

14

Subdivision regulation and land conversion

Kevin Lynch has made the following statement about the status of regulation—or lack of regulation—of land development in the United States:

Historically, public opinion has favored development almost irrespective of the cost to the environment. Our laws and institutions, many of which evolved during a time when growth was a national ideal, reflect a pro-development bias.¹

He then pointed to the fact that “processes that allow for sensitive accommodations and balances—that assure protection of critical open spaces and historic buildings, but also assure that essential development needs are met are not yet in effect in most areas.”²

This chapter deals with the ordinances governing land subdivision. After a brief overview and some discussion of the private and public concerns in subdivision regulation, the chapter takes up the subject of the context of subdivision regulation and discusses such matters as community goals and the planning process, the preparation of subdivision regulations, and the review process. Next, the content of the regulations is discussed in considerable detail. The final section of the chapter is devoted to the new trends in subdivision regulation that are emerging today.

Overview

Land subdivision—the act of splitting a tract of land into separate parcels—is a simple enough proposition. It is an act that has been occurring and has been regulated in this country since its beginnings. The usual purpose of subdividing land is to permit the transfer of the subdivided pieces to someone other than the owner of the original parcel. Most often, subdividing is done for the purpose of permitting development to take place: housing, commercial, or industrial uses; public and private uses. Change is what is contemplated—change from the status of the parcel before it was divided. There are, of course, other purposes for subdividing, for example: transfers of ownership which perpetuate the previous use (farmland sold to another farmer); purchase of additional land by someone who wishes to add to a lot in order to preserve an existing open character; division of land among heirs. But these purposes are minor when the intent of most subdivisions of land is considered.

The chief responsibility for regulating subdivision activity has been delegated to local governments by the states, although certain aspects of this responsibility are now being taken back by the states for various reasons. (See the discussion later in this chapter of new trends in subdivision regulation.)

One of the better, if somewhat optimistic, descriptions of subdivision regulations is contained in *Building the American City*, the report of the National Commission on Urban Problems. This description is given immediately below, as follows:

THE SUBDIVISION REGULATION

While conventional zoning normally applies to individual lots, subdivision regulations govern the process by which those lots are created out of larger tracts.

a. Regulated subjects

Site design and relationships: Subdivision regulations typically seek to assure that subdivisions are appropriately related to their surroundings. Commonly, they require that the subdivision be consistent with a comprehensive plan for the area (e.g., by reserving land for proposed highways or parks). Requirements normally assure that utilities (local streets, sewers) tie into those located [on] or planned for adjoining property. Other requirements are intended to assure that the subdivision itself is related to its own site and that it will work effectively. The widths of streets, the length of blocks, the size of lots, and the handling of frontage along major streets, are among commonly regulated subjects.

Allocation of facilities cost—dedications and fees: Subdivision regulations may contain provisions that effectively allocate costs of public facilities between the subdivider and local taxpayers. Commonly, regulations require subdividers to dedicate land for streets and to install, at their own expense, a variety of public facilities to serve the development. These often include streets, sidewalks, storm and sanitary sewers, and street lights. In recent years, more and more subdivision regulations have also been requiring subdividers to dedicate parkland, and sometimes school sites, or to make cash payments in lieu of such dedication. Some regulations go further still, requiring payment of fees to apply toward such major public costs as the construction of sewage disposal plants.

b. Administration

Subdivision regulations contemplate a more sophisticated administrative process than do conventional zoning regulations. Instead of prescribing the precise location of future lot lines, for example, subdivision regulations provide more general design standards (based in part on local plans). The local planning commission or governing body then applies these standards, at the time of subdivision, to preliminary and final plats submitted by property owners.³

Little mention is made of site planning—and all too often little attention is paid to it—in the subdivision process, either by the public agency reviewing a proposal or by the private developer submitting a proposed subdivision plat. This is indeed unfortunate.

With change in the use of land, new public and private demands are created. The relationship with abutting lands changes—and the neighborhood and the region change. For an understanding of the nature of these changes it is desirable to look at the purpose of subdivision from both the private and public standpoints. If we understand the concerns of both sides we should be able to create better regulations to deal with the process and, consequently, better living environments. Perhaps, then, site planning will in due course become an accepted base for approving or disapproving a subdivision request.

Private concerns in subdivision

When land is sought to provide new opportunities for development or redevelopment, the developer considers a number of factors. These considerations include: the appropriateness of the size and shape of the site for the uses intended (residential, commercial, industrial); site location and proximity to necessary public services (water, sewer, streets, fire protection, schools, parks); natural amenities; ease of development; necessary improvements to render the site usable; local regulations; internal site design; relation to existing or potential uses of abutting properties; establishment of restrictions for development or use of the parcels (covenants); timing and marketability as related to original cost; cost of improvements; and potential sales price relative to the rest of the market. The potential for a successful subdivision depends on all of the above factors, as well as on the quality of the site design itself. The individual factors will vary in importance according to the proposed use. For example, commercial and industrial subdivisions will be dependent on the availability of and access to transportation, while a residential subdivision will be far more affected by proximity to natural amenities and to schools and parks.

Public concerns in subdivision

When subdivision is proposed, the local government having the responsibility for review of the proposal also has a number of factors to consider.

The local government must attempt to ensure that the development proposal is compatible with its surroundings. The reviewing body needs to consider the following: that major streets align with existing or proposed streets adjacent to the property; that utility lines are properly sized to fit the community-wide system; that drainage or other natural hazards will not create problems for abutting properties or for future residents in the subdivision; that improvements are sufficient to serve the proposed uses and are of a quality of construction to minimize future public maintenance costs; that natural amenities are preserved; that the size and shape of the lots and blocks are compatible with the proposed uses and meet zoning or land use restrictions; that the subdivision can be served with necessary public services and facilities; that the timing is such as to be in phase with the community's ability to provide services; that the nature of the site plan is compatible with the neighborhood and community; and that the design of the subdivision creates maximum safety for the future occupants.

This is almost a mirror of the same factors the developer should be concerned about. Why, then, are there differences as to what constitutes a good subdivision ordinance, or what is a proper public concern, or what is a good subdivision design? Why are there so many poorly designed and out of phase subdivisions scattered around the countryside? Why are public facilities so frequently inadequate for the created demand? Why are costs of developing or maintaining streets, parks, and utility systems so high? If local government is controlling the development patterns, why do these problems develop?

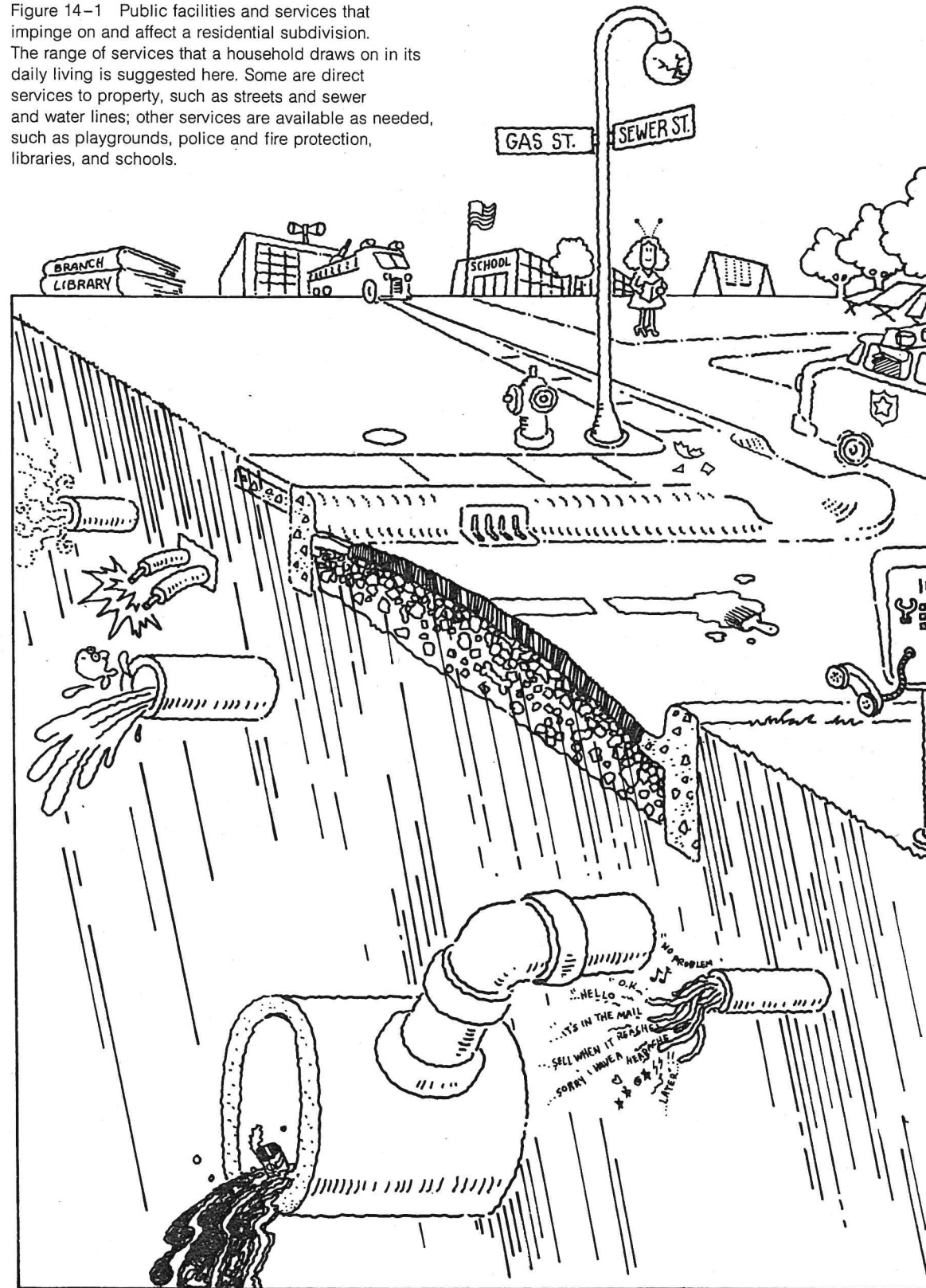
There are a number of reasons for these problems, some of which can be listed as follows:

1. The failure of a community to know where and how it wishes to grow and to integrate the subdivision regulations and review process into community-wide goals and policies as part of the comprehensive planning process
2. A lack of understanding on the part of local governments as to how to develop and use a subdivision regulation
3. The failure on the part of local governments to establish adequate procedures for reviewing subdivisions for quality; most local governments merely review what is submitted for technical compliance
4. A lack of knowledge of the natural and man-made resources that should determine the nature of the subdivision
5. A lack of expertise in both preparing and reviewing subdivision proposals
6. A lack of awareness on the part of the local government that it can turn down a subdivision which is unwarranted or unserviceable at a given time—and a consequent hesitancy in saying no
7. Financial institutions which look backward and base mortgage money availability on what has previously been built in an area, with little evaluation of the improved living environments that can be created through better site planning
8. Treatment of the subdivision plat, site planning, and building designs as separate functions.

The context of subdivision regulations*Community goals and the planning process*

While in theory a community develops its goals and objectives for future development, expresses these in a guide called a comprehensive plan or a master

Figure 14-1 Public facilities and services that impinge on and affect a residential subdivision. The range of services that a household draws on in its daily living is suggested here. Some are direct services to property, such as streets and sewer and water lines; other services are available as needed, such as playgrounds, police and fire protection, libraries, and schools.



plan, and then creates tools to implement this plan, this has seldom occurred in the past. The opposite has been the norm. Regulatory tools have largely been created which have been based on models furnished by various professional organizations, examples from other communities, or directions from state agencies. Too often, the writing of the community's development ordinances is treated as an isolated effort. Regulatory tools should be carefully tested against the community's goals and other development ordinances to ensure that they complement and reinforce one another.

This situation is changing. As more citizens and communities begin to question the type of growth that is occurring in their area, how much it is costing, who is paying for it, and how it is affecting the environment—and as housing costs escalate to the point of excluding not only the low income family but the middle income family as well—the need to coordinate the community's planning and control devices is becoming evident to all. A concept is needed of the individual community, what it is striving for, how the pieces relate to each other, and what it wants to preserve and achieve as development occurs. Environmentalists, home builders, planners, architects, financial specialists, political leaders, and the public at large are becoming aware of the shortcomings of the present and past practices. Subdivision regulations cannot effectively accomplish their potential role in upgrading the living environment unless the community develops its other necessary service plans and then measures each subdivision proposal against these plans. As an integral element of the planning process, subdivision approval must include consideration of various elements of the community's policies, plans, and standards. The plans and policies that are necessary in this context are the following:

1. A water and sewer plan for the area which establishes the service area and the size, standards, location, and phasing of treatment facilities and lines to serve the area. This plan should be based on the desired land pattern for future growth, the costs of initial service, and the continued operation costs to the community.
2. A park and open space plan that identifies locations and standards for park and recreation areas to serve future growth, and natural open space areas that are to be preserved.
3. An environmental plan that identifies critical areas that should be protected from development. Such areas include hazardous areas (floodplains, steep slopes, subsurface geological problem areas, slide or avalanche areas, high wind areas); sensitive areas (aquifer recharge areas, historical areas, sensitive vegetation areas, wildlife areas, mineral resource areas); and, areas important to the community's economic base (agricultural lands, forests, recreation areas that contribute to the area's economic health).
4. A street and transportation plan that indicates the location, capacity, and nature of the system including—where appropriate—automobile, public transportation, bicycle, and pedestrian considerations. The effect on existing and abutting land uses is a critical element in the development of this plan as it relates to community development and redevelopment.
5. A school facility plan that identifies standards for school size (enrollment); land area to develop the facility; and location considerations with regard to spacing, streets, and relation to other use areas.
6. Health department standards for control of septic systems, water wells, package sewage treatment plants, and central treatment systems. Areas where wells and septic systems are not permissible should be identified.
7. A fiscal plan that identifies the proportion of costs of public facilities and services that is to be reimbursed from new subdivisions.
8. A capital improvements program that indicates where and when physical improvements are to be made, the size of these improvements, and how

they will be financed. Development regulations other than subdivision controls must exist and must be coordinated. Zoning, environmental, building, or design regulations or guidelines affect and are affected by the site planning that results from the subdivision process.

All of the above items are elements of the planning process that a city or county should develop in creating its comprehensive planning program. Without the coordination of these tools, subdivision regulations are administered in a vacuum; this has led to many of our present deficiencies in attempting to create coherent community development.

The preparation of subdivision regulations

In the preparation or revision of a subdivision regulation there are many sources of potential models. Professional and research organizations⁴ have contributed models of whole ordinances as well as essential elements thereof which can be used for reference. State planning agencies, councils of governments, municipal leagues, county commissioners' associations, and various university agencies and departments have also furnished such guidelines. Review of the subdivision codes of other governments can also be a source of ideas for dealing with issues of local concern.

Research may include articles from law journals or reports from conferences (such as the annual Southwest Legal Conference) which contribute particular ideas that may be in the forefront of coping with some aspect of subdivision development, site planning, or processing.

Where there is no local staff, other support is required to develop regulations. Lay groups such as planning commissions should seldom attempt to develop regulations on their own. Technical assistance is available from other levels of government, from universities, and from private consultants and should be used to produce the concept and document most appropriate to the individual community.

A crucial consideration is how this information is put together. Developers, realtors, architects, engineers, public staff (if one exists), environmentalists, and representatives of citizen groups active in community development concerns (for example, the League of Women Voters) should all be involved in reviewing the proposed regulations. A task force for such purposes is a desirable approach. This task force can meet frequently and should maintain its enthusiasm. It will know that it has fulfilled its task when a product is adopted.

Initially, a discussion of philosophy as to what is to be achieved with the regulations, how they are to relate to the planning process for the whole community, and how they are to be administered is helpful in bringing all parties together on the task. The planning commission and the political leaders should express their views but need not be actively involved in the initial preparation process. They should be kept informed, and where policy questions are involved they should make decisions, but otherwise they will serve as the review bodies on the product and should become closely involved at that time.

The staff or consultant should become familiar with the concerns and strengths of the existing regulations from the various viewpoints; this includes the viewpoints of the consumer, the builder-developer, public agencies (schools, engineers, utilities, parks, planning, finance, building inspections), environmentalists, lenders, and the planning commission.

The staff or consultant should evaluate existing regulations to see if they are working to achieve the goals of the plans and policies of the community. For example, are the park dedication requirements sufficient in light of current park standards? Is there a need to develop a more efficient way to finance necessary site improvements to hold housing costs to the lowest level possible for the

community? Research into what other communities are doing to solve such issues should be fed into the process at this time.

There must be legal evaluation of what the city or town charter requires and what the state statutes require or allow local governments to do. However, if a proposed requirement is not specifically prohibited it is probably worth trying for if the need exists. Local government should not be inhibited by local advisers who say, "I don't think you can do it," or, "It may be unconstitutional." If these advisers cannot produce a specific case in the state, then it is worth pursuing the requirement. However, the regulation must be carefully drafted.

Regulations need to be localized to account for the particular community values, physical characteristics, and climate. Blind adoption of models or of another community's requirements or procedures will lead to problems.

Relationship between zoning and subdivision Newcomers to the field of planning are frequently puzzled by the difference between land subdivision regulations and zoning ordinances. This confusion is shared by many people and leads to the proposal made by some planners and lawyers that both ordinances ought to be combined into a single, consolidated development code.

In general, land subdivision regulations contain rules and standards that are applied to the conversion of farm or vacant land into lots and parcels for urban development. The rules and standards relate to the size and shape of lots

and blocks and the width and length of streets. In addition, regulations contain construction standards for streets, curbs and gutters, sewers, water mains, and sidewalks.

In general, zoning ordinances divide a city or county into zones for various classes of land uses (such as residential, commercial, and industrial) and prescribe regulations as to how land or buildings may be used. Moreover, the zoning ordinance specifies spatial relationships between land and the placement of buildings on the land—for example, the size of yards and open space that must surround a building.

Where possible, regulations, standards, procedures, and guidelines of neighboring governmental agencies should be standardized. Time and cost savings as well as improved attitudes can be achieved where a city and a county, or two neighboring communities, can bring their development requirements into conformity. For example, merely standardizing plat submittal requirements or topography intervals in subdivision regulations will provide consistent records and reduce preparation time. Street widths are a major area in which minor differences within a given region are indefensible. Through mutual awareness of requirements on the part of neighboring governments, cooperation and standardization may take place in many areas of subdivision activity to the benefit of everyone concerned.

In the drafting of regulations the following actions should be considered:

1. Be critical. Ask whether each section is accomplishing its intent. How will it improve the product or process and will it provide only that information that is necessary? Is it clear? Is it necessary? Is it subject to abuse, etc.?
2. Provide flexibility. Make it possible for new concepts to be considered as efficiently as possible subject to public acceptance.
3. Build in time limits and due process. Impose time restrictions on administrative reviews, within the staff's ability to respond, to avoid administrative delays. Require that all decisions and conditions be reduced to writing and recorded with the plat to avoid further problems for either the public or the developer.

4. Consider the small developer. Within the context of community goals, recognize that there will be proposals to split land into one, two, or three parcels. The requirements for these actions should be simplified and the process of review streamlined or the cost and time will become prohibitive for small transactions.
5. Develop a companion text of engineering improvement specifications. Except in rural areas, where the subdivision regulations can be greatly simplified and consequently can include the engineering specifications, a separate document is needed which reduces to writing the engineering requirements for streets, drainage areas, water lines, sewer lines, concrete work, bicycle paths, and other improvements. This assures uniform treatment of developers and consistent construction standards for public improvements.
6. Incorporate environmental considerations. Subdivision regulations have given a superficial credence to the physical environment as a basis for the site plan. Rarely were plats denied because they tore up a site. Now, with the emphasis on "designing with nature," people are aware that the earth mover is not the answer. Where possible, local environmental impact statement (EIS) requirements should be incorporated into the subdivision regulations to eliminate duplication, assure consideration at the proper time, and speed up and streamline the review process. Communities have been creating separate ordinances and review boards (required in some states by specific legislation) for environmental impacts. This is redundant and time-consuming. Logically, the EIS should be an integral part of a subdivision plat review. If the planning commission does not consider the environmental, social, and fiscal impacts of a subdivision plat, it cannot execute its task properly.
7. Make use of support documents. It may be necessary in larger communities to develop additional detailed documents that assist a subdivider in achieving the community's goals. These might include a waterfront ordinance, a landscape ordinance, a slope ordinance, or a mobile home supplement. As experience develops with frequently requested types of special cases (mobile home parks, plats along the waterfront, condominium developments), and as consistent applications of standards occur and desired local approaches become clear, they should be recorded and, to save time, should be furnished to prospective developers along with the subdivision code.
8. Provide a checklist that may be used to guide the review as to the adequacy of services necessary to support the development. With this checklist the developer, staff, public, legislative body, and planning commission will all know what is to be considered in the analysis without a search through the code.

Review procedures

In order to achieve sufficient review, a community should establish procedures which assure that the proper agencies and people are aware of requests, have enough time to review them, and have the knowledge to deny them where necessary. Agencies outside local government which usually should be included in the review process are as follows:

1. School districts
2. Local power companies
3. Telephone company
4. Water or sewer districts if the plat is to be served by other than the local government

5. Any other district which the plat incorporates (fire, soil, recreation, library)
6. State highway department, when appropriate
7. City: if a plat is in the country but within a mile (some state laws expand this distance) of a city or town, the plat should be referred for comment (the reverse is also true: cities should keep counties informed)
8. County health department
9. Other agencies, including state departments, that may be required by state law to review local subdivision requests.

Within the local government an internal review process should assure that all concerned agencies review and comment on the proposed plat. In smaller and rural communities this is simple; in larger communities it can become complex. These agencies include, if they exist, the following:

1. Public works/engineer
2. Utilities—water/sewer
3. Parks and recreation
4. Fire protection
5. Planning
6. Finance
7. Transportation (traffic engineer).

Each of these agencies should comment in writing. Many communities find that a regular staff meeting to discuss comments on preliminary requests is essential. The process is educational for the various agencies; it helps each understand why the other's concerns may be critical; in addition, it illuminates points that are arbitrary and could be changed to improve the quality of living for the future occupants.

To achieve the above reviews, an applicant must submit enough copies of the subdivision plat in sufficient time to allow everyone involved in the review process to act. Many smaller communities and counties still attempt to review plats only at their set meetings. This can be unfair to the applicant, the community, and the future occupants. This approval procedure wastes time at the meeting; it frequently results in tabling, or else permits poorly conceived plats to gain approval.

The role of the review agency is to represent the public, future occupants, or owners. Where there is no staff, and where the planning commission or legislative body is the only authority available to review plats, the review should be a two step process: review and discuss at one meeting; adopt or deny at the next. A successful practice in some counties or small towns where there is no staff and where plat requests are becoming frequent is to hire a consultant to review all plats and advise the county or town on the decision. The applicant is charged for the review costs and submits the plat to the consultant. By using the same consultant for review, a consistency of reports is achieved and thus the area's policies can be more easily carried out. In this manner, a rural legislator is not overrun by a high powered presentation by the applicant's lawyer, planner, engineer, or architect.

As separate documents are frequently lost or forgotten, any conditions of approval should be recorded on the plat itself.

During the public review certain simple procedures (such as having an area map on the wall, the plat located on the map, and a copy of the plat also posted) will facilitate the meeting and discussion. Where a staff or consultant reviews the plat written reports should be sent to the review agency before the meeting. If these reports are not received at least two days before the meeting, the item should automatically be tabled. Such a procedure will allow the members sufficient time to review the recommendations, visit the site, and clarify questions

with the staff. The staff will also become more concerned with efficiency if they bear the responsibility of the delay.

Consideration of natural and man-made resources

Subdivision ordinances generally require topography, drainage ways, water bodies, existing structures, and roads to be shown as part of subdivision plat submittals. But most communities have no policies on what to do with this information. Drainage areas are allowed to be filled, topography can be drastically altered, vegetation can be removed, and any other feature that interferes with the site plan can be changed. At times, little consideration is given to *off-site* effects (whether bridges or intersections away from but serving the site are adequate; whether conflicts with railroad crossings would become issues; or whether county road maintenance practices would be affected).

Recently, more sophisticated planning programs have realized the significance of the environmental, social, and financial impacts of new subdivisions. In the last ten years this awareness has become widespread. States now require mandatory adoption of subdivision laws by local governments. Environmental impact laws passed by states have been directed toward broadening the concern beyond merely platting lots, blocks, and streets to one of acknowledging the present area conditions and measuring the potential impacts both on and off the site. Plans for plats must now respect the ecological factors of the site and must use these factors as a basis for design. It is necessary to understand the limitations or opportunities with regard to the purpose or nature of the subdivision. Conceivably, the purpose and the site are compatible. If there is a conflict, the purpose should not be altered, nor should a new location be sought. It is the review body's responsibility to see that the site design is compatible with the ecology of the site. Unnecessary future public and private costs can be avoided if this is taken into consideration.

Before the 1940s we lacked the capability of making large changes in the landscape and were forced to do a better job of fitting development to the site. Large scale earth moving equipment has unleashed untold opportunities of destroying natural drainage patterns and, in general, can reshape the environmental character of the site. Large scale systems building methods have encouraged repetitive housing types which require uniform lot sizes and relatively flat topography. These capabilities need not be destructive if the review agencies are sensitive to the impacts and require that before development is approved the effects of such a proposal are fully realized, the problems are identified, and solutions are developed.

The logical point in the development sequence at which to consider the effect on the environment is before a parcel is zoned for uses other than agriculture or open space. Many cities are already arbitrarily zoned for more intense uses. Therefore, the subdivision process should be used to ensure that such concerns are taken into account. A checklist such as that in Figure 14-2 works very well in conjunction with a plat review.

Those persons reviewing and acting on subdivision plats (county or city engineers, planners, lawyers, or other professionals who act as consultants or advisers to the governing body) should not in any way prepare or participate in the procedure in the capacity, formal or informal, of representing the applicant. Unfortunately, in smaller communities (and in some larger ones) this is still a common practice that is highly undesirable and should be avoided. The areas of conflict of interest permeate the entire process.

The need for expertise

When a subdivision is viewed merely as the laying out of lots and blocks the extent of expertise needed is minimal. When a subdivision plat is viewed as a

base for future development the degree of sensitivity required in its preparation becomes much greater. Too often the subdivider is simply a marketer of land. The builder is not even on the scene at the time of plat preparation. Minimum development costs, standardization, and conformity to existing community building patterns dominate in such circumstances. Technically, the plat conforms and will usually function when laid out with simple engineering considerations in mind. But the quality of the future development may be marginal. Only the largest developer or the developer of exclusive subdivision developments will consistently put together a total team before platting (using, for example, a land planner, an engineer, an environmentalist, and an architect or a designer). Under the latter conditions a concept of the finished product is thought through before the plat is prepared. Purpose or use and the basic environment are considered inseparable.

On the public review side there is a similar problem. Sometimes the city engineer's office is the only agency that reviews the proposal. The process is intended simply to confirm that the request meets the technical requirements of the code. This is acceptable in cities where the subdivision is an infill of an area. But in new outlying or uncommitted areas, or in large developments where a character can be established, such a minimal review on the public's side is unacceptable. Once a subdivision is created it has a permanent imprint on the area. The initial cost or time spent in preparation or review is relatively insignificant if viewed from the perspective of the expected life of the development.

Saying no

Local governments have believed for years that subdivisions must automatically be approved. The right to subdivide was considered mandatory. This is changing. It is no longer a matter of submitting the plat with lots, blocks, and streets to the right dimensions and assuming approval. Increasingly, adequate water and sewer service must be proved, the critical environmental concerns must be answered, hazardous areas must be avoided, the area must be within a specified service area, and in some cases a demonstration of need must be presented.

The Ramapo, New York, ordinance, which requires a demonstration of minimum facilities and services, was reduced to a numerical formula (for example, sewers, roads, fire protection, drainage, and parks were the values measures) before a subdivision (or a building permit, or zoning on planned unit development) could be approved.⁵ This is the most famous application of phasing—of saying no to "premature" proposals.

Petaluma, California, is another highly documented and tested case of a community that has developed a system of saying no to developments which are premature.⁶ Petaluma has developed a system of residential control based on three planning documents: the Petaluma general plan, Petaluma Environmental Design Plans, and the housing element of the general plan.

Essentially, in Petaluma there is a limit on the number of building permits that may be approved (500 annually). The plan has been adopted for a five year period. It excludes small subdivisions of four or fewer lots and also excludes single family infill on existing lots.

In Petaluma the evaluation board reviews an application for development and evaluates social, fiscal, and environmental impacts as a total picture. In this way the process of subdivision as a single and isolated step in the development of housing is avoided. The internal site factors and external community factors are considered, as well as the ultimate impact of the application. Annexation, zoning, subdivision, and building design are viewed as a single process.

Other communities have developed similar concepts in an attempt, through incentives or regulation, to discourage or prohibit premature development or development in an unacceptable location. Boulder County, Colorado, has for

Date submitted for review _____

**Town of Vail
Environmental review checklist**

Project _____ Type of project _____

Owner _____ Legal description _____

An environmental impact report must be made for any activity which may have any negative effect on the environment. Effects include environmental consequences of both primary and secondary nature.

The following questions shall be used as guidelines to decide whether to make a negative declaration or an environmental impact report. (If answer is unknown, cite "unknown.")

1. Could the project significantly change present uses of the project area?
2. Does the project significantly conflict with applicable general plans and the Vail Master Plan?
3. Could the project affect the use of a recreational area, or area of important visual value or preempt a site with potential recreational or open space value?
4. Will any natural or man-made features in the project area which are unique, that is, not found in other parts of the Town, County, or State, be affected?
5. Will the project involve construction of facilities on a slope of 30 percent or greater?
6. Will the project involve construction of facilities in an area of geologic hazards?
7. Will the project involve construction of facilities in an area subject to avalanche?
8. Could the project change existing features or involve construction in any flood plain, natural drainage course, or watercourse?
9. Is the project, as part of a larger project, one of a series of cumulative actions, which, although individually small, may as a whole have significant environmental impact.
10. Does the project involve extensive excavation or fill?
11. Does the project area or the project site serve as a habitat, food source, nesting place, crossing, wintering area, source of water, etc., for wildlife species?
12. Could the project significantly affect rearing areas or habitat of fish species?
13. Are there any rare or endangered plant species in the project area?
14. Could the project change existing features of any of the region's stream frontage or greenbelt areas?
15. Will the project remove substantial amounts of vegetation including ground cover?
16. Could the project result in significant change in the hydrology of the area?
17. Could the project result in the displacement of community residents?
18. Could the project serve to encourage development of presently undeveloped areas or intensify development of already developed areas?
19. Is there appreciable opposition to the project or is it likely to be controversial?
20. Will the project create new or aggravate existing health hazards?
21. Will the project involve the application, use, or disposal of potentially hazardous materials?
22. Could the project generate significant amounts of dust or odor?
23. Could the project generate significant noise?
24. Will the project discharge significant volumes of solid or liquid wastes?
25. Could the project result in damage to soil capability or loss of agricultural land?
26. Could the project significantly affect the potential use, extraction, or conservation of a natural resource?
27. Could the project alter local traffic patterns or cause a significant increase in traffic volume or transit service needs?

Figure 14-2 Environmental review checklist for the town of Vail, Colorado.

28. Additional remarks: _____

Checklist reviewed by _____ Title _____

_____ Title _____

For any points answered "yes" or "unknown," the reasons are as follows:

Figure 14-2 (continued).

nine years had a policy of directing urban uses (residential, subdivision, commercial, or industrial) to locate adjacent to, or to annex to, existing urban centers. They have simply said no to scattered requests in the rural areas.

Minneapolis-St. Paul, Minnesota, has gone a step further in that the state legislature has passed a metropolitan area mandatory land planning bill. This bill formalizes the urban service area concept which the Twin Cities had been developing.⁷ A city or county in the metropolitan area must adopt a land use plan designating the proposed location, intensity, and extent of land for various uses. The plan must include an "implementation program" to ensure conformity with the metropolitan system plan. Each city or county may also designate an "urbanized area" plan, for a five year period, in which development is permitted. This limits urbanization to urbanized areas in accordance with the plan.

This effort on the part of the Twin Cities is by far the most comprehensive approach to phasing development in an urban and rural area of numerous political jurisdictions. Subdivision controls in this context become part of an integrated whole instead of remaining an isolated independent act in the development process.

A word on coordination

Communities should coordinate all their development policies, codes, and standards. Frequently, the zoning code is not coordinated with the subdivision code. To submit a planned unit development (PUD) and a subdivision plat for the same parcel will require two separate actions and various materials. This defeats the purpose of encouraging better development, increases time delays and costs, and is in fact unnecessary. If we are to continue, as we will in most communities, with pre-regulated standards and a development process which separates zoning, subdivision, and building permits into three actions, then the least we should strive for is to achieve a common goal for all three—and to ensure that each complements and reinforces the other.

In some states and communities subdivision regulations have absorbed the traditional functions of other regulations. Where zoning is an unaccepted or questionable concept of controlling uses or densities, some of the functions are placed in the subdivision code. For example, the model code for cities and counties in Montana bases lot size on health requirements where zoning is non-existent. In Houston, Texas, which does not have a zoning ordinance, minimum

lot sizes, setbacks, and house size are items covered in the subdivision regulations.⁸

The contents of subdivision regulations

There are certain common elements that are included in most codes. As has been previously stated, the content of local codes must be developed with great sensitivity to the particular circumstances of each area. Preferably, the code should be written for the user—the developer—and not for the attorney or planner. The language and intent should be understandable to anyone who uses the documents. Each community has certain formats for regulations which have been used traditionally and will probably prevail for the subdivision code. But the sequence in which the elements are used is a general guide for a pattern to follow in the drafting.

Applicability of regulations

Generally, this section defines what a subdivision is, explains the intent or purpose of a subdivision, and explains when the requirements of the code apply. Definitions sometimes appear here; however, since these are not used or read until a problem or question of interpretation appears, they can logically be relegated to the back of the code where they will not get in the way of the sequence. Definitions should conform to state law.

Review procedures

There are usually three stages of review for subdivision plats in larger communities or active markets: (1) preapplication conference, (2) preliminary plat, and (3) final plat (these stages are discussed below). The process provides adequate opportunity for negotiations and review before a design becomes final and considerable expenditures are made by the applicant. The initial reviews are sought before the applicant has spent very much money on the preparation. As the considerations about subdividing have expanded into environmental concerns, growth policies, land dedications, and capital improvements programs, the process of review has become more complex. Only in rural or in very slow growth areas is it still possible to present a subdivision plat to the legislative body and have it immediately reviewed and approved. Even in rural areas at least a two step process is becoming commonplace.

Preapplication conference Experience in most communities has shown the wisdom of meeting with potential developers before any design concepts are created. This is the most flexible time in the process and the easiest time to influence the design. Preferably, the discussion is held even prior to the purchase of land. If there is professional staff they are the logical ones to meet with the potential developer. If not, the planning board should fulfill the information role.

The purpose of the preapplication conference is to communicate. The developer provides the community with information as to the overall concept, where the property is located, and what the major uses would be. The spokesman for the community, in turn, should inform the developer of community goals, plans, or policies that might affect the potential development; of off-site considerations; of available data the community has that might affect the site; of whether the property can be served by community facilities and whether there are any outstanding assessments due the city or other developers; of the availability of utilities; and of the general reaction to the subdivision concept.

This preliminary review in larger communities cannot be made at a single meeting. Key representatives of the community should conduct an initial in-

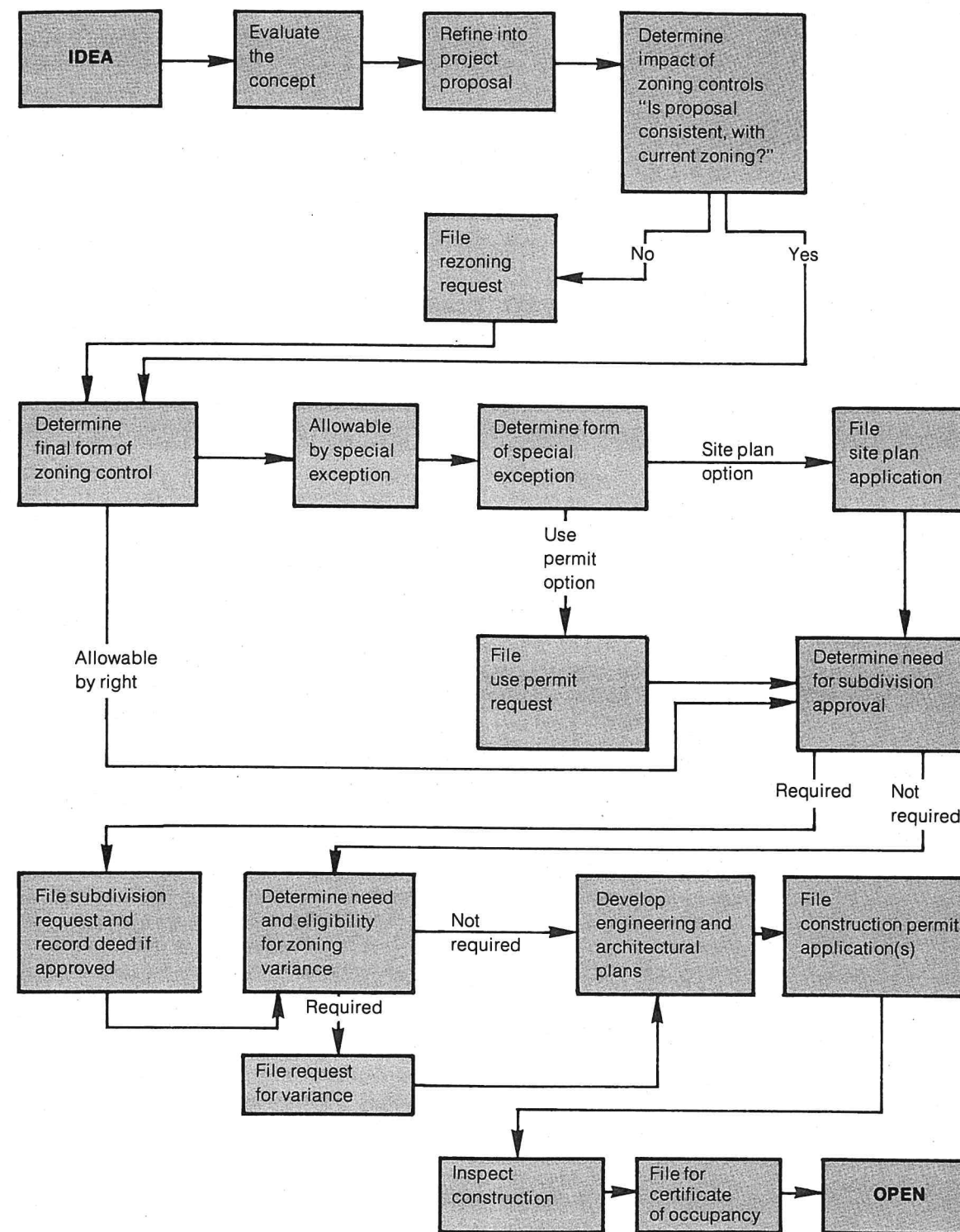


Figure 14-3 Essential steps in the land development process. This generalized diagram shows the land developer the major steps that must be considered in planning a project from the original idea to the time when the project is completed and ready for use.

quiry and should then submit the request to all departments (as well as other agencies such as schools, highway departments, and power companies) that will eventually review a final subdivision proposal. While such a preliminary review may be quick and superficial, and may take no more than a week to ten days to get back to the applicant, it can be valuable in raising a warning or saving expenditures of money on projects that will have difficulty in getting approval. A week or two of investment for review at the beginning can save both parties (community and developer) from needless confrontation later. In smaller or rural communities the review might be completed in one session.

Some cities and counties have instituted an additional step involving the community's legislative body earlier in the process. These communities require the preparation of a "sketch plan"; this essentially requires the same information as a preliminary plat (but to a lesser degree of detail) and is reviewed by both the planning commission and the county commissioners or city council. Thus elected officials can make their feelings known before additional monies are expended. This approach permits the planning commission to review and act on the preliminary plat without the legislative body. The final plat is again reviewed by both bodies.

This approach is more time-consuming but may be desirable where a full staff is not available or the area's policies are not well defined. If there is concern that the legislative body would reverse the staff or planning commission, then the process should provide for an early review.

Preliminary plat At one time the preliminary subdivision plat served the same purpose as the preapplication conference. However, as costs of land and fees for surveys, engineers, land planners, and architects—as well as community information needs—rose, the flexibility to make major changes in the preliminary plat began to disappear. Major changes after the preparation of a preliminary plat are made with great reluctance, and the idea of the preliminary plat as a concept with a minimum of commitment no longer exists. Therefore, the preapplication or sketch plan stage has become necessary in many areas.

The preliminary plat details the concept worked out in the preapplication conference. Action on the preliminary plat should be a commitment on everyone's part. Approval or conditional approval subject to modifications should be effective for an extended period of time (usually one year).

Because communities are becoming aware of the need to plan for entire neighborhoods and to weigh the total impact of a proposal for external site considerations, developers should be encouraged to bring in, at the preapplication and preliminary plat stage, a concept for all of the land subject to their control. Yet it may be undesirable or impossible for a developer to subdivide the entire acreage of a large parcel at one time; therefore, in order to get a complete concept and at the same time to avoid penalizing the developer, communities allow partial submittals for final plat purposes. This permits the entire concept to be reviewed at the preliminary plat level and the final plat submittals to be staged in accordance with the developer's preference and the market's ability to absorb the development.

Final plat If a professional staff exists, it is becoming increasingly common for final plats not to be reviewed by the planning commission if the plat as submitted complies with the conditions attached to the preliminary plat. In order to save time and free the planning commission from rubber stamp responsibilities, the final plat can be reviewed by staff and sent directly to the legislative body for their review and acceptance. Only the legislative body can accept streets or other dedications to the public; therefore, this must be the body taking the final action. State law may require the chairman of the planning commission to sign the final plat before recording, but the full commission need not be involved.

Requirements For each review step the process should be explicitly identified. The following should be specified: (1) information to be submitted (contents of the plats, support data, legal documents, and environmental fees); (2) the way in which it should be submitted (number of copies; scale, format, and size of drawings); (3) who will participate in the reviews; and (4) the sequence and time available for the process. At the final plat stage, legal commitments, dedications, financial guarantees, and any other special agreements must be tied down and completed. The signing of the final plat by the legislative body is the last hold a local government has on the platting process. All agreements between the subdivider and the community should be in writing and should be recorded with the plat. When a plat is denied approval the reasons should be stated in writing.

Minor subdivisions For division of land into a relatively few lots (usually a maximum of five), the process and submittals should be streamlined. In some areas *metes and bounds*⁹ descriptions of the land are accepted for minor subdivisions where no public dedications are necessary. It should not be necessary for the planning commission to review a minor subdivision. Easements can even be recorded by separate document.

Miscellaneous procedures

If special procedures for site planning are permitted by zoning codes it is necessary to specifically provide for them in the subdivision regulation. Such procedures include, for example: planned unit developments, special development permits, environmental permits, condominium subdivisions, and mobile home developments.

Design standards

The site planning of the subdivision should be of the utmost concern to the reviewing agency. Even today, subdivision platting requirements in many areas are intended to serve merely as a simplified form of legal description for use in official recording and sale of land. In other words, they are used as a means of creating a permanent record of the transaction. Communities that view subdivision in this way, as merely a legal action, are being extremely shortsighted.

The design standards section of a subdivision code gives the community an opportunity to establish community character and upgrade the nature of development. The future residents of the development are not on the scene to speak for themselves, so it becomes imperative that the reviewing agency and staff members attempt to execute that function on their behalf. The goals and policies of the community with regard to the type of development it wishes to encourage and the natural areas it wishes to preserve can be expressed in the design standards. These standards usually include general statements regarding land that is unsuitable for development (for example, such hazardous areas as floodplains and steep slopes) as well as positive statements regarding the types of facilities that the community expects to consider when a basic design is developed.

Design standards provide an opportunity, for example, to assure safe and convenient circulation for automobiles, pedestrians, and bicycles; to minimize conflicts between transportation facilities and abutting land uses; and to ensure adequate park and recreation, water and sewer, and storm drainage facilities. It is in the design standards, too, that the coordination of zoning requirements, floodplain requirements, landscape requirements, and other special area development policies can occur.

Some of the major areas covered by the design standards are discussed immediately below.

Site considerations Design standards usually begin with regulations concerning the land to be subdivided. Hazardous and sensitive areas are defined and explained in this section (steep or geologically unstable land; subsurface unstable conditions due to mining; primary dunes; floodplains; and any other condition that would endanger the health, life, or property of the future residents, or a critical aspect of the environment). It has become increasingly common for all development to be prohibited by regulation in such areas. Most communities will have escape clauses which will permit applicants who feel they can justify a particular development under certain circumstances to present their plans and concepts to the city engineer; where there is no city engineer the community may choose to submit the proposal to a special consultant for review and approval.

Critical areas In areas in which development is a problem but not a hazard, limited development can occur under strict controls that identify how and under what conditions development may take place.

These controlled areas are generally termed critical areas. Development in such areas may be discouraged for aesthetic reasons, because of high service costs, for environmental preservation, or for a number of other considerations, none of which can be termed a health or safety threat.

Adjacent problems Some communities will also have special requirements which are spelled out for subdivisions that border on areas or conditions that might prove to be adverse for future residents: these could include freeways, major arterials, and railroads. Dunes, marshes, and other natural or man-made features that should be given consideration to assure compatibility between the proposed subdivision and the existing or potential abutting uses may also require special treatment.

Streets, roads, and rights-of-way The general design considerations for streets (alignment with existing roads, intersections, intersection design, arrangement of sidewalks, length or design of culs-de-sac, T and Y intersections, etc.) should be spelled out. Some codes will indicate the dimensions of the cross sections of such facilities in this section. Other codes will place the specific requirements in the form of a chart.

The desirable approach is not to arbitrarily state a total given right-of-way width for a local, secondary, collector, or major arterial street. Preferably, the various elements which compose these types of streets should be identified: for example, the travel lane for a cul-de-sac, a local street, and a higher speed street may be specified as ten feet, eleven feet, and twelve feet, respectively; pedestrian ways may be identified as three feet, four feet, and five feet, for example. It is then up to the applicant to create the type of facility desired for the subdivision.

It may be possible for an applicant to remove all pedestrian ways from along streets and to locate them internally in a block. If this is the case, the street right-of-way width can and should be reduced by the appropriate footage. Or an applicant may choose to prohibit on-street parking in the subdivision; therefore, the applicant should be allowed to remove the parking lane from the local street and provide off-street parking in the subdivision in some manner satisfactory to the reviewing agency. This avoidance of the absolute street dimensions so frequently found in codes, and this provision of a range of designs instead, puts the burden of initiative on the applicant and enhances the opportunities for flexibility in subdivision design, cost savings, and more innovative approaches to site planning. The community and future residents can still be assured that the streets, parking lanes, and pedestrian areas are functional and will serve the need; and the developers are assured that they are not being asked to arbitrarily

provide a thirty-four foot street in one area and a twenty-eight foot street in another when all of the same elements are included in each one.

Larger communities will usually have design standards in the subdivision code that are concerned purely with cross section. In smaller communities or rural areas the grading, drainage, and improvement standards for streets may also be included in this section.

Some communities have considered removing the utility easements from under the street pavement to a planting strip alongside the street. This presents difficulties if residents put trees and other improvements in that area. The concept of not having to cut into the streets is a highly desirable one but a very difficult one to implement. In some cities a good answer is the utility easement that runs along rear lot lines.

Alleys and easements Alleys and easements for utilities and conditions for their acceptance are also specified.

Water bodies Communities with shorelines, irrigation ditches, or streams should include provisions for maintenance of ditches and ditch rights-of-way and public easements adjacent to the water bodies.

Street naming If a community is large enough it will have a separate street naming policy and guidelines. Or these may appear as an appendix or within the code itself. Street naming and house numbering should be under the control of the reviewing agency.

Lots and blocks Width and length standards for blocks and lots prove helpful if a community has developed principles of what it finds acceptable or desirable. Such guidelines can avoid landlocked parcels that prove difficult to assess, impediments to circulation and service, and the need for resubdivision at a later date. Figure 14-4 shows examples of block and lot patterns.

Public sites, reservations, and dedications Many states and communities throughout the country now are recognizing and accepting the need for parkland and pedestrian and bicycle right-of-way dedications. Street and public utility rights-of-way, of course, have been recognized as normal dedication requirements for many years. School and greenbelt areas are not as widely accepted as legitimate requests except where state or case law specifically authorizes such dedications.

Where there are requests for public land areas above and beyond the area that is directly attributed to the development, or if the development is too small for a park setting, it is desirable to consider some additional requirements. For example, the concept of requiring *either* land dedication *or* cash in lieu thereof is highly desirable. A fee approach is proving much more equitable to everyone unless there is a particular piece of ground desired. Communities should not be forced into accepting parkland dedications in areas where they cannot or do not hope to develop a park, nor should they be forced to accept marginal land for such purposes. In these cases it is most equitable for the community to determine the need generated from various types of development, adopt general standards, and then require a cash contribution in lieu of land for park purposes.

Where land is to be reserved for schools, greenbelts, state highways, or other agencies it is desirable to spell out the conditions under which that land is to be reserved, the period of time for which it is to be reserved, and the interest that is to be paid, and also to state when the price is to be established and when it is to be paid. The price should be set and agreed to before the subdivision is approved.

When communities began accepting cash in lieu of land a fair market value

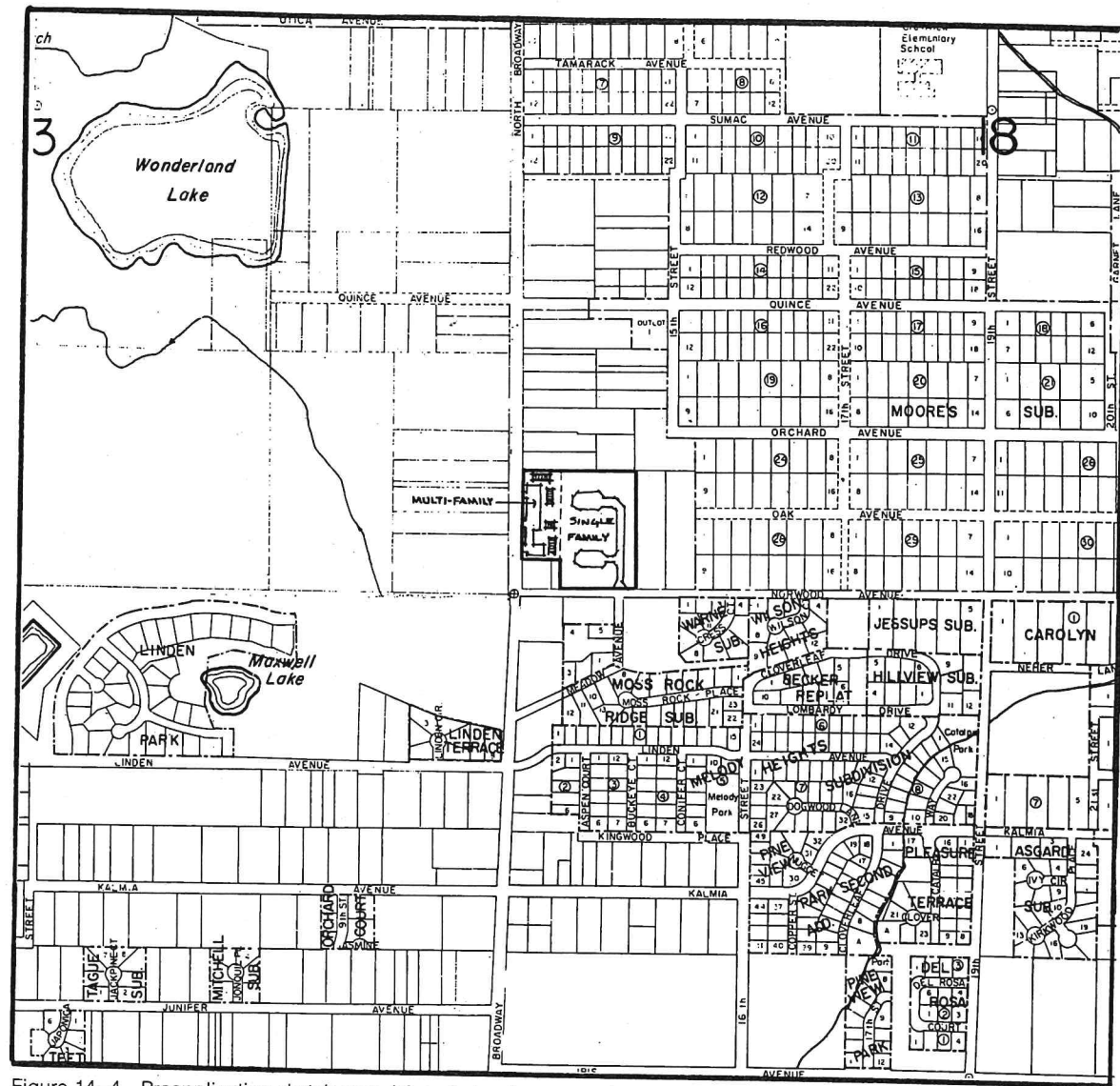


Figure 14-4 Preapplication sketch map (above) showing general location of proposed subdivision in the center of the mapped area; preliminary plat (facing page, top) showing lots and contours; final plat (facing page, bottom) showing land survey identifiers, precise boundaries, and other information.

was established for the equivalent amount of land that was to have been dedicated. This monetary contribution by the developer may or may not have been sufficient for the community to purchase desirable parkland; in either case, the land value had little relationship to the park needs generated by the development. A far more direct method is to tie the land or cash dedication to the number of people (or number of units) that are expected to be developed in a proposed subdivision. Most park standards include a standard of so many acres per unit of population. It is relatively easy to estimate the number of people per type of unit (single family or multiple family) and per development, relate this to the amount of land the community's park standards require for x number of people, and develop a proportionate cash contribution. This has proved much more desirable than accepting the fair market value of a piece of property in cash or the property itself, as it is directly related to the anticipated number of units and the consequent population that will be generated from a given site. Such a program

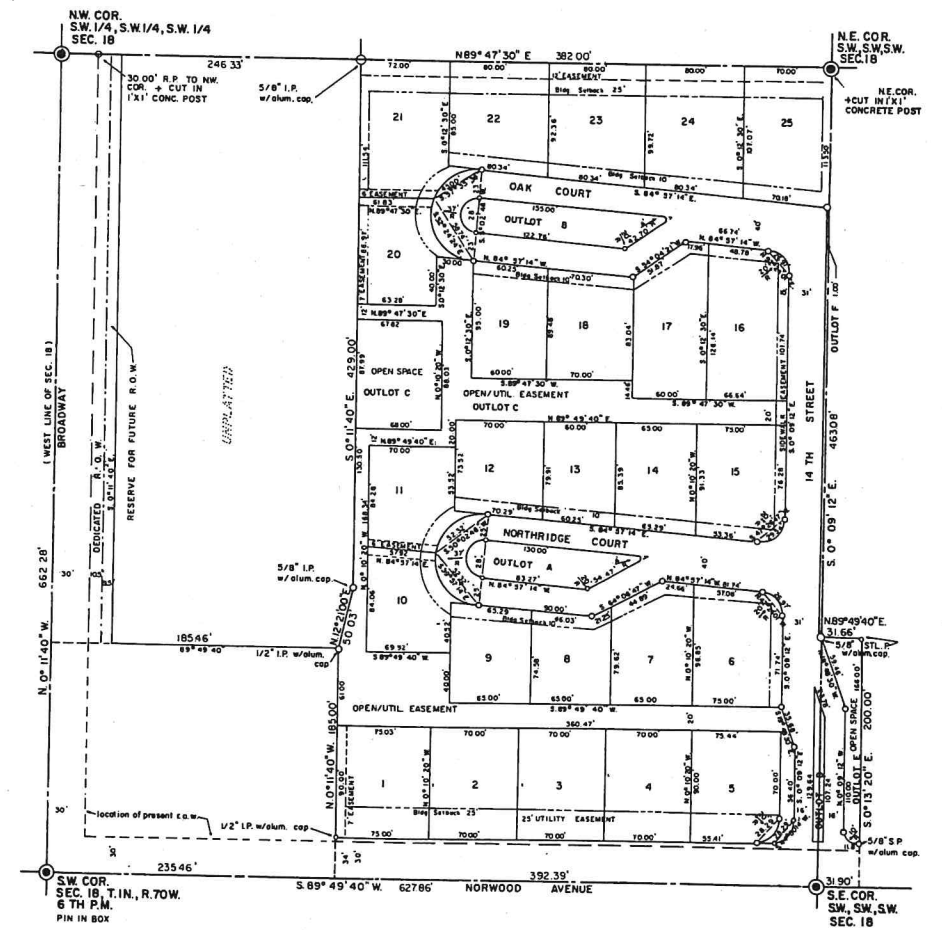
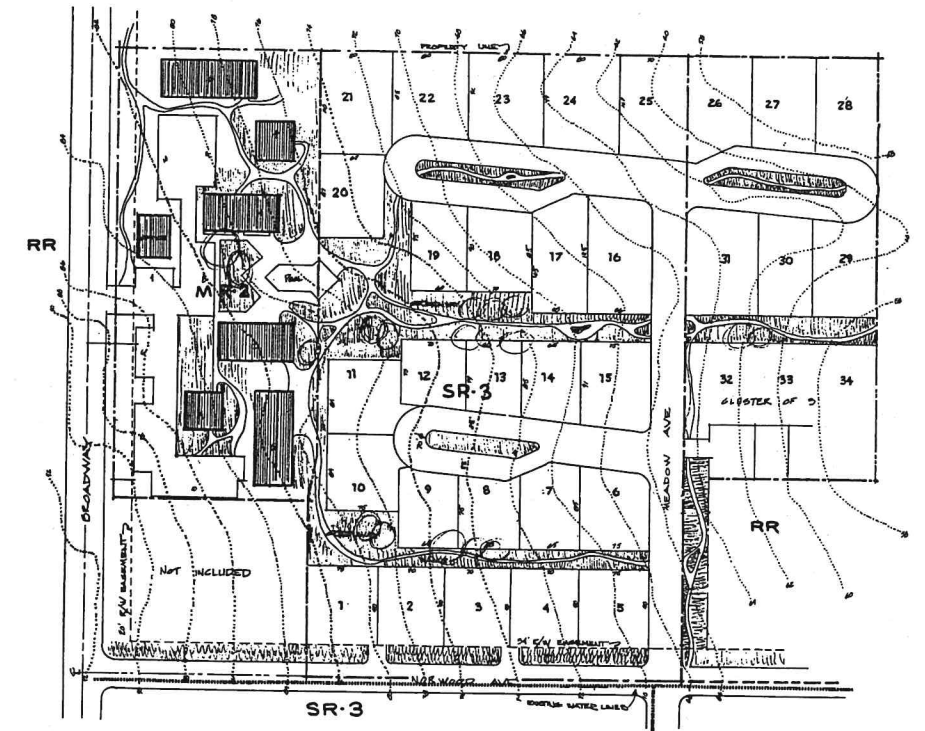


Figure 14-4 (continued).

works most effectively when a community establishes an initial revolving fund which will permit the parks and recreation department to acquire parkland in advance of subdivision activity.

To ensure the development of the parks, a development fee may also be added to the dedication requirement. This practice began when developers objected to the fact that a community required dedication of a piece of property and then, lacking funds, allowed the property to remain undeveloped for many years. Some developers voluntarily attached a \$50, \$75, or \$100 fee to each unit developed within their subdivision and returned this fee to the community for park development purposes in the subdivision. Some communities have now ratified this concept in ordinance form. This permits a community not only to receive dedicated land or purchase it but also to improve the neighborhood park within a specified time. Such an arrangement works to the advantage of the developer who can point to a given timetable for a finished park; to the residents who receive the benefits of having a developed park in their area; and to the community which can reduce the amount of public monies needed for such park developments. The value of the contribution can be increased when the funds can be used to match federal or state park development grants. Where there is a question as to the legality of such practice, it is preferable to attach such requirements at the time of annexation.

Improvements

Smaller communities' engineering specifications for improvements are often contained in the subdivision regulations themselves. In larger communities a separate engineering specification improvement manual is usually prepared, because of the variety and extent of the public improvements necessary in larger communities' standards. The section on improvements may be divided into subsections concerning surface improvements (for example, survey monuments, curbs, gutters, sidewalks, paved streets, alleys, street signs, bridges, culverts, streetlights, and landscaping requirements); utilities (for example, water and sewer lines, storm drains, fire hydrants); and areas where, because of lot and subdivision size, certain of these improvements are not required and individual or private systems may be considered. In a growing number of county regulations solid waste disposal requirements and particular requirements for mobile home parks are also specified. Laws in a number of states now require that a proven water supply and proven sanitation systems must exist, or must have the potential to exist with a guarantee from the subdivider in the form of a monetary commitment.

It is also desirable to recognize private utility improvements such as telephone lines and electric lines, and to make provisions in the improvement requirements that the private companies—if they are providing such facilities—must approve the subdivision before it moves forward. Fire protection and gas systems are also considered. If utility lines are required, communities are increasingly requiring undergrounding of telephone and electric lines. (Frequently, this will be resisted by power companies, who point to the initial cost of undergrounding such facilities. Their accounting procedures do not take into account power outages caused by storms and other natural phenomena which can affect above ground lines. They are basically equipped to put lines overhead and yet, in the light of the total cost of subdividing, the increased cost of going underground is negligible, particularly when compared with the lower maintenance costs and the improved aesthetics and appearance of the subdivision.)

There is usually a catchall clause that identifies and requires other improvements that are not specifically mentioned but are needed because of the peculiarities of the site.

A frequently missing requirement is for final as-built plans. Communities have found that finished plans for improvements, when required, will enable them to keep abreast of what actually was built so that if there are outages or other repairs there will be specific plans from which to work. A registered engineer is required to attest that the working plans as originally planned or amended are what was in fact developed.

More and more, communities are requiring guarantees that the required improvements will be installed. At one time, communities would not permit issuance of building permits until all improvements were in place. Given current building practices this is not feasible in most areas. Therefore, to insure against defaults on the part of the developer, or against financial problems not anticipated by the developer which require the city to come in and build the improvements, financial guarantees are required of the subdivider to assure that all improvements will be installed. Some cities require funds to be placed in escrow in financial institutions. This gives the community the option of calling on funds should the development not proceed as promised. Some communities require performance bonds. However, many communities have found that bonding penalizes the developer and that when problems do occur the community incurs a penalty for trying to collect on the bond. Seldom do bond companies pay off without a fight, and seldom do they pay off entirely on the bond. All of this uses up time, money, and energy. Thus, many communities are using a financial guarantee from the financial institution providing funds for the development. This costs the developer nothing. These financial guarantees should be released only on approval of the public agency.

Environmental impact statements

Environmental impact statements are being required with increasing frequency for proposed subdivisions. Ideally, these can be included within the subdivision process itself; if necessary, the particular requirements of an environmental impact statement should be included in the subdivision code. The approach to the environmental impact statement process; the material to be supplied; and the areas to be covered, such as water, geology, slopes, vegetation, historical features, wildlife, visual impact, community impact, utility systems, public services, land use, housing, circulation system, etc., should be included at this time. Some communities have found that the checklist approach, or the "decision tree," which permits a developer to identify problem areas and only supply detailed information on those areas, is a desirable approach.

Definitions

If definitions have not been covered in earlier sections of the code, they should be included at this time. These should be held to a minimum because throughout the code terms should be explained as they are introduced.

Variations

An administrative section on variations for unusual conditions or for planned unit developments (PUDs) should be included at this point. The submittal requirements for PUDs and for subdivisions should be identical so that there is not a requirement on the part of the developer to provide different information for each. By simplifying the process so that a developer may obtain a PUD and subdivision review at the same time, the community can provide the incentive to encourage a developer to use this route.

Economic hardship should not be a valid consideration for variance. It is the

Planned unit development The planned unit development is slightly different [from] cluster, although the basic principle is similar. Both seek a more flexible approach to permit development of large areas as a whole. Clustering usually is limited to residential development, permitting a higher density if the resulting open space is legally permanently open. The advantages of cluster are also characteristic of planned unit development. A further advantage comes from a design freedom which is not possible under single lot-single building consideration.

Planned unit development is a broader concept than cluster. It may apply to commercial and industrial as well as residential development areas. In some cases a mixture of uses—one or more residential types of residence plus commercial—is allowed. A major difference between planned unit development and cluster is that the specific conditions under which the development will be allowed are general in nature for planned unit development, and [are] frequently not applied until actual plans are proposed. In this case, much is left to the discretion of the administrator, the review board, or other controlling authority.

obligation of the purchaser to obtain property at a price that reflects its usability. The practice of pleading hardship has frequently been used to convert a marginal investment into a profit.

Administrative provisions

These are the boiler plate items such as penalty clauses, interpretations of disclaimers, amendment procedures, public hearing procedures, severability clause, variances, and resubdivision procedures. Variances should be very tightly worded so as to avoid abuse.

Appendices

Examples of what is desired in graphic form or standardized wording that can save everyone time in explanation should be included in an appendix or appendices. Some of these items might be the following:

1. Dedication statements for inclusion on the final plat
2. Reservation agreements for public land
3. Owners' signature blocks
4. Engineers' and surveyors' signature blocks
5. Public officials' signature blocks

Administrative discretion seems to be one of the larger problems of planned unit development. The real problem is recognition of and a framework for relating planned development and comprehensive planning.

The planned unit development has three major characteristics:

1. Planned unit developments usually involve areas and undertakings of large scale, ranging from campus type developments planned as a whole to new towns.
2. They usually involve a mixture of uses and types. The single use or type falls more into the class of the more usual subdivision.
3. They usually involve stage-by-stage development over a relatively long period of time during which buildings, arrangements, and uses may have to be replanned to meet the changes of requirements, technology, financing, or even concepts.

Source: Excerpted from Joseph De Chiara and Lee Koppelman, *Urban Planning and Design Criteria*, 2nd ed. (New York: Van Nostrand Reinhold, 1975), p. 221.

6. Wording for any improvement or landscaping agreements
7. Financial letters of agreement for installation of improvements and landscaping
8. Street design elements, graphics on cross sections, intersections, cul-de-sac alternative designs, and other rights-of-way "do and don't" examples
9. Acceptable street trees if required
10. Examples of sketch plans, preliminary plats, and final plats.

Design policies expressed in pictures or drawings help bridge the gap between the public's desires and expectations and the developer. Such illustrations should be included in any code.

New trends in subdivision regulation

This chapter has proposed that we use subdivision regulations so as to obtain better site planning. Beginning with an overview of the concerns in subdivision regulation, the chapter goes on to discuss, in detail, the context and the contents of subdivision regulations, with an emphasis on the preparation of regulations. New ways of looking at such regulations are emerging, and some of these have been mentioned earlier in the chapter. A more detailed discussion of these trends is given here.

A common complaint of the building industry is that codes such as subdivision regulations are inflexible. Some groups are asking for new regulations or ways to use our regulations to manage growth. Few are satisfied with past performance. Factors such as these have combined to produce the new trends mentioned above, which are reviewed briefly immediately below.

State involvement

A number of states now mandate that local governments adopt and enforce subdivision regulations. They may either adopt their own set of regulations or use a model drafted by the state.

States are increasingly requiring some form of protection for critical natural areas such as wetlands, shorelands, avalanche areas, geologically unstable areas, and mineral deposits. A major impetus for this approach on the part of the states came from the American Law Institute's *Model Land Development Code*.¹⁰

States are requiring proof of water and sewer facilities before subdivisions are approved. Previously, large acreage could be subdivided and sold for development for which buyers had to find their own services. Water can be 300 feet down and can be so hard as to be unusable. Colorado, Arizona, New Mexico, and other western states have numerous former ranches that were subdivided and sold to unsuspecting buyers for retirement or second home purposes without water. Many of these developments were of the \$1 down and \$1 a week variety, in which the buyer would frequently default and the lot could be sold again. Federal and state real estate laws have made considerable headway in stopping such practices. But the scars of rough cut roads in the mountains and high valleys of the West bear witness to these practices. The simple requirement of having to prove an adequate water supply before gaining subdivision approval is a major deterrent to this type of development.

Timing or phasing of development

Counties in particular have begun to use subdivision and zoning approvals as a way of controlling premature development. Approval of requests for premature

development is being based on an ability to serve. As density increases, so do service demands. Water, sewer, safety (police and fire), road maintenance, snow removal, school busing, power, and trash removal are some of the demands that increase with population growth. These items are all reflected in budget demands. As this awareness has crept into the thinking of local government officials, so too has a reluctance to approve scattered developments.

Many cities are also aware of this problem and are now measuring the social, environmental, and fiscal impacts of a proposed development before accepting annexation requests. Longmont, Colorado, has employed a systematic approach to weighing the costs of a new subdivision being added to its urbanized area. It has defined in its plan a service area in which the costs to the city are lowest. To amend the Prime Urbanized Area (PUA) in order to make additional areas available for subdivision, the costs of providing water, sewer, electrical, fire protection, schools, parks, and storm drainage services are measured against the revenues generated by the development. The amount of vacant land available in the PUA is also considered, to ascertain that there is a choice available for developers. Obviously, such a system favors those areas in which services already exist or in which topography provides opportunities for low cost expansion of the systems. This is not too different from the controlled growth concept of Ramapo, New York.

Growth paying its own way

Increasingly, communities are attempting to pass the costs of new development back to the new occupants. Water, sewer, parks, streets, drainage, and in some areas school land, are all being required. Off-site improvements that are necessary for a development to occur are also being tried (bridges, major arterial or government cost fees). The concept is one of a corporation, and the newcomer is buying stock in an existing plant. The former popular approach of selling community backed bonds to fund public improvements and then counting on growth to increase the base and thus hold down the rates is being questioned. Existing residents are objecting to the constant raising of user charges. Growth cycles have left some communities with major deficits which have had to be made up when the broader base failed to be realized. Growth on the communities' terms is becoming a more acceptable approach.

When a community follows this concept it must be careful to provide support and, if need be, subsidy for low income housing. Like other concepts, this concept can be abused and used for purposes of exclusion.

Single development control

The idea of continuing development controls in a single code has been discussed for many years. Some communities have taken a step in this direction by codifying with a single set of definitions, hearing procedures, administrative provisions, and processing steps. But they have stopped short of one technique that requires the developer to go through all phases of approval at one time, from zoning (use and density), to subdivision (site plan), to building permit (specific building and development plans for a lot, including landscaping and other site improvements). Planned unit developments are, in fact, this approach. The idea of requiring all developments to go through planned unit development is still not accepted in this country. Predetermined regulations which apply indiscriminately to the land are still the approach used here. But as the incentives increase the planned unit development becomes more and more common. Properly administered, it should achieve the better site planning that we all hope for.

The concepts and ideas expressed in this chapter are intended to help provide

for the reasonable control of development in urban and rural areas. Through creative planning and subdivision administration, perhaps, as Edmund Bacon has aptly challenged, our cities will be planned as "an act of will" rather than a "kind of grand accident."¹¹

1 Kevin Lynch, *Site Planning*, 2nd ed. (Cambridge, Mass.: The M.I.T. Press, 1971), Preface to the First Edition.

2 *Ibid.*, p. 1.

3 U.S., Congress, House, *Report of the National Commission on Urban Problems to the Congress and to the President of the United States: Building the American City*, H. Doc. 91-34, 91st Cong., 1st sess., 1968, p. 203.

4 These organizations include the following: American Planning Association (APA); American Society of Civil Engineers (ASCE); American Society of Landscape Architects (ASLA); Federal Housing Authority (FHA); International City Management Association (ICMA); National Association of Home Builders; U.S. Department of Housing and Urban Development (HUD); Urban Land Institute.

5 See: Randall W. Scott, David J. Brower, and Dallas D. Miner, eds., *Management & Control of Growth*, 3 vols. (Washington, D.C.: Urban Land Institute, 1975), vol. 2, pp. 7-13.

6 See: *ibid.*, pp. 121-210.

7 See: State of Minnesota, *Metropolitan Land*

Planning Act, 1976 New Laws, p. 239; Chapter 127.

8 Scott, Brower, and Miner, eds., *Management & Control of Growth*, vol. 1, p. 225.

9 *Metes and bounds* means *measures and directions*. Beginning at a given starting point, the distance (or measurement) in various directions is given and finally the return to the original point. The key is the accuracy of the original starting point. Trees, rocks, bodies of water, and other movable or moving points were often used. As years went by and the starting point was moved or demolished, the entire description of the parcel of land was lost. Similarly, the measurements might vary, which would lead to additional problems.

10 American Law Institute, *A Model Land Development Code*, complete text, adopted by the American Law Institute, May 21, 1975, with Reporter's Commentary (Philadelphia: American Law Institute, 1976).

11 Edmund N. Bacon, *Design of Cities* (New York: The Viking Press, 1974), p. 31, quoted in U.S., Congress, House, *Building the American City*, p. 495.