American Planning and Civic Annual

AMERICAN PLANNING AND CIVIC ANNUAL

AMERICAN PLANNING AND CIVIC ANNUAL

A RECORD OF RECENT CIVIC ADVANCE IN THE FIELDS OF PLANNING, PARKS, HOUSING, NEIGHBORHOOD IMPROVEMENT AND CONSERVATION OF NATURAL RESOURCES, INCLUDING ADDRESSES DELIVERED AT THE NATIONAL CITIZENS CONFERENCE ON PLANNING FOR CITY, STATE AND NATION, A FEATURE OF THE SESQUICENTENNIAL MARKING THE 150th ANNIVERSARY OF THE OCCUPATION OF THE FEDERAL CITY AS THE SEAT OF THE NATIONAL GOVERNMENT, HELD AT WASHINGTON, D. C., MAY 12–17, 1950 AND REPORTS MADE AT THE 30th ANNUAL MEETING OF THE NATIONAL CONFERENCE ON STATE PARKS, HELD IN TEXAS, OCTOBER 5–11, 1950.

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The purpose of the American Planning and Civic Association is the education of the American people to an understanding and appreciation of: local, state, regional and national planning for the best use of urban and rural land, and of water and of other natural resources, the safeguarding and planned use of local and national parks; the conservation of natural scenery; the advancement of higher ideals of life and civic beauty in America; the improvement of living conditions and the fostering of wider educational facilities in schools and colleges along these lines.

The purpose of the National Conference on State Parks is to inform the public through a central clearing house of information, publications, conferences, courses of training in schools and colleges, and by other educational means, of the value of state parks, historic sites, forests and preserves, suitable for recreation, study of natural history and science, preservation of wild life and conservation of natural scenery, by the development within the States of well-balanced state park systems; to the end that every citizen of the United States shall have easy access to state recreation areas and appreciate their value as a recognized form of land use.

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CONSERVATION OF NATURAL RESOURCES

Conservation at the Crossroads

TOM WALLACE, Editor Emeritus, Louisville Times, Vice-President, American Planning and Civic Association and Chairman of the Board, National Conference on State Parks, Louisville, Kentucky

THE title of this address, like a famous Nineteenth Century garment, the Mother Hubbard, was designed to cover everything without touching anything, but I shall try to confine myself to one subject, the peril to our wild reserves which arises from our failure to deal effectively with subversive propaganda.

I heard the President of the United States tell the American Society of Newspaper Editors, at a luncheon in this room in April that factories of the United States produce more than factories of all other countries in the world, and that, therefore, we are invincible in war.

The next day, at a luncheon in this room, I heard an American Editor who had flown from Europe to deliver his message, tell the same audience that in the event of war we could not be confident of winning.

I construed the editor as meaning that another world war might be long and that our resources might be overtaxed.

Be that as it may be, all conservationists are fully alive to the bearing of natural resources upon military capacity. None of them would wish anything done, which would endanger our economic strength, therefore our military strength, but nobody believes it necessary in the interest of national welfare or national safety to permit power makers to invade the Federal reserves.

There is now in sight enough coal to serve all of our needs for 3,000 years. If we have luck we may find we have more coal. But, granting for the sake of argument that we should supplement coal wherever that is practical with water power we don't have to do so complete a job of high-damming that we must invade the national parks, the national monuments and other reserves.

We should not be in danger of seeing our wilderness reserves invaded were it not for the influence of adroit arguments, by people who know exactly what they want.

Politicians who seek office, businessmen who seek profit, engineers who want to practice their honorable profession, cooperate in representing every proposed multiple-purpose dam as highly desirable development, and as being productive of a recreational paradise.

Addressing the Advisory Board of the National Conference on State Parks last month, our able executive secretary, Harlean James, remarked a difference between the collective judgment of Congress in

behalf of maintenance of the integrity of our national parks and the disposition of Congress to agree, in response to pressure, to development which the collective judgment of Congress opposes.

When Congress makes general declarations it is not under pressure. When it yields to a proposal that a destructive dam be built it is under pressure by groups which are not concerned about anything but their own plans.

When Congress, having declared that the national parks should be protected says one of them should be invaded the two opposed statements do not make sense, but persuading Congress to be inconsistent does make hay, for the candidate who wishes to strengthen himself by getting what is locally called free money spent in his district, for engineers who wish to construct great works, for people who wish to sell cement, structural steel, machinery used in building dams, or merchandise which crosses local counters during the construction period.

Our problem is to meet the argument of those collaborators that any dam which is proposed will constitute a great improvement; a great development; improvement, development, so important that it must be undertaken and that one of its results will be enormous recreational opportunity.

For the sake of argument solely, let us grant—knowing that what we grant for the sake of argument is not a fact—that every power-making or irrigation impoundment does create great and lasting recreational values. Is it therefore reasonable to say that high-dammers should not be kept out of national parks?

There is abundant room outside of national parks for every kind of recreation. The biological values of mass recreation, of organized recreation, are not questioned by any reasonable person. They may be as great as the biological values of parks, but that is no reason why Green and Nolin Rivers in Mammoth Cave National Park should be denatured by a power dam.

National Parks are primarily preservation projects. As such they have a biological value that is wholly different from the value of amusement parks. That value cannot be restored when once destroyed. It is akin to the value of the Washington Monument, the Lincoln Memorial, the Jefferson Memorial here in Washington.

Like the monuments I have mentioned, the wilderness parks which keep before the people examples of primeval scenes, induce meditation, exercise uplifting influence upon human lives. Parks are complements of monuments. Parks proclaim the land the pioneers knew. Monuments proclaim men who were prominent in creating, from the wilderness, the land we love.

If it be true that more Washingtonians like movies than like monuments, that is no reason for razing monuments to increase sites for movie houses.

If more Washingtonians like baseball than like streams and woodlands, that is not a reason for destroying wild areas of Rock Creek Park in behalf of recreation.

We—you and I and others—are spending $5,000,000 to restore the White House. That is a sentimental, and commendable, preservation project, nothing more, nothing less.

We could house the President and his staff in something like the Flatiron building at less outlay, and have some parking space left in the present surroundings of the White House.

We don't, in Calvin Coolidge's quaint phrase, choose to do so. We are a sentimental, imaginative people; a people not without mentality, even intellectuality. We like the White House and we shall keep it. We have the $5,000,000 and we are spending it.

Our national parks, along with the White House, are the crown jewels of our kingdom of democracy and enlightenment. Like the White House, the national parks have high historic value. They reflect the continent as it was when our ancestors liked it so well that they committed murder, arson and every variety of high crime to get it from the Indians, even inventing scalping and improving the tomahawk to further their great enterprise.

Our national parks are not only, as a whole, unique in the world we know, but also unique in the world historians and archaeologists know. They are worth more than all of the industrial development and all of the recreation that could be crowded into them if they should be sacrificed to the Gods of recreation and catchpennyism in the degree that Niagara Falls has been sacrificed on the Canadian side, or developed like Broadway and Coney Island combined.

If they are protected they will be as interesting 5,000 years from now as monuments to old families of Egypt; as interesting as the Parthenon is as a reflection of Athenian culture.

Those who stress the importance of dams and organized recreation even in wilderness reserves; those who would make a lake in Grand Canyon National Park or Glacier National Park don't understand it, but preservation of illustrative natural scenes not only serves scores of millions of people every year, but also proclaims the quality of the Nation that is responsible for it.

A critic of preservation says in a speech at Highlands Hammock State Park, a Florida preservation project: "Much of our park literature supports belief that our properties are maintained in a large measure for a very few people; that our parks are places where poets may drift dreamily about and commune with understanding Nature . . . where a painter may set up his easel . . . where naturalists may roam and explore and chase things with butterfly nets."

Don't underestimate the power of that sort of argument in behalf of "development" in parks by high damming to make lakes for fisher-

men and boatmen, or by introduction of organized sports which can be enjoyed at places much more accessible.

Poets, scorned by the man I quote and others than poets, enjoy seeing the Taj Mahal. A sturdy developer once planned razing the Taj, in the name of development, to use the marble as building stone. Maybe he was superior morally to Lord Elgin, a vandal in Athens though a discriminating collector in London; but the man who would have razed the Taj was not a thinker. He was a distinguished member of that majority which Ibsen says is always wrong.

The argument against preservation is the argument that the Palace of the Alhambra should give place to a football field; that the Prado Gallery, the Louvre, the Metropolitan Museum of Art, the British Museum, all of which appeal to a minority, should be razed for development of tennis, hockey, cricket, golf, baseball, horseshoe pitching, bowling.

It is the argument that Everglades National Park should be equipped and administered for mass use with crowd-getting as the major objective; that it should compete with Hialeah Park and with Miami Beach.

If we argue about recreation, in attempting to defend the national parks, we waste breath. Preservation is our purpose.

If we talk of recreation we are sunk in a sea of statistics which illustrate that figures never lie but liars often figure.

Thirty-four million people, by actual count, visited our national parks last year. Perhaps no more than 50,000,000 will visit them within any single year before 1975.

A mere handful! I see in print that 2,000,000 people visited one drawdown impoundment last year—Kentucky Lake.

A shoreline is more than 2,000 miles. Nowhere on the line is any record made of the number of visitors. To find how many people visit power dam lakes, multiply by 2,000,000 the number of drawndown impoundments in the United States.

Think the result over and realize the folly of arguing that many people seek recreation in wilderness parks.

Can We Save Our Wilderness Areas in National Forests?

LYLE F. WATTS, Chief, U. S. Forest Service, Department of Agriculture, Washington, D. C.

I HAVE been asked to discuss the question, "Can We Save Our Wilderness Areas in the National Forests?" My answer to that question is definitely YES—wilderness areas and wilderness values in our National Forests *can* be protected and maintained. With some exceptions, they have been successfully protected and preserved for the

past 20 years. And the Forest Service and the Department of Agriculture will continue to do their level best to see that those values are maintained and safeguarded in the future. There are some unsolved problems, but these can be solved.

The Forest Service long ago recognized the need to preserve areas of primitive country for the enjoyment of wilderness recreation. Leon Kneipp, for many years Assistant Chief of the Forest Service in charge of Lands, and the late Aldo Leopold and Bob Marshall who were also members of the Forest Service, were among the outstanding pioneer champions of wilderness area preservation. Nearly a quarter century ago, in 1926, the Forest Service took its first positive steps in this direction by setting aside several areas administratively. Among these earliest designated areas were the Gila area in New Mexico and the Superior in Minnesota.

In 1929 a regulation was promulgated by the Secretary of Agriculture, authorizing establishment of areas within the National Forests to preserve primitive conditions. A number of areas were set aside under this regulation. They were called "Primitive Areas."

This regulation was superseded in 1939 by three regulations which defined more comprehensively the nature of wilderness areas, and the methods for their establishment and administration. The regulations provide for public hearings, if requested, prior to the establishment of an area, or any change of boundaries. One regulation authorized establishment of "Wilderness Areas" by the Secretary of Agriculture, following 90 days' public notice. A designated wilderness must be at least 100,000 acres in size. The regulation calls for preservation of primitive conditions of habitation, transportation, and environment within the areas. No roads, no timber cutting, and no commercial uses are permitted.

Similar requirements are provided for the establishment of "Wild Areas" under a second regulation, except that Wild Areas can be between 5,000 and 100,000 acres in size, and they can be established by the Chief of the Forest Service. The third regulation, providing for "Roadless Areas," is slightly less restrictive. Limited, regulated timber cutting, and the construction of temporary roads may be allowed.

Improvements are limited to trails, essential fire protection developments, and sanitary improvements at camp spots where necessary. Recreational uses are mainly hiking, riding, camping, mountain climbing, nature study, and just plain wilderness enjoyment. Hunting and fishing is allowed under State laws. Regulated grazing may be permitted. In general, uses of these areas are limited only to those consistent with the primary wilderness values.

Today we have a total of 77 designated wilderness, wild, and roadless areas in the National Forests. They cover in all some 14 million acres, an area larger than the whole State of Connecticut. The total

area thus preserved is approximately eight percent of the land area of the National Forests. All of these areas are west of the Mississippi except the three Roadless Areas in Minnesota.

In the Eastern States, the lands acquired for national forest purposes were in most cases no longer of primitive character, and there are no areas of sufficient size to be formally classified as Wilderness or Wild Areas. A number of smaller remnants of primitive forests in the National Forests of the Appalachians, Alleghenies, and the White Mountains, however, are being maintained under special designations for the preservation of their unique values.

In addition to the 14 million acres of specially designated wilderness areas, there are other vast areas of National Forest land that are largely wilderness in character and would be thought of as wilderness by most people. The Forest Service recognizes the natural and scenic values in all these lands, and takes account of these values in its multiple-use management of the National Forest resources. On those areas managed for timber production, the selective or partial cutting systems required in the harvesting of timber assure a continuous renewal of natural forest growth. Most National Forest land is highly important watershed. To protect the vital watershed values a good vegetative growth must be maintained. Regulations provide for the reservation of scenic strips along all main forest highways and roads, and along the shores of lakes and streams. In several instances, notably in the Deschutes and Rogue River National Forests of Oregon, the Forest Service has gone to considerable effort to acquire private lands along highways within the forest boundaries to protect or improve scenic values.

Many tracts within the National Forests have been set aside as "Natural Areas" to preserve representative examples of native forest types in various parts of the country. The Forest Service gives special attention to maintenance or improvement of favorable wildlife habitat on all forest land in its forest management operations. National Forest regulations also provide for the setting aside of "Vanishing Species Areas" to protect species of plants or animals in danger of extinction. All of these things, in addition to the establishment of 14 million acres of specially designated wilderness area, I think, are evidence of the Forest Service's interest in protecting scenic and natural values.

And I think it can be said that we have had notable success in protecting the wilderness area system during the past 20-odd years since the establishment of these areas began. The line has been held against numerous pressures. For example, a threat to the unique values of the Superior area in Minnesota was recently met by an Executive Order restricting airplane travel into that area. At Lake Solitude in Wyoming, all conservation agencies rallied to help protect this area when a proposed reclamation project threatened it. In the case of the San Gorgonio Primitive Area in Southern California, the Forest Ser-

vice was required to weigh the relative public values of the area for wilderness and for development of winter sports. The wilderness values appeared to be the greater and wilderness it remained. In any future conflict in land use, the question will likewise be decided on the basis of the greatest permanent public interest.

There have been a few reverses. The 30,000 acre Mount Shavano Wild Area in Colorado was lost because mining developments and the necessary access roads destroyed its wilderness character. We have recently been forced to permit a 15-mile road to go into the Superstition Wilderness Area in Arizona to make a small ranch accessible. This has just about cut the area in half.

There have been a number of boundary adjustments. The original classifications made in the early '30s were sometimes based on inaccurate maps and in unsurveyed country. Most of these adjustments therefore might properly be called paper corrections, in that the areas shown on the maps were not actually the land intended to be wilderness. Also our zeal in some of the early classifications led to the inclusion of some area that was not justified for wilderness purposes.

The total area eliminated in these adjustments has been less than a hundred thousand acres. At the same time, however, new portions have been added to existing areas; and since the War three new areas have been established—the Kalmiopsis and Gearheart Mountain Wild Areas in Oregon, and the Gates of the Mountain Wild Area in Montana. So actually there has been a net gain in designated wilderness area of some 50,000 acres. All in all, I think we can say that the wilderness area program is quite healthy and going strong.

I must point out, however, that there are three real dangers to the program. One of these dangers might be illustrated by the Mount Shavano area which I mentioned a moment ago. All of our wilderness areas are in lands withdrawn for national forest purposes from the public domain. That means that these areas are subject to mineral location under the U. S. Mining Laws. Under these laws any citizen may locate a mining claim upon discovery of mineral sufficient to justify a prudent man in the further expenditure of time and money. Upon doing $500 worth of work, a valid mining claim may be patented. Also the mining claimant is entitled to reasonable ingress and egress—and that means roads, and roads mean the end of wilderness.

It is easy to see what a mineral discovery and a commercial mining development could do to a wilderness area. Many claims might be located and patented, and even if minerals were never developed the claims could be used for other purposes or the timber could be logged off. Once a mining claim is patented it becomes private land and can be used for any purpose. There is no provision for return of the land to national forest status if the mining claim proves of no value.

The mining laws date back to 1872 when it was the policy of the

United States to give away lands lavishly to encourage settlement and development. Those days are gone. The crying need today is for conservation. Public lands today should be managed for the conservation and wise use of their resources in the permanent public interest. So far as mineral developments on public lands are concerned that could be accomplished by a mineral leasing law instead of a law allowing patent—by a procedure that provides for the weighing of all public values before a lease is granted, and that allows the agency in charge of the lands to attach such conditions to a lease as may be necessary to safeguard other values.

The second major problem has to do with large water impoundments. Such projects may be planned for development on National Forest lands, including wilderness areas, without the consent of the agency responsible for administering those lands. There is, at present, close cooperation between the Department of the Interior and the Department of Agriculture in such cases. We have just received a letter from Secretary Chapman which promises even closer cooperation.

Water control projects and mineral developments are important to the United States—and so is wilderness. In each case the fate of Wilderness should be decided on the basis of the greatest over-all public interest. Perhaps the real need is to provide that conservation values are weighed in the initial considerations rather than after all plans for a project are made and publicity favorable to it has developed.

The National Forest Board of Review, an advisory council of private citizens, recently made a study of problems affecting the security of the wilderness areas. Its report said:

> To maintain the primitive character of these areas, it is essential that other uses aside from protecting an essential water supply or possibly limited grazing be prohibited unless it can be shown without a shadow of doubt that the proposed use is in fact paramount in the public interest and welfare. In case proposals are made to use one of these areas for other purposes, it seems to this Board of Review that it would be in the public interest if the Secretary of Agriculture, who is responsible for the care and maintenance of these wilderness, wild, and primitive areas, were to be given the authority to approve or disapprove such proposals.

A third real danger is with the private land within many of the wilderness areas. This private ownership includes old homesteads, abandoned mining patents, and railroad grant lands, developed as stock ranches, dude ranches, airfields, resorts, and what not. Common law and the laws of the various States, as well as the basic law under which the National Forests are administered, all properly guarantee the owner access to his private lands. That means roads. The owners cannot be prevented from doing things on or with their lands, if they choose, that might be detrimental to wilderness values.

A wilderness area is vulnerable as long as it is shot through with private land holdings. This is true not only of wilderness areas but of National Parks and all other public conservation lands. A whole bookful of new laws wouldn't fully protect them. It would be next to im-

possible to prevent ingress and egress or to control the uses of these lands so long as they remained in private ownership.

The only answer is for the Government to acquire these lands and remove the threat. They should be purchased through voluntary negotiation whenever possible, but by condemnation if necessary.

These major threats to the wilderness, then, can be eliminated by action along three lines:

1. New legislation relating to mining claims.
2. Provision for full consideration of conservation values before a water control project is planned.
3. Appropriations for the acquisition of the private lands within the wilderness area boundaries.

If these steps are taken, I see no other serious dangers to our wilderness area program. Some further adjustments in boundaries of existing areas may be necessary. The Gila area in New Mexico, the North Absaroka and South Absaroka in Wyoming, and the Idaho and Selway-Bitterroot areas in Idaho are in need of careful consideration and study to determine the most appropriate boundaries. In all of these adjustments the Forest Service will take full cognizance of wilderness values and all other values to determine which are of greatest public importance.

In the final analysis, the wilderness program must be developed in relation to other resources and uses of the land. I believe we would jeopardize the whole wilderness program if we tried to establish or maintain a wilderness area, for example, on ground that contained large and valuable mineral deposits that would be needed by the United States. Wilderness must stand on its own merits in a full and honest appraisal of all values.

But we in the Forest Service believe, as John Muir said, that "Wilderness is a necessity," . . . that "Everybody needs Beauty as well as bread . . . places to play in and pray in, where Nature may heal and cheer and give strength to body and soul alike."

The Forest Service considers wilderness as one of the important resources of the National Forests. We also recognize it as a resource that is limited; and one that requires relatively large areas of land if it is to be maintained. Much of the remaining true wilderness in this country is within the National Forests. The Forest Service therefore must accept the responsibility of providing and maintaining much of the wilderness that the people of this country will need.

With the needed safeguards that I have mentioned, with the vigorous watchfulness of conservation organizations such as this, and with the support of the public, I have no doubts whatever that the wilderness program can go forward and that representative areas of wilderness can be maintained for all time.

The National Parks

Excerpts from statements by NEWTON B. DRURY, Director, National Park Service, August 20, 1940 to April 1, 1951.

NATIONAL PARKS—THEIR MEANING

Most of the people who visit the national parks, whether they realize it or not or whether they put it into words, are impelled to visit them because of the quest for a supreme experience. The gleam of glaciers on a mighty mountain; the shimmering beauty of a lake indescribably blue, resting in the crater of an extinct volcano; the thunder and mist of water falling over sculptured granite cliffs; the colorful chapter in the Book of Time revealed by the strata of a mile-high canyon gashed by a rushing river; the sight of strange, new plants and animals living in natural adaptation to their environment and to each other; the roar of surf waging its eternal battle with the land; the silence that hangs over the ruins of the habitations of forgotten peoples; the lengthening shadows of the towering Sequoias—these and a thousand other vivid impressions are at the heart of the experience that national park visitors travel many miles to seek. All else that they do or that we do in the national parks is incidental. If we can remember this, we can remain true to our high calling as trustees for the greater things of America.

—Meeting of American Planning and Civic Association, Washington, D. C., January 29, 1941.

