Urban Planning for Environmental Health

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URBAN PLANNING for a healthful environment involves water, sewage, refuse, air, roads, churches, schools, open spaces, houses, money, and, last but not least, it involves people. People demand healthful facilities only to the extent that they are educated. Too few, for example, are sufficiently educated to demand sewers in a housing development rather than septic tanks. And who is to educate them?

County commissioners, mayors, councilmen, sanitary district commissioners, and similar public officials have not been trained as environmental hygienists, as planning experts, or as educators, even though they are saddled with such responsibilities. The talents of educator and community leader are needed urgently to help in promulgating water, sewage, and refuse disposal facilities, and well-planned housing.

To provide for these facilities in a master plan of development is to use today's decisions to protect the interests of a city's children and grandchildren, as well as the living generation. An organized plan of public improvement clearly and logically presented, so as to be understood by civic leaders and the public, has an infinitely greater chance of achievement than an unorganized approach.

A classic result of inadequate planning is the widespread use of septic tanks and private wells in housing areas. More are being installed every day with the knowledge of engineers, yes; but with their consent, no.

Why does this happen? Consider a hypothetical situation: Suppose a large development is being constructed on the fringe of a city. The usual services will be needed. The community's water and sewer mains at the corporate limits may be inadequate to serve the fringe area. How are financial arrangements made to provide service equitably? Sometimes the community will refuse to talk about extension of services unless the fringe area agrees to annexation. Or the community agrees to provide water-supply service but cannot or will not provide sewer service, with the result that septic systems make enemies of neighbors, even though the drinking water is safe.

In this situation, the engineer-planner, who doubles as a salesman with a major in public relations, will strive, if extensions of services are feasible, to satisfy the city that it is not giving something for nothing and to convince the fringe-area people that they are not being fleeced.

Many fringe areas which a few years ago were rather sparsely settled are now booming communities, with large, modern shopping centers. Where water and sewerage facilities are inadequate for present structures, it is reasonable to require that the facilities be expanded before authorizing new construction. Such a decision may be predicated on (*a*) individual well-water supplies being threatened by pollution, (*b*) individual sewage disposal systems either overflowing and causing visible hazards or contaminating ground water supplies, or (*c*) areas having sewers but no sewage treatment.

An editorial, entitled "Day by Day," in *The Salisbury Times*, Salisbury, Md., May 30, 1963, had this to say:

". . . The health department is conducting an antipollution campaign that will be effective

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if people will stop to listen and to act. Where instances of pollution can be located and removed they should be so handled.

"But the major battle is against the day-by-day, almost unnoticed finding that our problem is getting a little bigger each day we do nothing."

The pronoun "we" is not amplified, but it means "we the people" and also "we the planners and environmental health people."

The cost of public facilities and methods of financing demand special consideration. Even with Federal and State assistance for certain projects, the local outlay is still large for a complete water or sewerage system, or a water or sewage treatment plant. Local officials who have the major responsibility in making what to them may well be the decision of a lifetime quite understandably hesitate to undertake so large a public debt to meet needs only in prospect.

On the other hand, with every new subdivision or housing development, builders and buyers can readily discover that the total cost of individual water and sewage disposal units is often likely to be greater than central facilities, because the limited life of individual water and sewage disposal facilities requires that central facilities be provided eventually and the original facilities abandoned. Wells and septic tanks are almost as expensive as central facilities, but are less safe and durable. Once these facilities must be replaced, they are known to have been an extravagance. For this reason, if more than 50 houses are to be built in a new subdivision within a year or two, it is a protection to the home owner and community to refuse permission to install individual water and sewage disposal facilities. Perhaps the refusal should apply to an even smaller number of houses.

It is true that many fringe areas are still far away, either in time or distance, from being served by water and sewer extensions from the central city. Many communities have not planned for water and sewerage systems to handle large settlements beyond their original corporate limits. New transmission mains, relief sewers, pumping stations, and enlargement of treatment facilities and their financing present major undertakings for city fathers. However, even with the prospect of a long wait for extensions, good planning and engineering necessitate that the fringe area have, at the outset, water and sewerage systems that eventually can be integrated into the master system. In most sections of the nation, surface or ground water facilities will allow for an interim central water supply, and package sewage treatment plants and waste stabilization lagoons are proving quite capable of meeting temporary sewage treatment needs for growing settlements on the urban fringe.

Such water, sewage, and refuse disposal facilities can accomplish their purpose without creating nuisances or hazards, and they can be dependable, but real estate developers and even public works officials are frequently reluctant to assume responsibility for maintaining and operating such facilities. All too often, as a result of such a flaw in planning, they take the "easy way out," and the home buyer finds to his eventual distress that he has bought a septic tank.

Highly educated, sophisticated people have confessed that they did not know their home had a septic tank system until it overflowed. Is there any law that requires a real estate ad, bill of sale, or property title to state that the property has a well or septic tank disposal system? How often does the large developer shoulder major responsibilities for developing community facilities? And how often does government assume its full duty? Must sharp, callous business practice be allowed to thwart orderly planning and development of effective sanitary services?

Water and sewers, wells and septic tanks, moreover, are not the only concern of urban growth. Refuse collection and disposal and design of housing are equally at issue. Modern methods of packaging food products and household goods, for the convenience of the market and the householder, have magnified the task of collecting and disposing of the wrappings and wastes. It is especially perplexing when city incinerators are worn out or overloaded, or when sanitary landfill sites have become saturated.

In the postwar years, many cities have been through an architectural earthquake. Ancient buildings have been razed, and after the crum-

bling of walls and the clouds of dust, new structures have appeared. New codes are written. New zoning regulations are developed. Plans are made for more housing and expressways. But the activity reveals no obvious concern for a way of living. One is bound to ask what is being done to coordinate all these things and where human renewal fits into the pattern.

Housing today denotes more than mere shelter from the elements. In its broad meaning, it includes the fundamental physiological, social, and psychological needs of people. It embraces prevention of the spread of contagion as well as provision of a safe and esthetic environment. It involves not only the physical environment and structures where people live but also the impact of these conditions upon human need.

To provide healthful housing for the people of a community, planning goes beyond land use, structure, and form. There needs to be extremely good working relationships between planning departments, health departments, zoning boards, traffic departments, roads departments, and others to achieve an efficient, healthful, and esthetic environment. Planning divorced from housing hygiene is like a head without a heart.

In relocating displaced tenants and owners, is enough thought given to human needs? In renewal planning, are businesses relocated where they will be convenient? We have drive-in banks, drive-in theaters, drive-in laundries. Could we not have more walk-in facilities? And for those who drive, what about parking? And how about open spaces, to retain a feeling for nature?

Why do communities shy away from determining which problems need to be dealt with on a priority basis? Why do communities avoid planning for environmental health in the development of master plans?

In the past, the typical urban area consisted of a central city with residential developments on the outskirts. Today, most suburban sections have become as densely populated and often as industrial as the central city. On their fringes, in turn, residential development continues into rural areas beyond. This pattern is ever changing, ever broadening, and constantly increasing the task of planning for the future, especially as the interaction crosses jurisdictional boundary lines. The large number of different governmental agencies holding the reins for needed services complicates the work of the engineers and planners in the city itself, and as many special governmental units are established to provide a single service in small political subdivisions, it sometimes seems impossible to develop workable plans for all. In most urban areas, the need for metropolitan authorities with broad powers to provide for transportation, sewerage, water supply, schools, refuse collection and disposal, and other services is well recognized. Such an authority, representing all the governments involved, can cross political boundary lines as necessary for the best interests of the entire area, if only political solutions can be found.

Even when the closest cooperation by all parties concerned is accomplished by mutual agreement or by chartering of metropolitan authorities, solutions to metropolitan problems cannot be easy. Such cooperation provides an opportunity for the planner and the engineer to work together on a total or master plan for all the elements of environmental health, but it does not always provide the means of applying the plans. Sometimes the lack of funds presents an insurmountable obstacle, although the pooling of interests, the crossing of man-made boundary lines, the combining of services for numerous areas under one jurisdiction offer the advantage of a broader tax base or a reduced per capita cost.

To create these metropolitan authorities or to secure mutually agreeable terms for a unified effort, engineers and planners working together can devise a plan. Then both can present the plan to the officials of the areas affected and to civic groups. To have the League of Women Voters, the Rotarians, the Kiwanians, the garden clubs on one's side is a long stride toward public acceptance.

In the District of Columbia metropolitan area, the Washington Suburban Sanitary Commission has full authority for providing sanitary facilities in two counties and a multitude of corporate communities. By agreement with the District Government, it crosses and recrosses boundary lines to give service where and when needed. The Maryland National Capital Park

and Planning Commission also controls land uses throughout the area. These two agencies, working together, in conjunction with District of Columbia officials, are able to confront environmental health problems as they arise and to prevent new difficulties from emerging.

Another Maryland area which requires similar authority or close cooperation among the various governmental agencies is that around Baltimore. The city and the counties of Baltimore, Howard, Anne Arundel, Carroll, and Harford have many common needs that could be met most efficiently by a regional plan.

As people become aware of school and highway or transportation needs, and as there seems to be a reasonably simple method of devising plans to meet these needs and a willingness on the part of the public to meet the cost, it is probable that these programs will move forward. Action may be a little late at times, but usually the most urgent needs are met.

But with respect to sewerage, water supply, and refuse disposal, the public, in most instances, is not aware of the need, could not care less if not personally affected, and opposes paying for these services when programs are presented.

How far can we go in planning? How much water is available? How much sewage can be assimilated safely by nearby waters? How far can the sewage be transported? How soon will we need to treat and recirculate sewage through our water system? How will we arrange for the adequate disposal of solid wastes? How will we finance the plans after they are adopted?

The first real challenge to the planners and engineers is to determine the answers to all of these questions except the last. It cannot be done without the full cooperation of both groups, with both groups conceding a point here and there to arrive at final solutions. Presenting these answers to the public should be a part of the program, although the services of a third group may be needed for the financing.

Federal and State governments are slowly moving in favor of the principle that environmental health services, like the schools, are so important to our national security and way of life that the community as a whole should share the cost.

For example, Maryland provides matching State grants to communities receiving financial aid from the Public Health Service for sewage treatment under Public Law 660. The State also assists communities in the construction of sewerage or waterworks projects with money provided at the low interest rates the State enjoys, in contrast to the higher rates usually paid by local communities. But for major projects, financing often is needed on a larger, broader scale.

The engineers and planners, although they constitute the battery, do not compose the whole planning team. The team can be "big league," such as the Regional Plan Association, comprising some 150 corporations and 1,500 individuals, small businesses, and local governments in New Jersey, New York, and Connecticut, supporting the New York metropolitan region. Or it can be "little league," such as in the most rural county of any State, with new-found interest and revenue from sports and recreation.

The "Environmental Health Planning Guide" of the Public Health Service outlines in some detail the various phases of organizing a community study and collecting the essential data for the use of engineers, planners, community officials, and service organizations. As a basic tool in initiating effective urban planning programs, it is an excellent point of focus for the various interests with a stake in the community effort.

Efficient regional planning provides public education, which allows an informed community or area to select a pattern of development. Every effort is made to use all information channels to and from the public. In tackling such communication needs, engineers can obtain the cooperation of professional writers, speakers, educators, and other community leaders who will help carry the message. If the public does not share in this planning for environmental health, it will certainly harvest the bitter fruit of its own apathy.