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UNIVERSITY OF CONNECTICUT

**INDUSTRIAL PARK DEVELOPMENT
FOR THE SMALL TOWN**

[1974]

by

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PREFACE

During the fiscal period 1972-73, the Economic Development Administration of the U.S. Department of Commerce commissioned a series of essays and papers on the state of the art in topic areas in which FDA had an operational interest. Eighteen such essays were prepared and reviewed by leading academic analysts selected from throughout the United States. FDA originally intended to compile these essays and publish them in a single volume covering the spectrum of issues and potential approaches to the resolution of problems to which its several programs were addressed. A change in administration and funding allocations led to the abandonment of this publication plan.

The Economic Development Administration has graciously granted permission to the Center for Real Estate and Urban Economic Studies to publish three of the essays. These deal with industrial development and related job creation in urban centers. The present essay focuses on industrial development in small urban centers. The companion volume (Real Estate Report No. 15), entitled, *Recreating the Employment Opportunities in the Inner City*, contains two essays which concentrate on the problems of revitalizing the inner city as a viable economic entity. The essays are "The Inner City Labor Markets," by Wilbur Thompson, and "Inner-City Industrial Development," by William N. Kinnard, Jr. and Stephen D. Messner.

Industrial Park Development for the Small Town focuses on an issue of great importance to nonurban communities faced with the dilemma of providing ever increasing public services and facilities without the benefit of a nonresidential tax base. In the absence of any large-scale governmental aid or subsidy, industrial development represents the only practical alternative by which a community may broaden and strengthen its tax base. Many towns are faced with this problem, but few have the background or expertise to pursue industrial park development successfully. This monograph represents a realistic manual and guideline to those communities, developers, and agencies who become involved in the nurturing of industrial park development in the small community.

Beginning with an analysis of the trends in industrial facility development, the monograph proceeds to isolate and interpret those factors vital to an understanding and successful application of industrial park development techniques. The development of a prosperous industrial park is traced from its beginnings to the final marketing and financing arrangements. The authors' analysis is complete and logical. Offering more than a survey of common practice, it represents a guidebook to successful development.

This monograph and its companion volume are published by the Center for Real Estate and Urban Economic Studies as part of its continuing effort to share the results of significant current research into urban and real estate problems confronting American society. The Center gratefully acknowledges permission to publish these essays granted by the Economic Development Administration of the U.S. Department of Commerce.

Stephen D. Messner
Director

AUTHORS' ACKNOWLEDGEMENTS

This essay was originally intended for readership among laymen who were seeking to promote industrial land development to stabilize local employment and enhance the economic environment of their communities. The intent of the material is to alert the well-intentioned local group to the kinds of questions they should be asking when judging the feasibility of industrial development for their community, rather than providing all the answers. The viewpoint is deliberately cautious as a counterpart to the enthusiasm of local "boosterism" and to the tendency of the public to oversimplify the real estate process and land development.

The authors wish to acknowledge the generous assistance of Mrs. Beverly Dordick, the Librarian for the National Association of Realtors, Chicago, Illinois, and the staff of the American Industrial Development Council, Inc., Boston, Massachusetts. We also wish to recognize the very great inputs of technical assistance and patience of the entire staff of the Center for Real Estate and Urban Economic Studies at the University of Connecticut. CREUES arranged to publish this monograph when the Office of Technical Assistance of the Economic Development Administration, which had originally planned a manual for land industrial development committees, was forced to abandon the project.

Prof. James A. Graaskamp

Alexander T. Anagnost

October 5, 1974
Madison, Wisconsin

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CHAPTER 1

TRENDS IN INDUSTRIAL FACILITY DEVELOPMENT

A. Dissatisfaction and Opportunity

The basic need for industrial and commercial sites at new locations is found in firms on the move--in need of space in different parts of the country, or space at several areas in the country, or more space in the vicinity of their present location. These movements may be required to retain ties to raw materials, to customers, and to required labor, or to adjust for changes in technology or scale of operations which were not correctly anticipated in earlier plans. Since few people enjoy disruption of established routines, industrial relocation is always prompted by some irritating misfit between a firm's present arrangements and its desired situation of major proportions. The nature and extent of these industrial efforts to correct for serious inefficiencies in location or shortages of space can be better appreciated by a review of some recent trends in industrial location. More significantly, the small town must find opportunities for some expansion of industrial employment in its ability to provide solutions for the dissatisfaction of management whose firms may be on the move.

B. Interregional Relocation

Shifts in plant location from north to south and from midwest to southwest during the 1960s are apparent in data on new plant structures and equipment investment (Table 1).

C. Intra-regional Migration

More significant than sectional migrations, however, has been the regional migration of employers from the central city, many of which are neither national in terms of distribution nor in terms of service areas and therefore not even candidates for the big project sweepstakes. The trend in plant relocation from large metropolitan areas toward suburban and rural areas can be illustrated by reference to the Chicago area which is generally thought of as "an industrial growth center." Based upon an exhaustive analysis of plant relocation and expansion patterns in the Chicago area, a general dispersal from the city is projected through 1985. The following map (Figure 1) illustrates this trend, locating projected percent changes for employment between 1963-1985 for 38 areas in Chicago and its hinterlands. The 200-300% employment growth projections for the less populated outlying areas stand in sharp contrast to the negative growth (indicated by circling) projected for many areas near the central city. This pattern may be considered representative of U.S. metropolitan industrial expansion in general. Relevant to this essay, the volume of industrial platting in these counties, while not fully researched, suggests that the industrial park, and sometimes even the speculative general purpose light industrial building, have both encouraged and facilitated this trend.

TABLE 1

New Plant Structures and Equipment Investment

	New Plant Structures & Equip. 1963 (in millions of dollars)	% of Total New Struc. & Add. in U. S. for 1963	New Plant Structures & Equip. 1967 (in millions of dollars)	% of Total New Struc. & Add. in U.S. for 1967	% increase New Plant Structures 1963- 1967
New England ^a	134.2	5%	331.6	6%	147%
Mid Atlantic ^b	493.6	17	1,022.5	18	107
East North Cent. ^c	786.8	27	1,537.9	27	96
West North Cent. ^d	173.3	6	293.9	5	70
South Atlantic ^e	366.5	12	660.9	12	80
East South Cent. ^f	186.3	6	384.4	7	106
West South Cent. ^g	294.9	10	662.5	12	125
Mountain ^h	90.5	3	112.2	2	24
Pacific ⁱ	369.3	12	700.5	12	90

SOURCE: The 1967 Census of Manufactures, Vol. 1 (Summary), pp. 5-13.

SOURCE NOTE: The totals at the U.S. total level were derived from separate tabulations based on industry rather than State detail. The sum of the State detail does not add to the U.S. totals because of (1) independent rounding and (2) independent review and correction of the separate industry and State tabulations.

^aMaine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.

^bNew York, New Jersey, Pennsylvania.

^cOhio, Indiana, Illinois, Michigan, Wisconsin.

^dMinnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

^eDelaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

^fKentucky, Tennessee, Alabama, Mississippi.

^gArkansas, Louisiana, Oklahoma, Texas.

^hMontana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

ⁱWashington, Oregon, California, Alaska, Hawaii.

[illegible]

SOURCE: Derived from "Industrial Development," Metropolitan Planning Guidelines Phase One: Background Documents (Chicago: Northeastern Illinois Planning Commission, October 1965), pp. 70-71.

Much studied urban problems are contributing to industrial dispersal from large metropolitan areas. "The combination of journey to work frustrations, fear of physical attack air pollution and overpowering noise levels, coupled with high living costs¹ and economic anxiety, are adversely affecting attitudes, work habits and productivity."² The rising cost and declining availability of urban land, along with the ever-increasing ability of the small town to provide the necessary transportation, production, and financing needs of industry, further accelerate this trend away from the city.

It should be noted that the many little irritations of urban life are not the primary cause of relocation. The basic reason is the lack of adequate space at an existing location or prohibitive cost at the existing location. Once the firm manager decides on the need for a second facility elsewhere or a new facility in which to integrate various operations, his dissatisfaction with the urban environment leads him to reexamine the premise that he must be in the city or in an area traditional for his particular enterprise. If he determines his enterprise must be in the general vicinity of where it is presently in order to survive, there are plenty of nearby properties to serve his needs. Thus the smaller town promoting industrial expansion must, by circumstance, compete for those enterprises which are growing or aggressive, which are seriously inconvenienced by their present sites, and which, by relocating out of the city, will gain more from an economic standpoint than it may lose. The firms which fall in that narrow segment of potential candidates for small town location are relatively few in number. Thus aggregate data by regions or by metropolitan area such as Chicago tend to overstate the potential opportunities, since any one firm has a rather narrow band of alternative locations from which it might choose within these larger geographic regions or sections.

D. The Role of Industrial Parks

The industrial park has a very important role to play in this locational competition. "Industrial park" means a planned or organized industrial subdivision, with immediate availability and basic utilities, operating under a specified set of controls for the mutual benefit of the community and the industries located within the park. The industrial park is not just a tract of land set aside on the maps for industrial use and left to evolve into some

¹The Bureau of Labor Statistics has estimated the cost of living differential between metropolitan and non-metropolitan areas. For a family of four living "moderately", northeastern non-metropolitan area are favored by 4 percent, midwestern non-metropolitan areas are favored by 6 percent, southern non-metropolitan by 9 percent, and western non-metropolitan by 5 percent. U.S. Bureau of Labor Statistics, Bulletin #1570-5, "Three Standards of Living for an Urban Family of Four Persons," Spring 1967 (Washington, D.C.: U.S. Government Printing Office, 1969).

²Maurice Fulton, "New Factors in Plant Location," Harvard Business Review (May-June 1971), p. 6.

nebulous complex.³ The industrial park should be only part of the overall community effort to promote local economic development; a tangible display of the community will to be and to do that which is necessary to attract and to hold industry.

³For a more complete discussion of the distinction between industrial parks and industrial districts, see "Technical Bulletin 41" (Washington, D.C.: Urban Land Institute), pp. 9-11.

CHAPTER 2

EMPLOYMENT AND ENVIRONMENT AS A SYMBIOTIC SYSTEM

Most people are restricted to two centers of activity--"where they work" (i.e., employment) and "where they live" (i.e., the general community environment). The two are inseparable; for the individual to function efficiently, employment and community must form a symbiotic system--they must be compatible with one another. When Americans are not working, they are usually spending their hard earned dollars for the goods and services provided by others in the community.

A basic understanding of community growth economics can be gained by dividing community enterprises into two types. Some enterprises are involved in base activities, that is those which sell the majority of their goods and services and find their capital outside the borders of the community. As a result, these firms import dollars for payroll and local supplies while they export goods and services. The second type of enterprise is service industries which find the majority of their customers and their investment locally. The distinguishing characteristic is whether dollars flow into the community or remain within the community. A restaurant enterprise may cater predominantly to people passing by on the highway and be an element of economic base while the same restaurant or one similar to it that services the local people would be a service industry. A medical clinic may serve a local practice or be like the Mayo Clinic, attracting patients from all over the world. Less noticeable examples of economic base are pensioners and the retired receiving income from state and Federal sources, investments or savings. Bank deposits earn revenue to cover local bank salaries and services, farms pool crops for the national market, and colleges attract students financed by parents in other towns.

Depending on the nature of these "base activities" in a community, various supporting service activities will be required as well. The workers at "Universal Widget" will need places to shop for food, buy clothes, entertain themselves, etc. The larger and more diversified the "base activities," the more diversified the demand for supporting "service industry." When the community has successfully established its first University (again a base industry as it derives its revenues primarily from tuition payments and tax revenue earned in other towns), one can expect an accompanying infusion of cultural centers and other supporting "nonbasic" activities to suit the tastes of the new inhabitants attracted to the locale. This, in turn, provides additional incentive for other new "town building" industry to locate in the community. The chemical firm in search of a new plant site will be further influenced by these new cultural amenities brought in by the University Chemistry Department for research and development purposes. The expansive consequences of additional economic base employment

⁴R. B. Andrews, "Economic Planning for Small Areas," Land Economics (May-August, 1963).

TABLE 2
Employment Changes

	Number of workers
Manufacturing	+100
Nonmanufacturing industries:	
Wholesale and retail trade	+19
Professional and related services	+14
Business and personal services	+6
Construction	+5
Finance, insurance and real estate	+4
Transportation, communication, and other public utilities	+2
Agriculture	+1
Other industries	+14
Total, all nonmanufacturing industries	+65

Effects of increased manufacturing employment will depend upon the type of factory, nature of the labor force, nature, size, and utilization of present community facilities, and many other factors.

Increase in Annual Retail Sales

Grocery stores	\$ 72,000
Automobile dealers	47,000
Eating and drinking places	25,000
Gasoline service stations	24,000
Department stores	22,000
Clothing and shoe stores	21,000
Lumber, building materials, and hardware dealers	18,000
Furniture, home furnishings, and household appliance stores	14,000
Other stores	88,000
Total increase in annual retail sales	\$331,000

Economic and other changes for eleven counties having substantial increases in manufacturing employment between 1950 and 1960 when compared with eleven counties without increased manufacturing employment are summarized above.

was suggested by a Chamber of Commerce study which showed that 100 new factory workers in a town meant that, in several years, the community would gain:⁵

- 100 more households
- 359 more people
- 91 more school children
- 65 more people employed in nonmanufacturing services
- 3 more retail establishments
- \$331,000 more retail sales
- \$229,000 increase in bank deposits

These increases can be seen in more detail in Table 2.

It must be remembered, however, that this spiraling relationship between basic and nonbasic industry is primed only through encouragement of "town building" activities. Economic base development begins by encouraging base employers which already exist in the community in order to attract additional employers. Much research has been done showing a direct relationship between catering to existing industry and attracting new ones; towns providing active assistance to existing industry attributed 70 percent of new jobs to attraction of new business, a very significant deviation from the national average which shows only 15 percent of all new jobs coming from location of new firms.⁶ Big business confirms this relationship as they place greatest weight on discussions with firms already located in the community in determining the desirability or undesirability of an area.⁷

Government can be a primer to initiate an upward economic growth spiral by importing dollars into the community to initiate a new employer or services required by a prospective employer.

The base activity of Coalgate, Oklahoma in the 1920s consisted of coal mining and farming. Depletion of the mines, plus the change from crop to pasture production, severely eroded these sources of revenue and, by 1940, the population had dropped by 50 percent. Nevertheless, a nucleus of concerned citizens saved their town from extinction through a vigorous industrial development program. They began by taking a survey of industrial amenities and supplying (by contributing cash) some important

⁵Chamber of Commerce of the United States, "What New Industrial Jobs Mean to a Community" (Washington, D.C.: U.S. Government Printing Office, 1968).

⁶F. Willie Orr, "Community Programs to Assist Existing Industries," Industrial Development Institute Thesis, University of Oklahoma, 1966.

⁷Andrew E. Evans (Real Estate Manager), "What Our Company Expects from Your Community as a Neighbor," Westinghouse-AIDC Professional Notes, #464, (July 1964), pp. 1-3.

facilities Coalgate lacked. Additional firefighting equipment was purchased and, with the help of Federal aid (dollar imports), a \$500,000 hospital was built. This set the growth spiral in motion, as a former Coal County resident, General Patrick J. Hurley, contributed his family manor for conversion into a 42-patient rest home. Next came the first big "base industry" addition in the form of a 225-employee clothing plant. These events led to expansion of the school system, more water, more sewers, and paved streets. Next came two doctors, a dentist, an optometrist, and a veterinarian, while the clothing plant planned a 300-employee expansion. The citizens voted revenue bonds for recreational facilities and school expansion, while a small 200-student college approached the construction stage.⁸

The above example also illustrates the "take-off" point in industrial development. There is a point at which cumulative community amenities are sufficiently attractive to prompt additional industry consideration of the town, to spark additional special service shops and services, and to expand the tax base to finance neglected needs in public services. In the case of Coalgate, this occurred after the purchase of firefighting equipment and the construction of the \$500,000 hospital. The combination of local strong commitment (PMA) and government aid (OPM) were the necessary ingredients in reaching the take-off point. On the other hand, prospective industry interprets repeated defeat of a school bond issue, repeated strikes against the only major employer, or deep political divisiveness in city hall as unfavorable to successful industrial relocation.

⁸Eileen Ronald, "Influencing Factors for Small Town Plant Location," Industrial Development Institute Thesis, University of Oklahoma, 1965.

CHAPTER 3

MATCHING COMMUNITY AND EMPLOYER

Industrial location involves arranging a marriage between employment and environment. Good luck, good timing, a little patience and decent figures all play a part. Each partner has unique qualities which must be reasonably compatible with those of his mate. Such qualities or attributes may be classified as being rational or irrational in nature. Rational factors of a marriage may include earning power and homemaking ability, while the irrational subconscious reacts to anxieties, pride, common values, and mysterious chemistry of appeal or accident. The people at Westinghouse confirm that the corporate entity behaves in true mortal fashion; they tend to place greater weight on such irrational elements as suitability of the community for bringing up children and living in general, and attitude of the local residents toward the firm.⁹

Upon closer examination, however, these factors are not really irrational at all; public opinion and employee morale are really noncost or irrational factors only in the sense that they cannot readily be quantified--i.e., their effect on "cost per widget" cannot easily be determined. The community, on the other hand, undergoes a similar screening process, whereby firms are accepted or rejected on the basis of unique preferences which may also be irrational in nature. The local citizenry may reject a particular manufacturing operation which happens to fit the environment on every rational criterion of location, because management is clumsy or patronizing. If the local opposition is strong enough, the inevitable constant friction would cause even established industry to fail, in spite of the rational ties (proximity to required raw materials and labor markets, availability of power requirements, etc.).

The industrial park is a management tool, properly used as a conversational ploy in the courtship process and perhaps as a dowry or gift from the political inlaws. The convenient provision of an improved site alone goes a long way in reducing the anxiety of firm relocation. The travail of pulling up stakes and moving to a new town usually inspires a certain amount of "corporation inertia"; the industrial park can serve as a strong incentive to overcome that inertia, like expensive new luggage and a trousseau for the honeymoon. An industrial park is seldom the basis for the marriage but is critical in negotiating agreement on the date.

A. Systematic Approach for Community Development

One cannot always rely on coincidence and chemistry. One must begin with a systematic approach to the enterprise,¹⁰ in this case creation of an industrial park. The elements of any enterprise are:

⁹Evans, pp. 1-3.

¹⁰An enterprise is any meaningful activity, undertaken with a purpose in mind.

Setting goals and policies

Searching for opportunities which are consistent with policies

Selecting opportunities consistent with policies

Designing a program for capturing selected opportunities

Installing these programs

Operating the programs once installed

Maintaining and continuously perfecting the system¹¹

1. Setting Goals and Policies

The starting point in planning economic development would be to define the broad goals of the community and to convert these to specific objectives and priorities--in what are the people of the region really interested? Do they want to solve certain social problems, to reduce the steady loss of young people to other towns, or to increase wage levels and employment? These goals must be made more explicit, ranked for priority, and stated as realistic objectives. To increase jobs for machinists for which former foundry workers could be trained would upgrade the work force; to involve young people in high school management internships, or to subsidize their entering business might keep them in town. In down-to-earth terms, the community is making a decision: "Which are the industries that have what we want?" A descriptive approach is the screening grid technique illustrated below. Notice how value judgements are made explicit in the point rating system.

Community requirements were established in Figure 2; the question now becomes, "Does the community have what industry wants?" In Figure 3 community attributes are rated relative to industry requirements.

Atlantic Research Corporation employed precisely the same type of screening process in 1966 when it picked Costa Mesa, California, for its new Missile Systems Division Headquarters.¹² Their rating grid is reproduced on the next page.

Firms that are rated highly in Figure 2 and rate the community highly in Figure 3 form the group of eligible and acceptable employers. Thus, a further screening grid (Figure 4) is necessary to separate out those combinations of industries which may not survive in the same small town.

¹¹J. A. Beckett, Management Dynamics (New York: McGraw-Hill, 1971), p. 111.

¹²"Relocation: The Right Way to Pick a New Location," Business Management (April 1968), p. 43.

FIGURE 2

The Community Evaluates Industry

Community Objectives:

1. Upgrade the class of industry in the area
2. Preserve the environment
3. Provide winter employment to counter the seasonal nature of current operations
4. Provide employment for women

Criteria contributing to fulfillment of community objectives Industries being Evaluated →	Attractiveness of Wage Rates	Ability of the Ind. to meet Pollution Requirements	Attractiveness of Industrial Image	Number of Winter Jobs Required	Number of Jobs Provided for Women	total points scored
	0 to 10 points	0 to 8 points	0 to 6 points	0 to 6 points	0 to 4 points	
Pulpwood Industry	5	3	3	5	1	17
Plastic Industry	6	3	3	5	2	19
Electronic Assemblies	7	5	4	4	3	23
Hospital Industry	9	7	6	3	4	29

NOTE: Clearly the criteria with the highest number of points scoreable receive the greatest weight and indicate which objectives are most important to the community. Therefore, the criteria are ranked in priority from left to right. The industry which meets average standards set by the community in any given area is awarded half of the total number of points possible. Thus, the pulpwood industry (scoring 5 out of 10 possible wage rate points) meets average wage rate requirements; the plastic industry is slightly above average in this respect, and the hospital industry is far above average. The citizens have rated the hospital industry as being most compatible with community objectives (awarding it 29 total points) and the pulpwood industry as being least compatible (scoring 17 total points). Finally, notice how an industry may completely satisfy one community objective (scoring, say, the full 4 points possible in "providing jobs for women"), but be dropped from consideration if it fails to meet other more heavily weighted criteria (such as "ability to meet pollution requirements").

FIGURE 3

Industry Evaluates the Town

1. The Paper Products Industry Evaluates Towns "A," "B," and "C,"

Criteria by which community attributes are rated Communities Being Rated	Proximity to Market	Labor Quality and Quantity	Transportation Facilities	Availability of Raw Materials	Water	Industrial Fuel	Taxes	Other Factors See Appendix "A"	Total Points scored
	0 to 10 points	0 to 8 points	0 to 6 points	0 to 4 points	0 to 2 points	0 to 2 points	0 to 2 points		
Town "A" (Podunk)	5	6	3	2	1	2	2		21
Town "B"	7	5	4	3	2	1	1		23
Town "C"	6	7	6	4	2	2	2		29

FIGURE 3, cont.

2. The Petroleum Products Industry Evaluates Towns "A," "B," and "C"

Criteria by which community attributes are rated									Total Points scored
	Availability of Raw Materials	Transportation Facilities	Proximity to Market	Industrial Fuel	Laws-Regulations	Labor Quality and Quantity	Taxes	Other Factors See appendix "A"	
Communities Being Rated	0 to 14 points	0 to 10 points	0 to 8 points	0 to 4 points	0 to 2 points	0 to 2 points	0 to 2 points		
Town "A"	12	5	7	3	1	2	2		32
Town "B"	10	4	6	3	2	1	2		28
Town "C"	7	5	8	3	1	1	1		26

NOTE: The selection criteria for both industries are arranged by priority from left to right. The "average" town in respect to any given criterion is awarded exactly half of the total points possible. Notice the use of higher point scales to weight the effect of points scored (the more important criteria have higher scales). Furthermore, the use of identical scales for several criteria means they are considered of equal importance; the petroleum industry, for example, considers "Laws," "Labor," and "Taxes" of equal significance, placing them all on 2-point scales. Finally, the determination as to which towns fulfill locational requirements will vary among industries; for example, the paper products industry regards Town "A" as simply "average" in "Availability of Raw Materials" (awarding 2 out of 4 possible points), while the petroleum products industry finds Town "A" far above average in this same requirement (awarding 12 out of 14 possible points).

TABLE 3
Area Selection Criteria Analysis

	Unweighted Rating			Relative Importance Rating	Final Weighted Score		
	Orange County	Town A	Town B		Orange County	Town A	Town B
1. Population growth trend	3	2	2	3 (M)	9	6	6
2. Easy access to Los Angeles International Airport	2	3	1	6 (H)	12	18	6
3. Company image	3	3	3	10 (S)	30	30	30
4. Housing availability--for sale	2	1	2	3 (M)	6	3	6
5. Housing availability--for rent							
6. Apartment availability							
7. Proximity to cultural ac- tivities (schools, churches, etc.)	2	2	2	1 (L)	2	2	2
8. Proximity to higher educa- tion institutions and trade schools							
9. Proximity to recreational areas							
10. Ideal zoning laws and restrictions, stability, planned areas	3	3	2	6 (H)	18	18	12
11. City-county tax rates	2	2	2	3 (M)	6	6	6
12. Local government and community cooperation	3	3	3	6 (H)	18	18	18
13. Atmosphere (e.g. freedom from smog)	2	1	1	10 (S)	20	10	10
14. Pleasant climatic condi- tions	3	2	1	6 (H)	18	12	6

15. General convenience of site to existing road nets	3	3	3	10 (S)	30	30	30
16. Proximity to freeways							
17. Airport facilities for company planes	2	3	1	3 (M)	6	9	3
18. Availability of male technical and professional personnel	3	3	3	10 (S)	30	30	30
19. Availability of female office and semiskilled personnel							
20. Availability of male skilled personnel							
21. Availability of industrial land	3	3	3	6 (H)	18	18	18
22. Average land values	2	3	3	3 (M)	6	9	9
23. Test site availability	3	3	3	6 (H)	18	18	18
24. Area available for closed circuitry testing	2	2	2	3 (M)	6	6	6
25. Low to moderate site preparation costs	2	2	2	1 (L)	2	2	2
26. Employee disruption factor	<u>1</u>	<u>2</u>	<u>1</u>	3 (M)	<u>3</u>	<u>6</u>	<u>3</u>
TOTALS	46	46	40		258	251	221

How to use this chart: Above is the chart Atlantic Research Corp. used for rating the three areas to which it gave the most serious consideration as a site for the new headquarters for its Missile Systems Division. The left-hand column lists the 26 criteria against which it judged the areas. The next column indicates the scores it gave these areas, on a scale ranging from three to zero. Three equaled excellent, two good, one fair, and zero poor. The third column indicates how important it considered each of the criteria it listed in column one. Thus, 10 (S) was the top possible score and shows that the company considered the criterion of supreme importance. Six (H) indicates that it considered the criterion highly important, 3 (M) that it considered the criterion of moderate importance, and 1 (L) that it viewed the criterion as of low importance. The last column shows the final weighted scores each area received. The figures were arrived at by multiplying the appropriate figures in the second column by those in the third. By giving each criterion a weighted rating, Atlantic Research was able to break a tie between two of its final three candidates--Orange County and Town A.

NOTE: Instead of weighting criteria on a 10-point scale basis, they used, in effect, a 4-point scale.

FIGURE 4

	Acceptable New Industry "A"	Acceptable New Industry "B"	Acceptable New Industry "C"	Acceptable New Industry "D"
Existing Industry "A"				
"B"	A & B compete for same employees X		B & C are competitive brands X	D introduces militant union hostile to B X
"C"		Renders ex- isting firm technically obsolete X		
"D"				

2. Providing Input for the Policymaking, Search, and Selection Process

To provide information for rating grids (Figures 2, 3, and 4), the following are needed:

- a. An audit of community attributes;
- b. An understanding of community objectives (and the resulting criteria by which alternatives are judged);
- c. An understanding of the characteristics of different industries.

A comprehensive community audit form is presented in Appendix A. Filling it out, however, requires an intimate knowledge of the immediate area. Specialized information is called for, and various local (town or county) departments should be contacted to aid in the data assimilation.

Inherent in the establishment of objectives is a program for citizen participation (discussed in Chapter 6) and the setting of community goals. A logical or "rational" approach to goal setting becomes evident after examination of Graph 1.

Graph 1 says that the most important factor in Texas plant locations is proximity to markets. A basic ("rational") community strategy would then be to find out what goods and services are being imported in significant quantity, causing local funds to flow out to other towns; if the town can reduce that outflow by locating new industry, this then forms a goal upon which objectives are based. Graph 1 also indicates that industry next requires labor, raw materials, and transportation; the strategy would then call for the attraction of industry with needs compatible with available community labor supply, raw materials supply, and transportation facilities. In spite of the priority in general industry requirements suggested in Graph 1, Graph 2 illustrates how any one type of industry can differ significantly from the general rule.

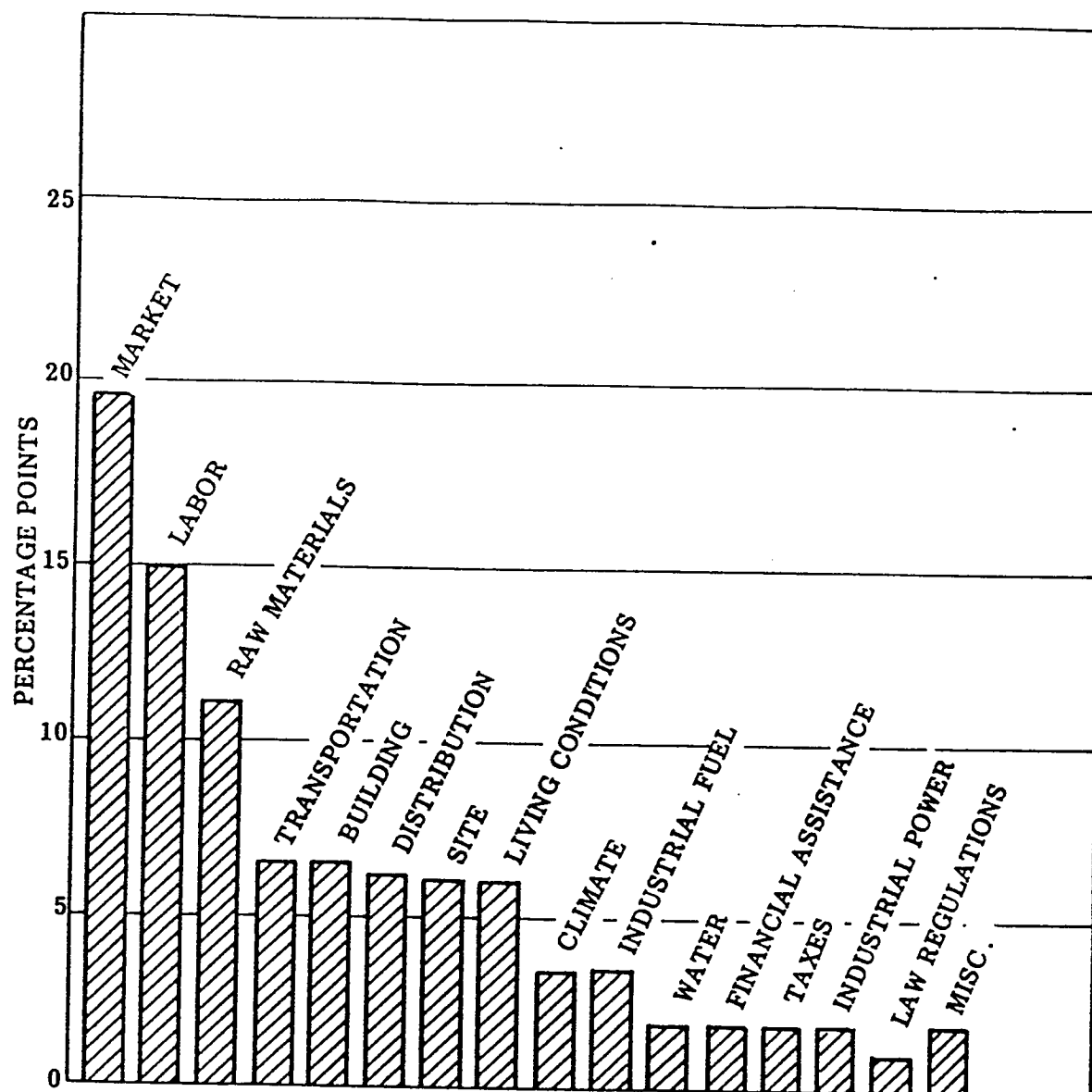
The need for a specific community selection strategy is a recurring theme in much of the literature on small town community development and is reflected in the following quotations:

The community development group should try to attract those manufacturers who can employ local skills, take advantage of local markets, and use local materials, including byproducts or wastes of existing industries. Sometimes a new industry can be developed to use off-season those workers now employed only part of the year.¹³

The development group's aim should be on target for the precise kind of industry the community wants and can accommodate. When one community heard a drug firm planned to build a branch plant, its development group spent many hours in consultation and generous

¹³"How to Improve Your Community by Attracting New Industry" (Washington, D.C.: U.S. Department of Commerce, March 1970), p. 10.

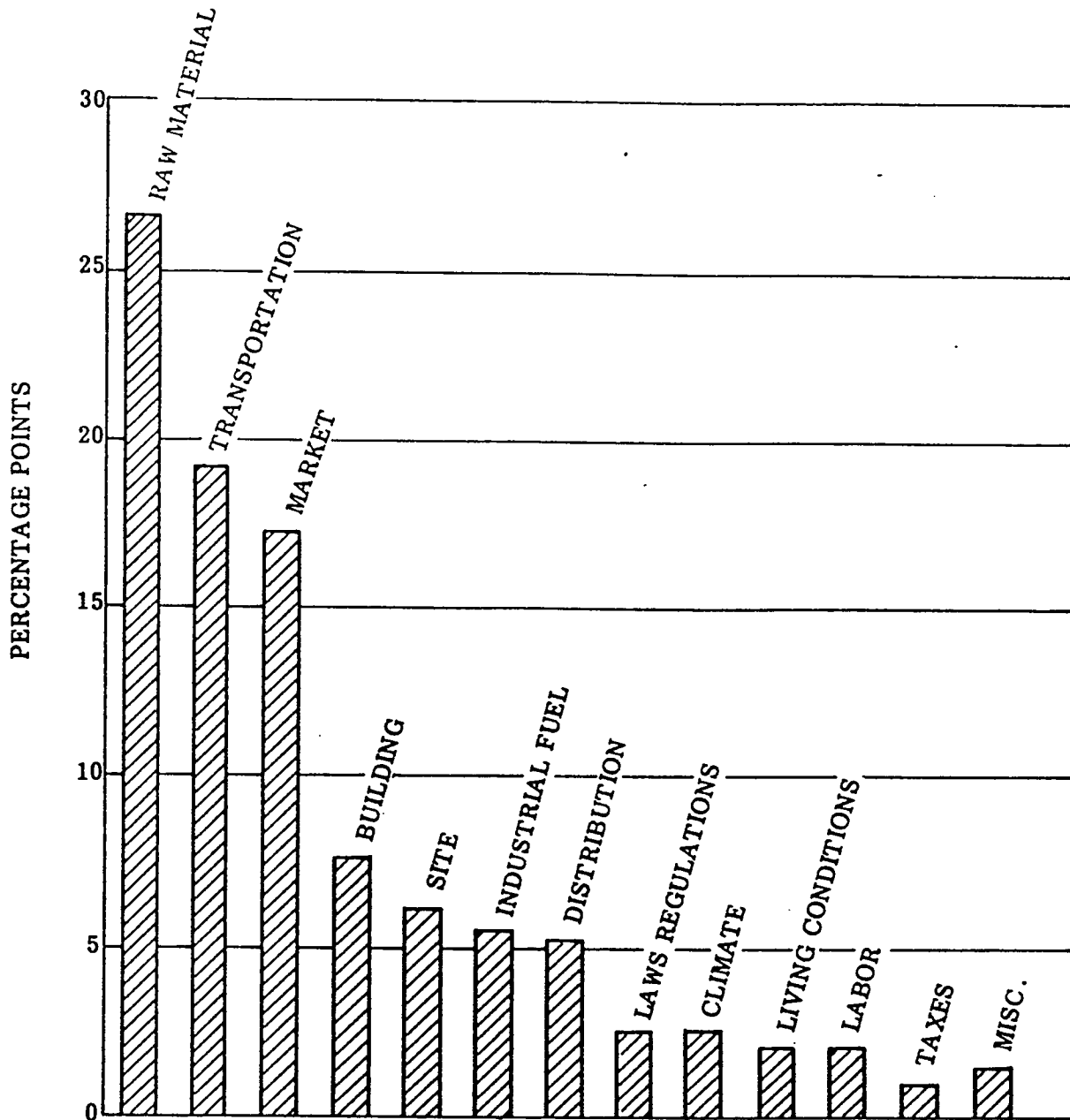
GRAPH 1
Location Factors in Texas Industries



SOURCE: Charles M. Hajinian, "Location Factors" (Water Resources Section, Division of Water Supply and Pollution Control, Public Health Service, Region VII, U.S. Department of Health, Education, and Welfare), Figure 4.

GRAPH 2

Location Factors in the Petroleum Products Industry



SOURCE: Hajinian, "Location Factors," Figure 2.

helpings of limited local funds and succeeded in interesting the manufacturer in their area. Only then did they find his needs would require doubling the water supply, an expenditure the local tax base could not support. Wiser, the town renewed its search, this time for an industry better matched to its resources.¹⁴

When a plant in a one-industry town closed, most of the local men were out of jobs. Officials frantically began negotiations with another firm to occupy the vacated plant and then discovered the new candidate would employ mostly women. The negotiations were cancelled in time without harm to either party, but the community took an overdue hard look at its needs before approaching other industry.¹⁵

There are, to be sure, footloose industries. Metal fabricating, apparel manufacture, electronic and other assembly or subassembly work can locate in almost any community that can provide good transportation, land and construction services at relatively low cost, and a competent work force at competitive wage rates.¹⁶

First try to determine which industries can be most successful in your area. You could begin by looking for those industries that have a much larger consumption in your region than production. I call these classifications deficit production industries insofar as they refer to any particular area. Pointing out this fact of deficit production to the particular industries involved may bring fruitful results in terms of future prospects. As one part of your campaign to find suspects, these market-oriented industries can prove useful.¹⁷

The other side of the coin, of course, is to make use of raw material resources that you may have that would make your location advantageous from the standpoint of their availability. Again pointing out this availability to those industries could prove very

¹⁴"How to Improve Your Community by Attracting New Industry," p. 9.

¹⁵p. 9.

¹⁶p. 11.

¹⁷H. D. Bessire, The Practice of Industrial Development (El Paso, Texas: Hill Printing Co., 1970), p. 203.

helpful in turning them from the suspect into prospect class.¹⁸

Or, for example, if you have a very large unskilled labor supply composed of people who are dexterous and easily trained, look to the garment industry or to industries which hire bench labor. If you have a high incidence of highly skilled and well-educated technicians or a livability standard that would make your community attractive to such people, then look to the electronics or brain industries. Perhaps your area already grows an abundance of fruits and vegetables or, if your farmers can be encouraged to grow such items, the food processing industry becomes a possibility.¹⁹

B. A Systematic Approach For Development of the Firm.

Understanding particular industry objectives when locating a facility requires an intricate analysis which cannot be covered here for all industry in exhaustive detail. However, it can be said that all industry is concerned with the four following functions:

Procurement and transportation of supplies and personnel to be used in the production process;

The production of goods and services;

The distribution of the finished product or service;

The procurement of capital.

Furthermore, all community attributes, as well as industry requirements, are relevant to one or more of these four functions. The steel industry, for example, requires huge quantities of limestone, iron ore, and coal. These items are expensive to transport, which makes "the procurement and transportation of production supplies" a major business function influencing the location decision; consequently, many steel plants are found concentrated at the intersections of rivers and lakes to permit water transportation of heavy bulk materials and products. Dr. Victor J. Danilov, an outstanding authority on locational factors of science-based industry, drew up a list of priorities for site selection of research labs and science-oriented plants. Ranked first was "proximity to universities." This places great emphasis upon the availability of "personnel to be used in the production process," and further explains the concentration of such research-oriented operations near Boston, Stanford, Berkeley, UCLA, Southern California, University of North Carolina at Chapel Hill.²⁰ The previous chart (Table 3)

¹⁸Bessire, p. 203.

¹⁹p. 203.

²⁰pp. 204-205.

further reveals the detailed priorities that may influence location of research organizations.

Firm requirements may also be detected via an opinionated community audit. General Electric has prepared a questionnaire which explores the same areas covered in the community audit (See Appendix "A"). The General Electric version, however, calls for opinionated personal statements.²¹ This amounts to rephrasing the community audit and asking a particular industry if town attributes meet their needs. For example, instead of asking for statistics on the labor force, the question is phrased: "From your own observation, how do your employees here compare with employees in other communities in effort, ability, pride of workmanship, attitude toward employers...union loyalty, company loyalty...absenteeism and turnover?" This kind of industrial survey is precisely what knowledgeable plant location specialists do when screening communities. They ask similar type firms already located in the area how well community attributes are meeting their needs.

Before Atlantic Richfield drew up their final screening matrix for Towns A and B (see Table 3), they underwent preliminary selection procedures. Typically, the firm is faced with a multitude of locations. The first screening device is designed to exclude those areas which do not meet "primary requirements." "Primary requirements" are defined as those factors necessary for the business to operate profitably. If these essentials are missing, the warm "homey" people and their beautiful countryside will never be considered, because these items are termed "secondary." In short, the town must meet certain competitive standards to be considered. What is "primary" clearly varies among industries. The paper industry considers the availability of fibrous raw materials (among other things) of primary importance. Until the introduction of wood pulp, they used straw and rags in the production process. However, when wood pulp came into use, spruce, pine, and eventually second growth trees began to dominate location as basic or primary industry requirements.²² This shift from urban to southern rural illustrates a second point: What is "primary" can change over time within the same industry due to changes in technology or labor skills required.

Towns surviving this initial screening phase are later rated on the basis of certain "secondary" factors. These include elements which will add to the profitability of the firm but are not crucial to survival. Today industry is concerned with the fishing and hunting and the "homey" character of the area. It may take three or four screens to arrive at such seemingly irrelevant items. But, ultimately, seasoned plant location specialists confirm that these "irrational," "non-cost" factors tend to outweigh all others. In a canvas of small town industry, the most important factor in attracting

²¹"The Industrial Climate Audit" (New York: General Electric, Community and Business Relations Service).

²²Charles H. Hajinian, "Location Factors" (Water Resources Section, Division of Water Supply and Pollution Control, Public Health Service, Region VIII, U.S. Department of Health, Education and Welfare).

industry was community attitude; "without the proper attitude on the part of community leaders, merchants, labor and everyone in the community, all other factors are deemed unimportant by those desiring to locate plants in given areas."²³ This approach suggest the importance of community education programs of the caliber of those in operation in Columbus, Mississippi. A series of radio broadcasts were made "designed to familiarize the people of the Columbus, Mississippi community with the problems, hazards, responsibilities, advantages and disadvantages that could be expected" in attracting new industry and encouraging existing firms to expand.²⁴ This realm of the "irrational" offers exciting opportunities for creativity in marketing. At this stage, the object is to create some monopoly value by capitalizing on unique community attributes.

G & J Tool Co. was located in Madison, Wisconsin for several reasons:

1. It originated there.
2. Madison supplied the "primary" requirements of the firm.
3. The family who controlled it were natives of the town and attached to the area.

The city of Madison had a monopoly since no other community could satisfy the "irrational" tie the family had with their homestead. So long as the G & J families retained control, Madison enjoyed a "competitive differential" over all potential competitors. The families then sold to an out of town firm which was subsequently forced to close down one of their several plants. For obvious reasons, they did not choose their original hometown plant, but rather one of the new acquisitions--Madison. Due to the size of the operation, the result was a significant erosion of the economic base. This "existing industry" might have been retained through a communal effort to retain local control and ownership and favorable community attitudes, perhaps by recognizing family estate planning problems.

²³Ronald, pp. 28-29.

²⁴For a transcription of the newscasts, see Floyd M. Sperry, "A Newspaper Column: Public Relations for Industrial Development," FM/AIDC Journal, IV, No. 2 (April 1969), pp. 1-16.

CHAPTER 4

SITING AND PLANNING

A. Locational Attributes

Prospective employers may be of a size and type requiring only larger acreages properly zoned, or may be in the class which much prefers fully prepared buildings sites.

The first type consists of the larger, wholesale users of land. Attracting an automobile assembly plant should be regarded as a longshot proposition; sound community planning calls only for reservation of suitable raw acreage via appropriate zoning controls, deferred special assessments and equitable taxes, reflecting slow absorption.

The other class consists of smaller, retail users of land, and the industrial park favors this type of employer. For this kind of customer, physical on-site improvements are feasible. The discussion now focuses on what general attributes the park must have in order to satisfy a list of potential customers and where the park should be located. The composition of clients will clearly determine the priority placed on park attributes. Technical Bulletin #44 of the Urban Land Institute lists the firms in five "balanced" parks by their product(s) or activity. A representative list is shown below in Table 4. This is presented in the interests of showing what diverse types of activity may be grouped in the park environment.

It is possible, however, that the community and site are especially suited to attract a particular group, such as a small office park, a cluster of subcontractors or food wholesalers. The research oriented park is currently a popular example of such an installation. Table 5 classifies research park industry by product or activity.

Once the nature of the industrial park environment has been determined through defining its inhabitants, park attributes may be listed by priority. If the park consists of firms belonging to the same industry, these park attributes will fit the "industry requirements" as defined in Chapter 3. If the park is heterogeneous in composition, the attributes will match a conglomerate or compromise of several industries' collective attributes. Given a profile of the expected users of the industrial park, one can also designate which general areas within the community are best suited for the park's location. If the park will consist of industries which rely heavily on truck transportation, it will have to locate near an outer corner of town to be oriented to the interstate highway system interchange, presumably with all righthand turns for arriving trucks. On the other hand, research oriented outfits involving Ph.D. types would probably fit best between campus and upper class residential districts. Many users purchase location attributes for their resale value, rationalizing that while they do not need rail service, the next buyer may. Thus, stability or potential appreciation in land values should be considered.

TABLE 4
Manufacturing Operations

Company Name	Number of Employees	Building Size (Sq. Ft.)	Site Area (Acres)	Products or Activity
American Art Metals Co. of Texas	10	15,000	0.9	Aluminum doors and store front
American Foods, Inc.	130	34,500	1.9	Canned biscuits under private labels
George D. Barnard Co.	16	9,800	0.6	Printers and lithographers
Columbia Electric & Mfg. Co.	6	10,080	0.7	Fluorescent light fixtures
Conso Tool & Engineering Co.	40	15,000	1.1	Special tools, custom made
Cupples Products, Inc.	35	21,000	1.3	Assemble aluminum windows
Deluxe Check Printers, Inc.	35	18,720	1.4	National check printing firm
Economics Laboratories, Inc.	25	40,320	4.2	Detergent, Stanley Starch and Stay-Puf
Enterprise, Inc.	45	24,200	1.2	Meat-packing equipment and supplies
Federal Pacific Electric Co.	79	45,000	4.8	Panel boxes, circuit breakers, etc.
Fenestra, Inc.	25	20,020	1.4	Aluminum and metal windows
Foremost Dairies, Inc.	321	75,000	16.2	Foremost dairy products
Gunlocke Chair Co.	22	25,000	2.8	Office and commercial chairs
Kawneer Co.	10	16,473	1.3	Aluminum store fronts
Lighting Dynamics, Inc.	70	40,000	2.4	Fluorescent light fixtures
Lexington Co., Inc.	25	9,990	1.0	Aluminum screens and moldings
Maxwell Paper Co.	9	20,000	8.8	Paper specialty
Maywood Furniture Co.	10	24,900	1.3	Assemble furniture
Micro-Lube Sales Co.	37	20,000	1.2	Micro-lube
J & M Appliance Co.	12	15,000	0.7	Distributors of cooling equipment
Hans Johnsen Co.	16	25,000	2.8	Distributors of toys, lawn mowers, etc.

Kaiser Aluminum	10	16,660	1.0	Aluminum products
Kelite Products, Inc.	3	7,700	1.1	Commercial detergents
LaBatt-Northcutt	17	30,000	1.5	Refrigeration specialists
Levine's Inc.	60	45,000	2.1	Department store chain
Liberty Products, Inc.	4	14,000	0.8	Sliding glass doors
Lone Star Wholesaler, Inc.	36	66,500	4.3	Appliance wholesalers
Magnolia Chemical Co.	20	20,000	0.9	Janitor supplies and chemicals
Magnolia See, Hardware & Implement Co.	22	20,020	1.4	Wholesalers of seed, hardware and farm equipment
Marsh Wall Products Co.	5	7,500	0.5	Distributor of Marlite wall panels
Merchants Terminal Warehouse Co.	3	14,000	1.0	Public warehouse
Metro Warehouse Co.	19	70,000	4.5	Public warehouse
Morris Stores	30	40,000	4.2	Department store chain
Mosler Safe Co.	4	1,000	---	Sales
Musgrove, Curtis Co., Inc.	7	12,600	0.8	Manufacturers representative, electrical equipment
New Process Steel Supply Co. & Mid-West Materials Corp.	42	40,000	2.7	Building products
Northcutt Corp.	17	45,000	2.1	Distributor of display items
Parsons Associates, Inc.	3	3,000	---	Direct mail service
Payne & Howard, Inc.	12	7,500	0.5	Distributors of aluminum windows

SOURCE: "Industrial Districts, Principles in Practice," "Technical Bulletin #44" (Washington, D.C.: Urban Land Institute), pp. 79-81.

TABLE 5
Manufacturing Operations

Company Name	Number of Employees	Building Size (Sq. Ft.)	Site Area (Acres)	Products or Activity
Air Reduction Sales Company	15	7,500	1.5	Office building
American Mail Advertising, Inc.	--	---	2.1	Direct mail service
Automatic Canteen Company of America	35	10,000	1.0	Office and sales warehouse
Baird Atomic, Inc.	350	40,000	7.4	Offices and research laboratory
Canada Dry Corporation	250	130,000	8.0	Offices and warehouse--soft drink bottling plant
Crucible Steel Company of America	44	43,170	2.5	Manufacturers of steel products-- warehouse
Donnelly Manufacturing Company	235	57,650	4.0	Office and plant--sheet metal fabricators, cabinets for elec- tronic equipment, etc.
Fruehauf Trailer Company	65	31,400	6.0	District office and maintenance depot for trailers
Packaging Frontiers, Inc.	38	10,160	1.0	Office and plant
Raytheon Company #1	400	40,010	3.5	Office and laboratory for Missile Systems Division
Raytheon Company #2	275	30,600	3.3	Office and machine shops for Missile Systems Division
Raytheon Company #3	100	30,000	4.2	Special Microwave Devices Opera- tions
Sylvania Electronics Systems Division Headquarters & Applied Research Lab	--	113,030	55.2	Office and laboratory
Electronics Systems Division	--	160,260	12.0	Electronics
Waltham Laboratory	--	30,000	2.8	Laboratory
Thermo Electron Engineering Corp.	35	18,500	4.6	Office and laboratory
United Electric Controls Company	--	---	6.5	Manufacturing plant, sales offices, research laboratory

SOURCE: "Industrial Districts, Principles in Practice," "Technical Bulletin #44" (Washington, D.C.: Urban Land Institute), pp. 176-177.

B. Site Attributes

A specific tract of land to be considered for development as an industrial park has certain inherent characteristics which will influence the cost to develop and the cost to build industrial structures, even to preventing feasible development at all. When comparing alternative tracts, it is important to compare cost after correction for differences in land preparation due to geology, soils, and topography, and due to the cost of extending utilities and streets to the edge of each site. These offside expenses may include relocation of power lines, reconstruction of interchanges, or the legal expenses of zoning and title acquisition.

1. Soils

Before purchasing, one must know the capacity of site soils to support road beds, utilities and septic tanks, and required foundation. Soil patterns vary throughout a site and therefore will often affect the choice of alternative layouts and efficiency of land use. In progressive counties, land use zoning as well as building permits and septic tank permits are based on soil studies. After determining layout, further information on the nature of the soils at each particular building spot will facilitate determination of the most suitable foundation design. Field reconnaissance of land forms in the general area and geologic origins of soils or rocks may be sufficient for the experienced soils mechanics engineer to pass judgment on site selection. For site development purposes, a preliminary soil investigation is made. During construction, any differences in soil quality discovered during foundation excavation are considered and changes in design recommended. The soils mechanics engineer then supervises the pile driving.²⁵

Soil investigation involves obtaining representative samples through borings of the various soil strata encountered. The correct equipment should be chosen by the soil mechanics engineer. In any event, for identification and testing purposes, "undisturbed samples" (samples which typify the soils in place) are required. An engineering geologist then classifies and logs each sample.²⁶

Shear testing determines soil strength, and consolidation tests determine compressibility; these are termed the two most important lab tests. Percolation tests determine the permeability to water, and compaction tests will show the density at which fill soils can be placed.²⁷

In application, where landfills (for example) are to provide support for pavement or structures, they must be properly compacted into place. It is

²⁵W. Enkeboll, "Soil Mechanics Engineering," Handbook on Industrial Development (AIDC, 1966), J-1, J-2, J-3.

²⁶J-4 and J-5.

²⁷J-5.

the job of the soils mechanics engineer, then, to evaluate the strength, compressibility, and compaction of the fill material in determining bearing capacities and pavement thickness.²⁸

After complete investigation, test results and analyses are presented to the owner, architect, or design engineer with specific recommendations.²⁹

The U.S. Department of Agriculture, Soil Conservation Service, in courthouses throughout the country and in conjunction with other groups noted, has prepared survey reports for most counties in the United States. A sample soil analysis is presented in Appendix "B"; notice the analysis on the top of the page followed by interpretation as to suitability for potential uses.

2. Topography and Shape

Moderately sloping sites may facilitate installation of sewage and storm drainage while eliminating the high costs of heavy site grading required on slopes of more than 10°. Extremely flat sites may require expensive bulldozing to create contours in the land, while improperly handled steep grades could result in settlement and erosion problems. Before tackling difficult topography, the advice of a geological engineer is recommended.³⁰

Site shape should not be fragmented or irregular, since this could result in uneconomical street and lot layouts (a higher degree of planning would be required). The overall shape of the site should be designed to facilitate subdivision into typical lot sizes required by the industry the park is intended to house. (Most site sizes have been rectangular in the one- to five-acre range.)

3. Water Service

Water has been described as "one utility of an industrial plant which cannot be improvised."³¹ The quantity of water available at the site may be limited by community sources, and size of main and water quality may affect operating efficiency of equipment and occasionally taste of product. Cost is seldom a factor, due to the extremely low percentage of production

²⁸Enkeboll, J-6.

²⁹J-7.

³⁰The Community Builders Handbook (Washington, D.C.: Urban Land Institute), pp. 41-42.

³¹T. H. Safford, "Industrial Water Supply," Handbook on Industrial Development, Section K-1, page 1.

costs the water bill represents.³² However, immediate availability is critical, since a prospective employer does not wish to wait on the future plans of the local water utility.

Industrial water may be used for general sanitary purposes (drinking, washing, toilet), production processes, boiler feeding, fire protection, and as a cooling agent. Depending on the uses most heavily required, various specifications must be met. "In the table below are given some of the more significant criteria...[for] high quality water expressed in parts per million...the index most used by water supply engineers and chemists":

Color not over	10 ppm (parts per million)
Turbidity not over	10 ppm
Iron not over	.25
Hardness not over	20 ppm
Total solids not over	100 ppm
PH not over 8. and not less than 6. ³³	

Quality requirements on water as a cooling agent are far less rigorous, but quantity and pressure may be a problem. Drinking water regulations are set by the U. S. Board of Health.³⁴ For fire protection to an "industry manufacturing a product with no undue fire hazards," the following general specifications hold:

for sprinkler protection, 20 lb./sq. in. pressure at the sprinkler heads;

for outside protection on small plants with about 50,000 sq. ft., you should have 750 gallons per minute in four hose streams totaling 750 gallons per minute with 30 lbs. per sq. inch pressure at the hydrant;

for elevated tanks on 100 foot towers, a 50,000 gallon storage is required.³⁵

Finally, the question "whether a given plant should purchase water or provide its own supply is one of politics and economics."³⁶ Generally speaking, water

³²I. Sener, "Water as a Factor to Attract Industries," Department of Agricultural Economics, Report No. 45 (**) (March 1967), p. 11.

³³Safford, K-4.

³⁴K-4.

³⁵K-5.

³⁶K-9.

which is suitable for municipal services also meets the standards for most industrial uses. Where feasible, public mains at or near the site are most desirable. When, however, the standards and quantity demanded are significantly high, it may be profitable for industry to undertake the task.³⁷

4. Sanitary Sewer

The three alternatives open to the developer are linkage to public sanitary sewer system, installation of private industrial park systems, and on-lot disposal (septic tank or cesspool). If at all possible, public service is recommended. Health authority regulations can prove to be a constant source of aggravation in the operation of on-lot disposal systems or private plants. Even where public utilities are feasible, the elevation of all parts of the site in relation to the adjacent sewage system should be checked, as sewers require gravity flow; this may influence layout or even the site selection decision, since areas below the public system's level will require expensive lift pump installation.

5. Storm Drainage

There are two distinct storm drainage systems: a "convenience" system and a "major" system. The "major" system is the natural path that flood waters take when the capacity of the man-made "convenience" system has been exceeded. The critical issue lies in determining the frequency with which the "convenience" system should be exceeded. The point of diminishing returns will vary, of course, with the potential loss of life or property. But not so apparent is the fact that over-designing the convenience system can result in upstream urban flooding losses which add up to a significant portion of total national flooding losses. The industrial park can provide for flood protection by judiciously siting buildings reasonably above the highest water in the "major" system, and relying on well designed streets to act as primary conduits in the "convenience" system. Storm sewers and collector pipes should be located in harmony with the topography, although some local regulations may enforce set rules to the contrary. It should also be remembered that even the largest conduit will function poorly if the inlets are deficient. Storm water run-off may be deliberately trapped on the site through the use of gravel, sand, or other porous material, or through the provision of a "blue-green area" to trap and contain flood water in attractive

³⁷For specific information, see "Individual Water Supply Systems," Public Health Service Publication No. 24 (Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office); "Intergovernmental Responsibilities for Water Supply and Sewage Disposal in Metropolitan Areas," Advisory Committee on Intergovernmental Relations (Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office); "Manual of Septic Tank Practice," U. S. Department of Health, Education and Welfare, Public Health Service (Washington, D.C.: U.S. Government Printing Office).

ponds, complete with dams. This, of course, reduces the load on the "convenience" system at the same time. Finally, care must be taken to secure written permission from neighboring property owners before cutting off their natural drainage, or dumping excessively accumulated water.³⁸

6. Electricity and Gas

Gas lines and electrical service to the site are typically supplied by private utility companies. The cost of new main extensions, however, may be charged to the park and refunds given as more users are added. Information on capacity and location of distribution lines near the site should be found on utility maps available from the local utility company, the state public service commission, or the local planning commission. Today, electrical wiring and transformers may be run underground in the interests of public safety, reliability, reduced maintenance, and physical appearance.³⁹

7. Access to Transportation

Industry is vitally concerned with the transportation of people and goods. The efficiency with which they are moved in and out of the park will be greatly affected by park access to modes of transportation. Proximity to main highways is deceiving, since state and Federal highway authorities have frequently acquired access rights to reduce interference of side roads with high speed traffic. Property users are required to travel on round-about secondary roads to enter the highway at traffic signal controlled intersections. Industry avoids locations which require too many left turns of employees or trucks attempting to reach the premises. It is important to learn traffic and highway plans for the area and the site.

Where the labor inputs are substantial, private automobiles (in spite of the increasing popularity of car pools) "not only clog highways, but demand parking at the plant adequate for two shifts (for the change)." The difficulty in employing mass transit lies in the fact that they "usually run out radially from the city center, whereas most workers must travel... [from their outlying residence to another outlying industrial park location]." Industrial parks should be convenient to traffic routes which go around the community.⁴⁰

³⁸For more detail, see Land Development Manual (Washington, D.C.: National Association of Home Builders), Ch. 16; The Community Builders Handbook, p. 48.

³⁹The Community Builders Handbook, p. 49; George C. Bestor, "Buried Cables: A Survey of Buried Electric Distribution for Residential Land Development," Technical Bulletin 48 (Washington, D.C.: Urban Land Institute); James H. Pickford, "Underground Wiring in New Residential Areas, Planning Advisory Service Information Report No. 163 (Chicago, Illinois: American Society of Planning Officials).

⁴⁰"The Planned Industrial District," Architectural Forum (April 1954), p. 106.

Where material inputs and goods produced are substantial, the increasing importance of trucking further necessitates adequate highway access. "Street widening, deceleration lanes or cloverleaf crossovers [may be] needed at the critical congestion point where the district [park] joins the main highway...."⁴¹

The new measurement of distance is "minutes not miles," and trucking at expressway speeds has compressed geography in terms of the "time-distance" between two points. This is true on an intra-city basis as well as on the "long haul." There are three general types of "for-hire" carriage open to industry: contract, exempt, and common. Whereas design and location of terminals will vary with each particular carrier size and type, the following four general objectives must be met by all terminals:

effective location

adequate protection of freight

flexibility of facilities

continuous movement of freight.⁴²

The most advantageous terminal location point has generally become the suburban or outskirt area; this facilitates long haul departure and arrival by passing downtown congestion, yet allows freight interchange with other urban area carriers. The movement of industrial plants to outlying areas further compliments this terminal locational trend. Finally, trucking rates depend upon what's being shipped and the distance from plant to terminal and from terminal to destination. As firm requirements vary widely, the advice of trucking firms, state trucking associations, and local industrial development groups is recommended.⁴³

Railroad side-track access is seldom necessary, but always desirable for an industrial park, not only for flexibility, but also to assure buyers of broad resale appeal and, therefore, stable investment value. Parks for which rail transportation is desirable (for example, where shipments of high bulk, low value goods occur), should ideally be located near the main line of a trunk line railroad in proximity to major switching yards to facilitate car spotting and special service where required. The distance to interchange points for receiving and delivering cars to and from connecting lines will determine where car backhauls or other such transit time delays would be required.⁴⁴ Also, use of reciprocal switching zones may enable shipment or receipt of cars via any one of the participating railroads;

⁴¹"The Planned Industrial District," p. 106.

⁴²Handbook on Industrial Development, AIDC, F-5.

⁴³F-12 and F-13.

⁴⁴E-7.

by establishment of joint rates for competitive points of origin and destination, this arrangement will work even where the participating railroad does not have spur line access to the site.⁴⁵ Finally, "the railroad's industrial or freight sales people should always be consulted personally... Railroads have a surprising amount of operating flexibility, and competition from other modes of transport has increased their willingness to make adjustments."⁴⁶ Railroads often own sites on which they would encourage community industrial development with various concessions, and progressive railroads have industrial site sales programs.

Access to air transportation may be useful to industries requiring or producing low bulk, high value goods, or dealing in valuable perishables. Speed and safety for valuable replacement machinery has resulted in the carriage of 12 to 14 thousand pounds of delicate mechanism in one piece as an everyday item. This is justified by the economics of a costly shut-down as an alternative. (The largest carrier currently in use is the DC-8 or 707 series with weight-carrying capacity of over 40 tons and cruising speed of 575 mph). Firms involved in international dealings may find air the only logical mode of transportation upon which to rely. Finally, where the same executive talent or services are required in many distant places at the same time, access to executive aircraft and all weather airports is imperative. If the community has no airport, a highway link in minutes to such an airport is still a competitive advantage.

8. Linkages

The industrial park is linked by the behavior of its customers, suppliers, and employees to other points in the community. The park must locate near certain services upon whom they rely. It also must be within reasonable proximity to the "after-five" environment of employees (discussed in Chapter 2). The former may require proximity of a research oriented industrial park (for example) to university engineering and science departments. The latter very typically requires proximity of the park to industrial areas which suit the socioeconomic level of employees.

C. Control of Site Alternatives

Within the general areas specified above, there may be three or four suitable sites. Flexibility in planning requires the benefits of controlling all or several of them without the commitments of ownership. And "the more land a developer controls...the better prepared he is to do a good planning job."⁴⁷ The following devices, if properly used, can provide that flexibility.

⁴⁵Handbook on Industrial Development, E-8.

⁴⁶E-7.

⁴⁷Perhaps payment of carrying costs on the land are the most onerous of ownership obligations. For further discussion, see Community Builders Handbook, p. 80.

- (1) The option is usually the most costly and involves an agreement by the owner to sell within a certain time period to the developer at a fixed price. The advantage of the option is that the developer has a set price and a set time within which he may purchase the property. The option should contain all the details desired in the final purchase agreement, plus the right of the potential buyer to enter on the site for engineering tests, soil tests, etc., subject only to payment for damage to crops or other improvements.
- (2) The first right of refusal also sets a price and time limit for the purchase; however, it allows the owner to accept higher offers from other prospective buyers with the condition that, within the agreed period, the original party can match the highest bona fide offer of purchase.
- (3) A conditional offer and sale contract is a legal agreement which is voided at the option of the buyer with right of full refund if a subsequent condition--such as securing appropriate zoning, specific financing terms, or acquisition of an adjacent property--is not fulfilled before closing.
- (4) Letters of intent offer the developer very little in retaining power on the property, and are generally used as a preliminary to other types of negotiations. Nevertheless, written evidence of intent is useful to persuade committees to invest in more detailed research, or to protect the politician from future misunderstandings.

At the very beginning of this section, it was suggested that within the general area selected for park location, there may be three or four suitable sites. After considering the above siting criteria, the decision should be narrowed down to one, thereby allowing the developer to move to the planning stage below.⁴⁸ The "site data form" presented in Appendix "C" provides an orderly approach to evaluating each alternative site. The last sheet entitled "site evaluating check list" may be used to construct a rating grid (similar to the grid in Figure 3); the site scoring the highest number of total points then moves into the planning stage below.⁴⁹ Finally, an excellent booklet on "How To Make an Industrial Site Survey" is available through the U.S. Department of Commerce.

⁴⁸Some sites may be eliminated because of poor soils, others may lack highway access or important linkages, etc.

⁴⁹The site data form in Appendix "C" was prepared by the State of Wisconsin, Department of Local Affairs and Development, Division of Economic Development. Note further that the same state department has prepared some 400 site analyses and cataloged them by size and location in a booklet entitled "Industrial Sites 1971." Site directories such as this can be extremely valuable in the search process.

D. Planning

Management of the small town industrial park development project requires more technical and sustained involvement than a committee to operate a fund-raising dance for the volunteer fire department. A quality park and effective promotion will probably require expertise and experience, not always found in a rural community. It is best to make mistakes on paper in the planning process rather than in the deed, the plat map, or at the time that the earth-moving equipment has completed its assignment. Much of the risk in any enterprise is the result of acting without adequate preparation; consequently, careful planning is financial insurance.

1. Selection of a Professional Team of Advisors

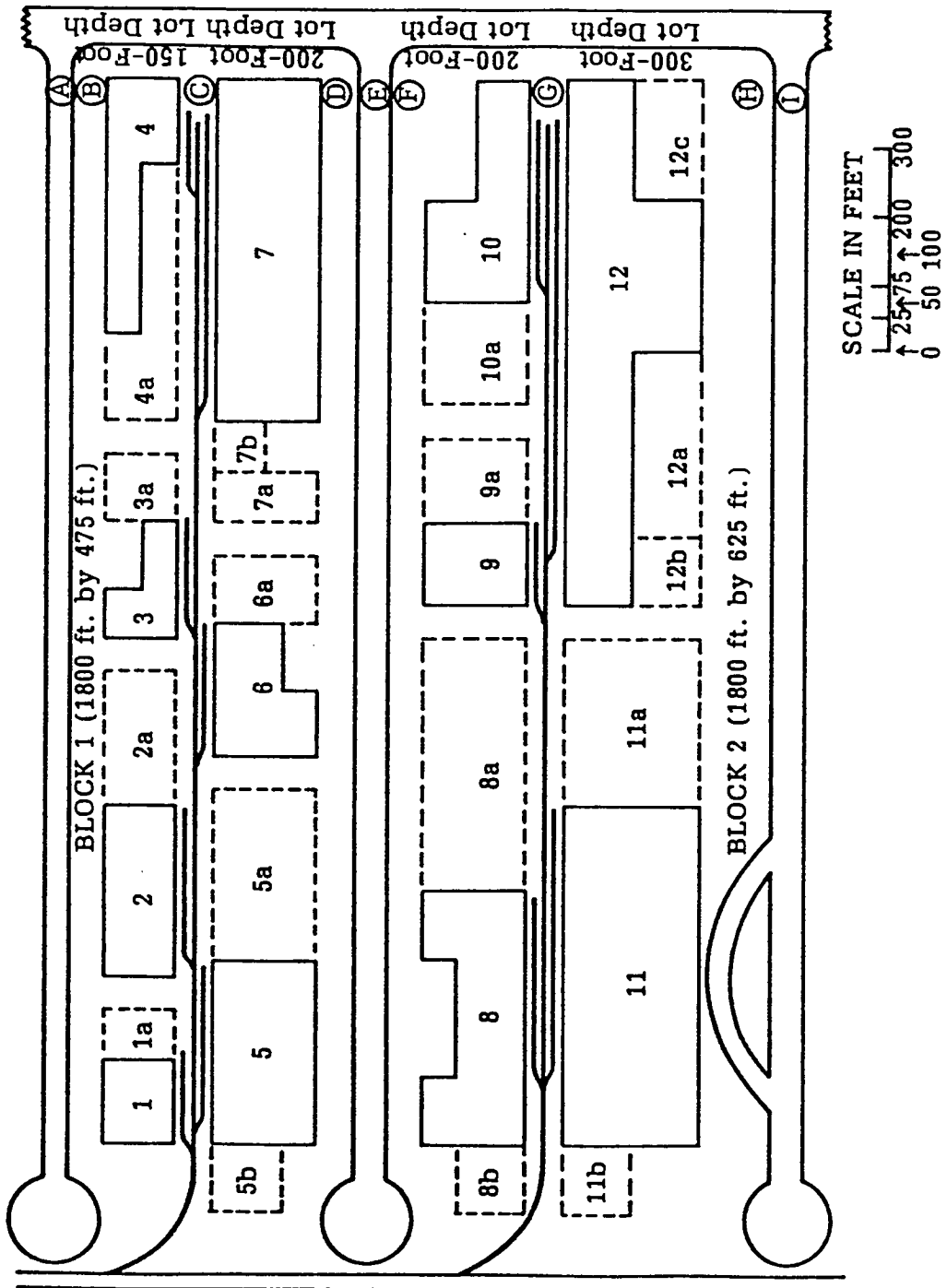
The small industrial development enterprise will require a variety of professional consultants as it moves from one phase to another of the development process. For economy, it is best to take advantage of planning services and reports available from state development agencies, regional planning commissions or university business research services. It is well to be leery of big city "research" firms when a college senior from the home town can probably assemble the same economic data in a summer for much less money. Such talent can be found and supervised at a nearby college or university branch and should come with the recommendation from his major professor as to the thoroughness and reliability of his research rather than through the initiation of his father who is on the board of the development agency. Much can be learned by visiting successful or unsuccessful industrial development parks in communities with similar problems, and any professional who is hired should have the recommendation of previous small town clients with the same types of problems. There is no need to educate the professional consultant at your expense.

Any professional should have a professional designation appropriate to his specialty. For example, a civil engineer should have his PE (Professional Engineer); an appraiser should have his SREA (or SRA) or MAI designation (Society of Real Estate Appraisers or Member of American Institute of Real Estate Appraisers); and an industrial land broker should have his SIR rating (Society of Industrial Realtors). There is a small organization of real estate counselors called the American Society of Real Estate Counselors (CRE) who are men with long experience in all aspects of real estate, with appraisal designations as well, who will counsel or kibitz by the hour or by the day as problems require. Avoid retainers with distant consultants unless the contract calls for specific dates of completion and penalties for non-performance. Professional consultants can make real contributions as a result of past experience with similar development problems despite seemingly high hourly rates. Try for agreements which provide both an hourly cost for each professional ranking and a maximum price after seeing samples of their previous work.

2. Layout

Physical layout will depend on the type of industry the park expects to house, the location, the shape and topography of the parcel, the availability of utilities and transportation, and the strategy of the developer. The following sample layout was designed for the "light" or "clean" classes of industry which usually make up the industrial park (heavy industry requirements are not considered).

FIGURE 5
Industrial Park Planning



KEY TO ROAD WIDTHS , RAIL EASEMENTS , SETBACKS

- A. 40-foot road with cul-de-sac
- B. 50-foot building setback requirement
- C. 53-foot rail easement
- D. 50-foot building setback requirement
- E. 50-foot road with cul-de-sac
- F. 50-foot building setback requirement
- G. 53-foot rail easement
- H. 100-foot building setback requirement
- I. 50-foot road with cul-de-sac

KEY TO PLANT SIZE , PARKING , LOADING DOCKS

- 1. Plant: 12,500 sq. ft. 1a. Parking: 24 cars
- 2. Plant: 25,000 sq. ft. 2a. Parking: 64 cars
- 3. Plant: 12,500 sq. ft. 3a. Parking: 32 cars
- 4. Plant: 25,000 sq. ft. 4a. Parking: 80 cars

SOURCE: AREA DEVELOPMENT BULLETIN, June-July, 1957, Office of Area Development, U. S. Department of Commerce.

- 5. Plant: 41,250 sq. ft. 5a. Parking: 120 cars
5b. Loading dock and apron: 7 tractor-trailers
- 6. Plant: 25,000 sq. ft. 6a. Parking: 48 cars
- 7. Plant: 75,000 sq. ft. 7a. Parking: 36 cars
7b. Truck docks
- 8. Plant: 47,500 sq. ft. 8a. Parking: 180 cars
8b. Truck docks
- 9. Plant: 18,750 sq. ft. 9a. Parking: 60 cars
- 10. Plant: 35,625 sq. ft. 10a. Parking: 72 cars
- 11. Plant: 100,000 sq. ft. 11a. Parking: 160 cars
(warehouse) 11b. Truck docks and apron
11c. Customer parking
- 12. Plant: 100,000 sq. ft. 12a. Parking: 88 cars
12b. Truck docks and apron
12c. Parking: 56 cars

SOURCE: "Industrial Districts, Principles in Practice" "Technical Bulletin #44" (Washington, D.C.: Urban Land Institute), p. 15.

NOTE: This hypothetical layout illustrates various possibilities of building size in relation to lot depths; space requirements for employees' off-street parking and truck loading docks; and building setbacks conforming to approved restrictions or zoning ordinances.

a. Flexibility. Block planning and phase development form a two-step approach to providing flexibility in the park development process.

Block, as opposed to lot, planning offers a larger variety of site sizes. Only the overall size of each site is determined, with side lot lines within the block set later to fit requirements of particular purchasers. To provide varying lot depths, irregular interspersal of access roads (and rail spurs where applicable) are illustrated above.

In conjunction with block planning, is the concept of treating the entire park as a comprehensive unit, with each part relating in some functional way to the others, in spite of the fact that it cannot spontaneously materialize as such overnight; allocation of capital in economically feasible stages is called for.

b. Building and lot sizes. Most site sizes within industrial parks have been in the one- to five-acre range, with 10,000 to 50,000 square foot buildings covering 20 to 50 percent of the total site. Sometimes, the community will set zoning standards below coverage. They are clearly depriving themselves of the land's potential tax ratability. It is advisable that the allowance be set at 50 percent to assure flexibility, as experience has shown that, even after 20 years of occupancy, less than 30 percent of the land will be covered. The waste involved in low land coverage can harm community and developer alike.⁵⁰

c. Streets. Park streets must be designed to perform a variety of functions. They must circulate traffic efficiently, provide access to lots, bear heavy loads, act as storm drainage conduits, accommodate utility easements, etc. Of course, such streets should be constructed to meet community standards as dedication (along with the responsibility of maintenance) to the local political jurisdiction requires, but these minimums should be expanded to serve the heavier, more congested usage of the park.

d. Rail leads and spurs. Where provided, important factors include curvature standards, gradients, clearance, widths of rights of way, payment arrangement for lead and spur trackage, etc. Most of these matters are handled by the Public Utilities Commission or other regulatory authority. In any event, an early written agreement should exist between developer and railroad(s) serving the site.⁵¹

⁵⁰James M. Rice, "How to Develop Industrial Parks Successfully," Real Estate Review, I, No. 3 (Fall 1971), p. 81.

⁵¹A more complete explanation of rail layouts appears in "The Planned Industrial District."

e. Landscaping. Consistent with the "comprehensive unit" approach set out above (under flexibility), a basic landscaping scheme consistent with the standards presented below in the restrictive covenants, should pervade the entire park.⁵²

3. Ecological Pollution Controls

Consistent with the popular concern over environmental preservation, Federal as well as state and local controls have been devised to regulate industry in their use of such natural resources as water and air, and the general impact of industry upon people in the area.

The Federal Water Quality Act of 1965 has acted to tighten state controls so that firms emptying waste into small or heavily polluted streams "will soon be required to provide tertiary treatment for bio-oxygen demand (or BOD) and, perhaps, phosphate removal." This is over and above the secondary treatment of sewage currently required of all communities and industries. The costs of handling "BOD" above stated maximums, the costs involved in simple hydraulic flow, and the investment in municipal plant facilities are all locational costs which figure into site planning.⁵³ If the community has a modern sewer system with capacity adequate to industry, it has a devastating competitive edge in attracting industry at a time when many firms are hypersensitive on industrial waste politics.

Uniform air pollution standards set by the Air Pollution Control Office of the Environmental Protection Agency are effective in 1975. Obviously, the concentration of air pollution will vary with a city's size, population, wind conditions, topography, climate, number of passenger cars, and type of industry. Nevertheless, the uniform standards of the future assure that "it is unlikely that even the highest, windiest, most remote hilltop location will accommodate a polluter," and avoidance of anti-pollution device costs is not a rational strategy in the plant location decision. Rather, the approach should involve the selection of sites to which minimum polluting fuels and adequate treatment equipment are available, and areas in which the taxing policies favor investment in pollution control devices.⁵⁴

New Jersey, a most heavily industrialized state, provides a typical state regulatory system over such matters as air pollution, liquid and solid waste disposal, radiation, noise and vibration, fire and explosion, and heat

⁵²The above discussion on "Layout" was taken from Community Builders Handbook, pp. 457-459. For a more detailed discussion, see "Industrial District Layout Considerations" (Washington, D.C.: Urban Land Institute) Technical Bulletin #44, pp. 14-20.

⁵³Fulton, p. 4.

⁵⁴p. 5.

and glare. This consists of a detailed pollution control code, backed by state administrative agencies and progressive legal decisions.⁵⁵

At the local level, zoning ordinances properly structured, provide further controls. The two major innovations are the shift from technical requirements to performance standards and the shift from description of prohibited uses to description of what is permitted.⁵⁶

In spite of the all encompassing nature of Federal, state, and local controls, the performance standards that they promulgate have not yet reached the stage where they would eliminate the need for private controls. For this reason, deed or lease provisions covered below under "private controls" provide the final set of standards which industry must meet within the context of the industrial park.

4. Amenities

We have considered some of the basic components of industrial park planning. There are, however, certain additional requirements which the perceptive developer will detect. Placing a color-coded park directory and map at the entrance is not really a basic necessity, but it contributes immeasurably to the efficiency of truckers in finding their delivery points. This then becomes a distinguishing, yet very functional, trademark. It gives the developer the competitive edge against others who have simply met the basic planning standards discussed above. Other examples of such amenities would include: heavy landscaping or earth berms to conceal parking lots; a luncheon or health club which would otherwise be available only in the downtown area;⁵⁷ a restaurant for employees which eliminates the aggravation of traveling to lunch. Lunch time is particularly important to employee morale, and where a restaurant is not feasible, a club room for employees of all firms where employees can share a brown bag lunch or a card game is a significant amenity. Even a bus at noon to a nearby shopping area is a valuable alternative to a club or recreation facility.

5. Preliminary Platting

Development plans are controlled by a variety of government agencies, and there is a set procedure of consecutive steps to follow. A typical flow of

⁵⁵For an extensive coverage of New York state regulations, see F. W. Goodwin, "Industry as a Good Neighbor," Handbook on Industrial Development, Chapter P.

⁵⁶For a complete discussion of standards applicable to controls (Federal, state, or local), see Goodwin.

⁵⁷The Great Southwest Industrial Park in the Dallas-Fort Worth Area has employed this amenity quite successfully.

submissions and hearings is summarized in the diagram (next page). It is important to learn the dates or deadlines appropriate to each commission and the time of their regular meetings early in the development process to avoid wasting time later.

6. Private Controls

In Chapter 1, it was stated that the industrial park operates under a specified set of controls for the mutual benefit of the community and the industries located within the park. The restrictive covenants carried in deeds or leases help assure compatibility, not only between park occupants and the community, but also among park occupants. The following aspects of land use and performance may be incorporated.

a. Types of operations permitted. All residential and retail commercial land uses (with the exception of such "non-basic" enterprises designed to provide services to park occupants) are prohibited. The positive approach may be taken, listing types of activity permitted; or performance standards on nuisance levels may be set with the only criteria being the limitation of smoke, noise, odor, vibration, heat, light, industrial waste, etc. Such standards may be set qualitatively or quantitatively.⁵⁸ The task then falls upon industry to devise the specific techniques they will employ to meet such standards. Possible approaches for particular sites may include the use of reduced earth berms to deflect noise upward, the use of tree screens to absorb noise⁵⁹ and shield unsightly views, or lagoons to provide a needed reservoir for fire protection, while creating an attractive entrance to the park or a specific site.

b. Parcel or lot size. Requiring minimum lot sizes of one or two acres is not recommended, as it often excludes some very desirable park occupants. It is better to do a layout which provides land with several different depths from street to rear lot line and then sell as needed by the front foot or square foot, being careful to avoid poorly proportioned or unusable remainders.

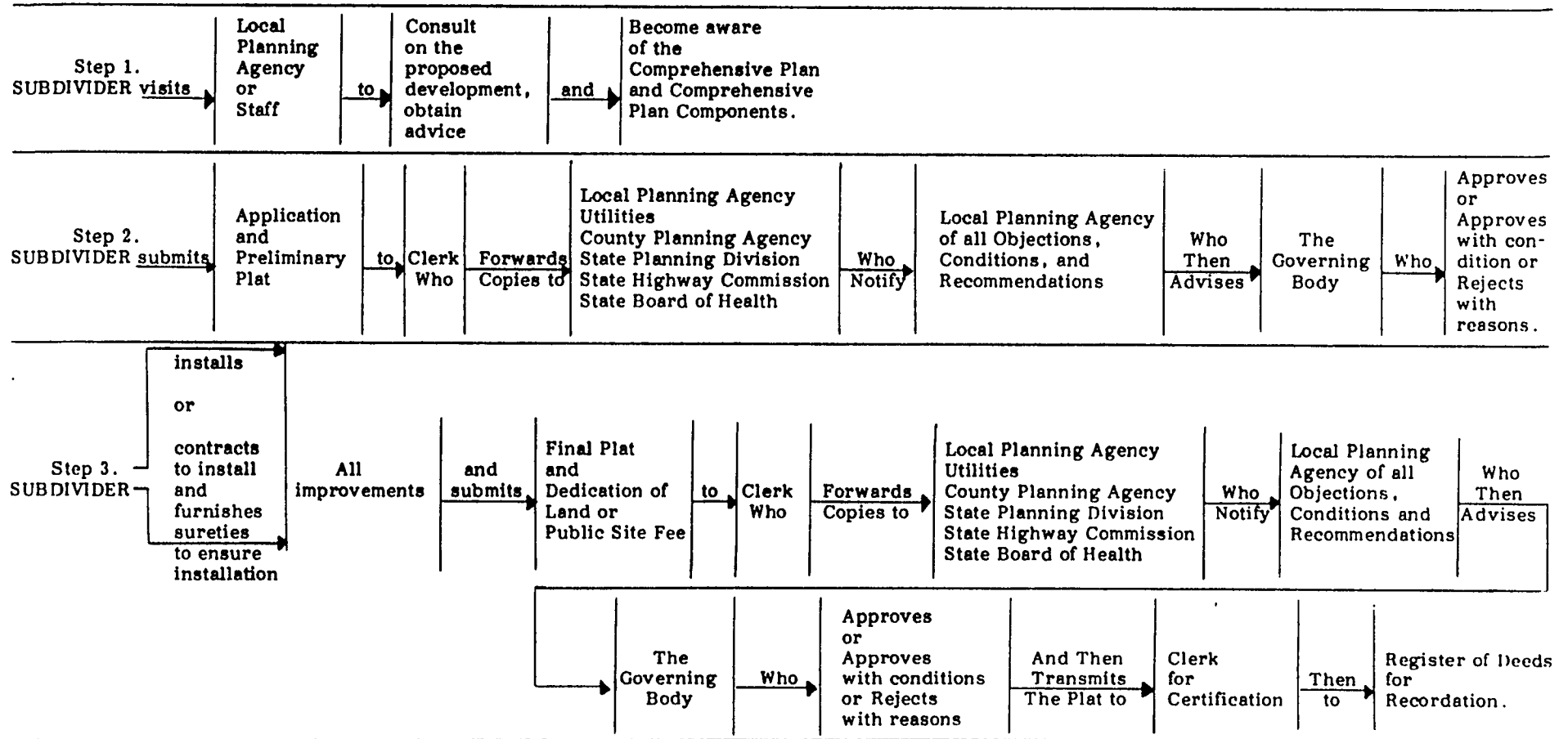
c. Site coverage. Typically, the land-building ratio is set anywhere from 1:1 to 2:1 for the entire park. Along with this measure, future expansion requirements of individual occupants should be anticipated by reasonable minimum purchase requirements, or the setting aside of a land bank.

d. Building line setbacks. Front yard setbacks of 30 to 100 feet and side yard setbacks of 20 to 30 feet help in providing off-street parking and loading, extra safety margins for fire hazards, sufficient landscaping areas, and more readily identifiable buildings. Some parks will relate setback requirements to building depths and frontage street widths.

⁵⁸For a comprehensive discussion of standards for nuisance control, see Goodwin, Chapter P.

⁵⁹See D. I. Cook and D. F. VanHaverbeke, "Trees and Shrubs for Noise Abatement," Research Bulletin 246, The Forest Service, U.S. Department of Agriculture, Cooperating with University of Nebraska College of Agriculture (July 1971).

FIGURE 6
Platting Procedure



SOURCE: Land Planning Guide, by Southeastern Wisconsin Regional Planning Commission, Chapter VI, p. 93.

e. Parking and loading areas. Consistent with previous restrictions, all parking and loading should be off-street, paved and screened. Number of spaces required may be pegged to total square footage of building floor space, or combined number of employees in the two largest work shifts.

f. Outdoor storage. Proper screening or fencing is usually required, so such areas are not visible from public streets or neighboring sites.

g. Landscaping. Front and side yards from park street to building are usually required to be sodded or seeded except for areas used for drives, sidewalks, parking, or storage. The landscaping should be a part of the overall grading plan and coordinated with the final grades of adjoining sites. Since many new recently graded development sites look raw and dusty, the landscaping plan should first provide for immediate seeding of embankments and street rights-of-way with a mixture of rye and other grasses. Preferably streets should be paved, but for those that are not, the road gravel should be stabilized with road oil, a mixture of paraffin and motor oil, or one of the dressings made from by-products such as sulphide liquor. Elimination of road dust and provision of large green areas gives the industrial park an appearance of careful management.

h. Building construction and design. In light of continuously changing building materials available, performance standards are desirable (with design subject to architect's approval). In the past, controls call for specific materials such as reinforced concrete or masonry, structural steel or aluminum, glass or treated wood. Screening again is required for all electrical and air conditioning towers and further subject to architect's approval. Finally, reservation of the right of reacquisition by the developer if construction plans are not underway within one year, assures the land will not remain idle once sold.⁶⁰

i. Sign control. Types, sizes and shapes, and location on the site may be specified and further subject to architect's approval. One well drafted set of covenants describes three types of signs: on-site wall signs, on-site ground signs, and on-site temporary. They further specify that such signs are not to "gyrate, blink or move in any animated fashion" and limit illumination to 40 percent of non-neon lighting surfaces or 10% of neon lighting surfaces.⁶¹

j. Other provisions. Features may also be incorporated which will limit time for completion of work, and grantor liability. It is wise to specify grantor's reservation of right to acquire easements and remedies for breach of restricted covenants. One developer goes to the extreme with a covenant that all industrial park occupants be given the first right of refusal over successive occupants. He feels this prevents serious clashes which could

⁶⁰Rice, p. 81.

⁶¹Declaration of Covenants, Conditions and Restrictions of Truax Air Park West, Madison, Wisconsin.

shake the stability of the park in the future (e.g., union vs. non-union operations).⁶² Such extremes should be avoided as restrictive covenants remain in force for at least 30 years under the law. Too many fussy details or too much interference with the use of the property exposes the covenants to rapid obsolescence and may, 20 years later, affect the marketability of title.

7. Plat Approval

In most states, the right to sell by identification of lot, block, and subdivision requires prior final approval and filing with the register of deeds of the plat and its related covenants. Once the first site has been sold, it is virtually impossible to change the plats and covenants. By the same token, it is virtually impossible to create enforceable covenants if an offer is accepted on a site before covenants are filed to provide constructive notice. It cannot be overemphasized that the quality of the future park and the strength of title depends on the care with which these legal requirements are executed and not on the expedience of the moment encouraged by the park's strongest promoters. Figure 6 above indicates the general process required of platting, and it is doubtful that all of this can be accomplished in much less than a year.

8. Finalized Acquisition

After forming a workable plan in regard to the various factors presented in this section, the developer is ready to finalize acquisition of the site. The basics of closing the real estate deal involve compliance with legal requirements on the sale of land. Whereas the assistance of an attorney is always required, some basic understanding of real estate transactions can be gained from legal textbooks⁶³ and special institutes. In addition to the textbooks identified in the footnotes. The Practising Law Institute (1133 Avenue of the Americas, New York 10036) offers excellent seminars on various aspects of real estate development for attorney and laymen.

⁶²Rice, p. 82. For more on private controls, see Community Builders Handbook, pp. 461-463.

⁶³See Bicks Contracts for Sale of Realty (Practicing Law Institute, 1133 Avenue of the Americas, New York, N.Y. 10036, 1956); Friedman Contr. & Conv. of Real Prop.; See Tiffany, Real Prop. (third edition) § 950 et seq. Interest of purchaser on making of executory contract for sale of land ID. § 307 et seq. Williston Contracts (revised edition) § 922-954B.

CHAPTER 5

CONSTRUCTION PHASE OF THE INDUSTRIAL PARK

A. Risk Management

Business risk is the variance between expectations and realizations. Risk management has as its objectives the conservation of existing assets of an enterprise from the surprise potential of the future and then realization of budgeted expenses and revenues for following periods. Risk management requires identification of significant potential upsets to plans due to static risks such as fire or dynamic risks such as unforeseen difficulties due to rock below ground or changing market conditions. Secondly, risk management is concerned with measuring the potential loss and deciding whether to absorb it as a budgeted contingent expense or to avoid, shift, or limit the surprise costs involved. These unexpected financial charges can be avoided by not undertaking certain activities, limited by use of a corporate shell or a limited partnership, shifted by contract to someone else with more expertise, or shifted by purchasing insurance.

B. Risk Management by Contract

The uncertainty of construction costs, scheduling, or structural performance can be shifted to the professional team of advisors and subcontractors with whom the industrial development entity will be dealing. Engineers, planners, architects and reputable contractors have standard forms which should be carefully negotiated to avoid clauses which would hold them harmless from error while leaving them responsible for essential inputs and specifications. Where performance standards are not readily available, it may be useful to incorporate by reference in a contract state highway department standards, state industrial codes or building codes of a comparable community in the state or of the fire underwriting bureau. As soon as subcontractors become agents or employees of the industrial development agency, the agency becomes liable to the public for their errors and loses the benefit of the professional responsibility standards appropriate. Thus, all such relationships should make clear the work is done as an independent contractor to the industrial development agency. As discussed later in the section on finance, all contracts should identify the maximum dollar responsibility to the agency and a procedure for approving extras before they are collectible. Such care will hold the variance between expectations and realization to a minimum.

C. Risk Control via Insurance

Insurance is intended to meet those risks which cannot be adequately handled by contract or by careful budgeting or business procedures. For example, it is unnecessary to buy insurance for theft of cash if office rules prohibit having money in the office in excess of \$100. In addition to the usual business coverages for public liability, auto liability, and

workmen's compensation (which is a good idea even for volunteer workers), land development and construction create a variety of contingent liabilities for the acts of all subcontractors and others involved in the project. Construction exposures are unique and generally excluded from basic business coverage unless explicitly endorsed. A good primer for insurance of development and construction operations is Insurance For Contractors, by Walter T. Derk, third edition (published by Fred. S. James & Co., 1 North La Salle Street, Chicago, Illinois 60602 \$3.00).

Thoroughly inform the insurance agent for the industrial development enterprise of intended activity, and, if he fails to insure some activity which prudent management would insure, he and his company are liable for negligent planning of the insurance program. That is a good example of using professional advisors to shift some risk of some expensive mistakes to the balance sheet and income statement of another.

D. Monitoring Schedules with CPM and PERT

Business risk is often a matter of not knowing what you should know in order to make the correct decision. The necessity of systematic review of accounting information as well as prospecting activities cannot be overemphasized. The exasperation of keeping adequate records and the discipline of providing directors with a monthly summary of activities pays off by sustaining the motivation of directors and stifling the anxiety that things are not going well. No news has a way of becoming bad news, and promises without facts undermine trust in the managing officers, particularly so when "development" is such an intangible, long term, and unpredictable product. Information sources from accounting systems and daily logs are a prerequisite to filling information channels with significant facts.

The following series of diagrams are designed to give the reader a basic understanding of the "Program Evaluation and Review Technique" (PERT) and the "Critical Path Method" (CPM), and suggest other uses to which these systems may be put (e.g., development corporation prospecting, record keeping activities, etc.).

The system described may now be used to estimate the earliest time at which each activity may be started and the latest time at which it is expected to be finished. There will undoubtedly be several sequences of activities which can take place simultaneously, and each of these sequences will require a different period of time (e.g., number of days); the "critical path" is that sequence which is estimated to require the greatest amount of time. It is critical in the sense that any delays in this sequence will delay the entire project, and any reduction in total project time will also have to come along that critical sequence of events (until shortening the original critical path will cause another sequence to become "critical"). One may find, for example, that roof erection can take place two days before the walls are completed. If these events lie on the critical path, the total project time will be shortened. In the interests of flexibility, events not on the critical path are assigned "float" times to indicate the amount of play in the system. An event with two days "total float" can be delayed for two days and still not affect total estimated completion time (as per the critical path). Two days of "free float" indicates

Pages 51 and 53 of this publication, Industrial Park Development for the Small Town, have been deleted because we were unable to locate the owner of the copyright for the book from which these diagrams were taken. The diagrams can be found in the book titled Control and Management of Capital Projects by John W. Hackney and published by John Wiley & Sons, Inc., 1966. The introductory explanation of PERT and CPM can be found on pages 118-131 of this book. Figure 9 is on page 122 of the same book.

that an event delayed two days will not affect the earliest start time of any activity in the system. "Interfering float," then, is the difference between "total" and "free" float. Figure 9 shows a complete network diagram illustrating the principles explained above.

CHAPTER 6

ORGANIZING THE COMMUNITY EFFORT

A. Structure and Financing of the Development Group

"Industrial development organizations vary in size and type. There are private corporations; departments within chambers of commerce; utility, railroad, and bank industrial development departments; city departments, state departments of development; and regional industrial development corporations, sometimes representing part of more than one state."⁶⁴ Such organizations may be financed through one or more of the following sources:

- (1) Local tax money
- (2) Annual membership
- (3) "One shot" campaigns
- (4) EDA grants for up to 75% of expenses to nonprofit public or private groups⁶⁵
- (5) Sale of corporate shares

Financing through tax money may be arranged directly through a city authority where state legislation permits, or indirectly as a city commission receiving its budget through the city council. Often, these agencies are virtually a subdivision of the local chamber of commerce. The advantage of tax funds lies in the immediacy of receiving needed planning and pump priming funds. In the long run, leverage is sought on tax funds from outside financial sources. The disadvantage lies in the possibility that the operation may become political in nature, with employee turnover keyed to party affiliation. Lack of continuity can be damaging to agency quality and reputation (as a professional group); it may also conflict with the usual necessity of establishing close and long term business relationships with key people.

Financing by membership involves solicitation of funds, but the danger of the organization's growing apathetic is reduced if the membership has a financial vested interest in succeeding. Limiting membership to those who will lose the value of their contribution is recommended to hold the group together, despite big fights on various issues which will arise. For example, each member could co-sign for a maximum of \$1,000 on a note from

⁶⁴Bessire, p. 353.

⁶⁵For particulars, see Section VIII-E.

the bank of \$25,000 seed money. The job of collecting dues and keeping the membership informed becomes less burdensome.⁶⁶

The "one shot" campaign may be directed toward providing funds for a specific project, or to finance the operating budget for a number of years. Ideally, annual income from leases resulting from construction financed by such a campaign, will exceed operating expenses and cover budget requirements. Also, land purchased and developed could be resold at a sufficient price to fund additional land purchases when needed, and industries leasing buildings may exercise their options to purchase at a rate that would return capital to the organization in time to use it for assistance to succeeding industries. Clearly, this ideal situation will not always occur, so that the operating budget may have to be financed through membership dues. The danger of the organization developing into a political football is averted, but the fund raising activities can tarnish professional images and personal relationships so necessary to the success of the development group. For this reason, where the budget is large enough, professional investment bankers or fund raisers should be hired. The type of rapport required in the industrial development business is considerably different from the hard-hitting and sometimes obnoxious approach required in successful security sales.

The private corporation is quickly becoming the most common structure imposed upon the development organization.⁶⁷ It is doubtful that anyone would want to try to operate without incorporation due to the legal implications. The not-for-profit variety is favored largely because "the chances of making a profit are infinitesimal," and the illusion of direct returns to stockholders is avoided.⁶⁸ Furthermore, to qualify for EDA grants, the organization must be not-for-profit (see Chapter 8, Section E-3). A complete sample of the articles of incorporation and by-laws for such a non-profit corporation is presented in The Practice of Industrial Development.⁶⁹ Articles of incorporation should define the scope of operation to include aid to any "base" operation--existing or prospective. The by-laws might

⁶⁶ Some communities have established \$1,000 clubs with between 10 and 50 members; others have taken pledges on a 10-30-30-30% basis where 10% is payable immediately and the balance over a three-year period. Pledges in promissory note form are desirable in that they may be used as collateral for a loan. Don Rayburn, "Financing Industrial Facilities" (Austin, Texas: Texas Industrial Commission, 1968).

Also, an interesting compromise plan (in effect in several Mississippi counties and towns) distributes the burden of financing equally among three groups--business and professional people, the county, and the city. See Sperry, p. 15.

⁶⁷ Bessire, p. 353.

⁶⁸ p. 355.

⁶⁹ pp. 355-362.

indicate that for each \$25 share, the member receives one vote, assuring control commensurate with financial support and further stimulating the fund drive. The by-laws should provide that the chief paid executive have the authority to hire and fire all who work under him, with the approval of the board of directors to whom he is responsible. The chief executive is in complete control of operations ("with the advice and counsel of the president and executive committee"). The by-laws should create an executive committee as a more active and agile representation of the board, designed to carry off routine work more efficiently, as well as any other duties assigned to it by the Board. Of course, the by-laws⁷⁰ empower the board to amend the by-laws in the interest of efficiency.

B. Organizational Procedures

Regardless of the structure or vehicle selected for promotion of industrial development (e.g., private corporation), certain standard organizational procedures must take place.

A major plant location firm keeps on file approximately 14,000 community files;⁷¹ an expert in the field has estimated the number of plant locations in towns with population under 50,000 at 600 per year.⁷² Another source estimates the yearly number of new plant constructions at "a few hundred."⁷³ This clearly illustrates the highly competitive market in which a development group must operate. Imagine a forest stocked with several hundred deer and 14,000 hunters--the sportsman's equipment and expertise must meet some fairly rigid standards if he is to compete at all. Similarly, before an organization is ready to engage in such activity, they must discipline themselves accordingly.

1. Educating, Informing, or Hiring Personnel in the Industrial Development Profession

Education and professional guidance is available and, basic courses are identified in Appendix "D." Associations of industrial development professionals are listed in Appendix "E." Some good basic text books are mentioned in the footnotes, and the beginner (as well as the professional) will find The Practice of Industrial Development a useful reference book. The

⁷⁰For a more complete discussion of the articles and by-laws, see Bessire, pp. 362-369.

⁷¹This figure closely approximates the total number of United States cities with populations between 1,000 and 50,000. (Towns with populations less than 1,000 total 101,710; only a small portion in this group would be able to afford the \$50,000 minimum development corporation budget laid out in Part VI, B-4; Rand McNally, New Cosmopolitan World Atlas.)

⁷²Fulton, p. 5.

⁷³Maurice Stans, "Attracting New Industry," U.S. Department of Commerce #35 (March 1970), p. 5.

AIDC maintains a library to assist on specific problems. A partial list of periodicals which assist industrial development managers and committees is presented in Appendix "F." The city of Chicago and other major cities have a separate yellow page classified listing for "Factory Locating Services." Many times such firms will advise local municipalities on the strengths and weaknesses of their community and will help devise a program for industrial development. For recommendations in hiring industrial development professionals, the following organizations may be contacted:

- a. National Headquarters of the Chamber of Commerce of the United States
- b. State and resource development agencies
- c. American Industrial Development Council office
- d. Utility companies' industrial development departments.

It is not uncommon for such sources to submit the resumes of five or ten men for you to contact, or, alternatively, for you to submit your particulars to five or ten such prospects.

Analyses on which industries are best suited to a community may be obtained from the Economic Development Field Offices, state and local economic development agencies, industrial development departments of utilities and railroads, chambers of commerce and local colleges, universities and research institutions.⁷⁴

Monthly lists of firms planning to expand may be obtained from the following three sources:

Industrial Expansion Research
P.O. Box 362
Frankfort, Indiana 46041

Prospex
Maple Publishing Company
P.O. Box 435
East Orange, New Jersey

The Dodge Reports
(A construction oriented publication which often announces company plans for new plants "with site yet to be selected").

Just as there are many factual sources about the development process, there may be many leads to industrial relocation prospects. Of course, everybody in the game may know of these leads, but it will help to have the name of your development in the hatful of alternatives from which the prospect may choose. It is important to remember, too, that the best prospects are those already in your own backyard who need room to expand, to modernize, or to show the world how well they are doing.

⁷⁴Stans.

2. Education of the Citizenry to Enlist Support

When the organization leadership is knowledgeable on the strong and weak points of the community, it is in a good position to educate the citizenry. Information and feedback is most effectively accomplished through personal contact via service clubs, fraternal organizations, and other concerned groups. The town's newly appointed industrial development man can expect a barrage of speaking invitations. An all inclusive town meeting may be called, and local radio or direct mailing will be useful, supplementary methods, particularly about major issues and events.⁷⁵

The community must be fully conscious of how it indirectly advertises its own wares as a prerequisite to expanding or attracting industry. The tremendous influence of favorable community attitudes upon the plant location decisions were discussed in Chapter 3. These attitudes may be reflected directly by the casual comment of the taxi driver carrying the prospective industrialist from the airport or the waitress serving him his lunch. They may be reflected indirectly by the initiative (or lack thereof) the town has taken in adding amenities to attract industry; are they waiting for new industry to come so they can "broaden the tax base and then improve the schools, water, sewer, etc.," or are they generating enthusiasm among the townsfolk and passing bond issues for civic improvements? The experienced plant locator will detect these attitudes in his town canvas. In this regard, every vote of the city council, school board, public commission for water or roads, as well as a union vote or support in local teams and talents, provides measures of community will and pride for the experienced plant location specialist.

Another facet of education involves creating an awareness of community strong and weak points and enlisting aid in the competition among towns (states or nations for that matter). This means establishing working relationships with:

- a. Utility companies (in figuring special rates for prospects);⁷⁶
- b. Taxing bodies (in figuring hypothetical tax bills);
- c. Railroads and truck lines (in obtaining rates, delivery schedules, etc.);
- d. Financing institutions (in counseling prospects);
- e. Contractors (in estimating building costs);
- f. Planning boards (in considering present zoning or applications for changes);
- g. State employment offices;
- h. Retailers (in obtaining first hand knowledge of community characteristics);
- i. Insurance agents;
- j. Top public officials (for information on local laws, taxes, and zoning);

⁷⁵For a "grass roots" approach to organizing a small town effort, see "A Congress for Community Progress," C-731, Bh6. AIDC Library.

⁷⁶For example, Pacific Gas & Electric Company has a "Community Development Consultant" in their "Area Development Department."

- k. Representatives of all news media (in educating the community, keeping them informed, and slipping big news items [e.g., plant location] on to the other media in the hopes that it will reach and attract more industry.⁷⁷

An efficient way of enlisting the aid of the above groups is by including key individuals on the Board of Directors of the Development Organization. Their primary duty should be to advise their own organizations of what the development agency is doing.

3. Organizing Office and Staff

As indicated previously in Article VI of the proposed by-laws (see page 56), there should be one chief director who has the authority to hire, fire, and exercise some real discretion in the carrying out of his duties. The inefficiency resulting from engaging "too many cooks" can ruin the privity and expediency which most prospects demand. Placing the required authority in one man's hands also requires that the membership have substantial faith in the director. This is not to say that the Board of Directors should be shut out. There is a dual loyalty which requires a delicate sense of balance as the Industrial Development man walks the tight rope toward completion of the deal. The relationship between the director and the Board should be based on their "faith in [his] ability and [his] faith in them to keep their collective mouths shut [when a hot prospect is on the line]."⁷⁸ The budget and program,⁷⁹ as approved by the board, then become the broad boundaries of operation; furthermore, selective use of board members in "wooing" prospects can be highly effective on the prospect and on the board members.

As will be discussed below, attracting industry requires a lot of personal contact. Consequently, the director will spend about half his time "on the road." This means that someone else will have to be in charge of office work 50 percent of the time; be it an assistant or a secretary, a routine should be established to standardize the handling of what goes in and out of the office. It also means that an accurate traveling expense record should be kept. The following systems are presented to increase organization efficiency:

- a. Expense reporting. Even if the organization is nonprofit, the director will have to justify his expenses to the Internal Revenue Service. "It is generally believed that receipts for 80% to 85% of expenditures will be considered only adequate by the Internal Revenue Service".⁸⁰ To facilitate the rather complete recordkeeping demanded, the use of credit cards is recommended.

⁷⁷Bessire, pp. 77-81.

⁷⁸p. 58.

⁷⁹For a sample program, see Bessire, pp. 55-56.

⁸⁰p. 59.

b. Site and building availability directories. Information on available sites and buildings must be kept for industrial park property as well as for separate publicly or privately held parcels. Corroboration with local realtors and property owners in registering them is recommended;⁸¹ securing a "firm" figure on such parcels will reduce the price raising that so often occurs when a strong prospect appears on the scene. The use of data forms can provide concise statements of the information required; they may then be compiled in directory form (perhaps classified by current use, price, size, location, etc.) for presentation to prospects. Needless to say, the directory should be constantly updated with new listings and changes in terms of sale; as listings are taken off the market, it is recommended that they be kept in the file but stamped "sold."

c. "Prospect control" system. Hopefully, a number of potential customers will be contacted via application of the educational and organizational procedures discussed above, and certain promotional techniques to be discussed below; the following system is recommended to keep track of them. Keep a "prospect sheet" on each firm similar to the sample presented in Appendix "H".

Attached to the basic data sheet should be a short dated diary of each contact, inquiry, and response, perhaps with evaluation of idiosyncracies of parties involved and action taken by the development manager. One expert recommends including these sheets in ring-binders within fingers' tip of the telephone, with perhaps different colored binders to indicate status of the prospect. Of course, there should also be a ringbinder of successful industrial expansion cases completed or in process in the community, complete with photographs, names, and faces to show the next prospect.

To implement the system further, a 3 x 5 card file index is suggested. Upon detection of a possible prospect, reference to this file will indicate any previous dealings. If there is no record, the sources listed in Chapter 6, Section B-1 should be consulted and a prospect sheet drawn up. Telephone the indicated "person to contact" and put your bid in for the location. Then follow the promotions system outlined in Chapter 7. Undoubtedly, the organization will track prospects over a several year period only to lose them to another town. Prospecting, like fishing, requires patience and a certain foolish optimism that another "lunker" is cruising in the area of your bait, made more curious by the netting of his cousin in the nearby boat.

d. Budgeting the organization. Consistent with the procedures and policies laid out in this section and in Chapter VIII (merchandising), a budget plan designed to serve as a guideline in regulating organizational expenditures is essential. The items included and their relative importance will vary with town and organization. Common items are suggested in the sample budget below (Table 6), but various items may be absorbed by

⁸¹No realtor will release his exclusive listings unless he feels the organization can be trusted not to circulate these directories among his competitors.

contributing organizations which loan equipment, space, or personnel. Public liability insurance is particularly important for non-owned automobiles and any subcontracted operations, particularly development and construction. Workman's Compensation insurance is generally required even where all help is voluntary. Luncheons and entertainment will never replace facts, and a healthy community attitude, and the development director must studiously avoid an image of "Good Time Charlie." Sincerity and homespun pride should represent the community, while strong sales types should be kept in the background.

In any event, "salaries" may amount to about 50 percent of the total; travel and prospect entertainment should take about 20 percent, based on the idea that the director should expect to spend 50 percent of his time outside of the office in "personal selling" activities.

Finally, the Board of Directors will want monthly reports showing the budget, the cumulative amount spent to date, and the previous month's expenditures.

TABLE 6

Possible Budget

	Amount	Approximate %
Salaries	\$20,000	40.0
Travel and Prospect Entertainment	10,500	21.0
Research and Consultants	3,500	7.0
Printing and Advertising	3,000	6.0
Telephone and Telegraph	2,400	4.8
Employer's Share FICA Taxes, Unemployment Taxes and Workmen's Compensation	2,000	4.0
Office Supplies	1,800	3.6
Office Rent	1,500	3.0
Car Expense	1,200	2.4
Postage	1,200	2.4
Contingencies	850	1.7
Office Equipment	800	1.6
Dues and Publications	500	1.0
Insurance	500	1.0
Audit	250	0.5
TOTAL	\$50,000	100.0 ^a

^aFor other sample budgets, see The Practice of Industrial Development, p. 309.

CHAPTER 7

MERCHANDISING THE PARK

The organization developed in Chapter 6 involved a considerable amount of local promotion in generating required understanding and support. For the program to have any effect, however, requires contact with the market--"external promotion"; it is with this very crucial phase of the development process that this entire section is concerned.

One author has classified all promotional activity in Figure 10.⁸²

His "political" and "internal" promotion (rows 1 and 2) correspond to "local" education and community audits covered in previous sections.

Focusing, then, on row 3 ("external promotion"), authorities agree⁸³ that media advertising (3C), especially for the smaller town, is of limited importance. For this reason, emphasis is placed upon the personal (3A) and written approaches (3B). The claim that \$32.14 will provide four lines in "the Hooperville Times" with circulation 516,000 is clearly misleading. What it doesn't say is that 200,000 of them are housewives who could care less about industrial sites; 300,000 are employees who will never participate in the plant location decision; and the balance are miscellaneous readers who are probably equally uninvolved. This suggests that if the budget permits the use of advertisements, it is better to plan on a series (at least several), in the right publications. With careful evaluation of goals, attributes and preferred prospects, the industrial park developer can name many of his potential customers. The yellow section of the phone books in nearby big cities is a great prospect list. Industrial managers answer their telephone and read their mail and sometimes prefer a special trade publication. To reach businessmen on the prowl, try an ad in a sports program booklet, such as baseball, football, or hockey in a larger town nearby.

The various sources presented in Chapter 6, Section B-1 will supply the organization with names of potential industrial park users. They should be classified according to status as indicated in Chapter 6. The closer a firm is to the "red hot" end of the spectrum, the more personal and frequent should be communications with them. When operating on a limited budget and when the personal approach requires the greatest amount of time and money, it is common sense to concentrate on the more promising "pay-offs."

⁸²R. Preston, "The Where-Withals of Promoting an Industrial Development Program," AIDC.

⁸³"How to Improve Your Community by Attracting New Industry," p. 18; W. M. Castoro, "Developing Industrial Prospects: Direct Mail and Media Advertising," Industrial Development Institute Thesis, University of Oklahoma, 1967.

FIGURE 10

The Industrial Development Promotion/Public Relations Grid

MEANS WAYS	A PERSONAL APPROACH	B WRITTEN APPROACH	C ADVERTISING APPROACH
1 Political Promotion (Explanation and Education)	1A Interviews Discussions Meetings Workshops	1B Memoranda Letters Program Outline Budget Facts on I.D.	1C None (to all intents and purposes)
2 Internal Promotion (Preparing the Product)	2A Meetings Conferences Speeches Graphics Workshops	2B Press Releases Editorials Pamphlets Reports	2C Sponsored, Pub- lic Service Spots or Space (Demonstration)
3 External Promotion (Marketing and Selling the Product)	3A Direct Contact with Prospect through I.D. Leaders Comm. Members Fieldmen Attaches Retainers Tours "Ambassadors" Co-Directors	3B Aerials Maps Brochures Letters Throwaways Monographs Special Studies Gimmicks Peripheral- Piffle	3C Institutional Classified Specific Industries TV Special Pro- grams Movies Radio Billboards (Demonstrations)

The personal approach, then, is the most effective and focused expenditure to be used in winning the prospect. The "written approach" 3(b) is next in effectiveness and should be used in conjunction with the personal approach.

A logical starting point in building a prospect directory is to draw up a mailing list through various sources presented in Chapter 6, Section B-1. For initial economy, inform people who are likely to inform others, such as industrial brokers, industrial engineering and construction firms, state planning and development agencies, etc. These people should receive an individually typed letter and a brochure. The importance of the mechanically typewritten letter in generating response was substantiated by McGraw-Hill; they experienced eleven orders per thousand mailings of a letter with a card and only three orders per thousand mailings of the same material in circular form with a card.⁸⁴ One publication appropriately terms the ideal brochure "the no-nonsense item"; this item is concise, factual, yet attractive. It stands in contrast to "the slick item" which "relies on visual impact to deliver its message," and "the laundry list" which "is packed with charts, quotes, maps and economic tables."⁸⁵ A simple piece can be circulated widely and an inquiry can be sent a kit of community and area brochures and other economic data. A series of mailings is suggested by some sources.⁸⁶ This involves scheduling several mailings a couple weeks apart and moving from the more introductory material to the more factual. At the first spark of interest, a phone call to the man in charge of plant location would be in order; in dealing with smaller firms, simply ask for the President or Executive Vice President. The purpose of this call is to get your foot in the door for a face to face conference; if he agrees, put him in your "red hot" directory and start preparing to answer his questions. If he wants some more specific material first, prepare and send it as soon as possible, then wait for a response; if none is forthcoming, try a follow-up letter and courtesy will produce a reply.

When contacted directly by a likely prospect, or informed by a third party, skip the mailing series and use the telephone to suggest a personal meeting. Personal contacts with sources listed in Chapter 6, Section B-1 can result in such introductions; since the list is not so extensive, use the telephone to get your foot in the door and reinforce that contact by follow-up mailing.

Personal calls should be arranged at least two weeks in advance. Unless there exists an extremely strong chance of moving a "red hot" prospect

⁸⁴Ralph L. Rose, "An Analysis of Industrial Development Brochures," Industrial Development Institute Thesis, University of Oklahoma, p. 25.

⁸⁵Stans, p. 15. (Also, for more information on brochures, see Stans, p. 14, #1.)

⁸⁶"More Industry in Your Town, Georgia," Georgia State Chamber of Commerce, Atlanta (step 8).

into the community, the budget will usually demand that distant towns contain a substantial number of prospects to justify the expense. While on the road (if time permits) personal calls to other less promising prospects are also recommended. You can use this opportunity personally to invite representatives to attend prospect luncheons or other promotional activities to be discussed below.

Prospect luncheons involve bringing a representation of your community to the prospects. This means traveling with a delegation to a designated city and making a luncheon presentation on your community and what it has to offer. Community "missionaries" should be matched in rank and prestige with the firm representatives expected to attend.⁸⁷

Executive tours involve selecting a team of community representatives similar to the prospect luncheon group. An analysis of successful and unsuccessful tours concluded that prospects were most impressed by:

1. The ability of the team to present a "voluminous amount of facts";
2. Their "ability to display aggressively a genuine desire to have the new plant";
3. Their "ability to fulfill commitments."⁸⁸

The ideal tour group size has been estimated at 20. It's big enough to be impressive, yet small enough to work with on a personal level. The duration of the program and time of the year that it is held will vary with the intricacy of the town, and the executives' timetables. Personally escorting such prospects (if enough come from the same town) is just the first act of extreme courtesy which should pervade the entire tour. Since this kind of program involves a considerable amount of expense on the community's part and requires several days out of a busy executive's schedule, preparations in the form of a personal visit or telephone conversation should begin at least six months in advance.

Promotion must recognize the importance of catering to existing industry in obsolete facilities near the town or with aging management seeking estate planning and continuity for their businesses. These going enterprises are often the seedbeds of industrial expansion. The local banker or attorney can discretely involve these prospects in plans which will serve both their interest in the short run and the community in the long run. In Wisconsin and in other states, there are business research and consulting agencies jointly funded by state and Federal government and staffed by

⁸⁷ Experience has shown that approximately 25 percent of those prospects with whom you had some contact will accept, and about 10-15 percent of those whose names were simply drawn from various directories. Bessire, p. 262. For more information, see pp. 273-283.

⁸⁸ For more information, see Bessire, #38, p. 25.

university extensions which can aid local businesses which will benefit from introduction of modern management methods. These agencies are a prime source of leads. Their proximity facilitates periodic personal calls, not only to enlist their aid in attracting new industry, but also to detect any dissatisfaction and institute corrective programs. They are a major source for base industry expansion as well as the community's most persuasive salesmen in the campaign for new industry.

CHAPTER 8

FINANCING INDUSTRIAL LAND DEVELOPMENT

A. Financial Staging

In Real Estate, one can build or develop only those projects which can be financed. It is necessary to finance the capital costs of development, the carrying charges of an inventory of industrial sites, and often the long term lease of site plus building plus some equipment for the long sought employer. Construction and holding costs must be recovered from net sales revenue while facilities built to suit tenants must be justified by the net rent charged the employer. Construction dollars must be spent carefully to obtain maximum sales power for minimum cost, because until construction loans are repaid, the interest meter is running and compounding so that total interest payments will probably equal construction costs before the last lot is sold. One outstanding expert makes it a flat rule that land must double in value each five years just to meet interest and real estate tax costs. Since the lender wants evidence of a plan to repay the obligation, the industrial development board must present carefully detailed budget assumptions and cash flows. These should be treated in three stages:

- 1) The raw land conversion phase;
- 2) The sales and holding period;
- 3) Preferred financial package for leased facilities.

B. The Construction Phase

Having selected, optioned, and planned a layout for a specific site, it will be possible to assemble a construction budget and critical path timetable. A construction budget, with outlays geared to the timetable, includes direct and indirect development costs. The direct costs should be analyzed along the following lines:

- (1) Off-site improvement costs would include the cost of extending water, sewer, electric, gas, and telephone lines to the edge of the site. It may include the necessity of extending street and storm water drainage swales past or through land belonging to others. Many states permit municipalities and utilities to postpone assessment of in-between lands which receive these facilities before their owners would have required them. In some cases, the development corporation need file only several applications for service, and the utility will finance the balance of service extensions required. In other cases the municipality will pay the bills and recover the outlay through special assessment over a five-year period at simple interest. These techniques postpone the initial capital outlay, but increase the carrying charges. Off-site costs distort land prices. One site at \$5,000 an acre looks too expensive relative to another at \$2,500 an acre unless all comparison of raw land prices are first adjusted for cost of bringing all required utilities and services to the border of the site.

- (2) On-site improvement costs involve the obvious items of grading, utility interceptors, and road construction. Since each employer will be individually located, there is no point in installing laterals at the beginning. While curbs, gutters, and sidewalks should be installed so it is not necessary to show the property with a long series of promises, it is not required to finish paving the road until many laterals are in, and traffic requires it. Of course, gravel roads should be oiled to eliminate dust, and all graded areas should be immediately seeded to provide an attractive and stabilizing ground cover. Mud is not a salable feature. On-site improvement costs should include a comfortable contingency reserve for removing soft or expandable soils which will undermine the road bed and for removal of rock, as most construction contracts do not include these surprise items.
- (3) Structural improvements should be minimized at the outset. Perhaps the only item should be a permanent entry pylon of masonry construction and architectural quality which will identify the park and provide a parcel map which can be read from an automobile. Painted plywood signs and billboards should be avoided at the entrance. Remember, one is selling the long term quality and pride of the community, and faded, windblown plywood does not create that initial impression. Be careful to stage construction rather than to build the entire complex at once. If the street will be three blocks long and represents 24 parcels, it is better to fully complete one block with eight parcels and, after you have sold the first six, develop the next block. Not only does this provide opportunity for modifying plans to fit lessons learned from early prospects, but it avoids interest charges on unused facilities for long periods of time.
- (4) Fees and professional services should be capitalized. These would include not only lawyers, planners, engineers, and appraisers, but also fees paid to secure construction loans, insurance, permits, and carrying charges. The latter include construction loan interest and real estate taxes and perhaps the underwriting costs of organizing and selling shares in a community-owned industrial park. Two similar sites may have significantly different development costs because of topography, soils, or shape. It is wise to option until preliminary engineering plans are complete as on-site costs plus off-site improvements divided by the net number of salable acres produced for two sites will show the lower priced site to be much more expensive in terms of total cost per salable acre.

At the same time one is constructing a budget, one is making assumptions as to the time line or schedule of financial events. One should lay out expenditures along a line, starting with the date of the option, the date of each planning deadline for submission of designs for approval, the date for exercising the option, contract dates for construction, mortgage loans closings, and so on. Time is the dictator of development and is the only way to estimate carrying charges or identify the false economy of delays to achieve lower direct costs.

With dollar costs specified, and a timetable established, it may be desirable to obtain a temporary construction loan from a bank, mortgage banker, or real estate investment trust. Such lenders want to know how they will recover their money, long before you sell your last parcel. Therefore, you will want to have a plan for permanent financing, once development of a particular phase is complete. This interim financing may not be necessary when dealing with certain sources such as a mortgage banker or governmental agency. Where it is necessary, a letter of commitment is required from a permanent financing source, stating that a long term loan will be made when certain completion conditions are met. It is possible to acquire a standby guarantee from some national corporations who lend their full name and credit to assure the bank that at the end of three or five years, the guarantor will purchase all remaining lots at a price equal to the debt outstanding. Such a guarantee may cost anywhere from 2 to 10 percent of the original debt balance payable in full at the time the loan is made. It's expensive, but it is better than no loan at all. The interim lender will also require that development corporation money be spent first. For example, a \$100,000 project (including land) might secure a \$70,000 loan. The lender would require the developer to deposit all of the unspent \$30,000 difference with the lender who would then make all the payments of bills as they were submitted for payment. The construction budget often is caught in a chicken/egg dilemma: financing is available for improved property, but improvement is not possible until there is financing, particularly in the smaller communities. Therefore, all manner of innovative endorsements and pledges may be tried, but, during the optimism of planning, it should be remembered that the absorption rate of industrial land sites is very very slow, almost never realizing expectations, so that it is undesirable to have one or two wealthy neighbors "over the barrel," having been persuaded to endorse the construction loan just to start things rolling.

- (5) Tax deductible losses: Many of the holding costs and financing fees of land development can be expensed or capitalized for Federal income tax purposes. It might be useful if the local development entity formed a limited partnership with some of its capital contributors as limited partners. These limited partners would receive a pro rata share of tax losses to provide tax savings as a dividend on their investment, a special advantage to higher income individuals in a small town, such as the doctor or banker. These limited partnerships must be carefully drafted with the aid of a tax lawyer.

C. The Holding Phase and Absorption Rate

Once the initial stage of development is completed, is it necessary to maintain the area by cutting the grass, paying the taxes, and meeting the mortgage payments. Maintenance could be a civil function, or buried in the municipal budget; city owned land may avoid real estate taxes, and some municipalities may have discretion in postponing real estate tax

collection until the nonprofit development agency makes a sale; some mortgages will be interest only with a proportional payment for release of title when a parcel is sold. For example, a \$100,000.00 mortgage on 10 industrial sites may provide that \$12,500 is payable under the release clause for any one lot. Of course, sales efforts budgeted earlier in Chapter 6 should also be prorated to salable acres in the development. The price to be charged for any parcel should be adequate to recover these cumulative outlays for operations plus the debt release payment if the project is to be solvent.

Thus an accurate budget and absorption rate is a prerequisite of fair pricing, and the industrial development agency should not be over-anxious to give it away. The price of land ready for building is seldom a major cost factor; it is the immediate availability of a finished product and the economic advantages of labor and location which determine the community in which a new employer will locate. Accurate recordkeeping will determine at any time the minimum price necessary to recover community investment. An example of such accounting and pricing is presented in Table 7.

Table 7 does not provide for profit or surplus for contingencies. Despite sale at \$3,500 per acre (a 25 percent mark-up), the project at the end of the second year is more in debt than it was at the end of the first year. If three acres of land had been sold at \$6,000 per acres, virtually all the carrying costs would have been covered, but nothing would remain to pay for funds expended in promotion by the development agency from its operating budget. Notice that a sales price of \$6,000 per acre represents more than a 100 percent mark-up on the minimum sales price, and still the project has a higher minimum sales price. Liabilities will not change if there is an obligation to repay operating expenses of the development agency.

Since cumulative costs vary depending on how long a time is required to sell available land, the critical budgeting estimate is the absorption rate of salable acres and the disposition rate for the total parcel. The disposition rate in acres would include street dedications, park sites, or other transfers of title in addition to transfers of salable acres for building sites. The more rapidly dedication takes place, the lower carrying charges and real estate taxes may be. However, sales depend on absorption rate, and absorption rate is the ratio of acres sold to acres available for sale for comparable properties. It will be necessary to research each sale for number of acres involved and the frequency of sales by size of tract or employer as suggested by the following table (prepared by Russ Knetzger of William Nelson & Associates, Planners, for a community in Southeastern Wisconsin).

A cheap site will secure only weak industries and create a financial picture which will discourage enthusiasm for the project. More important than price is the availability of financing packages to help the prospective employer provide the building and facilities tailored to his needs without straining his capital resources. After all, a new or branch location requires the employer to provide working capital for raw materials, payroll, and inventory, not to mention start-up and moving costs, far in excess of fixed asset investment in building and land. These financial package alternatives are briefly identified in Section D below.

TABLE 7

Example of Rising Break-Even Sales Point Per Salable Acre

1- 1-72	Raw Land Purchase	\$ 60,000 (60 acres @ \$1,000/acre)		
	Planned Development Expense	6,000		
	Off-site Improvements	10,000		
	On-site Improvements	30,000		
	Fees, etc.	14,000		
		<u>\$120,000</u>		
12-31-72	48 Net Salable Acres =	\$ 2,500/acre (12 acres lost to roads, etc.),		
12-31-72	\$9,600 Devel. Agency Budget for Supervision and Sales	200		
		<u>\$ 2,700/acre</u>	minimum sales price	
2- 1-73	Taxes and Special Assessments	+4,800	\$ +4,800	\$ +4,800
6- 1-73	Sale of Three Acres @ \$3,500	-10,500	-15,000	-18,000
6- 1-73	Release of Three Acres	+9,000	+9,000	+9,000
12-31-73	Interest @ 6%	+4,200	+4,200	+4,200
12-31-73	\$9,600 Devel. Agency Budget for Sales & Promotion	+9,700	+9,700	+9,700
		<u>\$+17,200</u>	<u>\$+12,700</u>	<u>\$ +9,700</u>

Net Salable Acres, 48-3 divided into unrecovered development costs of \$137,200 = \$3,048/acre minimum sales price. Remaining debt \$111,000.

TABLE 8

1. Growth in Industrial Firms. XYZ County

<u>Net Gain in Reporting Units</u>	<u>5-year Period</u>	<u>Manufacturing</u>	<u>Wholesale</u>	<u>Transp. & Utilities</u>
+23	1954-58	+10	+9	+4
+11	1959-63	+ 4	+4	+3
<u>+25</u>	1964-68	+13	+8	+4

$$59 \div 15 = 3.9 \text{ per year}$$

SOURCE: Table 202 of "Employment and Wages Covered by Wisconsin's U.C. Law," Annually.

2. Relocation Rates of Industrial Plants, Chicago Metropolitan Area Experience

<u>Relocations Per 100,000 Population</u>	<u>By Average Employee Size (Acres at 10 Employees per Acre)</u>	<u>16</u>	<u>70</u>	<u>150</u>	<u>300</u>	<u>800</u>	<u>1500</u>	<u>4000</u>
	<u>Employees:</u>	16	70	150	300	800	1500	4000
	<u>Acres: Under 3</u>	7	15	30	80	150	400	
2.90 per year		2.25	.35	.15	.06	.03	.02	.04

SOURCE: Northeastern Illinois Planning Commission "Industrial Development," Report, 1965.

3. Net Need for New Industrial Acreage, New Plants and Relocations

3.9 New Plants Per Year
<u>-2.9</u> Loss Sites Vacated by Relocation (XYZ County has about 100,000 persons)
1.0 Excess New over Relocation
<u>2.9</u> Relocations
3.9 Sites Needed Per Year

TABLE 8 (continued)

4. Acres Per Year, New Industrial Sites General XYZ Area

<u>Annual Additional Acres</u>	<u>Site Size (Acres)</u>	<u>Plants Per Year</u>	<u>Rate of New Plants</u>
6	2	3.00	1 every 4 months
3	7	.48	1 every 2 years
3	15	.21	1 every 5 years
2	30	.08	1 every 12 years
3	80	.04	1 every 25 years
5	150	.03	1 every 33 years
<u>3</u>	<u>400</u>	<u>.06</u>	<u>1 every 16 years</u>

25 acres per year, average, plus ownership reserves

500 acres in 20 years, average, plus ownership reserves

250 Presume 50% ownership reserve for future expansions

750 Probable 20-year industrial land demand

5. Share to Subject Site

82% 625 Acres of Prime Industrial Ranked Ahead of Subject Site

18% 135 Subject Site

100% 760⁺ Possible 20-Year Limit of Demand, Including Reserves

18% of 750-760 Twenty-Year Demand = 135 acres = 7 acres per year

Now presume the market will absorb the 77 acres (55 acres net after roads and parks) at 5 to 7 acres per year, or 8 to 11 years total. Presume two construction stages each opening up one-half of the Town of Pleasant Prairie, Preliminary Industrial Feasibility Report, January 16, 1970, 77 acres. Since interest costs are computed at 3 year average for each stage (which means 6 years to total sellout), the maximum 11 year sales period falls within the 12 year total allowance (two stages at 6 years each). Presume, however, that competition forces the sales price to \$5,000 per acres, requiring the (municipal development corporation) to absorb \$1,700 per acre, to be recouped from industrial income tax rebates. Income tax and other revenue to the (municipal development corporation) is estimated at \$55 per employee per year, with 6 employees per acre including active and reserve acreage. Thus, \$330 per year, per acre sold could be projected to recover the \$1,700 per acre shortage.

D. Financial Packages for Leased Facilities

Many prospects for new industrial commercial sites would prefer a packages "turn-key" deal which they can lease for a period of time, such as 10 years, with option to renew. It is very desirable to have worked out the basic elements of such a package before encountering a prospect and preferable to have several alternative methods for financing the construction of improvements. The financing alternatives may be with private sources or with public development agencies. The elements of the package are:

1. Clear title to the site;
2. A contractor, preferably one with an industrialized building franchise;
3. A long term lease from a strong credit tenant or a long term lease with local credit quality plus lease guarantee insurance from a private guarantor or SBA;
4. A mortgage whose terms permit repayment at an amount covered by the rent;
5. A source of equity funds for the difference, if any, between the long term mortgage and cost of improvements and release of the site title from the land development loan or, if possible, the full sale price of the site.

Since an industrial development corporation cannot be everything to all people and does not want the liability of performing as a general contractor, it should establish a working relationship with one or more builder-dealers of masonry, tilt-up, or prefabricated steel paneled industrial type buildings. Once the builder has determined the space requirements and budgets of the tenant, he can provide a fixed price for specific facilities. On the basis of the fixed price of the building, a net rental can be established, generally as a constant of total cost. For example, the rent might be 8 percent per annum on land and building plus 4 percent recapture of the building cost. A \$20,000 site plus a \$100,000 building would mean an annual rent of \$1,600 plus \$8,000 plus \$4,000 or \$13,600 ÷ 12 for monthly rent. The rental constant, as a percent of total cost, is 11.33 percent. This is termed a triple net rental, since the tenant must pay all utilities, real estate taxes, and structural maintenance costs for the term of the lease, in addition to the net rental. What is needed, then, is a mortgage whose interest and principal payments are less than 11 percent of its balance, say for example, 10.5 percent at $8\frac{1}{2}$ percent interest, which will take 19 years, 3 months to repay. The spread between the rental constant and the financing constant represent a "profit" to the development company.

However, a mortgage lender may wish to hold the term of the mortgage within the term of the lease. If the lease in the above case were 15 years, the lender might require a constant of .1225 for repayment in 14 years at $8\frac{1}{2}$ percent. Such a constant would mean money would cost more than the available rental dollars could finance on a 100 percent loan. In the above case, one might borrow \$108,000 and seek \$12,000 of equity money. Many investors look for passive investments subject to long term leases to enjoy a small cash flow, tax depreciation for other earnings, and some speculative resale value at the end of the lease term. The development company could sell the deal once it was complete or during the year of construction

to a wealthy local resident or group of residents who organize a partnership or limited partnership for the deal, or as soon as all contracts had been signed or "packaged." Even a nonprofit development entity may wish to place the building and lease in a partnership to sell the depreciation cover to a high bracket investor, using the funds generated to reduce the rent offered the tenant or to provide more profit with which to pay off the land development loan. Both the lender and these equity partners want to know the credit power of the tenant, the general re-use of the structure if it is necessary to release upon default by the first tenant, or the contingencies under which the lease can be terminated by the tenant. Leases must be drawn very carefully so that the tenant is not permitted to plead virtually any "change of condition" as cause for termination. Many firms insist on cancellation clauses upon payment of so many months' rent, so it is wise to have a long penalty clause, with immediate relief should a new tenant be found acceptable to the industrial development agency.⁸⁹ For the small town industrial development dealing with a new business from the big city, it is highly desirable to insist on lease guarantee insurance⁹⁰ to be assured of the regular payment of rent or mortgage guarantee insurance so that the lender is assured of at least his payments. Obviously, the lease guarantee is preferable to conserve the profit spread of the development enterprise. With lease, mortgage and fixed price construction contract in hand, interim construction money is readily available. Such packages are quite standard, and assistance and sample forms are available from the Small Business Administration (SBA), state development agencies, and mortgage banking firms. Do not risk premature investment in construction and related activities until all the documents are completed to everyone's satisfaction. Enthusiasm and impatience doing business on a handshake always lead to impossible complexities with mechanic's lien laws, mortgage laws, and last minute upsets to good intentions.

E. Public Sources of Development and Long Term Capital

The major costs of occupying an industrial building are real estate taxes, interest costs, and principal repayments. A municipal development agency bonds are no longer able to finance building construction and equipment

⁸⁹ Big firms often promise a 10-year lease with cancellation at the end of a year or two in a small town in order to bargain with the union at the main plant or to provide production space for peak years which can be quickly abandoned for a fixed price in a period of decline. Give them such a lease if necessary, but without illusions, and without any specialized equipment or outlays.

⁹⁰ Commercial mortgage insurance or lease insurance is available from two strong corporations, Commercial Lease Insurance Corporation (CLIC) of Milwaukee, Wisconsin, or Commercial Mortgage Insurance Corporation (CMI) of Madison, Wisconsin, both of which are active in small town industrial and commercial projects.

for private firms in a growing number of states, due to its abuse. Citizen-owned industrial development companies can no longer rely on tax concessions by friendly local assessors as real estate tax reforms spread throughout the country. Therefore, non-market interest rates and repayment terms are very significant in arranging competitive rents to attract prospective employers. These programs can be found from many public sources and occasionally citizen groups:

1. Revenue and General Obligation Bonds

The community may undertake to finance land, building, and perhaps equipment as well through sale of bonds. The facility is then leased to industry with the resulting payments tantamount to interest, amortization, and servicing on the bonds. Both revenue and general obligation bonds enjoy tax exempt status for issues under five million dollars (an advantage which doubles the yield for investors in the 50 percent tax bracket, and allows a reduction in interest cost of at least 1 percent below that allowed by conventional financing). General obligation bonds, however, can be marketed at a slightly lower rate than revenue bonds as they provide for payment guarantee by the issuing jurisdiction; revenue bonds provide for payment from revenues of a specific project only. Clearly, the former adversely influence community borrowing capacity for other pressing needs. Consequently, general obligation bonds usually require local referendum, and revenue bonds are more prevalent. Finally, under either arrangement, the bonds are typically non-callable for a period of ten years. This impedes the flexibility of industry in refinancing at potentially lower interest rates in the future.⁹¹

For further assistance in assembling and marketing the bond issue, the services of an investment banker should be sought. However, a minimum issue of \$300,000 is recommended, due to the fixed costs of flotation which figure into the total cost of money.⁹²

2. SBA "502" Program

A local development corporation can borrow SBA funds to re-lend to an "eligible" business or for its own use to buy land, construct a plant, expand, modernize or convert facilities, or purchase machinery and equipment. Without a local development corporation, this program is not available. Key features of the "502" program are:

a. The local development corporation must have a minimum membership of 25 and provide between 10 and 20 percent of total project cost, depending on community population; the local development corporation takes a second mortgage.

⁹¹For a more complete discussion of bond financing, see "A Better Way to Finance a New Plant Site," Business Management (July 1966), pp. 41-46.

⁹²Stock sales is yet another possibility which the investment banker is especially qualified to explore.

Population

Less than 5,000	10% required
5,001 - 10,000	15% required
over 10,000	20% required

NOTE: These minimum percentages are permitted only when they represent the maximum private sector participation available.

b. The SBA supplies the remaining 80 - 90 percent when no conventional funds are obtainable and takes a first mortgage. Their rate of interest is $5\frac{1}{2}$ percent, and the maximum loan term is set at 25 years. SBA will guarantee their contribution for $\frac{1}{4}$ of 1 percent or "C".

c. The SBA participates with other conventional sources when available in providing the remaining 80 - 90 percent, and both take a first mortgage. For communities ranging from 25,000 to 50,000 in population, a 30 percent participation in the loan balance by a conventional source is required; communities over 50,000 need a minimum 40 percent participation in the loan desired to qualify.

d. The SBA limits their contribution to \$350,000 per "eligible" small business, defined as follows:

1. Independently owned or operated;
2. Not dominant in its field;
3. Employment falls within the range prescribed for the particular industry;
4. Assets do not exceed \$5 million; Net worth does not exceed \$2.5 million; Average after-tax net income for preceding two years did not exceed \$250,000.

e. The January 1972 interest rate on the "502" loan was set at $5\frac{1}{2}$ percent. Thus, it can be seen that the "502" plan can be a major resource for the small town industrial development corporation.

NOTE: Where firm characteristics do not precisely meet specifications, there is some flexibility in the determination of "eligible" firms.⁹³

3. Economic Development Administration

The EDA will finance up to 65% of the total project for up to 25 years (including land, building and machinery) on eligible businesses. Due to the relative shortage of funds available for distribution (in the vicinity of \$50,000,000 yearly), requirements for qualification are stringently designed to promote business in specific "distressed" areas.⁹⁴ Furthermore,

⁹³For further information, see comprehensive list of SBA offices in Appendix "I".

⁹⁴The list of counties designated as "distressed" (and thereby qualifying under this program) changes from time to time; for this reason a comprehensive list is not feasible in this publication. Up-to-date information may be obtained from the regional offices listed in Appendix "J".

the projects must be consistent with the Overall Economic Development Program for the area or district in which they are located⁹⁵ and provide for long term employment opportunities. This involves coordination with appropriate state agencies.

As in the SBA "502" program, the balance of funds must come from the firm being aided, a conventional financing source, or a local development corporation. At least 15 percent of total project cost must come in the form of equity capital or in loan form subordinate to the EDA contribution; one-third or 5 percent of this amount must be provided by state or local groups, although this requirement may be waived in emergency cases. As the primary consideration here is to aid in economic development of the area, strongly established firms are favored in the rather severe obstacle course set for qualification.⁹⁶ The current interest rate on EDA loans is set at 6 percent and can be expected to change periodically with the cost of government borrowing. This rate is set by the Treasury Department.

Other EDA programs allow for total project cost grants up to 50 percent, loans up to 100 percent on public works, working capital loan guarantees up to 90 percent, and grants for up to 75 percent of overall project expenses to nonprofit public or private development groups (Section 301 [b] of EDA).

4. Small Business Investment Corporation

SBIC's are chartered under the Small Business Investment Act and regulated by the Federal Government. They must obtain approval before loaning out more than \$500,000 or 20 percent of its capital plus surplus to any one company. Typically, the SBA will match the SBIC contribution, which may take the form of equity or debt financing. When 75 percent of its private funds are invested or committed, the SBIC can request SBA to guarantee 100 percent of private loans or lend 100 percent; the maximum funds available under this provision is set at 200 percent of SBIC private capital, when such figure does not exceed \$7.5 million. The rate at which the SBA participates will vary with the cost of funds to the government. Such loans are subject to the following conditions:

- a. The SBIC cannot make loans to directors or corporate officers who hold more than 10 percent of the stock without SBA approval.
- b. The SBIC and SBA funds may not be re-lent or used for land speculation by the small business receiving them.

⁹⁵The OEDP is really a community survey which includes plans for relieving persistent, severe unemployment or underemployment.

⁹⁶A 1971 Amendment allows for waiving of these requirements in areas suffering from a large concentration of low income persons.

- c. The funds may not be used for gambling enterprises or other uses contrary to the public interest and set out in the Act.
- d. SBIC funds are only available to firms whose (a) assets do not exceed \$5 million, (b) net worth does not exceed \$2.5 million, and (c) average net income for each of the last two years did not exceed \$250,000.

The SBIC may be considered a good source of venture capital for growth industry (typically the debentures or loans supplied will carry stock options as well), and for taking above average risks, the overall lending rates are usually above conventional rates. Furthermore, they may assume both equity and debt positions in the same small business, thereby increasing the maximum investment. It should be remembered that the legislative intent in opening this channel of financing was to stimulate the flow of long term funds to higher risk business concerns.⁹⁷

5. The Economic Opportunity Act

The Economic Opportunity Act provides for last resort loans up to \$25,000 with a payout of 15 years at 6 percent (set January 3, 1972). Application is made through the SBA, typically on a 10 percent participation requirement with a conventional lender. They are intended to affect the employment of the long term under- or unemployed.⁹⁸

F. Conventional Sources of Industrial Development Funds

While conventional sources of mortgage money generally require competitive rates of interest and conservative repayment schedules and mortgage ratios to value, in many communities, the local bank, savings and loan, insurance company home office, or other financier may create special funds for community development loans. The suggestions which follow are only common variations on a theme with infinite variations.

1. Insurance Companies

Depending on the mortgage policies of the insurance company and the state regulations they fall subject to, the applicability of this source will vary. The generalization can be made, however, that, due to the fixed costs of loan servicing, a rather large minimum limit can be expected. Whereas loans for as little as \$50,000 may be obtainable from some of the smaller life insurance companies, a higher interest rate than may be secured from other sources should be expected to cover those servicing costs.

⁹⁷For further information on SBIC's, contact SBA office via list provided in Appendix "I".

⁹⁸See comprehensive list of SBA offices, Appendix "I".

Due to the stringent requirements on earnings, stability, and management placed upon borrowers, many small firms are further disqualified from this source of financing. A typical insurance loan will run 75 percent of the cost of the land, building, and improvements. Industrial private placements are a significant element of insurance company loans and sometimes take the form of bonds rather than a direct mortgage.

Specific information on insurance companies may be obtained from mortgage bankers (who deal extensively with them) via the directory presented in the appendix, or direct from the insurance companies.

2. Commercial Banks

Commercial banks are genuinely interested in industrial development for several reasons. They can expect the resulting increase in area population and payroll to stimulate the activity and profitability of the bank; they can also expect collateral profit centers from commercial accounts of the industry they finance. Consequently, they will provide intermediate to long term funds for land and building (usually not equipment) for solid risks to the extent permitted by law. However, these restrictions on lending may be circumvented by the small bank through participation agreements with other big city banks. Furthermore, the small bank may undertake to "float" the loan to several small banks at a somewhat reduced rate to cover its servicing efforts.

3. Savings and Loans

Savings and loans are restricted in the amount they can lend for purposes other than residential real estate to about 16 percent of total assets. Nevertheless, they may prove to be an extremely competitive source for industrial financing for loan terms up to 25 years. Recently, savings and loans in a state have been permitted to invest in a joint venture corporation called a service corporation, which can undertake land development or business risk loans.

4. Mortgage Companies

Mortgage bankers are middlemen, skilled in the art of placing loans with the financial institutions previously identified. Thus, their loans reflect the standards of the investor to whom they expect to sell the loan. Generally conservative, some firms consider themselves full service investment bankers, and they have been known to supply up to 100 percent financing on triple net leases, and place loans for equipment and working capital. Their fees for such advice and assistance fall somewhere in the vicinity of 1 - 3 percent, but may be included in a total interest charge.⁹⁹

⁹⁹For a complete list of mortgage bankers, see 1971 Directory Roster of Members, MBA Manual, obtainable from Mortgage Bankers Association of America, 1125 15th Street, N. W., Washington, D.C. 20005.

5. Factoring Companies

Factoring companies can ease the working capital requirements of industry through financing of machinery, inventory, and accounts receivable. More recently, national business credit firms have expanded industrial mortgage operations. At the same time, small loan companies have shown a tendency to move into industrial credit opportunities.

6. Leasing Companies

Leasing companies will purchase machinery, either from a third party, or the ultimate user industry, and then lease it to that ultimate user. Tax advantages from leasing result from the full deduction of lease payments: borrowing advantages stem from the non-appearance of the leased machine as a company debt on the balance sheet.¹⁰⁰ Depending on the degree of specialization involved, leasing firms carry an inventory of machinery to fill the demands of particular industries.

7. Investor Builders

Investor builders can provide lease agreements on extremely competitive terms; local small town builders may be interested in constructing and owning industrial facilities in the vicinity of \$100,000. The loan development corporation may assist in the procurement of funds and perhaps supply a portion themselves.

8. Sale-Leaseback

Sale-leaseback is a device which may be incorporated into many of the financing arrangements discussed above. The advantages for industry in selling and leasing back are as follows:

- a. All the capital which was invested in the real estate (represented by the selling price less any outstanding loans) is made available to him for use in the business, for further operating capital, debt retirement, or investment purposes.
- b. As a result of not owning the property, the company's financial statement will contain no reference to a fixed asset. Since the fixed asset has been converted to cash, the company's liquid position greatly enhances its borrowing capacity.
- c. Total rental is a currently deductible item for income tax purposes. Since the rental includes the right to the use of the land (a formerly nondepreciable asset), the ability to deduct the total rent carries with it the effect of depreciating the land.
- d. Any capital improvements, built by a lessee, may be amortized over the period of the lease. Oftentimes, this results

¹⁰⁰ Many of the same advantages discussed more exhaustively under sale-leasebacks below also apply to leasing in general.

in an amortization in excess of depreciation, because the lease term is so much less than the expected useful life of the improvement.

- e. If the depreciation benefits have been used up during the ownership period, the conversion of this position from owner to tenant allows him to: (1) deduct entire rent from income (as stated earlier); and (2) invest the proceeds of the sale into depreciable property, assuming these funds cannot be used to advantage in the business itself. (Obviously, any sale at a price in excess of book value will result in the incurring of a capital gains tax liability).
- f. A fixed rent, in the event of an inflationary period, results in the future discharging of the lease obligation with "cheap dollars."
- g. By reserving the right to sub-lease the premises in the event that they are no longer suitable, he may be in the position of extreme flexibility with regard to always being able to secure other desirable quarters and still offset his financial obligations under the terms of his lease.
- h. Not the least of the advantages claimed for the entering into a sale-leaseback on the part of the seller-lessee is the "peace of mind" which can result from this action. The solving of an aggravating financial problem by this method cannot help but relieve his anxiety.¹⁰¹

NOTE: The same benefits under sale-leaseback also apply to simple leasing of facilities from a local development corporation under an SBA "502" program.

Prudent financing requires careful planning and risk management analysis. Never go into a financial contract without knowing total responsibilities to the dollar or negotiating escape clauses for contingencies which exceed resources available. For example, one small town had an opportunity to build and lease a plant to a national credit company which insisted on a maximum five-year lease term and several five-year renewal options. Rather than risk losing the tenant while remaining liable on the balance of a mortgage with 13 years to run (called a "hangout"), the loan was negotiated so that the entire rent constant was applied to a 90 percent loan for the first five years, reducing the balance to 75 percent of the original loan. The 10 percent equity was a paper profit on the land included in the deal, so the local development company had no cash in the transaction. If the national tenant did not renew the lease at the end of any five-year term, the loan provided that title to the building went to the lender with no further obligation by the local development company. If the tenant did renew, the lender received normal mortgage payments and 50 percent of the spread between rent constant and mortgage constant.

¹⁰¹For a more complete discussion, see Korb and Trimble, "Real Estate Sale-Leaseback--A Basic Analysis" (Washington, D.C.: Society of Industrial Realtors).

The lease required the tenant to pay all costs of operating the property and to return the property intact except for wear and tear, so that loss of the asset for any reason was a risk shifted to the tenant. A fixed construction contract nailed down the development company liability. Business craftsmanship is the art of tying down all loose ends without finding the enterprise tied in knots by commitments without viable alternatives. Credit terms can be so tempting it is easy to lose sight of the need to be tough minded as to the prospects of successful completion of the terms.