FEDERAL ESTATE IN NATIONAL PARKS AND MONUMENTS

The national parks and monuments are a segment of the Federal estate that has been chosen for preservation so that this and future generations will see the untamed America that was, and understand the compelling influences that built and strengthened this Nation. We cannot lightly abandon them, or the idea that gave them being. . . . The wisdom of the Nation in preserving areas of this type is clearly evident on the American continent today as increased demands upon our natural resources are invading and forever changing the native landscape. As long as the basic law that created them endures, we are assured of at least these few places in the world where forests continue to evolve normally, animal life remains in harmonious relationship to its environment, and the ways of Nature and its works may still be studied in the original design.

—AMERICAN FORESTS, The National Parks in Wartime, August 1943.

RECREATION AND THE NATIONAL PARKS

The purpose of the National Park System is to preserve and to reveal to the public the Nation's great places of nature and great sites of history. Promotion of outdoor recreation, or modification of the nature of the areas by developments

to accommodate it, beyond the point where the character of the areas is materially changed, or their primary purposes impaired, is not in accord with national park policy. To change the policy governing the national parks in this respect might provide within them a few more "recreational areas." However, such changes would lead to undue and unnecessary impairment of natural conditions in areas that were created to preserve outstanding remnants of North America's primeval wilderness for the enjoyment and inspiration of ourselves and future generations. These would increasingly become centers for kinds of outdoor activity that are already being provided for elsewhere, or can more appropriately be provided on lands of lesser caliber.

The point may be made by some that without disturbing the integrity of the National Park System, the National Park Service should broaden its policy to include the establishment and management of more and more recreational areas, not because of nationally significant features, but because they afford various types of important outdoor activity. This may then mean that the National Park Service should ultimately go into the business of providing local mass recreation.

There is not as yet a general policy that makes it the province of the National Park Service to administer local recreation. I personally hope that there will not be. I should deplore the National Park Service developing into a glorified playground commission. To put an appreciably larger burden upon the National Park Service by materially increasing its participation in local mass recreation would be bad for the primary national park areas, for it would tend to dilute the energies of the Service and to lower national park standards. It would be bad for local recreation because it would tend to confine it to a rigid federal pattern, instead of allowing it to develop, as it has in the past, from local aspirations and according to local conditions.

All this does not mean that there is anything in national park policy that precludes the National Park Service doing its full duty by local recreation. Under existing law, whenever Congress provides the funds, the National Park Service by authority of the Park, Parkway and Recreational Study Act can cooperate with the States, upon their request, in helping them to plan their park and recreational systems. A small appropriation is available now for this purpose and, if it is the will of Congress, the Service can organize to undertake this work, as it has done in the past. With proper stimulus to the States and communities, with encouragement for them to stand on their own feet rather than to become dependent upon a federal bureau, more, rather than less recreational areas should be provided throughout the country. For local resources are large, and local enthusiasm and local pride are boundless.

The National Park System, standing at the apex of the park and recreational program of the United States, should be based on quality rather than quantity, upon national significance rather than local needs or local pressures. The superlative areas in this System should be the primary concern of the National Park Service. By devoting its strength and talents to the exacting tasks and problems

that this System involves, keeping its relation to local recreation an advisory one, and its leadership based on precept and example, the National Park Service can be of its greatest use to the American people.

—"*What Changes in National Park Policy Would Make the Parks More Useful to the People and Provide More Recreational Areas?*" *United States Department of the Interior Post-War Resources Institute, Washington, D. C., November 5–9, 1945.*

Dams in National Parks

The issue in this hearing is larger than that of building Echo Park Dam in Dinosaur National Monument. It is this: Shall we or shall we not turn away from a Federal policy, based on law, that each year has grown stronger and clearer ever since 1872, when Congress set aside Yellowstone National Park for the benefit and enjoyment of all the people.

Today the National Park System, containing 175 parks and monuments and related areas, under the basic act of 1916 and many other acts, represents a clearly defined type of land management, the object of which is to preserve unspoiled for public enjoyment the great places of beauty and wonder in America. Only a small fraction of our country—7/10 of one percent of the land in 48 states—has thus been set aside. These areas are an essential part of our culture and of our way of life. That this idea has had increasing popular support is amply proved by last year's visitor total of nearly 32,000,000. Many foreign countries are studying our national parks as the ideal in scenic, scientific and historic conservation.

The Nation, through its Congress, has committed itself to a policy of inviolate protection of the National Park System. Again and again attempts have been made to invade the parks and monuments with commercial developments and thus impair or destroy their beauty and interest. Again and again these attempts have been successfully resisted. It must seem strange to the many conservation organizations represented here today that the National Park Service, charged by law with the protection of these areas, is so continually put on the defensive. It seems to them, I am sure, that the burden of proof should rest squarely on those who propose the invasion of a national park or monument so as to defeat its purpose; that they should be required to show that there is compelling need for this drastic step, not from a temporary and local, but from a national and long-range standpoint; and further, even if there is compelling national need, that there are no alternatives.

Here is one of the great places of America, set aside in accordance with law and American tradition, so that the people may enjoy it for all time. There is no other place just like it, but there are other places where the necessary dams may be built. This being the case, the despoiling of Dinosaur National Monument would be a dangerous precedent and would be a step backward in a great national program. It surely is the duty of the National Park Service to point this out with all the emphasis it can command. And it is heartening to hear

from so many all over the United States, who are moved by no motive other than the Nation's good, that they take the same stand.

—Shall Dams be Built in Dinosaur National Monument? Public Hearing held in Washington, D. C., April 3, 1950.

National Parks in Wartime

It is true that World War III, if it comes, will undoubtedly assume a different pattern from World War II. Nevertheless, I feel that the great body of experience that we gathered in the last war will stand us in good stead in protecting the national parks from needless destruction or invasion in any war that may be ahead of us. The pressures are already beginning to be felt; and with the formula that we have outlined as the result of our experience in the last war, we have thus far been able to deal with them in orderly fashion. The Secretary was much impressed by the detailed history of our experience in dealing with such pressures in World War II. He has assured us that we have his firm support in fending off unnecessary invasions of the parks under the cloak of war necessity. As shortages occur, undoubtedly moves to open the meadows of the Western parks to grazing and the forests of the Olympic Peninsula to lumbering will be revived. We hope that by careful and patient analysis of each demand with the military authorities we can explore all alternate possibilities and maintain the principle that the national park areas should be violated only when acute national need requires it and there is no feasible alternative. In the last war, we had a threefold objective: (1) maintaining intact the properties in our care, (2) keeping a reasonably well-rounded basic organization, capable of being expanded to meet our needs when normal times returned, and (3) preventing the breakdown of the national park concept. Although in World War II over 2600 permits for various types of war use were issued, we emerged with the properties virtually intact. We had an organization which functioned throughout the war with meager resources, far from the base of normal government operations, but nevertheless with efficiency and good morale. Moreover, the national park idea was maintained and I believe is stronger than ever today in the minds of the American people. In war or in peace the national park areas have their proper and proportionate place in the life of America, and we must exert ourselves to gain recognition of that fact.

—20th National Park Service Conference, Yosemite, October, 1950.

Our Vanishing Wildlife

ALBERT M. DAY, Director, Fish and Wildlife Service, Department of the Interior

IT IS indeed a pleasure to participate in this interesting panel "Defending our Scenic Resources." The topic which has been assigned me "Our Vanishing Wildlife" is most timely and provocative. The wildlife of our forests and fields, the fishes of our streams and coastal waters, the living things of the out-of-doors are one of the heritages of nature given to the people of the United States more than to any other

Nation on earth, and in some ways we have been as profligate and wasteful of our wildlife as we have of our forests and our soils.

I hate to be classed among the pessimists but sometimes it is difficult to be very optimistic about the future of some of the species of wildlife that we consider of great importance in this whole wildlife management picture. For some species the situation is good. For instance, in many States deer are no longer a problem as to production; rather their numbers have increased in some places to the point where they are eating themselves out of house and home and the problem is more one of keeping them down and giving them proper management than it is to increase their numbers. One introduced species, the pheasant, is doing very well in the United States, probably because it has learned throughout the generations the knack of fitting its needs in with the requirements of man's agricultural pursuits. For others the prospects, when we look ahead 50 or 100 years, are not very bright.

One of the reasons for worry in this whole field of wildlife management is the constantly increasing interest of our folks in the outdoor sport of hunting and fishing. The number of folks who go afield each year now is about double what it was only 10 short years ago. Last year there were about 15½ million people who bought fishing licenses, about 12¾ million who bought hunting licenses, and 2 million who bought the $2 duck stamp that is required for those who want to participate in the sport of hunting waterfowl. Many of these are duplicates, but when we balance those off against the youngsters who may hunt and fish without licenses, we still have a tremendous number of folks in this country who want to participate in hunting and fishing.

But wildlife is not for those who would take it with rod and gun alone. It is for everybody. Think of the other millions of folks who thrill to the shooting of a bird or an animal with a camera rather than a gun. Can we measure the joy of the youngster who watches a mother robin feed her young in the spring or who learns some of Nature's secrets from a bobwhite's call? Can we ever adequately assess the inspirational value to Young Sprout as he watches a baby rabbit or a tiny chipmunk learn to dodge the hawks and owls or the foraging pussycat? These are values that cannot be measured in dollars and cents. These are the values that must be preserved for future generations of youngsters who will also want to learn about the rabbits and chipmunks—for the future millions who will also want to be able to go deer hunting or duck hunting or who will want to catch a trout or a bass or go afield and study nature with a camera or a paint brush, or merely to watch, observe, and taste that satisfaction that springs from association with God's living creatures.

I said that sometimes I am a bit of a pessimist in trying to look into the future. I can't help but feel some cause for pessimism when I think about the ever-increasing human pressures and human problems

a growing and expanding Nation faces. We have no new frontiers insofar as fish and wildlife are concerned. We have already explored and exploited every stream and every lake and virtually every square mile of land there is in the country. Yet more and more people expect ample supplies of wildlife to be produced each year to take care of the needs and demands of this ever growing population of folks who want to go afield. Alongside of that problem we find increasing human needs for the production of agricultural crops, for industrial expansion, for more airports and more highways, and for more timber. Many of these needs come in head-on conflict with the requirements of wildlife. Our whole pattern of land use has changed materially since the days of our forefathers and it is changing more rapidly today than at any other time in American history.

Let's take, for example, our problems pertaining to the management of waterfowl. This happens to be one of the major responsibilities of the Fish and Wildlife Service since we have had international treaties covering the protection of ducks, geese, and other species of migrants for more than 30 years. Treaties are in effect with both Canada and Mexico because many of the waterfowl that breed from Alaska to Greenland move southward across the United States, finally wintering in the West Indies and Mexico. This is an international resource and as such is protected by the Governments of the three Nations rather than by the individual states or provinces. Each Government sets bag limits and lengths of seasons together with prescriptions on how the birds may be hunted each year.

In this country, in particular, many millions of dollars of taxpayers' money have gone into the establishment of waterfowl refuges. Some are designed for production, particularly in the northern tier of States on the breeding grounds; some are scattered along the flyways to take care of the birds as they migrate southward, and others are spread along the Gulf Coast in the southern states to provide winter feed and sanctuary.

This magnificent waterfowl refuge program, which at the present time is less than half finished, had its birth in the dry and dusty days of the early '30s when wind storms were lifting the shifting top soils from the western plains and dumping them to the eastward even as far as the city of Washington. Some of you may recall in the early '30s the reddish pall that descended upon this very city, explained by the scientists to be particles of reddish earth that had been lifted into the heavens from the plains of Texas and Kansas and later settled into the Atlantic. It was out of those dust bowl days that sufficient public interest arose to bring forth the Soil Conservation Service. It was out of those drouth-stricken days that great interest arose in the water conservation problems of the great plains.

It was out of the crisis symbolized by the dust storms that the

Federal waterfowl refuge program largely had its start. In those days "Ding" Darling, former Chief of the Biological Survey, visited the offices of Congressmen and Senators with his tin-cup in his hand, as he used to say, and pled for funds to begin restoring waters on the western plains. They responded, and more millions of dollars than anyone thought possible were made available. The Biological Survey, now a part of the Fish and Wildlife Service, went into those drouth-stricken States and began building dikes and dams; some of them were put across dry stream beds and were locally ridiculed because folks had given up all hopes of ever seeing water in those spots again. But the refuge program went forward. Thousands of acres were acquired outright and in the Dakotas, in particular, farmers gave free easements on their land if the Government would come in and build dams. They wanted ponds and potholes for their livestock as a source of water conservation, and if the Government would build ponds for ducks it suited their purpose just as well. Then water on the prairies was something to be greatly desired.

Elsewhere the Service moved in and bought up abandoned drainage projects. The great Horicon marsh in Wisconsin, for instance, of some 35,000 or 40,000 acres that had been drained years ago in a futile attempt to farm it. Peat fires destroyed much of the bottom and the soil was too soggy to ever be suitable for farm land. Now the State of Wisconsin and the Fish and Wildlife Service are jointly restoring it to the condition that the good Lord intended it to be in the first place. The great Mingo swamp in northeastern Missouri had been drained years ago and a succession of farmers had proven to their satisfaction throughout the years that they could not believe the rosy promises of the drainage promoters. The great Mattamuskeet Lake in North Carolina, some 50,000 acres in a natural sump, had actually been pumped dry in a huge drainage scheme but this had also gone by the board and was returning to its original state. Now it is one of the finest waterfowl refuges along the entire Atlantic Coast. Numerous other ill-advised drainage projects have since the early '30s been acquired and restored with funds provided by the Congress and by the sportsmen through their contributions to the duck stamp fund. To date the Federal Government and the various State fish and game departments have been able to restore and improve some 4½ million acres of marsh lands for waterfowl, muskrats and other aquatic-loving forms of wildlife.

But because of changed conditions in our National economy other situations have altered also. Wildlife interests are still acquiring and restoring marshes as fast as funds become available, but it looks as though in the over-all picture we may be losing ground because marsh lands are now being drained faster than we can restore them. Under present laws it is possible for farmers to receive benefit payments from the Production and Marketing Administration in the Department of

Agriculture for soil improvement practices. This includes the drainage of marshes to provide additional pasture or additional farm lands on which to grow additional crops. Almost all of this drainage is being done on privately owned lands, but the payments for soil improvement practices carry a substantial portion of the cost so many farmers are encouraged to undertake drainage which would not be the case if it were not for these incentive payments. It is estimated that almost 6 million acres have so been drained since 1942.

I must emphasize that the great bulk of 6 million acres that I have mentioned are by no means choice waterfowl areas. Many of those areas have little use for wildlife. The point I am trying to make is that the over-all National trend toward agricultural drainage, if it continues at its present pace, is bound to take out of production much of the privately owned nesting areas unless a better correlation between wildlife and agricultural interests can be effected. Many highly important wintering grounds in the south are likewise being threatened and progressively reduced through drainage of various sorts.

However, considerable progress is being made in certain places towards protection of species that within recent years have faced total extinction. On the Aransas National Wildlife Refuge on the Gulf Coast is concentrated each winter the total known population of whooping cranes on the North American continent. These numbered 36 in the winter of 1949. If you have read the recent article in LIFE magazine, you may see where there is a chance that the number will be slightly increased in the very near future because we have a pair, captive on the area, and the female laid an egg that has since become world famous. Back in the early '30s when Aransas was acquired there were only 13 cranes wintering on the area. Now, small though the numbers may be, there are three times as many as there were then.

The trumpeter swan is another magnificent American species, a bird that recently appeared doomed for extinction. Only 73 were known to occur on Red Rock Lakes and vicinity in southwestern Montana back in 1935; 451 trumpeters were counted on Red Rock Lakes last fall. In addition we have captured the young of the trumpeter swans over a period of the past several years and have transplanted them to other wildlife refuges in Oregon, in Nevada and Wyoming. So the trumpeter swan is coming back.

The California condors are in precarious situation at the present time and what to do for them is a serious problem. There are probably not more than 60 of these magnificent birds and they are confined to the Los Padres National Forest in California, in a sanctuary area set aside by the U. S. Forest Service. But at the present moment this sanctuary is endangered because of a very definite drive by certain interests to exploit this section for oil even though the field is not at all likely of production according to advice which I have received from

some geologists. If the area is over-run with oil workers there is grave danger for the survival of the California condor.

Another unique species that is sorely threatened is the diminutive key deer living on the keys in the extreme southern tip of Florida. Lands that are now being considered for industrial development in a rapidly expanding Florida economy carry the total population of this particular species of deer, estimated at between 30 and 50 individual animals. A bill is now before the Congress to authorize the acquisition of lands for the perpetuation of these animals, but because of the increasing prices of the lands for other uses, I would hesitate to predict the outcome of the present effort to perpetuate the key deer.

The ivory-billed woodpecker, the largest of the woodpecker family, is probably near its last days. There may be 6 or 7 of these birds still left but for how long no one can say.

I told you that sometimes I feel a bit pessimistic and what I have just recited gives me reason for that attitude. Yet there are some rays of hope in the picture as it changes from year to year. Even though our complex civilization and the diverse interests of many different segments of our population cause inevitable conflicts, we are beginning to see some ray of hope in this matter of agricultural drainage and other uses of our waters. Many conservationists assert that we now have no National water policy. The highest use of water by most state laws is considered to be for agricultural use or domestic purposes, for transportation, and for industry. Fish and wildlife are not legally recognized as a public benefit by most laws. Perhaps with the combined energies of all of the conservation groups, the situation may stand a chance of improvement.

The Hoover Commission on the reorganization of the United States Government recommended an over-all appeal board which would be above individual Government agencies and where cases of conflict in water use might be heard and decided. Recently President Truman established a Water Resources Policy Commission, and all agencies having an interest in this problem are now preparing material for this Commission. Out of this we hope may come some means of improving the situation.

I want to emphasize that I am not criticizing any individual bureaus or departments when I describe some of the conflicts that I have mentioned because those bureaus and departments are carrying out functions that are entrusted to them by the Congress as representatives of diverse public interests. The conflicts that we do find arise out of the conflicts of the needs of various groups of folks in this great and growing Nation, and the more we as a Nation mature the more intense will some of these problems become. The establishment of an over-all review board responsible to the Chief Executive and the Congress seems to be the most sensible approach to this complicated problem.

*The following papers were delivered at the luncheon sponsored by the Committee of 100 on the Federal City of the American Planning and Civic Association and the American Institute of Architects.

150 Years of the Federal City

MAJOR GENERAL U. S. GRANT, 3d, President, American Planning and Civic Association, and former Chairman, National Capital Park and Planning Commission, Washington, D. C.

I. PROLOGUE.

It is not possible to consider the present problems of our Nation's Capital without some background of its history, especially in this sesquicentennial year and I am tempted to ask you to look backward with me for a few minutes to its beginnings and to the major steps by which it has come to be a capital among capitals, a focus of world events.

To me it seems of rather special significance that before the white man settled in this region it was already an Indian industrial area. In 1608 John Smith with 14 companions ascended the Potowmack, as he wrote it, in an open boat, and found "villages surrounded with cornfields and teeming with life." Indeed, Potomac in Algonquin means "something brought," or "where something is brought," that is, a trading place.

Fortunately, in purchasing land for our park system, it has been possible to acquire two sites of old Indian industries: Soapstone Valley where they made domestic utensils out of the soft local stone, and Piney Branch Valley where some of the old flints can still be found of which they made weapons and cutting tools for trade with their settlements along this part of the coast.

A later visitor, before the white settlements started, Captain Henry Fleet, described the future Federal District: "This place without all question is the most pleasant and healthful place in all this country, and most convenient for habitation, the air temperate in summer and not violent in winter. It aboundeth in all manner of fish. The Indians in one night commonly will catch thirty sturgeons in a place where the river is not above twelve fathoms broad. And as for deer, buffaloes, bears, turkeys, the woods do swarm with them, and the soil is exceedingly fertile."

Once immigration began tidewater Virginia and Maryland soon became relatively populous and prosperous colonies. Within the confines of the future District one may note the town of Alexandria (1748), outgrowth of a public tobacco warehouse (1730), and the village of Belhaven, later so closely associated with George Washington. From here General Braddock started on his ill-fated expedition (1775), and it is generally believed that some of his troops landed at the mouth of Tiber Creek, near the site of the old Naval Hospital, to start on their

march north. Georgetown (1751–1789), west of Rock Creek, is now a highly appreciated historic part of the city and Hamburg was located in the area now largely occupied by the George Washington University. Here some historic houses and a few public buildings are still standing. Carrollsburgh in the peninsula between the Eastern Branch of Anacostia River and the Potomac, survives as a populous part of Washington.

Finally, after much discussion over a period of years, the Congress of the new Nation decided by the Act approved July 16, 1790, to accept the cessions offered by Virginia and Maryland for the new Capital.

II. ACT I. 1790–1802.

President Washington and the Landowners met in Old Stone House, 3501 "M" St., 30th March 1791, probably Suter's Tavern.

The bargain there made is remarkable in many ways, not only because the landowners gave the Federal Government the right of way for all streets and every alternate lot, but also because they agreed that the land for public buildings was to be acquired for £25 an acre. The landlords further agreed to accept the President's prescription "for regulating the materials and manner of the buildings and improvements generally in the said city or parts thereof for convenience, safety and order." This architectural control was abandoned by President Monroe in 1822 and it has since been possible to recover it in the very limited extent by the Shipstead-Luce Act of 1930. To make the plan of the new Capital, President Washington with his usual discernment selected Major Charles L'Enfant, a French engineer who had volunteered for service during the American Revolution.

Of George Washington's visits to Georgetown, it is said: "The first time was when he came up the river in a boat and landed at the lower bridge at the foot of K Street North, and stopped with his nephew, Thos. Peter, Esq." The last, it is thought, "was in the year 1789, when he crossed the Potomac in a ferry-boat near the Acqueduct Bridge. On each side of Water Street from High Street, Georgetown, to the bridge, the citizens were ranged on either side while General Washington walked between them uncovered and bowing to the people as he passed along." Hines recollected that the Georgetown College boys, who were formed in line on the north side of the street, "dressed in uniforms consisting in part of blue coats and red waistcoats," presented a fine appearance and seemed to attract the attention of the General very much. "The General was received with salutes by the Volunteer Companies of Georgetown, and we find that he made the natural impression of "a very large and tall man."

The Corner Stone of the Capitol was laid September 18, 1793, that of the White House October 13, 1792. City planners should note with interest that George Washington wrote Thornton June 1, 1799, it had

always been his view, "that no departure from the engraved plan of the city ought to be allowed, unless imperious necessity should require it, or some great public good is to be promoted thereby."

A venture to which Washington devoted a surprising amount of attention and time was his Potomac Canal, which was designed to facilitate the passage of boats by the Great Falls, Little Falls and other unnavigable parts of the Potomac, so as to provide a water route for exchange of trade between the Atlantic seaboard and the interior northwest Territory. Later this purpose was successfully effected by the Chesapeake and Ohio Canal, which has been added to our park system in recent years and which was superseded by the Baltimore and Ohio Railroad. However, George Washington's will left 20 shares of the canal stock for the endowment of a university in the Nation's Capital "to which youth of fortune and talents from all parts thereof might be sent for the completion of their education in all branches of polite literature;—in arts and sciences,—in acquiring knowledge in the principles of Politics and good Government." Hence the George Washington University, 1821.

The Act approved April 23, 1800 ordered the executive departments to move, so as to arrive in the new Capital by June 15, 1800. John Adams arrived June 3, 1800 at Union Tavern in Georgetown. It is reported that President Adams took part in a bucket line at a fire in W. D. building, Pennsylvania Avenue between 21st and 22nd Streets.

Congress convened in the completed wing of the Capitol November 17–22, 1800. The "Washington Library" was organized in 1797. On June 1, 1801 a circulating library, "a political, biographical, historical and literary repository," opened opposite the White House on Pennsylvania Ave.

The *National Intelligencer*, the first newspaper, was started October 31, 1800 by Samuel Harrison Smith. Mrs. (Margaret Bayard) Smith's "First Forty Years of Washington Society," is an interesting account of her life here then.

The Commissioners appointed by Washington were in time superseded by town government and one commissioner for Federal property, which latter was taken into the Interior Department when founded in 1849.

III. ACT II. PROGRESS INTO OBLIVION (1802–1850).

After Washington's death, Jefferson's interest in the new city continued and his contributions to its development were many. He was particularly distressed by the cutting down of trees, and set an example of the use of street trees in the design of Pennsylvania Avenue. He is also credited with the system for designating the streets and naming the avenues. However, the Government was poor and progress was necessarily slow, so that visiting critics found much to criticize. We

all know Tom Moore's scathing verses. Another critic described the city as "a huddle of booths, taverns and gambling houses, set around a political race-course."

War came to the new Federal City in Madison's administration. After the defeat of our militia at Bladensburg, the British took possession in 1814 and burned the new public buildings, except the Patent Office. But they did not stay long, and after a few days the President and Mrs. Madison were able to return to live in the Octagon House, now preserved by the American Institute of Architects as its headquarters, while the White House was being restored. There the enduring Treaty of Ghent was signed by Madison.

New government buildings arose—the Patent Office (1837–42), the General Post Office (1842), the Treasury (1833–55), the District Court House (1820–49). Many fine private buildings were erected.

A new type of semi-public institution, of which there are many here, made its entrance with the Smithsonian Institution in 1846. This called for development of the grounds around it on the Mall, then still quite undeveloped. This resulted in a new design for the whole Mall by Downing, an outstanding landscape architect, in which he proposed in 1848 a design entirely different from that indicated by L'Enfant. The 1901 plan insisted on a return to the latter, thus recording the change in popular styles and professional taste. On July 4, 1848, the corner stone for the Washington Monument was laid with impressive ceremonies. It was located slightly east and south of the site recommended by L'Enfant.

The invasion of the railroads also occurred about this time; the B & O built its station and tracks contiguous to the Capitol grounds and the Pennsylvania put its facilities in the Mall. This was an intolerable encroachment on the L'Enfant plan and the proper development of the city, which had to be rectified at great cost half a century later. Thanks to the influence of the 1901 Commission and the vision of Mr. Casatt, President of the Pennsylvania Railroad. This was done in an excellent and most efficient manner.

IV. ACT III. BUILDING THE CITY.

Harper's Monthly, December 1859 said: "During the last five years Washington has made amazing strides toward permanent grandeur; and already the 'City of Magnificent Distances' has become more remarkable for its magnificence than for its distances. No longer are our legislators compelled to wade through a morass in order to pass from the Capitol to the White House, and the sportsman must find his quarry in regions more remote than the Center Market, although malice asserts that some incipient Nimrods still find that the surest place to obtain their game."

"But the most essential advantage of position possessed by Wash-

ington is the salubrity of its climate. No city in America of equal age and population, perhaps, has suffered so little from pestilence. The cholera, that terrible plague, which has repeatedly scourged other cities, North as well as South, has paid only one visit to the National Capital; yellow fever, we believe, has never produced a panic; and notwithstanding the many swamps, marshes and standing pools by which the sparsely-peopled city is surrounded, the whole family of febrile diseases barely gives wholesome exercise to the physicians."

"The present inclosure around the Capitol contains only 35 acres, a space quite too contracted to permit the construction of the ornamental grounds necessary to do justice to a building which itself covers 62,000 square feet. The necessity for purchasing several squares of land adjoining the present grounds is so manifest, and has been so frequently admitted by the successive administrations, that persons owning the property necessary for the enlargement have from year to year delayed the erection of buildings, so that at this time the houses immediately surrounding the Capitol are of the commonest sort, with a few exceptions. . . It is to be hoped that the new Congress about to assemble may determine to purchase the required land; for as the matter lies, it commits a double injustice. The demand for land for the erection of first-class dwellings has been forced to seek the west end of the city, from the prospect that Congress will condemn the larger part of "Capitol Hill"; while on the other hand, the value of the property is annually increasing, and public policy would seem to dictate an early purchase . ."

Probably the greatest step forward during the fifties was the construction of the water supply system, first intended for the Federal Buildings.

But even so the young city grew slowly, the municipal and county governments set up in 1802 were unable or unwilling to shoulder the expense of needed municipal improvements, the L'Enfant Plan was forgotten except in so far as it had been crystallized by the established street system, and at the outbreak of the Civil War the National Capital was yet but a scattered village community. In 1860 the inhabitants were still dependent upon local springs for their water supply; there was no general system of sewage disposal; very few streets were lighted, and these only with oil lamps; the broad avenues and streets, mostly unpaved and in many cases ungraded, were happy playgrounds for street urchins and for domestic cattle roaming at will; and, finally, the little city parks, for which areas had been reserved from the beginning, were unimproved and neglected.

The Washington Monument, begun in 1848 with private donations collected by the Washington National Monument Society under Chief Justice Marshall's leadership, stood with only 155 feet of its height completed, a symbol of the Nation's lack of interest in its capital city.

Indeed, Horace Greeley, with his usual emphasis and readiness to

criticize, said, "Washington is not a nice place to live in. The rents are high, the food is bad, the dirt is disgusting, the mud is deep and the morals are deplorable." When a world's fair was proposed in 1870, Senator William M. Steward of Nevada opposed it, saying that "none of us are proud of this place, . . . with plenty of money and a little enterprize it might be made a city, but let us have a city before we invite anybody to see it."

During the Civil War the population had increased greatly and suddenly. Doubtless the many soldiers, politicians and business men who necessarily passed through or visited Washington during and immediately after the War, spread the news about the deplorable condition of the National Capital and helped to popularize the idea that the nation at large would have to see to its being built in a more worthy manner. The first step was the legislation obtained in 1871 by President Grant doing away with the old town and county governments and establishing a territorial government and a Public Works Commission. The first Territorial Governor remained in office for a short time only and was succeeded by his Commissioner of Public Works, Alexander R. Shepherd, whose determination and energy in getting the most essential work done earned for him the appellation of "Boss" Shepherd. In only three years he accomplished a Herculean task: grading and paving went on apace, over 121 miles of streets were paved, 208 miles of sidewalks built, grading alone amounted to 3,340,000 cubic yards, a general sewage disposal system was inaugurated, the old Tiber Creek was enclosed in a brick sewer, the Federal Government's water-supply reservoir tapped for distribution to the inhabitants at large, 3,000 gas street lamps were installed, and a Park Commission set up which started improvement of the city parks and planted some 60,000 trees in the streets, thus laying the foundation of the present street trees (now about 160,000) which, to a great extent, give to Washington its unique appearance of "a city in a park."

But all this work cost money, and Governor Shepherd assumed obligations which frightened the conservative citizens. Besides, so much work going on everywhere at once inconvenienced a large part of the population. (The disturbance of the people about DuPont Circle just now and the efforts to interfere with the construction of an underpass there, readily account for the attacks on the Shepherd regime when similar construction was in progress nearly everywhere.) An organized effort to discredit him and stop his activities resulted in none of the accusations against him being sustained, but in passage of the Act of June 11, 1878, replacing the territorial government with the present commission of three. It is interesting to note that, however unpopular the Shepherd Government made itself by its aggressive activity and rapid expenditure of funds, the work was shown to be well done and proved to be well worthwhile.

The addition of $8,000,000 to the funded debt, and the assumption of not more than $10,000,000 in less formal obligations, produced municipal improvements *which increased the total assessed value 65 per cent in five years*, in spite of the panic of 1873 and the subsequent depression, and made possible *an increase of 75 per cent in the population* between 1870 and 1890. The President was, therefore, able to say in a message to Congress that "Washington is rapidly becoming a city worthy of the Nation's Capital."

It was in connection with the act of 1878, going back to 1790 and setting up the Commission form of government again, that the House Judiciary Committee made the following too seldom noted statement: "There is something revolting to a proper sense of justice in the idea that the United States should hold free from taxation more than half of the area of the Capital City and should be required to maintain a city upon an unusually expensive scale, from which the ordinary revenues derived from commerce and manufactures are excluded; that in such a case the burden of maintaining the expenses of the Capital City should fall entirely upon the resident population."

The growth and urbanization of the Capital followed along with that of the rest of the country. Although, unplanned and somewhat spasmodic, the development continued under pressure from many leading citizens, among whom Mr. Charles C. Glover was outstanding. Rock Creek Park was bought, reclamation of West Potomac Park was started, the Tidal Basin developed, the completion of the Washington Monument taken over by the Government in 1876, the Highway Plan extended over the entire District, proposals for the Arlington Memorial Bridge were initiated, the Library of Congress built, and most important of all, the L'Enfant plan, taken out of the files and reproduced by the Geological Survey, became a decisive argument for preventing further railroad extensions in the Mall.

The radical changes in architecture during this period merit an address by themselves, as do the many prominent people who lived here—James McNeill Whistler, Walt Whitman, Mrs. Frances Hodgson Burnett, Robert Bulwer (later Earl of Lytton,) the Civil War Heroes.

The congestion of the Spanish War gave the city a further boost, and the centennial year 1900, focussed the Nation's attention on its Capital.

You know the rest: (a) The great Macmillan Commission of 1901, which considered the plan of the city as "a work of art" and recommended the major lines of its development, as well as the return to the simpler classic style for the Federal buildings; (b) The act limiting the height of buildings and the establishment of the Fine Arts Commission in 1910; (c) The removal of the railroad from the Mall, the Lincoln Memorial and Grounds, the Rock Creek and Potomac Parkway, the initial steps for the Memorial Bridge, the Grant Monument at the other

end of the Mall, the extension of the Capitol Grounds, the Corcoran Art Gallery, the National Museum, the House and Senate Office buildings.

Then the impact of the first World War: (a) The temporary buildings, the Zoning law 1920; (b) The Park and Planning Commission 1924–'26, with its restudy of the whole city plan, the adoption of a metropolitan area park system by the Capper Cramton Act, the balanced and coordinated highway and bridge systems, the adoption of a recreation and playground system; (c) The Public Buildings Commission with the 1926–'30 public buildings program, the Archives Building and Annex to the Congressional Library; (d) Constitution Avenue and Independence Avenue; (e) The World War I memorials, the Mount Vernon Memorial Highway; (f) Many new semi-public and institutional buildings, like those of the Red Cross, the D.A.R., the Academy of Science, the Pharmaceutical Association's home, the Freer Gallery, the Folger Library; (g) The Maryland and Virginia Planning Commissions; (h) The Alley Dwelling Act, 1934.

Too many things deserve mention. Time runs out.

But undoubtedly Washington's flowering period, the time of its greatest charm was the period 1900 to 1925, as the horse car gave way to the electric car and the automobile gradually took over the streets; when a ride in an open street car on a hot day was a real treat; when society dressed for dinner and was not so large as to have to break up into cliques; when parties were simple and really fun, and the most reliable way home was in a herdick; then life in our city had a graciousness and urbanity that it seems to have lost.

Does anyone here remember when some street cars bore a large sign reading:

Beautiful Spring! Birds are singing!
Flowers are blooming along
the Potomac!
Take Cabin John Car.

Of that city Thomas Nelson Page could truthfully write: "Travellers from all over the world go home today with impressions of a capital city set in a park, still unfinished, yet endowed by Nature with beauties which centuries of care would not equal and beginning to show the greatness which, designed by the founders of its plan, has, though often retarded by folly, been promoted from time to time by the farsightedness of some of the great statesmen and by the genius of some of the great artists of our generation. Yet, even fifty years ago, the place must have had a beauty of its own, a beauty of trees and gracious slopes, which must have appealed to those who, unlike Mammon, were willing to lift their eyes from the pavement to the skies.

"The Capitol, the White House, the Treasury and the old Patent Office, stood then, as now, gleaming in the sunshine, with their beautiful proportions speaking of the genius of a race of architect-artists whose

successors had not yet appeared; the gracious mansions lying in the part of the city to the south-west of the White House and crowning the heights of Georgetown, amid their noble groves, must already have given Washington a charm which made it worthy to be the capital of the nation; while below the Potomac on its course to the sea, as though resting from the turmoil of its rapids, spread in a silvery lake which has no counterpart in the precincts of any capital in the world."

V. ACT IV. A GLIMPSE INTO THE FUTURE.

"America," said Emerson in 1844, "is a country of beginnings, of projects, of designs, of expectations." It is such a glimpse into the future that we hope you will all visualize and draw inspiration from, when you look over the "Comprehensive Plan" of the National Capital Park and Planning Commission.

Fifty Years Hence in the Federal City

RALPH WALKER, F.A.I.A.; President, A.I.A., New York, N. Y.

ONE cannot understand the future unless one realizes the pace of the past. In every civilization there is a curve of growth as inexorable as fate—it begins slowly, gains fire, reaches high into the sun, and quietly succumbs to a point of fatigue—each rarely recognized by the station as it is plotted on the curve. In considering Washington and its next fifty years one may try to be a prophet, groping into the mists of the unknowable—one may look at the things urgently needed for correction and plot their possible solutions in an immediate future—one may shrug a shoulder and say it is impossible to achieve more than the present expedient—I trust one may not have to talk until Doomsday—as one asks for a social order which recognizes worth under skins of any color—under prayers of any faith. But no man ever builds better than what he knows.

It is quite possible to state simply that fifty years from now Washington will not exist—a few Roman columns, perhaps, here and there to confound the archaeologist of the far future. The forces are many to indicate that on the curve of Washington's growth, it has either now, or will soon, reach a plateau—perhaps the beginning of a declination in progress.

For example, there is always a point in the centralization of management when mere size works as a deterrent—where finally the ability to control the web of organization breaks down because of the impossibility of one man or two—or even a politburo—knowing enough to do other than create a climate of obedience through fear.

To know what will happen to Washington fifty years from now, it will be necessary to know how much more capable in management the modern man may be than was Plato's prime illustration, *i.e.* Marcus

Aurelius, or how many more years will elapse before the inevitable need for decentralized management will become so evident as to achieve actuality over the natural political desire not to change.

In contrast to political inertia, there are other forces which may change our whole concept of urban necessity. Before going, as I will, into the common ideas of decentralization, I think it worth noting that a new factor may cause Washington, especially, to become an unimportant pinprick on a map.

Just the other day a news report from England related that Norbert Wiener, a specialist from the Massachusetts Institute of Technology in the design of automatic and electronic brains, had said—to quote him concerning the future of the industrial city—"We are on the threshold of a catastrophic revolution brought about by the use of automatic machine. Unless we prepare ourselves for it, our industrial cities face a vast decentralization process and a shifting of population to rural districts brought about by unemployment—for, machinery controlled by electronic brains could within a decade completely wipe out the factory assembly line."

Shall we add to this that Winston Churchill when at M.I.T. shuddered at the possibility of the automatic brain taking over the rule of the world. Dr. Vannevar Bush wrote, several years ago, an article in Harpers Magazine describing the possibilities of an electronic "memex" —a machine capable of digesting, sorting, and synthesizing the knowledge of the world—now grown too heavy for human intelligence.

These two ideas just described, *i.e.* the failure of human management to circumscribe and solve the problems of the day and later the growing dependence upon electronic automatic devices to resolve these very impossibilities—certainly should cause a moment of serious consideration. Will a world of clerks become a world of I.B.M. monsters? Or will the mere hunting for a release from the frustration of city life still cause a further increase in today's decentralization?

In 1910, my people still owned horses, still had privies in the back yard. The women of the family still cleaned the chimneys of oil lamps each morning and in winter the ice in the water pitcher was broken for the wakening and shivering dash called a wash. Since then, the pace has been violently increased and the slow clop-clop of a few horses has become the whir of billions of horse power and the normal way of living then in small cities has become now a symbol of a new world, for the small city has become the "New Town".

But in 1990, the bombs which finally had rapidly caused the final decentralization of cities, and especially that of Washington where the august Senate had found that their togas were no protection against hot atomic waves so much more devastating than hot air—those bombs were held or dropped at will by all the irresponsible of the world, and those people who had not already left the urban centers now sought the

simple lands still left unoccupied—the struggle was great as the waves of men, their women and children, their possessions once again all contained on their backs or on wheelbarrows, spread over the land. No one who remembers the long chains of war refugees lining the weary highways of the world can ever forget the true want of pity in our modern civilization.

One—rapidly summing up man's lack of managerial ability, the development of automatic devices conquering the world like robots, his fear of destruction by the horrific agents he has created—might well ask will Washington still be here fifty years from now or, if it is, will it be much smaller and of far less influence?

Shall we return for a moment to the idea of managerial size? Are we not pretty close to the point where the centralized government begins to act as a deterrent to the real solutions of the problems within the country. The idea of one world, whether *continent-wide or universal, must first be achieved in a world more moral and self-disciplined.* In every vast organization, the "Titos" are the first signs of the crack-up. Philosophically, would it not seem better to return the leaning post of our civilization back nearer to those who lean on it—back where the intimate social corrective can be applied and so—Dr. Wiener goes on, as reported, to say— "We must prepare for this by an intelligent use of welfare until a time of stabilization occurs. We must change our judgment of value from a quantitative one to a qualitative one." When will be the time of stabilization? Shall we—with Isaiah say—"Let us eat and drink for tomorrow we shall die."

The question of quality *vs* quantity is with us always for if we consider Washington we find, that to attain quality, we should be eliminating, right now, all the ugly expedients that two wars, especially, have foisted upon us. The Navy Building, one of the most permanent of the temporary—the barracks lining the mall, and many other structures, all of which should never have been built in the first place. They were bad planning, known as such, and during a time when the growing transportation bottlenecks were all too apparent. But so strong were the forces of centralization that everything, in a symbolic sense, had to crowd to the very center of the center. We may have won wars—there is still a large question as to that fact—but we certainly ruined the Capital. The next fifty years, granting Washington still persists, should see the rapid elimination of all these war scars—the return of the land to park use, for Washington's climate needs larger lungs than most cities.

Then those Federal services which remain should spread out into the region nearer where the people live. *There should not, in my opinion, ever again be another triangle.* We must further redevelop L'enfant's original concept of Federal Departments being scatterered rather than concentrated. Nothing is more stupid than the vicious circle we find

in our large cities that land is worth more because you can put more people in it—therefore you put more people on it, so therefore it becomes more expensive.

In the next fifty years we must eliminate the slums—we must eliminate the Washington back alley which mocks our claims of humanity with its stable concept of living and devote ourselves to creating a living community of home and garden, in which is reasserted the belief in the possibility of equal opportunity for all alike. *This is the America where the illustrations should achieve perfection.*

The next fifty years, the social implications of our time and the possibilities of the good life will continue to develop along the decentralizing trends we now see in evidence. "The City" will be a region, loosely knit as to both living and commercial communities, with less and less multi-family dwellings and more life lived in the open.

Perhaps the greatest aesthetic gain in our times has been the appreciation of large scale landscape development, parkways, parks, playgrounds, and a growing understanding of the beauty of flowers.

And, if I may digress, speaking of landscaping—in the next fifty years I hope that some one will have the courage to rescue the Lincoln Memorial from the nasty lush planting around the podium of the structure. It certainly has been spoiled, smothered in richness—the greatest and worst example of foundation planting—that aesthetic curse of our time.

To return to the open city now developing, Washington like every other in this country, needs desperately the right to control the region outside the present city borders. The recent growths unless controlled will spoil every approach to the city. It is in the regional aspects of this city especially that there is the greatest need for planning and control.

Throughout the nation we have grown to accept the control of land use by zoning methods—they need to become stronger when applied, especially to the fringes of the city. Washington, just as is every other city, is being spoiled by the unplanned spread of new population—in most cases they are visible as future slums.

I have visited most of the famous capitals of the world and found no real philosophy of urban living—just cleverness—a few architectural tricks. I question some of my colleagues' admiration of "Rio", for example—so much of the modern stuff is fit only for the I.B.M. machines which I have indicated may possibly replace the clerical world in which we now live—and which replaced the craftman's work we left behind in the early nineteenth century. We have, in the western hemisphere especially, swapped the advantages of ample land for a vertical transportation system which has been swallowed whole in a gulp and as an economic solution.

Our office recently has made a serious cost analysis study of how to

house most economically a certain office force. We found—leaving land costs out of consideration—assuming the same services obtaining in whatever structure we might build *i.e.* good artificial lighting, *an absolute must*, regardless of the exterior glass area; air conditioning, etc., that a two-story building was 30% cheaper, that stairways were the easiest and cheapest way to move peak loads of work population. I will guarantee that the factors not readily measured, *i.e.* cheap land with grass and trees instead of hot pavements, will show a further saving in the maintenance costs of cooling—in better work results, in finer working conditions.

Granting that we gain in wisdom, it seems natural that we will seek comfort far from the centers of the hot pavement, the hot buildings, erected with great densities of population—and gain in economy likewise.

Washington, the Capital, fifty years from now may be several cities—but whether it is or not—it should consider the river as it has in the past a pleasance rather than the site of housing privilege for a very few—it should produce more parks—as an example of what urban beauty may be. One of the finest examples of Capital landscape scale is the great oval in back of the "White House".

I said I have seen most of the great capitals. Very few have the great scale symbolic of a great country. I prefer Pennsylvania Avenue to the "Red" Square. I prefer a traffic bottleneck to a parade ground.

Bad as it is, Washington still has its points.

However, good or bad, the city of the future is going to be so widespread as not to be recognized as a city form. I foresee, if for a moment I may assume a "gula-gula hocus pocus" attitude, people living and working in low buildings among great trees—wide areas of green rather than black top or concrete—I see the whole skyscraper idea in disrepute—I see new ghettos which house, however, only, the robots.

I visited a great copper mine recently and I overheard several conversations over the short wave radio just like this—"Calling C-14—that you, Bill?" "Yes, Jim—Busy now?"
"No, Bill, what can I do for you?"
"Well, Jim, go down to Cut A—Joe's in trouble,
needs your equipment." "On the way, Bill."
"Thank you, Jim." "O.K. Bill, we'll fix it."

If Washington is to live fifty years from now, it has got to call to the people of a free republic and get an answer. "That you, Bill?" "O.K. we'll fix it", on the level of free responsible citizenship. Otherwise, Washington fifty years from now will be a relatively small place with a guarded wall about it.

Planning in the Nation's Capital

JOHN NOLEN, JR., Director of Planning, National Capital Park and Planning Commission, Washington, D. C.

THIS is a fitting occasion to take stock of the direction in which the planning and development of your nation's capital is moving. We need to look both forward and back, consider the favorable and unfavorable trends, to seek agreement on objectives and the means for reaching them. 1950 is a good vantage point from which to view the scene.

Background Fundamentals

A few highlights of the changes of the last two decades related to people and their jobs are impressive and will point up the issues. The population for the metropolitan region, now approaching 1,500,000, has increased 114 per cent, the proportion in the District of Columbia declining from 72 per cent to an estimated 62 per cent. Even so, the District proper continues to grow faster than most central cities in the United States, although undeveloped land remaining has now dwindled to a bare 10 per cent of the total city area. Furthermore, Washington as a metropolitan area has moved from 18th to 8th or 9th place among the great population centers of the United States. It shares many of their planning problems and has others peculiar to itself.

The type of housing has undergone a phenomenal change. Of the 227,000 units built in the last 18 years, 50 per cent have been of the multi-family type. In 1930 few, if any, apartments were in the suburbs. Since 1932, largely under FHA stimulus, 42 per cent of all units built in these areas were for multi-family dwellings. More recently, we have had a resurgence of financial interest in elevator apartments relatively close in, many at densities ranging from 200 to 500 units per net acre. Regardless of type, few of even the suburban units are of sufficient size to accommodate the larger families of the post-war period. Are all these trends significant of sound growth?

Whereas Federal activities were all located in the District in 1930, now 23 per cent of federal employees work at outside locations. Since 1930, the total number has increased from 69,000 to 213,000, reaching a high point of 283,000 in 1943. These employees provide the base around which revolves the entire economy of nearly 1½ million people. One out of every 3 employed persons is normally a federal worker. For every 1,000 additional government employees brought here, 2,000 new homes are required for their families and for the service workers whose jobs the new employee creates by being a new customer.

Since the depression the policy on housing certain government establishments has been to locate the large space users on outlying sites where adequate land was available. This policy has been applied prin-

cipally to research agencies and national defense activities. No purely administrative office functions have been involved.

In the central area, authorized land acquisitions essential to protect existing investments have never been completed and the few permanent buildings constructed since the Triangle development have been so located as to leave wide areas of disorder and blight around them. On top of this the city is cursed with all the evils of congestion and unsightliness that have been created by the construction of temporary buildings for 35,000 employees in the wrong places. Inadequate space crowds another 10,000 in expensive leased buildings in and around the congested business district.

In spite of proven favorable factors for decentralization, the pressure for central locations continues, even to the extent of forcing recent conversion of the girls' dormitories in West Potomac Park to office use. The adverse effects of these policies, or perhaps it would be better to say, lack of policy, are fortunately being increasingly recognized.

Organizations for Planning

Twenty-five years ago there was no planning agency in the District of Columbia or surrounding area. April 30, 1926 the National Capital Park and Planning Commission was created, and a year later the Maryland General Assembly set up the Maryland-National Capital Park and Planning Commission as a bi-county unit for suburban Maryland. Efforts to create a similar agency in Virginia failed because the three primary jurisdictions would not agree to surrender any of their autonomy. So separate planning commissions came into being under different state enabling acts. Alexandria took the lead, creating its planning commission in 1931, followed by Arlington County in 1937, Fairfax County in 1938, and Falls Church also in 1938. Finally in 1948 a coordinating unit of considerable promise, called the Northern Virginia Regional Planning Commission was formed by joint action. This group, representing 6 jurisdictions, is now about to evolve into a planning and development agency. As yet it has no funds.

The National Capital Park and Planning Commission was given a broad charter to plan comprehensively the National Capital and its environs. Its functions outside the District were purely advisory, and results naturally depended on cooperation with the local planning units, most of which had reciprocal authorizations. Methods of securing cooperation were unspecified, and controls over federal activities outside the District were left uncertain. Nevertheless much was accomplished, though both federal and local governmental units remained completely independent to act regardless of any plans which might be drawn.

This elemental machinery for planning regionally and comprehensively has proven inadequate to the expanding needs of an interstate metropolitan region in which the activities of the Federal Government

play the leading role. One of the principal reasons is that the National Capital Park and Planning Commission is not recognized and used consistently as the central planning agency of the Federal Government through which policies having a wide influence on the development of the region are evolved. The Commission is sometimes by-passed directly or indirectly and over-all plans are not well implemented. Problems are created faster than their planned solutions. There is too little forethought given to the end results of independent actions of both federal and local governmental units in meeting their current responsibilities. In short, the national capital region has grown, like Topsy, by an unpremeditated process of laissez faire accretion until now it has become one of the most highly centralized urban communities of the country. The advantages of centralization are dwindling and basic security is a new factor with which to reckon. The necessity and urgency for defining new long-range objectives for the future of the National Capital area should be evident to all thinking persons.

Concurrent with the realization of these needs by government agencies has come a growing citizen interest in community planning, with a keen desire to participate more effectively in the process. While much of the earlier citizen organization has been on a neighborhood basis, there is a definite trend toward organization and activity on a city or metropolitan-wide basis. This was recognized by the Planning Commission in securing the organization of a Citizens Advisory Board on the Plan of the National Capital several years ago, comprising some 70 organizations. The American Planning and Civic Association's Committee of One Hundred on the Federal City took the lead in forming the Advisory Board and giving it the necessary staff assistance. Most cities with effective planning programs have found such citizen participation essential to the preparation and support of broad plans.

As we roll into the second half of the century, there seem to be five important planning issues around which to marshal our energies.

First, the reorganization of the National Capital Park and Planning Commission as the central planning agency under the sponsorship of the Federal Government, but with its membership enlarged to include citizen representation of the three basic governmental units making up the interstate planning area.

Second, the adoption of a government policy of planned decentralization or dispersal of employment centers, sufficiently definite and objective so that thorofares, transportation, local centers of population, community facilities, and open spaces can all be planned to fit into a new scheme of regional growth.

Third, agreement between planning jurisdictions on the size, density, and geographical arrangement of the urban patterns which the future governmental employment structure will induce and support.

Fourth, the kinds and extent of joint planning controls that will be

needed to reach the foregoing regional objectives in an orderly and progressive manner.

Fifth, the formulation of a coordinated financial program for carrying out key parts of the plan relating to more than one basic jurisdiction, comprehending such things as regional expressways, airports, water supply, sewage disposal, and acquisition of permanent open areas.

These are challenging issues but none too objective if we are going to have a better environment for living and not invite disaster to our way of life.

The Commission's Comprehensive Plan Report

The first of a series of 6 monographs on the Commission's comprehensive plan has gone to press and we hope will be available by July 1, when the Commission opens a modest exhibit in the Corcoran Gallery prepared with a small allotment by the Sesquicentennial Commission. Both projects have been delayed by external and internal exigencies, the latter primarily due to pressure of current work.

Last summer at the suggestion of Chairman Wurster, the Commission decided to change the format of its report and instead of a single volume, to issue separate monographs. It is also reversing the usual custom by publishing a summary report first. This report sets forth in general terms the basic principles and policies which have influenced the plan and gives salient recommendations for each important planning element. More than half of the 50 pages will be illustrative material, including multi-colored maps or plans. Folded in the back will be the Comprehensive Plan for the District of Columbia, and a map of the Regional Proposals of the Plan.

The keynote of the report is the plan for further decentralization of the government establishment. The Commission is recommending that there be no further concentration of federal employees in the central area west of the Capitol, that there be selective determination of those agencies requiring central location, and that all others needing to be in the Washington area, be located at varying distances out from the center, most of them preferably beyond the edge of the present or prospective urban fringe. Such a policy would require more specific land-use controls than present zoning plans provide. The need could be related to a regional expressway and parkway system providing communication between outlying centers as well as with the heart of the city. This plan has been in the making for several years and is based on a regional population of about 2,000,000 by 1980.

The other key feature of the report relates to the problem of redeveloping the slum and blighted areas of the city. These problem areas are defined in general terms and the land use plan for their redevelopment broadly outlined. This includes proposed density standards which analysis by our consultants, Harland Bartholomew and Associates,

shows can accommodate about the same number of persons now living in these areas, even in the densest populated sections, under a scheme of complete redevelopment. This objective could be reached with a relatively small proportion of the redevelopment in multi-story buildings and an average coverage of between 25 and 50 per cent in contrast to the present nearly 90 per cent coverage. However, we have yet to determine whether complete redevelopment is financially and politically practical over wide areas.

The District of Columbia Redevelopment Act properly required the preparation of the comprehensive plan as a prerequisite to any redevelopment planning. It was a fortuitous time to undertake such a task because many of the Commission's earlier plans had been carried out or made impractical by the tremendous expansion before, during and after the War. Thus, what is being published will be a strictly 1950 version, founded on 25 years' experience with rapidly changing conditions. It covers regional proposals related to more specific plans for the District of Columbia.

The Commission Reorganization Bill

As previously indicated, the most pressing issue in the planning of Washington at the present moment is the securing of more adequate legislation for the work of the agency of the Federal Government responsible for the planning of its expanding National Capital. H.R. 4848 and S. 1931, companion bills, the latter having already passed the Senate last year, have been designed to provide the stronger and more effective organization recommended by the Bureau of the Budget after a searching study several years ago. (The House bill lapsed in the 81 st. Congress.)

The primary purpose of the reorganization bill is to redefine the status and functions of the National Capital Park and Planning Commission. To do this, the principal changes in the existing set-up are:

1. Changing the name to the "National Capital Planning Commission."

2. Enlarging the membership of the Commission from 10 to 15; 5 ex-officio, 5 eminent citizens well qualified in city planning and 5 representatives of the basic governmental units in the area.

3. Establishing the Commission as the central planning agency of the Federal and District Governments and requiring definite procedures for consultation between the Commission and the developmental agencies in the preparation of the plan and in seeking conformance to it.

4. Extending approval of the Commission to Federal and District developments in the environs.

5. Maintenance of a 6-year Program of Public Works.

6. Transfer of appropriations from the District to the Federal budget.

Many of these provisions were the result of long negotiations with federal agencies that were affected and with the District Government.

Many compromises were made and the bill as introduced has the approval and strong support of President Truman, who stated in his State of the Union Message last January:

> *Development of the National Capital.*— I renew my request that the National Capital Park and Planning Commission be established on a stronger statutory basis. This would enable the Commission to fulfill more effectively its obligations to plan the orderly, coordinated development of the District of Columbia and nearby areas in Maryland and Virginia.

There are other improvements in the existing legislation, mostly procedural in nature. At the hearings held by the Senate and House Committees on the District of Columbia the bill was well supported and no basic opposition appeared. A year ago, the Maryland-National Capital Park and Planning Commission, with which the Commission has had close working relations for several decades, unanimously endorsed the bill in principle and urged its prompt enactment.

This spring, however, after the House hearing was completed, we learned that questions had been raised by some local governmental units as to the adequacy of certain provisions with which they were properly concerned. Conferences have led us to believe that most, if not all questions at issue can be cleared up. For example, Arlington County recently voted unanimously to support the bill with two amendments: (1) Requiring the Virginia representative to be a member of the Northern Virginia Regional Planning Commission; and (2) Authorizing financial aid for parks in the Virginia environs to the same extent as was provided in the Maryland environs under the Capper-Cramton Act of 1930.

The first amendment seems logical and should strengthen the new regional organization in Virginia. The second, the Commission has indicated it would not oppose if initiated by Virginia, participating provisions having been omitted from the original Capper-Cramton legislation in 1930 because it was not desired by Virginia authorities then.

We naturally hope that with objections removed in an acceptable manner, Congress will act promptly and pass the reorganization bill at this session. It would be unfortunate to have it delayed another year when so many questions of basic policy are in the making which will undoubtedly affect the future development of the National Capital area. It would be better, too, if the balance of the Comprehensive Plan Report, which is to be published within the year, could come out under the auspices of the new commission.

The events of the last 25 years have been a practical proving ground for evolving new and better concepts of the regional development required for your future National Capital. Imagination and vision are of course essential qualities, but plans must be practical and appealing enough to be accepted. Our greatest need today is to strengthen the governmental instrument through which agreement can be reached and action secured.

Planning in the Maryland Metropolitan Area

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THERE is an old story about a trip taken some years ago by Cordell Hull and Lewis McHenry Howe. As they travelled westward across the country, Mr. Howe looked out the window of the train; noticed a flock of sheep in the distance; and, by way of making conversation, said: "Cordell, I see those sheep have just been shorn of their wool." The then Secretary of State looked out and, after some deliberation and with the caution that only association with the State Department can give, replied: "Well, Lewis, at least they appear to be shorn on this side."

Now, not all people evaluate what they see as carefully as did Mr. Hull; seeing one side of a problem, they reach conclusions about the other—often erroneously. It is only when both sides of the situation can be viewed and sound judgment applied that the answer can be a valid one.

In no area of human activity is this more true than in dealing with the problems that have to do with the social, economic, and physical environment of man's relationship to man—particularly, if that relationship is an urban one, involving the complexities of organization and related problems, many of which are yet unanswered and unsolved. The reason why these problems are not readily solved lies in their complexity. There are not two sides to the question, as with Mr. Hull's sheep, but many facets, some of which beckon and gleam and appeal more brightly to some because of the nature of their special interest in the solution of the problem to suit their experience, background, or viewpoint.

Thus, planning for a community which deals with the organization of a dynamic, ever-changing entity finds those engaged in it forever enmeshed in problems in tension. People take an interest in what happens in a city or neighborhood—they take an interest for different reasons often along narrow personal lines. It is usually only when some moderating influence, with objectivity and the betterment of the whole community its chief concern, that a solution to the problem can be reached. Planning, therefore, is the oil poured on the seas of controversy to still the raging waves of difference and bring order out of chaos.

Considering the legal limitations usually imposed upon planning agencies, this is by no means an easy task in any community. But when the community is changing, when it is reaching out into hitherto rural areas, bringing development and new people with the speed of a lava tide, the problems are manifold and the answers are not given with a glib tongue.

The National Capital Region is such a community. There is hardly another metropolitan area in the United States where expansion of population in the past 20 years has begun to approach that in the District of Columbia and its environs in Maryland and Virginia. A possible exception is Los Angeles, which covers, according to some maps that I have seen, about half of the State of California. Even in the decade before World War II, this was true—Warren Thompson in a study made for the Census Bureau found that, in those ten years from 1930 to 1940, the Washington Metropolitan Area had increased in population almost 45 percent, compared with about a 7-percent average for the ten largest metropolitan areas in the country. The years since 1940, and particularly the post-war years since 1945, have witnessed a continuance of this phenomenon.

Because the District of Columbia has relatively little private land left for development, the major portion of the post-war push has been in the suburbs—in Arlington and Fairfax Counties, in Virginia, and in Montgomery and Prince George's Counties, in Maryland. It would be laborious to give, and harder to listen to population statistics. Perhaps one illustration can convey to you the tremendous impact that the post-war years have had on our suburban areas in Maryland. In 1940, Prince George's County, with an area of a little under 490 square miles, had a population of 90,000. It had taken the County 40 years to increase to that figure from 30,000 in 1900. By contrast, from January, 1946, until the end of 1949—just four years—in an area of 140 square miles which makes up the County's portion of the regional planning district, building permits for over twenty thousand dwelling units were issued—sufficient to house more than 80,000 people. Enough housing, for example, for all of the people in the Cities of Hagerstown and Frederick, Maryland. Most of the units are filled or will be shortly and, even accounting for those unfilled and for changes in occupancy involving intra-County movement of population, I venture to estimate that, when the Census returns for the County are in, we will find a population of over 160,000 or an increase of 70,000 in decade 1940–1950.

Rapid expansion of population and related development beyond the corporate limits of a city into suburban areas brings new and unusual problems to local governments accustomed to a slower tempo of activity. These sometimes are not even aware of what is happening until, when it is too late, there is the dawning realization that the once lovely countryside has been irretrievably spoiled by the hodgepodge pattern of unconnected, narrow streets; by main highways choked with traffic and incapable of being widened; by overcrowding and incompatible uses of land, repeating all over again the same mistakes made in the cities—mistakes which provided the initial impetus to the desire of people to get away from the cities to suburban and rural havens for better living.

Fortunately, in the case of the Maryland suburbs, great wisdom and

unusual foresight were shown by responsible leaders in the two Maryland Counties adjacent to the National Capital, when in 1927 there was established a planning area, embracing 140 square miles of the portions of Montgomery and Prince George's Counties in the path of the Capital's expansion. The General Assembly of Maryland which created this area, known as the Maryland–Washington Metropolitan District, placed it under the jurisdiction of The Maryland–National Capital Park and Planning Commission. This agency, designated as the legal representative of the State of Maryland, was authorized to cooperate and coordinate its planning and other activities and to enter into agreements with the Federal planning representative, The National Capital Park and Planning Commission.

During the past twenty-three years, the Maryland Commission's responsibilities have been added to, and its area of jurisdiction has been expanded to about 320 square miles—an area about equal to the five boroughs of New York City. The Commission has worked diligently, within the limitations of its resources and limited staff, to meet the planning and development problems of the area. There is plenty of evidence on every hand that its efforts have borne fruit. A few examples will suffice:

(1) The Park and Parkway System—In 1930, Federal legislation, known as the Capper Cramton Act, was passed, authorizing the establishment of a comprehensive park, parkway, and playground system for the National Capital. This included extensions from the District of Columbia into Maryland along certain selected stream valleys.

An expenditure of four and one-half million dollars was authorized for acquisition purposes; and, in recognition of its responsibility to that part of the National Capital area beyond the District of Columbia line, the Congress of the United States authorized that one-third of the funds be an outright grant and that the remainder be lent, interest free for eight years, to the Maryland Commission and secured by its bonds.

Under this authorization and subsequent appropriations and pursuant to certain agreements entered into between the Maryland Commission and the National Commission, representing the Federal Government, a park system embracing 7679.18 acres in Montgomery and Prince George's Counties has been planned. A total of 2034.83 acres has already been acquired and with recent appropriations 695.189 acres will be added.

(2) Highway Planning—The main roads radiating out of the District of Columbia into Maryland are State highways. The State System was developed many years ago, Maryland having been a pioneer in establishing, in 1916, a System of State Roads. For this reason, today many of them have reached a greater degree of obsolescence than those of states which built later and had the benefit of others' mistakes and experience in highway design.

Most of the State roads in our jurisdiction have rights-of-way of from 40 to 60 feet; a few have 80 feet; and very few have as much as 100 feet of width.

With a Master Plan of Highways as a guide and through the exercise of subdivision control, The Maryland-National Capital Park and Planning Commission has been able to obtain valuable areas for widening, straightening, extending, and even relocating rights-of-way. These areas are dedicated outright to public use or in the case of wide rights-of-way, reserved so that, when the State Roads Commission gets around to modernizing the road, the necessary right-of-way will be there, unencumbered and at no cost to the State.

Subdivision control, zoning administration, and building inspection

are other examples of methods used by the Commission in its task of guiding the orderly growth and development of the District.

It would be misleading, indeed, to imply by the foregoing examples that all is well and that we are smugly complacent in the satisfaction with things well done. We know of many shortcomings, disappointments, failures to achieve our objectives. Some of these failures result from lack of coordination. Mr. Nolen has told you about the proposed reorganization bill, which would strengthen the planning hand of the National Commission. An important provision in that bill is that relating to representation on the Commission from Maryland and Virginia. This will provide for liaison at Commission level between the National Commission, our Commission, and the Northern Virginia Planning and Development Commission.

Another benefit to coordination will be found in the requirement that all agencies of the Federal and District of Columbia Governments will be required to consult with the National Commission before undertaking any project or acquiring any site in either the District of Columbia, Maryland, or Virginia. The National Commission, in turn, is required (under a proposed amendment) to seek the opinion of the State regional authorities involved. At present, we have no method to prevent the establishment of a Federal or District agency, nor can we control the use or effectively plan or prepare for it.

This procedure will eliminate some practices which tend to nullify constructive efforts on the part of local agencies to formulate and carry out a sound plan.

Not long ago, a Federal agency acquired a large tract of land in Maryland in the path of an important proposed cross-county highway. Refusal of the agency to permit the road to go through has made it necessary to divert the route, lengthen it, and bring it through communities unintended for such traffic. Furthermore, the road will not be functionally the kind of facility intended in the plan.

The reorganization bill, in making the National Commission the central planning agency of the Federal Government, makes coordination by Federal agencies mandatory.

The Maryland Commission has supported the reorganization bill in principle, but it must be clearly understood that this support is in the interest of improving coordination among Federal agencies on the one hand and Federal and State on the other. There is no implication of surrender of autonomy nor the delegation of authority from an agency representing the sovereign State of Maryland to an agency of the Federal Government, thus making it in time a vestigial or vassal organization.

Coordination, however, is important and the law is an impelling force to bring it about much like the explosion a friend of mine described to me the other day. He was telling of the stove in his home which exploded

and the force of it was so great that everything was blown out of the house into the street. To convey the idea of the devastating force, he said: "It was the first time in twenty years that I've seen father and mother go out the front door together!"

So, if we need an explosion to get coordination, let's have it—because as it is the planning agencies, both the National Commission and ours, must rely mostly on advisory powers alone. It is time for planning commissions to be armed sufficiently by law to defend the plan against the encroachments of agencies of construction and individuals with influence, intent upon projects or schemes of development at variance with the plan or not in the community interest.

One tool given us recently by the General Assembly is illustrative of the kind of strengthening required to carry out the plan. Our basic law was amended to permit the inclusion in our subdivision regulations of a provision for the reservation of sites or land for public schools and other public buildings, places, and uses. This is accomplished at the time preliminary plans are submitted. In the case of schools, reference is made to the Master Plan of Schools (now in preliminary form) and, if the School Board concurs in the location of the site, it may be reserved for three years during which taxes are waived. The reservation closes at the end of three years, if acquisition proceedings have not begun.

How necessary this amendment is can be understood more fully when one reads the school enrollment figures for recent years. For example, Prince George's County's registration in 1940 was 17,745; in 1945, it was 21, 899; in 1948, 23,638; 1949, 26,964; and this year, 28,522. These figures don't mean much until you think of them in terms of school rooms, sites, playgrounds, and so on. Take the difference between 1948 and 1949 when the greatest yearly increase, amounting to 3326 students, occurred. At 33 students per room, 101 rooms are required—about ten school buildings.

This problem has been so great in our County that it has overshadowed all others. The load on the County financial structure has been so heavy that it is almost impossible to meet the need. Because this tremendous increase results directly from the impact of Federal dispersion of plants and buildings in the region, both Montgomery and Prince George's Counties are eligible for participation in the Federal Aid for School Act just passed by Congress.

Another strengthening force which would insure "carrying out the plan"—the prime objective of the Commission—is contained in the fifth of the Important Issues of 1950 raised by Mr. Nolen. This proposal would provide for a coordinated financial program to permit the undertaking of projects of a regional nature.

Reference was made earlier to rights-of-way obtained for State roads, widening or other improvements. The State Roads Commission

has estimated that, in the 80-square-mile area of the Maryland suburbs included in the Washington Metropolitan Transportation Survey, 125 miles of the total 145 require modernization. Estimated cost is about $44,000,000. The State has been spending about $1,700,000 per annum in this area; but, assuming it were raised to $2,000,000, it is evident that 22 years is too long a time to wait for highway modernization.

The answer, in the opinion of many of us, lies in the creation of a Metropolitan Works Agency with power to finance with Federal aid and construct through the appropriate Federal, D.C., or State agencies those projects of a regional nature beyond the scope or ability of local government or of any one agency to undertake. Such authority patterned perhaps after the Port of New York Authority, would provide for construction only, the projects to be selected from and in accordance with the general or master plan for the area.

The acceptance by the Federal Government of the responsibility for substantial dollar aid in the building of these projects would follow the fundamental principles laid down by the Federal School Aid Act and by the Capper-Cramton Act for Parks.

To those who might question this responsibility, it need only be pointed out that in the Montgomery and Prince George's County portions of the Regional District over 22 square miles of land (exclusive of parkways) are owned by the Federal Government. About 19 square miles lie in the Prince George's County portion of the Commission's jurisdiction.

All of this land when acquired by the United States is ineligible for taxation by the State or local government. Unlike business or industry in other communities which, through taxation, pay a great share of the cost of government and administration and services, the Federal Government pays nothing, except in some instances a comparatively small amount "in lieu of taxes." At the same time, the local area in addition to losing potentially taxable land has the impact of added travel on its roads, more population living in homes which provide insufficient tax revenue to carry themselves, more school children, and so on.

The State Roads Commission found that, in the 80-square-mile area it studies only 60 percent of the vehicles were Maryland registrants; 24 percent were D.C., 6 percent were Virginia; and 10 percent were other states. It seems, therefore, just and equitable that these facilities of importance to the region as a whole should have financial participation by the Federal Government.

These matters relating to the achievement of the plan have been dwelt upon because I believe no master plan, however well-conceived or devised, is an end in itself. In an area such as ours, where day by day new structures go up brick by brick and roads which yesterday were pastures take the enduring form of concrete, where other physical

improvements which will last for fifty or more years are undertaken, it is important that each be fitted practically and realistically into the scheme of things.

There are some aspects of community development, of course, over which we have no control. Architecture is one. Our zoning regulations embrace only those features relating to placement on a lot; distances between, and height of, buildings, etc. Our Building Code covers only the structural aspects. When you take the tour through our areas, you will see many new housing projects which have a frugality of design imposed perhaps by the necessity for meeting competition. We deplore these monstrosities. Only careful planting to obscure the harsh box-like lines can reduce to some extent the institutional-like character of many of these dwellings.

There are also old dwellings and blighted and slum areas which we must and hope to eliminate through assistance under the Housing Act.

Another ugly handiwork of man which we deplore is the signboard or billboard. In Prince George's County, these were not well controlled until recently with the adoption of our new Zoning Ordinance. Some effective means, however, must still be found to eliminate gradually the neon-lighted, flashing beckoners to death that blight our highways.

All these things, we must do and more, in the continuing effort at building a better community. We, in the Maryland suburbs, are part of the National Capital Region. Our Capital, which 150 years ago was laughed at by such as Thomas Moore, the Irish lyricist who found squares in morasses and obelisks in trees, is now the focal point of the eyes of the world. Washington is the citadel of freedom and of free men's way of living.

Today, that kind of living—the living as free men—is the subject of jeers and jives from those whose philosophy is not founded upon the simple, inherent dignity of man. Thus, what we do here is important beyond any local scope. We must make sure that, in our planning and development of this and every city, we keep in mind the fundamental purpose of building for free men and free women. Our planning and building should be uplifting; it should reflect the noble purposes of our democracy; it should be for the betterment of all mankind! With good intelligence, mutual trust, and cooperation, and with God's help, we can do it.

Planning in the Virginia Metropolitan Area

JOHN W. BROOKFIELD, Chairman,
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THE most able minds in our history have planned—planned well—only to find that the swell of development of City, State and Nation exceeded even their most brilliant reasoning. George Washington planned, yet it is not conceivable that he considered that his home, Mount Vernon, would ever be connected with this city to which he gave his name by a broad four lane highway—or that more Americans would visit his estate in a single year than the number who lived in the entire original thirteen states at the time when he became our first president.

Major L'Enfant planned—but even his active imagination could never have envisioned a built-up metropolitan area in Northern Virginia where urban community merges with urban community with scarcely a break between them.

McMillan planned in 1900. However, it is doubtful that he could have foreseen the long bumper to bumper lines of automobile traffic in Virginia waiting to cross the Potomac every work day morning and to recross when Federal offices had closed for the night, or the miles of cars on our roads on Sunday evenings returning to Washington after a day spent on the Skyline Drive or visiting amid the hills of the Piedmont Section.

The Planners of 1950 have an advantage since we can plan and at the same time help bring about the ultimate accomplishment of our plans. With this in mind permit me to bring before you the case of Northern Virginia in a general manner,—our problems and what we hope to do to solve those problems. Not many years ago the counties of Arlington, Fairfax, and Prince William had a population which was increasing at no greater rate than similar counties in other metropolitan areas throughout the Nation. They were drifting—but we can't drift in 1950. Times have changed!! Metropolitan Northern Virginia has doubled in size and more than tripled in population. In the urban area a conservative population estimate is 348,000. We must plan for a city of half million souls by 1960, and a suburban population of approximately 300,000 in the counties of Prince William and Loudoun surrounding the great City of Fairfax—the three urban communities of Alexandria, Arlington and Falls Church having by that time merged with and become a borough of the greater City.

Shortly over two years ago, the Northern Virginia Regional Planning Commission was created. This organization, of which I have the honor to be Chairman, was firmly established from its very outset. We were *not* "pulled out of a hat." We were appointed by governing bodies of the interested counties, cities and towns—the Boards of Supervisors

or the City or Town Councils, as the case might be. We were affiliated with the State of Virginia Planning and Economic Development Commission. Three members were appointed from each of the three counties involved—Fairfax, Arlington and Prince William. Three members are appointed from the three cities and towns involved—Alexandria, Falls Church and Manassas. Great care was exercised as to the nature of the appointments to the Northern Virginia Regional Planning Commission. The governing body of each county, city or town selected one member of the local planning board, one member of the local governing body and one private citizen for membership on the Commission. This system made certain that the Commission membership would have a wide variety of interests, experience and points of view.

During our little more than two years of existence as a Commission, we have studied many problems, deliberated on what we have found, and made reports and recommendations to the duly constituted authorities as to what action should be taken to solve them. In all of our activities we are constantly aware of the limits within which we must work. None of our urban communities can undergo further physical expansion without encroaching upon Fairfax County.

This is not unlike the relationship which exists between Northern Virginia and our neighbors in the District of Columbia. District authorities are not empowered to tell us how we are to handle traffic after that traffic emerges from the Virginia side of a District-Virginia bridge. Neither are we of Northern Virginia empowered to tell the people of the District how they might provide the much needed parking facilities in downtown Washington. The mere depicting of this situation as it exists, however, does not mean that inter-Northern Virginia relationships or Northern Virginia-District of Columbia relationships have reached an impasse. This delicate situation has been handled by my associates on the Commission and their counterparts in the District with both reason and diplomacy. Nothing has occurred which is apt to close the doors on cooperation either at home or across the Potomac, or to deter the growth of a greater City of Washington.

One of the planning problems facing the National Capitol Park and Planning Commission and the Northern Virginia Regional Planning Commission is adequate transportation facilities. Our road system is good but overcrowded, and while the magnificent bridge opened on Tuesday will very much relieve the situation, the foreseeable future needs call for at least two more bridges, one at Alexandria and one above the Memorial Bridge. The Cities of Alexandria and Falls Church and the Counties of Arlington, Fairfax, Loudoun and Prince William, should be considered as a unit in planning highways for Northern Virginia. The only access from the South and West to the bridges crossing the Potomac River is by means of the highways traversing these communities. U. S. Number 1, or Richmond Highway, the Shirley Memorial Highway, Lee

Jackson, the Braddock Road, Columbia Pike all discharge their load into the Pentagon road system with frequently resulting traffic congestion at 14th Street Bridge. The Lee Boulevard, the Leesburg Pike with Fairfax County's "sorrow—Seven Corners," Pershing Drive, Wilson Boulevard, Lee Highway, Washington Boulevard discharge their traffic over Memorial and Key Bridges. Chain Bridge Road, which discharges over Chain Bridge, also carries a heavy load. The Lee Jackson Highway, Columbia Pike and Telegraph Road are under consideration for improvement in the Highway Department's 10-Year Plan.

The location of another National Airport frequently comes up for discussion. I suggest a location in Prince William County, west of the Southern Railway and east of the Manassas–Centerville Road. All of the required area could be obtained with a minimum disturbance to the resident population, and it could be served by the proposed four lane highway known as the "Monticello Highway."

A very important need is a comprehensive and well planned sewerage system, including sewage treatment facilities. A joint survey has been recommended by the Northern Virginia Planning Commission for Alexandria, Falls Church, Fairfax and Arlington County to determine the most efficient and economical plan to serve the whole area, but it has not been agreed to as yet by all parties. It has some backing from the State Water Control Board.

Parks and recreational facilities are very much in the minds of our people and I request your thought on that subject, particularly to how we can obtain what is needed without money!

I am a Fairfax County man and very proud of my county, and, while I had to promote Fairfax to a city in order to get your consideration—here today—as you only plan for *City*, *State* and *Nation*—we are not in a hurry to incorporate. Fairfax is a county of 417 square miles with a large non-taxable area. Mount Vernon, Gunston Hall, the Woodlawn Mansion property, the Army holdings at Fort Belvoir, the Reformatory at Lorton, the Theological Seminary and the Madeira School at McLean are some of the non-taxable properties in the County. We consider schools our largest and most important problem—87 cents out of each tax dollar supports our schools. Pupil transportation is one of the largest items of expense. I have no figures on the subject, but I doubt if there is another governmental unit faced with the task of covering 417 square miles (a large part very thickly populated) with two to four trips a day by school bus. The same area and population require police and fire protection, ambulance and hospital service and the other usual services required of local government. The three neighboring urban communities have much the same problems, but do not have as much territory to cover.

IN THE STATES

ROADSIDES

State Responsibility for Roadsides

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Introduction

THE opportunity you have provided seems to be a most timely one, to review the latest developments concerning roadside protection,* particularly in terms of the State's responsibility in that field.

As planners or as citizens interested in planning, you are very much aware of the unprecedented volume of private construction of all kinds that is now taking place. The areas adjacent to public highways constitute a favorite location for new construction of all kinds because of the direct and convenient access afforded.

Such private development along public roads can be orderly and according to a plan that promotes safe and efficient entry and exit to and from such roads. Or it can be haphazard and in such locations and of such a design as to constitute obnoxious hazards to travel on public roads. Which it will be on our main arteries of travel—orderly and safe, or disorderly and unsafe—will depend upon whether the State exercises any public control of the roadsides and the nature of that control. Even if over-simplified, this constitutes the roadside problem.

Justification for Regulation

For many years, roadside betterment was sought largely because of aesthetic considerations. Little progress was apparent. Though a small ray of hope has emanated from several recent court decisions on the subject, the judiciary as a whole has been very reluctant to afford any substantial relief for aesthetic reasons alone. If action to date is any basis for judgment, state and local legislatures generally are not very receptive to proposals for roadside regulation having such limited objectives.

I hope we will never lose sight of the aesthetics of the roadside. But it has become abundantly apparent that if we are to make substantial progress toward roadside betterment, our objectives must be translated in terms that appeal to those who have the power of decision. A much broader base must be provided. I refer to recent attempts to delineate the roadside problem in technical engineering terms.

For example, the more intensive the roadside ribbon development, the greater will be the exposure to accidents. Vehicles maneuvering into

*The term "roadside protection" relates not only to all the development that takes place adjacent to a highway but also to the entrances and exits made necessary or demanded for these developments.

and out of roadside establishments constitute a serious menace to through traffic.

Moreover, the cumulative effects of such movements in the marginal lanes of travel reduce the capacity of a highway, i.e., the ability of the roadway to accommodate traffic. New highways are therefore needed, requiring the expenditure of additional public funds.

In addition, the stop-and-go driving that takes place where extensive roadside ribbon development exists is necessarily expensive for millions of motorists. Every stop and start incident to travel through a roadside jungle multiplies gasoline consumption, tire wear, and general vehicle tear.

A striking illustration of the economic significance of roadside control may be found in Virginia's new Shirley Memorial Highway, the final link of which has recently been completed except for a short section at the south end. Many of you probably are familiar with it. It is but ten minutes from downtown Washington, D. C. Because of its expressway characteristics involving control of access, this 17-mile freeway exemplifies the kinds of benefits that may characterize any main highway where roadside development is regulated. Traffic engineers of the Virginia Department of Highways estimate that when this facility is open to truck as well as to passenger traffic, over-all annual savings of through traffic will be 617,000 gallons of gasoline, 1,365,000 manhours of time, 1,500 tires, and 7,000,000 miles of travel. These are formidable savings of valuable resources indeed!

Finally, it is becoming more and more apparent that future improvement of highway facilities becomes very costly, sometimes prohibitive, where the roadsides remain unregulated, especially in and near cities and metropolitan areas. Highway departments have found road widenings under such circumstances so costly, that new locations have been sought, as the less expensive alternative under these circumstances.

This, then, constitutes the broader base upon which we must build our effort to improve the roadsides.

State versus Local Responsibility

It has frequently been asked whether the most effective roadside protection can be obtained at the local or state level of government.

In the past, a number of devices have been initiated by local governments. These include roadside zoning, set-back regulation, the designation of ultimate right-of-way widths, and related measures. Viewing the results obtained as a whole, progress has been far from impressive.

More and more States are seeking such legal and administrative authority at the state rather than the local levels, for a number of reasons. To start with, state rather than local objectives are served by roadside protection on the vast system of state highways which carry the bulk, by far, of the Nation's traffic. It is asserted that State

highways are under state control, and that control of the roadsides is logically a part of the State's responsibility for these facilities.

Moreover, local regulation may be frail, unstable, and subject to local partisan pressures of all sorts not in the public interest. The protection that is obtained today may vanish tomorrow.

Then too, local regulation is largely confined to the incorporated areas, with the adjacent suburban, urban and rural fringes left unprotected. Additionally, difficulties are compounded when each of a relatively large number of local units needs to be convinced of the merits of establishing roadside protection measures, with the attendant furor of enacting appropriate legislation.

It would seem altogether fitting for the state legislature to delegate appropriate authority, to protect its huge investments in the highway plant and to conserve the natural resources of the State, to its state highway department, in connection with the Federal-aid and State primary systems of highways.

Thus far, reference has been made to roadside protection measures as a whole. But there is a vast range of possibilities comprehended in this type of control, some very simple, some very complex. With your indulgence, I should like to sketch briefly some of these, particularly those which have been developed most recently and offer promise.

State Roadside Surveys

Within the last year, a handful of States* have initiated state roadside surveys through the state-wide highway planning survey mechanism. No special legal authorization is necessary, no agitation, no controversy. Such a survey is undertaken administratively by programing the roadside survey as a project and allocating a stipulated sum.

It seems to me that any roadside protection program must start with a roadside survey. Those who have urged regulation of the roadsides in the past have had to content themselves with generalizations, with assumptions, with opinions—with everything except the *facts*. It is perhaps not surprising, accordingly, that governmental authorities and legislators have been largely unimpressed by proponents of control. Comprehensive surveys of roadside conditions, at least with respect to the more important routes of travel, are needed today to provide the factual basis for desirable reform.

Most of you are quite familiar with the large body of knowledge already available on the subject of highway transportation. Roadside surveys involve the obtainment of some new facts and the correlation of these with information already known.

Surveys of the type I refer to will generally include three different classes of roadside conditions, namely, roadside culture and uses, public and private access, and outdoor advertising.

*Florida, Michigan, Minnesota, New Jersey, and Ohio.

Unfortunately, it is not possible for me to discuss with you the details of all the surveys recently undertaken. But those which are now being conducted in Michigan and Minnesota, are of the utmost significance.

The Michigan study has sought to measure the relationship between accidents, roadside features, and design elements.* The 70-mile stretch of highway that was placed under the research microscope includes many variable roadside conditions as well as design features. Heavy volumes of traffic are involved.

Two statistical methods were used. One involved the tabulation of frequency distributions of accidents, in accordance with the distance of their occurrence from each specified type of feature. Cumulative percentages within various distances were then computed from these distributions, and rate curves obtained. If accidents indicated a marked tendency to cluster about a specified type of feature, it was presumed that that kind of design or roadside feature was hazardous to highway traffic.

The other technique used was to calculate coefficients of correlation between the number of accidents and the number of various roadside and design features. If accidents and designated features were observed to have a strongly similar distribution among the segments investigated, it was assumed that those features were responsible, in part at least, for the occurrence of the accidents.

While only preliminary results are now available, these results are most significant. Most startling of all perhaps is this fact: There is a greater and closer correlation between accidents and the total of selected roadside features, than between accidents and the designated design element. In other words, as far as highway safety is concerned, the condition of the roadside seems more important than the design features of this particular highway. If this fact is further documented in future studies, we will have a new finding with which to fortify highway management in its efforts to improve the roadsides.

The Minnesota study, still incomplete, reveals similar findings.

When we begin to think of the roadside problem in these technical engineering terms, we are talking a language which will have far greater and more effective appeal than any other thus far devised. Planners have always fully appreciated fact-finding studies. I need say no more about their importance in connection with betterment of the roadsides!

Now then, let us assume that we are agreed that we must ascertain the *facts* in a particular State before we can expect any improvement in condition of the roadside. We will further agree that perhaps it is in the public interest to have remedial action taken by the State government, perhaps supplemented by local efforts. What measures offer the greatest return for the effort expended?

*Adapted from "How Roadside Features Affect Traffic Accident Experience," a Progress Report on the Michigan Study, Michigan State Highway Department, 1949.

Administrative Measures

Perhaps the simplest means available tending toward betterment of the roadside are several *administrative* measures that can be undertaken by state highway departments. No additional special legislation is required, and none of the fussing or fuming that generally characterizes a promotional campaign for such authorization. These courses of action can be undertaken administratively, generally under the existing broad authority vested in State highway departments to construct and improve highways in the public interest.

One such administrative step concerns the development of state highway department standards for private driveways or entrances to state highways. At least eight States* have formulated such standards. In most of these, comprehensive brochures are available for the use of state and local public officials and for real estate developers and property owners as well.

I should like to illustrate this practice by referring to the New Jersey State Highway Department brochure, selected more or less at random. It contains both regulations and illustrative sketches of residential and commercial establishments in both rural and urban areas. The following is but one of a large number of rules included in the booklet:

> Driveway locations for ingress and egress must be reasonable from the viewpoint of the traveling public in that no unusual hazard to pedestrians or motorists should be created, nor should they invite or compel vehicular movement in directions or locations contrary to those for which the highway was designed, neither should they invite or compel illegal or unsafe traffic movements. Driveways may not be constructed which interfere with the highway itself, its component structures or with normal maintenance operations or possible future construction.

Another significant regulation concerning future highway development is this:

> The Department may decline to issue entrance construction permits in locations which may be affected by future highway improvement, or it may issue such permits subject to future cancellation or relocation.

Additional regulations concern the protection of structures and drainage, curb depressions, drives, sidewalk areas, safety zones, installation of pipes, advertising signs, tree trimming, landscaping, and a host of related items.

It is, of course, difficult to place a specific dollar valuation on the good that is accomplished through this simple administrative expedient. But it is apparent that the savings in life and limb and the cost of travel must be considerable.

Still another measure that can be instituted administratively concerns the permit or licensing system for access to state highways. In many States, a permit must be obtained from the state highway department before an abutting property owner is authorized to establish

*California, Louisiana, Michigan, Minnesota, New Jersey, North Dakota. Virginia, and Wisconsin.

a new entrance or exit to and from a State highway. This licensing system as it now exists in some States involves the performance of a ministerial act by the State highway department, with little or no discretion exercised as to the number of access points granted, their design, or the general layout of the premises intended to be served. Planners will fully appreciate how easily such a licensing system can be strengthened and enlarged, by administrative act alone, and made much more effective in regulating detrimental roadside growth.

A single illustration will indicate the possible benefits of such an approach. A subdivider of a sizable highway frontage makes application to the state highway department for seven separate entrances to his property. Instead of granting this request without an examination on the merits, the state highway department investigates. It finds that instead of seven entrances, two well-designed entrances are sufficient, connected with a redesigned system of interior streets of the subdivision. These are suggested at points least likely to become a hazard to traffic on the main artery. A reasonable acceleration and deceleration area to the entrance might even be practicable.

Subdivision Control on State Highways

This seems a logical point at which to invite your attention to a new statute in the State of Wisconsin the objective of which is to control roadside development in the interest of safety on the highways. Section 1 of chapter 138, Laws of 1949, specifies that all land subdivisions provided for under chapter 236.03 of the Wisconsin statutes shall be so designed as to provide for the safety of entrance to and departure from abutting highways or streets and for the preservation of the public interest and the public investment in the highway plant, insofar as such provisions are reasonable under the particular circumstances.

Section 2 of the Act provides that no plat for lands abutting on a State trunk highway shall be valid or entitled to be recorded until it has been submitted to and approved by the State Highway Commission. However, in counties having a county planning board or department employing permanently at least one registered civil engineer, plats are to be approved by such board rather than by the State Highway Commission.

This legislation serves a number of different ends. To start with, it places a responsibility upon subdividers of lands adjacent to public highways to design their means of entry and exit in a manner consistent with safety on the highways.

Secondly, through the plat-reviewing mechanism, it puts the highway commission on notice with respect to new developments contemplated along state trunk highways. This advance notice enables the commission to reconcile such proposals with their own reconstruction and modernization plans for the highway facility, providing the

opportunity for keeping future right-of-way acquisition costs to a minimum.

Finally, it lodges with the highway commission sufficient discretion to require platting designs that will not unreasonably jeopardize highway travel.

This seems to be an approach that is reasonable in extent, should not arouse any substantial opposition, and can serve a useful purpose in the highway modernization program. Other States might well consider following Wisconsin's example.

Planners and Highway Builders as a Team

This law, and the approach to roadside betterment which the State of Wisconsin is taking, was evolved from the joint efforts of the State Planning Board and the State Highway Department. A similar team of planners and highway administrators was organized recently in the State of Virginia, in the form of a Joint Committee on Highway Zoning of the Department of Highways and the State Planning Board. This Committee was formed to comply with the Governor's request that the urgency of the roadside problem be brought to the attention of the citizens of the State. While results achieved to date have not been spectacular, it is believed that progress is being made toward this objective.

It seems to me that this practice, as demonstrated in Wisconsin and Virginia, of the planners and the roadbuilders joining hands in an enterprise of common concern, is an excellent one. More States should encourage teamwork of this kind on a problem that is rapidly becoming of major concern.

Expressways*

In the last several years, public authorities and private individuals have become aware of the compeling advantages of the expressway. It is elementary, of course, that the expressway is the best single answer to the problem of the roadsides. Because the access of both abutting property owners and motorists is carefully controlled, the very possibility for detrimental roadside development is eliminated.

It is not to be assumed, however, as some seem to fear, that all development adjacent to expressways is stifled by control of access. On the contrary, it might be said that *increased* accessibility with safety is provided by the express highway because of its control of access.

What the expressway does is to encourage the *orderly* development

*Expressways are now authorized by statute in 30 States, California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin and Wyoming; in one (Minnesota) by virtue of a State Supreme Court decision; and in another (Missouri) by constitutional provision.

of areas adjacent to the facility and discourage the objectionable type of roadside jungle. I need only to cite the case of the Shirley Memorial Highway to illustrate my point. Travelers on this highway will be impressed with the very intensive and orderly housing and commercial developments which flank the Shirley in Arlington County. And you will see vast projects just completed and some in progress of construction along the margins of the newly-completed sections of the Shirley in Fairfax County, Virginia.

I might mention, parenthetically, that the Bureau of Public Roads has just initiated a pilot study involving the Shirley Memorial Highway, in order to scrutinize and appraise the multiple effects of an expressway on adjacent land values and the adjacent land use pattern. I hope that it will document with facts some of the hypotheses we have had to be content with up until now.

Other Planning Aids to Highway Development

Despite the outstanding advantages of the expressway, but a very limited portion of our vast highway system can be designed with control of access, because of the expensive character of express facilities and limited highway funds. Accordingly, other expedients must be sought to improve the safety and efficiency of travel on a half million miles of main highways that cannot be established as expressways within the near future. It is on these facilities that such devices as roadside zoning, the acquisition of highway development rights, reservation agreements, the designation of ultimate right-of-way widths, marginal land acquisition, or other similar measures can result in some progress toward roadside betterment. Many of these tools have been perfected and used by planners for many years. Each has its limitations, however, and can be used only under particular circumstances.

On a recent trip through the metropolitan areas of California, I was very much impressed with the effective application of certain city planning aids to arterial highway improvement, particularly in the newer areas. Examples abound where housing developments are "backed up" to the through highway. A system of interior streets provides access to the individual residences with entry to the main highway at a well-designed entrance road at an appropriate location. In other instances, frontage roads were provided, facilitating an indirect means of entry to the arterial highway. There were illustrations of set-backs, with suitable insulating shrubbery between the structures and the highway.

Conclusion

It is indeed fitting that at this half-century mark and at a planner's clinic celebrating the sesquicentennial of the Federal City, we are able to observe that ways and means now seem available by which genuine progress can be made toward roadside betterment.

What the State of Pennsylvania Has Done

MRS. CYRIL G. FOX, Pres. Penna. Roadside Council, Inc., Media, Pa.

I HAVE been asked to report what Pennsylvania has done to further roadside improvement and protection. Two words will really serve to state our case,—"unfinished business". However, no woman could ever be expected to stop with two words,—and since I am here to speak as 'the voice of experience', and possibly help others to avoid some of the disappointments and frustrating delays which we have encountered during the past eleven years, a few details are in order.

During the 11 years the Pennsylvania Roadside Council, thru its 45 cooperating organizations, has worked to improve highway conditions, we have consistently pointed out that it is only good business sense to make highway dollars reach as far as possible and to serve efficiently those who provide these dollars! The motoring public, whose taxes provide the highways, is entitled to call the tune,—rather than the handful of selfish men who seek only to exploit the highways for private gain. Thru the years the Roadside Council has sought to convince politicos that it's only smart politics to heed the 'people's voice' rather than the wails of the outdoor advertisers and other commercial highway users who look upon the public's investment as their private bonanza. We have tried to convince our legislators that proper roadside usage was their concern, as well as ours, and their responsibility. But to date, after five legislative sessions during which we worked for the passage of a protective state highway zoning law, this vitally important part of our program must still be listed as 'unfinished business'. The lobbyists for the opposition have dug in and are firmly entrenched in Harrisburg. Any volunteer who has ever attempted to promote legislation in the public interest knows only too well what it means to come up against the 'round-the-clock' work of the well-paid, skilled lobbyist for a special interest,—whose ruthless tactics know no bounds. It's a heart-breaking assignment, and one which too few volunteers will undertake. Our only hope lies in by-passing such opposition, to find a champion in the Governor's chair, such as the cause of stream-pollution has recently enjoyed in Pennsylvania. In my opinion, 'highway pollution' can and must be stopped by the same procedure. The polluters must be restrained by law. In Pennsylvania our civic-minded people have spoken; traffic and safety experts have added their considered judgment to that of the highway planners and economists. All are united in the demand for controlled roadside usage for the sake of safety, the protection of property values, the encouragement of a valuable tourist business,—and for highway *efficiency* in general. The same is true in most other states as well. Every State Planning Board in the land is calling for a new policy in highway treatment. The American Automobile Association has called upon every state to push thru state high-

way zoning laws. The Bureau of Public Roads is appealing for state and local action to halt the senseless abuse of new and improved highways and the consequent waste of highway funds. Of course, I have long thought that a little tug on the purse strings by this agency and a deaf ear to any appeal for Federal highway assistance unless roadside protection was part of the deal, would have a very salutary effect and soon produce the desired results. At this point, any Governor with the courage to say "it shall be done",—and *mean* it—could set the pace. He would be certain of the public's acclaim, its wholehearted support, and a very special niche in the Hall of Fame! We believed that Pennsylvania would play the honor-role of trail-blazer, for 'roadside protection' was an important plank in the platform of our present Governor. But stream clearance took precedence, and "time ran out"—so we were told!—and it now remains for a future Governor to take care of this 'unfinished business'. The fact that the 1949 Legislature did authorize the appointment of a Highway Planning Commission, with a $250,000 appropriation for the purpose of an exhaustive study of the entire highway system—to be reported to the Governor and the next legislative session,—encourages hope for remedial action in the near future. This Commission, appointed by the Governor, is comprised of eleven public-spirited men, serving without compensation, and without any financial interest in road construction. Five public hearings have been held in various parts of the state so that all interested parties might be heard and their suggestions incorporated in the final report. It is unthinkable that findings of such a nature could be lightly regarded by any future Governor or Legislative Assembly.

Now a word about the much-publicized 'Pennsylvania Plan' of 'Voluntary Cooperation'. Everyone who has read the February issue of ROADSIDE BULLETIN, published by the National Roadside Council, with its complete and well-documented report on 'voluntary cooperation' in Pennsylvania, is aware of just what happened when the Roadside Council first began its intensive educational campaign to pave the way for state highway zoning. The outdoor-advertising industry quickly laid a smoke-screeen—the diverting plan of 'voluntary cooperation' for a clean-up of certain designated, especially scenic areas. The State Department of Commerce was persuaded to serve as a cooperating and sponsoring agency, and 22 such areas—covering in all but 200 miles, were selected as a proving ground for this noble experiment. The program was slow to get underway, but not so the nation-wide publicity put out by the outdoor-advertising industry on the wonderful success of their plan! 14 months after the inauguration of the program was so jubilantly announced, the results in the first area were checked. There was a noticeable improvement in the removal of small signs, and the large billboards of the General Outdoor Advertising Association. But then came the acid test,—the signs of the 'independents' remained,

and the Association frankly stated that it was up to the State to force these boys into line. Today, ten years later, all 22 areas are marked 'scenic' (with the State supplying artistic markers to designate them), but any tour of inspection discloses numberless large signs maintained by independent owners, innumerable tack signs and painted bulletins on barns and sheds. And last, but by no means least, large billboards owned by the very Association that so glibly promised to clear these areas by 'voluntary cooperation'!

But what about the Pennsylvania Turnpike, you ask, and the voluntary agreement of the Outdoor Advertising Association to keep it free of billboards? Once again the independents have asserted their independence by erecting several large billboards on wooded hillsides just outside the Turnpike right-of-way, and to date all efforts have failed to move them. The fact that the Turnpike makes up the western half of Pennsylvania's link of the transcontinental Blue Star Memorial Highway,—to honor Service men and women of World War II, has made no difference. To the owners of these boards it is of greater importance to advertise a remote and third-rate inn, or just another auto tire, than to honor our veterans. The Roadside Council has already raised the funds and planted over 7,000 memorial dogwood trees along this particular highway, and we had planned for additional plantings along the Turnpike Extension to Philadelphia. Furthermore, extensive landscaping plans were underway for the Penn-Lincoln Parkway,—the 8 mile connecting link between the Turnpike and the City of Pittsburgh. But the billboard boys moved fast in the Pittsburgh area,—buying locations along this Parkway and erecting their signs before the road was even completed. Fortunately an aroused citizenry swung into action at their first appearance and demanded of City Council that the desecration of this magnificent stretch of the Memorial Highway be stopped. And it was! A zoning ordinance was quickly passed to ban all billboards and signs from the Penn-Lincoln Parkway. But the eastern half of the Memorial Highway, Route 22,—a newly improved four-lane highway from Harrisburg to Easton,—has met a far different fate. Because of the failure of the Legislature to provide zoning protection for this highway, as recommended by the State Planning Board, the billboards immediately moved in, bringing, as always, every other undesirable roadside business and slum in their wake. Landscaping along this stretch of the Blue Star Drive, consequently, has been stopped. Memorial trees, billboards, junkyards and honky-tonks just don't mix well. And, due to the antiquated Pennsylvania law which restricts its highways to a 120 ft. right-of-way, the Department of Highways is powerless to plant out or control roadside abuses. Pennsylvania passed a limited-access highway law in 1945, but so far the howls of the commercial users of the highways have restricted the application of it. But two short stretches,—one the Penn-

Lincoln Parkway into Pittsburgh, and the other connecting the Turnpike Extension to Philadelphia,—have been attempted.

Likewise in 1945 the Roadside Council convinced the Legislature that Roadside Rests along the highways were almost a 'must' in this day and age. A stringent cost limitation was imposed however, and the stipulation that there be one to each county, so the difficulty of securing suitable locations (mostly as gifts from interested property-owners) has resulted in only 13 of these small but charming and much-used parks to date. Here again,—if the State would insure protection against the commercial exploitation of adjoining land, property-owners would unquestionably feel more inclined to contribute land for such a purpose. As matters now stand, the same interpretation of 'voluntary cooperation' previously referred to, by the outdoor advertisers is too often applied to the approaches to Roadside Rests. With the intrusion of the first billboard in the vicinity of one of these little parks, we have found, the rash of small signs, hot dog stands and quilt emporiums quickly follows; like nuclear fission!

But hope always springs anew, it seems, with groups like ours and we are now looking to our current project to do more to alleviate the highway halitosis from which we suffer than anything we have ever sponsored. A roadside beautification contest, with its challenging slogan of "WIN $1000 BY A MILE" ($500 and $250 for second and third prizes) is drawing state-wide attention from groups and individuals who are conscious of the 'highway pollution' which surrounds them and who are eager to do something about it. Additional cash prizes in sizable amounts, offered by the National 'BETTER HOMES AND GARDENS' Competition have sweetened the kitty still more for our entrants. By October of this year, when the winners will be announced as a feature of the celebration of 'PENNSYLVANIA WEEK', we look not only for a considerable and marked improvement of the roadsides in many sections of the State, but a continuation and expansion of such local efforts thru the years to come. Just a little more 'unfinished business' for the Roadside Council!

Is it being too optimistic or illogical to assume that with the fast-growing public interest in safe and beautiful highways, the better understanding of the requirements for such highways by the general public as well as those responsible for their building, that these 'highways of tomorrow' will shortly replace the ribbon slums we are now forced to endure? I think not. I firmly believe that the highways and roadsides of Pennsylvania, together with those of every other state, will inevitably receive the kind of attention and treatment that motorists everywhere are demanding. 'Unfinished business' will not be tolerated indefinitely, and Conferences and discussions such as this one today—sponsored by your effective organization, Mr. Chairman, help greatly to cut down the waiting period for us all.

STATE PARKS

The Place of Parks in the Land-Use Plan

CONRAD L. WIRTH, Assistant Director, National Park Service, Washington, D. C.

I HAVE long considered my attendance at the annual meeting of the Conference as one of the highlights of my experiences each year. It is always pleasant to renew old acquaintances at this time and to meet new members. Since the war, I have had so little opportunity to see most of you on your home grounds that this has been about my only means of doing so—like the annual Christmas card.

The subject before us is "The Place of Parks in the Land-Use Plan." What we do as park planners will have a great influence on the future of our people. I don't believe we have yet taken our proper place in guiding the future and in taking care of the present needs of our people. May I say we have been too much on the defense. Parks and recreation must be considered as correlative with the other major objectives in planning for our States and our Nation. We must advance together and insist that planning for parks and recreation is in proper balance with planning for other purposes. We cannot afford to be relegated to a secondary position. The first step in such a program is to carefully prepare plans for our future needs, taking into consideration all elements of land use, and the needs of our people. These plans must have imagination and appeal. They must be well presented and given wide circulation. Before I open this subject for general discussion, I want to bring to your attention a few items that can well be considered in the preparation of any well-conceived land-use plan.

1. *Mississippi River Parkway Survey.* As you know, the Congress last year authorized a study to be made jointly by the National Park Service and the Bureau of Public Roads to determine the feasibility of a Mississippi River Parkway to follow generally the course of the river from its source in Minnesota to the Gulf of Mexico. The study is now under way and will be completed next summer.

Such a parkway, if it is achieved, would change the recreational pattern of the mid-West. Use of State parks along this 2000-mile route would be vastly increased. But are our existing facilities adequate to carry such a load? I am inclined to believe that they are not.

There are some fine State parks along the river. I visited several of them this past summer. But there are long stretches where it is impossible to find good camping, trailer, or picnic areas, which will be so much more in demand by the large segment of the vacationing public preferring this type of accommodation. There are many fine areas along this river that would qualify as State parks; however, they have not been included in the State systems because they are unknown

or are inaccessible. They will receive attention if this parkway proposal is carried forward.

We should think now, not only in connection with the Mississippi River Parkway but on a Nation-wide basis, of closing up such gaps. Land especially suited to park and recreational use is fast disappearing. I hope, too, that as far as the Mississippi project is concerned, the State park people will take the lead in studying these needs and not leave it to the highway departments.

2. *State Recreation Surveys.* In the late thirties, the National Park Service cooperated with most of the States in making State-wide park and recreation surveys and in preparing reports and plans for the development of adequate State park systems. During the past 10 years, a considerable portion of this material has gotten out of date because of population changes, increased use of State parks, acquisition and development of new areas, availability of reservoir sites for recreational use, and other reasons. It seems to me that it is very important that these studies be brought up to date and completed as rapidly as possible. An up-to-date plan enables a State park agency to know where it stands and where it is going. With an adequate plan on hand, you are in a position to proceed with confidence and to take full advantage of all opportunities that may arise. So far as I know, Alabama is the only State that has brought its over-all plan up to date. I urge that the rest of you consider doing likewise.

3. As you know, the National Park Service has been able to cooperate with the States only in a very limited way since CCC days because of lack of funds and personnel. Secretary Chapman told me before I left Washington that he is keenly interested in expanding our close working two-way relationship with the States on park and recreation matters. In this connection, I am sure you will be interested in knowing that the Department has approved an increase in our 1952 budget estimate for this activity of more than 100 percent. There is, of course, no assurance that Congress will appropriate the full amount, especially in view of the military situation. However, it is at least encouraging to know that the need and value of the work is recognized and that the Department and the Service are pushing forward.

4. *Conservation of Historic Sites and Buildings.* I strongly believe that the time has come for State park organizations throughout the country to pay a great deal more attention to saving and exhibiting important historic sites and buildings that make up the rich heritage of each individual State. While a small number of States have done a good deal in this direction, such as California and Florida, many of the States have done little or nothing to protect and make publicly available historic sites and buildings within their confines. The time for placing emphasis on this phase of State park work has now come, in my opinion. for several reasons.

First, a great many historic sites and buildings are being mutilated or destroyed each year by the consequences of the building boom, new roads and bridges, great dams and reservoirs, and the other far-reaching changes that are altering the landscape throughout the United States. The National Council for Historic Sites and Buildings estimates that at least one significant historic structure is lost or destroyed each week in the year. I could give scores of incidents if there were time, but I will mention only three. The lands adjoining Valley Forge State Park in Pennsylvania, of great historical interest, will be mutilated by the extension of the Pennsylvania Turnpike. The first State House in Oregon, a building of great importance for the people of the Pacific Northwest, was torn down this summer, but should have been saved as a State Historical Monument. The site of Fort Winnebago in Wisconsin, of great significance for the people of that community, may be mutilated in the near future to provide gravel for road construction. I am sure that each of you could site many instances of this kind in your own State from your own experience. The number of sites and buildings steadily diminishes and action is needed now to select and save those that should be made a permanent part of the heritage of each State.

There is a second reason for acting now and that is in this field lies a fine opportunity for the growth of State park organizations. There is growing public interest in the history and background of America. This interest is reflected in the formation of new societies in many communities to help save historic sites and buildings,—organizations like the Louisiana Landmarks League, or the Society for the Preservation of Maryland Antiquities, or the new historic sites commission in the State of Washington. Sixty of these organizations have affiliated into the National Council for Historic Sites and Buildings which reflects the Nation-wide interest in doing more about protection of our own common heritage. State park organizations will find that it is good public relations to participate in this widening preservation movement.

Thirdly, the time has come because there is great public need to understand our historical heritage better. We are in a period of crisis in which many of the basic ideas and ideals of the American people are being challenged. Each historic site which is saved is a reaffirmation of our determination to be loyal to our past. Each site that is saved and restored and made publicly available is a blow in the fight to perpetuate our historic ideals of freedom and faith in America.

5. *River Basin Studies.* Since 1945, the National Park Service has cooperated with the Bureau of Reclamation and the Corps of Engineers in investigating and appraising recreational potentialities of several hundred proposed reservoir sites. Practically every reservoir that has a conservation pool has some recreation potential. A few of them may provide recreational opportunities of National importance.

Lake Mead on the Colorado River is a good example. The great bulk of them, however, will offer recreation opportunities of State or local significance.

When investigating and planning for the recreational use of these reservoir sites, the National Park Service keeps constantly in mind the possibilities for State recreation use and confers with the State park authorities about them. A number of reservoir areas have already been developed or are being developed for administration as units of State park and recreation systems. It seems to me that the Federal program of multi-purpose reservoir development offers a great opportunity for the States to augment their present facilities.

6. *Surplus Federal Property.* Two types of Federally-owned properties are now being made available to State and local government agencies for public park and recreation purposes.

In the first category are *surplus real properties*, consisting mainly of obsolete and abandoned wartime installations which are being conveyed with certain conditions to the States and local communities for public park, recreational area, and historic monument use under the authority of the act of June 10, 1948 (Public Law 616, 80th Congress). They are transferred for public park and recreational area use at 50 percent of fair value, and for historic monument purposes without monetary consideration.

The National Park Service has cooperated with the General Services Administration and others officially designated disposal agencies in the review of application, investigation of properties, and the determination of their suitability for the use or uses proposed. We have also endeavored to assist applicants, insofar as possible, in the formulation of park development programs and operating schedules. To date we have completed action on applications for 40 separate properties valued at more than 7 million dollars based on acquisition costs. Thirty-one properties, consisting of approximately 30,000 acres of land, 600 buildings, and miscellaneous improvements were requested for park and recreational use. Five installations of smaller average size were requested solely for historic monument purposes. Four installations were requested for multi-purpose use; namely, public recreation and historic monument purposes. Angel Island (Fort McDowell), located in San Francisco Bay, with more than 600 acres of land, some 300 buildings, and various improvements having an appraisal value of about $1,500,000, was one of the larger installations requested for multi-purpose use. In reviewing the program it is interesting to note that most of the surplus property disposals have been made along the Atlantic and Pacific seaboards with the greatest activity being evidenced in the States of Florida and California.

Disposal authority was recently suspended to permit the rescreening of surplus properties for current defense needs, but the moratorium has

since been lifted, and new procedures have been established to assure full recognition of military priorities.

In the second category are the *public domain lands* which are also available for recreational development and use when it is determined that such properties are chiefly valuable for such purpose. The Bureau of Land Management of the Department of the Interior has undertaken a long-range land-use adjustment program with the ultimate objective of disposing of several hundred thousand acres of vacant and relatively unproductive public lands in the United States. These lands consist primarily of small and widely scattered tracts for which adequate management cannot be provided at reasonable cost. Thousands of small tracts totalling more than 300,000 acres are located in the eastern portion of the United States, about 500,000 acres are scattered throughout the Great Plains States, and many isolated holdings exist in the western States. Some of the lands are not well suited for private ownership, particularly for agricultural use, and it is planned to offer lands of recognized recreational value to State and local governments for public park use. For example, approximately 24,000 acres of vacant public land will be disposed of in the State of Florida, and most of these lands are of high potential recreational value.

We cooperate with the Bureau of Land Management in the classification of public lands for recreational use under the provisions of the Recreation Act of 1926 by making investigations and recommending withdrawals of lands that are suitable for development to meet the recreational needs of the various States and communities. Now that a program has been initiated to improve the public land pattern on a Nation-wide basis, many new opportunities will be offered to public agencies that plan to acquire lands for recreational use.

7. *Park Practice Manual.* I would like to say something on one other matter before opening this meeting for discussion. For some time a few of us have considered the desirability of developing a loose leaf manual on park practice. We have in mind that such a manual would serve as a means of exchanging and making available helpful information on a variety of park and recreation problems. It might well include material on planning, design, construction, maintenance, operation, concessions, equipment, protection, interpretive and use programs, and other aspects of park work. Last month I wrote to all of the State park authorities who were expected to attend this meeting, outlining our thoughts in the matter and attaching a suggested table of contents. The replies that I received before leaving Washington indicate that you believe that there is a desire and need for such a manual. Some of you offered excellent suggestions for additions. It is my hope that the Conference will consider this proposal some time during our meeting here and give us the green light to proceed.

Training Park Personnel

DR. GEORGE J. ALBRECHT, Head, Department of Landscape and Recreational Management, New York State College Forestry, Syracuse, N. Y.

IT IS becoming rather common today to consider education beyond the high school level under three categories,—one concerns those who go into a job immediately after that school experience and who are introduced to a form of education called "in-service" training. It is very likely the mark of a progressive organization when there is initiated a program of schooling given to those who are being paid wages or salaries and which is somehow fitted into the working day. We can assume that the students are taught to do a better job for a particular organization. Some forms of in-service training apply to those who have had considerable schooling other than high school work. Since private organizations are engaged in such endeavors as well as public organizations, it seems to be a proof that a school, a formal school, is a worth-while proposition and that experience as an alternate is an unwarrantedly long and wasteful method of learning.

A second category has not been so generally accepted but increasingly is being talked about and introduced. It involves the establishment of schools known as institutes or junior colleges which give a variety of two-year terminal courses designed to train people in specific technical tasks. The graduates become the technical assistants of professional men. The architect can secure a trained draftsman; the dentist can employ a technician to aid in his office work.

The third category is the more conventional college education, usually meaning a period of four or five years, possibly followed by graduate study for advanced degrees. This form of education is my concern and the only one about which I feel some competence to discuss. In the past I have talked about it and have found it important to list and describe the subjects which made up a particular curriculum. If that list of subjects seems comprehensive and if the faculty can be considered reasonably able and intelligent, we might conclude that the school or the course of training was doing a good job. It isn't long, however, before you would conclude that the acquisition by the student of certain skills and knowledge must be only a part of advanced training. Therefore, much consideration has been given during recent years to the question as to whether the professional school has been furnishing what is termed "general education." By that it is meant that the professional school has a responsibility to train individuals for other than professional techniques, if that profession is to serve well the society in which it exists. We get into discussions about training for citizenship, about development of better attitudes, about sounder philosophies and all such matters. That too, has been a subject I have talked about in the past and find that I spoke in pretty broad generalities

and seldom was able to get down to brass tacks and explain just how we went about the effort to reach a variety of goals. Let me talk on that subject for a bit today and see if I can be somewhat more specific and make it a bit more clear as to the efforts we are making to reach certain aims. As students pass through the classrooms, laboratories, and drafting rooms, as we become acquainted with them, become somewhat intimate with them, know them by their first names; the responsibilities assumed by anyone in the education field seem greater each succeeding year you are engaged in the work. Certainly if a political unit such as a State establishes an institution of higher learning, it does so for only two reasons. One is to develop men to serve well in some function useful to society and the other is to make those men stable members of a society by enabling them to serve in a manner satisfying to themselves. The student puts his trust in an institution with the belief that we know how to tell them to do things and how to act. Thus we seem to be somewhat responsible for his future happiness and satisfaction, a part of which revolves around his future ability to earn a living. Each succeeding year increases the number of these men with whom we have become somewhat intimate, with whom we have a very human association, and the obvious grave responsibility stimulates us to considerable and constant thinking, as to whether what we are doing helps to prepare them for living as well as for work. On the other hand, there is another responsibility which is very apparent to any school, a responsibility that these men will carry on in certain fields of activity in such a way as to keep ideals alive and the best goals which men have so far set, and in our case those goals apply to parks and park organizations. We must use the students to carry on our loyalty to park ideals and to the furtherance of the park movement. In our school we feel another loyalty,—a loyalty to the profession of landscape architecture, which we see in no way as a conflict with other loyalties, because it is inextricably linked with park development although it does have ramifications rather far afield from parks alone. Obviously, one professional school cannot train park personnel for all the tasks to be performed or all the jobs to be filled. That would mean that we would be turning out lifeguards as well as lawyers, and although most of us know how to swim, I'm sure that we do not know how to draw up wills. We limit our idea as to what constitutes a professional park man to include those people who have to do with the choice of park areas, the design of these areas, physical development within them, and eventually the administration and management of such properties,—that is, the landscape architect, the park engineer, the park manager, or the administrator of a park or of a system of parks. And we ask ourselves what are our objectives in training these professional men? How can we equip them so they can do a creditable job in any one of many types of park jobs, to super-

vise construction, to maintain areas of land, to design or to perform simple engineering tasks? What qualities do the present-day administrators and employers look for and is it possible for us to develop these qualities? To clarify my own thinking, I have listed our objectives under three headings. (1) Technical objectives by which I mean skills and knowledge we think park men should have; (2) Professional objectives which to me means the wise use of their skills and knowledge somehow connected with the development of a professional code of ethics; (3) I think of social objectives by which I mean the development of an awareness of responsibilities and a sound philosophy. The first of these, the technical objectives I briefly mentioned a few minutes ago and dismiss them again with the comment that our major task is to resist suggestions from well-meaning park people or alumni who almost inevitably want us to add more practical and more worth-while items in what is already an over-loaded program of topics. If you were working directly with us, I am sure you would find it absolutely impossible to handle more specific topics than we do at the present time and would be very concerned with weeding out some of those already on the program.

I have on occasion listed for myself various professional and social objectives but find many in one column closely related to those in the other, and for the purpose of this talk propose to group them together and discuss just a few of them to show you how we attempt to take steps to achieve these objectives. I am sure you will find our methods seem absurdly simple when I cite illustrations for you, but I excuse that by saying that after you have done the best thinking you can do, the task of carrying out the thought *is* rather simple. For instance, an individual trait which we would like to see in any who work for us is the matter of their personal initiative. If initiative can be developed during college years, I think you'll agree it is a worth-while aim for an instructor to have in mind in addition to his obvious task of teaching certain information about concrete or plants or drawing skill. Actually it is my opinion that a great deal of collegiate work almost discourages initiative on the part of the student. The routine assignment of readings, the specific task to be performed in a taught fashion, careful supervision of the performance are all a matter of leading by the hand with little opportunity for any student to let go and move ahead using his own brain as motive power. While training in design itself and the working out of designs by students is dependent very much on their initiative, we are constantly on the search for other trivial ways to develop that trait. For instance, a few days ago we started a problem involving the renovation and re-design of a small street park. The class and several of the staff visited a site, then we carefully but casually noted a number of points to be considered and things to be done as a prelude to the actual work on the drafting board. Among

these points might be mentioned that the basic plan of the present park could be secured from the local park office, that we wanted a record of the adjoining buildings, that we understood certain specific uses were made of that particular area which would affect the design and other points. No indication was made as to who in particular might be responsible for any of these matters. The only specific responsibility noted was a date when the first results of the study of that area would be forthcoming. After some preliminary experiments of this kind, the class as a group, takes it upon itself to divide the responsibility. Individuals without instruction secure data and engage in research which we feel helps in the development of initiative, one word on a list constantly before us as an aim we can further in many little ways.

Another such word in that list of objectives is "collaboration" or the phrase "collaborative effort." The first illustration I used in regard to initiative obviously has something to do with collaboration. Other forms of it are apparent in the class work when for example, a very large area of land is proposed for some use and the plan for its development becomes the job of perhaps five to twenty students. The group is required to submit a recommended tabulation of facilities to be planned for and incorporated in the general plan and the work is subdivided among the group by themselves with certain men designated to co-ordinate the activities while others work out detailed plans to fit the general plan. We seek out other ways of requiring collaborative effort, co-operation between the Seniors and Juniors in which the Juniors do the lesser tasks on a particular design problem. This ties in with another point we seek to make, that is of giving some supervisory experience, particularly to the Senior class. It might simply be a matter of having a Junior determine how to construct something a Senior proposes to build in a plan, the Junior being required to prepare construction drawings for it under the guidance of the Senior and to fit his style of preparation and to satisfy him generally. You'd be surprised to find how much the Senior student seems to get out of that particular type of experience, how much he seems to mature.

Another aim we have is to seek to develop an ability to publicly discuss park problems. A good portion of one course is devoted to the assignment of topics to individual students who are required to make notes and conduct a class and lead discussion after preliminary explanation. A score of park topics such as fees and revenues and other administrative problems is brought to the attention of all the students, through the students, and the experience seems to bring an *assurance* and a *confidence* pretty difficult to reach in any other method. Other points on that list of secondary aims would be such things as the development of judgment, professional honesty, (I expect that might better be called reliability). We have phrases such as "concern to do a good job," which have much to do with personality traits. I

assure you that oftentimes we are disappointed because I suspect that all personality traits could never be developed equally in all men but when we *acknowledge to ourselves* that we ought to achieve these goals as well as the development of certain skills and obvious acquisition of knowledge, we seem to see results in more personable, more worthwhile, somewhat better-rounded graduates. Certainly it seems more important to us to put a lot of our efforts into working these objectives into our program as contrasted with giving students complete up-to-date information on the great variety of models of maintenance equipment.

Another idea of ours revolves around the discussion of certain broad topics which we think will help develop better park personnel. I don't know quite where they would get it in a reasonably organized program unless they get it in school. I think that you should expect that all professional park people would do better in their organization if they are indoctrinated with a park philosophy; if they have talked about and thought about why parks exist, what is the background of all these recreational trends, what is the meaning and importance of an increase in leisure time. And so we spend a considerable amount of our time talking about such topics as park character, human saturation of scenic areas, wilderness; and I just wonder if you consider these as important as we do. I know from association with some of you that you wouldn't agree with some of the things we teach. We try desperately hard to not teach our ideas and opinions so much as we try to give a consensus of opinion from those in the field, and the way we gather that is by meeting with you and perhaps more particularly by reading your articles, but you know as well as I how much men in this field differ on several major topics. I well remember the argument that arose after a certain guest speaker left us with the expressed thought that the men responsible for the subordinate park areas are in effect janitors or reasonably subservient custodians, when earlier at the school we had tried to develop the thought that it was good personnel management to throw as much responsibility as he would take on the small area manager. It was our idea that such policy would help to develop him as a responsible man of the organization and through him develop that park as a better functioning unit of a system. Since some of the students looked upon the administrative job in the small park as one they might logically seek to hold, they much preferred the viewpoint we gave them as contrasted with our guest's. Nevertheless, we'll be more careful in the future to point out such a difference of opinion.

How Can We Best Handle Concessions, Fees and Charges

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AT THIS milestone in the State Park movements career it is evident that *concessions*, *fees* and *charges* have become accepted tools for use by those who administer and manage public parks. In Indiana the State Park *Rotary Fund* or retention of revenue plan is another tool that has been a basic part of our management fabric.

All of last year's revenue of $320,000.00 derived from concession operation in Indiana State Parks was deposited in the Rotary Fund for re-use exclusively for state park development or operating purposes. With a total earned revenue of $745,000.00 it is readily seen that the $320,000.00 gross income from concession operations was a major income source and paid a large share of a total operating expense of $715,000.00. Other fees and charges amounted to another $345,000.00; sand, gravel, coal and oil royalties amounted to $80,000.00 bringing the total earned revenue for the 1949–50 fiscal year up to $745,000.00.

Those who contend that the fee and charge plan of management eliminates legislative appropriations will agree that there are exceptions because in addition to the above $745,000.00 earnings, an appropriation of $300,000.00 was available for capital inprovements.

A Rotary Fund plan of management does encourage the application of good business methods to a state park program and has in itself had considerable influence on the management of the entire State Park System. Dollars that are earned dollars are not spent without considerable deliberation and planning.

The retention of all state park revenues in a "rotary" fund for maintenance, operation and even development of state park properties not only creates incentive to operate effectively and efficiently but it also makes it possible to accrue revenues during the good years for adequate operation during years when income may not be as great. A long range plan of management can thereby be carried out with every assurance of sufficient funds to carry on all necessary maintenance and operation functions.

This morning I would like first to make a few general statements about concessions, fees and charges and second, tell you briefly how they are being handled in Indiana.

Concessions vs. *Department Management.* Wherever at all practical, all necessary service in state parks should be rendered directly by the park authority and not by concession operators. Public parks surely are not maintained for private gain. Likewise, concessions must of course be considered incidental to the enjoyment of the park by the

state park visitor and not a primary feature. Direct department controlled service best protects the public's interest. It is generally agreed by all however, that such park facilities as hotels or lodges, restaurants, refreshment stands and similar public accommodations are considered proprietary and may therefore logically be operated on a concession plan of management, subject of course to controls that will insure satisfactory public service. Due to the very specialized nature of these services most park authorities prefer to not manage them directly.

Riding stables are also usually included in the list of facilities most generally operated on a concession basis.

Boats are often concession managed but our Department has recently taken over all boat operations in Indiana State Parks and have found the new plan very satisfactory. All housekeeping cabins and bath house facilities are also now operated directly by the Department with highly satisfactory results. Again I repeat, wherever practical, the park authority should operate necessary services and facilities directly.

State Park Hotels. This type of public accommodation, when found in a state park is usually operated on a concessionaire basis.

Since the State of Indiana has always operated its state park system on what we call a small fee and charge plan of management it is natural that Indiana's plan of concession management is one that produces a substantial net revenue for the Department. Our major concessions, the hotels or lodges, operate on an arrangement whereby a maximum return to the operator is determined, the conditions for the conduct of the business are prescribed in a contract, and an operator is then chosen on a basis of character, experience and ability to perform. The terms of this contract place almost every phase of the operation under the control of the Department to a degree that the concessionaire is very nearly an emplyee of the State. The results lead in the direction of better public service. In recent years Indiana has learned that state ownership of not only the buildings and fixed equipment but also all furnishings and expendable equipment is highly desirable. Operator ownership involves considerable difficulties in cases where a change of management becomes desirable. Our Department now owns all of the hotel equipment.

The State-ownership private operation plan of concession management of our lodges and hotels has been in effect in Indiana since 1945 and has proven to be highly successful. Such a plan has many advantages including the following: (a) Less private capital is needed enabling the State to take a larger share of the net income; (b) Concession operators can be changed when necessary with no interruption of service; (c) All expansion, architectural planning and designing are matters for the State's decision; (d) Continuity of operation during hard times is directly controlled by State; (e) Commercialism is more easily controlled.

Justification of the hotel or lodge type of overnight accommodations in state parks can be based largely on answers to such questions as: (1) Is the park area large enough or does the area possess sufficient scenic, historic, or recreational interests to warrant the park guest remaining overnight to continue his explorations or enjoyment into the next day or days to come? (2) Are adequate overnight accommodations of this type available outside the state park in the nearby community? If the answer to this second question is yes, then why duplicate the facility?

Certainly the hotel type of overnight facility would not precede the simple camping area type of accommodation in a state park development program. The state park hotel or lodge type of accommodation should be simple in design and appointment, not luxurious, but basically comfortable. Colonel Richard Lieber said it in these words:

> The keynote of these Inns must be simplicity and wholesomeness . . . They should be built with the idea in mind of furnishing comfortable rooms and simple, well-cooked food at the lowest possible cost, so that they will be available to practically anyone . . .

If we are to abide by the intent to serve the greatest number of park guests in the best possible manner with *modest* service charges, we must direct our operations accordingly. During the busy peak season, conventions and large group meetings cannot be accommodated in state park hotel facilities that are already over-crowded with family groups. Since most of these large groups do not go beyond the four walls of the hotel during their entire program, they can have no legitimate priority claim on room space in state park hotels. Even family groups must be limited to a short period of occupancy during the peak summer months. In order to not be accused of spending public money for elaborate hotels where only a relatively few persons can be accommodated or can afford to pay rates which are necessary for the proper maintenance of such elaborate structures we should be sure we are not guilty.

By keeping the design and construction details as simple as is consistent with reasonably low future maintenance costs our records show that state park hotels can be included in a state park program on a self-supporting basis and with rates sufficiently low to be afforded by most of our citizens.

Our records show the original cost of our seven (7) largest state park hotels including utilities and equipment to be $1,180,000.00. The replacement cost in 1949 of the same seven (7) hotels was estimated to be $2,400,000.00. During the 1948–49 fiscal year the net income received by the State from these seven (7) hotels, after operation and maintenance costs were paid, averaged in excess of 10% of the 1949 estimated replacement cost. Guest rates at these state park hotels are $4.75 to $5.35 per day per person, American Plan.

Exclusive Concession Rights in One Park. It has been our experience that the placing of all concession rights in one park in the hands of one operator is a matter that depends entirely on the size of the park, the remoteness of intensive use areas from each other, and the type of services to be rendered.

We do not permit a concessionaire to let sub-contracts for any part of the operation under contract, the thought being that if another section of management is needed to perform the service to be rendered we prefer to work directly with the other management giving him a separate contract and thus making the second concessionaire directly responsible to the State. Some of the Saddle Barns were at one time operated as a part of a hotel or lodge concession. All of our Saddle Barns are now operating under direct contract with the State, which is more satisfactory than operating indirectly under a hotel manager.

Wherever possible and practical and as a general rule, it is my personal opinion that the best public interests are served with the fewest possible number of concession operators in a given park. The greater the number of operators the greater the administrative detail of the Park Authority and the more chance there is for friction among the concessionaires.

Length of Term of Concession Agreements. Naturally the greater the investment on the part of the concessionaire, the greater is the need for a long term contract. If the Park Authority has the greater capital investment in the enterprise then the term of the contract can be for a shorter period.

Short term contracts do not encourage the operator to build up a strong business organization that would bring returns in the future years from high standards of service performed today. If long term contracts are not possible, the policy of renewing the short terms contracts of satisfactory concessions operators tends to bring about similar good results of long term contracts.

Audit. It is desirable that accounting principles and procedures be somewhat uniform in all concession operations. In most instances the Park Authority does not have a sufficiently large staff of auditors to adequately function. The Advisory Group on Concessions in the National Parks has recommended that concession contracts provide that an annual audit be made at the concessionaire's expense by a firm of certified public accountants satisfactory to the Secretary of the Interior. The Advisory Group also recommends that concessions too small to employ certified public accountants should be audited by the Park Service.

The certified public accountant audit requirement is in my opinion worthy of serious consideration in states where State Accounting Divisions of Government are not adequately available to the Park Authority. In Indiana, the State Board of Accounts audits our major

concessions annually at a nominal charge to the Division of State Parks. Since the State Board of Accounts is a separate Division of Government, operating independently of the Indiana Department of Conservation, it is felt their audit is impartial and effectively adequate.

Location. Service facilities should be located as inconspicuously as possible with complete regard for the preservation of natural attractions. Such intrusions into the midst of superb beauty spots are inexcusable unless the circumstance is unavoidable.

If thru unwise use we permit destruction of irreplaceable natural beauty, we have failed in our trust as stewards of our natural resources.

Likewise the type of merchandise sold as souvenirs should as much as possible have a mark of belonging in the area. Handicrafts produced in the vicinity of the park is desirable. Most forms of artificial entertainment should be discouraged.

Fees and Charges. When the subject fees and charges is open for discussion among a group of state park authorities the only point of complete agreement among all is that *parks must be financed.* They must be financed by the public.

Those in favor of a fee and charge method of financing state parks usually base opinion on one or all of the following: (1) When charges are made the public feels a sense of responsibility and respect . . . free services are not appreciated; (2) Charges tend to control use; (3) They compensate for reduced appropriations; (4) Special services should be paid for by those who benefit; (5) Parks do not become a burden on taxpayers when supported on a pay-as-you-use basis; (6) Fairest method of financing. Those who use pay.

Persons who are opposed to a fee and charge plan of management usually object for the following reasons: (1) Amounts to double taxation; (2) Restricts participation by those most in need and least able to pay; (3) Public demands public recreation on the same basis as education, public health services, etc.; (4) Places emphasis on facilities yielding maximum revenue rather than those of greatest public benefits; (5) Reliance on fees for partial support renders the securing of tax funds more difficult; (6) Public does not like it; (7) The business rather than the service aspect will be emphasized; (8) Excessive cost of collection and accounting; (9) Tends to apply commercial standards to public park work.

The reasons stated in opposition to the fee and charge plan of financing have no truthful basis in Indiana. The modest admission fee cannot truthfully be called double taxation because most of the Indiana State Park lands were not acquired at the expense of the public at large.

One of the latest acquisitions, the 1,400 acre Shades State Park was presented to the State by our citizens.

Over a quarter of a million dollars was donated for its purchase. The entrance fee now being charged at this park is certainly not double

taxation. Even in cases where the park is purchased from a mill tax levy there is no double taxation because the state-wide mill tax is spent on buying the land, a capital investment, while the entrance fee is used to defray operating costs.

Indiana's plan of management founded by Colonel Richard Lieber, is based on a nominal entrance fee and other minimum charges, as a method of financing operation and maintenance costs.

Colonel Lieber's concept of this plan can be summarized in his own words,—

> "Parks, like any other public utility, gas, water, electricity, fire and police protection, have to be paid for in one way or another, either individually or by general taxation but none are free nor could I ever hope to have my gasoline supply put on the tax duplicate."

Records show that the operation, maintenance and administration costs of the entire Division of State Parks, including the State Memorials, have for the last fifteen (15) years received 97% of their financial support from earned income. During that same period of time the Division of State Parks received more than $2,400,000.00 in legislative appropriations for capital improvements. It would appear that the legislature of the State of Indiana has not altogether failed to supplement earned revenue with appropriations for a state park betterment program.

A system of state parks depending on its own earned income for its financial support gains even more than the monetary consideration involved. Such a plan results in a better appreciation of sound economic values on the part of all phases of management. What is wrong with applying good business principles to the management of a state park system, providing of course we constantly keep in mind that the primary function of state parks is to render a public service? I know of no better way of selling a state park program to our citizens than to exhibit sound business judgment in the operation and development of existing properties. If the people of your state have confidence in your way of management they will help you go forward with a good park program.

Hoosiers are justly proud of their state parks. Over 1,500,000 visitors paid admission to Indiana's fifteen (15) state parks last year and there was not a single complaint in my office regarding admission fees or other charges made for services rendered.

In Conclusion it is my belief that almost all necessary services and facilities in state parks can be rendered with the highest degree of public service directly by the Park Authority. Public parks are maintained for public service and not for private gain. On the other hand it is believed that best public interests are served when such specialized services as hotels, restaurants and saddle barns are operated on a concession plan of management, providing controls are sufficient to guarantee a satisfactory degree of public service.

It is further believed that those few states which have established a nominal entrance fee method of helping to finance maintenance and operation costs could not find a more fair and equitable source of revenue.

As for other fees and charges, it is certain that special services should be financed by those who benefit. As long as the fees and charges are reasonable and the state park properties are well managed, the public will accept such a plan as a sound way of financing a system of state parks.

Group Camps

ARTHUR C. ELMER, Chief Parks and Recreation Division,
Michigan Department of Conservation, Lansing, Mich.

MICHIGAN has talked about its group camp program at the Midwest State Park Association meetings, and I will, therefore, not dwell too long on details preferring to cover the scope and effectiveness of the program.

Group camping is not and should never be an activity limited to the so-called professional outdoor groups such as Boy Scouts, Y's, and Campfire Girls. It is an activity of churches and religious groups, of rural organizations (and they have in recent years made great strides), other youth groups and agencies, and schools from the elementary levels through high school. Whereas the professional groups spend considerable time training and preparing for the out-of-door experiences, and can stand more rigors and inconveniences, other groups are terribly lacking in outdoor experience. We find it necessary to provide better facilities for sanitation, health, and safety in order that these groups may enjoy the out-of-doors and learn something about it. We have, therefore, started a program of improving our group camp facilities, which includes winterizing (group camping is no longer confined to summer months but takes place the year around), use of modern heaters, bottled gas and electric cooking ranges, fuel oil heaters, and in some camps wiring buildings for electricity. By providing these modern facilities, we do not mean to imply our youth are getting soft, but by so doing save valuable time for more important activities than primitive living.

The Parks and Recreation Division operates and maintains 15 group camp facilities for seasonal use—June 15 to Labor Day—and 36 facilities for short term use—fall, winter, and spring. Groups numbering from one individual to as many as 140 are accommodated at our group camp facilities which vary from small trailside cabins to large unit type camps. These facilities are located in practically all sections of the state, including the upper peninsula.

Cots, mattresses and mattress covers, dining tables and benches, bottled gas cooking ranges, water heaters (coal), electricity, and modern sanitary conveniences (including shower baths) are available at prac-

tically all of our facilities. Eight of our larger camps are equipped with kitchen and cooking utensils, and two camps, because of the kind donations of using groups, have dining room service including dishes and silverware.

Any non-profit organized group under responsible leadership, including "neighborhood gangs," may use these camp sites in all seasons of the year. Permits are issued by resident park managers for use during fall, winter, and spring, and by the division office in Lansing for summer use. Fees and charges are nominal; rental rates are 25 cents per night per youth camper, or $1.50 per youth camper per week and for adults 50 cents per night and $3.50 per week. For day use, there is a flat rate of 10 cents per camper per day charge. Electricity, bottled gas, fuel, garbage service and charges for damage and destruction are in addition to rental fees.

Families and other groups desiring a tent camping experience have this opportunity. Two tents were made available at two recreation areas for the first time in 1949. The experiment has proved to be worthwhile and it is expected that four or more tents will be available in 1950. Department-owned tents are provided at a flat rate of $1.00 per day for groups not to exceed eight persons. At the tent sites there is potable water supply, toilets, outdoor stoves, and picnic tables.

We are gratified at the growth of the program since 1946. The short term use, which takes in the period Labor Day to June 14, is up 60 percent; seasonal use, which is confined to the summer months, June 15 to Labor Day, is more than doubled. Figures for day camping, which involves one day trips, are not complete but will undoubtedly go to 9,000—an increase of 9 times in the five year period.

Now I want to talk a few minutes on school camping.

We have a responsibility in connection with the continuing education of our youth—not as adults, but as administrators of public lands. We hold the key to youth learning in the out-of-doors—to providing the places—facilities—land—where youth and children can work and learn about our natural resources. Too many of our youth know nothing about soil, how their food is grown; forests—where to get the materials for our homes and buildings. They don't know how to use their hands—how to work. "Learning by doing" is more than just a phrase if we make available to the people, who guide our children through their years in school, the lands and facilities which we as public land administrators have under our jurisdiction, we can greatly increase their chances for success in later life.

Our present day school systems are striving to make schools and school subjects more interesting—to keep youngsters in school longer—to keep down delinquency—to better train them to meet the problems of everyday life. One of the requirements is to provide those in the schools with more skills—more resources with which to work, and also

to enjoy their leisure time. The school, therefore, must include adequate outdoor play and work space. A well-balanced park system, which includes many types of areas and facilities, offers opportunities for all age groups to work and play. Projects designed to develop skills, gain a knowledge of the natural resources—fish, game, forest, minerals, etc.—as well as those designed to teach the use of the hands in physical labor will help the park administrator as well as boys and girls using the land and facilities. Many educators feel that school camping is the greatest and most vital addition to the curriculum advanced during the past thirty years.

In Michigan, the school camping program is a joint cooperative endeavor sponsored by the Departments of Conservation and Public Instruction. The Conservation Department provides the land and facilities (group camps are made available at regular fees during the school year) and the schools provide the youngsters, food, teachers, and supervision. Obviously, no other situation than a camp provides opportunities for responsibility, citizenship, social living, and real and actual work experiences which all combine for the total education of youth. The development of appreciation among youth for the out-of-doors and its proper use for recreation, as well as knowledge of proper land and soil use, game and fish culture, reforestation, and other national resource information is of the greatest importance to our still declining and rapidly declining national resources. The educational benefits complement the need for understanding which administrators of national resources seek by public relations programs.

School camping is just one way of revitalizing the educational program—teaching out-of-doors those things which can best be taught there. More than thirty school systems have used the group camp facilities of the Parks and Recreation Division for school camping programs this year, and it is expected that some 1,000 boys and girls will get a school camping experience between October 1 and December 31 of this year.

Roll Call of the States*

For *The Alabama Division of State Parks*, James L. Segrest, Chief, reported that the Division has under its jurisdiction 8 major and 7 minor park areas, and 10 public lakes, a total of 25 areas comprising 37,248.76 acres. These areas are most popular as is shown by the large attendance during the past year of 1,049,264 persons who visited and enjoyed the facilities for recreation offered therein.

Alabama is unique in that she embraces many types of topography from the Mobile Delta at near sea level through the coastal plains of central Alabama to the mountains of north Alabama, the highest point being 2,407 feet in our Cheaha State Park which nestles atop Cheaha Mountain.

Some of the outstanding features of the parks are the overnight cabins, equipped with Butane or Propane gas systems, electric refrigerators, and camp furnishings for the comfort and delight of visitors; the beach areas with swimming pools, bathhouse, beaches, beach umbrellas; the playfields equipped to amuse both young and old; the picnic areas with picnic shelters, permanent type tables and benches; and the nature trails and scenic beauties of these outdoor wonderlands which have been kept in their native state as nearly as possible.

The Alabama State Parks were operated last year with funds derived from an appropriation of $90,000 and by receipts derived from operation of park facilities in the amount of $65,426.16, or a total of $155,426.16. In addition, a special appropriation of $10,000 was made as a starter toward beginning the restoration of the famous historic site, Old Fort Morgan, in our Fort Morgan State Park. This old fort has been reactivated and has guarded the Port of Mobile in every military emergency of the United States. Other funds were on hand derived from fire and tornado insurance and the sale of timber which enabled the Division to carry forward into last year a balance of $67,-641.82, all of which was spent on capital improvements.

For *Arkansas*, Bryan Stearns, Director of State Parks, reported continued increase in patronage and receipts of state parks for the year 1950. Attendance records as well as the receipts from the parks have exceeded all previous records.

There has been no new construction undertaken in our parks the past year. We have devoted a great deal of time to work with the Arkansas-White-Red Basins Inter-Agency Committee endeavoring to set up a workable overall plan for recreational development on these areas and trying to get this set up as an integral part of reservoir development rather than an adjunct to or an after thought when the

*Roll Call of States reporting at Texas Conference. A full record will appear in the Year Book on Park & Recreation Progress for 1951-52.

dam is completed by the U. S. Engineers. By making this an important part of the basin development, we feel that desirable areas on the reservoirs could be obtained more easily and economically in the inception of the project than after the water is impounded.

The achievement record for the California Division of Beaches and Parks in the past year was reported by Elmer C. Aldrich, Supervisor of Conservation Education as follows:

1. Employee training program. A training program was instituted to emphasize the training of new park ranger personnel. This program was initiated by preliminary training conferences between the park headquarters office and the six Districts. The Districts in turn held extensive training courses for personnel of the parks.

2. There was an increase in the number of concession agreements consummated. This increased the revenue to assist in the financing of the State Park System.

3. A new type of complete beach operation was begun in which all of the facilities including parking, bathing, and sanitary conveniences were in operation by the State. Most of the many beaches owned by the State are now under lease agreement to local agencies. New civil service classifications were created to provide lifeguard services and to maintain the cleanliness of the beaches.

4. The past year marked the completion of making up for lost time in the construction program during the war. New development is now back to a normal pace in accordance with annual demand.

5. 300 miles were made usable in the development of the 3,000 mile master loop riding and hiking trail which will extend from the Oregon border to Mexico.

6. The Division of Beaches and Parks entered into a new phase of its operations which consisted of the complete operation of a town as a historical monument. Columbia Historic State Park is being restored in a manner similar to Williamsburg, Virginia, and operations will include the management of water, sanitary system, fire control, and general reactivating of famous, and one of the best preserved, gold-rush towns of the Mother Lode district.

7. Advancements in the educational program were noted in the instituting of the first training program for the 13 Park Naturalists which are hired each season. It was felt that the public relations program with the many visitors to parks warranted detailed instruction to the men who conduct campfire programs and naturalist walks. Over 450,000 visitor contacts were made through the Park Naturalist program. A system of nature trails was initiated as a starter for increased activity in this line. The research program to obtain more knowledge of the natural features of Parks was stepped up. Two major exhibits of the museum type were nearly completed.

For *Colorado*, Harold W. Lathrop, Special Representative of the National Recreation Association, reported that in the past, Colorado has never had anything to report on these roll calls of States, as relates to operation and expansion of their state park system, because Colorado has none. We are hopeful that this will be the last Conference in which we cannot report some progress.

The Colorado Forestry and Horticultural Association did, about a year ago, appoint a Committee on Roadside Improvement and State Parks. This Committee has given due consideration to the need of state parks, and a tentative bill has been drafted for introduction at the 1951 session of the state legislature. There is considerable support throughout the state for such legislation as Colorado considers itself to be an outstanding tourist state, and recognizes the need for state parks. Next year I hope Colorado can report the beginning of a system of fine state parks and recreational areas.

For *Florida*, Lewis G. Scoggin, Director of Florida Park Service reported:

We in Florida have just completed our first year under the new Florida Board of Parks and Historic Memorials which was created by act of the 1949 Florida Legislature. Like all government agencies we have found it difficult to adjust our operations to the new order of things under a new governing body. We can be thankful that the new Board has exhibited great enthusiasm for their task and they have launched a program to provide adequate funds by legislative appropriation or by sale of revenue certificates for the proper development and operation of a State Park System in Florida of which all citizens of the State can be proud.

Many of our difficulties are the same as those experienced in other States which will report here today and the solution to our problems can be found only when the people of the State are awakened to the needs for a conservation and recreation program such as a State Park System offers.

I hope you will find, as I have found, that association with and exchange of ideas with people who attend these conferences will furnish you with the inspiration and determination to do a better job in your own State and convince your people that they are getting more for their tax dollar than any other agency offers them.

Attendance and receipts have increased during the past year in our parks. Our improvement program has almost been halted and it has been difficult to keep up with ordinary maintenance. Increased demands on our limited facilities and inadequate organization has made our problems more difficult yet we are not discouraged.

For *Georgia*, A. N. Moye, Director of State Parks, summarized

achievements for the past year, we have made such limited physical improvements as our budget would allow, consisting chiefly of maintenance and improvement of grounds. Our operating budget is only $218,000 per year plus net receipts which may be expended under given conditions. All of our parks have been cleaned up and many buildings have already been repaired.

We have had special appropriations of approximately $400,000 for development and the facilities being provided in those areas will be adequate and some will be elaborate when the development there is completed as these appropriations are annual and likely will continue for several years.

Our attendance has shown a marked increase over previous years though our receipts have been off since we reduced prices on all major facilities, including group camps. While it is a common practice to charge 10 cents for soft drinks, ice cream, etc., at many state and city parks, we reduced our prices to 5 cents for these items, feeling that large groups of children should have these available at the customary market price and not be penalized in visiting the park. We are adding playground equipment at our various parks and expect to add other camp facilities on two additional parks before next summer.

We have recently started a program which is entirely experimental with us, that of using prisoners for maintenance and improvement as well as some development on State parks. We are starting at the very beginning there, first taking out trees for lumber from park areas, these trees having been marked by the Forestry Department as detrimental to the forest, so this is salvage of material which should be removed. We are processing this material into boards, shingles and framing for repairs and limited building. We have also installed our own wood treating plant, feeling that all timber used in buildings should be treated to increase the life of the building. This also will be operated largely by prisoners. During the off season we are housing these prisoners in youth camp areas and after our materials are ready we will move from park to park with the prison crew, staying thirty to ninety days in each park, making the necessary improvements and, in general, cleaning up the park. We believe this will give us a well-rounded program and as our most satisfactory approach to general maintenance.

We find that the citizens of Georgia are becoming far more recreation-minded than they have been in the past and that many out-of-state visitors are enjoying our park facilities. While we will not be able to equal the budgets of many wealthier states, we look forward to having a park system with the advantage of its natural environment second to none.

For *Indiana*, K. R. Cougill, Director of State Parks, Lands and Waters, reported that, with a continued emphasis on high standards of

maintenance and operation Indiana State Parks have been able to render more adequate services to park guests. Increasing use of existing park facilities has required more consideration for the preservation of natural areas particularly in the intensively used areas.

Although some new facilities have been provided it has been wisely determined that capital improvement funds are better spent on major repairs and improvements to existing facilities. New construction has been primarily limited to the construction of additional family housekeeping cabins at Shakamak State Park and the virtual completion of the dam at the new Whitewater Memorial State Park.

With a rather substantial reserve in the State Park revolving fund (derived from operation of state park facilities) there are sufficient funds available to maintain and operate basic state park services if a substantial reduction in public travel is experienced in the immediate future as a result of the present emergency.

Use of all state park facilities continues a steady increase. Paid park admissions and use of state park camp ground facilities had the highest proportionate gain. For the first time in the history of the Indiana State Park System total expenditures, including capital improvements, exceeded the one million dollar figure for the fiscal year period ending June 30, 1950.

For *Iowa*, Wilbur A. Rush, Chief Division of Lands and Waters, Iowa State Conservation Commission, reported that Iowa State Parks provided recreation for more park visitors in 1949 than any other year setting an all time attendance record of 3,700,000 visitors. With a total population of only 2½ million people in the state which has predominantly a rural population, this indicates a very heavy use of the 90 state parks and recreation areas. Records show that the greatest use was concentrated in areas closest to the larger centers of population.

Like most state park systems, Iowa has been hampered by the lack of sufficient funds for proper maintenance of its areas. However $2,700,000 was made available by the state legislature for capital improvements and park extensions. This fund together with $2,700,000 made available in 1947 has provided the means to build five additional artificial lakes which are now in various stages of completion. Preliminary work on two other lake sites is also underway.

A new field of endeavor was entered by the Conservation Commission in the opening of a Conservation Education School for school teachers at Springbrook State Park. With the cooperation of the Department of Public Instruction and Iowa State Teachers College, a course of instruction was offered to school teachers. Regular college credit was given for completion of the course. The school was very successful and plans are underway for expanding the curriculum for next year.

For *Kentucky*, Henry Ward, Commissioner of Conservation, reported:

The Commonwealth of Kentucky is continuing a program of expansion of its State parks and their facilities, which was launched three years ago. During this period, the State has spent approximately $5,000,000.00 on capital outlay. This has been in addition to operating funds which have averaged approximately $700,000.00 annually. Kentucky has been following the policy of catching up on years of neglected maintenance in its parks, prior to expanding facilities in them. Some of these projects reach considerable proportion because of the accumulated neglect.

During the past year, the State has engaged in the construction of new cottages and lodge accommodations which more than triple these facilities in Kentucky parks. Included among these are a new 50-room hotel on Kentucky Lake, new cottages at Kentucky Dam Village, General Butler, