of existing regional or multijurisdictional planning or service provision organizations, such as regional sewer districts

REGIONAL FUNCTIONAL PLANS

Regional planning agencies may prepare regional functional plans to cover specific topics such as parks and open space, bikeways, water, sanitary sewerage and sewage treatment, water supply and distribution, solid waste management, airports, libraries, communications, and others. For example, a regional sewer plan is a device used to ensure that disputes can be resolved over which jurisdiction will provide sewers and sewage treatment facilities to developing areas. The most typical regional functional plan is a regional transportation plan; see Transportation Plans in this chapter for more information.

The Regional Housing Plan

A number of states, including California and New Hampshire, require the preparation of regional housing plans. In general, regional planning agencies prepare these plans to assess present and prospective need for housing at the regional level, particularly affordable housing. Typically, they establish numerical housing goals to be included in local government plans.

In New Jersey, regional housing planning is the responsibility of a state agency, the Council on Affordable Housing, which prepares "fair-share" housing allocations for affordable housing for each local government. Under New Jersey law, local governments then have an obligation to identify sites for affordable housing and take necessary steps to remove barriers in order to provide a realistic opportunity that such housing can be built or rehabilitated.

THE REGIONAL COMPREHENSIVE PLAN

The regional comprehensive plan is intended to address facilities or resources that affect more than one jurisdiction and to provide economic, population, and land-use forecasts to guide local planning, so that local plans and planning decisions are made with a set of common assumptions. Consequently, a regional comprehensive plan will propose a more schematic pattern of development than provided in a local comprehensive plan.

For example, in a regional comprehensive plan, the land-use pattern is generally simple, demarcating land into urban and rural, with a general indication of a hierarchy of activity centers. Such centers may be targets for more intensive residential, office, commercial, and industrial developments, supported by transit, that are intended to serve a substantial portion of the region. Here, the intent is to use the regional plan as an device to direct both public and private investment to ensure that such development occurs.

Both public agencies and private organizations may prepare regional plans. Indeed, private groups prepared the first true regional plans, one in 1909 for the Chicago area and a second in 1929 for the New York City area. The Chicago plan was the work of planners Daniel Burnham and Edward Bennett, with funding by the Commercial Club. The Committee for the Regional Plan of New York and Its Environs, a private group whose efforts were funded by the Russell Sage Foundation, produced a multivolume regional plan for the New York metropolitan area, beginning in 1929.

Regional Comprehensive Plan Elements

Typical Plan Elements

State statutes usually define which elements are required in a regional comprehensive plan. The following list is for guidance only; to determine which elements are required, consult state legislation.

- A narrative of planning assumptions, and their relationship to state and local plans
- Population trends and projections
- Regional economy
- Existing land use
- A transportation system overview
- Regional housing trends and needs
- Community facilities and services
- Natural features and cultural assets
- Agricultural lands
- Natural hazards
- Regional density study
- Public involvement
- Urban growth areas
- Regional growth policy statements
- Implementation recommendations

Urban Growth Areas

Some regional plans delineate urban growth areas, which are land areas sufficient to accommodate population and economic growth for a certain period, typically 20 years, and which will be supported by urban-level services. The purpose of an urban growth area is to ensure a compact and contiguous development pattern that can be efficiently served by public services while preserving open space, agricultural land, and environmentally sensitive areas not suitable for intensive development.

SAMPLE TABLE OF CONTENTS: THE METROPOLIS PLAN: CHOICES FOR THE CHICAGO REGION

Introduction: The Metropolis Plan
Purpose of The Metropolis Plan
Building The Metropolis Plan

The Metropolis Plan: Key Themes
Opportunities Close to Home: Housing Choices for All
Regional Cities and Centers
A Robust Transportation System
Great Streets
Nature's Metropolis

Implementing the Metropolis Plan
How We Got Here
Getting from Here to There

Source: Chicago Metropolis 2020, 2003

Special Resource Areas

A regional comprehensive plan also identifies special resources areas, such as farmland, aquifers, and major wetlands. It may propose strategies for a particular watershed or basin to ensure that groundwater and watercourses are protected as supplies of potable water. The plan can also include actions to protect areas of biodiversity. Depending on the nature of the region, it may also identify the general location of natural hazard areas, such as earthquake zones or areas prone to wildfires.

Regional Facilities

The plan may contain proposals for new or upgraded regional facilities, such as multimodal transportation centers, new highways, transit, airports, hospitals, and regional parks or open space systems that link together. Functional plan elements may examine details of such proposals, such as road widening, highway safety improvements, and operational changes to mass transit systems, or the exact locations of regional wastewater facilities and major trunk lines.

Descriptive and Analytical Studies

In order to prepare a regional comprehensive plan, the regional planning authority or other suitable authority must undertake a series of descriptive and analytical studies. Such studies may cover the following topics:

- The economy of the region, which may include amount, type, general location, and distribution of commerce and industry within the region; the location of regional employment centers; and trends and projection of economic activity, both in terms of income growth and changes in the number and composition of jobs
- Population and population distribution within the

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region, as well as its local governments, including projections and analyses by age, education level, income, employment, or similar characteristics
- Natural resources, including air, water, forests and other vegetation, and minerals
- Amount, type, quality, affordability, and geographic distribution of housing among local governments in the region correlated with projected job and population change
- Identification of features of significant statewide or regional architectural, scenic, cultural, historic, or architectural interest, as well as scenic corridors and viewsheds
- Amount, type, location, and quality of agricultural lands
- Amount, type, intensity or density, general location of industrial, commercial, residential, and other land uses, and projections of changes in land use, correlated with projected job and population change

MAP COMPONENTS

The regional comprehensive plan provides a visual representation of the plan's objectives. The components of the map may include the following:

- Location of urban growth area boundaries
- Existing and proposed transportation facilities
- Other public facilities and utilities of extrajurisdictional or regionwide significance
- Potential areas of critical state concern (such as areas of significant biodiversity, scenic beauty, historic significance, or archaeological value, or areas around major facilities, such as military bases, airports, or national or state parks)
- Natural hazard areas
- Urban and rural growth centers
- Any other matters of regional significance that can be graphically represented.

See page C-11 of the color insert for an example.

THE IMPLEMENTATION PROGRAM

A long-range implementation program for the regional comprehensive plan may include the following components.

An Implementation Schedule

The implementation program may include a schedule of development for proposed transportation and other public facilities and utilities of extrajurisdictional or regionwide significance. The schedule may include a description of the proposed public facility or utility, an identification of the governmental unit to be responsible for the facility or utility, the year(s) the facility or utility is proposed for construction or installation, an estimate of costs, and sources of public and private revenue for covering such costs.

Development Criteria

The program may include development criteria for use in local government and special district plans. Performance benchmarks may be defined to measure the achievement of the regional comprehensive plan by local governments and special districts.

Monitoring and Evaluation

A statement may be included to describe the criteria and procedures the agency creating the plan will use in monitoring and evaluating the plan's implementation by local governments, special districts, and the state.

Coordination

There may also be a statement of measures describing the ways in which state and/or local programs may best be coordinated to promote the goals and policies of the regional comprehensive plan

Legislative Changes

The program may also include proposals for changes in state laws to achieve regional objectives, such as regional tax-base sharing or procedures to review large-scale developments with multijurisdictional impacts or to consolidate existing planning organizations to improve services and coordination. Regional planning agencies may also propose interjurisdictional agreements to clarify responsibility for the provision of urban services.

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See also:

Housing Plans
Population Projections
Regions
Transportation Plans
Watersheds

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NEIGHBORHOOD PLANS

A neighborhood plan focuses on a specific geographic area of a local jurisdiction that typically includes substantial residential development, associated commercial uses, and institutional services such as recreation and education. Many of the same topics covered in a local comprehensive plan are covered in a neighborhood plan.

REASONS TO PREPARE A NEIGHBORHOOD PLAN

The neighborhood plan is intended to provide more detailed goals, policies, and guidelines than those in the local comprehensive plan. Neighborhood plans often emphasize potential partnerships among government agencies, community groups, school boards, and the private sector—partnerships that can act to achieve neighborhood goals. These plans are often developed through highly collaborative processes involving citizens, business, nongovernmental organizations (NGOs), and the local government of the neighborhood.

Neighborhood plans describe land-use patterns in more detail than do comprehensive plans. They may even approach the specificity required for amendments to a zoning district map or street classification system. These descriptions and maps can be used for greenfield or developing areas in a manner similar to that used in sector or specific plans, an approach used in Florida and California.

These plans also often propose a program of implementation shorter in duration than is proposed in a comprehensive plan. For an established neighborhood, the plan may emphasize issues that can be addressed in one to two years. They may include actions to be taken by the local government, other governmental agencies, school boards, nonprofit organizations, or for-profit groups. In many respects, this reflects the nature of the neighborhood planning process itself, which often focuses on visible and politicized problems that can be resolved quickly, such as trash cleanup, park improvements, or specific code enforcement issues. For newer neighborhoods, the plan's content may be more far-reaching and functional.

Neighborhood planning succeeds when the process is cyclical, small successes are emphasized, and the issue of identifying neighborhood leaders and legitimacy is addressed at the onset.

PLAN ELEMENTS

The American Planning Association conducted research in the mid-1990s that identified more than 36 elements in neighborhood plans. This group of elements, which appeared in various combinations, suggests a realm of possibilities for a particular neighborhood plan. While no definitive recommendation can be made about which specific elements a neighborhood plan should contain, the plan's content should result from a process that assesses the neighborhood's specific needs, resources, and ideals.

While there is no definitive list of required elements for neighborhood plans, certain elements appear to be common and essential. They can be grouped into five categories, based on their relative purpose and sequence in the planning process:

- *General housekeeping:* Organizational items that make the plan readable and usable, and serve to encourage further involvement in the planning process
- *Planning process validation:* Elements that demonstrate the legitimacy of the research and consensus-building processes that led to the development of the plan
- *Neighborhood establishment:* Elements that serve to create a community image or identity distinct from the jurisdiction as a whole
- Functional elements: Substantive items that may vary widely from plan to plan (e.g., safety element, housing element)
- *Implementation Framework:* The goals, programs, actions, or schedules used to implement the plan

General Housekeeping

The elements in this category are used to create a clear, usable plan document. Because neighborhood residents may not be familiar with planning, this element is particularly important to include. More information on this element is covered in the Plan Making section of this book.

Planning Process Validation

Stakeholder participation is critical at the neighborhood planning level. Planning information must be accessible and comprehensible to all involved parties. Certain information should be made public throughout the planning process. In addition, placing some of that information directly in the plan allows other citizens to participate in the planning process more intelligently at a later time. This makes the plan a working reference document and validates the process that culminated in the plan.

The Neighborhood Organizational Structure and Planning Process

An important part of plan validation is how the planning process is initiated and carried out. Flow charts are often used to illustrate the sequence of events. This section may also reference the ordinance that adopts the plan, the community feedback that supported it, or the background information about why the process was initiated. Many jurisdictions require a formal neighborhood organization to be in place as a condition for planning assistance or plan adoption. Neighborhood leadership should be made clear in a plan or at least emerge out of the planning process. A legitimate, publicly accessible power structure gives the neighborhood-city relationship credibility, encourages neighbors to act responsibly with public resources, and facilitates a leadership development mechanism within the community.

The Mission/Purpose Statement

The mission/purpose statement establishes the importance of the neighborhood planning process. It should convey that the process is all-inclusive and in accordance with policies set forth in the jurisdiction's comprehensive plan, if one exists. The statement can also be linked to the municipal code or city charter.

The Participation Proclamation

This section documents the participation process as it actually happened for the plan. It should be located at the beginning of the plan, setting the stage for the policies and recommendations that follow. Local ownership of the planning process must be evident. Both positive and negative feedback is important to include. Meeting minutes, survey results, or local newspaper articles can document feedback.

Needs Assessment

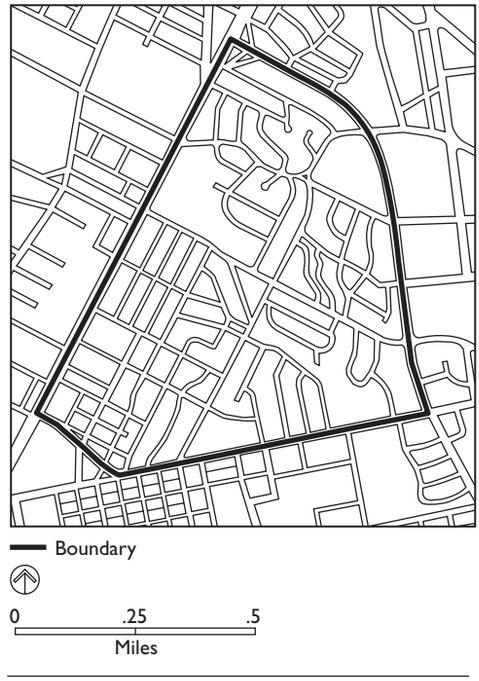
A needs assessment for services and facilities is a fundamental component of neighborhood planning, especially when it identifies underserved neighborhood groups. Needs assessments can measure social services, physical conditions, commercial resources, and cultural amenities. When assessing needs, it is important to take stock of existing community resources. Evaluating the positive aspects of a neighborhood can reveal unexpected opportunities for dealing with the negatives.

Defining the Neighborhood

In addition to securing the future, neighborhood plans fortify the present by defining the neighborhood.

Boundary Delineation

The neighborhood and the city departments should agree to, or at least accommodate, each party's perception of neighborhood boundaries. Boundary identification should involve representatives from the community, pertinent city departments, and, if possi-



NEIGHBORHOOD BOUNDARY DELINEATION

Source: Adapted from Upper Boggy Creek Neighborhood Plan, City of Austin, TX, 2002.

Michelle Gregory, AICP, Soapbox Enterprises, Portland, Oregon

ble, social service providers. One method of determining boundaries is to have participants draw lines on maps to define their own boundaries. Combining the maps can reveal the most common perception of the area that constitutes the neighborhood. The walkable distances to key community services, such as elementary schools, public transportation, local grocers, and health care resources, often define neighborhood boundaries. Neighborhood definition is also sometimes related to historic district designation.

The Functional Elements

Most neighborhood plans address functional elements, such as housing, safety, land use, and recreation as separate topics. Plans may treat these topics from start to finish, beginning with a description of existing conditions and concluding with recommendations, or they may simply list policy recommendations and the implementation strategies for those recommendations. Some neighborhood plans have required that elements be consistent with those in the community's comprehensive plan or, sometimes, with the regional plan. These might include density targets or impact and mitigation requirements for new development.

Residential

Residential development policies can include promoting owner-occupied housing or rental housing, code enforcement, and amending zoning and other land-use controls to encourage more housing development and vacant property rehabilitation. Issues pertaining to private property maintenance, housing stock, affordability and demand, building conditions, safety, property values, infill, abandonment, and design standards can also be included.

Transportation/Circulation/Pedestrian Access

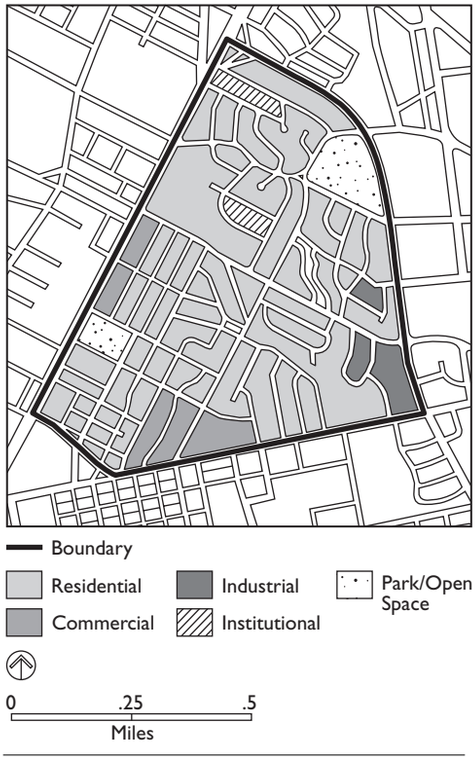
Transportation elements in neighborhood plans often identify specific circulation problems at intersections and street corners. Plans can include recommendations for improving sidewalks, reducing vehicles or vehicle speed, creating bicycle lanes, and improving access to transit. Transportation elements and policies should promote the connection and flow of all transportation forms to serve people of all ages and abilities.

Land Use/Zoning

Current land-use patterns and zoning classifications are frequently presented in neighborhood plans, often as part of a needs assessment. To help residents understand the information, land-use and zoning data should be provided simply and clearly. Growth projections and areas where growth is expected to happen should be identified.

Infrastructure/Utilities

Infrastructure quality is important to neighborhood residents and businesses. It is also perhaps the least controllable aspect of neighborhood development, particularly where city officials have not been involved in the neighborhood planning process. Public works departments and private utility companies are not always directly responsive to neighborhoods because their agendas are usually tied to citywide capital improvement programs rather than to each neighborhood's planning process. Plans may include actions such as petitioning public works departments and the city council as a method of obtaining needed infrastructure improvements.



GENERALIZED NEIGHBORHOOD LAND-USE MAP

Source: Adapted from Upper Boggy Creek Neighborhood Plan, City of Austin, TX, 2002.

Implementation Framework

Once a neighborhood plan has evaluated the existing conditions, the needs assessment, and the community's desires for the future, generally the plan frames a set of goals and objectives. An implementation program sometimes follows the goals and objectives.

Goals, Objectives, and Other Resolutions

The goals and objectives of the neighborhood plan represent the community's vision and values. They may be presented as vision statements or policy recommendations.

Implementation Program

The schedule for achieving goals and objectives must be set, commitments must be made, and responsibility for actually accomplishing them has to be assigned. Neighborhood plans should include an implementation element, either woven into the functional plan elements or at the end of the document, shown as a chart or matrix.

Funding

City capital improvements funds, special assessments, transportation funds, tax increment funds, community development block grant (CDBG) funds, special state or federal program grants (such as historic preservation or urban forestry), donations, fund-raisers, private investors, and community development loans are viable funding sources to use in the implementation of neighborhood plans.

See also:
Neighborhoods
Participation
Plan Making

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DOWNTOWN PLANS

Downtown is a cultural icon of cities and towns. Everyone has their own definition of it, such as the heart of the city, the regional or town center, or the central business district. Geographers use the term "central business district" to define the area that is the commercial core or economic heart of a city or town and that contains the highest-density market rents and service functions of commercial and office activities.

REASONS TO PREPARE A DOWNTOWN PLAN

The complexity of a downtown demands special planning attention. Downtowns often contain massive investments found nowhere else, such as telecommunications lines, and key community facilities like libraries, hospitals, judicial courts, and performance venues. Downtown planning ensures that new investment supports and maintains what is already in place.

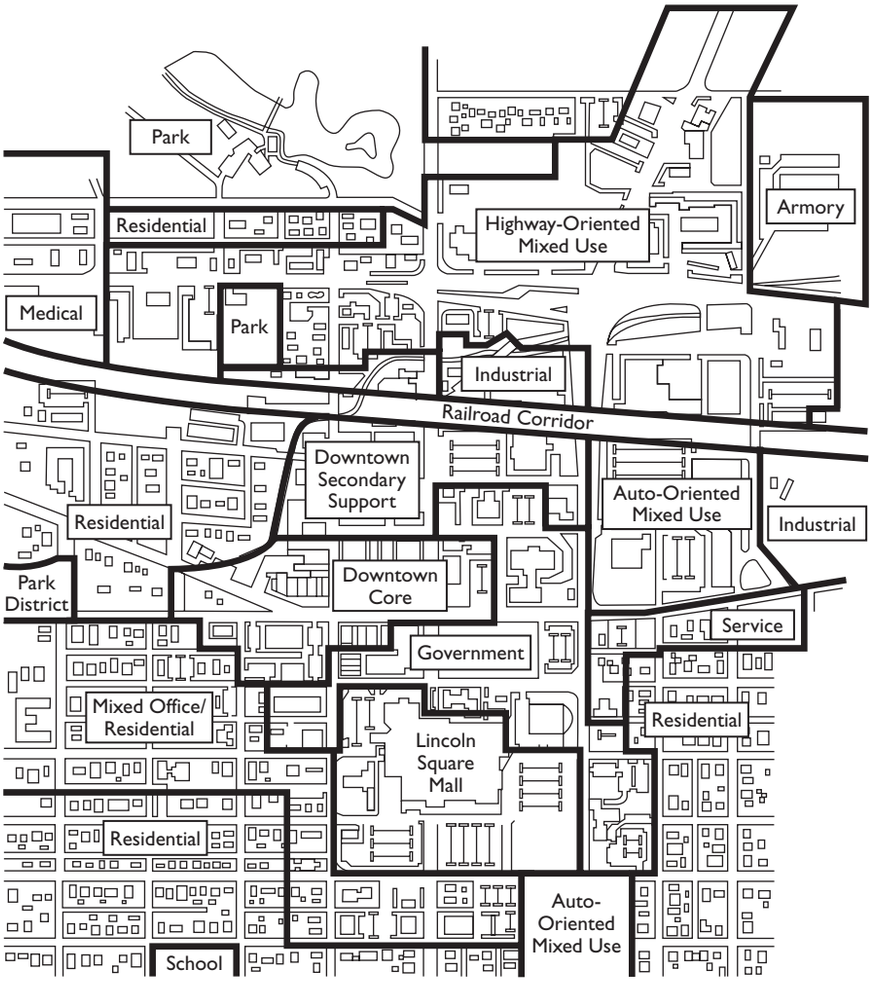
Downtowns also consist of numerous publicly and privately owned parcels of land and buildings. Unlike newer shopping centers and business parks, which are often owned and managed by a single entity, downtown has many owners and managers. A successful downtown depends upon cooperation between property owners, tenants, and their users to meet their needs for transportation, utility service, market exposure, and public services. This need for coordination underlies all the reasons listed here to prepare a downtown plan:

- *Establish a vision for the future.* The older building stock, affordable spaces, and pedestrian scale of development make downtowns attractive areas for dining, entertainment, and, to a degree, housing. A downtown plan serves to describe and reinforce the worth, role, and future of the downtown to the community. It gives guidance to existing and future owners, developers, and users of downtown as to how their property or service fits into the present and future of the area.
- *Coordinate improvement activities.* Downtown is the result of many public and private actions. The plan helps to coordinate the investment and use activities of the private sector with the capital investment and service programs of the community.
- *Provide guidance to owners and developers.* The plan is the source of public policy regarding the downtown. It identifies the capital, regulatory, and service investments and policies to be followed by the community owners, developers, and tenants in the downtown.
- *Market downtown investment and development.* As a compendium of a vision and policies for downtown development, the plan provides direction for the common marketing of downtown as a center of attraction and a place of investment by both the public and private sectors.

DOWNTOWN PLANNING APPROACHES

Two approaches are common to downtown planning. They are often used in tandem:

- A framework approach
- A strategic planning approach



FUNCTIONAL ZONES

Source: Camiros, Inc., 2000.

Leslie S. Pollock, FAICP, Camiros, Ltd., Chicago, Illinois

The Framework Approach

The framework approach is a comprehensive planning approach at the downtown level. It treats downtown as a series of subsystems—land use, transit, streets, parking, urban design—and seeks to organize the subsystems to meet overall development and design goals and objectives. Policies and projects are then identified to achieve the subsystem plans.

This approach begins by assembling data about existing and potential conditions to provide an understanding of the issues to be addressed in the plan. A stakeholder group is often used to help identify the goals and objectives and to help give form to the subsystem plans. Policy, capital, and regulatory actions needed to implement the plans are then identified.

The Strategic Planning Approach

This approach seeks to develop strategies for achieving a downtown vision, which will be implemented through a set of specific projects. The work begins with an analysis to identify the strengths, weaknesses, opportunities, and threats (sometimes referred to as a SWOT analysis) facing downtown, which collects and addresses data similar to those collected in the first step of the framework approach.

A stakeholder group reviews this material to determine the vision for downtown, which is often no more than a short statement. This statement offers a unifying direction, or concept, for the preparation of the remaining plan components. Strategies—thematic directions taken to achieve the vision—are established, and projects—actions that can be implemented—are prepared to achieve the strategies. Where appropriate, subsystem plans are developed to flesh out strategies.

PLAN COMPONENTS

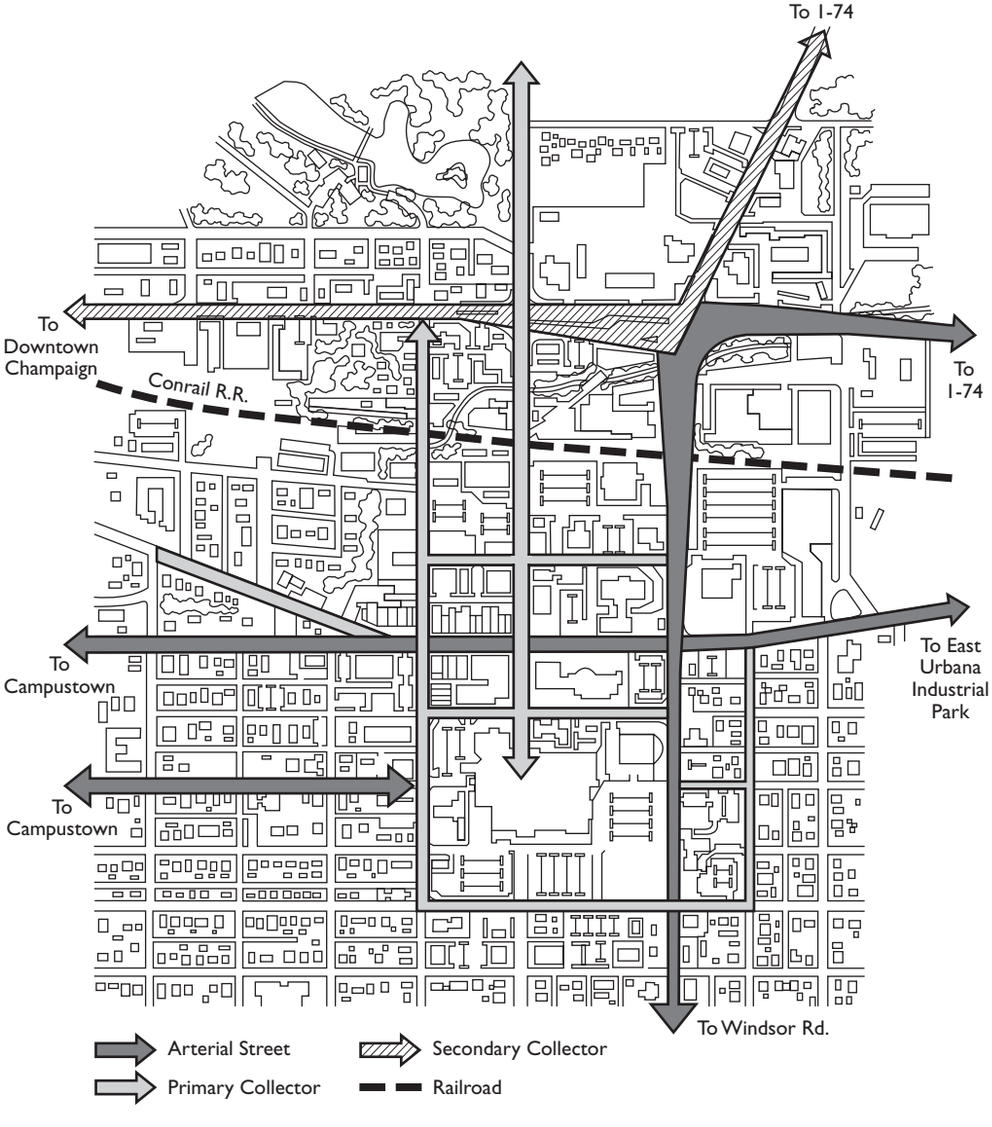
A downtown plan guides public and private investment through a 10- to 20-year period. It establishes precise directions for the short term, yet also conveys broad policy directions that can be followed into the future. The plan addresses the physical form of the area, the anticipated market demand for its uses, the organization of these uses upon the land and within key buildings, the transportation systems required to facilitate downtown access and operation, and the sources of economic investment to help bring this about.

Plan components include:

- An inventory of existing and potential conditions
- A vision of the future
- Policies, subsystem plans, and strategies and projects
- Implementation programs

The Inventory of Existing and Potential Conditions

The plan must be based upon existing conditions and forecast data, including land use, transportation,



CIRCULATION MAP

Source: Camiros, Inc., 2000.

Leslie S. Pollock, FAICP, Camiros, Ltd., Chicago, Illinois

building conditions, land ownership and value, current user and occupant demographics, market conditions and expectations, and a sense of communitywide and downtown-specific attitudes regarding the image, role, use, and future of downtown.

Data for a downtown plan should be collected at a finer "grain" than would be for a comprehensive plan. Data assembly and mapping should be at the block and parcel scale. Base maps should identify land parcels and building footprints.

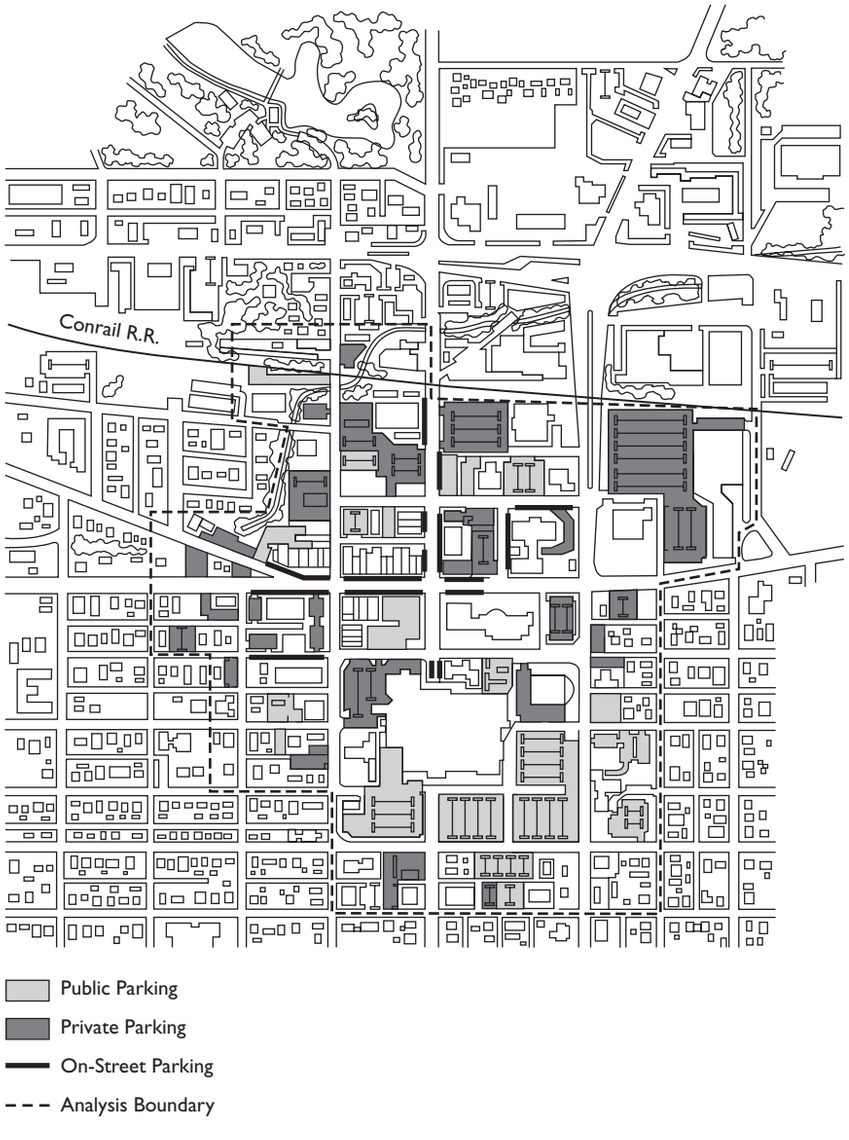
Key data maps should identify:

- The assessed value of land and buildings
- Building conditions
- Existing land use
- Historic assets
- Parking
- Patterns of ownership
- Street traffic operations
- Transit routes
- Urban design features

Field surveys, the local chamber of commerce, building owners and managers associations, the U.S. Census, and information resources of the planning and building departments can provide much of this data. In many communities, the county or city Geographic Information System (GIS) maintains this information. Community surveys, focus group sessions with key stakeholders and users of the downtown, and key-person interviews are other sources for determining attitudes about and potential directions for the present and future downtown so as to have a realistic vision statement.

The Vision Statement

The plan should provide a "vision" of what it intends to achieve for the downtown. The vision might be a short statement offering a mental image of the future downtown. For example, the Urbana, Illinois, downtown vision statement contains many concepts, including "a regional entertainment center that offers a host of shopping, dining and entertainment venues set within intimately scaled developments and quality public spaces." Sketches that help to depict its physical implications often support this "vision," which serves as a consensus-building statement. The vision is then further clarified by a set of goals and objectives, which clearly depict what is to be achieved through the plan.



PARKING ANALYSIS

Source: Camiros, Inc., 2000.

Leslie S. Pollock, FAICP, Camiros, Ltd., Chicago, Illinois

Policies, Subsystem Plans, and Strategies and Projects

Policies

The plan should include policy statements that set forth the rules and courses of action for achieving the articulated vision. Many plan policies are presented in maps. For example, it is often useful to divide the area into geographic districts, based upon common uses, patterns of development, or character of the area. The organization of a downtown into shopping districts, office districts, and entertainment districts is an example of mapping a policy for the geographic organization of downtown. Current planning theories advocate for creating mixed-purpose districts.

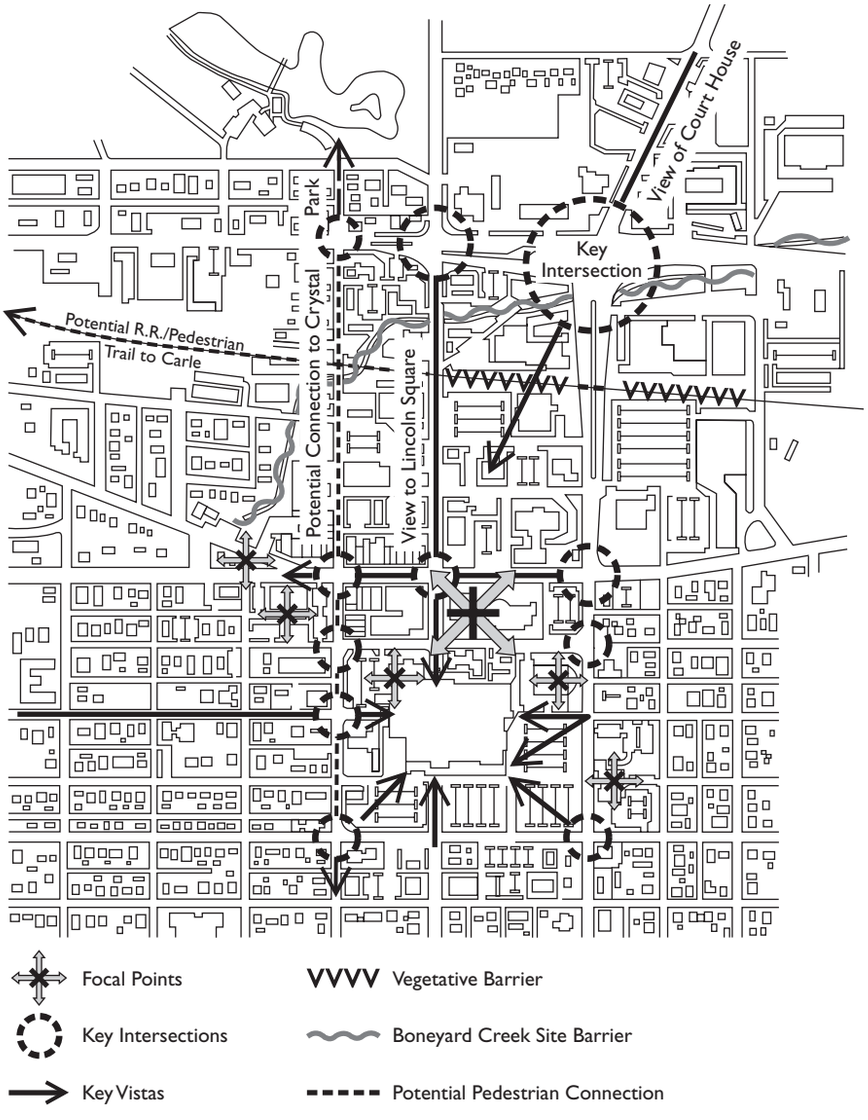
Subsystem Plans

The organization of downtown into districts also can provide a way to organize subsystem plans, such as land use, transportation, and urban design plans. Subsystem plans illustrate the policy basis for many downtown implementation actions, such as transportation capital improvements and zoning. Even if a strategic approach is taken, it is useful to prepare subsystem plans to help direct the formulation of strategic approaches to downtown improvement.

Subsystem plans should respond to a general concept indicating how the downtown should be developed to reflect the vision and goals. The land-use plan illustrates land-use policy, showing how existing patterns might change to meet development objectives. Transportation plans show street and transit-related improvements. Parking plans show the location of new or improved parking facilities. Pedestrian and bicycle circulation plans show proposed bike routes and paths, public-private pedestrian circulation routes, and new pedestrian gathering places. Urban design plans suggest the location and character of public plazas, other areas for public landscape, and the general pattern of building location and massing. Market plans list actions needed to attract desired downtown uses.

Strategies and Projects

The strategic component of a downtown plan directs how the plan's objectives and the policies advocated by the subsystem plans can be achieved. For example, a land-use proposal to redevelop an area into a mixed-use, retail-residential redevelopment could be supported by a strategy that suggests a public-private financing process. Key projects would be developed as part of that strategy, perhaps identifying specific blocks or building types as the actions best suited to initiate that strategy, and suggesting an implementation work program.



URBAN DESIGN CONSIDERATIONS

Source: Camiros, Inc., 2000.

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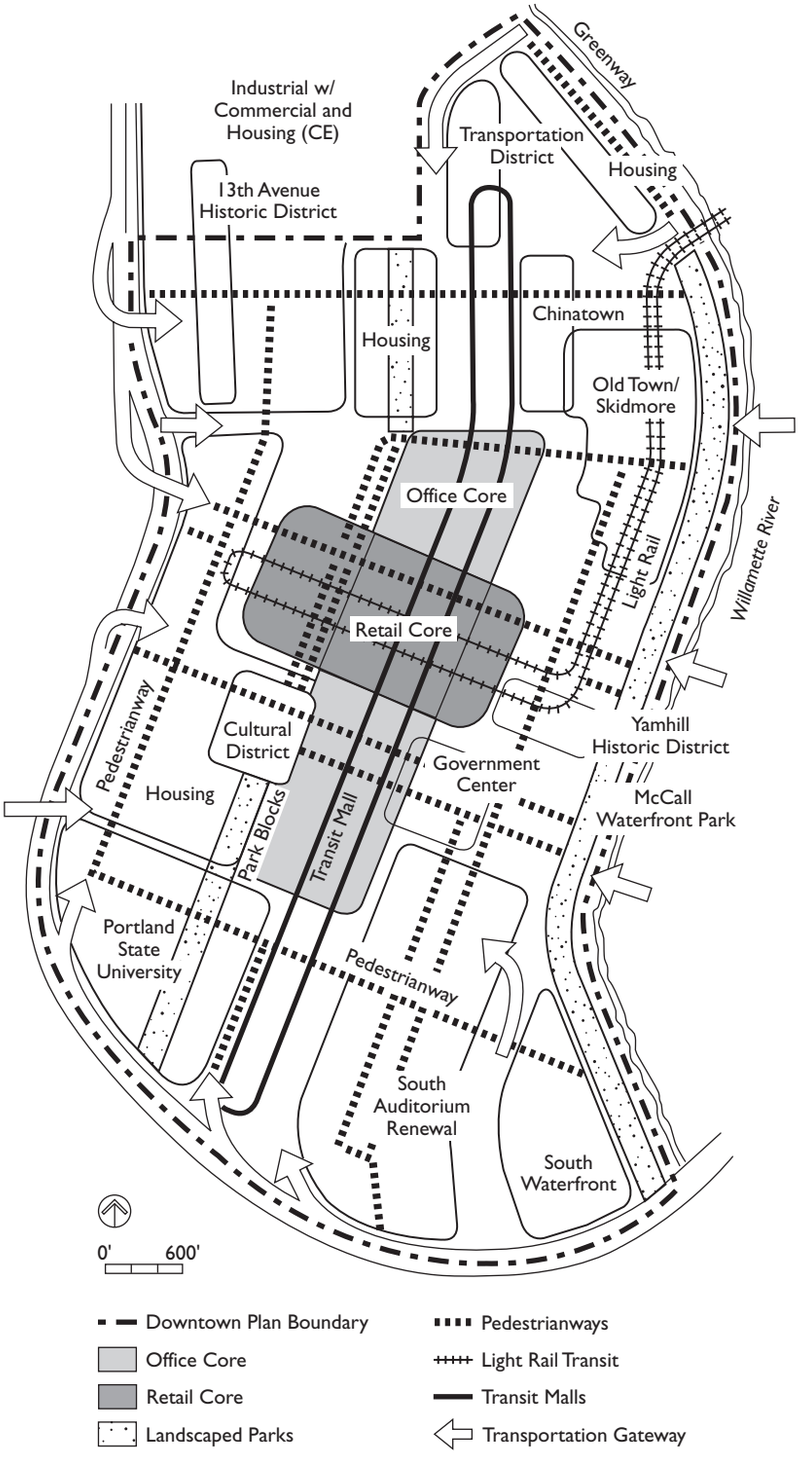

PORTLAND, OREGON, DOWNTOWN PLAN (1972)

Implementation

The strategic approach to downtown planning, with its specific projects, can be considered the beginning of implementation. Whether approached in a strategic manner or as a series of programs and projects to be carried out by government or public interests, implementation must be explicitly addressed in the plan.

Zoning, capital improvements, and development financing recommendations are the most traditional components of a downtown plan implementation program. Downtown plans also tend to include suggestions for marketing the plan, to increase popular and political support.

Many downtown plans suggest implementation actions related to maintenance services, marketing of vacant or underused space, and, in certain cases, the coordinated management of downtown activities. A plan may also suggest creation of a special district, a Business Improvement District (BID), to direct and even finance the implementation function, depending on the extent of the state enabling legislation. Nonprofit corporations, special-purpose committees, public commissions, or boards may be established by local legislation or result from civic actions to create public-private partnerships to improve, manage, and market downtown.

Downtown plans should establish a program of action that gives direction to the management of downtown development, provides a clear picture of the community's desires, and outlines how the city can build public-private partnerships to realize fully the potential of these unique entities.

See also:

Physical Structure of Downtowns
Main Streets
Neighborhood Centers

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CORRIDOR PLANS

A corridor is an area of land, typically along a linear route, containing land uses and transportation systems influenced by the existence of that route. A corridor plan often focuses on a transportation route, but it can focus on any linear pattern—an open space, a watercourse, or a continuous linear pattern of similar land uses. Corridor planning is the coordination of land-use activity within a linear area.

The scale of corridor planning areas varies. The area extending between Boston and Washington, DC, is often thought of as a corridor of urbanization. Many metropolitan area plans organize anticipated growth in corridor form. For example, suburban growth along Interstate-88 in the Chicago area is considered a "technology corridor," referring to the large quantity of businesses along that route. Development that draws access and identity from a major arterial is often referred to by the name of that street. For example, the University Avenue Corridor connects downtown Minneapolis with downtown St. Paul. Corridors can exist at the pedestrian scale, such as an entertainment corridor within a downtown.

REASONS TO PREPARE A CORRIDOR PLAN

Corridor plans focus on the impact of a linear public investment or linear land-use policy. Most commonly associated with transportation investment, corridor plans are often prepared to coordinate development with other public improvements or land-use activities. Examples include greenway corridor plans to create continuous open-space environments that structure the overall land-use pattern and facilitate access to recreational and open-space environments. These plans often establish connections between existing linear open-space or recreation lands, such as parkways, rivers, and associated lands, and pathways, bike trails, and parkways.

Corridor plans can serve as organizing elements for overall community planning. The logic of using linear public investments or land-use policies as a basis for land-use organization is so compelling that many governmental planning requirements are based upon this model. This includes the requirement to identify corridors for potential transportation alignments in many federal transportation planning processes. Similar requirements can be found in state and local planning legislation.

Reasons to prepare corridor plans include the following:

- *To respond to a legal mandate.* A corridor plan may be a requirement in order to receive federal funds for a project. For example, the Federal Transit Administration's New Starts capital investment program requires a corridor analysis to determine the location of transitways or high-occupancy vehicle (HOV) lane alignments.
- *To establish a vision for the future.* The plan describes the anticipated role of the public initiative as it affects the image of the corridor. It provides guidance to the local governments through with the corridor runs as well as existing and future property owners, developers, and users of the land in the corridor. It also describes infrastructure improvements in the corridor and how they fit into the vision for the corridor.
- *To coordinate improvement actions.* Corridor planning may involve many public jurisdictions and affect many citizens. The plan is a key tool for coordinating the actions of all parties. For example, the plan might coordinate local road improvements with a state highway project.
- *To provide guidance to land owners and developers.* The plan coordinates capital improvements location and phasing, or public land purchase and protection. It identifies access and land-use policy, which affects all parcels in the corridor. Therefore, property owners and developers look to it to understand how best to make use of and access their properties.
- *To respond to local transportation improvement.* Changes to a corridor may affect the existing uses along it and have an influence on the future uses there. The plan can help reduce the effect of change on existing uses and provide the types of improvements to attract new uses. It can also help to address long-term access and circulation problems.

APPROACHES TO THE PLAN

There are three approaches common to corridor plans, which are often used together:

- The framework approach
- The strategic approach
- The project approach

The Framework Approach

The framework approach is a comprehensive planning approach that identifies how best to organize land-use and related services within a continuous linear area, based upon the influence of the public improvement or policy initiative. It considers that initiative's effect on market demand, land use, feeder transportation routes and systems, utility provision, and urban design. It seeks to organize these subsystems to meet overall development and design goals and objectives. Policies and projects are then identified to achieve the land-use and related subsystem plans.

The Strategic Approach

Corridors are often conceptualized as a series of "beads on a necklace." The beads might be considered the focus of corridor activities, and the space between the beads as a passive area of connection. This approach tends to focus more attention on the beads, or *nodes,* within the corridor and less upon the connecting portions, or *links.* This can lead to embellishing the details of a framework approach at certain nodes or to focusing the corridor planning effort within all or specific nodes. The strategic approach is useful to refine the vision for overall corridor improvement into detailed projects focused on specific key nodes.

The Project Approach

The project approach focuses on planning to address the impact of the specific project proposal that gave rise to the corridor planning activity. Most often, this is a highway or transit improvement project that may change the patterns of access to adjacent land and the patterns of land use within this area. Examples of project-based corridor planning include the following:

- Highway widening projects, which may drive certain land-use and related feeder access planning
- Rail or busway transit projects, which influence site accessibility and induce changed patterns of land use
- Greenway or rails-to-trails improvements, which encourage changes in adjacent land uses, area recreation patterns, and facilities

The project approach is most often used to respond to specific local planning requirements.. Often, the scope of the investigation is limited to a designated project area containing only the land adjacent to the improvement.

PLAN COMPONENTS

A corridor plan is often prepared to organize land-use and related subsystems in response to a pending public policy initiative. The nature of that initiative drives the plan's time horizon. A plan developed for a highway or transit expansion program, or a city redevelopment initiative, may have a 15- to 20-year time horizon. A plan developed to improve an existing roadway may have a 5- to 10-year horizon.

Regardless of the time frame and the initial purpose, most corridor plans include the following actions:

- Conduct an inventory of conditions
- Provide a vision of the future
- Establish a development policy
- Coordinate public investment
- Identify implementation activities

The Inventory

In preparing a corridor plan, a planner must first understand the pattern of existing and anticipated land use, transportation, land ownership, area demographics, and market conditions. This is best done by collecting, tabulating, and mapping a range of data explaining conditions within the corridor, including:

- corridor boundaries;
- existing land uses;
- the highway and street circulation system;
- patterns of land ownership;
- population distribution;
- proposed land uses (if any);
- transit routes; and
- urban design features.

It is also important to understand communitywide attitudes regarding development expectations within the corridor and the corridor's *role* in the community's fabric, which means how the corridor helps to establish the community's identity, link major portions of the community, serve a major economic function (such as shopping), or accommodate key community resources (such as open space).

The community or entity responsible for implementing the proposed initiative and the U.S. Census

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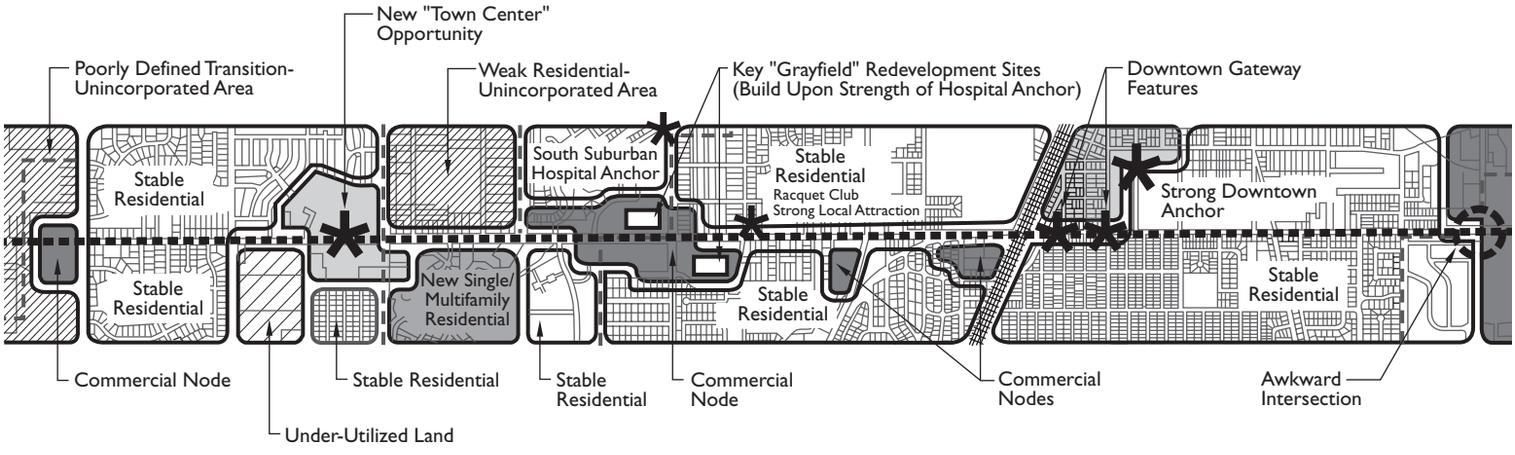

CORRIDOR ANALYSIS MAP

Source: Camiros, Ltd.

are both potential data sources. In a growing number of communities, the county or city Geographic Information System (GIS) has data sets regarding land and infrastructure information. Conducting community surveys and holding focus group sessions with key corridor stakeholders, corridor users, and those responsible for the underlying public policy initiative are other methods of determining community expectations and the anticipated role of the corridor.

The scale and purpose of the endeavor defines, in part, the required level of detail for the data. A plan to guide future highway expansion may require land-use and transportation information only somewhat more detailed than what is used in a comprehensive plan. A plan to guide redevelopment along an existing roadway must look to a finer grain of data, such as parcel-based land use, building conditions and ownership, the location of existing utilities, and the location of curb cuts. Data collection can be an expensive and time-consuming part of the planning process, hence planners should identify the level of required detail based on the questions to be answered.

The Vision

Plans are designs to achieve agreed-on ends or purposes. Thus it is important that the plan provide an image of what it intends to achieve. This is often broadly articulated in the form of a "vision" for the corridor. The vision might be in the form of a short statement providing a mental image of the content and operations within the corridor. For example, "The corridor serves as a highly accessible and imageable location for major office development and associated support activities serving the entire region." This type of "vision," which serves as a consensus-building statement, is often supported by sketches and/or digital graphics, which help to depict its physical implications. The vision is then further clarified by a set of goals and objectives, which clearly depict what is to be achieved through the plan.

Often the vision can best be explained through the introduction of a concept for corridor development. This concept should identify the location of the proposed public improvement or components of the policy initiative and the general organization of land use and infrastructure proposals related to it. It should establish an image of what the plan seeks to achieve.

The Development Policy

In order to achieve the vision, the plan must provide the tools necessary to coordinate private development or redevelopment activity with the policy initiative underlying the plan. Subsystem plans illustrate the policy basis for these actions. They describe transportation, land use, and urban design proposals within the corridor in response to the general organizing concept for the corridor. If the corridor has been strategically divided into a series of nodes and links, the detail of the subsystem plans will reflect the complexity of the nodes and the extent of anticipated change.

The transportation plans indicate how streets, transit alignments and stops, and pedestrian and bicycle routes should be configured to ensure access to the land uses along the corridor. The land-use plan describes how existing patterns might change through redevelopment, and how new development could be organized to reflect the concept. The urban design plan suggests how land use might best be organized, buildings sited and scaled, landscape designed, and transportation improvements detailed to fulfill the role and the public image of the corridor as described by the corridor goals and objectives.

Public Investment

Because corridor planning often is driven by public investment initiatives—the need to build a road, locate a transit alignment, or secure open space—strategies for public investment are frequently a key component of the plan and guide the program of implementation activities. A corridor plan should identify and locate the major capital improvements necessary to bring about the desired level of service and pattern of development. Public investment strategies are the key to implementing these improvements. These strategies need to address infrastructure phasing, coordination of multiple systems, such as land use, utilities, and transportation, and the areas where detailed planning is required to implement these investment strategies.

These strategic considerations and the realities of anticipated effects often suggest that plan proposals should vary from the general to the detailed, appropriate to the issues at hand. Corridor plans often focus on points of interchange, such as key intersections, transit stops, and pedestrian precincts. Investment strategies for these areas should emphasize principles for land use/transportation coordination. Illustrative plans may be prepared to demonstrate the principles to be employed and the character of the desired outcome. This helps to more clearly explain the projects that are key to successful corridor improvement and to guide the implementation decisions.

Implementation and Phasing

Implementing the corridor plan can be a complex endeavor, involving many public agencies and property owners. Most difficulties in realizing the corridor plan result from a lack of information or misconceptions during the planning process related to intent, resource availability, approvals, scheduling, or market assumptions. Coordination is critical in corridor plan implementation. Those who design and phase key corridor improvements and those responsible for organizing and implementing infrastructure and land-use activities adjacent to or influenced by those improvements need to establish a strong relationship to understand their respective goals.

Major infrastructure improvement phasing should be linked to support infrastructure activities within the community's capital improvements program. Land-use regulations should be adjusted to reflect the plan's goals. This may include development of overlay zones to coordinate land-use planning, including development intensity and building location and massing, with the location of parking, curb cuts, and pedestrian access to transportation improvements proposed within the corridor. Other zoning considerations may be developed to ensure the preservation of historical assets, view protection, access to open space, or other corridor-based policy initiatives. All or certain portions of a corridor may be best addressed by a coordinated development, maintenance, and management program similar to that used in downtowns or other activity centers.

See also:

Commercial Corridors
Greenways and Trails
Multiuser Trails
On-Street Bikeways
Sidewalks
Transportation Plans

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REDEVELOPMENT AREA PLANS

Redevelopment areas are those identified as requiring specific action by the local government for revitalization to occur. A jurisdiction typically plans for several types of areas needing redevelopment, each of which calls for a different set of planning strategies, such as:

- business districts that are experiencing loss of retail, office, and related residential activity;
- residential areas where dwelling units are in a marked state of deterioration or dilapidation; and
- industrial areas where plants and facilities are abandoned, idled, or underused, and the sites themselves are environmentally contaminated and must be remediated before they can be reused

REASONS TO PREPARE A REDEVELOPMENT AREA PLAN

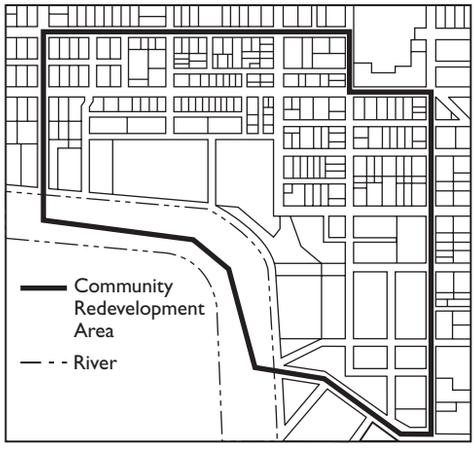
According to the American Planning Association's *Growing Smart℠ Legislative Guidebook* (2002), a redevelopment area plan provides detail to and refines proposals in the local comprehensive plan. It also encourages reinvestment in and revitalization and reuse of areas of the local jurisdiction characterized by certain conditions or circumstances:

- Loss of retail, office, and industrial activity, use, or employment
- Predominance of deteriorating or deteriorated structures
- Abandonment of structures
- Environmentally contaminated land
- Existence of unsanitary or unsafe conditions that endanger life, health, and property
- Damage from disasters
- Defective or inadequate street or lot layout
- Vacant land that has remained so for a period of years and is not likely to be developed through the instrument of private capital
- Deterioration in public improvements, such as streets, street lighting, curbs, gutters, sidewalks, and related pedestrian amenities
- Tax or special assessment delinquency exceeding the fair market value of the land
- Any combination of such factors that substantially impede growth or affect public health and safety

APPROACHES TO THE PLAN

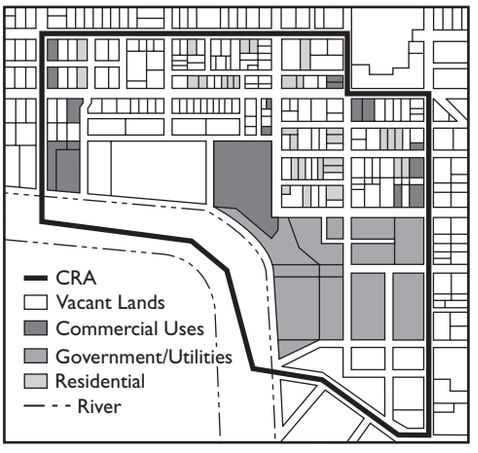
Redevelopment area plans tend to be highly specific because the community may want to acquire properties to join together in a new lot pattern, to build public improvements, or to carry out a design theme. Local governments acquire land either through a negotiated purchase or through the use of eminent domain. Individual parcels may be resubdivided, a process in which previously existing lots are combined or divided, existing street rights-of-way are eliminated, and new streets are created; in addition, new water, sewer, and related facilities are constructed, if necessary, to create a plat with different lot and street configurations. If the property is environmentally contaminated—a brownfields site—the private property owner will be responsible for cleaning up the site and for satisfying state and federal regulations.

Moreover, the local government may want to impose special controls on all new development so that the redeveloped area carries out a unified design theme. See page C-12 of the color insert for an example.



REDEVELOPMENT AREA MAP

Source: Hillsborough County City-County Planning Commission. 1999. Community Redevelopment Plan: Old Tampa Police Department Site. City of Tampa, FL.



REDEVELOPMENT AREA, EXISTING LAND-USE MAP

Source: Hillsborough County City-County Planning Commission. 1999. Community Redevelopment Plan: Old Tampa Police Department Site. City of Tampa, FL.

Supporting Studies

In preparing the redevelopment area plan, the local planning agency should conduct supporting studies that may include the following:

- Analyses of socioeconomic conditions of the redevelopment area
- A description and analysis of existing land uses, a historical overview of land-use change in the redevelopment area, and a discussion of current land-use issues
- Opinion surveys of property owners, business owners, employees, and residents within the redevelopment area
- Surveys and assessments of the conditions of properties, buildings, and structures
- An evaluation of conditions of public infrastructure
- Analyses of tax and special assessment delinquency of properties within the redevelopment area
- Assessments and site investigations to characterize the extent and location of environmental contamination of properties within the redevelopment area
- Assessments and site investigations characterizing the extent and location of properties susceptible to the effects of natural hazards or describing damages from actual disaster events
- Assessments of historic, cultural, and scenic resources in the redevelopment areas
- Market analyses for residential, commercial, and industrial uses
- Analyses of parking supply and demand
- Studies of traffic circulation and traffic signalization

PLAN COMPONENTS

The redevelopment area plan, which should be based on the supporting studies and analyses, should include the following:

- Statement of the community's goals, policies, and guidelines regarding the revitalization and reuse of the redevelopment area, including a statement of the relationship of the plan to the local comprehensive plan
- A plan map drawn to an appropriate scale that delineates the boundaries of the redevelopment area and that may show:
  - The location and characteristics of permissible types of development
  - The location and characteristics of streets, other rights-of-way, public utilities, and other public improvements
  - The dimensions and grading of parcels
  - The dimensions and siting of structures
  - Areas where rehabilitation of buildings is to occur
  - Parcels to be acquired or on which demolition is to occur
  - Parcels on which environmental contamination or susceptibility to natural hazards is to be remediated (if applicable)
  - Design guidelines or controls
  - The public investment plan
- Illustrations showing the general configuration of building heights and volumes
- The legal description of the redevelopment area
- Any other planning matters that contribute to the redevelopment and use of the area as a whole.

If a redevelopment plan is carried out as a function of a state law, the state statute may contain additional requirements that must be satisfied (for example, the creation of a project area committee consisting of residents and property owners).

IMPLEMENTATION

Several actions can be taken to implement the goals and objectives of a redevelopment plan. These include the following:

- Creation or designation of a public or nonprofit agency to oversee and administer the implementation of the plan
- Land development regulations that apply to the redevelopment area

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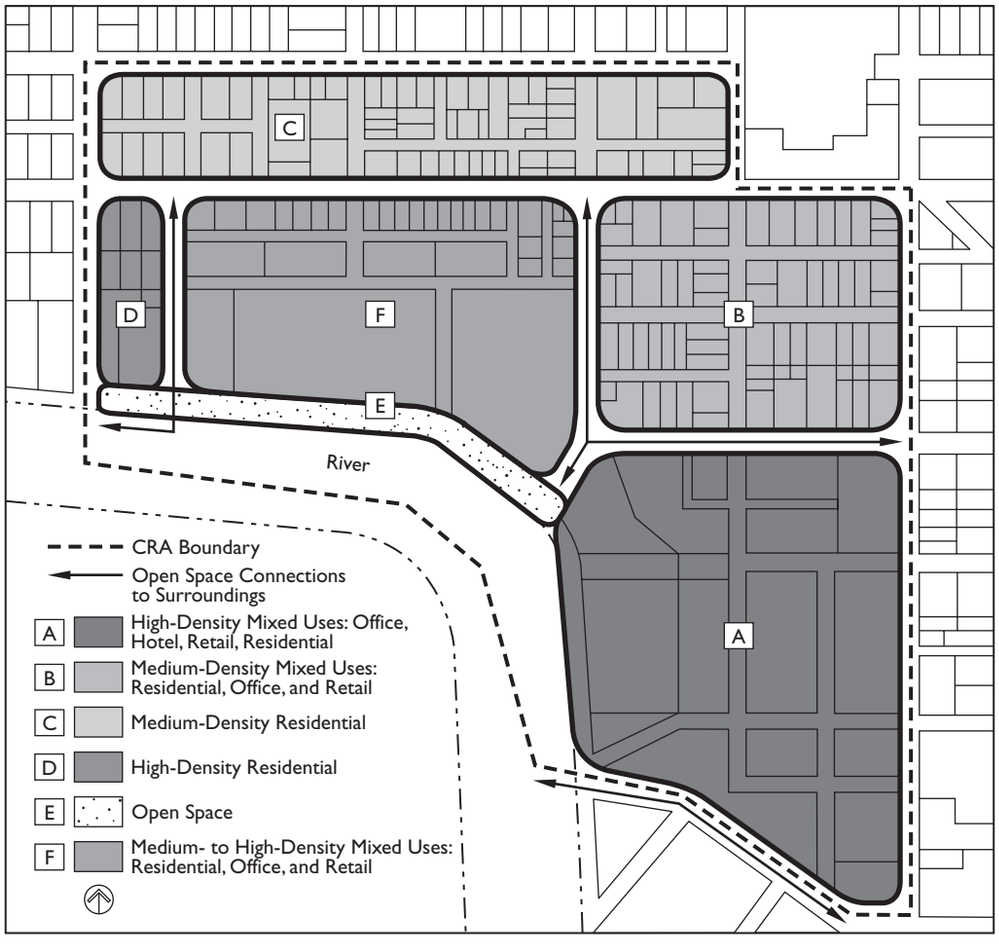

REDEVELOPMENT AREA PLAN

Source: Hillsborough County City-County Planning Commission. 1999. Community Redevelopment Plan: Old Tampa Police Department Site. City of Tampa, FL.

- Enactment, amendment, and enforcement of property maintenance and housing codes
- Business retention and technical assistance programs and grant and loan programs to encourage the rehabilitation of buildings, improve the appearance of building façades and signage, stimulate business start-ups and expansions, and otherwise attract private investment to the area
- Use of tax increment financing to pay for public improvements
- Special assessments
- Capital improvements that may include the installation, construction, or reconstruction of streets, lighting, related pedestrian amenities, public utilities, parks, playgrounds, and public buildings and facilities
- Programs of site remediation to remove environmental contamination
- Programs to minimize the effects of natural hazards on property
- Acquisition of property
- Demolition and removal of structures and improvements
- Programs of temporary and permanent relocation assistance for displaced businesses and residents, including an estimate of the extent to which safe and sanitary dwelling units affordable to displaced residents will be available to them in the existing local housing market
- Assembly and replatting of lots or parcels
- Disposition of any property acquired in the redevelopment area, including the sale, leasing, or retention by the local government
- Programs to market and promote the redevelopment area and attract new businesses

Redevelopment Agency

If one does not already exist, a redevelopment agency may be created to oversee the redevelopment project. It may administer temporary or permanent relocation of existing residents and businesses. The local government or the redevelopment agency may then establish business retention, technical assistance, and grant and loan programs to encourage the rehabilitation of buildings, to improve the appearance of building façades and signage, to stimulate business start-ups and expansions, and to otherwise attract private investment to the area.

Financing for Redevelopment

Financing for redevelopment can include special assessments to property owners, tax increment financing, federal grants, and tax abatements. Check with applicable state statutes to determine which financing tools can be used.

Special Assessments

A special assessment is a charge imposed upon the property owner to pay for an improvement that benefits the property. The amount of the special assessment is typically a pro rata share of the cost of installing the improvement. For example, the redevelopment plan may require the replacement of all sidewalks in the redevelopment area. The local government would impose the special assessment, as in the manner of a property tax, to recover the cost of designing and installing the sidewalks. The property owner would typically be assessed on the amount of street frontage—each foot of frontage would be multiplied by the cost of installing one lineal foot of sidewalk of a certain width. However, the local government would be responsible for installing improvements in the public right-of-way—for example, the cost of replacing curbs, gutters, and sidewalks at street intersections.

Tax Increment Financing

Tax increment financing taps into the increase in tax revenue from a redevelopment project to finance the improvements and activities that make redevelopment occur. Under tax increment financing, the local government determines the property tax revenue it is collecting in a given area before redevelopment occurs. The local government then borrows money with loans or by the sale of bonds. The funds are used in various ways to improve the development prospects of the area: loans to new businesses, capital improvements, new services (such as more frequent street cleaning and security patrols), advertising, and marketing. As development occurs in the area, tax revenue increases, and the excess above pre-redevelopment property tax revenue in the area—the tax increment—is used to pay off the loans or bonds and to finance further redevelopment activities.

Federal Grants

Federal grants, notably the federal Community Development Block Grant (CDBG), can be used for land acquisition, clearance, and redevelopment. Those who use federal monies must follow federal regulations with respect to environmental protection, fair labor standards, relocation, bidding, and other requirements.

Tax Abatements

Property owners may receive tax abatements for a certain period of years to induce investment in the redevelopment area. Under tax abatement, the assessed valuation of real property in the redevelopment area is frozen as of a specified date, and the real property taxes are levied against the property according to the assessed value on the specified date instead of the current value of the property. Therefore, any increases in the value of real property, whether due to capital improvements to the property or to the general economic improvement of the neighborhood, will not result in a higher tax bill that could act as a disincentive to further investments or improvements.

REFERENCES

Meck, Stuart (Gen. Ed). 2002. *Growing Smart℠ Legislative Guidebook: Model Statutes for Planning and Management of Change.* 2 vols. Chicago: American Planning Association, Chapters 7 and 14, esp. Sections 7-303 (Redevelopment Area Plan), 14-301 (Redevelopment Areas), 4-302 (Tax Increment Financing), 14-303 (Tax Abatement).

See also:

Brownfields
Revitalization and Economic Development

Stuart Meck, FAICP, American Planning Association, Chicago, Illinois

TRANSPORTATION PLANS

Effective transportation systems are central to maintaining the productivity, health, and safety of communities and regions. A transportation plan guides the investment in, and timing of, improvements to the transportation network to meet community mobility, accessibility, safety, economic, and quality-of-life needs.

REASONS TO PREPARE A TRANSPORTATION PLAN

Transportation plans are typically prepared to address the following items in a systematic, coordinated, and comprehensive manner:

- Management of existing systems
- Maintenance of previous investment
- Realignment of existing services
- Introduction of new services
- Construction of new facilities
- Identification of ways to finance system maintenance and improvements

The process of preparing various transportation plans gives government agencies, elected officials, and the public the opportunity to assess the adequacy of the existing system and to plan to meet future needs while maintaining local and regional transportation systems in good condition. The outcome of the process should be a transportation plan that defines existing problems and issues, predicts future deficiencies and problems, defines solutions, and identifies where to find the resources needed to manage and implement plan recommendations.

The goals of a particular transportation plan are usually determined by comparing existing transportation system performance to projected future demands and by considering the particular social, economic, and environmental circumstances of the community. Given the importance of effective transportation systems to the health and vitality of a community, transportation plans often provide a "blueprint" for future development and redevelopment in support of regional and comprehensive land-use plans.

TRANSPORTATION PLANNING ROLES AND RESPONSIBILITIES

The development of a successful transportation plan requires the insights of those entities responsible for various components of the transportation system, working in concert with those who will use and be affected by the transportation service and improvements, to develop solutions responsive to diverse considerations. Those responsible for plan development must create an effective forum for evaluating system deficiencies, assessing alternatives, and selecting the most effective course of action. Development of some plans is a highly structured process, complete with formal committees. Others are less structured and rely more heavily on exiting committees or informal communication networks to solicit participation.

Whether structured or informal, because transportation plans affect so many interests and a wide range of people, broad and meaningful participation in plan development is essential. The development stage of transportation planning should include representatives from the following constituencies:

- U.S. Department of Transportation
- State departments of transportation
- Metropolitan planning organizations
- Local governments
- Public transit providers
- Resource and regulatory agencies
- Citizens and communities

U.S. Department of Transportation

The modal administrations of the U.S. Department of Transportation, including the Federal Highway Administration, the Federal Transit Administration, and the Federal Railroad Administration, administer, grant, and oversee funds for the planning, development, implementation, and operation of transportation services and infrastructure. In transportation planning efforts funded by the federal government, such as corridor plans, direct involvement of the federal agency is advisable during key decision points, at a minimum. In the development of a local transportation plan where there is no clear federal interest, there may be no involvement of the federal government, or the involvement might be limited to consultation regarding the availability and applicability of federal programs and funding.

State Departments of Transportation

Through their departments of transportation, states are responsible for the construction, maintenance, and operation of designated state highways. As part of this responsibility, state departments of transportation (DOTs) are responsible for provision and administration of funds for construction, maintenance, and operation of transportation facilities and services. State DOTs are also responsible for leading the preparation of statewide plans. Like metropolitan planning organizations (MPOs), they may have responsibility in the development and maintenance of regional travel demand forecasting models. State DOTs provide technical assistance and support to a wide range of transportation plans. They are the repositories for much of the data required to assess existing transportation systems.

Metropolitan Planning Organizations

The federal government charges MPOs to prepare metropolitan area long-range plans for urbanized areas. In some instances, MPOs will also lead the preparation of corridor plans. In addition, MPOs are often in charge of developing and maintaining the regional travel demand forecasting models used as a basis to support many transportation planning functions, including the development of employment and population forecasts and administration and disbursement of transportation funds. Consequently, in addition to their leadership role in preparing metropolitan regional long-range transportation plans, MPOs also provide technical assistance in support of other transportation planning efforts.

Local Governments

Local governments play a major role in constructing, operating, and maintaining surface transportation networks, often including transit service and roadways. Consequently, their involvement in the development of transportation plans is essential. In some cases, such as for a local transportation plan, the city, county, or town public works departments or transportation divisions might take the lead in preparing the transportation plan or the transportation element of a comprehensive plan. For other plan types, such as metropolitan area long-range transportation plans, local governments might provide technical support and knowledge specific to their jurisdictions. In either case, the insights of those engaged in the day-to-day operations of the system are an invaluable asset to any plan. In addition, since local government might be charged with implementing particular recommendations of the plans, it is essential that there be consensus for action and an understanding of the basic needs and technical analysis supporting the action.

Public Transit Providers

With respect to public transportation services, the role and responsibilities of public transit providers is similar to that described for local governments. However, because transit providers may not have a dedicated funding source for operations and may be dependent upon local governments for funding, early consultation regarding the availability of resources is even more critical.

Resource and Regulatory Agencies

Transportation plan recommendations can affect a broad range of natural and social resources. Consequently, early involvement of resource and regulatory agencies in transportation plan development can help identify constraints that could potentially prohibit implementation of future projects because of regulatory requirements, schedule impacts, or financial requirements.

Citizens and Communities

Citizens and communities are an important resource in the development of transportation plans, as both the "customers" of the system and those who might be affected by proposed changes. Statewide plans, metropolitan area long-range transportation plans, and corridor plans specifically require public involvement to inform plan development. Involvement should range from the average resident to neighborhood or civic associations, community leaders, and business community representation, such as chambers of commerce. For larger transportation plans, it is advisable to establish a formal citizens advisory group.

TYPES OF TRANSPORTATION PLANS

Transportation plans vary widely in approach, content, and scope as determined by geographic coverage, scale, and time frame. There are four basic types of transportation plans:

- Statewide transportation plans
- Metropolitan area long-range transportation plans
- Local transportation plans
- Corridor plans

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Statewide Transportation Plans

Statewide transportation plans, which are prepared by state DOTs, provide the basis for coordinating data collection and analyses to support planning, programming, and project development decisions. A basic requirement of plan development is coordination with the public and other entities with jurisdiction. The extent of coordination required with other transportation planning entities in developing the plan is based on the scale and complexity of many issues, including transportation problems; safety concerns; and land use, employment, economic, environmental, and housing and community development objectives within the state. The plans typically reference, summarize, or contain information about the availability of financial and other resources needed to implement the plan, although state plans, unlike metropolitan area long-range transportation plans, are not required to determine the likely availability of funding and the sources of funding to carry out the plan. State plans are evaluated on a regular basis and updated periodically to reflect changing statewide priorities and needs.

Statewide plans are intermodal in nature. They address passenger, goods, and freight movement for a minimum 20-year planning horizon. These plans are federally mandated to consider the following issues:

- Economic vitality
- Safety and security
- Accessibility and mobility
- Environmental quality
- Quality of life
- System connectivity
- System efficiency
- System preservation

In addition, state DOTs are all obligated to consider the opinions of elected officials representing local governments and the concerns of Native American tribal governments and federal land management agencies that have jurisdiction over land within the boundaries of the state. The plan is coordinated with adjacent states and counties and, where appropriate, international borders. It is conducted in a manner consistent with the metropolitan area planning process conducted by MPOs. By federal mandate, statewide plans are coordinated with air quality planning, and provide for appropriate conformity analyses as required by the Clean Air Act.

Metropolitan Area Long-Range Transportation Plans

Metropolitan area long-range transportation plans focus on evaluating alternative transportation and land-use scenarios to identify major travel corridors, assess potential problems, and provide a basis for planning and programming major improvements. These plans cover multiple jurisdictions and are therefore "regional" in emphasis. Prepared under the direction of a federally designated MPO, they typically cover a 20-year planning horizon. Under federal requirements, the adopted plans must be "fiscally constrained." In other words, the plan must demonstrate the likely availability of funding sources needed to implement proposed programs and projects. See page C-13 of the color insert for an example.

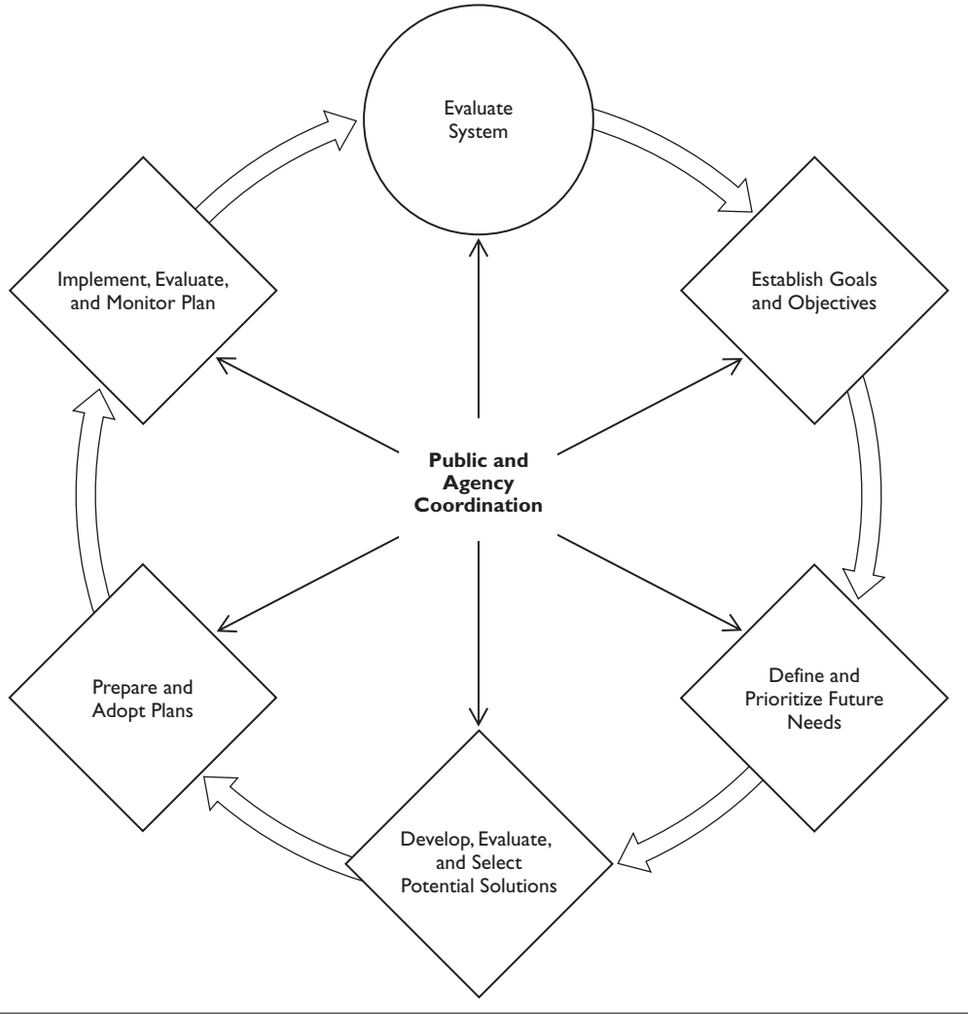
Local Transportation Plans

Local transportation plans are prepared either as stand-alone documents or as an element of a comprehensive plan. Local governments or regional transit providers typically prepare these plans, but they are coordinated closely with MPOs and state DOTs. The plans provide the basis for the programming and implementation of local transportation actions. They address small-scale improvements and projects requiring major capital investments. The typical plan consists of an inventory of existing facilities and a description of existing conditions, an assessment of system deficiencies, a projection of future needs, a description of the proposed plan, discussion of cost implications, and a summary of actions required for plan implementation. These plans usually address some short-range early action items (1 to 5 years), some midrange actions (5 to 10 years), and longer-term activities in a 20-year time horizon. In addition, the land-use implications of the plan are addressed. As with the other plans discussed, public and agency coordination during plan development is essential to successful plan implementation.

Corridor Plans

Corridor plans that focus on transportation are prepared for high-priority areas showing signs of congestion or predicted for significant future travel volume, or for transportation facilities of historical or natural significance. The entity responsible for implementing the improvements most frequently prepares these plans; therefore, state DOTs and transit providers often undertake them, although MPOs, local governments, and resource agencies such as the National Park Service also conduct such studies. Coordination of corridor plans with the general public is required, as well as with federal, state, and local agencies with an interest in the plan's outcome. Corridor plans usually have a 20-year planning horizon. The degree of federal or state DOT participation is often governed by the proposed funding for the plan's implementation.

Corridor plans involve the definition of the corridor to be studied, along with a clear presentation of the problem to be solved, both of which form the basis of the purpose and need for action. Consideration of a wide range of alternative means to solve the identified transportation problem or resource management objectives should be at the core of plan development. These alternatives can involve different levels of investment or different types of corridor improvements. They are systematically evaluated using a set of stakeholder-developed evaluation crite-



TRANSPORTATION PLAN DEVELOPMENT CYCLE

Source: Diana C. Mendes, AICP.

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ria. These criteria typically include land use, environmental effects, community concerns, cost, capacity, and effectiveness. The analysis results are shared and discussed publicly prior to making a decision on a preferred course of action. The final plan document summarizes both the planning process and the results, explaining how the decision was made, and the actions necessary to implement the plan and recommended improvements.

For additional details concerning other types of corridor plans, please see the section on Corridor Plans in this part of the book.

PLAN COMPONENTS

Transportation plans should include the following elements:

- An overview of the planning process
- A description of existing conditions (transportation network and land use)
- A forecast of future conditions (transportation network and land use)
- A summary of transportation needs
- Goals and objectives
- An assessment of transportation system capacity
- A series of alternative scenarios for future and proposed improvements
- A description of cost implications and funding sources
- Guidelines for implementation and performance monitoring
- A program for ensuring public involvement

TRANSPORTATION PLAN DEVELOPMENT

There are six basic steps in the development of a transportation plan:

1. Evaluate system capacity, deficiencies, and needs.
2. Establish goals and objectives.
3. Define and prioritize future needs.
4. Develop, evaluate, and select potential solutions.
5. Prepare and adopt the plan, including public review and comment.
6. Implement, monitor, and evaluate plan performance.

The development of responsive and effective plans is predicated on the active involvement of the public and appropriate federal, state, and local agencies in transportation decision making at each step of transportation plan development.

Evaluate System Capacity, Deficiencies, and Need

Evaluation of the current system begins with an inventory of the existing facilities and services and their capacity, including the roadway network, transit systems, freight systems, as well as the interrelationships to air and waterborne transportation. This evaluation should establish where the transportation network is performing well and where deficiencies currently exist or are predicted to exist in terms of accessibility, mobility, and efficiency relative to community aspirations. Both quantitative and qualitative measures, including evaluation of population and employment characteristics, land-use trends, travel markets and patterns, and user surveys, are often used in the plans to describe the transportation problems to be solved and to establish a need for action.

Establish Goals and Objectives

The goals and objectives, which are developed in response to the analysis of system capacity, deficiencies, and needs, form the foundation upon which different alternative transportation scenarios and investments are evaluated during plan development. The goals and objectives vary and are dependent upon context (rural, suburban, and urban), trends in population and employment, and planning horizon (short term or long term). Transportation plans are increasingly becoming more context-sensitive, incorporating more goals related to land-use compatibility, economic considerations, energy, environmental management, and community quality. Criteria by which the performance of different potential actions can be measured against these goals and objectives should be clearly articulated to facilitate public understanding of the decision-making process.

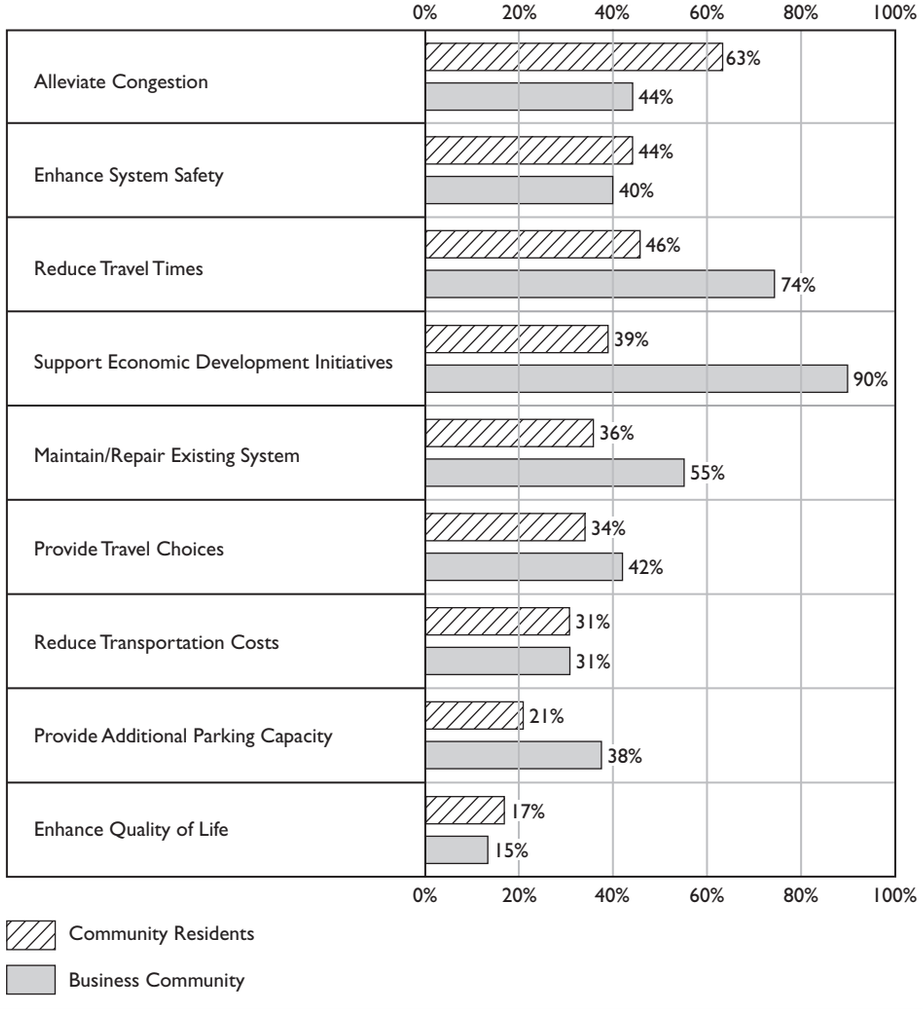
Define and Prioritize Future Needs

Once planners have established the plan's goals and objectives, the next step involves defining and prioritizing future needs. This analysis uses the information gained during the initial system evaluation in combination with population and employment projections, regional and local land-use plans, and the results of public and agency coordination.

Transportation Models

Planners employ transportation models to conduct regional travel demand forecasting and to simulate traffic impacts to assess and evaluate the capacity of existing and future transportation networks to accommodate projected demand. Regional models are focused on the large-scale "macro" travel movements in aggregate, while traffic simulation is focused on the smaller-scale, or "micro," travel movements on an individual basis.

The regional travel demand forecasting models are developed, maintained, and operated by MPOs and state DOTs, and can vary in size and scope dependent upon the area they are designed to serve. These regional models characterize the transportation system networks, as well as the demand for the system in terms of its users, travel patterns, and how changes to the system might affect demand. These regional



TRANSPORTATION GOALS BY PARTICIPANT PREFERENCE

Source: Diana C. Mendes, AICP.

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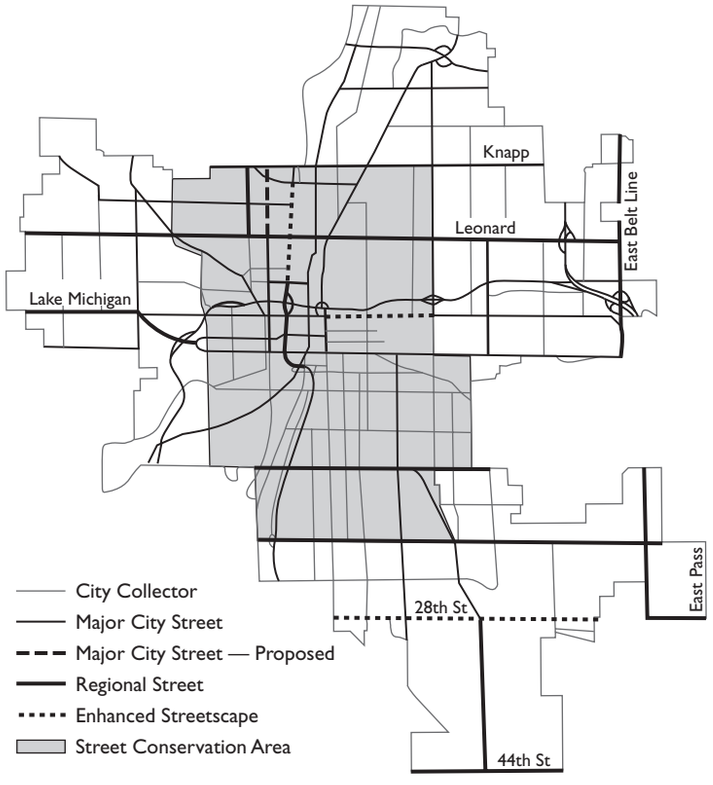
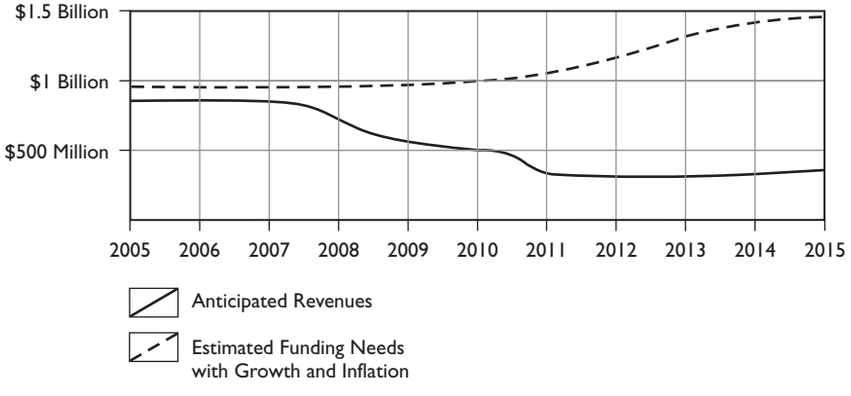


TRANSPORTATION FRAMEWORK PLAN: STREETS

Source: Adapted from City of Grand Rapids, Michigan, 2002, Plan for Grand Rapids.

models provide insights about where trips are generated and attracted, how trips are distributed, the likely choice of modes, and the routes to be traveled in order to predict the future volume of use.

In cases when regional models either are not available or may not be appropriate, such as when small changes in the transportation network need to be analyzed for a specific site, traffic simulation models are used. Traffic simulation models can be valuable not only in determining future conditions and level of service, but also in identifying appropriate mitigation measures such as changes in signal timing or additional street improvements to address degradation of capacity. A number of software packages are commercially available, and the models are typically developed and applied by the project sponsor on a case-by-case basis to address specific project needs. Irrespective of the type of modeling tools and processes applied, priorities should be based upon the results of the technical analysis, overlaid with the opinions of the public and agencies participating in plan development.



NEEDS VERSUS FUNDING FOR TRANSPORTATION INFRASTRUCTURE

Source: Diana C. Mendes, AICP.

Develop, Evaluate, and Select Potential Solutions

Following a clear understanding of and agreement on priorities, alternative scenarios or solutions can be defined and developed. These scenarios consist of adjustments to the transportation system based on changes to services or investments in new programs or infrastructure. While planners may evaluate each of the transportation modes (e.g., rail, air, auto) addressed in the plan independently, the results of this initial assessment can be used ultimately to develop and to test potential combinations of investment among different modes to best meet needs.

It is during this iterative process that alternative solutions can be evaluated and compared based upon their performance and effectiveness in achieving stated goals and objectives and meeting needs. To assist elected officials, community leaders, and the public in making decisions among alternatives, planners need to explain and document the potential benefits and impacts, and the trade-offs of each alternative. They need to pay special attention to which populations benefit from a particular set of actions versus which may experience adverse impacts to anticipate support for and resistance to the plan.

Prepare and Adopt the Plan

The plan should document the public decision-making process and provide the technical rationale for its conclusions. It should also describe future implementation of proposed programs and improvements, including a clear delineation of action to be taken, the sequencing of improvements, responsibility for implementation, and cost.

A brief executive summary of the plan should be prepared for the public. Because transportation plans can be quite technical, the summary should be written for the lay reader. Adoption of the plan should follow a public review process that includes a number of public outreach activities, including formal hearings. During the project review process, it may be necessary to revise the plan. Particular attention should be paid to the financial element of the plan in terms of cost, revenues, shortfalls, and options for using current and potential new sources.

Implement, Monitor, and Evaluate Plan Performance

Plan implementation requires clear direction on responsibilities, schedule, and funding. Successful plan implementation also depends on ongoing monitoring and performance evaluation. This systematic, regular assessment of the effectiveness of implemented actions should provide the foundation for the evaluation phase of the next planning cycle. The performance measures should be the same as or a subset of the evaluation criteria used to assess and select the adopted plan.

See also:

Air Quality
Clean Air Act
Comprehensive Plans
Corridor Plans
Environmental Impact Assessment
Participation
Transportation

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HOUSING PLANS

More than 70 years ago planning pioneer Patrick Abercrombie (1933) wrote, "The subject of housing enters into planning continuously, whether under the heading of density, of the living conditions of the population, of slum clearance or suburban growth." Those same issues remain central to the planning process today. To address them, jurisdictions with the authority to prepare and implement housing plans are increasingly likely to prepare and adopt housing plans or housing strategies, either as a part of their comprehensive plan, or as a separate freestanding document.

REASONS TO PREPARE A HOUSING PLAN

Municipalities have many different reasons for preparing housing plans.

To Address Legal Requirements

Some states require a housing plan as part of the municipal comprehensive plan or master plan. Washington State, for example, mandates a housing element, which must "make adequate provision for existing and projected needs of all economic segments of the community" (Laws of State of Washington, RCW 36.70A.070(2)). Other states, including California and New Jersey, require that the municipality address its fair share of regional housing need, as defined by a state or regional agency. Municipalities that receive HUD Community Development Block Grant or HOME funds must prepare a Consolidated Plan, which delineates the municipality's overall housing needs and strategy and shows how their federal funds will be used.

To Address Affordable Housing Needs

Even with no formal legal requirement, many municipalities undertake housing plans when they recognize that rising housing costs or loss of existing housing units is making the community unaffordable to many of its present and prospective residents. As described in the Cary, North Carolina, affordable housing plan, when the town realized that the "escalating price of housing was excluding many people from living within the city limits…including Town staff, policemen, teachers, retail clerks, and service people," it adopted an affordable housing plan, which included a detailed action-oriented "affordable housing tool kit."

To Encourage Economic and Social Integration, and to Build Stronger Neighborhoods

Affluent suburbs may develop affordable housing plans to ensure that less affluent people can continue to live in, or move into, the community. At the same time, many older urban centers—for example, Baltimore and Norfolk—have begun to develop housing strategies designed to expand their economic diversity by attracting middle- and upper-income residents into their neighborhoods and downtowns. Such strategies can be citywide or can focus on creating economic diversity in a specific neighborhood, such as Fall Creek Place in Indianapolis. HUD's HOPE VI and Homeownership Zone programs have funded effective neighborhood-oriented housing strategies.

FORMS OF MUNICIPAL HOUSING PLANS

The form that a municipal housing plan takes flows from the reason it is being prepared. Where a housing element is part of a comprehensive plan, its features will usually be spelled out in the state planning statute. These typically include inventories, need assessments, and goal statements, as well as action plans. The New Jersey Fair Housing Act describes the contents of a fair-share plan, including "a consideration of the lands that are most appropriate for construction of low and moderate income housing and of the existing structures most appropriate for conversion to, or rehabilitation for, low and moderate income housing…" (New Jersey Statutes 52:27D-310(f)). Washington State requires each city or county to identify "sufficient land for housing, including but not limited to government-assisted housing, housing for low-income families, manufactured housing, multifamily housing, and group homes and foster care facilities."

A municipality is driven to prepare a plan for internal reasons, such as the need for more affordable housing, but the scope of the plan may vary widely. Recognizing that housing needs far exceeded the community's ability to address them, the Stamford, Connecticut, Affordable Housing Strategy concentrated on a detailed strategy to assemble land and financial resources for affordable housing.

Housing strategies in communities seeking to attract middle- and upper-income residents tend to focus much more on the real estate *market*, rather than on housing *needs*. These plans may include identifying potential target markets, such as empty-nesters or young professionals, focusing on how to attract them into the city's housing market, whether by developing new housing oriented to their preferences or by highlighting particular features of the city's existing housing stock.

A housing plan is fundamentally a *strategic action* plan, which emphasizes those parts of the housing market unlikely to be adequately reached by the private market unaided by public intervention. The assessment of conditions and analysis of trends is not an end in itself but should be designed to lead to specific strategies and programs designed to achieve the community's housing goals.

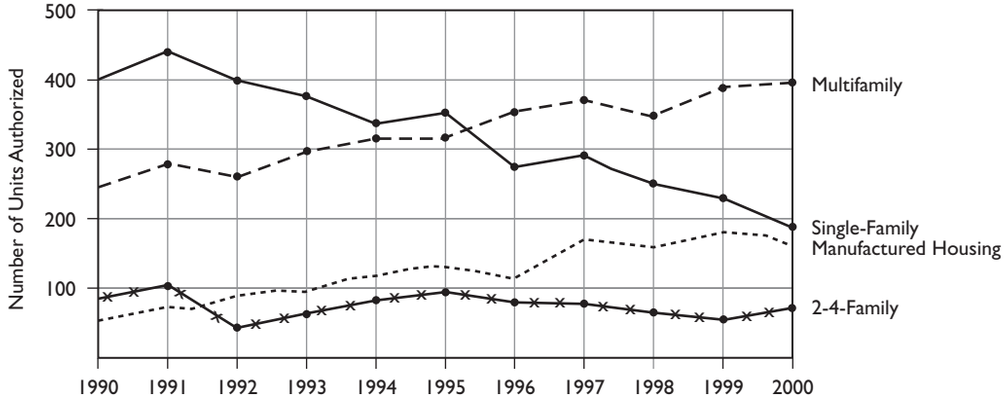
MUNICIPAL HOUSING PLAN ELEMENTS

Although housing plans vary widely, a series of elements are common to most plans. As noted, in some cases, state law will mandate that certain elements be included, while in others local officials and community stakeholders must determine which are most relevant to local concerns.

An Inventory of Existing Conditions and Trends

In order to understand existing housing conditions in the municipality, most plans begin with an inventory, including the distribution of housing in the community by cost and by type (for example, single-family, two-family, or multifamily housing), for both owner-occupied and rental housing. It should also identify specialized housing types, such as manufactured housing or single-room occupancy (SRO) housing. It should both provide a profile of current housing conditions and analyze trends to determine how those conditions are changing—increases in house prices, for example, or movement from ownership or rental, or vice versa, in the housing stock.

Regional conditions and trends should also be presented, to show how the municipality relates to the larger regional context. Job growth trends, important as an indicator of potential housing needs, should also be measured. Information on substandard or abandoned housing should be included where sound data is available. Census data should be used as a starting point, but, particularly as the end of each decade approaches, it must be supplemented by other data sources. A property information system, as has been developed in many cities (e.g., Los Angeles or Minneapolis), can be used to identify buildings at risk of abandonment by tracking code violations, tax arrearages, and crime complaints.



HOUSING PRODUCTION TRENDS BY TYPE, 1990–2000

Source: Alan Mallach.

Alan Mallach, FAICP, National Housing Institute, Montclair, New Jersey

Housing Need Analysis

Most housing plans are designed to focus primarily on affordable housing. Affordable housing is defined differently in different jurisdictions. In New Jersey, it refers to households earning no more than 80 percent of the regional median income, while elsewhere it may include households earning as much as 120 percent of regional median or as little as 50 percent. At present, households earning less than 50 percent of regional median income are most likely to have deficient housing conditions and are least likely to see their housing needs addressed by the private market.

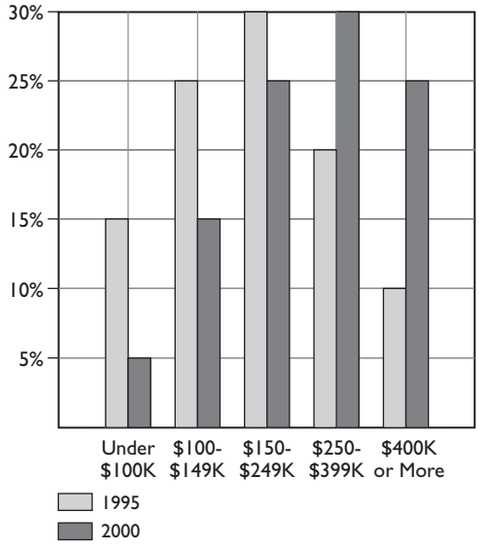
The housing plan should attempt to quantify housing needs wherever possible, using census data to identify the number of households living in overcrowded housing or suffering undue cost burdens in the community. Where feasible, a community survey should be used to identify households living in substandard housing. The sum of these needs is often referred to as the community's present, or indigenous, housing need.

Prospective affordable housing needs are those of low- and moderate-income households who should have the opportunity to move into the community in the future. This is where the fair-share principle becomes most relevant since, by definition, a substantial percentage of all new households are low and moderate income. Since "low and moderate income" is defined relative to regional median income rather than as a set dollar amount, it will represent a consistent share of all households over time, with the share depending on where the cutoff is placed. Where low and moderate income is defined as 80 percent of regional median, roughly 40 percent of all households will fall below that line. Where it is defined as 50 percent of regional median, it will include roughly 25 percent of all households. (See table.) A fair-share plan, or regional fair-share allocation, identifies the share of the region's household growth that should appropriately be accommodated within the municipality and defines how housing for those households will be provided.

See *Housing Needs Assessment* elsewhere in this book for more detail on conducting such a study.

Market Analysis

Understanding the workings of the housing market, at the regional level and within the municipality—and in large municipalities, within individual neighborhoods—is a critical step toward framing effective, achievable goals and strategies, and determining realistic targets. Enacting a successful inclusionary program, for example, requires an understanding of how the market will respond to incentives, such as density bonuses, or the extent to which market prices will support internal subsidies. In an older city, the market analysis may be used to identify those households that may be attracted to redeveloping neighborhoods or downtown loft districts.



DISTRIBUTION OF HOUSE SALE PRICES, 1995 AND 2000

Source: Alan Mallach.

Goals and Targets

A strategic plan must be grounded in a body of clear goals and, to the extent feasible, realizable targets. Goals should be well focused, such as those in Denver's 1999 housing plan, listed here:

- Reduce the regulatory costs of housing.
- Expand the resources available for housing programs and services.
- Preserve the existing housing stock.
- Address the needs of low-income and special-needs populations.
- Attract and retain middle-income families.
- Undertake housing efforts to support economic development strategies.

Each of these goals is expressed in a way that can easily be translated into specific strategies and action programs.

Strategy Analysis

A vast number of potential housing strategies are available. Before settling on the specific strategies to pursue, a valuable part of the planning process is to conduct a strategy analysis to evaluate the available options to determine which are most likely to respond effectively to the community's conditions. The strategy analysis should look at removing impediments and establishing affirmative steps to reach affordable or other housing goals. Systems—including barriers created by the town's own regulations and administrative procedures—that affect the affordability or availability of housing should be examined, as should the means and resources the town can use to affirmatively promote its housing goals. Each strategy should be assessed with respect to its potential impact if implemented and the relative ease or difficulty of implementing the strategy.

Implementation Plan

The worth of a housing plan ultimately depends on its implementation. The implementation plan should begin with a description of the strategies and programs the town has selected to carry its goals forward. It should follow with specific information about how each strategy will be carried out, including:

- the financial resources that will be assembled;
- the sites, buildings, or target areas that will be the focus of the strategy;
- the design and planning standards to be followed;
- the key players or participants in implementing the strategy;
- identification of entities responsible for implementing each part of the strategy; and
- specific targets and timetables for each strategy or program.

The implementation plan should be *specific*. It should identify both specific areas to be rezoned and the specific standards that will ensure that the sites will be used as intended. It should include an assessment of the municipal, state, federal and private funds realistically available to carry out the plan.

Some productive implementation strategies municipalities use include:

- rezoning of areas for higher density;
- inclusionary zoning;
- creating infill opportunities;
- creating opportunities for specialized housing types, such as accessory apartments, SRO housing, or group homes;
- incentives for housing preservation and rehabilitation, including adaptive reuse projects;
- assembly strategies and land banking;
- removing regulatory barriers, including creating simpler and expedited approval procedures;
- financial assistance to developers of affordable housing; and
- housing trust funds.

Some housing strategies can be carried out within the existing structure of town or city government, but others will entail new responsibilities and may require new managerial entities or partnerships to carry them out. Partnerships with community development corporations, developers, employers, and others are critical. Few, if any, towns or cities are capable of implementing a housing strategy without strong private sector partners.

DISTRIBUTION OF HOUSEHOLDS AND RENTAL UNITS BY INCOME AND AFFORDABILITY

CATEGORY	MAXIMUM INCOME	MAXIMUM AFFORDABLE RENT	PERCENT OF ALL HOUSEHOLDS IN COUNTY	PERCENT OF RENTAL UNITS AT/BELOW AFFORDABLE RENT
Low income (<50% of median)	$25,000	$625/month	25%	3%
Moderate income (<80% of median)	$40,000	$1,000/month	40%	32%
Middle income (<120% of median)	$60,000	$1,500/month	60%	74%
Countywide Median Income	$50,000			
Countywide Median Rent		$1,200/month		

Source: Alan Mallach.

Alan Mallach, FAICP, National Housing Institute, Montclair, New Jersey

KEY AND EMERGING ISSUES

Housing is a complex, multidimensional subject, both in itself and in its relationship to other planning and development issues. Changes in economic conditions and housing needs, as well as new thinking about how best to plan towns and cities, have led to the emergence of a series of important issues, many arising from smart growth principles, that a community's housing plan should address.

Integrating Housing with Other Planning Activities

As planning moves away from a history of separated uses and disconnected plans to a more holistic view of a community, the importance of linking housing with other uses and other planning processes has become apparent. The recognition of the advantages of mixed-use development, in which housing and nonresidential uses complement each other, as well as recognition of the links between housing and open-space or major community facilities, such as schools, are important considerations for building stronger, healthier communities. The creation of transit-oriented development, for example, which combines housing and other uses around transit hubs, is but one of many such available strategies.

Housing and Jobs

The extent to which a community provides housing opportunities for a diverse workforce is not just a matter of creating a more balanced community; it is essential for the community's economic vitality. Housing plans should not only evaluate the community's economic base and job growth as a basis for planning future housing, but should also actively explore opportunities for direct linkages between major employers and workforce housing strategies.

Preservation

Housing plans are not only about what should be built in the future, but also about how to preserve what already exists. Housing strategies are a key element in preserving the fabric of existing neighborhoods and historic areas, particularly with respect to affordable housing. As the loss of the affordable housing stock, either through disinvestment or through price appreciation, becomes a critical issue in many communities, housing strategies must incorporate activities to preserve that stock as well as produce new affordable housing.

Downtown and Neighborhood Revitalization

Housing development grounded in market-building strategies has turned out to be one of the most powerful tools available to urban centers to spur reinvestment and revitalization in their downtowns and older residential neighborhoods. Cities such as Cleveland and Baltimore have reinvented their downtowns by drawing upon the regional pool of young professionals and empty-nesters, while attracting a diverse body of homebuyers to buy and rehabilitate homes in the city's neighborhoods. Strategies designed to maximize private sector reinvestment and revitalization activities are important parts of the housing plans of the many cities and towns seeking to rebuild.

Resolving Conflicts over Affordable Housing

Certainly, any development is potentially controversial, but few areas are as likely to trigger conflict as affordable housing. Despite widespread public support for meeting housing needs in general, a specific affordable housing proposal will often become a lightning rod for a variety of community concerns. Indeed, even the term "affordable housing" can become a matter of contention, prompting some advocates to refer to their efforts as "workforce housing" or "affordable homeownership." The framers of an affordable housing plan must recognize the reality and depth of community concerns, and incorporate into the planning process a method for building support and, to the extent possible, consensus around the plan's specific strategies, beginning well before the plans are finalized.

REFERENCES

Abercrombie, Patrick. 1933. *Town and Country Planning.* New York, NY: Henry Holt & Co.

See also:

Downtown Plans
Federal Housing and Community Development Laws
HOPE VI
Housing Needs Assessment
Neighborhoods
Residential Types

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ECONOMIC DEVELOPMENT PLANS

An economic development plan guides a local or regional effort to stimulate economic growth and to preserve existing jobs. Economic development may also be aimed at ensuring increases in real wages, stabilization or increase of the local tax base, and job diversification—making the community or region less dependent on a few employers and thus insulating it from economic downturns in specific industries.

In most places economic development has broadened from job creation and retention and provision of land and infrastructure for business to promotion of prosperity and quality of life—the idea that with economic growth should come broader societal well-being. Thus, economic development is increasingly linked with education, culture, affordable housing, and preservation of the environment.

REASONS TO PREPARE AN ECONOMIC DEVELOPMENT PLAN

A number of factors typically prompt a local or regional economic planning effort. They include the following:

- Loss of a major employer or the attraction of a new employer
- Competition from surrounding communities or regions
- Belief that the community should take an active role in promoting itself
- A desire to provide employment for existing residents
- Economic stagnation or decline in a community, or part of it
- Need for new tax revenues, especially to finance the concurrent costs of residential growth

Economic development efforts may also simply reflect an innate entrepreneurial spirit, a desire to experiment and to grow.

APPROACHES TO THE PLAN

All economic development plans should include a series of background studies intended to identify the strengths and weaknesses of the community or the region and make some assessments about the type and extent of desired economic growth. If the analysis is for a community, the larger frame of reference should be the region. If the analysis is for the region, the state or a substantial subregion of it should be the context. Trends that dominate the larger unit of analysis will in some way affect the subunit.

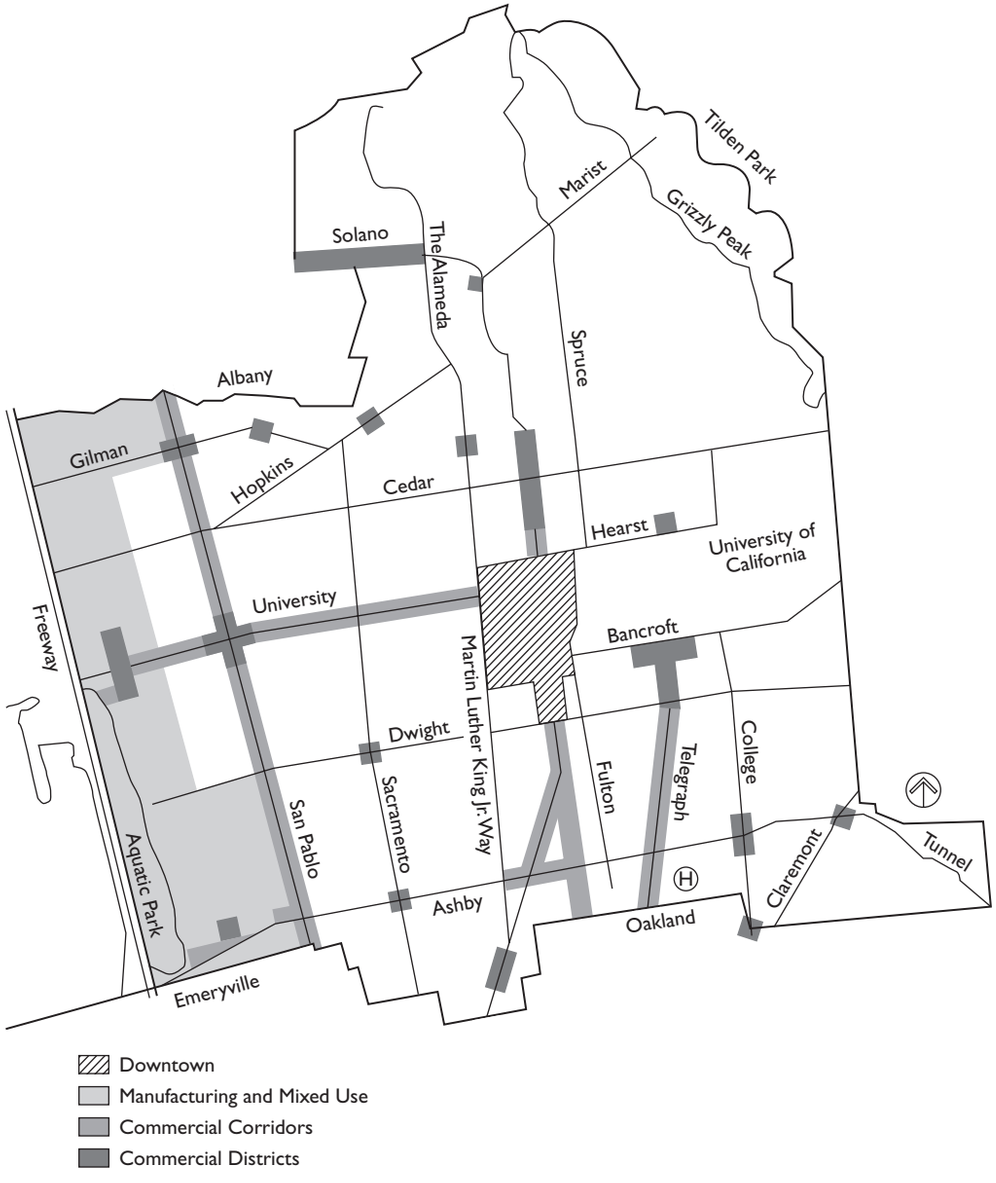
The planners preparing the plan should seek out or conduct background studies of a number of economic factors, especially the following:

- Economic base and shift-and-share analyses
- Job composition and growth or decline by industry sector on a national, statewide, or regional basis
- Tax structure of the community
- Existing labor force characteristics and future labor force requirements of existing and potential commercial and industrial enterprises in the state or region
- Locational characteristics of the community or region from the standpoint of access to markets for its goods and services
- Patterns of private investment or disinvestments
- Commercial, industrial, and institutional lands within the community that are vacant, significantly unused, or environmentally contaminated
- Projected employment growth by industrial sector for the state or region
- Regulations and permitting procedures imposed by the local government on commercial and industrial enterprises and their effects on the costs of doing business
- Existing businesses
- Quality of life and lifestyle

PLAN COMPONENTS

An economic development plan will use these background studies and data to draw inferences about the strengths and weaknesses of the regional economy of which the community is part. From that analysis the local government can begin to define goals, policies, and guidelines for economic development. This analysis should, at a minimum, reveal the following:

- The community's role and responsibilities in the region's economy
- Categories or particular types of commercial, industrial, and institutional uses desired by the community



COMMERCIAL AND INDUSTRIAL EMPLOYMENT AREAS, BERKELEY, CALIFORNIA

Source: Berkeley, California, General Plan, 2003.

Stuart Meck, FAICP, American Planning Association, Chicago, Illinois

- The adequate number of sites of suitable sizes, types, and locations for such uses
- The community facilities that should be included in the community facilities element of the local comprehensive plan to support the economic development plan

The economic development plan may also include goals, policies, and guidelines to maintain existing categories, types, or levels of commercial, industrial, and institutional uses.

RELATED ACTIONS

Housing for Employees

Providing housing to accommodate new employees is an important part of economic development. The economic development plan must be closely coordinated with the housing plan and its implementation to provide reasonable opportunities for new employees to obtain housing. If that is not done, the local government will effectively export the need for housing and its associated costs to other nearby communities. The local government should take aggressive steps to ensure that sufficient housing is available for the expected or desired type of businesses and job growth.

Public/Private Coordination

In some cases, the economic development plan will involve the orchestration of a number of public and private actors to bring about economic change in a certain part of the local jurisdiction. For example, a community may decide to attract conventions. Thus, a convention and tourism authority may need to be established and funded, a convention center built, hotels and restaurants enticed to locate nearby, and transportation improvements of various types (some the responsibility of the state, others of the county) built.

ECONOMIC DEVELOPMENT STRATEGIES: DIRECT BUSINESS ASSISTANCE—PROJECTS

PROJECTS	LOCATION FACTOR ADDRESSED	PROS	CONS
Land or building purchase and assembly	• Land availability and cost	• Puts ownership of key property in hands of public job-creating authority. • Overcomes fragmented ownership and scarcity of large developable sites.	• Risk of holding undesirable property • Expensive
Industrial park creation	• Land availability and cost • Access to markets	• Prepares land for development. • Designed for multiple users and many jobs.	• Land can remain vacant and underused while waiting for desired firms.
Business accelerator (incubator)	• Land availability and cost • Workforce • Business formation	• Focuses on job creation. • Nurtures companies of the future.	• High initial costs for space and program management. • Need to have management expertise to provide technical assistance. • Small businesses do not lead to employment and tax base growth immediately.

Evaluation of the pros and cons of a discrete set of strategies and the locational factors they address as a way of sorting through actions for an economic development plan.

Source: ECONorthwest, Eugene, Oregon, 2003.

EXCERPT FROM WASHINGTON COUNTY, UTAH, STRATEGIC PLAN

1. RETAIN AND EXPAND BUSINESS

Goals	Measure of Success	Critical Strategies	Implementation Agent
Retain and expand existing businesses with the County that are consistent with the core economic values.	Employment in existing County businesses will expand by 5% per year.	1.1 Facilitate incentive program for existing businesses equivalent to what is offered to new businesses. 1.2 Increase the education and training opportunities of the existing workforce to prepare employees to better meet customer needs. 1.3 Provide an outreach effort to directly contact and assist existing businesses. 1.4 Develop and provide financing packages to assist in financing growth of existing businesses. 1.5 Facilitate conflict resolution between businesses and government.	[Omitted]

A series of goals and strategies that Washington County, Utah, has established for ensuring the retention and expansion of local businesses.

Source: Washington County, Utah, 2003.

SELECTED GOALS AND BENCHMARKS IN THE WASHINGTON COUNTY, UTAH, STRATEGIC ECONOMIC DEVELOPMENT PLAN

GOALS	MEASURE OF SUCCESS
Diversify and strengthen our economy and increase our wage scale by attracting value-added business.	Locate 750 new value-added jobs within the next five years. Increase the per capita wage of the county to the level of the Utah State average.
Develop improved industrial sites, which are affordable and attractive to new and expanding value-added businesses.	Monitor the industrial market to ensure that at least 100,000 square feet of industrial high cube inventory is available.
Encourage the construction of spec buildings for use by value-added companies.	Maintain sufficient fully developed land and available building space to service existing and new value-added business.
Expand existing infrastructure to maintain and improve service levels.	Increase private and public funding for key infrastructure and services by 25% over the next five years.
Increase the county's economic development capability such that it fully utilizes the strengths and resources of both the public and private sectors.	Fully fund economic development organization with sufficient cash reserves.
Increase the advanced degree, technical, and professional skills training provided within the county through Dixie State College of Utah and Dixie Applied Technology Center.	Annually increase the number of courses available for advanced technical skills training.

Benchmarks that Washington County has set for monitoring success for the plan's goals.

Source: Washington County, Utah, 2003.

IMPLEMENTATION

Implementation of the goals and objectives of an economic development plan can involve several actions:

- Setting aside or making available, through clearance and land assembly, land for business and industry through zoning, environmental remediation of contaminated sites, urban renewal, and other techniques for land assembly
- Underwriting risks though grants, loans, and tax abatement
- Providing amenities and infrastructure through a variety of capital investments
- Creating an ongoing economic development financing, attraction, and promotion entity
- Focusing attention on other quality-of-life factors such as colleges and universities, local schools, and environmental, recreational, and cultural amenities
- Attracting "creatives"—painters, writers, sculptors, musicians—to encourage a diverse cultural scene
- Establishing a joint economic development zone
- Instituting job training and placement
- Refining local, regional, or state permitting procedures and regulations to make them friendlier to business
- Establishing programs that monitor the needs of existing businesses and institutions, to ensure their retention
- Adopting design guidelines for commercial, industrial, and institutional areas

Implementing actions or strategies will be scheduled, with responsibility assigned to different actors or institutions, and costs estimated. An economic development plan should assume the private sector may need to take certain actions, either on its own or through formal public-private partnerships. Moreover, such a plan may contain measurable benchmarks in terms of job growth or retention, desired levels of private investment, and changes in real wages.

See also:
Housing Plans
Revitalization and Economic Development

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COMMUNITY FACILITIES PLANS

Community facilities are generally considered to be buildings, land, interests in land, and equipment owned and operated by a local government agency and used to provide services on behalf of the public. They may include facilities operated by public agencies as well as those owned and operated by private (for-profit or nonprofit) enterprises for the benefit of the community. A table of various examples of community facilities is included here.

REASONS TO PREPARE A COMMUNITY FACILITIES PLAN

The purposes of a community facilities plan are to:

- provide for necessary or desirable community facilities to support the future land-use pattern proposed in the land-use element of the local comprehensive plan, and over which the local government exerts control or authority in their location, character, extent, and timing;
- establish levels of service for such community facilities so they will meet the needs and requirements of the local government and its residents;
- ensure that such community facilities are provided in a timely, orderly, and cost-effective manner, including the optimization of the use of existing facilities as an alternative to expansion or new construction; and
- coordinate with other local governments, special districts, school districts, and state and federal agencies on the provision of community facilities with multijurisdictional impacts.

APPROACHES TO THE PLAN

Most state planning statutes address in some manner the provision of community facilities. The approach presented here draws on statutes and administrative rules from Florida, Georgia, Kentucky, Oregon, Rhode Island, Washington, and Vermont. In creating the community facilities plan, the local government should:

1. identify which community facilities are to be covered by the plan;
2. inventory and assess the facilities' condition and adequacy;
3. propose a range of facilities to support the development pattern contemplated in the land-use element; and
4. adopt level-of-service requirements and locational guidelines to help in responding to growth and change in the community and to aid in siting facilities.

Facilities Controlled by the Local Government

Some community facilities have a direct impact on where development will occur and at what scale; water and sewer lines are good examples of this. Others may address immediate consequences of development; a stormwater management system, for example, deals with the impact of changes in the runoff characteristics of land as a consequence of development. Still other facilities are necessary for the public health, safety, and welfare, but are more supportive in nature. Examples include police and fire facilities, general governmental buildings, parks, and elementary and secondary schools. A final group includes those facilities that contribute to the cultural life or physical and mental health and personal growth of a local government's residents (e.g., hospitals, clinics, libraries, museums, and arts centers).

EXAMPLES OF COMMUNITY FACILITIES

EDUCATIONAL
Elementary schools (K-6)
Junior high schools or middle schools
High schools
Community colleges
Vocational training centers
SOCIAL SERVICES
Day-care centers for preschool children
Day-care centers for the elderly
Shelters for homeless people
Shelters for battered women
Halfway houses for drug addict rehabilitation
Halfway houses for prisoner rehabilitation
Halfway houses for the mentally disturbed
Halfway houses for the developmentally disabled
CULTURAL
Libraries
Museums
Auditoriums
RECREATIONAL
Parks
Active participant sports areas
Recreation centers
Sports centers (such as stadiums for spectator sports)
Small boat harbors
Riding, hiking, and bicycle trails
GOVERNMENT BUILDINGS
Government office buildings
Post offices
"Corporation yards" (for the storage of materials and equipment)
HEALTH CARE
Local health clinics
Community hospitals
Regional hospitals
Emergency health services
PUBLIC SAFETY
Police stations
Fire stations
Jails
Court buildings
Civil defense facilities
Emergency preparedness centers
Military installations
PUBLIC UTILITIES
Water supply systems
Electrical distribution station
Water treatment plants
Reservoirs
Elevated storage tanks
Storm drainage facilities
Channels
Detention and retention basins
Flood protection facilities
Dikes
Flood basins
SOLID WASTE MANAGEMENT
Landfills
Transfer stations
Incinerators
Waste-to-energy plants
Wastewater treatment plant
Hazardous waste depositories
Resource recovery centers
OTHER
Open-space preserves
Cemeteries
Harbors
Animal shelters

Source: Adapted from Anderson, Larz. 1995. Guidelines for Preparing Urban Plans. Chicago: Planners Press.

Facilities Controlled by Other Public Agencies

Some community facilities may be operated by public agencies other than the local government. Such agencies may serve areas that are not coterminous with the local government's boundaries. Independent school districts, state government, library districts, and water utilities are good examples of this. These arrangements can vary widely, even within the same state. In some communities, these agencies may have their own internal planning capabilities; in others, the local planning agency will need to assist or coordinate with the outside agency or even directly serve as its planner to meet the requirements of the model. Moreover, facilities owned and operated by other governmental units, such as state or county government, may be either exempt from local government land-use control or subject to a limited review; state laws must be consulted to determine the status of such facilities.

Privately Owned and Operated Facilities

Certain community facilities, such as private hospitals, universities, colleges, and privately operated public utilities, may have an impact on the local government, even though they are not operated by a public agency or by the local government itself. In any case, a local government should take into account the interests of these institutions while the community facilities plan is being prepared through direct contact and consultation with the affected governmental unit. This process enables the local government to begin discussions with the private operator or owner or state agency before it expands facilities or builds new ones.

PLAN COMPONENTS

A community facilities plan should contain the following information:

- An inventory and general assessment of all the significant existing community facilities that support the land-use element of the comprehensive plan or over which the local government exerts regulatory authority
  - The inventory should identify:
    - the entity with operational authority for each facility;
    - geographic service area of each facility;
    - design capacity of each facility, as appropriate;
    - current demand on each facility capacity, as appropriate; and
    - level of service provided by each facility (Where community facilities are shared, each local government shall indicate the proportional capacity of the systems allocated to serve its jurisdiction.)
  - The general assessment should include:
    - an evaluation of the performance of existing

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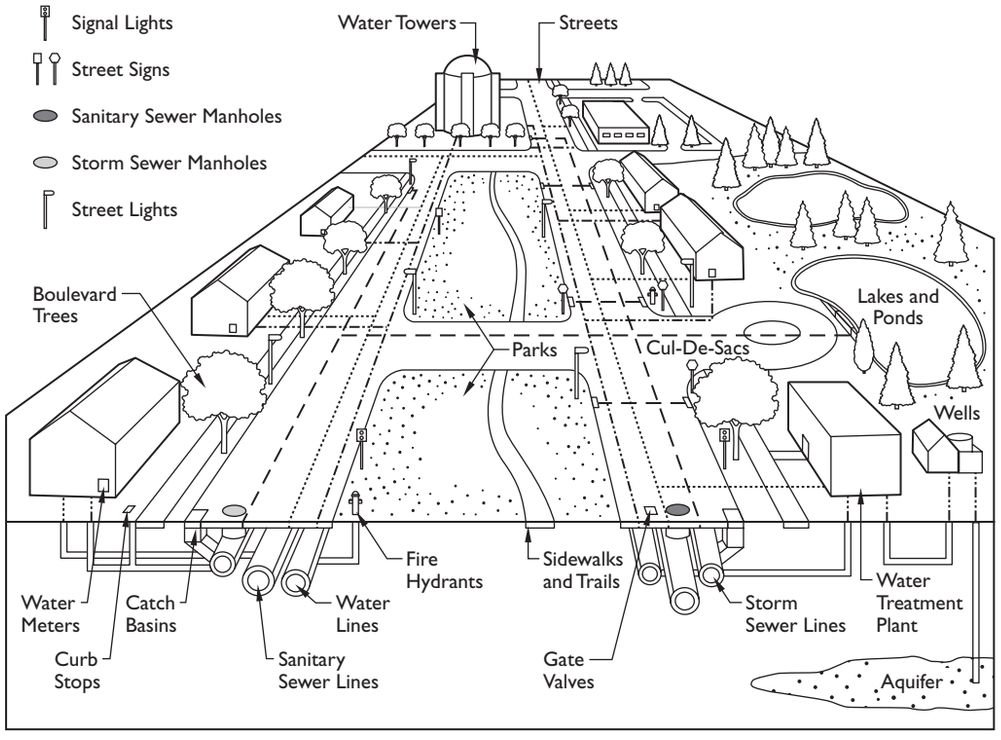

EXAMPLES OF PUBLIC INFRASTRUCTURE

Source: Burnsville, Minnesota, 2003.

facilities, based on best available data, of the condition and expected life of the facilities, and of facility capacity surpluses and deficiencies for each facility's service area;
- to the extent possible, measures of optimizing the use of existing facilities as an alternative to expansion and/or new construction; and
- an evaluation of the annual energy consumption of significant existing community facilities and measures for reducing such energy consumption that may be included in the program of implementation.

- A statement of goals, policies, and guidelines regarding the general distribution, location, and characteristics of community facilities within the local government's jurisdiction, including a statement of levels of service for each type or category of community facility
- A description of existing community facilities or proposed capital improvement projects for community facilities, including a map that shows the project's general location or service area and a statement of the entity that will or may have operational authority over the community facility
- A summary map showing the general location of existing or proposed community facilities at the same scale as the future land-use map. See page C-14 of the color insert for an example.

IMPLEMENTATION

A wide variety of community facilities may be present in a community, and the local government may treat each type differently through a specific set of siting requirements or separate, specific planning approach. However, a generic implementation approach may be used as a starting point for implementing needs identified in the plan. The necessary actions to implement the community facilities should be incorporated into the long-range program of implementation in the comprehensive plan.

Generic Community Facilities Implementation

The implementation of the community facilities plan, in a generic approach, would include these steps.

1. Appraise the scope of the project, based upon the needs assessment presented in the plan
2. Review design standards, location criteria, and experiences of other communities or facility operators
3. Conduct a preliminary economic analysis
4. Identify potential sites and screen out unsuitable ones
5. Prepare sketch plans and make preliminary assessments of these sites
6. Review studies with the organization that will operate the facility
7. Prepare a program for the facility, establishing building square feet and site acreages needed, estimating size of key use components, and diagramming relationships among physical components
8. Prepare preliminary development plans, schematic designs, cost estimates, impact analyses, and economic analyses of sites remaining in consideration
9. Review plans and analyses with the organization that will operate the facility and with other interested parties
10. Request that the facility operator reach a decision concerning site selection and development plans, including the setting of an initial budget for the project
11. Authorize the completion of architecture, landscape architecture, and engineering designs for building and site development, and preparation of a specific financing program.

Financing

For each community facility described in the plan, the community facilities plan should include:

- an analysis of the local government's capability to finance the project, including existing as well as probable alternative funding sources and mechanisms, such as grants, taxes, and bonding;
- a multiyear financing plan based on the needs of, the timing for, and the rough cost estimates of, planned community facility projects; and
- an analysis of how additional funding will be obtained or an appraisal of other means by which level-of-service standards will be met, if probable funding falls short of meeting identified needs.

See also:

Elementary, Middle, and High Schools
Parks and Open Space
Utilities

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PARKS AND OPEN-SPACE PLANS

A parks and open-space plan outlines a systematic approach to providing parks and recreation services to a community. Parks and open-space resources within a community include environmental, recreational, scenic, cultural, historic, and urban design elements. Planning for parks and open space takes place at national, state, and local levels.

REASONS TO PREPARE A PARKS AND OPEN-SPACE PLAN

Jan Gehl (1987), the Danish urbanist and architect, states, "The proper hierarchy of planning is life, space, and buildings, not buildings, space, life." Therefore, communities need to plan for open spaces that provide a multitude of public functions before development occurs. These functions are numerous and may include:

- protection of natural resources and biodiversity;
- creation of places for recreation;
- support for economic development opportunities;
- development of neighborhood gathering places;
- promotion of public health benefits;
- creation of civic and cultural infrastructure; and
- shaping patterns of development through open spaces.

APPROACHES TO THE PLAN

Many forms of park and open-space systems exist. Some communities have an interconnected system, linked by green corridors, while others have a disconnected system scattered throughout the neighborhoods of a community. Communities that are largely built out have new parks and open-space opportunities created primarily from redevelopment; communities with available land should concentrate on identifying and protecting park space in areas *before* development occurs.

Whatever the park system configuration, park and open-space plans are influenced by the following factors:

- Agency or departmental mandate and mission
- Parks and open-space definition
- Park classifications
- Parks standards
- Development and management policies

Agency or Departmental Mandate and Mission

The organization with authority over parks planning may need to meet the statutory requirements for the plan's contents. The mission should be reaffirmed at the beginning of the planning process and explicitly stated in the beginning of the plan document.

Definition of Parks and Open Space

Communities often have different definitions of what constitutes a park. The definition may list specific resources, such as plazas, greenways, and even cemeteries. Some communities may use a broader approach, defining open space as "any land that is free of residential, institutional, commercial, or industrial use"; and others may restrict the definition to include only conservation areas protected by law. Planners should define terms at the outset because they will influence demand and supply inventories.

Park Classifications

A park classification system is a way of creating order to and providing a common language for the park and open-space system. Park types are often arranged by service area, size, population served, and typical facilities. Park classifications may also address functions, such as serving recreation, social gathering, and green infrastructure functions.

Parks Standards

To quantify their demand for park space and facilities, in addition to a variety of public participation activities, many communities use a set of national park standards developed in the 1970s and 1980s by the National Recreation and Park Association (NRPA). However, in 1996, NRPA replaced those standards with a locally determined set of facility guidelines, following its publication, *Park, Recreation, Open Space and Greenway Guidelines*. Communities should complete a level-of-service (LOS) study to quantify the number of necessary recreational facilities to meet specific community needs as well as the minimum acreage to support those facilities. The LOS study and the standards that it produces are important tools in projecting the effect of residential growth on necessary facilities and space. This study is critical for both sound park planning and for addressing the rational nexus test in mandatory dedication and impact fee programs should there be legal challenge to those programs.

That said, LOS and assessment studies results reflect only the recreational facility function of the park spaces. They do not include other functions, such as resource conservation, cultural enrichment, or urban design. And though no LOS formula currently exists for those functions, it is important that a plan address them.

Policies

Both development and management policies can shape the park and open-space plan. For instance, if the department normally pursues nongovernmental organization partnerships for service delivery, the plan inventories and implementation strategies should reflect that.

PLAN COMPONENTS

The majority of parks and open-space plans include the following elements. Consult applicable statutes and agency mandates to determine required plan components.

Goals and Objectives

Typical expressions of parks and open space goals and objectives consider the following:

- *Quantity*: Targeting a total percentage of the jurisdiction's acreage to be set aside for parks, or protecting a total percentage of the land in any new development as open space
- *Proximity*: Locating a park within a certain number of blocks of every resident, or providing a facility within a specific driving time of every resident
- *Accessibility*: Assuring that parks are located to be physically accessible by foot, bicycle, or public transit, and visually accessible for the greater public
- *Distribution*: Arranging park locations to ensure balanced service across geographic areas
- *Equity*: Providing facilities and programs evenly across socioeconomic populations
- *Environmental protection*: Assuring the protection of specific natural resources
- *Coordination*: Combining park objectives with other functional or jurisdictional plans
- *Balance*: Offering a mix of places and activities throughout the system
- *Shaping*: Identifying ways that the open space will promote or contain growth
- *Sustainability*: Determining physical and financial methods to support the park and open-space system
- *Urban design*: Addressing the way the park or space relates to the structures around it
- *Connections*: Identifying places and ways to link parklands and associated resources

Legal Requirements

The plan should include a review of laws that might be applicable to the lands or facilities included in the plan. These typically include:

- federal, state, and local environmental protection regulations;
- federal, state, and local parkland preservation regulations;
- historic buildings and landscapes regulations; and
- the Americans with Disabilities Act (ADA) regulations

Supply Inventory

A park and open-space plan contains a set of inventories related to the park plan elements and functions. This includes a list of park sites, their size, the facilities and equipment at each site, the function each site serves, site photos, and an assessment of the condition of the site. In addition to sites typically considered part of the parks inventory, the following may be included:

- Endangered species habitats
- School sites with playgrounds
- Public and private golf courses
- Waterways and floodplains
- Vacant lots
- Trails
- Private recreational facilities (e.g., ice rinks, tennis clubs)
- Bike lanes on highways
- Historical sites
- Cemeteries
- Gravel mines
- Private campgrounds
- Scenic viewsheds
- Country clubs
- Boulevards

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- Parks in concurrent and adjacent jurisdictions (including county, state, and national)
- Industrial park open space

Demand Assessment

Most demand assessments are a combination of general data, such as demographic trends or physiographic resources, and specific community information gleaned from public participation mechanisms. The needs assessment for parks and open spaces can be initially organized by function:

- Recreation function
- Conservation function
- Community shaping function
- Additional functions, such as public health, economic development, and green infrastructure.

See Parks, Recreation, and Open-Space Needs Assessment elsewhere in this book for more detail.

Surpluses and Deficiencies Analysis

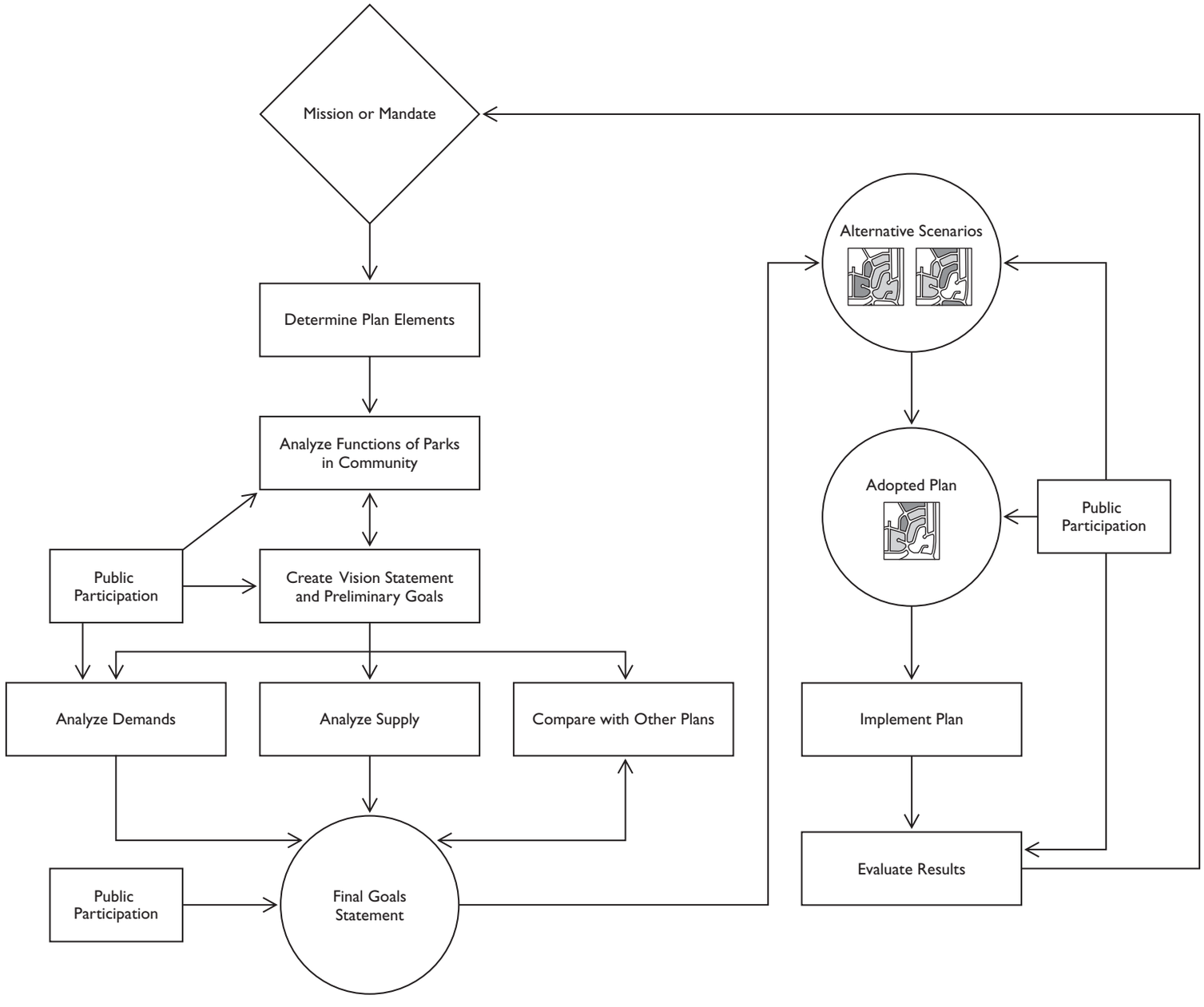
A comparison of the demand and supply data yields a surpluses and deficiencies analysis. The results may be expressed in terms of acreage, facilities, or other forms dictated by the various functions of the system.

The analysis should also consider how other plans affect the park and open-space plan goals Planners should consult the comprehensive plan, other functional plans, neighborhood plans, and those of partner stakeholders to determine those effects.

Alternatives and Draft Plan

After completion of the surpluses and deficiencies analysis, planners should generate a number of plan alternatives to correct the deficiencies identified by the analysis. The scenarios should address the creation of new park areas, the renovation of existing park areas, the linking together of parks, and the required connections to other plans to achieve park and open-space goals.

Following further review and revision, the adopted plan should include:



PARK PLANNING FLOWCHART

Source: Mary Eysenbach.

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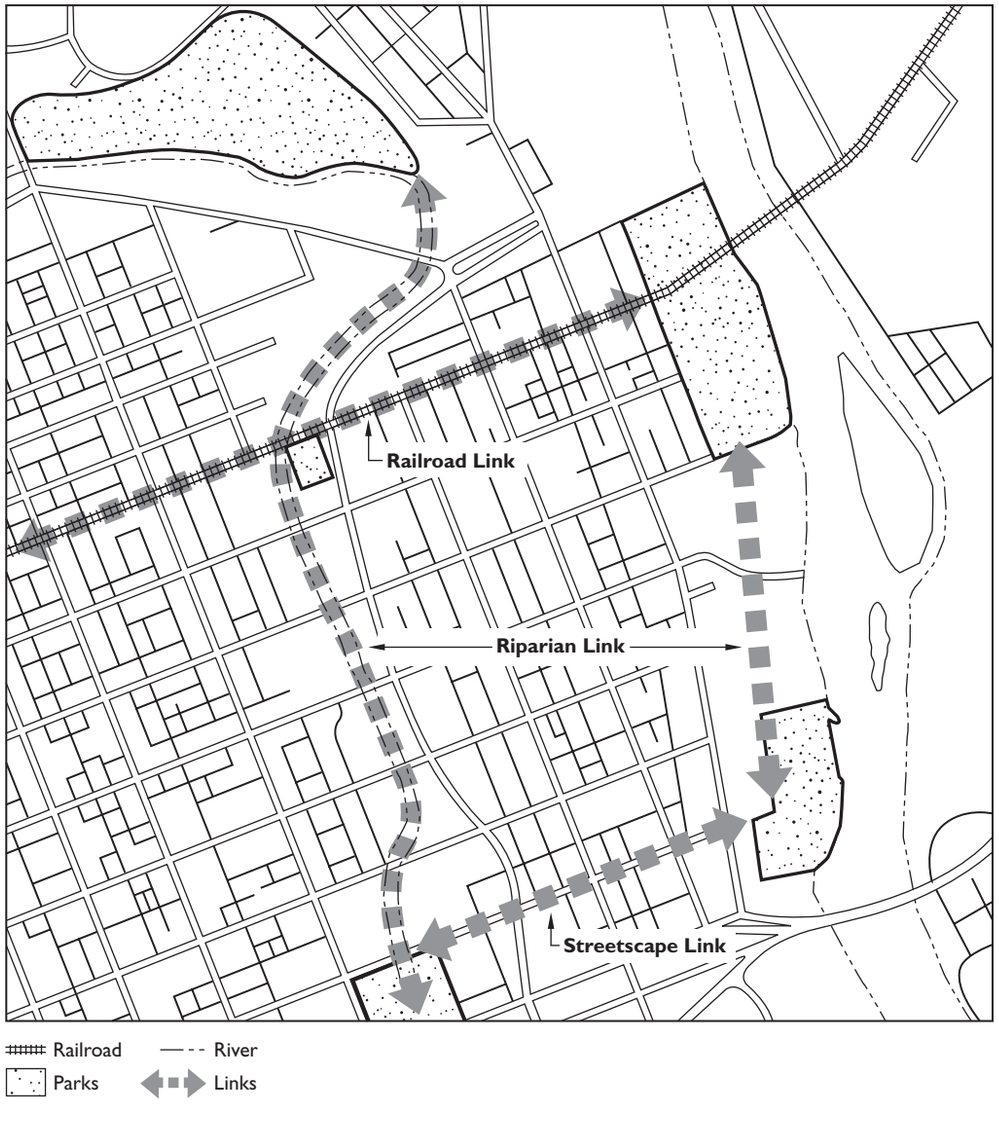
- a prioritized list of land protection areas (future parks, green infrastructure);
- a prioritized list of improvements for existing park areas;
- a rioritized list of opportunities for linkages;
- a list of site selection and acquisition criteria;
- the identification of opportunities for integration with other plans and processes; and
- a map summarizing these items.

IMPLEMENTATION

For each objective in the plan, a park and open-space plan should have an implementation strategy that takes the following actions.

1. Identify what will be accomplished.
2. Identify the party responsible for accomplishing the goal.
3. Identify any partners involved in implementation.
4. Establish timing or phasing for achieving the goal.
5. Set cost estimates and identify funding sources for the goal.
6. Prepare maintenance and operational impact statements for new land or facilities.
7. Define methods for evaluating success and set a schedule for conducting the evaluation.

The parks and recreation plan should be updated at a regular time interval, preferably every five years. Although that frequency may outpace the schedule for the comprehensive plan, the need for identifying and preserving parks and open space is an urgent business, especially in rapidly urbanizing areas.



Open-space connections can be created with a variety of linear corridors.

OPEN-SPACE CONNECTIONS

Source: Mary Eysenbach.

EMERGING ISSUES

Green Infrastructure

Green infrastructure is a green space network of natural ecosystem functions. Instead of investing in man-made "gray" infrastructure, some communities are using their existing system or creating new parks as way to manage stormwater, reduce the urban heat island effect, and create wildlife habitat.

Design Guidelines for Park Systems

Some jurisdictions are producing design guidelines for parks. The guidelines help create an aesthetic and natural resource management standard for park development while visually connecting the park with its surroundings. They may address:

- park siting;
- pedestrian, vehicular, and transit access;
- utilities;
- site furnishings such as fencing, seating, and playground equipment;
- landscaping;
- building materials;
- signage; and
- environmental sustainability.

Linkages

Much like the park and parkway systems designed in the late nineteenth and early twentieth centuries, there is growing recognition that a good parks system is one where individual park nodes are connected by linear green corridors. Linkages may be achieved through riparian buffers, street design, transit paths, utility rights-of-way, or any other linear corridor. See page C-15 of the color insert for an example.

Special Use Parks

A number of recent cultural and technological trends have created new demands on today's park systems. These can include dog parks, skateboard parks, off-road vehicle (ORV) parks, mountain bike trails, water trails, parks designed to meet the needs of an aging population, and wireless technology availability in parks. Planners should conduct specific research to determine the planning needs of these types of parks and park functions.

Partnerships

An increasing number of communities are working with other governmental agencies, nonprofit agencies, and even private providers to create interconnected parks systems within their communities.

REFERENCES

Gehl, Jan. 1987. *Life Between Buildings: Using Public Space*. New York: Van Nostrand Reinhold.

Mertes, James D., and James R. Hall. 1996. *Park, Recreation, Open Space and Greenway Guidelines*. Washington, DC: National Recreation and Park Association.

See also:

Green Infrastructure
Parks and Open-Space Plans
Parks, Recreation, and Open-Space Needs Assessment
Types of Parks

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CRITICAL AND SENSITIVE AREAS PLANS

Critical and sensitive areas are generally defined as lands or water bodies that provide protection to or habitat for natural resources, living and nonliving, or are themselves natural resources that require identification and protection from inappropriate or excessive development. In some communities, critical and sensitive areas may also include historic structures or archaeological features. These latter elements are often protected by state and federal regulations.

REASONS TO PREPARE A CRITICAL AND SENSITIVE AREAS PLAN

When acting to protect critical and sensitive areas, planners often have to make choices as to which resources should be protected and to what degree. These choices often include deeming some natural resources more or less "critical" and "sensitive" than others. The process of preparing a critical and sensitive areas plan or an element for a comprehensive plan provides a framework for identifying the resources, determining what will be protected, and identifying mechanisms for protecting them.

PLAN COMPONENTS

The components of critical and sensitive areas plans typically include the following:

- Descriptions of the identified critical and sensitive resource areas
- GIS maps of critical and sensitive resource areas, based on field surveys
- An analysis of the carrying capacity of the resources identified or, if not known, mechanisms for determining the carrying capacity of each resource
- A description of the public involvement used to determine which resources are critical and sensitive and the level of degradation deemed acceptable for each
- Policies to protect the resources
- Implementation strategies

APPROACHES TO THE PLAN

Whether you are preparing an element of a comprehensive plan or a separate plan, the same overall process applies, namely:

1. identify the resources;
2. evaluate their value;
3. determine their carrying capacity;
4. map the location of resources;
5. create policy to protect the resources; and
6. identify regulatory and nonregulatory tools to implement the plan and help ensure protection.

Identification of Resources

The first step in the analysis of critical and sensitive areas is the identification of these resources. APA's *Growing Smart℠ Legislative Guidebook* identifies the following as resources that should be considered:

- Aquifers
- Watersheds
- Wellhead protection areas
- Inland and coastal wetlands
- Other wildlife habitats, including animals, birds, fish, and plants, along with habitats for federal- and state-listed endangered and threatened species
- Hillsides and steep slopes
- Any other areas considered to be critical or sensitive areas, including built resources such as historic structures, and, where relevant, the open spaces that accompany these built resources

Federal, state, and local government agencies, nonprofit organizations, and the private sector preparing development applications for public review have also created sources that can be used to identify critical and sensitive areas.

For example, the U.S. Environmental Protection Agency (U.S. EPA) has mapped major aquifer systems throughout the nation. State agencies have mapped significant wildlife habitats and wellhead protection areas throughout their respective states. Local governments have often mapped wetlands, watersheds, and historic structures throughout their corporate boundaries. Developers seeking permits from federal, state, and local agencies often provide these agencies with details relating to critical and sensitive areas in pursuit of development permits.

Evaluation

After planners have identified these resources, they often evaluate the critical and sensitive areas according to the value they have to the community. There are three types of value:

- *Utility value*: How the resource is used by the community
- *Economic value*: How much dollar value the resource provides
- *Aesthetic value*: How the resource is valued for its qualitative importance, notwithstanding its economic value

For example, aquifers provide a utility value—drinking water for the community (if that is the drinking water source); an economic value—the price imposed by the water utility on water usage; and an aesthetic value—providing recharge to wetlands, surface water bodies, or coastal embayments (if a coastal community).

This placement of value on a resource, which may be difficult in some circumstances—how do you "value" a wildlife habitat?—nevertheless is an important step to undertake in determining what should be protected.

The protection of critical and sensitive areas has additional, obvious (albeit not always quantifiable) benefits. For instance, the regulations prohibiting construction within floodplains can benefit landowners by minimizing threats of flooding to real property; regulations limiting impervious coverage within watersheds can protect waters used for shellfishing; and regulations limiting the clear-cutting of forested lands can also protect abutting properties from erosion.

Carrying Capacity

Carrying capacity analysis determines the point at which a resource's function will be reduced to an unacceptable level. (A resource's carrying capacity is often also referred to as its "assimilative capacity.") Establishing the carrying capacity of a resource requires an objective analysis. The goal is to establish the point at which the resource ceases to function as nature "intended" or the point at which the resource be used as intended by the community (its utility value is undermined).

Carrying capacity analysis provides a factual basis for a community's comprehensive plan provisions that promote resource protection. In other words, through this analysis the community gives itself a rational and logical basis for the adoption of management controls designed to limit development to the assimilative capacity of a resource.

Federal and state environmental protection agencies (e.g., U.S. EPA and state counterparts), the U.S. Geologic Survey, state and local universities, and nongovernmental environmental organizations are all reliable sources of information for completing a carrying capacity analysis.

Thresholds

Identifying carrying capacity first requires establishing thresholds for the resource (e.g., a coastal water body's assimilative capacity for nitrogen) and, second, the carrying capacity of the specific resource (e.g., the carrying capacity of the specific water body in California or Maine).

General Resource Thresholds. The federal government regulates many critical resources, and local governments can use these regulations as a basis for determining the resources' carrying capacity. For example, the federal Clean Air Act establishes maximum pollutant levels for air quality; the Safe Drinking Water Act establishes maximum contaminant levels for drinking water quality; and the Clean Water Act establishes maximum contaminant levels for coastal water quality. Similar thresholds are defined in state law.

Specific Resource Thresholds. Federal and state carrying capacity thresholds define the point at which the carrying capacity of the air, land, or water resources is threatened. They do not establish *if* the particular air, land, or water resource in the community will reach or exceed its assimilative capacity. A specific calculation for the specific resource at issue needs to be determined.

For example, while the quality of coastal water bodies begin to decline as nitrogen inputs increase—a result of the acceleration of the natural aging process (eutrophication)—the carrying capacity of such a water body in California can vary greatly compared to a coastal water body in Maine. This variation is a result of differences in water and air temperature, flushing cycles, depth of water, extent of the respective watersheds, and the presence of other contaminants in the water.

Maps

Planners should identify critical and sensitive areas on maps. Map makers should prepare these maps as overlays so that all resource areas can be identified individually (e.g., separate maps for watersheds, well-

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SAMPLE CARRYING CAPACITY THRESHOLD ASSESSMENT

Nitrogen is a common water pollutant that can degrade water resources significantly. A carrying capacity threshold assessment can be used to determine the amount of nitrogen a water body can assimilate, thereby establishing a water quality standard. Data needed for this assessment include the surface area, volume, and flushing rate of the water body. A sample calculation follows:

$$L = \text{Critical loading rate (lbs/yr)} = (TN \times V \times f)/454{,}000 \text{ mg/lb}$$

where:

A = Area
d = Water depth (mean low water, or MLW)
r = Average tidal range
V = Bay volume at mean tide = $(A)(d+r/2)$
f = Flushing rate (time per year)
TN = Total nitrogen standard or threshold ($mg/m^3/R$).

The equation can also be rearranged to calculate what the loading will be under a given development scenario:

$$TN\ (mg/m^3/yr) = (L \times 454{,}000\ mg/lb)/(V \times f).$$

head protection areas, wetlands resources, and historic structures) and cumulatively (by overlaying the separate maps) as the aggregate critical and sensitive areas. Maps should be based on field surveys and prepared with a geographic information system (GIS). While there is no required scale for the maps, it is strongly recommended that the scale chosen be practical and useful. For example, a scale of 1 inch = 100 feet is far more useful than a scale of 1 inch = 2,000 feet, but will require a greater level of precision and cost more. See page C-16 of the color insert for an example.

Policies

The plan should contain a statement of the local government's goals, policies, and guidelines with respect to the protection of critical and sensitive areas. This portion of the plan may also include a map or maps showing the areas to be protected.

IMPLEMENTATION

Regulatory Tools

Zoning, subdivision controls, health regulations, and wetland regulations can all be used to protect critical and sensitive areas. Traditional regulatory tools include adopting overlay zoning districts for critical areas, requiring permits for uses that may negatively affect critical resource areas, adopting appropriate setbacks from resource areas, and employing related regulatory controls on private property. More innovative regulatory tools include transfer of development rights, impact fees, development agreements, and mandates that development not exceed defined carrying capacity thresholds set for critical and sensitive resource areas.

Nonregulatory Tools

Nonregulatory tools include fee and less-than-fee acquisition of critical and sensitive resource areas; public education programs, to inform the general public about the importance of the resources; and related programs, such as citizen monitoring of water and air resources and consistent attendance at local municipal board meetings to act as "watchdogs" and advocates for critical and sensitive resource areas. Nonregulatory tools have the advantage of avoiding the regulation of private property and the attendant potential negative political and legal consequences.

A community's capital improvement program provides an additional nonregulatory means to protect critical and sensitive resource areas. The outlay of local dollars to expand public water, sewer, and road access is a catalyst to new growth, and often conflicts with preserving these areas. Public improvements should not be built in critical and sensitive areas. The capital improvements plan and the comprehensive plan should both address such restrictions.

REFERENCES

Meck, Stuart ed. 2002. *Growing Smart℠ Legislative Guidebook: Model Statutes for Planning and Management of Change,* 2 vols. Chicago: American Planning Association.

See also:

Environmental Management

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HAZARD MITIGATION PLANS

Hazard mitigation plans serve to reduce or eliminate the long-term risk to human life and property from identified hazards. They can target existing development or seek to protect future development. Mitigation measures in the plan that can reduce impacts include structural measures (e.g, protecting buildings and infrastructure from the forces of wind and water), and nonstructural measures (e.g., development regulations and appropriate land-use policy). Local governments are most effective at implementing mitigation measures because they can make regulatory development decisions to achieve the plan's goals..

REASONS TO PREPARE A HAZARD MITIGATION PLAN

The Stafford Act

Federal legislation has provided funding for disaster relief, recovery, and hazard mitigation planning. In November 1988, the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act) was passed. This act provided a framework for continued disaster relief. It also legislated a minimum 75 percent federal and 25 percent state and local cost sharing for the public assistance program. It refocused assistance for nonnatural disasters, unless caused by fire, flood, or explosion, to a more limited scope, confirmed the importance of individual assistance, and emphasized mitigation as the way to limit future losses.

Congress amended the Stafford Act in October 1993 to expand the mitigation scope to include acquisition of properties in floodplains. An October 1994 amendment incorporated most of the former Civil Defense Act of 1950 into the Stafford Act. The amendment allows the Federal Emergency Management Agency (FEMA) to implement an all-hazards approach to preparedness, which includes man-made as well as natural hazards.

The Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 (DMA 2K) is the most recent legislation to improve this planning process. It reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. DMA 2K requires local governments to address natural hazards, such as tornadoes, flooding, wildfires, and severe thunderstorms. All-hazards mitigation plans, which also include man-made hazards, such as hazardous material spills, civil disturbances, terrorism, transportation, and nuclear power plant hazards, are encouraged but not presently required.

DMA 2K is intended to facilitate cooperation between state and local authorities. It encourages and rewards local and state predisaster planning and promotes sustainability as a strategy for disaster resistance. To implement DMA 2K, FEMA prepared an Interim Final Rule, published in the Federal Register on February 26, 2002, at 44 CFR Parts 201 and 206, which establishes planning and funding criteria for state and local governments.

APPROACHES TO THE PLAN

The development of a good hazard mitigation plan is based on three processes:

- A hazard vulnerability analysis
- Development of a strategy to mitigate disasters
- Integration with comprehensive plans and other plans

The Hazard Vulnerability Analysis

A hazard vulnerability analysis identifies all hazards that potentially threaten a jurisdiction and analyzes them in the context of that jurisdiction, to determine the degree of threat each poses. The vulnerability analysis consists of the following three steps:

1. Identify the hazards.
2. Profile the hazards and their potential consequences.
3. Weigh and compare the risks.

Identify Hazards

Planners need to determine the kinds of emergencies that have occurred or could occur in the jurisdiction. The Hazards section of this book provides a resource for examples of types of hazards.

Profile Hazards and Their Potential Consequences

Planners will need to compile historical and predictive information about each hazard. They should map this data and overlay it on community data, such as a current land-use map, to estimate the hazard's potential impact. Planners should seek to answer the following questions:

- What can occur
- How often it is likely to occur
- How bad it is likely to get
- How it is likely to affect the jurisdiction
- How vulnerable the jurisdiction is to the hazard

Weigh and Compare Risks

Risk is the predicted impact a hazard would have on people, services, and specific facilities. For example, in an earthquake, a specific bridge might be at risk. The predicted impact of an earthquake on that bridge could be collapse, leading to restricted access to a critical facility.

Planners need to determine the relative threat posed by the hazards, using qualitative or quantitative ratings. With this information, they can decide which hazards merit special attention in planning and other emergency management efforts. By conducting a survey of risk-related factors for each hazard in the jurisdiction, they can develop a composite picture of overall risk.

Risk-related factors include:

- geographic features;
- infrastructure lifelines;
- essential facilities;
- special facilities;
- hazardous materials storage facilities and/or transportation routes;
- property characteristics;
- population densities and shifts;
- availability of response resources; and
- potential hazards in neighboring jurisdictions (such as a dam break upstream).

Quantifying Risk. After compiling hazard and jurisdiction information, it is helpful to quantify the jurisdiction's risk, so the focus can be on the hazards that present the highest risk. Quantifying risk involves:

1. identifying the elements of the jurisdiction (populations, facilities, and equipment) that are potentially at risk from a specific hazard;
2. developing response priorities;
3. assigning severity ratings; and
4. compiling risk data into jurisdiction risk profiles.

No set standards exist for assigning severity ratings. These are typically determined on the local level based on current perceptions and past experiences. Ratings systems typically quantify risk as:

- high, medium, or low;
- often, sometimes, rarely, or never; or
- within a numerical range (e.g., 1 to 5).

The Mitigation Strategy

After characterizing the specific risk and determining more precisely how the harm to people, property, or function could occur, planners need to select the potential range of mitigation options. The community can identify a range of options and determine which are likely to be most effective in reducing or eliminating the risk. The effectiveness of a mitigation option can include the extent to which it eliminates or lessens the damages, the feasibility of its implementation, the impact of its implementation on other valuable resources, and the expense of putting it into effect, as well as operation and maintenance over time.

The local mitigation strategy is documented in one or more plans that identify:

- specific steps the community will be undertaking to lessen the impacts of disasters;
- when those steps will be taken;
- how they will be or could be funded;
- what priority they should have; and
- who will be responsible for each.

For most communities, the local mitigation strategy will cite which existing programs are important to hazard mitigation efforts. The process of developing a mitigation strategy is also likely to result in new mitigation initiatives. By developing this strategy, the planner establishes an ongoing process that makes hazard mitigation a routine part of the daily functioning of the entire community.

Integration with Other Plans

In the mitigation strategy development process, two plans are likely to be highly influential: the emergency operations plan and the comprehensive plan. Planners must consult each of these, as well as related plans, databases, and analyses, when drafting the mitigation strategy so that there is coordination with the provisions of those plans, data, and analyses.

The Emergency Operations Plan

In the past, the primary focus of emergency operations management has been on how to prepare for

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Potential Hazard Mitigation Measures	A	B	C	D	E	F	G	H	I	J
Acquisition/Relocation							●	●		
Adequate Maintenance									●	
Adequate Roads/Vehicular Access				●	●		●			
Adequate Water Supply				●■	●■					
Auxiliary Heat Source			■							
Auxiliary Power Source		■	■							
Available All-Terrain Vehicles		●								
Better Building Design, Engineering, Materials	●■	●■	■			■				
Better Facility Design, Engineering, Materials, Locations								■		
Better Container Design						■				
Breakwaters, Bulkheads, Revetments, Seawalls							■			
Brush Clearance				●■	●■					
Buffer Spaces Around Buildings		■	■	■	■	●				
Building Codes/Safety Codes	●	●	●	●	●	●	●	●		
Building Orientation			■							
Burn Permits				●	●					
Capital Improvements Planning							●	●		
Coastal Zone Management								●		
Comprehensive Planning/Zoning Ordinances				●	●	●	●	●	●	
Continuity of Government		●	●		●	●	●	●	●	●
Dams/Dikes/Levees							■			
Decentralized Fire Facilities				●	●					●
Deconcentration of Critical Facilities									■	■
Design Standards/Construction Standards									●	
Detention Ponds/Retention Basins							■			
Deed Restrictions/Disclosure							●	●		
Drainage Systems							■			
Elevation of Structures							■	■		
Emergency Broadcast Systems	●	●	●		●	●	●	●	●	
Emergency Communications	●	●	●		●	●	●	●	●	●
Emergency Operations Plans	●	●	●		●	●	●	●	●	●
Emergency Plans for Critical Facilities	●		●	●	●	●	●	●		●
Emergency Plans for "Hydraulic Shadow" of Dam									●	
Emergency Shelters	●		●		●	●	●	●	●	
Emergency Water				■	●					
Emergency Water, Sewer, and Power									●	
Evacuation Plans/Evacuation Routes					●	●	●	●	●	
Evacuation Plans for Elderly, Disabled, etc.			●		●	●	●	●	●	●
Exercise of Plans/Systems	●		●		●	●	●	●	●	
Fire Extinguishers/Smoke Detectors				■	■					
Fire-Resistant Landscaping				●	●					
Fire Sprinklers				■	■	■				
Floodproofing							■	■		
Foundations Closed/Masonry					■					

Potential Hazard Mitigation Measures	A	B	C	D	E	F	G	H	I	J
Greenbelts					●					
Groins									■	
Hazard Analyses/Hazard Information Systems	●	●	●	●	●	●	●	●	●	●
Hazardous Materials Container Tie-Downs						■				
Hazardous Materials Training/Enhanced Equipment						●				
Housing Density				●	●	●	●	●		
Increased Insulation/Increased Roof Pitch			■							
In-House Shelter	■	■								
Insurance/Disaster Insurance	●	●	●	●	●		●	●		●
Interconnected Network Design									■	
Litigation	●				●	●	●	●		
Manufactured Home Tie-downs	■	■								
Minimal Roof Overhang					■					
Minimal Storage of Flammable Liquids				●	●					
Monitoring	●				●	●	●	●	●	
Mutual Aid Agreements	●		●		●	●	●	●	●	●
Noncombustible Building Materials				■	■					
Proper Building Design				■						
Proper Egress				■	■					
Proper Signage for Hazardous Materials						■				
Public Education/Emergency Public Information Material	●	●	●	●	●	●	●	●	●	●
Public Health Regulations						●				
Public/Private Partnerships						●	●	●		
Rail Safety Improvements						■				
Reduced Use of Glass	■	■			■					
Research	●		●			●	●	●	●	
Risk and Vulnerability Mapping					●	●	●	●		
Roof Bracing	■	■								
Roof Sprinklers					■					
Route Restrictions						●				
Site/Community Warning Systems						■				
Staffing and Training of Response Personnel	●	●	●	●	●	●	●	●	●	●
Strengthened Electrical/Phone Infrastructure			■							
Subdivision Regulation				●	●	●	●	●		
Tax Incentives								●		
Transfer of Development Rights								●		
Underground Utility Lines	■	■	■						■	
Urban Forestry	●	●	●							
Use of Structural Connectors and Storm Shutters	■	■								
Vegetation								■	■	
Warning Systems	●								●	
Watershed Management								●		
Windbreaks		●	●							

A = Tornado B = Windstorm C = Winter Storm D = Structural Fire E = Forest Fire F = Hazardous Materials
G = Riverine Flooding H = Shoreline Flooding I = Dam Failure, Infrastructure Disaster J = Civil Disorder
■ = Structural
● = Nonstructural

POTENTIAL HAZARD MITIGATION MEASURES

Source: William Wagoner.

and respond to disasters, not on how to manage the hazards that can sometimes cause disasters. A shift in emphasis from disaster or emergency management to hazards management can help ensure that planning activities are broadened to address the hazards communities always face rather than just the disasters that sometimes strike them.

The community should also use the hazard vulnerability analyses document to establish the priorities for funding and implementing the mitigation strategy. The analyses will have indicated where the most severe disaster-related damages could occur, and how often. By ranking the risk on a relative scale, planners can objectively justify the community's priorities in implementing mitigation initiatives.

The Comprehensive Plan

The integration of hazard mitigation with the comprehensive plan can occur through the integration of mitigation strategies into each element of the comprehensive plan or as a separate element of the comprehensive plan.

There are many benefits to integrating hazard mitigation into the community's comprehensive plan:

- Enhances both the comprehensive plan and process and the local mitigation strategy.
- Reduces the community's vulnerability to disasters.
- Supports effective pre- and postdisaster decision making.
- Creates a new and effective planning tool.
- Speeds up the return of the impacted community to normalcy.

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- Provides a forum for analysis of potentially sensitive issues.
- Enhances credibility for hazard mitigation programs and projects.

An up-to-date hazard mitigation strategy and comprehensive plan will be very helpful in the immediate postdisaster period, particularly for soliciting state and federal mitigation funding and assistance. The availability of an up-to-date strategy can mean that during the chaotic times following a disaster, planners will not have to gather new information and data or conduct extensive new analyses.

IMPLEMENTATION

Many, if not most, mitigation initiatives require adequate funding for implementation. For larger projects, the community is very likely to pursue state and federal funding. Successful implementation hinges on securing funds when they are available. For some funding sources, the local government may need to make significant matching funds available. Other projects, especially construction, are likely to need a range of regulatory permits and approvals.

Some mitigation initiatives will be suitable for implementation before a disaster, including projects that can be fully funded locally or by the private sector. Mitigation initiatives, such as plan maintenance, continuation of the hazard and vulnerability analyses, promulgation of codes and ordinances, and adoption of local agency policies and procedures, can also be fully implemented prior to a disaster.

Other projects, particularly costly construction, will need to wait for the substantial state and federal funds that may become available after a disaster. The strategy should provide for implementation of both pre-and postdisaster mitigation measures.

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See also:

Federal Disaster Law
Hazards

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PARTICIPATION

ROLE OF PARTICIPATION

Community participation is the involvement of people in the creation and management of their built and natural environments. Its strength is that it cuts across traditional professional boundaries and cultures. The activity of community participation is based on the principle that the built and natural environments work better if citizens are active and involved in its creation and management instead of being treated as passive consumers (Sanoff 2000).

The main purposes of participation are:

- to involve citizens in planning and design decision-making processes and, as a result, make it more likely they will work within established systems when seeking solutions to problems;
- to provide citizens with a voice in planning and decision making in order to improve plans, decisions, service delivery, and overall quality of the environment; and
- to promote a sense of community by bringing together people who share common goals.

Participation should be active and directed; those who become involved should experience a sense of achievement. Traditional planning procedures should be reexamined to ensure that participation achieves more than simply affirmation of the designer's or planner's intentions.

CHARACTERISTICS OF PARTICIPATION

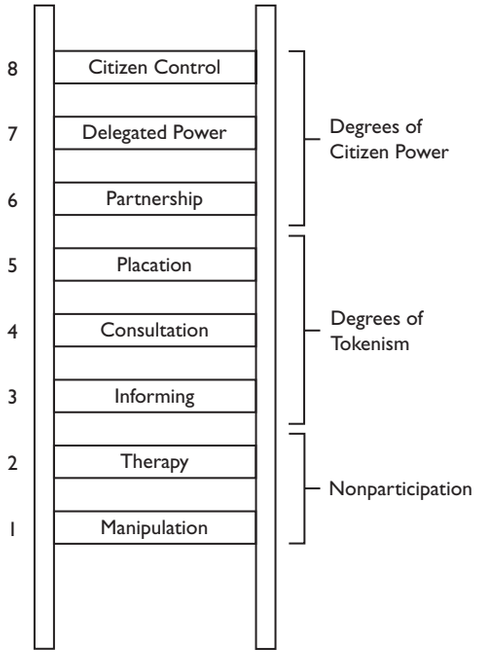
Although any given participation process does not automatically ensure success, it can be claimed that the process will minimize failure. Four essential characteristics of participation can be identified:

- Participation is inherently good.
- It is a source of wisdom and information about local conditions, needs, and attitudes, and thus improves the effectiveness of decision making.
- It is an inclusive and pluralistic approach by which fundamental human needs are fulfilled and user values reflected.
- It is a means of defending the interests of groups of people and of individuals, and a tool for satisfying their needs, which are often ignored and dominated by large organizations, institutions, and their bureaucracies.

Experiences in the participation process show that the main source of user satisfaction is not the degree to which a person's needs have been met, but the feeling of having influenced the decisions.

CATEGORIES OF PARTICIPATION

Participation can be classified into four categories, or "experiences," with the goal of achieving agreement about what the future should bring (Burns 1979):



The ladder of citizen participation presents a typology of eight levels of participation. Each rung of the ladder corresponds to the degree to which stakeholders had power in determining the outcome. The gradations represented go from nonparticipation to token participation to various degrees of citizen power. While the ladder was conceived in the context of federal programs of the late 1960s, planners and urban designers today still should strive to ensure that they are working near the top of the ladder in their public participation activities.

LADDER OF CITIZEN PARTICIPATION

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- *Awareness.* This experience involves discovering or rediscovering the realities of a given situation so that everyone who takes part in the process speaks the same language, which is based on their experiences in the field where change is proposed.
- *Perception.* This entails going from awareness of the situation to understanding it and its physical, social, cultural, and economic ramifications. It means sharing with each other so that the understanding, goals, and expectations of all participants become resources for planning and design.
- *Decision making.* This experience concentrates on working from awareness and perception to a plan for the situation under consideration. Here participants propose plans, based on their priorities, for professionals to use as resources to synthesize alternative and final plans.
- *Implementation.* Many community-based planning processes stop with awareness, perception, and decision making. This can have significant detrimental effects on a project because it ends people's responsibilities when the "how-to, where-to, when-to, and who-will-do-it" must be added to what people want and how it will look. People must stay involved throughout the processes and take responsibility with their professionals to see that there are results (Hurwitz 1975).

DETERMINATION OF GOALS AND OBJECTIVES

The planning that accompanies the design of any participation program should first include a determination of participation goals and objectives. Participation goals will differ from time to time and from issue to issue. In addition, participation is likely to be perceived differently depending on the type of issue, people involved, and political setting in which it takes place. If differences in expectations and perception are not identified at the outset, and realistic goals are not made clear, the expectations of those involved in the participation program will likely not be met, and people will become disenchanted.

Related to this, to address participation effectively, the task should conceptualize what the objective is for involving citizens. For example, is the participation intended to:

- generate ideas?;
- identify attitudes?;
- disseminate information?;
- resolve some identified conflict?;
- measure opinions?;
- review a proposal?; or
- provide a forum to express general feelings?

PLANNING FOR PARTICIPATION

Once planners have identified the overall goals and objectives for the participation process, planning for participation requires the following steps (Rosner 1978):

- Identify the individuals or groups that should be involved in the participation activity being planned.
- Decide where in the process the participants should be involved, from development to implementation to evaluation.
- Articulate the participation objectives in relation to all participants who will be involved.
- Identify and match alternative participation methods to objectives in terms of the resources available.
- Select an appropriate method to be used to achieve specific objectives.
- Implement chosen participation activities.
- Evaluate the implemented methods to see to what extent they achieved the desired goals and objectives.

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THEORY AND PRACTICE

The theories and practices of participation can be synthesized into the following five statements:

There is no "best" solution to design and planning problems.

Each problem can have a number of solutions, based traditionally on two sets of criteria:

- *Facts.* The empirical data concerning material strengths, economics, building codes, and so forth
- *Attitudes.* Interpretation of the facts, the state of the art in any particular area, traditional and customary approaches, and value judgments.

"Expert" decisions are not necessarily better than "lay" decisions.

Given the facts with which to make decisions, citizens can examine the available alternatives and choose among them. In a participation process, planners and designers should work along with citizens to identify possible alternatives, discuss consequences of various alternatives, and state opinions about the alternatives (not decide among them).

A planning task can be made transparent.

Professionals often consider alternatives that are frameworks in their minds. They should be presented for users to discuss. After understanding the components of planning decisions and exploring alternatives, citizens in effect can generate their own plan rather than react to one provided for them. The product is more likely to succeed because it is more responsive to the needs of the people who will use it.

All individuals and interest groups should come together in an open forum.

In this setting, people can openly express their opinions, make necessary compromises, and arrive at decisions acceptable to all concerned. By involving as many interests as possible, the product is strengthened by the wealth of input. In turn, learning more about itself strengthens the citizens' group.

The process is continuous and ever changing.

The product is not the end of the process. It must be managed, reevaluated, and adapted to changing needs. Those most directly involved with the product, the users, are best able to assume those tasks.

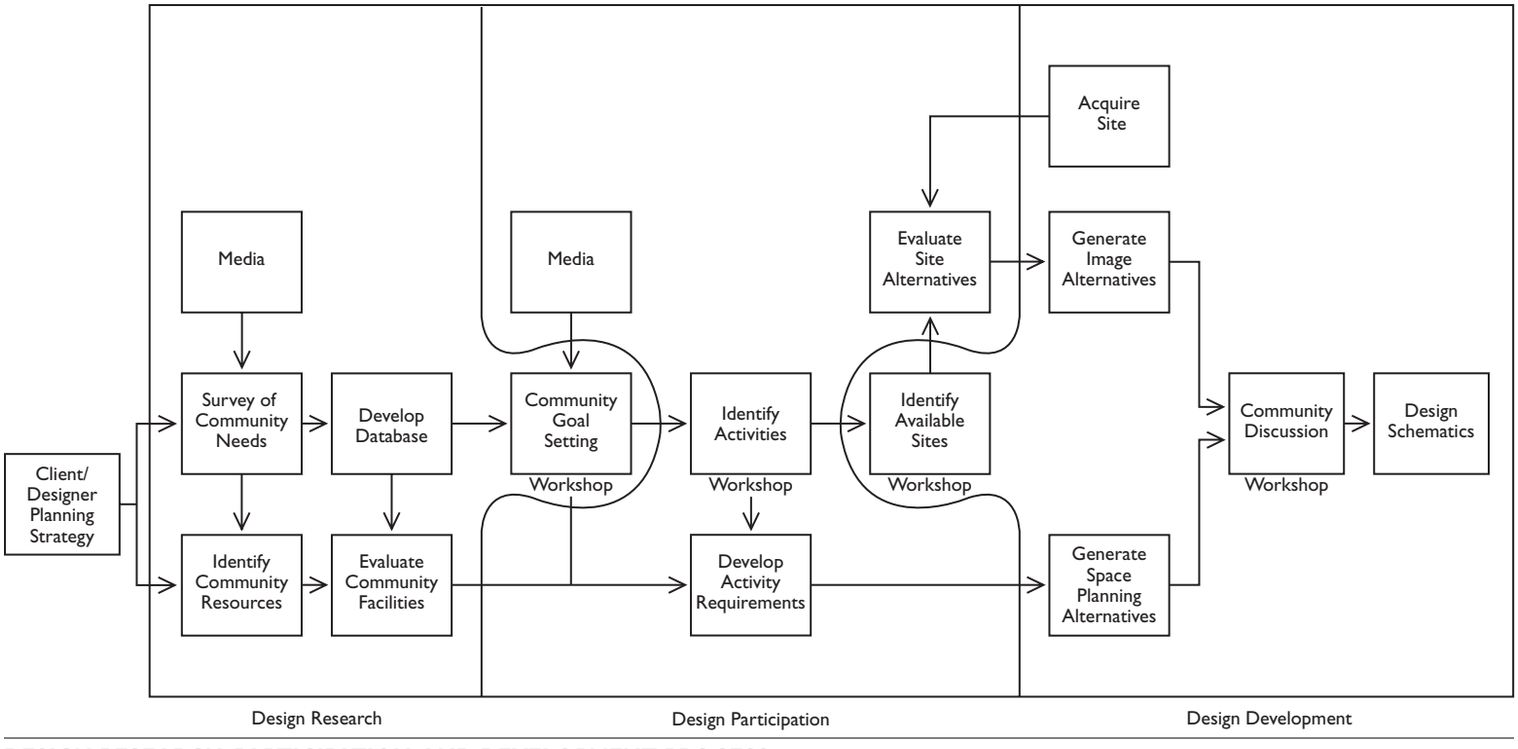
The professional's role is to facilitate the citizen group's ability to reach decisions through an easily understood process. Most often this will take the form of making people aware of alternatives. This role also includes helping people develop their resources in ways that will benefit themselves and others.

INDICATORS OF THE VALUE OF PARTICIPATION

A review of the public involvement literature, conducted by Lach and Hixson (1998), revealed that participants valued such issues as public acceptability, accessibility, good decision making, education and learning, time commitments, and trust. To identify value and cost indicators of public involvement, they conducted interviews with people who had been involved in participatory projects. Combining the literature review, interviews, and expert judgment, they identified these key indicators of the value of participation:

- Opening the process to stakeholders
- Diversity of viewpoints
- Meaningful participation
- Integrating stakeholder concerns
- Information exchange
- Saving time
- Saving and avoiding costs
- Enhanced project acceptability
- Mutual learning
- Mutual respect

Lach and Hixson also developed direct and indirect cost indicators of the public involvement effort. Certain costs can be linked to traditional accounting practice, such as preparation and participation time, facilities, materials, and services. Other indirect costs, such as participants' time commitment, lack of opportunity to participate in other projects, and heavy emotional demands on participation, cannot be easily measured. The intent of their research was to develop prototype indicators to be tested in ongoing and completed public involvement programs. Results from project participants indicated that the positive aspects of their involvement were twofold: (1) a diversity of viewpoints in the participation process



DESIGN RESEARCH, PARTICIPATION, AND DEVELOPMENT PROCESS

Source: Henry Sanoff.

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was valuable; (2) project savings occurred in the form of saving and of avoiding costs.

Informing a large audience about proposals, generating interest, or securing approval can take the form of a community meeting, also referred to as a public hearing or a public forum. Public meetings allow community leaders to present project information at any time during the process. The tight structure of such meetings does not, however, permit ample time for discussion. Although referred to as community participation, only the most aggressive personalities tend to participate and often dominate the discussion (Creighton 1994). Public reactions in open meetings are often taken by a vote through a show of hands. The key to making community design work effectively is to incorporate a range of techniques for enabling professionals and citizens to creatively collaborate, where voting is replaced by consensus decision making.

A wide range of techniques is available to designers and planners. Some of these techniques have become standard for use in participatory processes, such as interactive group decision-making techniques that take place in workshops. At the same time, designers and planners have effectively used field techniques, such as questionnaires, interviewing, focus groups, and group mapping, to acquire information. In general, many of the techniques facilitate citizens' awareness of environmental situations and help activate their creative thinking. The techniques can be classified as *awareness methods*, *group interaction methods*, and *indirect methods*.

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See also:
Plan Making

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STAKEHOLDER IDENTIFICATION

Stakeholder is a term commonly used in planning and public policy. A stakeholder is defined as someone with a "stake," or interest, in the issues being addressed. In practice, this means anyone could be a stakeholder because a resident, taxpayer, and concerned citizen could all have an interest. Because the distinction between the public and stakeholders can be confusing, it is important to consider why stakeholders should be involved, and how they should be selected. People who convene a collaborative planning effort—conveners—need to plan this step carefully.

CATEGORIES OF STAKEHOLDERS

Stakeholders can be broadly classified into four categories. First, there are people who are representative of a certain sector of society. This sector may be a broad category, such as farmers or homeowners, or it may be a specific category, such as "Orchard Street residents" and park users. These stakeholders usually speak for themselves. Conveners choose them because their views may be "typical" of other people in their sector or because they have personal knowledge. However, because these people cannot be asked to speak on behalf of people they do not formally represent, the involvement of this category of stakeholder is not a substitute for public involvement.

Second, there are individuals who represent organized interests, which can range from an informally organized neighborhood coalition to a formally organized nonprofit interest group. Such an individual is expected to represent the views of the organization. However, this requires the person to confer with others in his or her organization. This is often referred to as the "two-table" problem because the individual may have to negotiate at the stakeholder table and the decision-making table within his or her organization.

Third, there are those who represent government organizations, such as city departments and state agencies. They must also work with both the stakeholder process and their organization's process, but they tend to operate under more specific administrative rules and policies. Individuals higher in the organization may have more discretion, but they also tend to have more demands on their schedule.

LIST OF POTENTIAL STAKEHOLDERS

SECTORS OF SOCIETY

People living adjacent to a proposed activity
Neighborhood residents
Residents
Landowners
Renters
Minorities
Users (park users, boaters, etc.)
Neighborhood business owners

INTEREST GROUPS

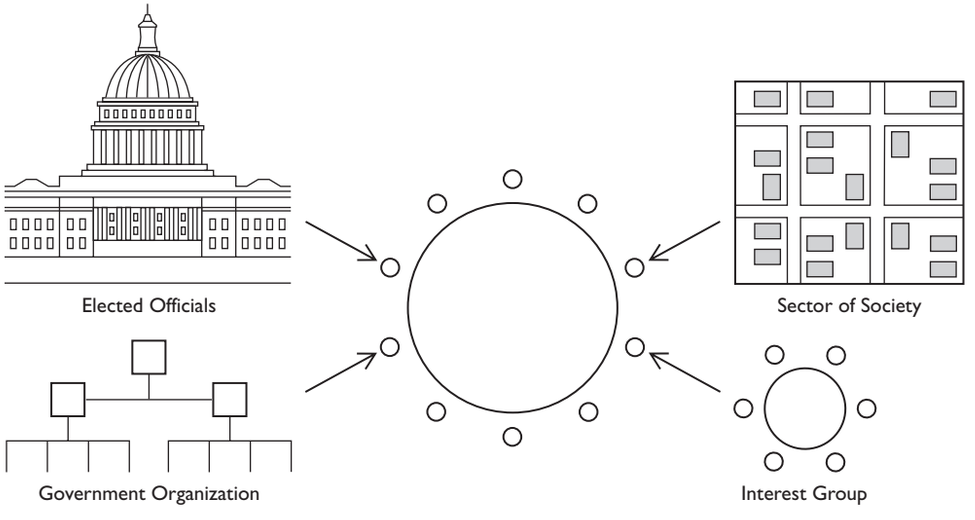
Chamber of commerce
Environmental groups
Racial or ethnic groups
Industry organizations
Religious organizations
Civic groups
Social groups (Kiwanis, Optimists)
Neighborhood associations

AGENCIES

Special districts (water, sewer, park, etc.)
School districts
Planning commission members
Local government (city manager, department head, staff)
Council of government
State agencies
Federal agencies

ELECTED OFFICIALS

City and county councilors
Mayors
School board members
State representatives and senators



TYPES OF STAKEHOLDERS

Source: Richard Margerum.

Finally, there are elected officials who are formally voted upon as representatives. Their elected position gives them a unique status because they are accountable to the public for their decisions. However, like staff in government organizations, they often have many demands on their time. Furthermore, members of local government councils and legislatures cannot speak for the entire legislative body.

REASONS FOR SELECTING STAKEHOLDERS

Before starting a stakeholder selection process, a convener needs to consider the reasons for selecting stakeholders, to determine the potential pool of participants.

Jurisdiction over an Issue

One common reason is to include people or organizations that have jurisdiction over an issue. This includes organizations with the power to make decisions as well as individuals with the power to veto decisions. For example, an open-space plan that involves city land, county parks, and state forests should include a representative from each jurisdiction.

Particular Information or Knowledge Base

Another reason for selecting a stakeholder is because he or she has information or knowledge that will lead to a comprehensive understanding of a problem or issue. A group composed of people with different training, different data, and different perspectives can develop a much more complete picture of an issue than if they each considered the issue individually. For example, information about watershed health may be spread among a range of different state agencies, local governments, and landowners.

Party to an Actual or Potential Conflict

A stakeholder process offers an informal and flexible forum for bringing participants together to try to resolve their differences. For example, a city proposal to annex land could involve county officials, landowners, and local residents in an effort to come to a mutually agreeable solution.

Connected to Community Networks

A fourth reason for choosing a stakeholder is because he or she is connected to community networks. Such people are important because of their informal networks of influence and the respect that they garner in the community. For example, an influential landowner who participates in an ecosystem management process could help convince other landowners to help protect critical habitat.

DETERMINING GROUP SIZE

Because a collaborative planning process may need stakeholders for many of the reasons listed above, the list of potential stakeholders could be lengthy. There are different views about the optimum size of a stakeholder group. Some facilitators argue that groups should not be larger than 10 to 12, but some multiparty collaboration processes have successfully involved 20 or 30 stakeholders.

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REASONS FOR STAKEHOLDER INVOLVEMENT

REASON	DESCRIPTION	EXAMPLES OF STAKEHOLDERS
Jurisdiction	An organization or individual has jurisdiction over an issue.	Local government State and federal agencies Private landowner
Information	An organization or individual has information and knowledge.	Technical experts People with first-hand knowledge Agencies with data
Conflict	An organization or individual is party to an actual or . potential conflict	People with legal standing Existing parties to a dispute Decision makers
Networks	An individual is connected in the community or has local influence.	People involved in community groups People in social groups and clubs Long-term residents

One way to reduce this number is to consider additional personal criteria in the selection process:

- Does the person work well in groups?
- Is the person interested in being involved?
- Does the person have the time to participate?
- Will the person help provide gender, racial, or ethnic balance?
- Does the person have additional skills that will help the group?

A process involving a large number of stakeholders may need to be broken into smaller groups. This increases the complexity of the process and increases the need for communication between groups, but it may be appropriate for large, complex, or controversial issues.

Some of the common categories include the following:

- Steering committee (to make the primary decisions)
- Technical advisory committee (to respond to technical questions)
- Citizens advisory committee (to provide broader public access)
- Geographic-based committees (to obtain input from different parts of a region)

Specific Selection Strategies

With these background issues in mind, a convener will have a better idea of the types of stakeholders to involve in a collaborative process. The next step is to determine the specific strategy for choosing a group of stakeholders. The perception of how the stakeholders are chosen can be just as important as who is chosen.

Collaborative processes that involve organizations add an additional level of complexity to the selection process. Some organizations want to appoint their own representatives, rather than have an external party choose one. In this case, the convener may simply designate a seat at the stakeholder table to a specific organization. This strategy may also be used to ensure that certain types of organizations are represented. For example, a group may have stakeholder slots designated for an environmental interest group, an industry organization, and a landowner.

Convener-Picked

There is no one correct way to select stakeholders, but different strategies are better suited for certain situations than others. One approach is for the convener to handpick the participants. This approach tends to work well if the convener is viewed as being neutral and if it is relatively clear who should be selected. It is an efficient strategy that also allows the convener to add other criteria for selection, such as group composition, group skills, and working relationships. That said, there will be some bias in this process because it will be defined by the knowledge of the convener.

STAKEHOLDER SELECTION STRATEGIES

STRATEGY	POSSIBLE ADVANTAGES	POSSIBLE DISADVANTAGES
Convener-picked	Compatible personalities Can meet expertise needs	Perception of bias Limited range of participants
Selection committee	Diverse committee can reduce bias Can choose for expertise and personalities	More time-consuming Requires additional participants
Self-nominating	Motivated participants Open process	Representation problems May only attract strongly opinionated
Snowball	Flexible Allows participants to expand with issues	Initial participants have more power Later participants may have concerns about earlier decisions

Selection Committee

Another approach is to use a selection committee to choose the stakeholders. This approach tends to work well if the issues are politically charged or involve conflict. Each step of the collaboration process will be scrutinized. Any concerns about bias in stakeholder selection could lead people to question the decisions of the group. As with the handpicked approach, a committee can also incorporate additional criteria into the selection process. The primary disadvantages to this process relate to the additional time, resources, and participants required.

Self-Nomination

A third approach is to form a committee through self-nomination. This approach works well when the composition of the committee is not critical and when it is important to involve motivated stakeholders. Self-nomination is often linked to a public participation process. People are mailed newsletters, surveyed, or invited to public meetings; those who are interested are invited to participate in a stakeholder group. There is less opportunity or potential perception for bias with this process; however, the resulting group may lack diversity, may not include key stakeholders, or may overrepresent certain interests or organizations.

Snowball

A final strategy for stakeholder selection is the "snowball" strategy. This is an important strategy for all stakeholder selection efforts, regardless of how it is initially established. The strategy involves asking those involved, Who is not at the table that should be? As the list of people expands, the new people are asked the same question, until a full set of participants is involved. This can improve the breadth of participants and ensure that stakeholder membership is adjusted as new issues arise. The disadvantage of this process is that stakeholders coming late to the process may have less ability to influence outcomes and therefore may be less inclined to support the effort. Furthermore, if not done carefully, it could lead to an ever-expanding list of stakeholders.

See also:
Plan Making
Types of Plans

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SURVEYS

Planners looking to make good decisions need solid, reliable information. The survey is a widely accepted tool for gathering information from the people involved in any planning action. Good-quality surveys are doable even for the novice. The basic concepts and steps needed to plan and execute a survey are introduced here.

The particular advantages of the survey are that it allows planners to obtain quantitative results, to anticipate and address many of the sources of error before the data are collected, and ultimately to generalize findings from a relatively small number of respondents (the sample) to a larger group (the population). With increasing emphasis on *representative* citizen participation, surveys offer a useful method both to reach a broad public and to gather input from people who typically are not consulted on planning issues.

REASONS TO USE A SURVEY

Consider a survey when the data needed are not available from secondary sources. The existing data may be outdated and no longer reflect current conditions or may describe a geography that does not coincide with your needs, such as state-level data that cannot be disaggregated into local units.

Surveys are conducted to find out the characteristics, behaviors, opinions, and knowledge of a particular population. Before embarking on a survey, clearly establish your objectives. Determine who is to be sampled and what you want to learn about the sample. Your questionnaire should flow directly from your information objectives.

TYPES OF SURVEYS

At the core of all surveys is either a questionnaire or an interview—these are the instruments for gathering information.

Questionnaires

Questionnaires are self-administered instruments. They generally enable respondents to complete the survey at their convenience and to proceed at their own pace. Respondents often have a greater sense of anonymity, which leads to greater honesty. Respondents can also verify their responses against other records and documents.

Interviews

Interviews involve human interaction, even though it is scripted to some degree. In an interview, respondents can ask for clarification, thereby reducing the potential for error. The interviewer can control the sequence of questions by following a skip pattern according to previous responses—a feature now possible with self-administered, computerized questionnaires. Depending on the study objectives, a skilled interviewer can also pursue certain subjects by using probes and follow-up questions. In a face-to-face situation, interviewers have the advantage of being able to observe nonverbal cues. To a lesser degree, even telephone interviewers can detect and respond to changes in the respondent's tone of voice and speech.

	Interviewer-Administered		Self-Administered	
	Face-to-Face	Telephone	Mail	Web-Based
Resource Constraints				
Inadequate Sampling Frame (e.g., Incomplete Mailing List or Directory)	++	++	--	--
Quick Turnaround to Complete Survey	--	++	--	++
Limited Skilled Staff	--	--	++	++
Limited Budget	--	+	++	++
Special Needs				
Multiple Languages	-	-	+	++
Maps or Other Visual Materials	++	--	++	++
Complex Instructions or Need to Follow Precise Order	++	++	--	+
Need to Probe, Explain Unclear Questions	++	++	--	--
Some Items Require Additional Research	-	--	++	++
Anonymity Needed for Sensitive Responses	--	++	+	++
Respondent Characteristics				
Large Sample Size	--	-	++	++
Geographically Dispersed	--	+	++	++
Survey Must Be Conducted at Specific Location	++	--	--	--
Target Population Is Difficult to Contact	++	-	-	--

The matrix compares four major survey methods under varying conditions of resource constraints, survey needs, and respondent characteristics.

SELECTING A SURVEY METHOD

MODES OF DISTRIBUTION

Surveys are further differentiated by their modes of distribution. They cover the entire range of communication technologies currently in use—face-to-face (both intercept/"street corner" interviews and in-depth interviews), posted mail, fax, telephone, email, and the Web—and combinations of these modes. The most appropriate survey method will depend on your resources, survey objectives, and characteristics of the sample. Increasingly, survey software is being used to gather data, reaching survey takers through email. The advantages of this approach include drawing upon an existing database of survey recipients and quickly creating reports, graphs, and tables from the data.

POPULATION SELECTION AND SIZE

Sampling

Sampling refers to a plan for randomly choosing a sample. Determining the correct sample size used to be one of the most daunting steps in survey preparation. Today this challenge is easily met by going online and typing "sample size calculator" or "random sample calculator" into a search engine. Several Web sites provide a utility that allows you to find out instantly how many people you need to survey. All require you to establish three parameters: population size, error level, and confidence level.

- *Population size* refers to the total number of people within the study area. For any given level of accuracy, the larger the population, the smaller the sample needed (percentage of people to be surveyed).
- *Error level* (or margin of error) is expressed as "plus or minus times percentage points" and refers to the difference between the estimated value (derived from the sample) and the true value (from the population).
- *Confidence level* is also expressed as a percentage and refers to the number of times similar results are expected if the study were replicated 100 times.

Error and confidence go hand in hand. Say a survey found that 59 percent of households in the city own one or more bicycles. If the survey were designed with an error level of ±3 percentage points and a 95 percent confidence level, it would mean that household bicycle ownership rates could actually range from 56 percent to 62 percent, and this finding would occur 95 out of 100 times if the survey were conducted over and over. If your survey does not have an acceptable level of confidence, it will be difficult to know what to make of the results.

In a city with a population of 50,000, the following sample sizes are needed:

Confidence Level	Margin of Error ± 3 %	Margin of Error ± 5 %
90 percent	745	271
95 percent	1,045	381
99 percent	1,778	655

Response Rate

Sample size refers to the number of completed surveys. Therefore, the actual number of surveys distributed must be adjusted to account for the response rate—a function of contact (reaching

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respondents at viable addresses or working phone numbers) and cooperation (getting people to complete the survey). The formula to calculate the total number of surveys that must be distributed is:

Sample ÷ response rate = total surveys to be distributed

Therefore, if one estimates a 20 percent response rate for a mail survey with a sample size of 381, one would need to send out 1,905 questionnaires. However, if there are indications that a higher estimate of a 40 percent response rate is warranted, one could reduce the mailing to 953 questionnaires.

Some of the common techniques to improve cooperation include:

- sending out prenotification letters, then following the questionnaire with reminder cards;
- developing persuasive introductory language;
- ensuring that the questionnaire is attractive and easy to complete; and
- training interviewers for more effective "first contact."

Response rates are an important and challenging component of surveys. That said, noncontact and noncooperation should not seriously affect data quality to the extent that they occur randomly (Langer 2003). Addressing sources of bias is still paramount.

ALTERNATIVE SAMPLING DESIGNS

In addition to simple random sampling, planners should be familiar with two alternative sampling designs: stratified sample and clustered sample.

Stratified Sample

In a stratified sample, the population is divided into subgroups (strata) before sampling. For example, if the survey is about a city's bike paths and it is known that households with school-aged children are more likely to own bicycles, one might select separate samples for households with school-aged children and those without. Each subgroup is a separate sample, and the respective sample sizes would reflect the subgroup's size relative to the overall population. Within subgroups, individuals are selected at random.

Clustered Sample

In a clustered sample, the population is divided into smaller geographic units (clusters), such as neighborhoods within a city or blocks within a district. The sample consists of a random selection of clusters and all individuals within those clusters are surveyed.

TIPS FOR SUCCESSFUL DATA COLLECTION

The survey is a way of creating an area-specific, customized database. Even a hurriedly put-together survey can fill a critical information gap. Designed properly, the survey can be a rigorous tool. The following tips can maximize your data-gathering efforts:

- Start with a brief, compelling introduction that clearly states the purpose of your study and its potential value to the respondent.
- Use plain language that is easy to understand; avoid jargon and acronyms.
- Organize questions in logical groups; provide transitions when shifting topics.
- Ask important questions first, profile questions last.
- Proofread to eliminate typographic and grammatical errors; make the layout crisp and legible.
- Include graphics (maps, plans, diagrams, renderings, and photos), as appropriate.
- Keep the survey short and simple.
- Pretest with a few people (ideally representing a cross section of the sample), then debrief and ask for candid feedback.

DESIGNING A QUESTIONNAIRE

Researchers have several options in designing a questionnaire, primarily in constructing and sequencing items. Two basic categories of questions are the closed- versus open-ended inquiries.

Close-Ended Questions

In close-ended questions, respondents are asked to select from a list provided by the researcher, with instructions either to select a single answer (one that "best fits") or multiple answers (all that apply). A variation of the closed-ended question is one that asks respondents to evaluate on a scale or rank in order of preference, such as one of the following:

- *Rating scale* is an ordinal measurement of degree, which asks respondents to indicate a position between opposite word pairs (e.g., noisy-quiet or frequently-never, etc.).
- *Likert scale* asks respondents to indicate the extent to which they agree with a statement (e.g., strongly agree, agree, disagree, strongly disagree, don't know).
- *Numerical scale* asks respondents to correlate their position to a numerical rating (e.g., satisfaction level rated on a scale of 1 to 5, with 1 being least satisfied and 5 being most satisfied).

In close-ended questions, the choices do not have to be words. Many planning-oriented issues are amenable to choices presented in drawings, plans, and photos. Another possibility is to ask respondents to indicate their preferences by allocating a "theoretical budget"—$1 and $100 are easiest to work with.

Open-Ended Questions

Open-ended questions give respondents an opportunity for self-expression and spontaneity that can lead researchers to new insights. Their disadvantage is that they can be difficult to summarize without postcoding. A compromise is to offer a list of what are expected to be the most popular choices, based on prior knowledge of the subject, then include an "Other" category that allows respondents to provide answers outside the predetermined categories.

The importance of sequencing questionnaire items in a clear, logical order should not be overlooked. Respondents are more likely to find an instrument credible if it is readily apparent that questions are relevant to the overall purpose of the study and are connected in a way that makes sense. The most basic patterns are the *funnel sequence*, which begins with the most general question and works down to detailed points, and the *inverted funnel sequence*, which begins with specific questions and then moves to more general issues. Transitional questions, brief explanations, or headings can be inserted to signal a change of topic or to show how the new topic relates to what had been asked previously.

ADDITIONAL CONSIDERATIONS

Despite the tremendous usefulness of surveys for researchers, they are not met with the same level of enthusiasm among the survey-taking public. Many factors have contributed to the survey's diminished reputation; however, it is possible to avoid further tarnish by observing a few common-sense practices. Foremost, respect the privacy of respondents. Do not release names and addresses of respondents. Codes are typically assigned to questionnaires, in which case, secure the name-to-code assignments. Results can be reported confidentially by tabulating data so that individual responses cannot be singled out. And, whenever possible, provide respondents with a copy of your findings—prompt feedback will demonstrate how the study has contributed to a better understanding of important community issues.

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See also:

Analysis Techniques
Plan Making

Nancy I. Nishikawa, AICP

ASSET MAPPING

Asset mapping is the process of identifying, through a community capacity inventory, the individual, organizational, and institutional capacity and gifts of a particular community. This technique is derived from an asset-based approach to community development. Asset mapping rejects the dominant deficiency-oriented model, focusing instead on the capacities of neighborhoods.

There are two reasons for this capacity-oriented emphasis. First, evidence indicates that significant community development takes place only when local community people are committed to investing themselves and their resources in the effort. Second, it is unlikely that significant help will arrive from outside the community; therefore, development must start from within the community.

THE NEIGHBORHOOD NEEDS MAP

Low-income communities too often are characterized by their deficiencies and needs. These needs are often identified, quantified, and mapped by conducting needs surveys. The result is a map of the neighborhood's problems, such as illiteracy, teenage pregnancy, criminal activity, and drug use. This is a powerful map and offers one way to think about low-income neighborhoods. It may be true that such a neighborhood map is accurate, but it is also true that it tells only half the truth. Communities have never been built upon their deficiencies. Building community has always depended on mobilizing the capacities and assets of a people and a place. Many low-income neighborhoods also have considerable assets to build upon, including proximity and access to the central business district and cultural facilities and, in some cases, substantial historic structures and open-space resources.

MAPPING BUILDING BLOCKS

The process of identifying capacities and assets, both individual and organizational, is the first step on the path toward community regeneration. In developing an asset map, it is useful to recognize that not all community assets are equally available for community-building purposes—some are more accessible than others. The asset map uses three types of building blocks to develop the most comprehensive view of a neighborhood's assets: primary, secondary, and potential.

Primary

Primary building blocks are the most easily accessible assets because they are located in the neighborhood and controlled by those who live there. Examples include individual capacities, citizen associations, and religious organizations.

Secondary

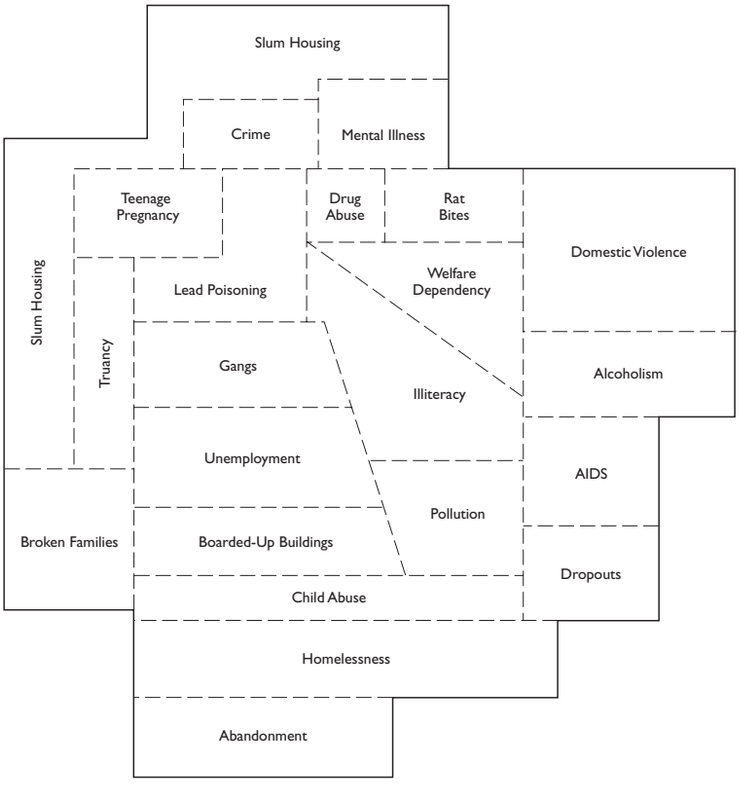
Secondary building blocks are the next most accessible assets because they are located in the neighborhood but are controlled elsewhere. Parks, schools, and social service agencies are examples of secondary building blocks.

Potential

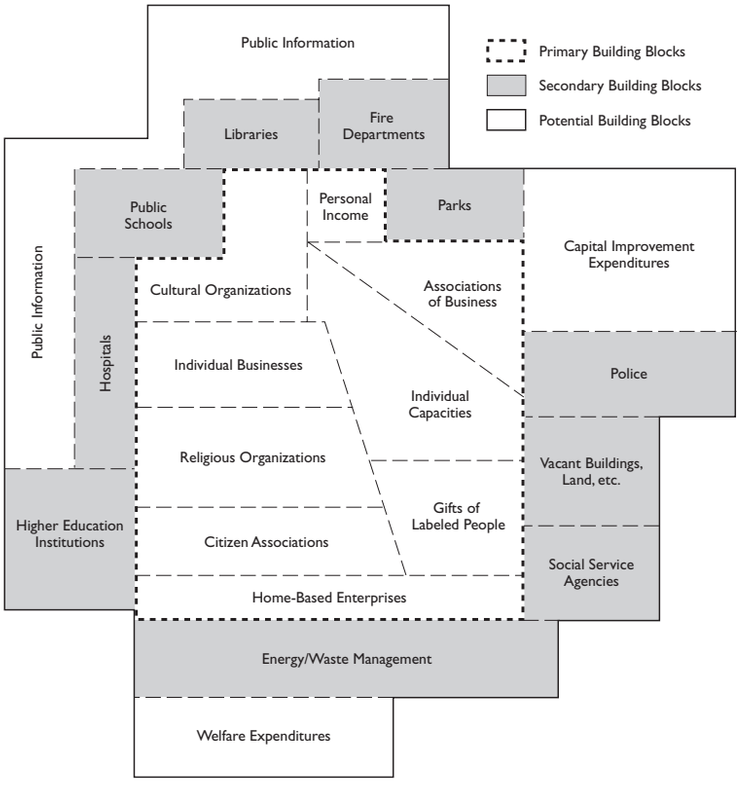
Finally, the least accessible assets are those located outside of the neighborhood and controlled by those outside of the neighborhood. This type of asset, called a potential building block, includes public expenditures.

USING THE ASSET MAP

Most of the assets identified on the sample asset map already exist in many low-income neighborhoods. They are waiting to be inventoried and turned toward the goal of rebuilding communities. One critical element of the regeneration process involves multiplying the connections among all of the identified assets. Different communities will approach the entire



THE NEIGHBORHOOD NEEDS MAP
Source: John McKnight and John Kretzmann, 1996.



THE NEIGHBORHOOD ASSETS MAP
Source: John McKnight and John Kretzmann, 1996.

John P. Kretzmann, Ph.D,. and John L. McKnight, Asset-Based Community Development Institute, Northwestern University, Evanston, Illinois

rebuilding challenge with different strategies. Leaders in every community, however, will need to consider at least three questions central to the rebuilding task:

- Which organizations can act most effectively to lead the community-building process?
- What kinds of communitywide research, planning, and decision-making processes can most democratically and effectively advance this rebuilding process?
- How might we build useful bridges to resources located outside the community?

Organizations

Two kinds of existing community associations are particularly well suited to lead community building: the multi-issue community organization and the community development organization. In some communities, neither of these organizations may exist, so a new asset development organization must be created.

Research, Planning, and Decision-Making Processes

Capacity-oriented community planning will no doubt take many different forms, but all them will have at least these characteristics in common:

- The process will aim to involve as many representatives of internally located and controlled assets as possible in the discussion and decisions.
- The process will incorporate some version of a community capacity inventory in its initial stages.
- The process will develop community-building strategies that take full advantage of the interests and strengths of the participants, and will aim toward building the power to define and control the future of the neighborhood.

Bridges to Resources

The key to neighborhood regeneration is to build upon those resources the community already controls and to harness those not yet available for local development purposes.

Every neighborhood has a map of riches, assets, and capacities. It is important to note that the asset map is of the same territory as the neighborhood needs map. Once the asset map has replaced the needs map, the regenerating community can begin to assemble its assets and capacities into new combinations, new structures of opportunity, new sources of income and control, and new possibilities for production.

See also:
Mapping
Neighborhoods
Neighborhood Plans

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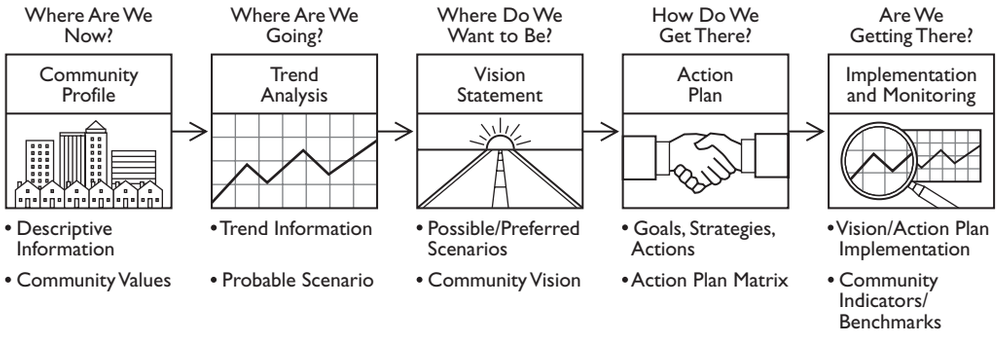
COMMUNITY VISIONING

Community visioning offers local communities new ways to think about and plan for the long-term future. The visioning process was inspired in part by the concept of "anticipatory democracy," an approach to governance that blends futures research, grassroots public participation, and long-range strategic planning.

Visioning has caught on quickly around the country in communities undergoing rapid growth and development as well as those experiencing economic decline. As an adjunct to traditional community planning, visioning promotes greater awareness of societal change and deepened citizen involvement. It also gives communities a stronger sense of control over their destinies.



THE NEW OREGON MODEL

Source: Steven Ames Planning.

WHAT IS VISIONING?

In the simplest terms, visioning is a planning process through which a community creates a shared vision for its future and begins to make it a reality. Such a vision provides an overlay for other community plans, policies, and decisions, as well as a guide to actions in the wider community. While a significant number of communities employing a wide range of approaches and techniques have undertaken community visioning, the most successful efforts seem to share these five key characteristics:

- *Understanding the whole community.* The visioning process promotes an understanding of the whole community and the full range of issues shaping its future. It also attempts to engage the participation of the entire community and its key stakeholder groups.
- *Reflecting core community values.* The visioning process seeks to identify the community's core values—those deeply held community beliefs and ideals shared by its members. Such values inform the idealistic nature of the community's vision.
- *Addressing emerging trends and issues.* The visioning process explores the emerging trends driving the community's future and the strategic issues they portend. Addressing such trends promotes greater foresight, adding rigor and realism to the community's vision.
- *Envisioning a preferred future.* The visioning process produces a statement articulating the community's preferred future. The vision statement represents the community's desired "destination"—a shared image of where it would like to be in the long-term future.
- *Promoting local action.* The visioning process also produces a strategic action plan. The action plan serves as the community's "road map": to move it in the direction of its vision in the near-term future.

BENEFITS OF VISIONING

For communities that successfully engage in visioning, the process offers clear benefits. Visioning:

- brings community members together in a uniquely different context to consider their common future;
- encourages the community to explore new ideas and possibilities;
- creates a shared sense of direction and a framework for future community decisions; and
- produces a process that results in concrete goals and strategies for action

Additionally, there can be second-order benefits that may not be immediately apparent in undertaking the process, such as:

- enriching public involvement by expanding the terms and scope of civic engagement;
- fostering new leadership in citizens who have not been previously active in public life;
- promoting active partnerships among government, business, civic, and nonprofit organizations; and
- strengthening community cohesion and "social capital."

In other words, engaging in the *process* of visioning can be as rewarding as its *products*.

Finally, there can be significant visioning benefits for the function of planning itself. For example, strong consensus on community goals can provide an informed and supportive context for the development of other plans and policies. This, in turn, can facilitate and even streamline public involvement.

At the same time, visioning can place new demands on planning. It stretches the traditional role of planners, calling upon new skills and competencies. It demands increased levels of dialogue and trust with the public. Ultimately, to the degree that visioning extends beyond the traditional domain of planning, it requires more effective cross-sector communication and collaboration.

THE OREGON MODEL

Oregon was one of the first places in the United States to experience the proliferation of community-based visioning. In a state widely recognized for its land-use planning and growth management policies, visioning was seen as an overlay for local land-use plans and a tool to help communities manage change.

Based on Oregon's early community visioning successes and similar state-level efforts, the Oregon Model represents a comprehensive approach to visioning that has since gained widespread acceptance around the country. The model is framed by four simple questions, which collectively form the basis of the visioning process:

1. Where are we now?
2. Where are we going?
3. Where do we want to be?
4. How do we get there?

Answering each question implies a discrete step in the process, with different activities, outcomes, and products. Step one involves profiling the present community's current conditions and core values. Step two involves analyzing emerging trends and their probable impact on the community's future. Step three is geared to the creation of a vision, and step four involves developing an action plan.

Some communities have added a fifth step promoting action plan implementation:

5. Are we getting there?

This addition to the Oregon Model responds to criticism that the visioning process does not always produce real results. The fifth step may also incorporate the development of indicators or benchmarks to monitor and measure the community's success in achieving its vision over time.

Visioning is designed to be iterative and ongoing. Benchmarking provides an important feedback loop for the eventual update of the community's vision and action plan. The action plan, having a much shorter planning horizon than its companion vision, requires more frequent updates.

Applying the Model

The Oregon Model is a flexible approach that can be adapted to a wide variety of settings and can be scaled up or down depending on the nature of the community, its needs, and its resources. The key to its success is to shape the process to fit the place.

Establishing a vision framework—timeframe, overall focus, and specific focus areas—provides a strategic starting point. Most communities set their vision timeframe at 20 to 25 years into the future. They also adopt a broad overall focus, encompassing the full spectrum of community concerns. Focus areas may range beyond traditional planning to

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encompass such topics as education, arts and culture, health, and public safety. Building on this framework, the design of every visioning process will vary widely.

As a relatively new approach to planning, community visioning can have a steep learning curve; it may employ nontraditional planning techniques such as "environmental scanning" or alternative scenarios. Managing diverse stakeholder groups or alleviating public skepticism regarding the process can prove daunting. Midprocess course corrections are necessary.

Fortunately, none of these challenges are insurmountable. Moreover, the ability of visioning to provide strategic input for such perennial planning concerns as growth management, urban design, transportation, housing, community development, and sustainability justifies the up-front investment. Indeed, planners often use the outcomes of visioning to frame and legitimize other major planning initiatives.

Involving the Public in Visioning

True to visioning's roots in anticipatory democracy, public involvement is a critical element of the visioning process. Engaging the public is essential in creating a shared community vision and action plan, as well as in promoting their eventual achievement. This implies an inclusive, participatory process capable of forging broad public consensus on key community goals.

To some planners, such a dialogue may seem increasingly difficult in today's society, given the numerous urgent issues on the public agenda, shrinking local government budgets, the busy lives of citizens, and the ever-present distractions of the media and pop culture. For these reasons, public outreach and strong "branding" of the visioning process are absolutely critical to successful public involvement.

Fortunately, for many people, there remains a fundamental appeal in talking about the future of their community. The reason is probably the abiding importance of "place." People relate to and care about where they live; it's one of the fundamental ways through which we continue to connect as human beings.

There is also an array of tools and techniques to stimulate and facilitate the visioning dialogue. These include participatory techniques, such as public workshops and open houses, as well as more representative techniques, such as citizen task forces, scientific surveys, and focus groups. The former help ensure broad public input, allow for open dialogue, and promote public awareness; the latter help capture diverse viewpoints, promote in-depth discussions, and facilitate the development of specific visioning products.

Additionally, computer-mediated communications are increasingly integral to the visioning process. While "electronic town meetings" have yet to realize their original promise, other tools have stepped in to fill the gap. Visioning today would be inconceivable without the Internet, search engines, and community Web sites, with their respective capacities for disseminating and gathering information. Graphical computer simulations have also increased our ability to actually *see* aspects of preferred—or not-so-preferred—futures.

Undoubtedly, evolving forms of electronic communication will continue to add new dimensions to community visioning, just as the process itself continues to evolve as an integral part of community planning.

SUCCESSFUL COMMUNITY VISIONING

Visioning works when:

- The community is concerned about its future and is eager for dialogue.
- The process is well designed, managed, and adequately resourced.
- Key community institutions and opinion leaders are involved in the process.
- Elected officials and city managers are supportive of the process.
- The public is authentically engaged in the process.

Visioning doesn't work when:

- The community is too polarized to engage in a civil dialogue.
- The process is poorly designed or managed or inadequately resourced.
- Key community institutions or opinion leaders are not involved in the process.
- Elected officials or city managers are unsupportive of the process.
- There is no follow-through in implementing the vision and action plan.

See also:

Places and Place Making
Public Meetings
Surveys
Visualization

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CHARRETTES

A charrette involves a multidisciplinary team of professionals developing all elements of a plan. The team works closely with stakeholders through a series of feedback loops, during which alternative concepts are developed, reviewed by stakeholders, and revised accordingly. The charrette is a sophisticated process that best serves controversial and complicated urban design and planning problems. Its capacity to bring all the decision makers together for a discrete amount of time to create a solution makes it one of the most powerful techniques in a planner's toolkit.

Charrettes are not a substitute for a standard planning process, which is executed over several months. They are conducted to address specific problematic situations and should complement the overall planning process. The charrette process works best for situations such as:

- high-stakes projects;
- volatile yet workable political environments;
- complex design problems; and
- projects that include imminent development.

The combination of the sophistication of the process with the complexity of the situations in which it is most often used means charrette practitioners *must* be well trained.

DYNAMIC PLANNING

A charrette is the central event of a larger process that the National Charrette Institute calls *Dynamic Planning*, a multiday, collaborative planning and design effort with the goal of arriving at a comprehensive, feasible plan.

Dynamic Planning has three governing values:

- Anyone affected by the project has the right to provide input with potential impact on the outcome.
- Each participant has a unique contribution that is heard and respected.
- Many hands make the best plans.

BENEFITS OF THE CHARRETTE PROCESS

The benefits of the charrette process are numerous. When done correctly, the charrette promotes trust between citizens and government through meaningful public involvement and education. It fosters a shared community vision by turning opposition into support. It continuously strives for the creation of a feasible plan, which increases the likelihood of the project getting built by gaining broad support from citizens, professionals, and staff. Identifying the stakeholders early and often, and encouraging public participation creates a better plan through diverse input and involvement. Finally, the charrette makes economic sense. Because all parties are collaborating from the start, no voice is overlooked, which allows the project to avoid costly rework. Also, the charrette allows for fewer and more highly productive work sessions, making it less time-consuming than traditional processes.

THE NINE STRATEGIES OF THE CHARRETTE PROCESS

The term "charrette" is overused and often misused. Although "charrette" refers specifically to a holistic plan to bring transformative change to a neighborhood, some use the word to refer to an afternoon meeting or a marathon planning workshop. The following nine strategies are what differentiate a charrette from other planning processes.

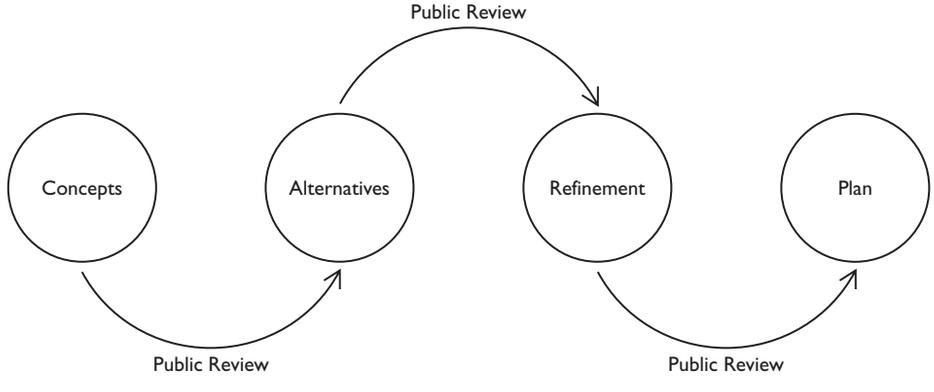
1. *Work collaboratively.* All interested parties must be involved from the beginning. Having contributed to the planning, participants are in a position both to understand and to support a project's rationale.
2. *Design cross-functionally.* A multidisciplinary team method results in decisions that are realistic every step of the way. The cross-functional process eliminates the need for rework because the design work continually reflects the wisdom of each specialty.
3. *Compress work sessions.* The charrette itself, usually lasting two to seven days, is a series of meetings and design sessions that would traditionally take months to complete. This time compression facilitates creative problem solving by accelerating decision making and reducing unconstructive negotiation tactics. It also encourages people to abandon their usual working patterns and "think outside of the box."
4. *Communicate in short feedback loops.* During the charrette, design ideas are created based upon a public vision and presented within hours for further review, critique, and refinement. Regular stakeholder input and reviews quickly build trust in the process and foster true understanding and support of the product.
5. *Study the details and the whole.* Lasting agreement is based on a fully informed dialogue, which can be accomplished only by looking at the details and the big picture concurrently. Studies at these two scales also inform each other and reduce the likelihood that a fatal flaw will be overlooked in the plan.
6. *Produce a feasible plan.* The charrette differs from other workshops in its expressed goal to create a feasible plan. In other words, every decision point must be fully informed, especially by the legal, financial, and engineering disciplines.
7. *Use design to achieve a shared vision and create holistic solutions.* Design is a powerful tool for establishing a shared vision. Drawings illustrate the complexity of the problem and can be used to resolve conflict by proposing previously unexplored solutions that represent win-win outcomes.
8. *Include a multiday charrette.* Most charrettes require between two and seven days, allowing for three feedback loops. The more difficult the problem is, the longer the charrette should be.
9. *Hold the charrette on site.* Working on site fosters the design team's understanding of local values and traditions, and provides the necessary easy access to stakeholders and information. Therefore, the studio should be located in a place where it is easily accessible to all stakeholders and where the designers have quick access to the project site.

THE THREE PHASES OF DYNAMIC PLANNING

As discussed above, the charrette is the central element of a larger comprehensive process called Dynamic Planning. There are three phases in Dynamic Planning: *research, education, and charrette preparation; the charrette; and plan implementation.* The most common cause of project failure is not a poorly run charrette; rather, it is usually due to incomplete preparation and/or inadequate follow-through during the implementation phase.

Research, Education, and Charrette Preparation

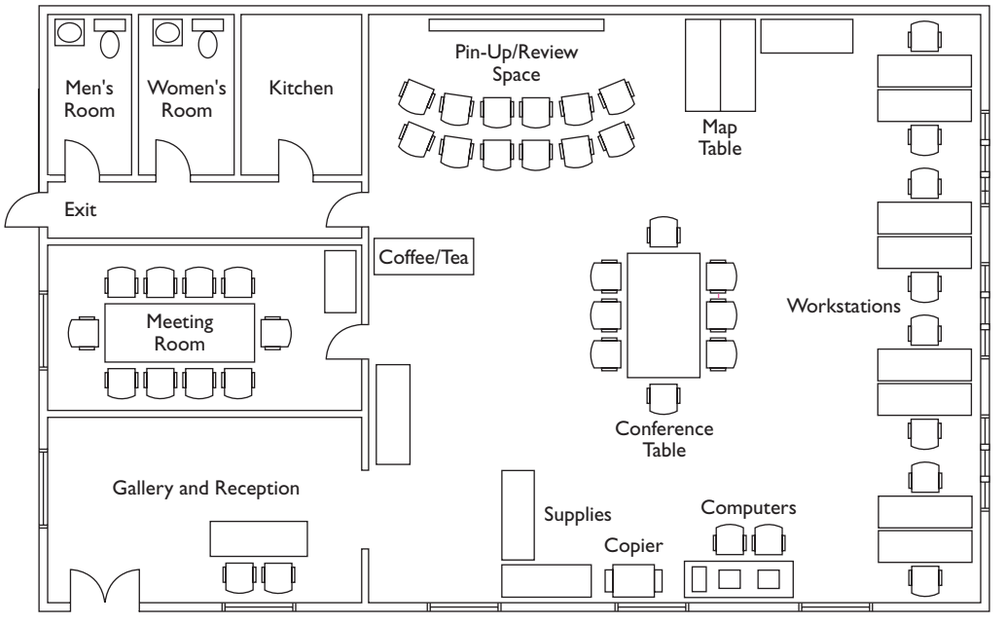
During this phase, all the necessary base information is gathered and all the necessary people are identified and engaged. A complexity analysis of the project is completed, so that the charrette manager can decide how much time is needed for the charrette. During this time initial stakeholder meetings are held and feasibility studies are completed. Finally, the charrette logistics are arranged. The studio setup is planned, the design team is formed, and the charrette is scheduled step by step. This step can typically take around four months.



CHARRETTE FEEDBACK LOOPS

Source: National Charrette Institute, 2003.

National Charrette Institute, Portland, Oregon

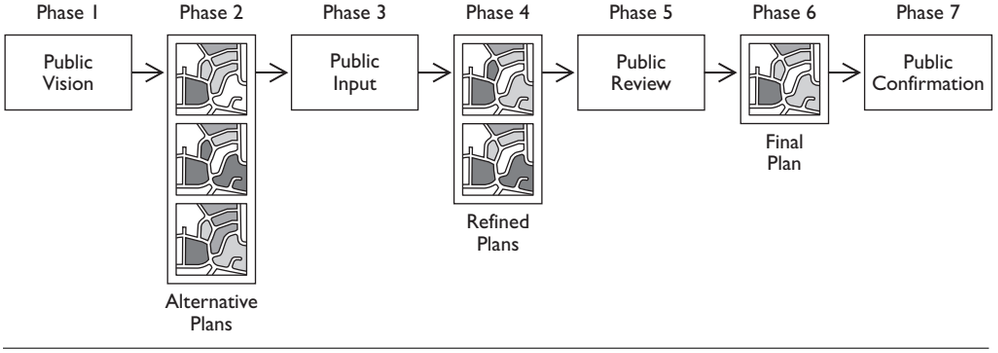


CHARRETTE STUDIO LAYOUT

Source: National Charrette Institute, 2003.

The Charrette

The charrette brings all the right people and all the right information to a series of highly focused and productive work sessions. Before the first public meeting is held, the design team takes a tour of the area and holds meetings with key stakeholder groups. The first public meeting is held to determine the direction in which the public would like to take their community. Based on public input, gathered through a number of different participatory methods employed during the first public meeting, the design team begins to work on the development of alternative concepts. The next evening, another public meeting is held to display the alternative concepts and gather another round of public feedback. After this second public meeting, the design team meets to discuss the best way to synthesize the different concepts into one preferred plan. This new plan is then presented to the public in an open house. Following the open house, the preferred plan is developed further, and the design is refined. Additional stakeholder input is gathered. The preferred plan is then presented to the public again during the final charrette public meeting.



CHARRETTE WORK CYCLE

Source: National Charrette Institute, 2003.

Plan Implementation

Dynamic Planning does not end with the charrette. It is critical that the preferred plan undergo further feasibility testing and public review. Each team member is in charge of his or her element of the charrette plan and performs feasibility tests and then refines the element as necessary. These revisions to the plan are then presented to the public again, usually about a month after the charrette. The final product of the Dynamic Planning process is a full set of documents that represent the complete record of the Dynamic Planning and charrette processes, including records of the meetings, who was involved, and the evolution of the plan.

WHERE CHARRETTES SUCCEED

The key to a successful charrette is in its preparation. Because a successful charrette requires all the right people and all the right information, most mistakes are made by not identifying and involving the right people early and throughout the process and/or not planning enough time to produce the documents necessary for implementation. The importance of stakeholder reviews and soliciting public feedback cannot be overemphasized.

NEXT EVOLUTION OF CHARRETTES

Traditionally, charrettes have been "high-touch," relying on low-tech elements, such as hand drawings. High-tech modeling tools are increasingly being incorporated into traditionally high-touch charrettes. They include keypad polling, environmental impact analysis programs, and vision scenario development. These tools are helping to increase public involvement, execute design, and perform feasibility analysis. As high-tech tools are refined, they will provide the design team with an increased capability to give quick feedback during a charrette.

See also:
Visualization

National Charrette Institute, Portland, Oregon

PUBLIC MEETINGS

Public meetings are among the most common forms of citizen participation for planners and urban designers. They can be used to ascertain public opinion generally or to reach consensus on a recommended action. When they are successful, it is due to careful planning and follow-through. Well-organized and executed public meetings can be valuable opportunities for planners to provide information on important issues to the citizenry and obtain meaningful input.

There are three primary purposes for holding a public meeting: share information, seek advice, or solve problems. Though any issue can be the subject of this form of public dialogue, planners most frequently deal with matters such as zoning, comprehensive planning, parks and open space, environmental protection, and transportation. The meetings themselves may take a variety of forms. They differ substantially from public hearings, which generally follow formal rules and procedures. In fact, it can be said that governmental bodies usually are required to hold public hearings, whereas they have a choice about whether and how to hold public meetings.

At an effective public meeting, planners can enlist citizens as partners or at the least give them important information. By listening and responding respectfully, they can help diffuse opposition and build trust and confidence. The most successful public meetings are designed and executed very carefully, with attention paid to myriad details and nothing left to chance.

THE PURPOSE OF A PUBLIC MEETING

Before developing the agenda or any other part of the public meeting, the first matter to be agreed upon is its purpose: Is the meeting being convened primarily to share information, to seek advice, or to solve problems? Once that is decided, planners then should choose the appropriate structure and organization that best carries out this objective. To avoid misunderstandings, it is important that all notices indicate clearly the nature of the meeting and the expected outcomes. This also should be emphasized during introductory remarks. For example, citizens can be upset if they come to a public meeting ready to vote on options or alternatives, only to find that the purpose of the gathering is only to ask for their opinions.

Informational Meetings

Informational meetings are held to convey information or data to the public and to receive their comments. Public hearings are the most common, but not the only, form of informational meetings. At public hearings, staff presents information to the decision makers or hearing officers, followed by testimony from citizens, all within strict constraints. Other informational meetings are more informal, with planners making reports to neighborhood, civic, or other interested groups, and then answering questions. Although time for short presentations from the attendees may be permitted, prolonged dialogue and interaction are discouraged.

Advisory Meetings

While advisory public meetings also provide information, the public is given meaningful opportunities at these meetings to interact with staff or decision makers. Similar to the structure of informational meetings, advisory meetings begin with a presentation of basic information, possibly followed by a summary of the advantages and disadvantages of various alternatives. After the presentations at an advisory meeting, however, the public engages in an open but structured dialogue.

Workshops

The most common form of dialogue session is the workshop, where 8 to 10 participants discuss issues pertinent to the subject, led by a facilitator. Notes are taken, with the assurance that feedback from the attendees will be shared with the decision makers. No promises are made that the results from the workshop will be the final decision; the only assurances given are that decision makers will consider citizen concerns in their final deliberations.

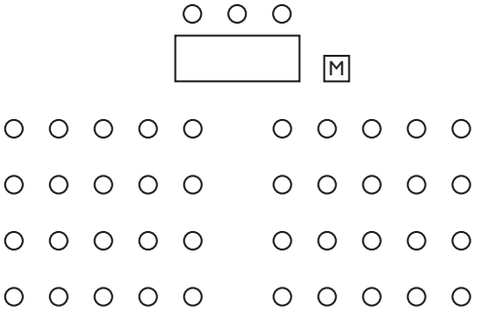
Open House

Another form of advisory meeting becoming popular among planners is the community open house. While informational or advisory meetings should be no more than three hours long, an open house is typically longer, from 3:00 to 8:00 P.M., for example. A busy public appreciates the flexible hours. For example, seniors or others may prefer not being out after dark, and working people can drop by on the way home or after supper.

To hold an open house requires a large room that can hold many people milling about, such as a school gymnasium or cafeteria, senior or community center, or church basement. As people enter, they are given information packets that include a small map or room layout, agenda, and background materials. Well-placed signs mark the different areas of activity or stations. Planners and others who can answer questions and engage people in a dialogue about a particular segment of the issue staff each station. For example, if the open house is being held about a draft comprehensive plan, the people at the various stations can address elements of the plan, such as transportation, parks, and housing. Speakers may provide formal presentations in a screened-off part of the room at specific times. Citizens are encouraged to stay as long as they like, moving at their own pace between stations and other informational displays. Short written questionnaires give attendees additional opportunities to comment and express their opinions. This open format, with staff and decision makers committed to listening and actively engaging the public, can generate much community goodwill as well as provide valuable information.

Problem-Solving Meetings

The purpose of the third, and least common, form of public meeting is to solve problems. In this case, the results of citizen input will directly influence the decision-making process. The workshop format discussed above, consisting of a presentation of technical material followed by facilitated discussion, is also a useful technique for problem-solving meetings. However, in this case, the public is asked to reach conclusions or make recommendations. If there are more than a dozen attendees, people should be divided into small discussion units. Group consensus or agreement is more likely to emerge if participants are randomly dispersed at small discussion tables. This will produce results more reflective of the group process than of any particular advocate or dissenter. The successful problem-solving meeting requires an informed citizenry, skilled discussion leaders following an agenda with specific questions and discussion topics, well-trained recorders, and decision makers who commit themselves to following the results.



With this arrangement, all eyes are on the speaker. There is minimal interaction with the audience, typically limited to questions and answers. To be heard, one must generally go to the front.

TYPICAL INFORMATIONAL SEATING ARRANGEMENT

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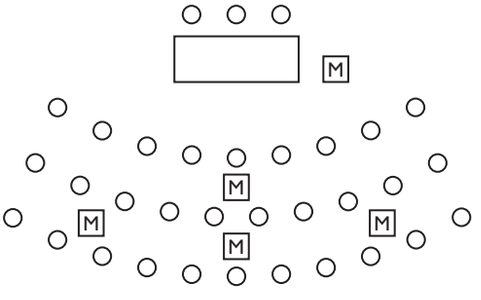

The curved shape of the arrangement creates fewer perceived barriers between the speakers and the audience. It also allows the audience to have views of each other. The placement of microphones invites questions and comments.

IMPROVED INFORMATIONAL SEATING ARRANGEMENT

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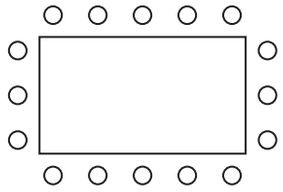
Elaine C. Cogan, Cogan Owens Cogan, LLC, Portland, Oregon



The rectangular table is typical for conference room meetings. It encourages face-to-face interaction, but those on the ends may talk more and receive more attention. Substituting an oval or round table allows participants to see each other easily.

BOARDROOM SEATING ARRANGEMENT

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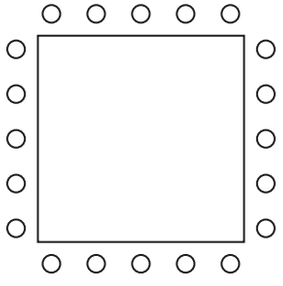

(with or without table)

This arrangement is similar to the boardroom seating arrangement. It makes the role of "leader" less obvious. Corners may be "dead" areas, however.

CLOSED-SQUARE SEATING ARRANGEMENT

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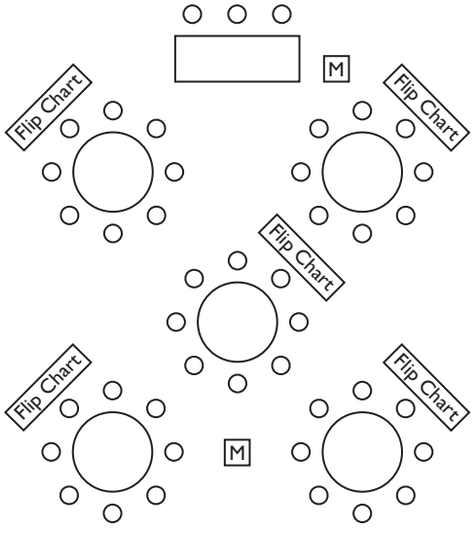

Several smaller tables allow for small-group interaction. Flip charts and microphones allow for breakout exercises and reporting back to the group.

WORKSHOP SEATING ARRANGEMENT

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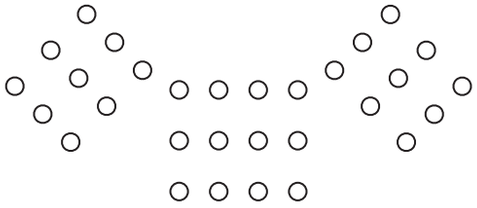

This arrangement is similar to the improved informational seating arrangement. It allows for interaction when a circle arrangement is not possible. A main speaker may have to turn to view certain audience members.

THEATER SEATING ARRANGEMENT

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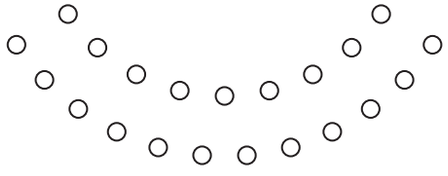

When a circle is not possible, a semicircle gives most of the same advantages. Use an even number of rows, as the odd, middle row is often left vacant.

SEMICIRCLE SEATING ARRANGEMENT

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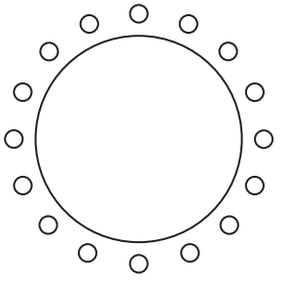

A circle arrangement allows everyone to see everything and creates a more equal setting. Including a table allows participants to take notes.

CIRCLE SEATING ARRANGEMENT

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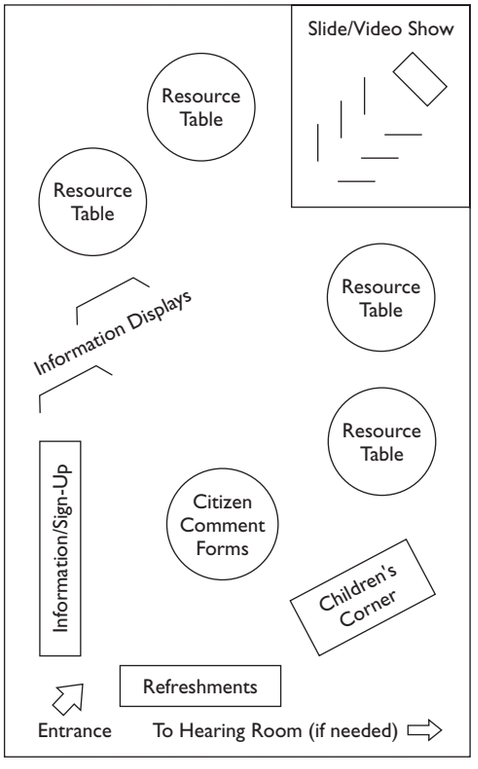

The community fair arrangement allows for many informal opportunities to receive information, discuss issues, and give opinions.

COMMUNITY FAIR ARRANGEMENT

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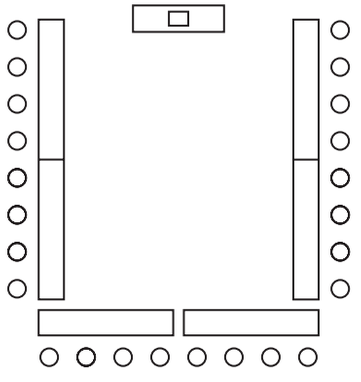


This room arrangement is commonly used for group meetings. The "U" allows a speaker to move around within the group. However, it creates open space between participants. Moving the tables closer together encourages interaction across the "U."

U-SHAPE SEATING ARRANGEMENT

Source: © 1995 David Knox Productions, Inc.

UNDERREPRESENTED POPULATIONS

In an increasingly diverse society, planners should be sensitive about how to involve people who may not generally come to public meetings. One successful technique is to contact representatives of minority, non-English speaking, or other underrepresented communities to ask them to help you reach their constituents, friends, and neighbors. Take their advice seriously. They may suggest several approaches, such as:

- advertising in local newspapers or radio stations;
- printing notices in languages other than English;
- using interpreters at meetings;
- providing child care; and
- meeting at unconventional times, such as weekends;

PRESENTATION SKILLS

In deciding the amount and kind of information to provide at all public meetings, consider the needs of your audience. What do they need or want to know in order to be conversant with the subject and provide useful feedback? By asking this question and answering it honestly, planners will avoid making the common mistake of writing technical papers instead of simple handouts or speaking in jargon or language well beyond citizens' understanding. Recognize also that not all good planners are good presenters. Some professionals relate well to people at informal neighborhood meetings but are not able to speak to a great number in a big hall. Others have just the opposite skills. Either obtain training to increase your abilities in different settings or recognize your limitations and deploy the people best able to handle specific situations.

Likewise, remember that one type of presentation does not fit all situations. While computer presentations are popular with planners and designers, they can backfire if done poorly, using too many words and confusing images. Computers also are prone to malfunction so it is important always to have a backup, such as a written handout. With some audiences, simple charts or drawings may be more effective than flashy graphics.

KEYS TO SUCCESSFUL PUBLIC MEETINGS

Successful public meetings are characterized by a number of considerations:

- Set aside sufficient time and resources to plan each event, agreeing first on the basic purpose and primary audience.
- Choose the best format to meet your objectives.
- Provide notice well in advance and in the language(s) understood by your target audiences.
- Hold the meeting at a time and in a place convenient to the people you want to attend.
- Agree on roles and responsibilities for hosts, presenters, discussion leaders, and recorders.
- Develop clear, appropriate, and readable written materials and graphics.
- Be well prepared so that you can deal with any last-minute crises or challenges.

See also:
Public Hearings

Elaine C. Cogan, Cogan Owens Cogan, LLC, Portland, Oregon

PUBLIC HEARINGS

The law requires that most public agencies and elected bodies hold public hearings before making important decisions. These hearings follow specific rules and procedures legally prescribed by state statutes and local ordinances. Generally, public hearings are held near the end of the planning and development process, just before the authority in charge votes about or decides the final disposition of the matter at hand. Notification of the hearing is sent to those parties legally required to receive them or inserted in advertisements in the local newspaper.

The hearing body usually sits on a raised dais with staff close by. The public is seated auditorium-style. Public comments are limited, and they may be recorded on audio or videotape, or by professional stenographers.

Planners participate as staff or consultants, reporting to the hearing body and answering questions. Public testimony follows. To maintain a sense of fairness, proponents and opponents may be given alternate turns to speak. Decision makers listen and rarely ask questions. If an issue is contentious, the hearing may go on for hours.

THE ELEMENTS OF A GOOD PUBLIC HEARING

Planners, who must follow the legally prescribed rules for public hearings, can ensure that the hearings achieve their desired ends (receiving and documenting comments from the public about the nature of the matter at hand). Beyond that, however, they should also ensure that the actions they take meet the letter of the law, the spirit of the law, and the standards for effective and fair planning. The following sections offer some guidelines for effective public hearings. These actions should constitute a standard for the way in which public hearings are arranged and conducted.

Notification and Other Informational Materials

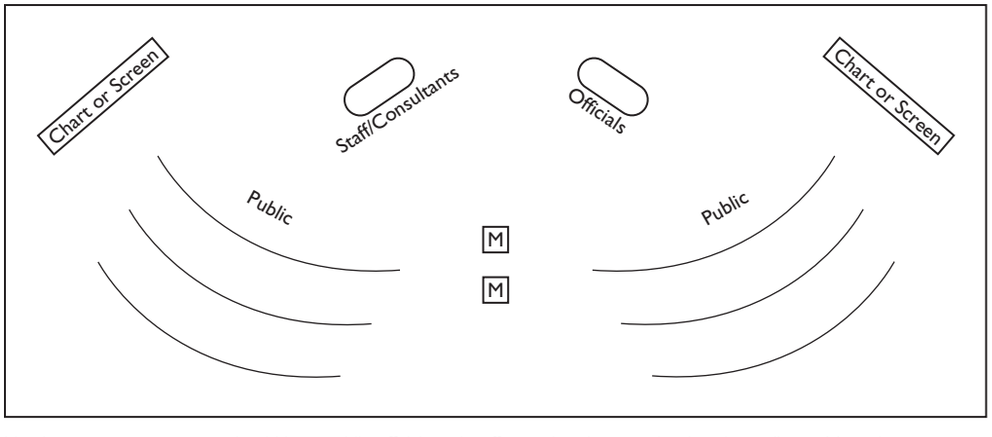
1. Write all notices in plain language, with translations as needed for non-English-speaking people. Disseminate as widely as your budget will allow, using community newspapers, Web pages, and other electronic means of communicating. If legal text is required, have it accompany the plainly written notice.
2. Hand out written agendas and summaries so attendees can follow along with the presentations. Make sure to have a sufficient quantity for all, and arrange to duplicate extras if needed.
3. Present technical material in as nontechnical a manner as possible. Remember that the public and some of the decision makers are not likely to be as well versed on the subject as the planners.

Room Arrangements

1. Hold the hearing in a room where all can see and hear with ease. If the dais is a fixed platform, set up chairs and tables for the public officials and staff at the same level as the audience.
2. Arrange charts or screens for slides or video presentations so the public as well as the officials can see them. If the room is large, position several screens so that everyone can see.
3. Have a sufficient number of working microphones for presenters, hearing personnel, and the public, and place them strategically to give citizens easy access.
4. Combine the hearing with an "open house" or similar opportunity for the public to receive and provide information in a more informal setting.

Interaction and Involvement

1. Station one or two staff at the door to greet the public, give them the handouts, and show them to empty seats. It is especially important to make latecomers welcome.
2. Have a sign-in sheet for all who want to comment, and call upon them in order.
3. Divide a long agenda into manageable portions. Instead of programming all the technical reports at one time, seek public comments after each section or portion under consideration. This decreases the likelihood that large groups of angry or restless people will remain throughout, as most will leave after the matters in which they are interested have been discussed.
4. Announce beforehand and throughout if the public's comments are being recorded.
5. Provide alternative ways to give public testimony. Deploy a stenographer in another room to take down, verbatim, comments; have a tape recorder and staff person available; or hand out written comment forms.



Hearing room arrangements should have public officials and staff seated at the same level as the audience. More than one screen often is provided for presentations, and they are positioned so the public and the officials can see them. Several microphones should be placed strategically so citizens have easy access.

HEARING ARRANGEMENT

Source: Elaine Cogan.

See also:
Public Meetings

"USER-FRIENDLY" NOTIFICATION FORM

The key elements of a successful public hearing notification are:

- Clear statement of purpose is included at the top of the notice.
- Purpose of the meeting and the public action being taken are described in plain language.
- Date, time, and location of the public hearing are included near the top of the notice.
- Potential financial implications of the project, of interest to citizens, are included.
- Ways that citizens can provide comments, at the hearing or in other ways, are provided.
- More detailed contact information is included.
- Legal references, if needed, are cited at the end of the notice.

The user-friendly version of a notification form follows.

Proposal to Change Use of Residential Property to Allow Senior or Community Center

Thomas McIntire, living at 2900 Elm Street, is asking the city to rezone his property from residential use (RS-2) to PS-1, to allow construction of a senior or community center.

The city's Planning and Zoning Commission may either allow or deny this request and is holding two public hearings to obtain citizen comments. Both hearings will be held in the third-floor city hall auditorium, February 28 and March 9, at 6:30 p.m.

If the property is approved as proposed, it will be used by a nonprofit corporation, which will not pay property taxes. The remaining property taxpayers in the city will be required to make up the difference. The current property taxes paid by the owner are approximately $1,500 per year.

All citizens who own property within 400 feet of this property are invited to testify in person or write to the Department of Planning and Zoning before midnight of the second hearing, March 9. Any other interested parties also may speak at the hearing or write a letter.

For more information, contact Hortense Allen, project planner, Department of Planning and Zoning, City Hall, Room 725, or call Ms. Allen at 811-555-5656.

Please refer to accompanying map for specific site information. The legal petition for this case is on file as #1789222 PB and #5589167 PB.

# # # # #

Source: Elaine Cogan, 2000.

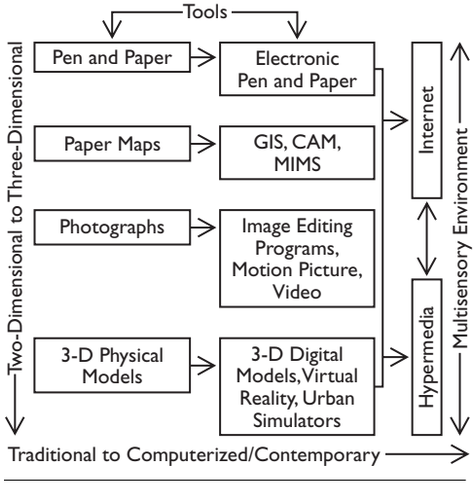
Elaine C. Cogan, Cogan Owens Cogan, LLC, Portland, Oregon

COMPUTER-BASED PUBLIC PARTICIPATION

Planners are increasingly recognizing the potential of computer-based participation as a key element in developing appropriate and effective solutions to community design and planning problems. As computer and Internet technology becomes more mainstream, planners should develop ways to harness these technologies to work more effectively with the public.

Computerized tools represent a paradigm shift in the planning and design process that may fundamentally change the way planners communicate ideas to the public. These computer-based participation tools presently consist of the following:

- *Electronic sketchboard.* This simulates traditional pen and paper sketching and provides additional capabilities of layering, tracing, and coloring.
- *Geographic information systems (GIS).* Use of GIS represents a move from a paper map to a digital one empowered with spatial analysis, navigation, and visualization capabilities.
- *Imaging software.* This software provides new ways of editing, manipulating, and animating traditional photographs.
- *Virtual reality (VR).* VR represents a move from 3-D physical models to digital ones that provide participants a degree of freedom in "experiencing" proposed projects before construction.
- *Urban simulation.* Building on virtual reality, urban simulation shows simulations of dynamic changes of the environment, including seasons, weather, landscape, pollution, and movement of people and automobile.
- *Hypermedia.* Also called *multimedia*, this is a new computerized environment that integrates multiple media, such as maps, photographs, videos, and sounds on a stand-alone PC.
- *Internet.* The Internet can provide a virtual setting of traditional same-place and same-time participation that integrates multiple tools, such as GIS, drawings, photographs, and virtual reality.



THE PROGRESSION FROM TRADITIONAL TO COMPUTERIZED VISUALIZATION TOOLS

Source: Kheir Al-Kodmany, 2004.

ADVANTAGES OF COMPUTERIZED TOOLS

Represent Contextual Data

Computerized tools can illustrate abstract concepts, such as environmental impacts, in a way that would be impossible with traditional tools, such as paper, photographs, or physical models. For example, with GIS, one can layer maps derived from different data on top of one another, query the database that is the source of the map information to highlight correlations between data, and visualize those correlations through the use of patterns and colors on the maps. Such tools also allow the user to extrude data into 3-D models and to simulate a fly- and walk-through experience. In a planning process that employs GIS, hypermedia, and virtual reality, average citizens are granted unprecedented access to a rich array of data presented in an easy-to-understand format. Computerized tools may enhance the public's interaction in the decision-making process because the tools provide so much more specific information that can be provided on the spot, thus enabling the public to explore alternatives quickly and with more competence.

Selective Display of Information

One key advantage of computerized tools is that they provide the capacity to selectively display information. When working on paper, even a relatively small amount of information can quickly become overwhelming and appear cluttered. The amount of detail displayed in computerized programs can be adjusted interactively as the scale is changed. Also, participants can easily overlay data by turning layers on and off as needed. In systems that incorporate hypermedia, different types of information can be queried and complex information displayed simply. Different types of data, such as sound, movies, animations, maps, and texts, can also be used selectively to enrich the study and analysis.

However, in a complex computerized data environment, citizens may not be able to freely participate because they will need "expert" assistance to manipulate data.

Geographic Scale

Another clear advantage of computerized tools is the ability to navigate geographic scale. With traditional tools, multiple maps are needed for each geographic scale: region, city, community, neighborhood, and individual lots. Computerized mapping allows for zooming in on a region, city, neighborhood, or even a specific house on a single map. As a result, computerized tools may increase interactivity, accessibility, and selectivity of information concerning issues at various geographic scales and therefore enhance discussion about contextual and spatial issues.

CONCERNS ABOUT COMPUTER-BASED PARTICIPATION

Believability

One drawback of computerized tools is that the images can be so realistic and persuasive that they mislead people. It has been found that computer visualization can lead to false conclusions by the public. Some critics have suggested that the use of impressive video and graphics will cause decisions to be made on the strength of visual images alone. Further, with the capability of creating very concrete, realistic images, there is the danger that audiences may see a generated image as constituting reality. The more realistic the maps and images appear, the more danger there is they will be accepted as "truthful."

Similarly, computerized images can erroneously appear to be value-neutral. Just as these tools can be used to create compelling representations of future urban development, they can create compelling misrepresentations as well. Computer visualization must combat this by explicitly demonstrating the accuracy of the data being used and by providing accessibility to metadata (Obermeyer 1998).

Affordability

The hardware and software needed for computer visualization require a large capital outlay; thus the question of whether to implement advanced visualization technology often comes down to a question of resources. Depending on the scale of implementation and the richness of the data, these systems can vary widely in development and maintenance costs. Low-tech tools can provide an alternative when it is necessary to respond to a tight timeline or cost control that are a reality in many local planning arenas (Pietsch 2000).

Engagement

A prime consideration in any public participation-planning scheme is how well the tools engage the targeted participants. In general, traditional noncomputerized public participation methods are more participatory, experiential, and interactive. They provide more social interaction among participants. These approaches are particularly effective when the audience involves varied interest groups and stakeholders with opposing interests. They are also useful for conflict resolution when face-to-face interaction is needed to facilitate discussions. Practical experience asserts that the added value of real-time social interaction among neighbors, while using a physical simulation game, for example, surpasses computer simulations even when they have user-friendly computer interfaces. Computerized methods lose their advantages when people have to "work" the computer. Findings indicate that traditional methods of manipulating physical objects facilitate comprehension and retention more than working on a computer screen (Moughtin 2003).

Access to Institutions

In public participation, whether computerized or traditional, access to institutions and people remains the most challenging issue. Are citizens willing to participate? What are the motivating factors and incentives? Will their participation be taken seriously? Will their opinions make a difference in the decision-making process and ultimate outcome? How open are the planning processes? Are the powerful players willing to open up and allow others to participate through information sharing? Institutional challenges may continue regardless of technological advancement.

Kheir Al-Kodmany, Ph.D., University of Illinois at Chicago, Chicago, Illinois

The foremost advantage of computerized participation is access to accurate representation and presentation of complex contextual information. That said, while computerized tools usually impress participants and help them attain a comprehensive understanding of the spatial relationships, these tools often fall short in allowing the participants to design and alter the representation; computerized tools must do a better job of allowing the public to "get their hands on" something. The real need is not to force a choice between the social benefits of low-tech methods and the efficiency and power of high-tech methods; rather, we need tools that support the integration of real worlds and virtual worlds by providing users with the flexibility to move along the continuum.

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Obermeyer, Nancy J. 1998. "The Evolution of Public Participation GIS." *Cartography and Geographic Information Systems*. 25, no.2, pp 65-66.

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See also:

Charrettes
Geographic Information Systems
Visualization

Kheir Al-Kodmany, Ph.D., University of Illinois at Chicago, Chicago, Illinois

FACILITATION

Community-based facilitation is a strategy designed to reach consensus through a process that includes meaningful involvement of all parties, mutual respect for differing opinions, and exploration of commonly held core values and openness to as-yet unidentified solution sets. This type of facilitation is tailored to the kinds of issues and conflicts that confront planners and design professionals. Facilitation can be a powerful tool for resolving conflict, reaching community consensus, and building a broad base of support for change.

DEFINITION OF FACILITATOR

A facilitator is someone who assists a group in accomplishing its task. The facilitator assumes responsibility for the process and lets the group members assume responsibility for, and concentrate on, the substantive content of the discussions. Ultimately, the facilitator's work should blend into the background while the group's dialogue and movement toward consensus become the joint focus. The facilitator is part of the group but removed from it. An important element in reaching consensus is that the group actually develops as a group. This means agreeing on a set of implicit or explicit core values, clearly identifying the real problem and developing trust among one another. The facilitator works to create a setting wherein systemic approaches to problem definition and solution identification are the norm.

WHEN TO FACILITATE

Facilitation works under particular circumstances:

- There is a political commitment to a group-determined outcome or recommendation.
- There are more than two dominant perspectives or solution sets (mediation may need to be explored in two-set cases).
- The problem is complex and the value continuum is broad.
- There is a broad-based desire to seek resolution to the perceived problem.

REACHING CONSENSUS

When significant change is under consideration, facilitation can work to reach group consensus on a solution. A consensus-based decision reflects shared values, which may in turn reflect a new and creative approach to the problem. Consensus also carries a broad commitment to the decision on the part of group members. Because they arrived at the decision as a group, they are vested in the outcome and its implementation.

Certainly, change can be legislated, but the most effective change strategy is one based on group or community consensus. Facilitation to reach a decision and the resulting consensus mean that the group was in charge, owns the product, and can speak on its behalf. Often, broadening the support base is what is needed for successful implementation.

Common Strategies for Facilitators

- Listen well and actively.
- Project trust and genuine interest in differing perspectives.
- Believe in values as much as facts as a dominant motivator for change.
- Always be neutral to the outcome.
- Maintain loyalty to the group, not the entity that retained them.
- Be trained and skilled in group-process techniques.
- Stay neutral and leave personal opinions at home.
- Remember the victory belongs to the group, not the facilitator.

Useful Tips for Facilitators

- Always be responsible for the conduct of the meeting, even when there is a chairperson for the group.
- Set and maintain a safe environment where all perspectives can be heard and valued.
- In cooperation with the group, set appropriate ground rules, such as:
  - No interruptions when someone is speaking
  - No side conversations
  - All perspectives during discussions are accepted
- Focus on the content of what is being said, not the veracity of someone's beliefs.
- Start and end on time, and keep the group on task.
- Set clear goals and objectives with the group.
- Help the group move to consensus by closing off discussion when appropriate.
- Avoid vote taking, to the extent possible, to avoid having "winners" and "losers."

GROUP CONSENSUS AND CREATIVITY

One of the clear advantages of achieving group consensus for planning and urban design problems is the tremendous creativity that results from groups having the freedom to see the problem from multiple perspectives. This means letting go of individually preferred solutions and allowing the energy and passion of the group to arrive at the best solution set. Certain issues and solutions that participants might not otherwise raise and discuss are possible with the trust and respect resulting from creativity and group consensus. If there is room for new and innovative solution sets, facilitation can be an effective tool.

PARTICIPANTS

Often there are years of conflict and distrust among opposing community factions on particular issues, especially in the fields of planning and design. Facilitation can break down that hardened conflict and distrust, and bring factions to the table. When using facilitation to reach consensus, all perspectives must be involved and heard. In the course of deliberation, the breadth of the value set around the issue must be represented. Individuals and groups who are not typically invited to the table or who are not used to sitting at the same table must participate. Facilitation requires that all interested parties be invited to participate in reaching consensus.

See also:
Consensus Building and Dispute Resolution
Public Meetings

Joseph W. Whorton, Ph.D., Georgia Rural Development Council, Athens, Georgia

CONSENSUS BUILDING AND DISPUTE RESOLUTION

Consensus building seeks to bring all relevant stakeholders together, on a face-to-face basis, assisted by professional facilitators and mediators (generically called *neutrals*) to engage in collaborative problem solving. At the heart of consensus building is the idea of mutual gains negotiation—all parties will be better off if they can generate an agreement that also takes account of the interests of all the other stakeholders. Although not all parties come to (or leave) the table with the same power, skill, or knowledge, there are ways of enhancing fairness through education, technical assistance, and joint fact-finding. Consensus building aims to enhance the fairness, efficiency, stability, and wisdom of agreements, be they about designs, plans, or regulations. Once the parties are at loggerheads, efforts to hammer out agreement involve dispute resolution.

PRECONDITIONS FOR CONSENSUS BUILDING

There are three preconditions for the appropriate and effective use of consensus building. The key parties must be willing to "come to the table." If they are not, there's little or no chance of success. Second, those with statutory authority (usually elected officials) must be willing to sponsor or convene a consensus-building or dispute-resolution effort. While the convenors retain the final decision-making authority, they must be willing to specify that, if the relevant stakeholders generate a well-founded consensus, they will take it seriously. Third, there must be sufficient resources available to ensure that assistance from a professionally trained neutral, as well as technical advisors selected by all the parties, will be available. Similarly, there cannot be any overriding statutory requirement that imposes unreasonable time constraints. If these preconditions can be met, planners and designers would do well to go beyond traditional approaches to consulting with the public and to use consensus-building or dispute-resolution techniques, as appropriate.

Planners and designers are bound to encounter competing interests; incomplete, uncertain, or disputed information; complex problems requiring inputs from diverse parties; and issues involving conflicting political, technical, and legal considerations. In such situations, planners and designers must balance political demands while remaining true to their professional obligations. They must be able to work with people who have different views and values in producing plans, policies, or decisions. Thus, design and planning are a breeding ground for disagreements—from conflicts over aesthetic considerations to major public controversies over the siting of large-scale facilities. Consensus-building skills and dispute resolution expertise make it easier to prevent, mitigate, or resolve such disagreements. Consensus-building techniques, such as policy dialogues, can be used before the fact to avoid conflicts; dispute resolution techniques, such as mediation, can be used to resolve disputes that have already erupted

.

ELEMENTS OF CONSENSUS BUILDING

Consensus building involves five key steps: assessment, convening, deliberating, deciding, and implementing agreements.

Assessment

Assessment allows the parties, with or without a neutral's help, to identify:

- all the relevant stakeholders and decision-makers;
- the key concerns of the parties (i.e., the agenda);
- the parties' interests regarding all the relevant issues; and
- opportunities for and constraints on consensus building.

A professional neutral, engaged by the appropriate convenor(s), frequently handles this step. The assessor meets privately and confidentially with an expanding circle of potential stakeholders to map the conflict.

Convening

Convening is the process of bringing the right parties to the table and designing a process to enhance the likelihood of collaborative problem solving. In this phase, the parties, with or without a neutral's help, set ground rules and assign responsibilities that increase the chances of reaching an informed agreement. As part of convening, they must determine:

- the objectives of the effort;
- the ground rules that will guide behavior at the table;
- the responsibilities of membership;
- how the group will make decisions;
- the roles of technical advisors;
- the timeline for the effort; and
- the links between the consensus-building process and formal decision making by those with statutory authority.

Process design ought to empower all parties to participate in generating an agreement, although the output of a consensus building or dispute resolution effort often takes the form of advice to those with final decision-making authority. Studies of consensus building and dispute resolution completed to date suggest that the design of such processes must itself be something stakeholders help to produce in order to ensure buy-in and full participation.

Deliberating

Deliberating is the process of forging understanding, creating relationships, uncovering interests, and seeking credible information relevant to the issue or dispute at hand. During deliberation, it is essential that participants hear one another's underlying interests. Interests are the underlying reasons why parties want what they want. Positions—the statement parties usually begin with in deliberations—are just one way of meeting underlying interests.

JOINT FACT FINDING

Thirty years of consensus-building and dispute resolution have yielded another key finding: as is the case in designing the process, the parties must seek, analyze, and interpret facts and forecasts together. This is joint fact-finding, the collective effort by participants in a consensus-building or dispute resolution process to generate information that all parties will accept as credible, legitimate, and salient. Through jointly hired experts, expert panels, study teams, or other means, participants must generate information that is: technically and/or scientifically credible (i.e., passes muster with independent experts in a particular field); legitimate because it is developed in a way that gives participants a say in the scoping, conduct, review, and analysis of study findings; and salient because the information generated can be used to inform and guide collaborative decision making.

Deciding

Deciding is the effort to reach agreement. This step is only as successful as the steps that precede it. If a consensus-building or dispute resolution effort is not appropriate in the first place, reaching agreement will either be highly difficult or the outcome will be judged irrelevant by the decision makers. If the process has been designed poorly (e.g., involving the wrong parties, neglecting to set explicit ground rules to guide interaction), decision making will be difficult, if not impossible. If the parties have not explored one another's interests or generated information through a process of joint fact-finding, decision making will be fraught with confusion and conflict. To succeed in generating agreement, parties need to employ the mutual gains approach to negotiation (distinct from the more traditional hard bargaining approach). Parties must seek to invent options for mutual gain, identify and exploit differences to create value, develop shared criteria to evaluate trade-offs, and work together to anticipate problems that might crop up during implementation of whatever agreements are reached. Mutual gains negotiations are more likely to produce agreements that affected parties will view as fair, efficient, stable, and wise.

Decision making can be especially difficult when important interests or fundamental values are in conflict. Thus, the assistance of neutrals can enhance the chances of success. The mediation or arbitration of disagreements, also known as *dispute resolution*—has moved from the court-related context in which it initially emerged (known also as *alternative dispute resolution* or ADR) to a broad set of public policy-making and administrative contexts. We now have facilitation or mediation of public issues and disputes of many kinds. We have negotiated rule making, collaborative processes aimed at generating regional vision statements, and mediated zoning appeals. Evaluative studies clearly show that site-specific land-use disputes and more general policy disputes on a local, metropolitan, or statewide level have all been resolved more effectively through the use of consensus-building and dispute resolution tools.

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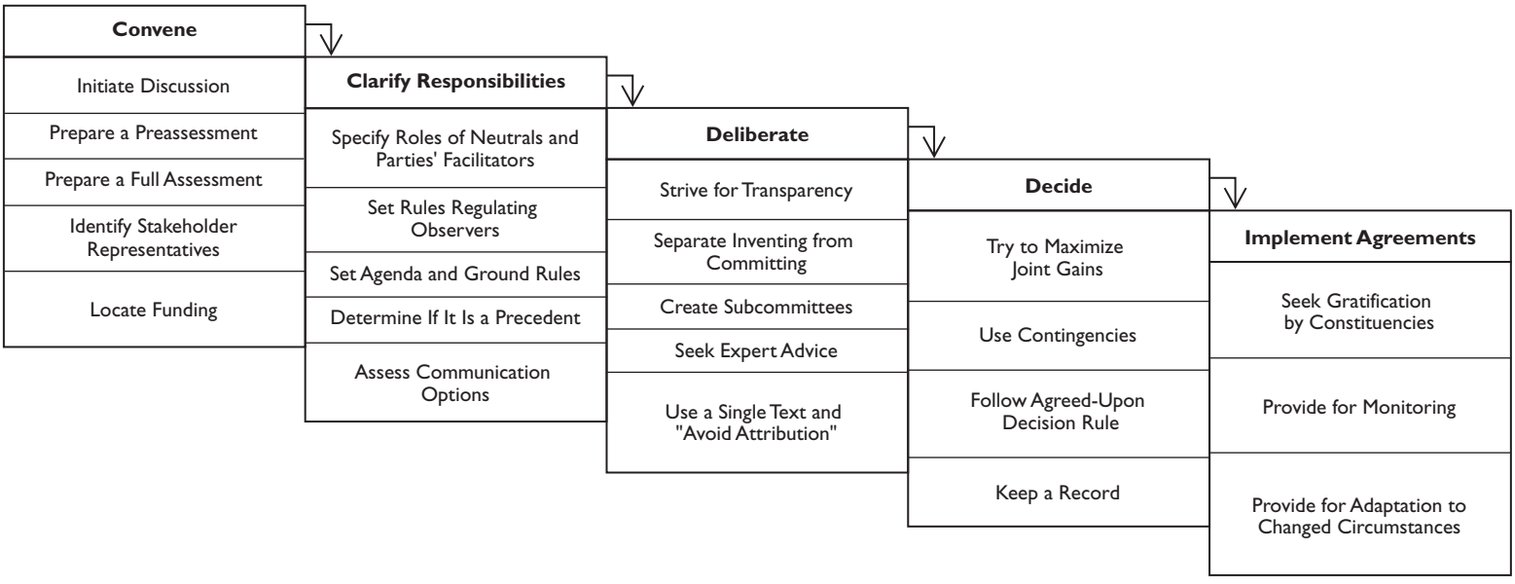

CONSENSUS BUILDING: ESSENTIAL STEPS

Source: © The Consensus Building Handbook.

Implementing Agreements

Well-managed consensus-building processes take account of the fact that mere agreement is not sufficient if the stakeholders do not take the potential obstacles to their implementation into account before they make final commitments to each other. Anticipating the problems of follow-through requires that:

- parties design joint monitoring arrangements to be sure that commitments are being honored;
- parties align their internal organizational incentives and controls with the terms of agreement to ensure that all sides have reason to abide by the agreements they have made; and.
- new information and learning will be used to alter original agreements as needed (and thus agreements should be sufficiently adaptable).

PROFESSIONAL PRACTICE

The field of consensus building and dispute resolution, which emerged in the early 1970s, has become increasingly professional. Associations dedicated to this field include the Association of Conflict Resolution and the U.S. Institute for Environmental Conflict Resolution. A 1999 study sponsored by the Lincoln Institute for Land Policy identified more than 100 cases of successfully mediated land-use, environmental, and design conflicts throughout the United States. Massachusetts, Connecticut, and Oregon have enacted statutes encouraging the mediation of land-use disputes.

There is, however, no singular standard of practice for mediators and facilitators, although various associations have issued ethical guidelines and standards of practice, including the Association for Conflict Resolution (ACR), the Alternative Dispute Resolution Section of the American Bar Association, the American Arbitration Association, and various state organizations, such as the Florida Supreme Court Dispute Resolution Committee on Rules and Policy. Some federal agencies have created rosters of prequalified practitioners, such as the Institute for Environmental Conflict Resolution (IECR). No official degree in public dispute resolution exists currently, though many planning programs, design schools, public policy programs, and law schools offer courses in negotiation, dispute resolution, and consensus building. There are a few degree-granting institutions in conflict resolution, such as George Mason University, Antioch University, and the University of Massachusetts, Boston.

EMERGING ISSUES

Environmental Justice

In federal courts, advocates for environmental justice have sought relief under the Civil Rights Act for communities of color suffering from unfair pollution burdens. Few of these suits have been successful, however, so some of these advocates—though concerned about issues of power, fairness, and diversity—are attempting to use consensus building and ADR to achieve their goals.

Evaluation

With almost 30 years of experience behind them, practitioners and users of consensus-building and dispute resolution tools are beginning to identify the limits of these techniques as well as their strengths. The hope and promise of the field have given way to a pragmatic and more skeptical view. Numerous evaluation efforts are underway to assess the added value of these techniques in a variety of settings. Indicators of success typically include participant satisfaction, relationships among participants, effectiveness of implementation, and the correlation between process design and substantive outcomes. Evaluation is still in its infancy and poses many methodological challenges. Initial findings do support the contention, however, that consensus building increases involved parties' satisfaction with the outcome and leaves them in a better position to deal with their differences in the future.

FIVE KEYS TO ACHIEVING CONSENSUS

1. Account for and include key stakeholders.
2. Anticipate the need to link informal processes with formal decision making.
3. Generate technical information viewed as legitimate, salient, and technically credible by all stakeholders and decision makers.
4. Fully uncover parties' interests and generate mutually advantageous "packages" to meet those interests.
5. Anticipate the challenges of implementing an agreement or resolution.

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See also:
Environmental Justice
Facilitation

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PLANNING MOVEMENTS

THE LANDSCAPE TRADITION

FREDERICK LAW OLMSTED

The first American theory of urban planning emerged from landscape and park design planning in the second half of the nineteenth century. The key figure was Frederick Law Olmsted, who argued that the growth of cities was inevitable and fundamentally beneficial to society, and that the incorporation of parks and natural landscapes into the urban fabric could counter many of the negative effects of this growth. Like many American intellectuals of the era, such as Ralph Waldo Emerson and Henry David Thoreau, Olmsted placed a high value on nature. He hoped that imaginative use of the developing practice of landscape design could relieve the stress of crowded cities and encourage naturalness in social relations.

Olmsted put his theory into practice with New York City's Central Park, codesigned with Calvert Vaux. Intended to allow visitors to escape from the city, the 1857 design has remained a classic of landscape practice. Olmsted subsequently designed other large city parks, including Mount Royal for Montreal, Belle Isle for Detroit, and Prospect for Brooklyn. Shunning formal, symmetrical elements, he used long curving meadows, irregular lakes, and winding pathways to create a feeling of "country" in the city.

Even if they could not afford Olmsted's services, most U.S. cities set aside substantial tracts of land for parks in the last decades of the century. A number of important parks, among them Piedmont in Atlanta, Balboa in San Diego, and Forest in St. Louis, were developed as sites for expositions and fairs and then recycled for continued public use.

PARK PLANNING

With Olmsted as a leader, park development introduced Americans to systematic planning at a regional scale. Civic leaders realized that multiple park tracts could be acquired in outlying parts of their city and linked with parkways and boulevards. Chicago planned a set of lakefront and inland parks with boulevard connections in the 1870s. H. W. S. Cleveland, author of *Landscape Design as Applied to the Wants of the West* (1873), designed a similar comprehensive system for Minneapolis and St. Paul in the 1880s; George Kessler for Kansas City in the 1890s, and for Dallas and Houston in the early 1900s; and John Olmsted for Portland, Oregon, in the early 1900s. The capstone for this work was the regional park system for greater Boston, planned by a Metropolitan Park Commission (created 1893) under the leadership of Charles Eliot. The system included Olmsted's plans for the Fenway and, by 1902, embraced 15,000 acres, 10 miles of shoreline, and 22 miles of parkway.

Regional park systems of the early twentieth century, such as the Cook County, Illinois, Forest Preserves and the Denver, Colorado, Mountain Parks, extended regional open-space planning into the automobile age. Park systems were also regular parts of "city beautiful" plans prepared by Daniel Burnham, Edward Bennett, and others. All such plans required that civic leaders think about future population growth, land uses, and circulation on a regional scale and acquire land in advance of need, often targeting what we would now see as environmentally sensitive areas, such as steep hills, marshes, lakefronts, and stream courses.

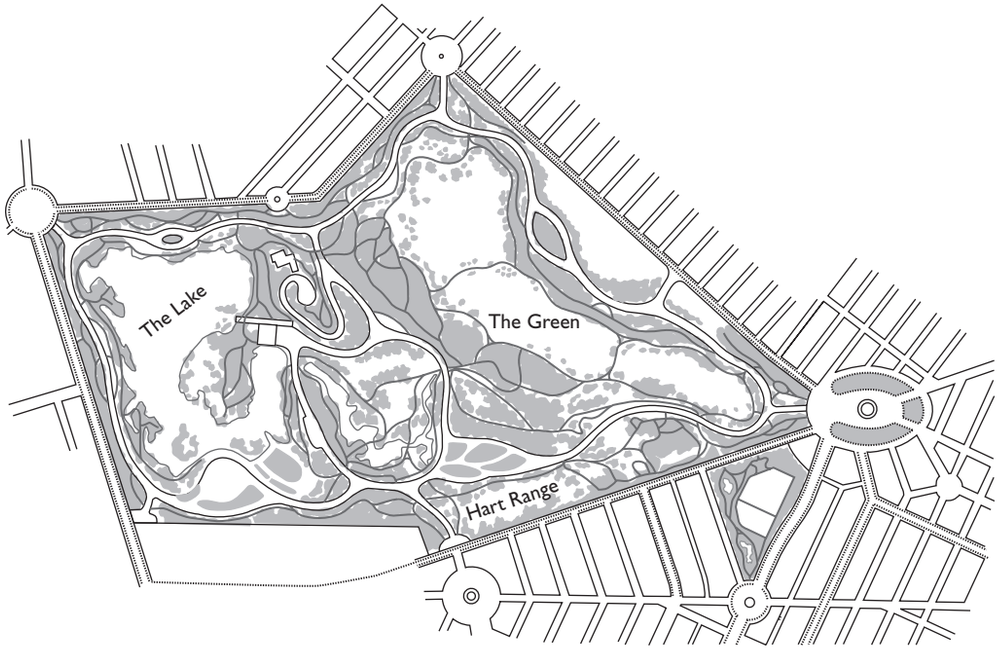
Taken together, several principles consistently guided early park planners:

- Adaptation of design elements to the natural landscape
- Creation of a "rural" rather than formal atmosphere
- Importance of large park tracts to give sense of escape
- Design of citywide systems of large parks connected by parkways and boulevards
- Recognition of value of acquiring park lands in advance of outward city growth

PLANNED SUBURBS

Olmsted was also a pivotal figure in the evolution of upscale suburbs planned in the "romantic" or "picturesque" style. Commuter railroad service, which began in large cities in the 1850s, offered the upper middle class the opportunity to live in new, low-density communities beyond the crowded city. Some of the early railroad suburbs were simple grids imposed on preexisting farming villages, but others were consciously designed in the park-making tradition with large lots, pathways, and curving streets adapted to the landscape. Early examples from the 1850s are Llewellyn Park, New Jersey, and Lake Forest, Illinois. The classic "model suburban neighborhood" was Olmsted's 1868 design for Riverside, Illinois, located on 1,600 acres along the Des Plaines River, 11 miles west of Chicago. The goal was a pastoral landscape in which streets, walkways, and trees created "secluded peacefulness and tranquility."

The design elements of the "romantic suburbs" have remained important parts of the suburban planning vocabulary, overlapping with the more socially conscious goals of the Garden City movement. The exclusive residential development or suburb, with tasteful provision of retail facilities, schools, and churches, flourished in the late nineteenth century (for example, Chestnut Hill in Philadelphia, Roland Park in Baltimore, and Inman Park in Atlanta) and the early twentieth century (for example, Shaker Heights near Cleveland and the Country Club District of Kansas City). Although many of these districts have been incorporated into the fabric of the central city, it is still easy to identify them on a map by spotting those neighborhoods whose curving streets interrupt the otherwise regular grid.



OLMSTED'S PROSPECT PARK, BROOKLYN, NEW YORK

Source: Rogers, Elizabeth Barlow. 1972. Frederick Law Olmsted's New York. *New York: Praeger, in association with the Whitney Museum of American Art.*

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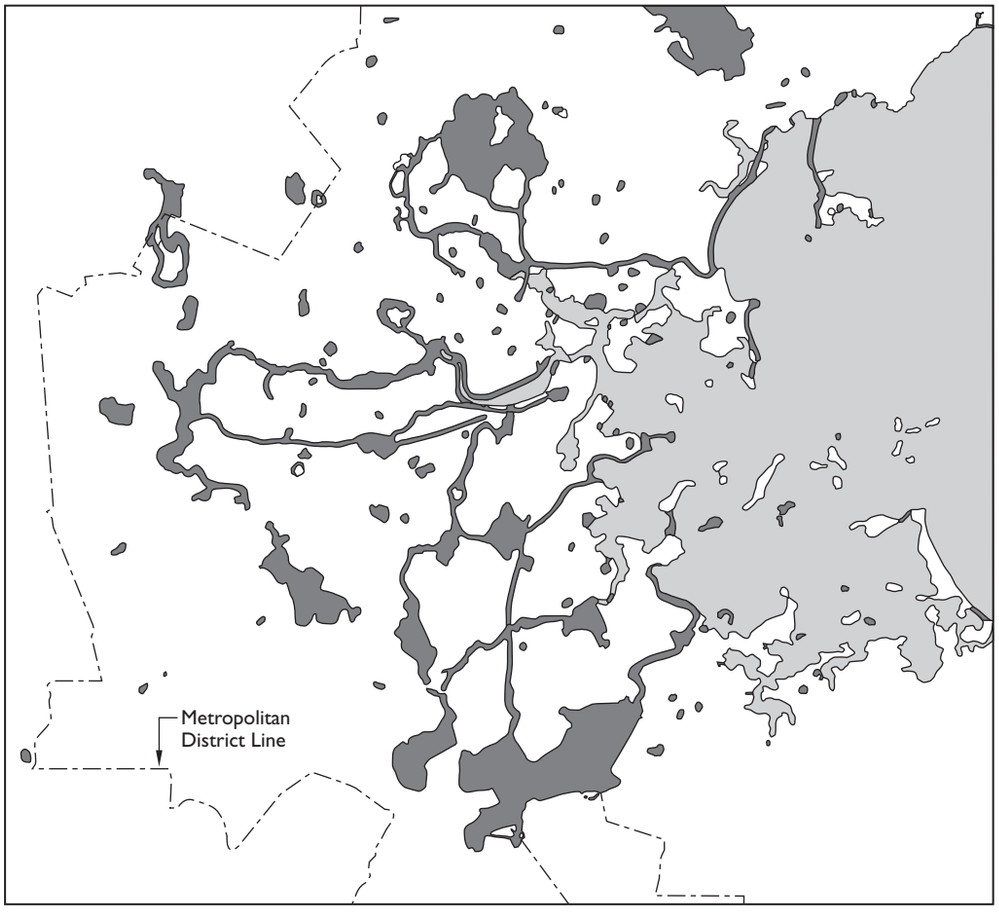
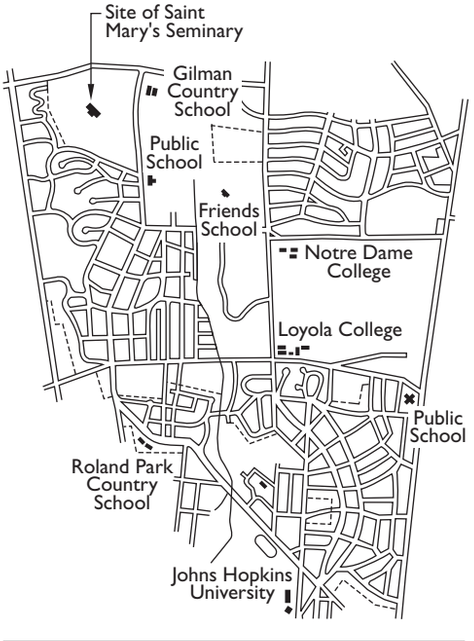


BOSTON'S METROPOLITAN PARKS SYSTEM, 1902

Source: Mel Scott, American City Planning Since 1890: A History Commemorating the Fiftieth Anniversary of the American Institute of Planners, *© 1969 The Regents of the University of California.*

PORTION OF GENERAL PLAN OF RIVERSIDE, ILLINOIS

Source: Frederick Law Olmsted and Calvert Vaux, 1868.



ROLAND PARK, BALTIMORE, MARYLAND

Source: U.S. Government Printing Office, 1939.

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See also:

Conservation Developments
Greenways and Trails
Parks and Open-Space Plans
Types of Parks

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ENGINEERING LIVABLE CITIES

SANITATION AND SURVIVAL

Cities in the first stages of industrialization, like those of Britain and the United States early in the nineteenth century, were death traps where environmental pollution, fire, and disease ravaged the vulnerable poor. The early history of American cities is punctuated by epidemics of typhus, yellow fever, and cholera that could sweep off 5, 10, or even 15 percent of a city's population in a single year. Observers knew that leaking cesspools, privy vaults for human waste, and streets piled high with rotting garbage, animal waste, and dead horses were surely bad for people, but it took John Griscom's 1845 report on "The Sanitary Condition of the Laboring Population of New York," and Lemuel Shattuck's similar 1850 report for Massachusetts to demonstrate the direct relationship between filthy living conditions and disease. Shattuck was also a founder of the American Statistical Association, demonstrating the connection between the development of public health as a distinct field and the rise of urban social analysis. In response to a growing scientific consensus, New York adopted the first systematic public health code in 1866, basing its provisions on a building-by-building survey. The code is given credit for cutting mortality from the next outbreak of cholera by 90 percent from what it might have been.

WATER AND WASTEWATER SYSTEMS

It took water to fight filth and fires. Philadelphia opened the first city water works in 1801, primarily to be able to wash down streets and fight fires. Boston reached westward for water, and New York reached north, opening the Croton Aqueduct from Westchester County to Manhattan with a great celebration in 1842. Chicago, with no sparkling mountain streams to tap, extended tunnels miles into Lake Michigan to take in water that was free from polluted runoff from the city. Initially designed for civic purposes, municipal water systems began to serve private households in the 1860s and 1870s for cooking, bathing, and the newly popular water closets or flush toilets. By the later decades of the century, new houses and apartments were being built with "bath rooms" for the private use of city water.

The solution to one problem often creates another, however, and the growing use of water was no exception. The water that flowed so freely *into* homes and businesses also had to flow *out*, usually contaminated with various wastes. That meant that cities needed systems of sewers. Drawing on the pioneering efforts of European cities, such as Hamburg and London, the common solution was a combined system for draining both streets and buildings. Most cities initially relied on gravity for drainage, but Chicago was too flat. Already accustomed by the 1860s to doing things in a big way, city officials adopted Ellis Chesbrough's proposal to raise the entire city, laying sewers on or just below the surface, covering them, and filling in around them. New buildings were erected on the new grade; old buildings could either turn their original ground floor into a basement or lift the entire structure. The first area-wide drainage plan was Boston's Metropolitan Sewerage Plan in 1875.

STREETS AND BRIDGES

Transportation created still other engineering problems. Early city streets were dirt, sometimes covered with gravel, but nearly always reeking with animal waste and garbage in standing water. Even with pressurized water systems, soft surfaces were nearly impossible to flush clean. Through the middle decades of the nineteenth century, cities experimented with pavements of wooden blocks, cobblestones, macadam (crushed stone compacted with steam rollers), and asphalt.

Other engineers took on the challenge of bridging the rivers on which cities often stood, creating monuments such as the Cincinnati-Covington Bridge over the Ohio River (1867), Eads Bridge over the Mississippi River at St. Louis (1874), and the Brooklyn Bridge across the East River between Brooklyn and New York City (1887).

ENGINEERING AND PLANNING

Taken together, these efforts to design and construct urban infrastructure had powerful effects on shaping American cities. In many ways, the municipal engineers who began to systematically construct and manage the range of urban public works projects—water supply, sewers, streets, bridges, park facilities—were the first city planners. Along with landscape architects and park designers, they were among the first to think comprehensively about future patterns of growth and the facilities needed to serve that growth. Their work paved the way for the development of land-use planning as a related specialty and set the stage for the continuing overlap of the concerns of civil engineering and planning on concerns such as environmental protection and transportation.

See also:
Community Facilities Plans
Wastewater Treatment
Water Supply

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GARDEN CITIES

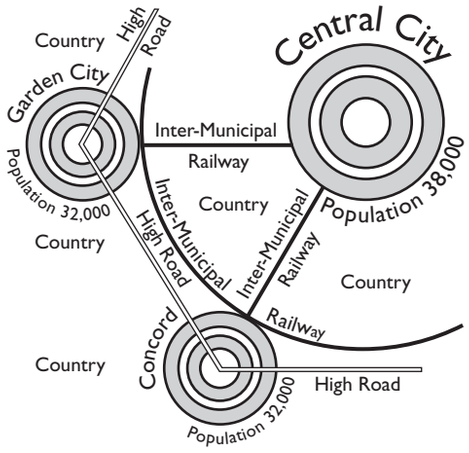
EBENEZER HOWARD AND *GARDEN CITIES OF TO-MORROW*

Ebenezer Howard, a court stenographer in London, had a longstanding interest in mechanical invention and moved in reform-minded circles. Born in England in 1850, he had spent his early twenties in the American Middle West before returning home to a steady middle-class life. Along with thousands of other readers, he was taken by Massachusetts industrialist Edward Bellamy's utopian novel *Looking Backward* (1889), which offered an optimistic faith in technology and social cooperation. Deeply concerned about the overcrowded London in which he lived, Howard, in 1898, published *Tomorrow: A Peaceful Path to Real Reform*, reissued in 1902 as *Garden Cities of To-Morrow*.

Howard addressed the book to a simple, basic question: "Given 6,000 acres of land, how shall we endeavor to make the best use of it?" His answer was a proposal for the radical deconcentration of industrial cities. Appalled by the social misery of London's teeming slums, he envisioned a network of largely self-sufficient satellite cities that would intercept London-bound migrants. The first "garden cities" would prevent the metropolis from becoming any more swollen. Later towns might even allow the squalid neighborhoods of East London to empty out and the remaining urban fabric become more livable. In his own words, "[A]s men hasten to build up this [garden city] and the other towns which must inevitably follow its construction, the migration to the towns—the old, crowded, chaotic slum towns of the past will be effectually checked, and the current of population set in precisely the opposite direction—to the new towns, bright and fair, wholesome and beautiful."

The Garden City was to be the best of two worlds: large enough to have the benefits of concentration but small enough to remain close to the countryside. Like Frederick Law Olmsted, Howard wanted to blend urban and rural advantages. "Neither the town nor the country represent the full purpose of nature. Human society and the beauty of nature are meant to be enjoyed together. The two must be made one…. Town and country must be married, and out of this joyous union will spring a new hope, a new life, a new civilization."

Howard was interested in both political economy and urban design, but it is the latter that has gotten the most attention. He envisioned a set of free-standing towns encircling the metropolis, connected to each other by a circumferential railroad and to the city by radial rail lines. As the first circle of towns filled, he envisioned the development of a second circle. In every case, the towns would be separated from the city and from each other by undeveloped rural land—a greenbelt in fact if not in name. For each Garden City, Howard proposed a 1,000-acre core to house 30,000 people, surrounded by 5,000 agricultural acres supporting another 2,000 people and supplying fruits, vegetable, and dairy products for the town. There would be a strong town center with park, library, hospital, theater, town hall, and shopping. Six distinct neighborhoods would each center on a school.



GARDEN CITY DIAGRAM

Source: Ebenezer Howard, 1902.

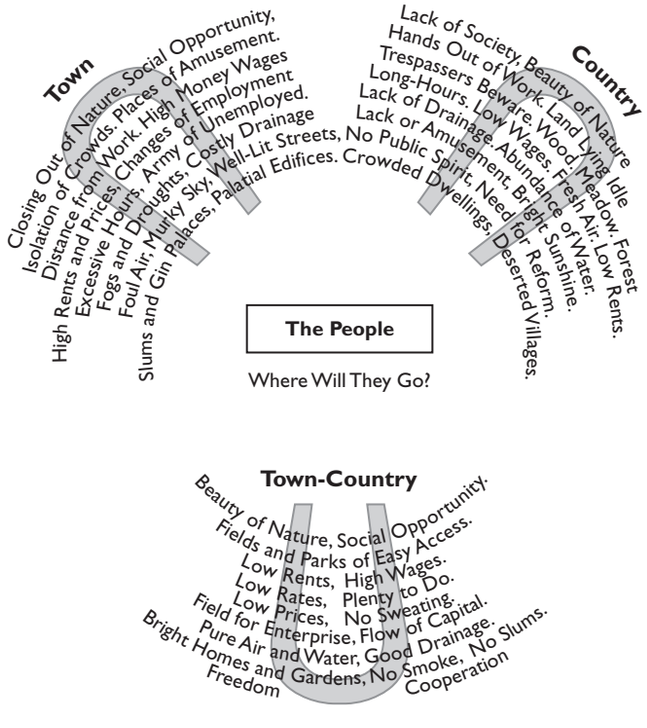
Industrial sites for the self-sufficient town would be on the edge to keep the "smoke fiend" at bay.

Howard was a socialist as well as an urban visionary. He hoped that the town site would be owned in common on behalf of the community. Increases in land value would then be able to fund community amenities and services. Townspeople themselves would decide which services they needed and set rent levels accordingly. These economic dimensions of Howard's ideas show the influence of American Henry George, whose book *Progress and Poverty* argued for a "single tax" on land because increases in the value of land are "unearned increments" that are the product of the larger society rather than individual initiative. Not surprisingly, these political and economic aspects of Howard's vision had less impact than his great idea that "the free gifts of Nature" could be designed into the fabric of a decentralized metropolis, although they remained very important to Howard himself.

GARDEN CITIES IN ENGLAND

Howard inspired many disciples, and two efforts were made to implement his ideas in early twentieth-century England. Letchworth, located 35 miles from London, was begun on 4,000 acres in 1905. Architects Barry Parker and Raymond Unwin adapted Howard's scheme to the actual site, with substantial success. Many of the town's residents also worked there; housing sites were spacious (for England); and a greenbelt set the town off from its environs. Welwyn, which followed in 1919, was also a financial and design success.

The Garden City concept had a longer-term impact in the "new towns" program that dominated British planning after World War II. The British government designated a "green belt" of restricted development around the existing London suburbs and, in the 1950s and 1960s, constructed satellite cities such as Hemel Hempstead outside that zone. The "new towns" tended to be substantially larger than Howard had proposed, and they had to be designed around automobiles as well as rail.



THE THREE MAGNETS

Source: Ebenezer Howard, 1902.

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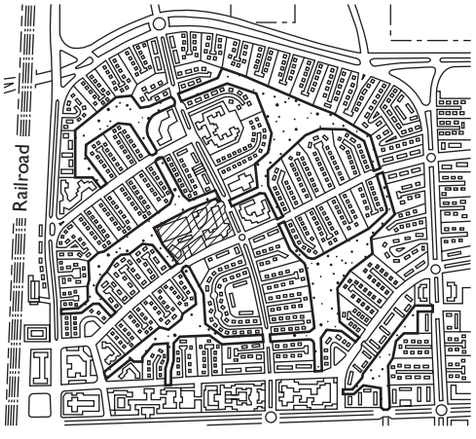
GARDEN CITIES IN THE UNITED STATES

In the same era as Welwyn, an early planned community in the United States that showed the influence of Howard's ideas was Forest Hills Village, built in Queens, New York in 1913 by the Russell Sage Foundation as a demonstration community for well-designed, middle-class housing. Also in the same emerging tradition were several federally sponsored communities for defense workers during World War I, such as Yorkship Village in Camden, New Jersey, and Hilton Village in Newport News, Virginia.

A more substantial American application was Radburn, New Jersey, begun just across the new George Washington Bridge from New York in 1928.. Designed by Henry Wright and Clarence Stein, Radburn was to be the "Town for the Motor Age." The plan used many design elements now common in planned communities. Superblocks, a large residential planning unit free from vehicular encroachment, provided uninterrupted pedestrian access from every building to a large recreation area within the center and pedestrian underpasses at major arteries. Radburn was intended for a population of 25,000, but only a fraction was built because the onset of the Great Depression dried up financing. Nevertheless, it was and is a successful residential suburb.



PORTION OF PLAN OF RADBURN, NEW JERSEY

Source: U.S. Government Printing Office, 1939.

THE FEDERAL GOVERNMENT AND GREENBELT TOWNS

If the Depression halted the expansion of Radburn, New Jersey, it provided the impetus for a set of "garden cities" funded and built by the federal government between 1935 and 1938. The Resettlement Administration, a New Deal agency—headed by Rexford Tugwell—applied the planning principles of Garden Cities and Radburn to the development of three new "greenbelt" towns: Greenhills, Ohio, near Cincinnati; Greendale, Wisconsin, near Milwaukee; and Greenbelt, Maryland, near Washington, DC. A fourth town, to be located in New Jersey, was never built. Like Howard's model, these were to be both planning experiments and social experiments, testing an alternative to slum clearance for solving the housing crisis and showing the possibilities of cooperative organization.

With architects and planners suffering from the economic collapse, the greenbelt towns were able to draw on the best design talent. Each town was designed for 4,000 residents. Each had a community center, an encompassing greenbelt, and superblocks that separated vehicular and pedestrians routes. Local taste meant that Greendale was built with detached houses, Greenhills and Greenbelt with row houses and apartments. The first residents were carefully screened because Resettlement Administration officials wanted to ensure success. Greenbelt, while not named, featured prominently as an example of what-to-do in *The City*, the documentary film for the New York World's Fair of 1939, which was scripted by Lewis Mumford, photographed by Pare Lorenz, and sponsored by the American Institute of Planners. After World War II, Congress privatized the towns, with Greenbelt maintaining its most distinct identity.

GARDEN CITY INFLUENCES

Howard's Garden City and early efforts to put his ideas into practice have had multiple influences on planning practice:

- A number of federal communities built to serve dam construction or military needs reflected some of the design principles (for example, Norris, Tennessee, and Los Alamos, New Mexico).
- The idea of diverting urban growth to self-contained satellite cities resurfaced in the United States in the New Towns movement of the 1960s and 1970s.
- Greenbelts, in whole or in part, have become important growth management goals and tools in many communities.
- The design vocabulary of vehicle/pedestrian separation and neighborhood units has influenced both suburban and resort community planning.

Planned unit developments (PUDs) and transit-oriented developments (TODs) are more recent ways to implement the principles of comprehensive community design that Howard articulated.

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See also:
Conservation Developments
Planned-Unit Development
Transit-Oriented Development

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CITY BEAUTIFUL

CIVIC ART

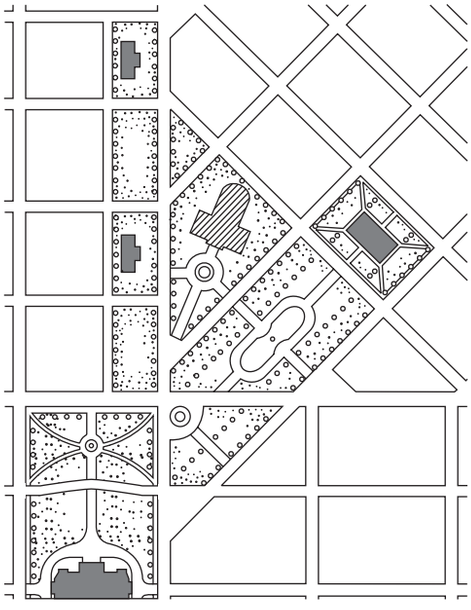
Many Americans in the late nineteenth century came to recognize that their towns and cities were ugly—or at least raw, rough, and unfinished. Under a variety of names, residents in hundreds of smaller towns and larger cities organized what can generically be called "beautification societies." Their goals were sometimes quite modest: trees for the barren town square, removal of the tangle of electrical and telephone wires that were beginning to loop city streets, paved sidewalks to lift pedestrians out of the mud, playground and picnic facilities for the undeveloped city park. Other residents looked to erect statues, memorials, and public art. Still others worked to replace inadequate public buildings with libraries, city halls, schools, and courthouses worthy of a great republic. In 1901, Charles Mulford Robinson summarized and promoted such efforts in his book *The Improvement of Towns and Cities*. Various park and civic improvement organizations of the 1890s merged in 1904 into the American Civic Association, which (perhaps optimistically) identified more than 2,000 local affiliates.

WORLD'S FAIRS

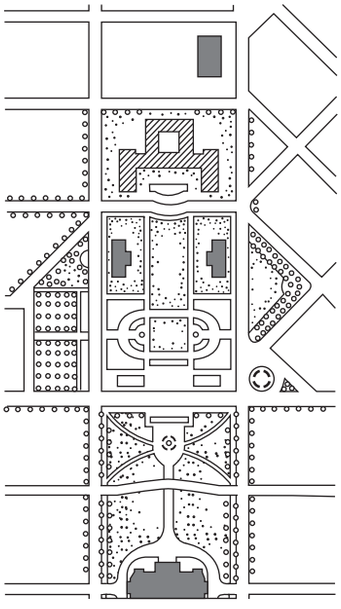
In the same decades, cities from coast to coast were staging international expositions and world's fairs, which required the construction of a harmonious set of exhibition buildings arranged to speed the circulation of tens of thousands of visitors. The World's Columbian Exposition at Chicago in 1893 set the standard. On grounds carved from the sandy shore of Lake Michigan, following a scheme by Frederick Law Olmsted, rose a "White City" of impressive exhibit halls, arranged around lakes and reflecting pools. The neoclassical architecture and formal design mimicked European capitals and announced the nation's global aspirations. Other fairs followed between 1897 and 1915, in Omaha, Nebraska; Buffalo, New York; Saint Louis, Missouri; Portland, Oregon; Norfolk, Virginia; Seattle, Washington; and San Diego and San Francisco, California. They varied in ambition and architectural styles, but each was an exercise in the comprehensive planning of a substantial tract of undeveloped land.

WASHINGTON, DC, AND CIVIC CENTERS

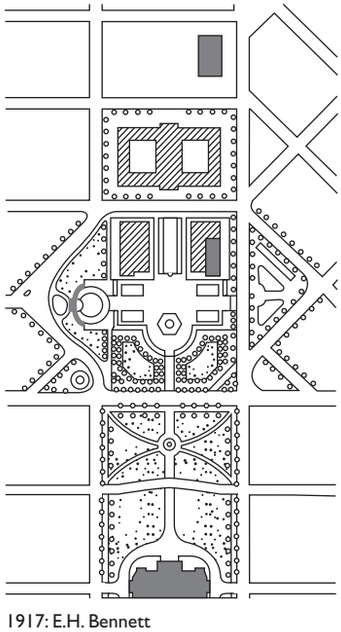
The single most important center for American civic life was Washington, DC, whose monumental plan by Pierre-Charles L'Enfant had increasingly been disregarded. An exhibit by the American Institute of Architects provided impetus for Senator James McMillan of Michigan to secure funding for a committee of experts to advise on future development for the federal city. After studying the imperial capitals of Europe, the McMillan Commission in 1902 issued a plan for reworking Washington's public core—a plan that has been followed, by and large, over the ensuing century. With the McMillan Commission Plan as an example, and with Progressive Era ideas about the positive functions of government in mind, other cities also undertook to plan and build civic centers, systematic groupings of public buildings around parks and plazas. Notable examples include San Francisco, Cleveland, and Denver (it took the latter four tries to come up with the design the city enjoys today).



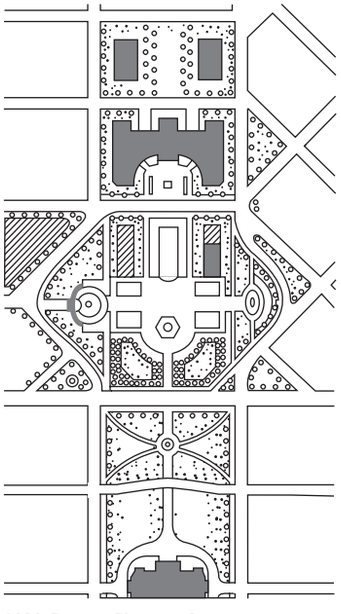
1906: C. Mulford Robinson



1912: F. L. Olmsted, A. W. Brunner



1917: E.H. Bennett



1930: Denver Planning Commission

DENVER CIVIC CENTER: CHANGING SCHEMES

Source: Mel Scott, American City Planning Since 1890: A History Commemorating the Fiftieth Anniversary of the American Institute of Planners, *© 1969 The Regents of the University of California.*

CITY BEAUTIFUL PLANS

In some cities, redesigned civic centers were only one element in comprehensive "city beautiful" plans. The most well-known examples are the plans that Daniel Burnham and his colleague Edward Bennett prepared for San Francisco (1907) and Chicago (1909). The Chicago Plan, produced with sumptuous drawings, was sponsored by that city's Commercial Club of civic-minded businessmen, and a pamphlet summarizing the plan became part of the public school curriculum into the 1920s. Bennett, Virgil

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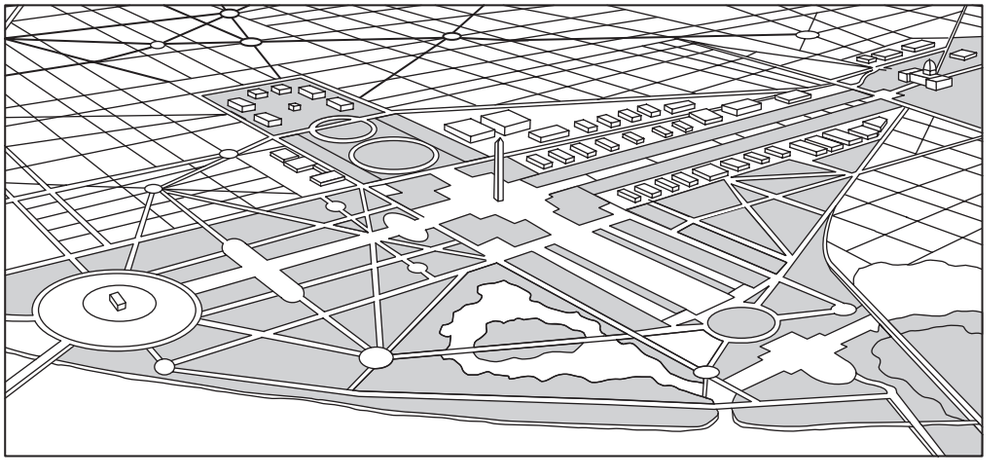

SENATE PARK COMMISSION PROPOSALS FOR CENTRAL WASHINGTON, DC

Source: Senate Park Plan Commission, 1901.

Bogue, and other urbanists produced similar plans for Harrisburg, Pennsylvania; Portland, Oregon; Seattle, Washington; and other cities, usually under private civic sponsorship. The term "city beautiful" has stuck to these plans for three reasons: their ties with the civic improvement and beautification movements; their roots in monumental planning for world's fair sites and Washington, DC; and their maps and drawings, which could make an ordinary U.S. city look like a future Vienna or Paris. In historian William Wilson's words, the Chicago plan was a "visual idealization of civic harmony."

In fact, plans such as those of Burnham and Bennett were also the first comprehensive metropolitan plans. Their authors took on the ordering of the following elements for the entire metropolis:

- Ports and railroad terminals
- Industrial districts
- Major streets, including new radial and circumferential highways
- Civic spaces and plazas
- Sites for public buildings
- Parks

Burnham felt the challenge was the need to plan and design for whole cities. These ideas would soon be reiterated by John Nolen, who cited the "growing appreciation of a city's organic unity" in publications such as *City Planning* (1916). Although some commentators then and now mark a division between the City Beautiful of the 1900s and the City Efficient of the 1910s and 1920s, there were more similarities than differences in the goals and ambitions.

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See also:

Parks and Open Space

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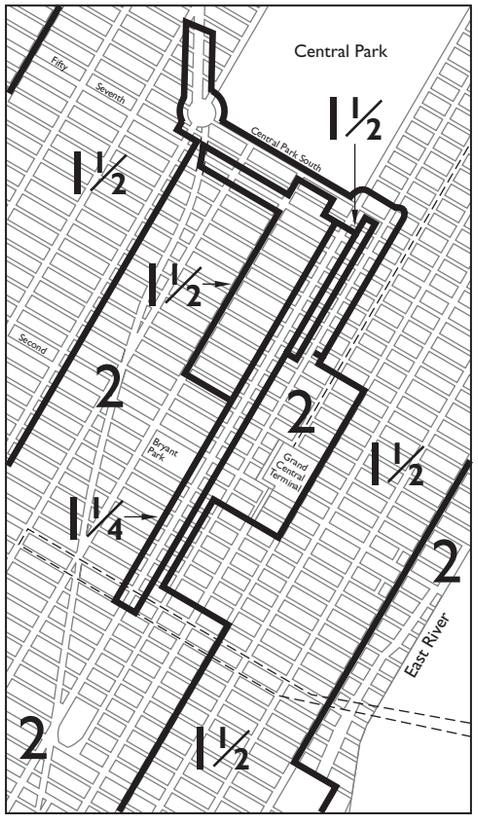
PRACTICAL PLANNING

Planning took the first step from a civic movement to a profession with the First National Conference on City Planning (NCCP) and the Problems of Congestion in 1909, which brought together architects, landscape architects, housing reformers, and city beautiful advocates. The next year, the NCCP became an ongoing organization whose meetings were precursors of the annual conference of the American Planning Association. The concerns of planning, said Frederick Law Olmsted, Jr., in 1910, were the means of circulation within cities, the distribution of public services, and the character of development on private lands.

ZONING

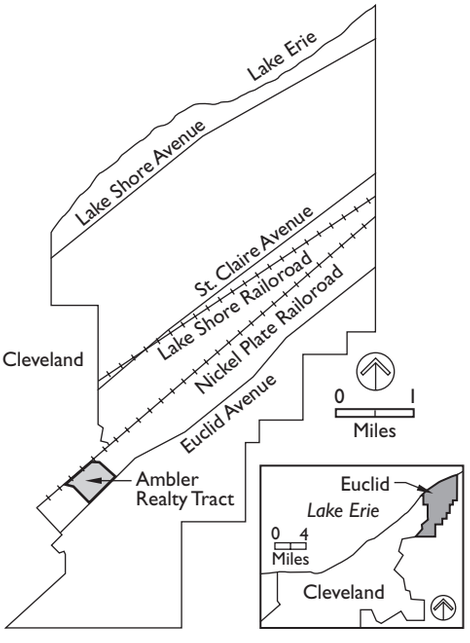
Planners in the 1910s got a new tool—land-use zoning—to deal with the third concern. American antecedents included city ordinances that controlled certain building types (e.g., all-brick districts in urban centers to reduce fire hazard) or exiled noxious activities to limited areas, but systematic land-use zoning to regulate land uses and intensity of development in different subareas was a German innovation. Informed civic leaders were aware of the German model, and several cities experimented with zoning, but New York City gets the credit for adopting the nation's first citywide zoning ordinance in 1916. The law divided the city into residential, commercial, and unrestricted-use zones and added five categories of height limitations (pushing New Yorkers to construct the "step-pyramid" buildings common in much of Manhattan).

Zoning spread rapidly, promoted by consultants such as Charles Cheney. There were 24 zoned cities by 1917 and roughly 500 within the following decade. The U.S. Department of Commerce, under the leadership of Herbert Hoover, promoted a Standard State Zoning Enabling Act (1924) that gave states the authority to adopt local zoning laws. This followed earlier action by Wisconsin (1909), New York (1913), and Massachusetts (1913) to officially recognize planning as a proper function of municipal government. The landmark legal case was *Village of Euclid v. Ambler Realty Company* (1926). Overturning a lower court, the U.S. Supreme Court upheld the authority of the suburban Cleveland village to zone a portion of the land owned by the Ambler Company for single-family or two-family dwellings only, denying to the company the right to develop its entire tract for commerce and industry. The issue was whether Euclid's ordinance was a valid exercise of the police power or merely an exercise in "eccentric and supersensitive taste." Previous decisions had validated legislation on building heights, construction standards, and lot coverage, and the Court now concluded there was no good basis on which to reject limitations on uses. When the Supreme Court took the case, more than 27 million Americans were already living in cities under zoning ordinances; by the end of the decade, the total was more than 800 cities, including more than half of the nation's urban population.



HEIGHT RESTRICTIONS IN CENTRAL MANHATTAN UNDER THE 1916 PLAN

Source: Mel Scott, American City Planning Since 1890: A History Commemorating the Fiftieth Anniversary of the American Institute of Planners, © *1969 The Regents of the University of California.*



THE VILLAGE OF EUCLID, OHIO, SHOWING LOCATION OF THE AMBLER TRACT

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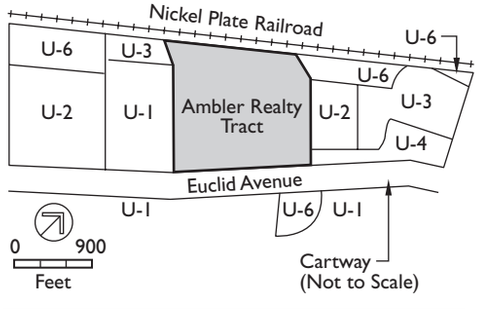

ZONING OF PROPERTIES NEAR THE AMBLER REALTY TRACT

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CONSULTANTS AND COMPREHENSIVE PLANNING

What many of these cities lacked was a comprehensive plan that treated public facilities, open space, transportation, and general directions of growth. Thoughtful planners, such as Alfred Bettman, who had filed a key brief in the *Euclid* case, understood zoning as a tool for implementing comprehensive plans. Although this principle has become legally binding in some states, such as Oregon, it was easy in the 1920s and 1930s for a city to enact a cookie-cutter zoning ordinance without a larger plan. In the absence of such a plan, zoning often codified the socioeconomic status quo, preserving middle-class neighborhoods and their housing values from unwanted change while opening working-class districts to redevelopment.

Despite this problem, enough cities wanted a comprehensive plan so that a number of national consultants were kept very busy, especially during the prosperous years of the 1920s. John Nolen and Harland Batholomew were particularly active in crafting plans covering rapid transit and streets, railroad terminals and port facilities, parks, public building locations, utility routes, and the treatment of rivers and bridges (all topics covered by Edward Bassett in *The Master Plan*). In this era of the "city efficient" or "city functional," the central concerns can be summarized as improving transportation systems and building the basis for continued economic growth.

PROFESSIONAL INSTITUTIONS

With zoning and comprehensive planning in its toolkit, planning was also becoming a self-conscious profession. The periodical *The City Plan*, the predecessor of the *Journal of the American Planning Association*, first appeared in 1915. Frederick Law Olmsted, Jr. and Flavel Shurtleff organized the American City Planning Institute in 1917, by which time at least 13 universities were offering courses in

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INSTITUTIONAL FIRSTS

1909	National Conference on City Planning
1909	Wisconsin recognizes planning as municipal function
1915	*The City Plan* (first planning periodical)
1916	NYC zoning ordinance
1916	John Nolen, ed., *The City Plan* (first planning text)
1917	American City Planning Institute
1923	First graduate degree in planning
1924	Standard Zoning Enabling Act
1934	American Society of Planning Officials

city planning. Harvard offered the first master's degree in planning in 1923 and created a School of City Planning in 1929, which grew out of landscape architecture. John Nolen's edited book, *City Planning*, which appeared first in 1916 and in revised form in 1929, was the predecessor of the International City/County Management Association "green books," which generations of planners have used.

Newly trained professionals worked for consulting firms and for local government planning commissions. City Beautiful plans had usually been prepared under the aegis of a private civic organization, such as the Civic Improvement Committee of Des Moines, the Civic League of St. Louis, or the City Improvement League of Dallas. By the time of the formation of the American Society of Planning Officials in 1934, in contrast, nearly 1,000 cities had formally appointed planning commissions, volunteer boards made up of realtors, engineers, architects, and other local businesspeople, and served, occasionally, by paid staff. If a profession is defined by a distinct set of institutions that develop, promote, and monitor the application of specialized knowledge, then by 1940, planning was a small but real profession.

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See also:

Comprehensive Plans
State Enabling Legislation
Zoning Regulation

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REGIONALISM, 1910–1940

THE METROPOLITAN IDEA

By the closing years of the nineteenth century, fast-growing American cities were breaching the traditional boundaries and concepts of "city." Political leaders responded with annexation and consolidation campaigns, such as the great Chicago annexation of 1889, which roughly tripled the area of the city, and the New York consolidation of 1897, which pulled together the separate cities of New York (Manhattan) and Brooklyn, Richmond County (Staten Island), Queens County, and part of Westchester County (the Bronx) into the single, huge City of New York. Scholars such as Adna F. Weber in *The Growth of Cities in the Nineteenth Century*, Graham Taylor in *Satellite Cities*, and Harlan Paul Douglass in *The Suburban Trend* turned their gaze to the relationships between cities and their growing suburbs. The U.S. Census struggled with measuring great, growing cities, and in 1911 came up with the concept of the "metropolitan district" as a way to interpret the 1910 census, paving the way for the Standard Metropolitan Area that has been used in different versions since 1950.

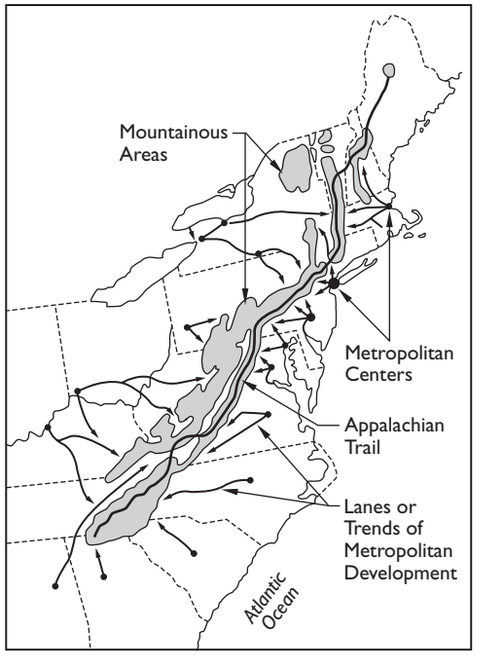
METROPOLITAN PLANS

This intellectual ferment supported a renewed concern for planning on a metropolitan scale. One strand of regional planning in the 1920s built on the recent heritage of the City Beautiful with comprehensive plans for regional infrastructure and efficient metropolitan growth. The Los Angeles County Regional Planning Commission (1922) was a pioneering effort to direct the physical development of more than three dozen municipalities. The Chicago Regional Planning Association (1923) was an early "council of governments." It conducted studies, created a regional highway plan, defined zoning and subdivisions standards, and worked to convince local jurisdictions to use such standards. A number of other cities copied one or the other of these two models: the countywide agency and the regional council.

In New York, Thomas Adams led the most important of these efforts with funding from the Russell Sage Foundation. The *Regional Plan for New York and Environs* (1929–1930) was a comprehensive scheme for the physical infrastructure necessary for the continued growth of the metropolis to an expected population of 20 million. The plan called for careful decentralization of business and industry into subcenters that could be easily served by highways and transit, with housing also dispersed in compact neighborhoods located to reduce the distance between home and work. One of the most striking proposals was for a set of radial and circumferential highways to tie together the sprawling metropolis. The proposal looked back to Daniel Burnham's similar ideas for Chicago and forward to the age of radial freeways, beltways, and edge cities.

REGIONALIST THOUGHT

Placing themselves in contrast with the New York approach were the members of the confusingly named Regional Planning Association of America (RPAA). The RPAA comprised a small group of New York-based architects, writers, and planners, who splintered from the AIA's Committee on Community Planning. They included Lewis Mumford, Henry Wright, and Benton MacKaye. They took their inspiration from the eccentric Scottish theorist Patrick Geddes, who agreed with many European geographers about the need for rooting social life in the natural patterns of the landscape and preached the need to plan holistically for ecological regions, such



BENTON MACKAYE'S APPALACHIAN TRAIL PROPOSAL

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Also known as the New York State Epoch III Plan, this drawing shows the RPAA's settlement and conservation pattern for the regional city.

1926 PLAN FOR THE NEW YORK STATE REGION

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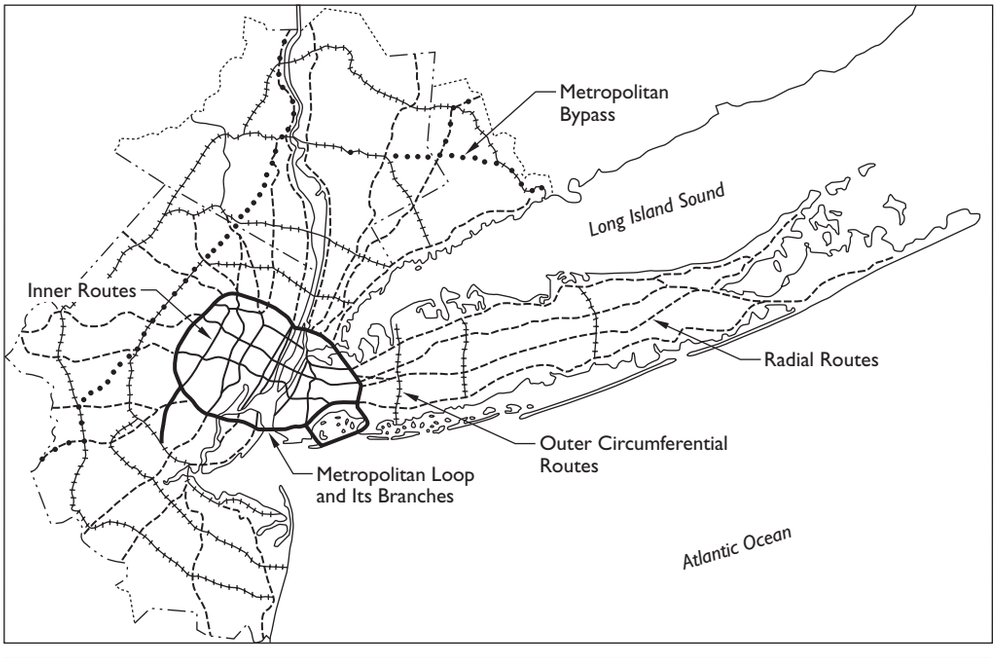

PLAN FOR THE NEW YORK REGIONAL HIGHWAY SYSTEM

Source: Regional Plan Association 1933.

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as river valleys. Adapting Geddes' ideas for the United States, RPAA members argued for the systematic planning of entire regions and states in ways that balanced the metropolis with healthy and prosperous subregions. They shared with Ebenezer Howard the desire to limit the expansion of the biggest cities, but they placed a much stronger emphasis on integrating new development within the existing framework of smaller towns, cities, and rural areas, and on people/place interactions.

Some of the most interesting ideas came from MacKaye. One proposal, from which many Americans have benefited, was for an interconnected set of trails and pathways that has been realized as the Appalachian Trail. Another was the "townless highway," a proposal to build high-speed highways around existing communities, facilitating their economic connections while protecting their character. He would be pleased with the way in which contemporary interstate highways link previously isolated communities, but not with the lack of foresight that has allowed freeway interchanges to turn into alternative town centers.

REGIONAL PLANNING AND THE NEW DEAL

The most important heir to RPAA thinking was New Deal regionalism in the 1930s. The Tennessee Valley Authority (1933) combined the American engineering impulse with a social vision. It built dams to protect agriculture, allow barge navigation, and provide affordable electricity for homes, farms, and factories, helping to rebalance an American national economy in which wealth had long flowed from the South and West to eastern banks, factories, and cities. The Grand Coulee and Bonneville Dams on the Columbia River had the same goal of regional balance and development: to water "pastures of plenty" and "turn darkness to dawn" in the words of songwriter Woody Guthrie.

The New Deal years also brought the National Resources Committee (it had several names during its existence from 1933 to 1943, originating as the National Planning Board and ending as the National Resources Planning Board). It promoted systematic thinking about national economic development and served as an umbrella for a number of state and regional (multistate) planning commissions that did good work in inventorying regional resources, economic development challenges, and social problems. Its report, *Our Cities: Their Role in the National Economy* (1937), is an elegant summary of progressive thinking about urban problems and planning before World War II. Although the report's team of authors identified 32 distinct problems of urban areas, they argued against wholesale decentralization and abandonment of core areas. Instead, they called for "judicious reshaping of the urban community and region by systematic development and redevelopment in accordance with forward-looking plans" in order to extend and increase "the benefits of modern civilization which the great city has brought to an ever-increasing proportion of our people."

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See also:
New Regionalism: Environment, Politics, and Planning
Regional Plans
Regions

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PUBLIC HOUSING AND URBAN RENEWAL

REGULATING SLUMS

As early as the middle of the nineteenth century, Americans knew that substandard housing was a serious problem for their growing cities. While a handful of new urbanites might enjoy a new suburb, such as Riverside, Illinois, tens of thousands crowded into shacks, shanties, cellars, single airless rooms, and tenements squeezed on busy streets and back alleys. The response was the first small steps toward housing regulation. No one questioned that the supply of housing belonged to the private market, but New York City adopted the first building restrictions in 1867. The city followed with the landmark Tenement House Act of 1879, which set basic standards for light and air, resulting in five- and six-story buildings with a pinched middle to create a narrow airshaft. Thousands of these "dumbbell" or "old law" tenements packed the blocks of lower Manhattan. Following the 1890 publication of *How The Other Half Lives*, the exposé by journalist and photographer Jacob Riis, New Yorkers revisited the housing question with more stringent regulations in 1901, creating what were known as "new law" tenements.

While no other American city packed its people as densely as New York, all suffered from cheap, dangerous, and overcrowded housing for the poor—firetrap housing that bred endemic diseases such as tuberculosis. In some cases, civic-minded philanthropists tried to develop "model tenements" or housing designs that offered better living conditions but that could still be built for a profit. By the early twentieth century, officials in most cities were adopting their own housing and building codes, justified as measures to protect the safety and health of the entire community. Construction and management of housing, however, remained a purely private enterprise.

PUBLIC HOUSING

The situation changed during the Great Depression of the 1930s, when the federal government took a central role in the production of new housing. The National Housing Act of 1934 created the Federal Housing Administration (FHA) to act as a housing mortgage insurance agency to bring adequate funds into housing construction and thereby to create new employment opportunities as a boost to the domestic economy. The Public Works Administration directly constructed housing until the U.S. Supreme Court ruled that such action had no constitutional justification. The National Housing Act of 1937 created a detour around the ruling. It created the U.S. Housing Authority (USHA) to channel financial assistance in the form of direct loans and annual operating subsidies to local housing authorities for slum clearance and for construction and operation of public housing for low-income families.

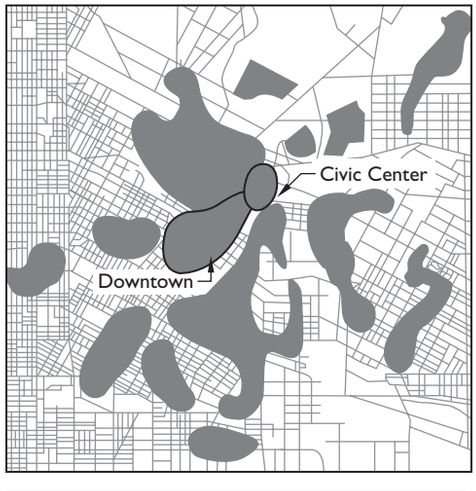
Before World War II intervened, the USHA provided 90 percent of the construction costs for 168,000 units. Local housing authorities came up with the remaining 10 percent, picked the sites, built the apartments, selected the tenants, and managed the complexes. The underlying idea was slum clearance, with one-for-one replacement of substandard tenements by inexpensive but decent apartments.

FEDERAL HOUSING AFTER WORLD WAR II

The United States faced a double housing crisis after World War II. On the one hand, there was not enough new housing to meet the pent-up demand and the needs of returning veterans who were about to launch the baby boom. One policy response was the Veterans Administration mortgage guarantee program to augment the FHA. On the other hand, old city neighborhoods, often built with substandard housing, were deteriorating, and the public worried about the cancerlike spread of urban "blight" from old slums into marginal neighborhoods. One of the federal reactions was to continue the use of "redlining" maps developed by the Home Owners Loan Corporation in the 1930s. These maps sorted neighborhoods by social and economic status to effectively deny loan assistance in the worst districts inside the "red line" on the map.

The National Housing Act of 1949 reaffirmed a federal commitment to the housing needs of the poor. Backed by Ohio's very conservative Senator Robert Taft, the act provided money for localities to assemble, clear, and then sell or lease land for "predominantly residential uses" to housing agencies or private developers. Congress also declared that "the general welfare and security of the Nation and the health and living standards of its people require… the elimination of substandard and blighted areas, and the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family."

The results did not match the rhetoric. More low-cost housing was demolished than was built as replacements. Because all the decisions were in the hands of local officials, new projects tended to perpetuate racial segregation. Many housing projects of the 1930s had been well-designed, low-density communities of townhouses and low-rise apartments with landscape plantings. In the 1950s and 1960s, however, architects and officials turned to 10- or 12-story slabs set in paved superblocks. Such massive Projects (the capitalization now seemed appropriate) were islands of poverty in the midst of the city, cut off from neighborhood life. Interior design standards forbade large rooms and prohibited closet doors (to encourage neatness). Projects such as Pruitt-Igoe in St. Louis and Robert Taylor Homes in Chicago quickly became icons of misguided policy—warehouses for storing the urban poor. Some of the worst of these projects were demolished within a couple decades of construction, while others have been removed more recently under the HOPE VI program.



MAP OF BLIGHTED AREAS IN LOS ANGELES, 1945

Source: National Housing Agency 1945.

URBAN RENEWAL

Congress was meanwhile transforming the redevelopment and housing program into urban renewal with Housing Act amendments in 1954 and 1959. After the latter year, 20 percent of federal capital-grant funds could be used for nonresidential development, and clearance projects no longer had to focus on substandard buildings. Urban renewal was a tool for trying to revitalize older downtowns. Cities across the country cleared low-intensity areas on the downtown fringe for a variety of uses: high-rise housing for the middle class, hospital expansion, new university campuses, civic centers, sports arenas, convention centers, and office buildings. In cities with strong real estate markets, the cleared land might fill up easily. In others, it sometimes sat vacant for years, even at a bargain-basement price, waiting for the right project. The quality of local planning determined whether the redeveloped district meshed with the fabric of the central core or turned its back on the downtown it was supposed to save.

The Housing Act of 1954 did encourage the expansion of the planning profession by giving direct assistance to municipalities with populations of less than 50,000 to undertake comprehensive planning and by authorizing loans and grants for metropolitan and regional planning. The Workable Program for Community Improvement, a feature of the 1954 act, required annual recertification of comprehensive master plans in order for cities to continue to be eligible for the various federal funds authorized by the act. Achieving racial, social, and economic mix constituted a requirement for city eligibility to receive federal funds—a requirement that was often ignored in actual implementation.

THE CRITIQUE OF URBAN RENEWAL

Urban renewal quickly became a controversial program. Many agencies bought and cleared more downtown land than the market could absorb, leaving unsightly parking lots and rubble-strewn blocks. Martin Anderson, a conservative critic, complained in *The Federal Bulldozer* (1964) that urban renewal short-circuited the private market, destroyed hundreds of

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small businesses, and unfairly favored a few politically connected developers. It was, he argued, an inefficient and costly intervention in the private market. From a different political stance, other critics argued that urban renewal was "Negro removal," a program that simply shoved unwanted populations from one location to another. A notable example was the "renewal" of Chavez Ravine in Los Angeles, displacing a low-income Mexican-American neighborhood in favor of Dodger Stadium. Similarly, a series of studies by Herbert Gans, Chester Hartman, and Marc Fried concluded that the urban renewal of Boston's West End had destroyed a viable neighborhood. Although official reports described the area as a slum, it was actually a stable ethnic community before the bulldozers scattered its residents to more expensive apartments in strange neighborhoods. The sorts of large-scale redevelopment at which urban renewal aimed was also one of the targets in Jane Jacobs's popular and insightful book *The Death and Life of Great American Cities* (1961).

Urban renewal as an independent program ended in 1974 when urban renewal funds were folded into the new Community Development Block Grant (CDBG) program. In various forms, however, it has remained part of the planning and development toolkit, often funded by local techniques such as tax increment financing.

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See also:

HOPE VI
Revitalization and Economic Development
Tax Increment Financing

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MEASURING AND MODELING

The planning profession's dynamic balance between the traditions of design and engineering shifted markedly in the 1950s and 1960s with the addition of quantitative analysis and modeling to the set of common planning techniques.

The key document was Harvey Perloff's 1957 book *Education for Planning.* Perloff, then the head of the planning program at the University of Chicago, the center of systematic research on urban society, called for a planning curriculum that emphasized systematic knowledge of cities as functioning systems shaped by—and, in turn, shaping—economic, social, and technological trends. With his emphasis on social and economic elements, Perloff viewed planning as rooted in the social sciences. The same orientation appeared in his argument that planners need to understand basic principles of socioeconomic change, to develop hypotheses, and to test these ideas with research. In short, planning educators should aim to train applied social scientists first, designers second.

Perloff's ideas fell on fertile soil. His stress on social research was in accord with the growing interest in planning as a means of social reform and empowerment (see Advocacy and Equity Planning). It also came at a time when universities and corporations were installing the first generation of mainframe computers. The new capability to perform calculations with electronic data processing quickly revolutionized the social sciences. By the 1960s, younger economists, sociologists, political scientists, and geographers felt that they now could make social science "scientific"; subsequently, their increasingly complex statistical analyses elbowed aside traditional descriptive and case study approaches.

This more sophisticated numerical analysis directly affected planning. Earlier generations of comprehensive and regional planners had conducted extensive inventories of land uses, housing, and infrastructure, producing detailed tables and land-use maps (the Regional Plan of New York had eight volumes of backup information!). The use of this information, however, had remained essentially subjective, based on the best professional judgment of experts. In contrast, the Chicago Area Transportation Study (1960–1962) was a massive effort to project the growth of the region and to employ origin and destination data to devise an efficient transportation system to serve that growth. The Penn-Jersey Transportation Study for the Philadelphia region similarly used social science theory to develop alternative scenarios for the region's growth. Both studies depended on processing large amounts of quantitative data. Helping to frame the analytical approach were the developing fields of regional science and regional economics, which hoped to develop general analytical models of metropolitan growth by applying gravity models, market theories, and other spatial and economic principles to construct large-scale models of land-use and transportation connections.

Although the efforts of the 1960s proved unsatisfactory, the vast increase in available computing capacity and in available quantitative data has allowed continued refinement of large-scale urban modeling and simulation. The quantitative revolution transformed academic planning research, as can be seen in the pages of the *Journal of the American Planning Association.* Much planning scholarship now involves the quantitative testing of cause-effect relationships, employing forms of multiple linear regression analysis. The relationships can range over the broad subject matter of planning: the effect of rent control on housing availability, the effect of light rail stations on land development, the effect of streetscape on safety, and the implicit value of environmental amenities. Experts hope such modeling will help to differentiate between effective and ineffective planning interventions and policies, and clearly establish their comparative costs and benefits.

Daily planning practice has been more directly affected by another product of the data-analysis revolution—namely, geographic information systems (GIS). Maps have always been central tools and products of planning; since the 1980s, however, the spread of personal computers with vast data storage and manipulating capacity has made mapping a dynamic tool. GIS allows the customized layering of multiple sets of spatial information, creating a powerful analytical tool for exploring social, economic, and land-use variables. With the advent of the World Wide Web, GIS can also facilitate citizen access to spatial information (zoning maps, crime incidence, population change, and the like), helping to democratize access to planning information. Because of the visual dimension of mapping, it is an interesting twist that computer-dependent GIS also moves planning back toward its roots in urban design.

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See also:
Geographic Information Systems

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ADVOCACY AND EQUITY PLANNING

In 1967, members of the American Institute of Planners (AIP) argued vehemently over the character of planning. Since 1938, the AIP constitution had defined the field as "the planning of the unified development of urban communities and their environs and of states, regions, and the nation, as expressed through determination of the comprehensive arrangement of land uses and land occupancy and the regulation thereof." Now, after emotional debates, the AIP dropped the final phrase and defined five subfields: generalist, physical, social, economic-financial, and government-administrative.

ADVOCACY PLANNING

The AIP took this action during the same period that the profession was absorbing Paul Davidoff's influential manifesto for "advocacy planning." Davidoff recognized that American planning had originated and developed with the support of local civic leaders and with a business-oriented agenda of facilitating efficient metropolitan growth. He also recognized that inequality of expertise and information is one of the most basic sources of unequal power. He argued forcefully that planners should engage more directly in the struggle for equal civil and economic rights by using their expertise to plan for the needs of disadvantaged segments of society—they should fight for their own progressive values and advocate for their clients' views of community betterment. Both a planner and an attorney, Davidoff put his ideas into action through the Suburban Action Institute, which tried to open up suburban housing to the urban poor.

FAIR HOUSING AND FAIR-SHARE HOUSING

The issue that Davidoff chose to address was rooted in two generations of heavy migration of African Americans to northern and western (and southern) cities. The population shift began with the "great migration" of 1915 to 1930, which resulted in the "ghettoization" of black neighborhoods, and a second migration from 1940 to 1970, resulting in ghetto expansion and "second ghettos." Unlike European immigrant groups, who had usually lived in ethnically mixed areas, many blacks found themselves in nearly all-black neighborhoods in which they were confined by discrimination in mortgage lending (so-called redlining), closed real estate markets, and sporadic violence. Throughout the 1950s and 1960s, it proved very difficult to maintain racially integrated neighborhoods. When enough African Americans moved in (the "tipping point" tended to be around 20 to 30 percent of households), white households fled to other city neighborhoods or the suburbs.

Both ghettoization and white flight created large spatial inequities and inefficient land-use patterns (even to the extent of virtual neighborhood abandonment), making housing discrimination a planning problem. One response was neighborhood triage and marketing programs in which planners would help to identify neighborhoods in line for racial turnover and develop incentives to hold white households. A second was vigorous enforcement of fair housing laws, which have gradually, but not completely, opened housing markets to all races. A third response was "fair-share" housing programs. Pioneered by the Miami Valley Regional Planning Commission for Dayton, Ohio, fair-share programs were efforts to allocate subsidized and low-income housing equitably across a metropolitan area. Because most such programs have been voluntary for jurisdictions, they unfortunately have delivered less than hoped. However, the program created as a result of the case of *Gautreaux* v. *Chicago Housing Authority* (1969), which mandates the dispersal of low-income households throughout the region, has had modest success.

THE GREAT SOCIETY AND THE CITIES

Davidoff wrote at a time when the nature of federal urban programs was changing rapidly. The Community Renewal Act (1959) had responded to early concerns about urban renewal by supporting citywide surveys of housing and social needs to gather data to link housing policy with issues of health, welfare, and education. The establishment in 1965 of the cabinet-level Department of Housing and Urban Development (HUD) was the culmination of a long lobbying effort. Coinciding with the Great Society initiatives of President Lyndon Johnson, it symbolized federal government concern about the growing importance of affordable housing, inner-city deterioration, and urban sprawl.

HUD soon found itself administering the controversial Model Cities program. The Demonstration Cities and Metropolitan Development Act of 1966 provided for grants to 147 selected "model cities" to concentrate funds from various federal agencies for all forms of urban improvement on specified target neighborhoods. This crash program designed to create model neighborhoods never really had an opportunity to prove its worth because of changes in program objectives and funding priorities during the administration of President Richard Nixon. It stirred controversy because it gave the residents of the model cities neighborhoods a direct say about plans and programs, annoying both mayors and redevelopment bureaucrats.

THE RISE OF COMMUNITY DEVELOPMENT

The Housing and Community Development Act of 1974 effected an important change in the federal funding of community development programs. Existing "categorical" grants for various types of community improvements, such as water and sewer facilities, open spaces, urban beautification, historic preservation, neighborhood facilities, urban renewal, and model cities, were consolidated into a single program of community-development "block" grants, giving localities greater control over how the money was to be spent, within broad guidelines. These funds have since been distributed to various cities according to a formula based on population, poverty, and overcrowding. For more than 30 years, cities and urban counties have received $75 billion in Community Development Block Grants (CDBG) for community-oriented projects. The federal program shared some of the same goals and spirit as the Community Action program of the War on Poverty, as well as its emphasis on citizen participation. Indeed, the tension between pro forma citizen consultation and substantial citizen influence on planning decisions (as outlined in Sherry Arnstein's famous "ladder of citizen participation" in 1969) has remained an unresolved issue for planners.

In addition to funding tens of thousands of specific projects, the CDBG program helped to create the substantial practice of locally based "community development." Over the last two decades, thousands of nonprofit community development corporations (CDCs) have been organized in urban neighborhoods and rural communities. Depending on a combination of government funding, foundation grants, and program revenue, CDCs have become important producers of low-cost housing. In some cases, they have also taken on commercial revitalization, job training, and social services. At their best, CDCs simultaneously offer concrete services and develop the self-help capacities of local residents and communities.

EQUITY PLANNING

An important application of Davidoff's ideas is the idea of equity planning. The term was most notably applied in Cleveland in the 1970s. The city planning staff, influenced by Davidoff and led by Norman Krumholz, tried to keep the needs and concerns of the city's poorest neighborhoods and citizens on the public agenda. The practice requires support in city hall (e.g., by Carl Stokes and Dennis Kucinich in Cleveland) as well as enough political savvy on the part of planners to develop equity-based projects that remain acceptable for the city as a whole. Equity planning is thus a pragmatic effort to find ways to persuade business interests and the middle class that helping poor communities

PLANNING FOR EQUITY

Advocacy Planning
- Concern for disadvantaged communities
- Planners as advocates on behalf of the poor and minorities
- Primary stress on application of professional expertise
- Process orientation

Equity Planning
- Planners as advocates and brokers for the poor
- Strong emphasis on development of political support
- Stress on practical results and "doable" efforts
- Close connections to neighborhood political revolts
- Product and process orientation

Empowerment/Community-Based Planning
- Planners facilitate community action
- Importance of local knowledge to balance expertise
- Planning as iterative process
- Close connections to community development process orientation

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can be generally beneficial to the entire city. Many of the lessons of Cleveland were applied in Chicago in the 1980s under the mayoral administration of Harold Washington. That city's Economic Development Plan of 1984 was explicitly interested in redistributing the benefits of economic growth more equitably among groups and neighborhoods.

Through all of this work, planners have faced a tension between working within existing institutions and power structures (a pluralist approach) and seeking to assist the emergence of new social and political movements to challenge those institutions. A variation that leans toward the latter is empowerment planning, which emphasizes the importance of grassroots action. In this model, planners work closely with community residents to help the community itself define its problems and solutions. Professional expertise is balanced by local knowledge held and articulated by residents themselves. Although plans and projects are important goals, the process itself and the capacities that it develops among its participants are equally important. Empowerment planning thus reaches back in its intellectual framework to the Community Action and Model Cities programs of the 1960s and finds expression in grassroots community development work.

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See also:

Environmental Justice
Housing Plans
Participation

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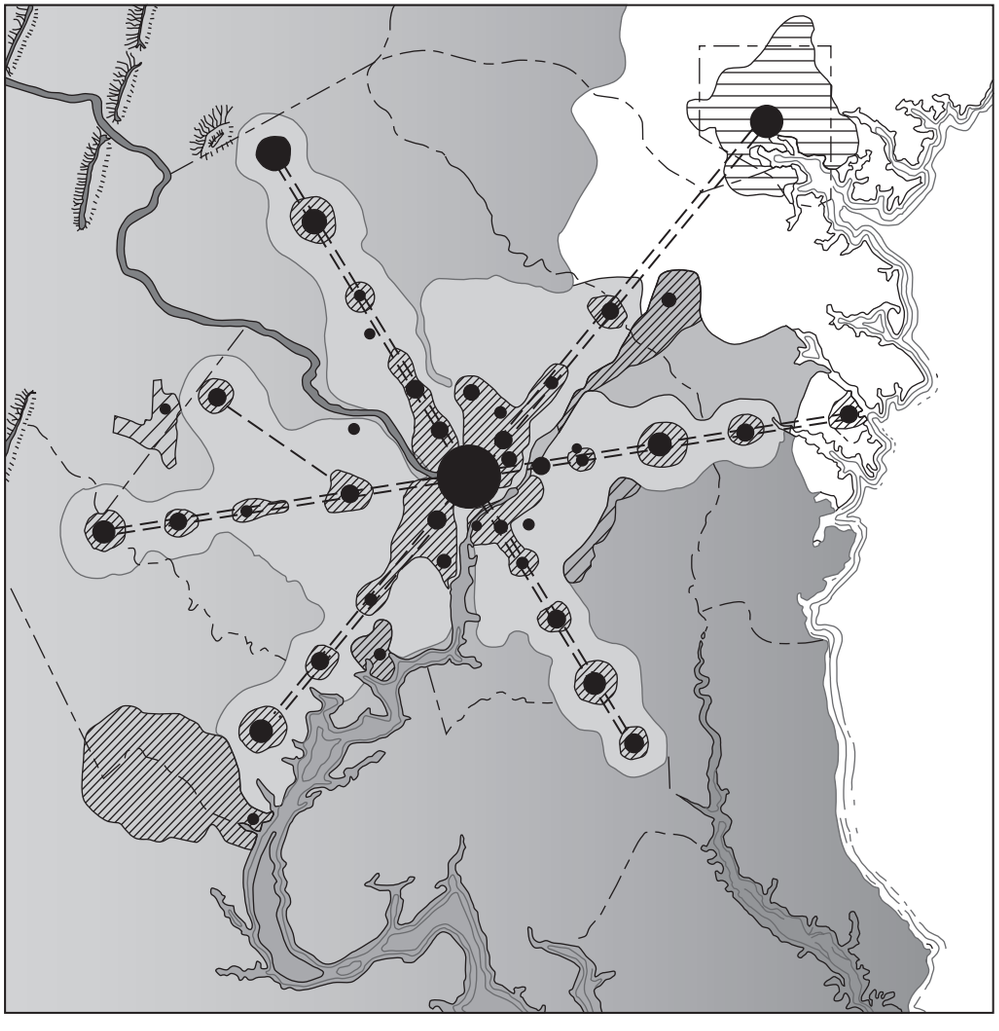
URBAN GROWTH AND ENVIRONMENTAL CONCERNS

THE CHALLENGES OF SPRAWL

When the post-World War II housing boom hit its stride, suburban development was occurring at an unprecedented scale in places like Lakewood, California, and the Levittowns of Long Island, Pennsylvania, and New Jersey. As the editors of *Fortune* magazine noted in a series of articles in 1957 and 1958, metropolitan sprawl was creating *The Exploding Metropolis* (the title of the 1958 book version of those essays). European geographer Jean Gottmann gave Americans a new word for the phenomenon with his book *Megalopolis* (1961). He identified an entirely new form of settlement emerging in the corridor from Boston to Washington. Megalopolis was a supermetropolis extending outward "on a rapidly expanding scale… mixing uses of land that look either urban or rural, encircling vast areas which remain 'green'… creating a completely new pattern of living and regional interdependence between communities."

The idea of superurbanization caught the imagination. Americans began to envision a future dominated by megalopolitan corridors, with BosWash in the East balanced by ChiPitts in the Middle West and SanSan in the West, along with smaller—but still vast—conurbations across Florida, along the Carolina Piedmont, along the Gulf Coast, around Puget Sound, and many other possibilities. For planners, Gottmann's analysis prompted a renewed interest in thinking about metropolitan form on the most comprehensive scale, in a way not seen since Ebenezer Howard's system of Garden Cities and its adoption by the Regional Planning Association of America. The new plans tried to project a pattern of urban expansion that could protect rural land while allowing economically efficient growth. Dealing with Washington, D.C., in 1961, the National Capital Planning Commission published *A Policies Plan for the Year 2000* that proposed a "starfish" model of outward growth along six corridors to be served by new mass transit. Consulting for Detroit Edison Corporation, Greek planner Constantinos Doxiades in 1966 developed an even more comprehensive scheme for arranging an estimated 9 million people across the landscape of future Detroit.



NATIONAL CAPITAL PLANNING COMMISSION: RADIAL CORRIDOR PLAN, 1961

Courtesy of National Capital Planning Commission.

SUBURBANIZATION AND ENVIRONMENTALISM

Suburban growth in the 1950s and 1960s also had direct consequences in environmental planning. Many suburbanites had moved to new homes to escape the environmental as well as social problems of cities. They increasingly noted that letting bulldozers loose on the countryside re-created some of the same problems. Overburdened septic systems and runoff from suburban yards and streets polluted streams. Tract development and regional shopping malls ate up the landscape, and the resulting traffic tie-ups polluted the air. The increasing awareness of suburban environmental problems added strength to an environmental movement that had been rooted in wilderness and wildlife preservation (Rachel Carson's *Silent Spring* was published in 1962; the Wilderness Act was passed in 1964).

The 1970s became known as the "environmental decade." By April 22, 1970, 10,000 schools and 20 million people were eager to take part in the first Earth Day, which was endorsed by the Nixon administration as a "safe" protest to divert energies from movement against the Vietnam War. Earth Day was accompanied and followed by a wave of new federal regulations and programs to improve air and water quality, control pesticides, and protect natural systems. Particularly important for urban and regional planning were the National Environmental Policy Act of 1969, administered by the new Environmental Protection Agency (1970), which required the preparation of environmental impact statements (EIS) before final decisions could be made to go ahead with federal and federally funded projects. Planners found that the EIS process provided new opportunities for consulting but also required training in natural sciences to supplement education in social science and design.

DESIGN WITH NATURE

At the same time, one other influential book reinvigorated the design approach to urban form, but it appeared within the context of environmentalism. Working from a base at the University of Pennsylvania, Scottish-American landscape architect and planner Ian McHarg developed the technique of overlay planning to guide metropolitan expansion. Simple in concept but complex in application, the technique involved the mapping of valued or vulnerable resources (forests, stream courses, wildlife corridors, aquifer recharge zones, historic sites) and overlaying the maps to identify the areas where development would do the least damage. McHarg published his ideas, along with examples from his work, in *Design with Nature* (1969). The book was both a primer on the technique and an impassioned plea to avoid the mistakes of past city-builders, as represented by the dark, smoky Glasgow of his youth. Its importance lies also in McHarg's unabashed reversal of the customary relationship between developers and environment, for to design with nature means to priv-

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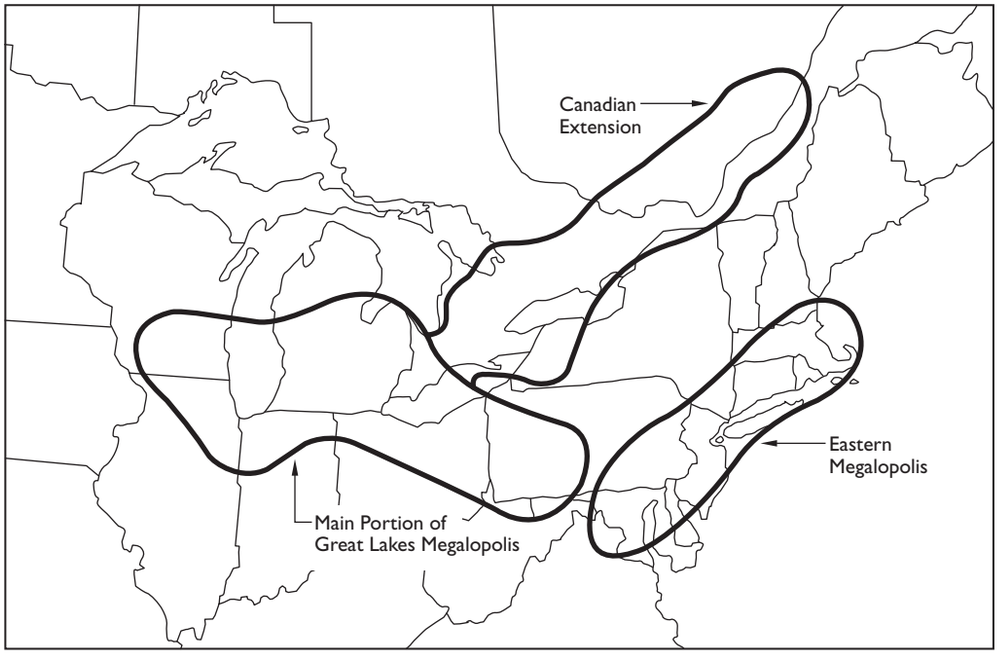

THE GREAT LAKES MEGALOPOLIS

Source: Doxiades 1970.

THE ENVIRONMENTAL DECADES

1961-1968: WILDERNESS AND WILDLIFE FOCUS

Wilderness Act (1964)
National Wildlife Refuge System (1966)
Wild and Scenic Rivers Act (1968)

1969-1976: POLLUTION CONTROL AND ENDANGERED ENVIRONMENTS FOCUS

National Environmental Policy Act (1969)
Environmental Protection Agency (1970)
Clean Air Act (1970)
Occupational Safety and Health Act (1970)
Water Pollution Control Act (1972)
Pesticide Control Act (1972)
Coastal Zone Management Act (1972)
Endangered Species Act (1973)
Toxic Substances Control Act (1976)

1977-1980: ENERGY AND HAZARDOUS MATERIALS FOCUS

Energy Policy and Conservation Act (1978)
Comprehensive Emergency Response, Compensation, and Liability Act (Superfund) (1980)

ilege the natural environment and to fit development where it does the least harm, not where it is most economical or efficient. The book, and approach, can be viewed as a predecessor to the idea of sustainability that would emerge in the 1990s.

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See also:

Environmental Impact Assessment
Environmental Management
Growth Management
National Environmental Policy Act
Statewide Land-Use Planning Programs

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STATEWIDE LAND-USE PLANNING PROGRAMS

One of the startling changes in planning in the 1970s was the appearance of state-based or statewide land-use planning programs. Since the legal beginnings of planning, states had delegated their constitutional authority over land-use regulation to counties and municipalities. Now, for the first time, states began to exercise that authority directly through statewide planning and regulatory programs.

The earliest cases were small states where land, or at least desirable land, was in obviously short supply. Hawaii adopted the first state planning system in 1961. As soon modified, the law divided the islands' land into four districts: urban, agricultural, low-density rural, and forest and water reserves, with appropriate levels of development allowed in each district. Vermont, another small state where desirable land was under intense pressure for recreational development, adopted a state planning program in 1970. The legislation required state permitting for developments of more than local significance. Although it proved difficult in implementation and was later modified, the program set an important precedent. So too did new programs to regulate development in two of the nation's most diverse and important coastal areas. Despite legislative reluctance, California voters approved a Coastal Zone Management Act by popular initiative in 1972. Two years later, North Carolina adopted its Coastal Area Management Act.

Against the background of this "quiet revolution in land use control," to use the phrase of Peter Bosselman and David Callies, came Oregon's comprehensive Senate Bill 100 (1973) establishing a statewide land-use planning system. The trigger for the effort was growing concern about the urbanization of the Willamette Valley. Extending roughly 100 miles south from Portland and averaging 30 to 40 miles wide, the valley is a rich agricultural region that is obviously finite, bounded by the peaks of the Cascades on one side and the Coast Range on the other. Like Vermont and Hawaii, therefore, Oregon was protecting a limited land resource.

The Oregon program requires that all cities and counties prepare and implement comprehensive land-use plans taking into account 14 statewide planning goals (and five regionally applicable environmental goals):

Goal 1: Citizen Involvement

Goal 2: Land Use Planning

Goal 3: Agricultural Lands

Goal 4: Forest Lands

Goal 5: Open Spaces, Scenic and Historic Area, and Natural Resources

Goal 6: Air, Water, and Land Resources

Goal 7: Areas Subject to Natural Disasters and Hazards

Goal 8: Recreational Needs

Goal 9: Economic Development

Goal 10: Housing

Goal 11: Public Facilities and Services

Goal 12: Transportation

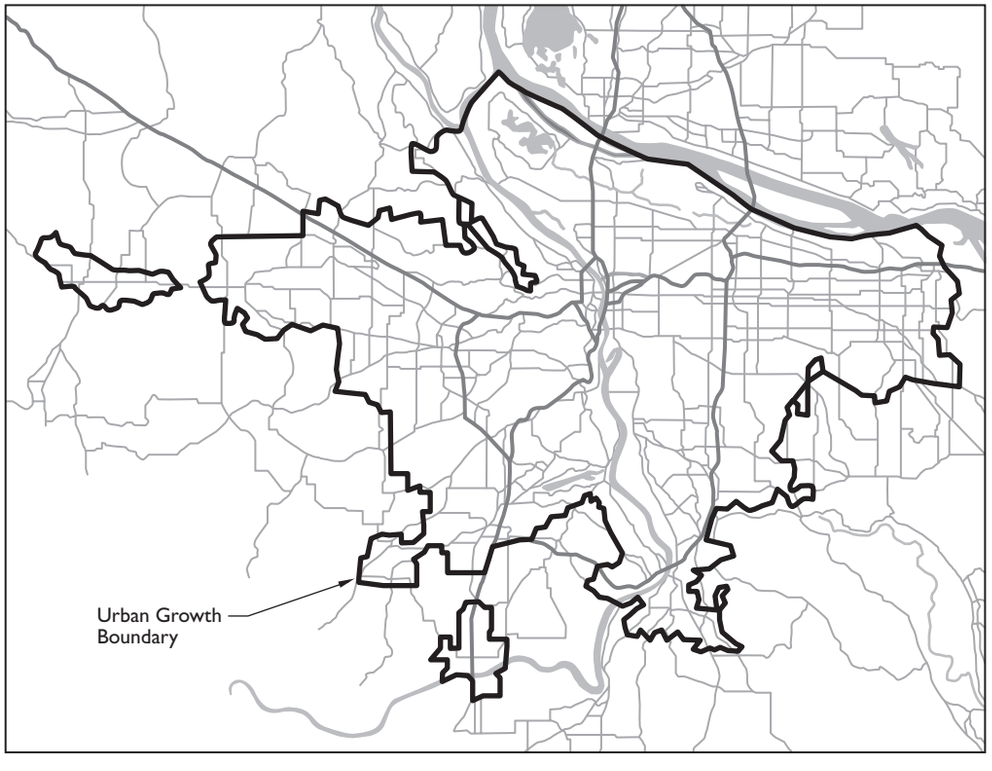
Goal 13: Energy Conservation

Goal 14: Urbanization

The Oregon Department of Land Conservation and Development reviews local plans and can send them back for additional work, but the plans themselves remain the work of local planners and officials. The most studied part of the Oregon system is the requirement that every municipality or metropolitan area establish an urban growth boundary (UGB)—a boundary seen as a line on a map "encircling" already developed land and a 20-year supply of undeveloped land. The UGB is expected to expand with the growth of its community but to maintain that growth in compact form. Although the UGB and other goals have become important tools for controlling urban form, it is important to remember that the basic motivation for the Oregon system was to protect productive farm and forest land.

UGB draws on the British greenbelt idea but makes it an issue of regulation rather than direct public acquisition. In this way it is very different from Boulder, Colorado, where a citizen initiative in 1967 approved a sales tax for open-space acquisition that has now placed 40,000 acres of open and sensitive lands in public ownership and established an effective cordon line around the city, separating it from the suburban sprawl of Denver.

The Oregon system was a bridge between earlier initiatives and a new generation of state planning programs in the 1980s and 1990s. Its perceived success helped to convince Florida, Maine, Georgia, Washington, Maryland, Tennessee, New Jersey, and Rhode Island to adopt their own statewide planning programs or standards. In some cases, such as Washington, the specific approach mirrors Oregon's. In other cases, such as Florida and Maryland, "concurrency," the idea that development should be paced to meet the capacity of local infrastructure, is emphasized strongly. Maryland's "Smart Growth" program, for example, is a "carrot" program that defines areas appropriate for urbanization or development and limits state aid for infrastructure to those areas. Tennessee's Growth Policy Act (1998) matches many of the goals of the American Planning Association's "Growing Smart" program, using both regulatory and incentive approaches.



URBAN GROWTH BOUNDARY, PORTLAND, OREGON

Source: Portland Metro 2002.

See also:
Farmland Preservation
Growth Management
Open-Space Preservation Techniques

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REDESIGNING DOWNTOWN

THE SOCIAL PSYCHOLOGY OF PLACE

At the start of the 1960s, two powerful books changed the ways that city planners thought about their cities. Kevin Lynch based *The Image of the City* (1960) on empirical research into the ways ordinary people perceived and used cities. He argued that nobody is capable of understanding a large city in all its complexity. Instead, people sort out the spatial chaos of their city by thinking in terms of districts, nodes, edges, corridors, and landmarks. A year later, architectural journalist Jane Jacobs took on the tradition of large-scale planning in *The Death and Life of Great American Cities*. Although blaming "planners" for many of the errors of architects, developers, and politicians, she made a cogent and compelling argument. Observe how people actually use their sidewalks, streets, and parks, she wrote, and you would understand the importance of a "street-level" approach to planning attentive to the *details* of urban form and design that create everyday environments.

In their very different ways—as social scientist and polemicist—Lynch and Jacobs introduced the practice of environmental psychology to planning. Their work stimulated social science research on planning-related topics, such as defensible space and the use of public space. It was further popularized by William H. Whyte's careful observations of the ways that people actually use the parks, plazas, and sidewalks of Manhattan, and the resulting suggestions for making public spaces people-friendly. In turn, research on environmental psychology provided a scientific, rational basis for reemphasizing traditional urban planning concerns with the design of cities.

Historic Preservation

An important product of the turn to urban design was the historic preservation movement. In 1966, Congress launched historic preservation in its modern form by establishing the National Register of Historic Places and system of state historic preservation offices. Over the next 15 years, preservation evolved from an elite activity concerned with national historical monuments and noteworthy architecture into an important planning and revitalization tool, with National Register nominations tying their buildings and districts to local rather than national history. In 1981, changes in the federal tax code added strong financial incentives for reinvestment in historic buildings. By the 1980s, hundreds of cities had local landmarks or historic preservation commissions staffed by architectural historians and planners.

One important outcome of the new interest in preservation was systematic efforts to revitalize old neighborhood business centers and small-town main streets. The National Main Street Center, launched in 1980 by the National Trust for Historic Preservation, tied together planning, preservation, and economic development approaches to the needs of smaller cities and towns. Modeled on programs developed earlier in the decade by the University of Wisconsin-Milwaukee and the city of Pittsburgh, the program required local, grassroots participation and focused on four principles:

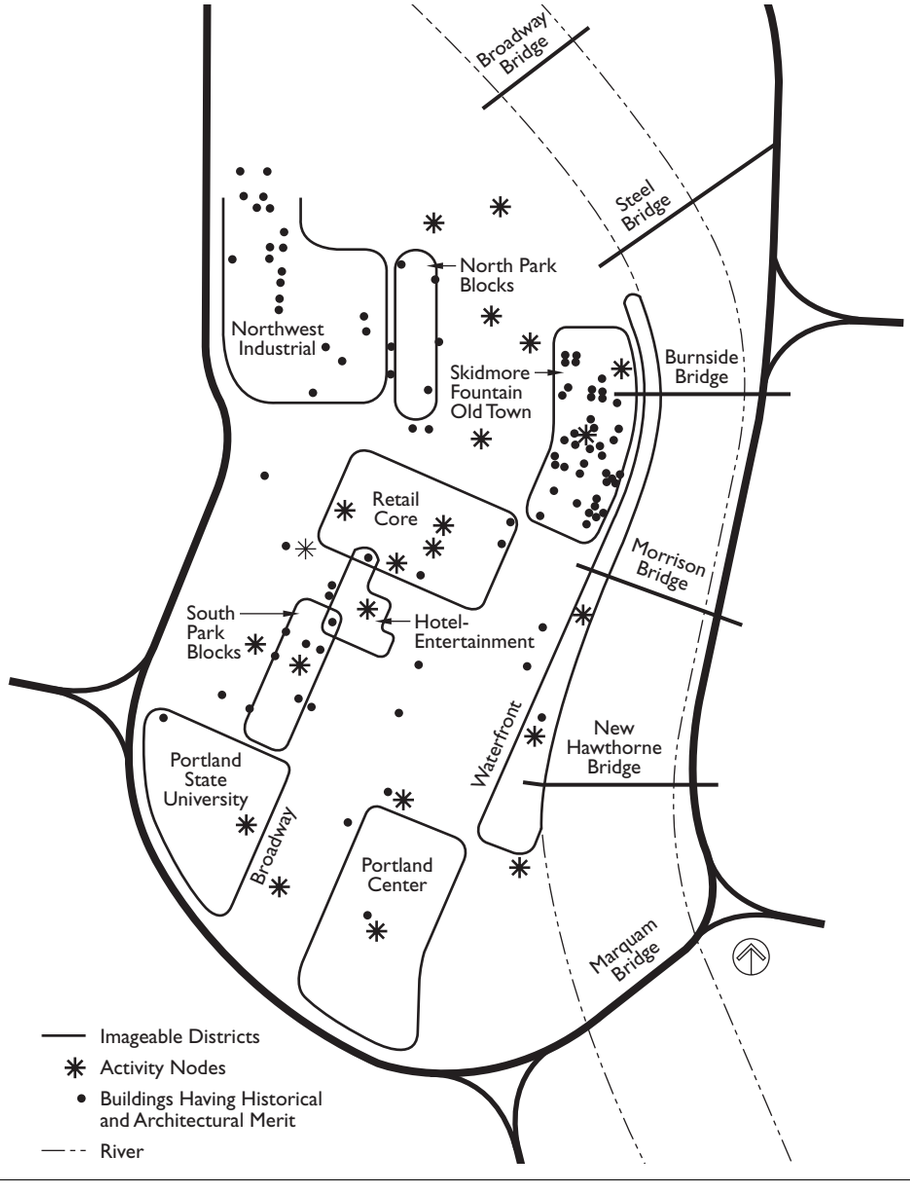
- Organization (local business and political buy-in)
- Promotion (tapping local and tourist markets)
- Design (historic preservation and urban design)
- Economic restructuring (getting the right mix of businesses)

The Main Street approach has provided an important planning tool for preserving the economic and social core of smaller communities as they have faced so-called big-box retailers at outlying freeway intersections.

Another common result from the preservation movement was the designation of one or more historic districts in or near the center of large cities. Usually, these were nineteenth-century commercial and warehouse districts that had been left behind as the city built a new high-rise. These districts, with their stock of two- to six-story buildings with interesting masonry or cast iron façades attracted design professionals and niche retailers. The restored buildings were most often marketed as part of an "old town" entertainment and boutique district, an arts district, or a district for sophisticated living in loft apartments.

A NEW WAVE IN DOWNTOWN PLANNING

The definition of "downtown historic district" was part of a more widespread recognition that downtowns were best understood as sets of distinct subareas—an idea that put Kevin Lynch's findings into professional practice. Many cities undertook new downtown plans in the 1970s. In most cases, planners abandoned the earlier tendency to treat the



PORTLAND DOWNTOWN PLAN, 1972: IMAGEABLE DISTRICTS

Source: City of Portland, Oregon, 1972.

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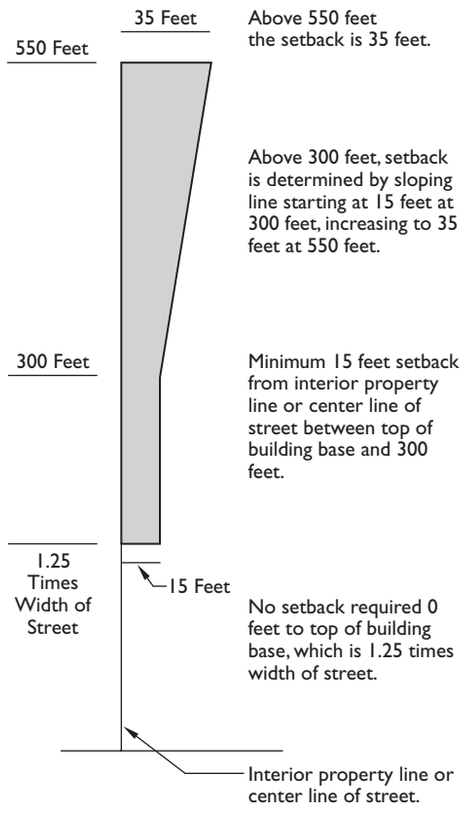
THE BEST NEW BASEBALL PARKS: GOOD FOR THE GAME, GOOD FOR DOWNTOWN

Camden Yards, Baltimore (1992)
Jacobs Field, Cleveland (1994)
Coors Field, Denver (1995)
Bank One Ballpark, Phoenix (1998)
Safeco Field, Seattle (1999)
Comerica Park, Detroit (2000)
SBC Park, San Francisco (2000)
Petco Park, San Diego (2004)

central business district as a single entity. Instead, they identified a variety of subareas that played special economic, social, or cultural roles, and suggested different planning treatment for each area. The 1972 downtown plan for Portland, Oregon, arguably one of the most successful in conception and results, explicitly applied Lynch and identified upwards of 20 mini-downtowns within the larger core area.

Two other design-based trends also affected downtowns in the last decades of the twentieth century. One was the desire to market downtown as a center for amenities. The "festival market," pioneered by developer James Rouse in Boston and Baltimore, was in effect an effort to create a historic boutique district under a single roof. The approach proved successful in some cities but not others. In the same vein, cities have been investing in public markets, performing arts centers, museums, and downtown baseball stadiums to lure suburbanites downtown, as well as adding park space and reconnecting downtowns to their waterfronts.

The second move was to mandate more interesting architecture as part of the zoning code. Many



SAN FRANCISCO, CALIFORNIA, DOWNTOWN DESIGN GUIDELINES: SEPARATION BETWEEN TOWERS

Source: San Francisco Planning Department 1995.

Americans by the 1980s were becoming tired of boring rectangular high-rises that clogged the skyline without improving it. Within the profession of architecture, the response was the turn to postmodern designs. In planning, this meant downtown plans that tried to mitigate the box. The bellwether was the downtown plan for San Francisco (1985), an effort to regulate new downtown development so that it would be more suitable in scale and shape for a well-loved city center. The plan micromanaged building heights to make new development compatible with San Francisco's prominent hills and strong skyline, and it required that top floors be smaller than the building's ground-floor footprint, to ensure variety and interest in the skyline.

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See also:
Downtown Plans
Historic Districts
Historic Structures
Main Streets
Specialty Retail Districts

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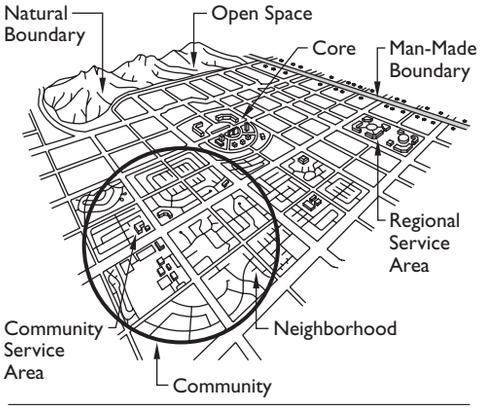
RENEWED NEIGHBORHOODS, NEW TOWNS, AND NEW URBANISM

One of the central choices in planning is whether to improve the urban fabric by building new communities on vacant land or by redesigning and reinvesting in existing neighborhoods and districts; that is, "greenfield" development versus infill and revitalization strategies. This tension has played out in policies toward established neighborhoods, in the "new town" movement, and in the planning and design approaches grouped as "new urbanism."

NEIGHBORHOOD CONSERVATION

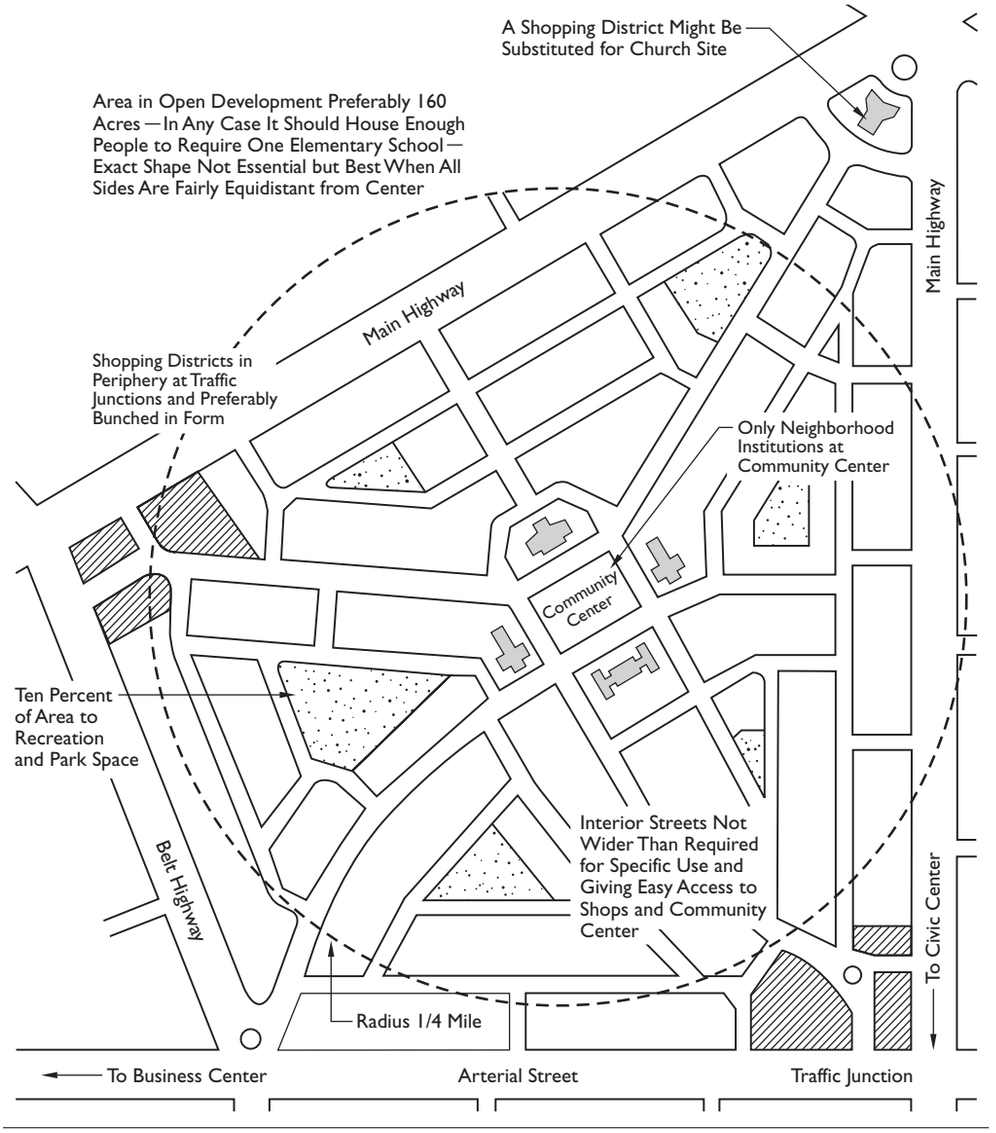
In the last third of the twentieth century, many planners refocused their attention on older middle-class neighborhoods. Clarence Perry in the 1920s had introduced the idea that cities should be planned as sets of neighborhood units oriented to an elementary school, a park, and local shopping. The greenbelt towns and many private suburbs after World War II had been built around some version of neighborhood units. Now, in the ferment of the 1960s, citizen activists began to call attention to the needs of aging city neighborhoods threatened by downtown expansion or in danger of disinvestment because the trickle-down housing market pulled middle-class homeowners outward to new suburbs. Drawing lessons from the Model Cities program and looking at community development funds, middle-class residents also organized to lobby city hall for housing rehabilitation loan programs, rezoning to block apartment construction, historic district status, and similar planning interventions.



PHOENIX, ARIZONA, NEIGHBORHOOD UNITS

Source: Phoenix, Arizona, Planning Department.

The politics of neighborhood renewal varied. Some cities, such as Dayton, Ohio, Kansas City, Missouri, and Portland, Oregon, responded by creating formal systems by which neighborhoods could have input on plans and policies that affected their community. In other places, such as San Francisco and Seattle, the political system pitted neighborhoods against downtown interests, resulting in fierce election battles and antidevelopment referendums. One overall result by the 1980s was the conservation of early twentieth-century neighborhoods for use by another generation of families. A second was a renewed interest in framing citywide plans in terms of a nested hierarchy of local neighborhoods and larger community areas.



CLARENCE PERRY'S NEIGHBORHOOD UNIT DIAGRAM

Source: Regional Plan Association 1929.

NEW TOWNS OF THE 1960s AND 1970s

The perpetual contrast between replanning established communities and planning for greenfield sites also appeared in the 1970s drive to build "new towns." The difference between a large suburb with a mix of housing types and a new town was not always precise, although the latter implied a more self-sufficient community with space for employment and business as well as people. The model was the postwar new towns of Britain and Scandinavia, which were intended as self-contained satellite communities and had roots in the Garden City movement.

Some early post-World War II developments—notably Park Forest, Illinois—had been planned as complete communities. Private development of planned residential communities, notably for retired persons on fixed incomes, also proliferated during the 1960s, mostly in the southeastern and southwestern states. However, the most widely publicized new towns were Reston, Virginia, and Columbia, Maryland, with target populations of 75,000 and 125,000. Begun in the mid-1960s, Reston attracted attention for the innovative, urbane feel of its Lake Anne Village Center. For Columbia, located between Washington and Baltimore, shopping center magnate James Rouse drew on the best current thinking in social science and design, although the actual neighborhoods offered relatively standard housing and streetscapes. In part inspired by these nearby examples, Congress in 1968 adopted the New Communities Act, as Title IV of a larger Housing and Community Development Act, and followed with the Urban Growth and New Community Act of 1970. This legislation offered federal guarantees for bonds issued by private developers in return for agreement to build comprehensive new towns with a mix of

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land uses. Although more than a dozen new towns were started, the actual federal funding was inadequate; most never got off the ground or collapsed in the recession of 1974 and 1975. One of the few success stories is the Woodlands, near Houston. The developer of the Woodlands, George Mitchell, was a wealthy oil man inspired by Ian McHarg, whom he had hired to do an ecological master plan for the development. The project benefited from the fact that the developer already owned the land. The same was true for the development of the huge Irvine Ranch tract in Orange County, California, which was a new town in character if not in name.

NEW URBANISM

The movement known as "new urbanism" burst onto the planning scene in the late 1980s and 1990s. The driving force was a group of planners and architects who wanted to revive the art of urban design and envisioned ways to combine the positive lessons of neighborhood conservation with the lessons—both positive and negative—from the new town experience. A number of enthusiastic and charismatic figures, especially Peter Calthorpe, Andres Duany, and Elizabeth Plater-Zyberk, came together in 1993 as the Congress for the New Urbanism (CNU), and in 1996 issued a manifesto for their ideas, the "Charter of the New Urbanism." The CNU defines itself as "an urban design movement" involved in "all aspects of real estate development." The CNU in 2004 had more than 2,000 members and identified several hundred new urbanism projects built or under construction.

The new urbanists share a disdain for suburban sprawl and strip development with its large-scale separation of uses and dependence on automobiles. The charter speaks to the three scales of region, neighborhood, and block; and a number of CNU members, such as Calthorpe, have been very active in the "new regionalism." However, much of new urbanist practice has centered at the smaller scales, with efforts to design neighborhoods that encourage walking, focus on public spaces, and allow a fine-grained mixture of uses and housing types. In some notable cases, these have been greenfield developments, such as Seaside, Florida; Kentlands, Maryland; and Celebration, Florida—raising the criticism that the movement is really the "new suburbanism." Advocates counter with an impressive roster of mixed-use infill projects, retooled shopping malls, and similar efforts to improve existing communities. In addition to publicizing the market success and design quality of such developments, new urbanists work to change rigid zoning and building codes.

CHARTER OF THE NEW URBANISM: TOPICAL COVERAGE

The Region: Metropolis, City, and Town
The Neighborhood, the District, and the Corridor
The Block, the Street, and the Building

See also:
Neighborhood Plans
Zoning Regulation

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NEW REGIONALISM: ENVIRONMENT, POLITICS, AND PLANNING

At the opening of the twentieth-first century, many planners were talking about a "new regionalism" that revisits and recombines the ideas of the "old regionalisms" of the early twentieth century. Unlike the earlier regionalisms, which aimed at planned dispersal of activities, the new regionalism aims at reurbanization and compact growth, and is therefore part of the same broad approach to city-making also expressed in downtown revitalization, growth management, and new urbanism.

As outlined by Stephen Wheeler, a professor of planning at New Mexico University, the new regionalism:

- Focuses on specific territories and spatial planning;
- Addresses problems created by metropolitan fragmentation;
- Is holistic in integrating planning specialties and speaking to all facets of sustainability–environment, economy, and equity;
- Places importance on physical plans, urban design, and sense of place; and
- Takes a normative and activist stance.

METROPOLITAN GOVERNANCE AND POLITICS

One of the roots of the new regionalism is the long-standing effort to deal with the governmental fragmentation of metropolitan areas. When a single metropolitan region may be divided among dozens, or even hundreds, of independent governments, conflicts in land-use decisions and inefficiencies in service delivery are inevitable. In the 1950s and 1960s, local government reformers pushed for consolidation or governmental unification of central cities and their surrounding county. The effort met some successes, notably Jacksonville and Miami, Florida; Nashville, Tennessee; Lexington, Kentucky; and Indianapolis, Indiana. However, it stalled because of political opposition and because of the realization that city-county consolidation was inadequate to deal with the problems of large metropolitan areas that might take in half a dozen or more counties.

An alternative was federal requirements for regional review of applications for federal grants. The so-called A-95 process in the 1960s and 1970s spurred the formation of hundreds of Councils of Government (COGS) to perform this review and coordination. However, the requirement was scaled back in the 1980s, with different sorts of coordination now required for specific issues and programs, such as the requirement that a metropolitan planning organization approve regional transportation plans.

One more comprehensive approach has been to develop city-suburb political alliances. A number of experts have noted that metropolitan areas with small social and economic disparities between central city and suburbs do better economically than those with large disparities. They follow by arguing that social activists and business interests therefore share a common agenda of promoting growth through equity. Analysts such as Myron Orfield have further refined this point by showing that central cities and older suburbs often share common interests that can be served by regional approaches to housing and transportation.

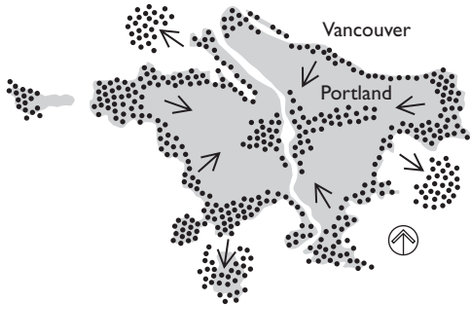
The fullest development of regional governance is found in the Twin Cities and in Portland, Oregon. The Metropolitan Council of Minnesota covers the seven-county region of Minneapolis-St. Paul. The Minnesota legislature created the council in 1967 and strengthened its powers in subsequent laws. The council has 17 members, appointed by the governor to represent districts. It operates transit, wastewater, regional parks, and affordable housing programs, and coordinates transportation planning. Portland's Metro has the distinction of being the only elected regional government in the United States, with a governing council elected by districts that overlap municipal and county boundaries. Voters of the three core metropolitan counties created Metro in 1978 and strengthened its powers in 1992. Metro acquires and operates regional parks and recreation facilities, manages sold waste disposal, controls the urban growth boundary, has certain abilities to levy taxes, and develops regional land-use and transportation plans that set basic requirements for local plans.

ENVIRONMENTAL CHALLENGES: METROPOLITAN SCALE

In addition to the long-standing concern over the puzzles of planning infrastructure and land use within politically fragmented regions, interest in the new regionalism has come from the realization that metropolitan growth affects entire, complex ecological regions—for example, the lower Hudson River Valley or the hills and valleys that surround Puget Sound. The Endangered Species Act, although certainly not expected to raise urban planning issues when it was passed in 1973, has now become a major constraint on urban regions as they grow into surrounding mountains and riparian zones. In a way that harkens back to Boston at the end of the nineteenth century, there have been important efforts to plan and implement major open-space acquisition programs on a regional scale (for example, for the San Francisco Bay region).

NEW REGIONAL PLANS

A major accomplishment of the new regionalism has been a new generation of metropolitan plans that range from statewide work by the State of New Jersey



Growth is encouraged in centers and corridors, with increased emphasis on redevelopment within the urban growth boundary.

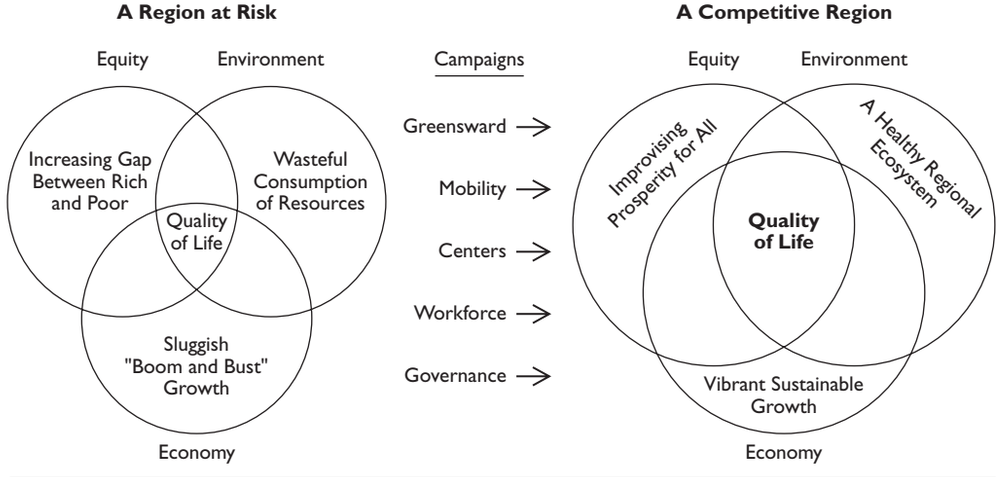
PORTLAND, OREGON, 2040 REGIONAL GROWTH PLAN

Source: Portland Metro 1995.

to the Envision Central Texas planning initiative by Peter Calthorpe and John Fregonese to regional scenario building for the Salt Lake City area, also by Calthorpe and Fregonese. Commonalities include an emphasis on concentrating development in a hierarchy of centers, prevention of sprawl, concern with effective public transportation, and desire to protect open space and environmentally sensitive land.

A good example is Metro Region 2040, developed by Metro for the Portland region. Working within the framework of urban growth boundary, the plan proposes to absorb a 70 percent population increase with only a 7 percent increase in urbanized land. The plan thus calls for infill and compact growth that detours around sensitive land, with downtown, regional centers, and town centers served by an expanded light rail system.

Another example is "The Metropolis Plan: Choices for the Chicago Region," developed by Metropolis 2020, a nonprofit group established in 1999 by the Chicago Commercial Club, which had sponsored Daniel Burnham's plan nearly a century earlier. The plan considered scenarios for fitting 1.6 million more people into the region by 2030 and developed the following goals:



THE THREE "E'S" TRANSFORMED BY THE FIVE CAMPAIGNS

Source: From A Region at Risk *by Robert D. Yaro and Tony Hiss. Copyright©1996 by Regional Plan Association. Reproduced by permission of Island Press, Washington, D.C.*

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- Invest in strong "regional cities."
- Remove distortions to the housing market, such as overly restrictive zoning.
- Invest in transit modernization and make better use of existing rail lines.
- Help communities build more walkable neighborhoods and business districts.
- Reinforce use of expressways for long trips and arterial streets for shorter trips.
- Restore and protect prairie reserves, woodlands, and wetlands.

Perhaps the most comprehensive of these efforts was the "Third Regional Plan for the New York-New Jersey-Connecticut Metropolitan Area," published by the Regional Plan Association in 1996. The plan started with a review of economic trends, equity, and the environment (the three E's of sustainability) and defined five "major campaigns" to create a competitive region:

- Greensward campaign
- Centers campaign
- Mobility campaign
- Workforce campaign
- Governance campaign

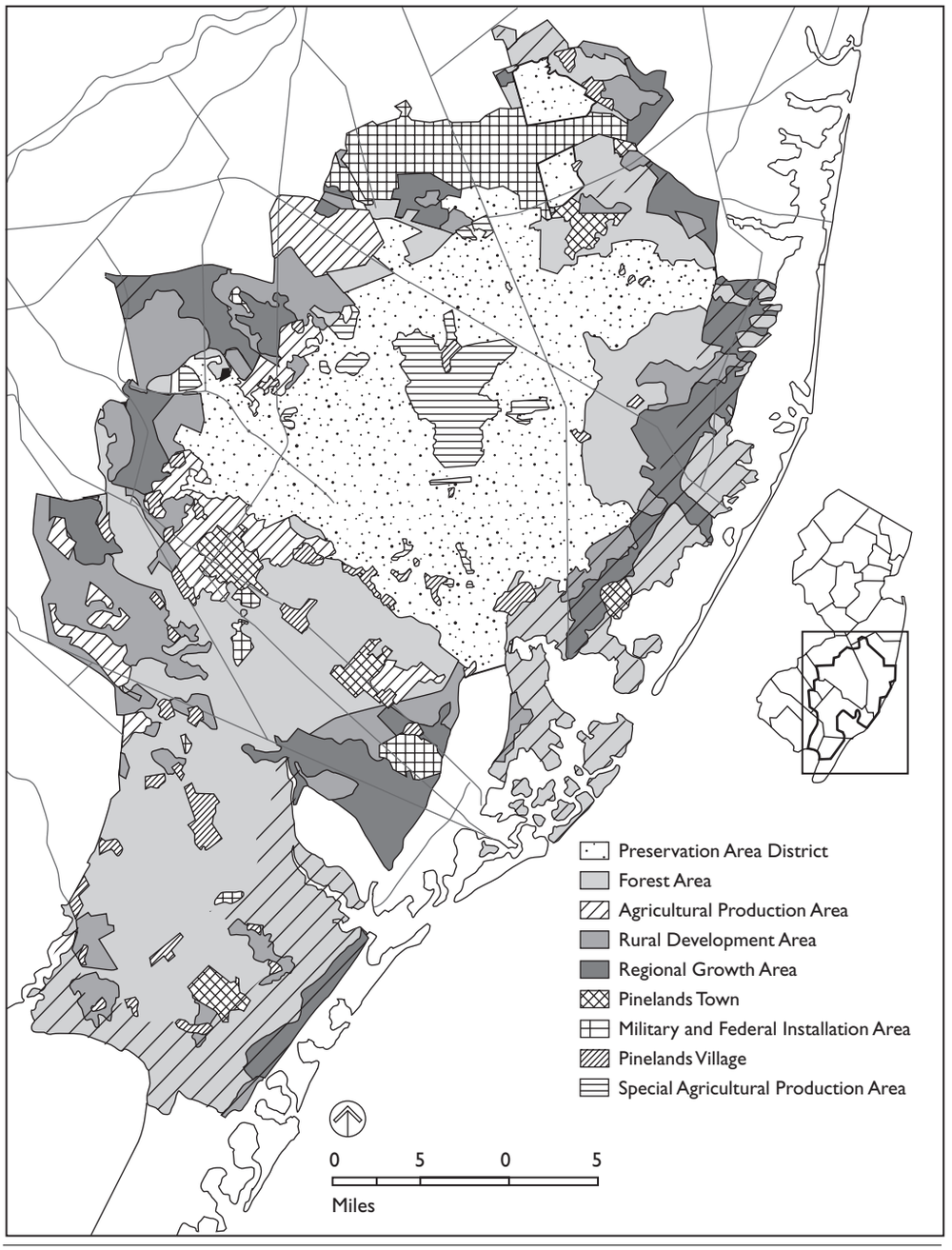
Together, these campaigns covered the "territories" of environment, land use, equity, and governance.

GREENLINE MANAGEMENT

Urban growth in the later twentieth century also brought a new kind of regional planning to areas beyond even the widest metropolitan boundaries. The half century after World War II was marked by the ubiquity of automobiles and levels of prosperity that allowed many middle-class families to acquire vacation properties and second homes in areas with scenic and recreational resources. Every large city staked out a "recreation shed" or "weekendland"—the Pocono Mountains and Jersey shore for Philadelphia, the Eastern Shore of Maryland for Baltimore and Washington, the Front Range for Denver, the shores of Puget Sound for Seattle. This mountain and coastal development, of course, threatened to destroy the very natural amenities that had attracted it.

The problem has been particularly acute where natural systems and ecoregions cross state boundaries, requiring federal intervention and/or bistate compacts. The Tahoe Region Planning Agency, for example, is a bistate agency created in 1969 to protect the beauty of Lake Tahoe; it enforces a 1987 plan that tries to manage the recreational overspill of urban California from overwhelming the lake area. The Connecticut River Valley Joint Commissions (1989) is a voluntary advisory panel appointed by the governors of Vermont and New Hampshire. In an even more complicated setting, Virginia, Maryland, Pennsylvania, the District of Columbia, the Chesapeake Bay Commission, and the U.S. Environmental Protection Agency signed agreements in 1983 and 1987 to establish the Chesapeake Bay Program partnership to protect and restore the Chesapeake Bay ecosystem.

Areas such as Chesapeake Bay or the Pinelands of southern New Jersey are too large, economically active, and well populated to be protected under the traditional standards of national parks. Instead, we find recent experiments with "greenline parks." An idea borrowed from Europe, greenline management is an effort to develop land-use plans that preserve vital scenic and natural resources while allowing the continuation of existing economic activities. The largest such effort is the joint management of the New Jersey Pinelands through the federal Pinelands National Reserve (1978) and the state Pinelands Commission (1979). The Pinelands covers 1.1 million acres and is home to 700,000 people whose needs have to be balanced with those of natural systems. The Columbia River Gorge National Scenic Area is a similar effort established by Congress in 1986. Management of a mountainous 70-mile corridor along the river east of Portland is shared by the U.S. Forest Service, a bistate commission representing Oregon and Washington and preexisting towns and cities within the corridor. Even newer is the Mojave National Preserve in California, established in 1994 when Congress transferred 3 million acres from the Bureau of Land Management to the National Park Service (NPS), with the mandate that previous economic activities be able to continue even under NPS. One of the most successful efforts is the Blackstone Heritage Corridor from Providence, Rhode Island, to Worcester, Massachusetts. It combines greenway planning, heritage planning, and downtown development.



NEW JERSEY PINELANDS MANAGEMENT AREA

Source: State of New Jersey Pinelands Commission 1999.

See also:
Regional Plans
Regions

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ENVIRONMENTAL JUSTICE

The term "environmental justice" was coined in the late 1980s to describe a philosophy combining environmental awareness with an emphasis on racial and ethnic equality, seeking changes in industrial, governmental, and commercial practices that proponents say unfairly burden people of color and the economically disadvantaged. "Environmental racism," a closely related term, refers specifically to practices, either intentional or institutionalized, that create environmental degradation in areas inhabited by racial minorities. The movement has gained international stature, in part by focusing on environmental burdens suffered by indigenous minorities in various parts of the world.

A critical step in the development of this movement was the publication in 1987 of the seminal United Church of Christ study, *Toxic Wastes and Race in the United States*. The study, which compared minority population data across the United States with the location of toxic waste sites, went beyond the anecdotal information about various types of exposures of disadvantaged populations to environmental health risks by using sophisticated statistical data to support such claims.

In the United States, the environmental justice movement grew rapidly in the 1990s, and it is logically more predominant in areas with larger minority populations. In many large cities, as well as many rural areas in the South, the Southwest, and the West Coast, investigations of disproportionate health and occupational safety hazards have focused on populations of African Americans, Hispanics, Asian Americans, and Native Americans, plus indigenous peoples in Alaska and Hawaii. The movement has largely been composed of grassroots neighborhood and regional organizations and coalitions, with only a modest amount of national coordination.

PRINCIPLES OF THE MOVEMENT

A major attempt to define the movement's goals occurred in October 1991, in Washington, DC, at the First National People of Color Environmental Leadership Summit. The 17 principles of the movement are reproduced in the sidebar. Despite the loose-knit nature of the movement, these principles probably fairly represent most of the active grassroots organizations.

PRINCIPLES OF ENVIRONMENTAL JUSTICE

1. Environmental justice affirms the sacredness of Mother Earth, ecological unity, and the interdependence of all species, and the right to be free from ecological destruction.
2. Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
3. Environmental justice mandates the right to ethical, balanced, and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.
4. Environmental justice calls for universal protection from nuclear testing and the extraction, production, and disposal of toxic/hazardous wastes and poisons that threaten the fundamental right to clean air, land, water, and food.
5. Environmental justice affirms the fundamental right to political, economic, cultural, and environmental self-determination of all peoples.
6. Environmental justice demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.
7. Environmental justice demands the right to participate as equal partners at every level of decision making, including needs assessment, planning, implementation, enforcement, and evaluation.
8. Environmental justice affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.
9. Environmental justice protects the right of victims of environmental injustice to receive full compensation and reparations for damages as well as quality health care.
10. Environmental justice considers governmental acts of environmental injustice a violation of international law, the Universal Declaration on Human Rights, and the United Nations Convention on Genocide.
11. Environmental justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.
12. Environmental justice affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources.
13. Environmental justice calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.
14. Environmental justice opposes the destructive operations of multinational corporations.
15. Environmental justice opposes military occupation, repression, and exploitation of lands, peoples, and cultures, and other life forms.
16. Environmental justice calls for the education of present and future generations, which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.
17. Environmental justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to ensure the health of the natural world for present and future generations.

Source: The First National People of Color Environmental Justice Summit, 1991.

ISSUES FOR PLANNERS

For planners, providing equitable opportunities to participate in the decision-making process, particularly for disadvantaged populations, and protecting the natural environment are essential principles of the American Institute of Certified Planners (AICP) Code of Ethics. The movement for environmental justice challenges decision makers to meet those obligations by improving government's performance in safeguarding those opportunities. More importantly, planners need to be aware of the nuances of real or potential inequities and of effective ways of redressing them. For instance, concern about the NIMBY ("not in my backyard") syndrome may not always recognize that some disadvantaged minorities may feel, legitimately, they have too often accepted environmentally dangerous or questionable facilities in their backyard while receiving less than their fair share of amenities. Both results and process are important in the environmental justice philosophy.

One way of addressing siting inequities is to include fair-share provisions in state or local siting statutes and ordinances. For instance, the New York City charter enshrines this principle, under which the New York City Planning Commission adopted a "fair-share" siting process that took effect in 1991. State or local laws spelling out fair-share siting procedures that give disadvantaged neighborhoods an adequate opportunity to object to such decisions, while requiring advantaged neighborhoods or communities to accept a prescribed burden of necessary environmental infrastructure, such as sewage treatment plants or waste transfer or recycling facilities, are among the planning tools communities can use to redress such inequities.

At the same time, communities can also establish more positive siting procedures to ensure an equitable distribution of environmental amenities, such as parks, health clinics, and street trees. Finally, many inner-city communities have suffered from a real or perceived overabundance of contaminated sites, known as brownfields, which may stymie redevelopment in the absence of governmental intervention. It is important that the community be encouraged to participate effectively in the decision-making process concerning such sites.

James C. Schwab, AICP, American Planning Association, Chicago, Illinois

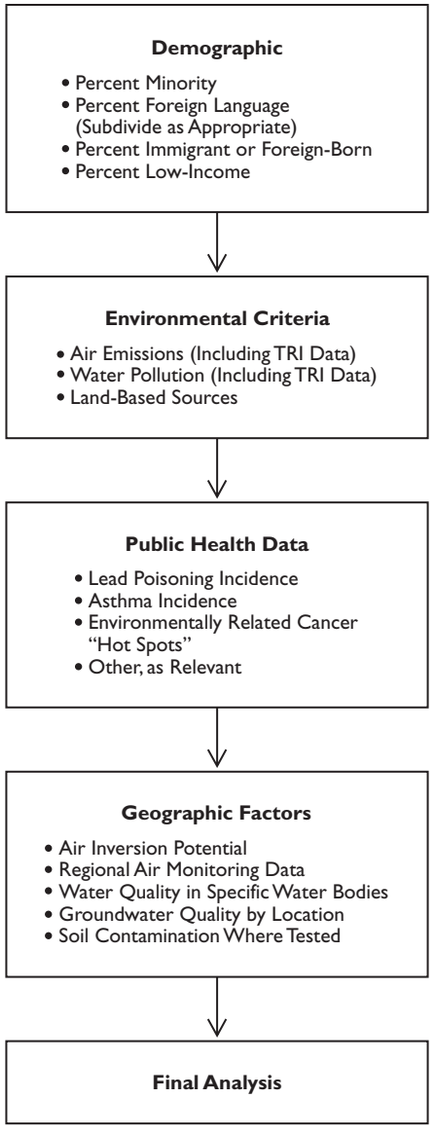
Such a process cannot address all environmental justice concerns, however, because many stem from the practices of private industrial concerns. Many of these issues must be addressed through a range of regulatory tools, including zoning, the equitable enforcement of environmental regulations, occupational health and safety standards, and other methods, only some of which are directly pertinent to planning and urban design. However, all of these concerns are interrelated in their impact on the community itself, so all of them may affect the tenor of public participation in a decision-making process where environmental justice is a primary public concern. Moreover, Chapter 5 of the American Planning Association's (APA) *Growing Smart Legislative Guidebook* notes the potential for "unexpected outcomes" as the result of a fair-share siting process because the possibility exists of discovering a more environmentally benign alternative solution that better satisfies all groups within the city. The same could be said of environmental justice reviews for many similar decisions in both the private and public sector.

REMEDIAL EFFORTS

Like most issues involving a history of racial and economic inequity, environmental justice can highlight a need to rectify past mistakes or injustices, particularly those disproportionately affecting disadvantaged populations. These can involve both public and private efforts, depending on the source of the problem and the actors and resources available, but include such initiatives as testing children for lead poisoning, which often has resulted from peeling lead-based paint in older housing. In extreme cases, such as the one at Love Canal in Niagara Falls, New York, in the late 1970s and early 1980s, it may involve buying out and relocating an entire affected neighborhood in order to remove people from a major source of contamination.

STANDARDS AND GUIDELINES

In 1994, President Bill Clinton signed Executive Order 12898, the first presidential directive directly addressing environmental justice concerns in a systematic fashion. The Clinton initiative included the creation of the National Environmental Justice Advisory Council within U.S. EPA and the adoption of departmental environmental justice strategies by 17 different federal agencies with environmental or land-use responsibilities, including Transportation, Interior, and Energy. These all became part of the Interagency Working Group on Environmental Justice, with U.S. EPA serving as the lead agency. In the ensuing decade, some states followed that model with their own environmental justice initiatives.



TYPICAL DATA LAYERS FOR GIS IN ENVIRONMENTAL JUSTICE ANALYSIS

Source: American Planning Association.

Geographic information systems (GIS) have become critical tools in documenting or disproving claims of environmental racism or inequity. By marrying database and mapping capabilities, these systems enable planners to depict graphically and quantitatively where in a community or region disadvantaged populations may be suffering disproportionate negative impacts or relative deprivation of environmental amenities. This analysis, in turn, can empower both participating community groups and planners themselves to devise policy and land-use solutions that can minimize, reduce, or obviate such threats, or redress imbalances in the distribution of environmental goods. The process of developing the information can and often should involve direct participation by the affected populations. Thus, GIS and similar tools become effective means of resolving or underscoring long-standing fears or suspicions of such inequities. Fair-share formulas can then help to determine better ways of balancing these burdens within the community.

The growing use of the Internet for facilitating community participation, combined with analytical tools like GIS, will in coming years probably make environmental justice an increasingly information-based movement that is considerably more sophisticated than some of the initial statistical studies of the 1980s. This may in itself serve to redress some past social inequities in information sharing that allowed environmental injustices to flourish.

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See also:
Advocacy and Equity Planning
Environmental Impact Assessment

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SUSTAINABILITY

Sustainability is a concept that may be interpreted in many different ways. For some, sustainability can be achieved by living in compact communities, using public transit, minimizing energy consumption, and recycling waste. For others, it conjures up images of living communally in small, organic-farm-oriented communities with a strong sense of unity and being surrounded by wide-open spaces. The truth seems to be that each of these notions of sustainability (as well as numerous others) has some validity. In reality, sustainability seems to be more a process than a set of concrete ideas, one whose basic precepts evolve as conditions, ideals, and technological capabilities change.

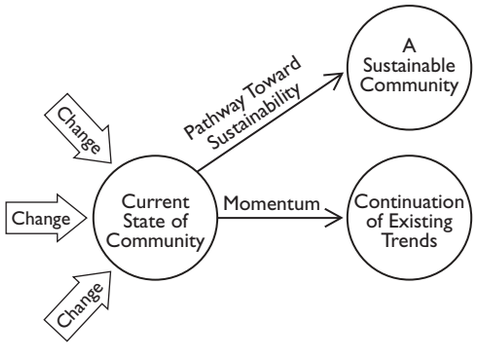
PRINCIPLES OF THE MOVEMENT

Changing ways of thinking invariably affects how decisions are made and the outcomes of those decisions. With time, the culmination of a number of individual unsustainable decisions can become trends. Assuming that a trend can be represented as a sphere with mass and momentum, it is clear that the momentum of the trend, unless acted upon, will lead to a continuation of existing trends.

Sustainability first and foremost requires changing our thought process for approaching development issues in our communities. This new way of thinking is based on six key principles: future-oriented/long-term, bounded by limits, natural/geographic, means-oriented, holistic/interconnected, and participatory.

Future-Oriented/Long-Term

Sustainability is just as concerned with planning for future generations as it is with planning for the present generation. Many elected officials do not look much beyond the next election when contemplating local development issues. Even long-range planning documents typically do not consider more than a 10- to 20-year time frame. Though plans must consider near-term issues, solution to immediate problems must consider the consequences of actions on future generations.



CONTINUATION OF TRENDS

Source: Krizek and Power, 1996.

Bounded by Limits

Sustainable planning approaches development with a consciousness of limits to a community's local development and population potential—a concept that borrows heavily from the notion of "carrying capacity." From an ecological perspective, carrying capacity is usually defined as the maximum population of a given species that can be supported indefinitely in a specified habitat without permanently impairing the productivity of that habitat. The term as generally used by planners means the ability of natural and man-made systems to support the demands of various uses. A sustainable community recognizes the potential for human development is finite and seeks to live, develop, and operate within the natural limits identified. Techniques such as the Ecological Footprint concept, which measures various categories of human consumption and then translates them into the amount of productive land required to support such consumption, are useful in determining the real impact of human activity on ecosystems.

Natural/Geographic

Sustainability requires approaching matters based on their natural and geographic characteristics, not artificial and political units. Most often, this involves addressing issues with respect to "ecoregional" boundaries. While there may not be precise agreement on where ecoregional boundaries lie, there is, in general, agreement that regional issues should be addressed within a larger context of institutions structured around ecological limits or characteristics. Ecoregional boundaries should be natural, not artificial or arbitrary. If implemented, this ecoregional focus would allow a comprehensive approach to planning that encourages cooperation, rather than competition, between communities.

Means-Oriented

Sustainable development approaches the functional areas of planning (such as transportation, housing, and economic development) not as ends in themselves, but rather as means to an end—the end being a sustainable community. Looking at issues from an integrated "means" perspective rather than an "ends" perspective results in strategies with a longer-term focus that more effectively addresses the root causes of problems.

Holistic/Interconnected

Sustainability also abandons thinking about functional areas as separate from one another. City government is generally good at identifying problems and assigning them to a particular department. However, this approach often results in solutions that cause as many problems as they solve. Recognizing the inherent interdependence of natural, built, political, economic, and organizations systems leads to choices that often resolve multiple problems without the adverse consequences of treating planning issues as independent from each other.

Participatory

Ideally, sustainability is about focusing on the desired outcomes for people—a pursuit that broadens the process by which a community discovers, considers, and tackles particular issues. The individuals who participate in decision making are the ones who set the agenda of issues to be addressed and decide the manner by which the agenda is pursued. Therefore, limited participation in decision making can result in choices benefiting the few at the expense of the community as a whole. More sustainable choices can only be made through broad community participation in public decision making.

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See also:

Energy-Efficient Development
Environmental Impact Assessment
Regions
Watersheds

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HEALTHY CITIES AND COMMUNITIES

The Healthy Cities movement (or, as it is termed in the United States, the Healthy Cities and Communities movement) is rooted in the goal of improving the health and quality of life for residents of cities and communities. The premise of the movement is that where and how one lives, and the lifestyle choices available to each person, have a much greater impact on a person's health than does the formal health care delivery system. According to the World Health Organization (WHO), "The fundamental conditions and resources for health are peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity" (Hancock and Duhl 1988). Additional conditions supportive of a healthy city include residents being safe from violence, avoiding illegal drugs and excessive alcohol use, having access to basic medicines, and having friends and family to rely upon for support when needed (Tibbetts 2003).

In European countries, as well as Canada, Australia, and others, Healthy Cities programs are managed by municipal governments, which take direction from national programs that set standards and procedures. The national programs in these countries are based on a World Health Organization model. In the United States, the Healthy Cities and Communities movement is characterized by local interdisciplinary coalitions working together on site-specific or citywide health problems identified by the public as high-priority issues.

Leonard Duhl, professor of urban planning and public health at the University of California-Berkeley and a well-known sociologist, is credited with having launched the movement internationally with a presentation he delivered at a 1985 health policy conference in Toronto. Key WHO representatives were at the conference. Shortly thereafter, WHO embraced the concept, and the international Healthy Cities movement was born. European nations and cities were the first to develop Healthy Cities programs, followed by Australia, Canada, and finally the United States. Today, there are more than 8,000 Healthy Cities programs or projects in various stages of development worldwide (Tibbetts 2003).

ELEVEN CHARACTERISTICS OF A HEALTHY CITY/COMMUNITY

In a 1988 paper for WHO describing and synthesizing the literature and state of practice of the growing movement, authors Duhl and Trevor Hancock identified 11 characteristics of a healthy city:

1. A clean, safe physical environment of high quality (including housing quality)
2. An ecosystem that is stable now and sustainable in the long term
3. A strong, mutually supportive and nonexploitative community
4. A high degree of participation and control by the public over the decisions affecting their lives, health, and well-being
5. The meeting of basic needs (for food, water, shelter, income, safety, and work) for all the city's people
6. Access to a wide variety of experiences and resources, with the chance for a wide variety of contact, interaction, and communication
7. A diverse, vital, and innovative city economy
8. The encouragement of connectedness with the past, and the cultural and biological heritage of city dwellers and with other groups and individuals
9. A forum that is compatible with and enhances the preceding characteristics
10. An optimal level of appropriate public health and sick care services accessible to all
11. High health status (high levels of positive health and low levels of disease)

CONTRASTING THE HEALTHY CITIES AND SUSTAINABLE COMMUNITIES MOVEMENTS

While the origins and issue emphases of the Healthy Cities movement and the sustainable communities movements are different, there are similarities between the two approaches. Both call for a broad understanding of the relationships among people, the natural environment, and the built environment. To contrast them, Healthy Cities-type projects focus more on human health and well-being, whereas sustainable community projects focus on the interaction between the natural environment and the economy (Roseland 1998).

Mark Roseland, professor of Resource Management at Simon Fraser University in Vancouver, British Columbia, has written extensively on sustainability and has made the following four observations about what the sustainability movement can learn from the healthy communities movement.

- *Wide community participation.* Like sustainability projects, Healthy Communities efforts seek to involve people from all walks of life. Both approaches frequently use dialogue and consensus-based processes to assist citizens and stakeholders to envision a desired future for their community.
- *Multi- or intersectorial involvement.* Both approaches see the necessity of involving experts from government, business, nonprofits, and citizen organizations in cooperative and collaborative efforts to improve the community using the "dimensions [that each sector] emphasizes."
- *Local government commitment.* The "healthy communities" approach (outside the United States) places greater emphasis on broad local government involvement than does the community sustainability approach, which tends to rely on grassroots-based initiatives.
- *Healthy public policy.* In the Healthy Cities model, local governments may respond to ongoing public health problems (e.g., rising obesity rates in both youth and adults) or new crises (e.g., bioterrorism) by enacting new legislation or adding new services. The "local sustainability" tradition is very cautious about adding new specialized services, as opposed to altering existing services. Both movements emphasize the responsibility for health lies with citizens and local private, governmental and nonprofit organizations.

RELATIONSHIP OF THE HEALTHY CITIES MOVEMENT TO PLANNING AND URBAN DESIGN

Planning and Healthy Cities

Many of the tools and approaches for engaging the public that are applied in the Healthy Cities movement rely on the same citizen participation techniques used through a comprehensive or neighborhood planning process. In current planning practice, laypeople come together over a series of weeks, months, and even years with planners, urban designers, and others to discuss their shared values, current obstacles, and goals for the community with respect to land use, transportation, safety, housing, and other elements. A visioning process for a community launching a Healthy Cities initiative involves the same sort of identification of values, goals, and problems, but with a greater emphasis on health outcomes than in a comprehensive planning process. In both contexts, the public is guided through a similar process to identify problems, explore solutions, develop feasible alternative policies for the future, and, ultimately, decide on the most appropriate course of action.

Urban Design and Healthy Cities

With respect to urban design, both Healthy Cities initiatives and local plans commonly call for physical improvements to the built environment. Such improvements include making neighborhoods more walkable, reducing dependence on the automobile by building or extending transit systems, taming traffic in neighborhoods to reduce pedestrian and bicycle injuries, connecting open space on a communitywide or regionwide scale using greenways or linear parks, and planting street trees to provide shade and mitigate heat, among many other efforts. These improvements would ordinarily be codified in a municipal ordinance, and design guidelines would be prepared for developers and property owners to understand what is required of them and what capital improvements that municipality will provide.

Recent Connections

Finally, beginning in the mid- to late-1990s, the public health field arrived at the conclusion that improved urban design and planning could be a key part of the solutions to significant health problems, such as obesity, cardiovascular disease, asthma, and mental illness. In 2004, the Centers for Disease Control and Prevention and several private foundations, the largest of which is the Robert Wood Johnson Foundation, funded numerous studies to discern which changes to community design have the highest likelihood of improving public health. Some of the urban design tools being analyzed include increased development densities to create walkable neighborhoods, mixed-use development, transit system planning, and bicycle and pedestrian systems. At the same time research is underway to form a base of evidence on the relationships between the built environment, physical activity, and health, many citizen advocacy groups have emerged with a focus on the relationship between health, physical activity, and the built environment. Also, numerous nongovernmental organizations, including the American Planning Association, the International City/County Management Association, and the American Institute of Architects are preparing training sessions and other resources for their memberships and the public on this issue.

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See also:
Sidewalks
Street Networks and Street Connectivity
Walkability

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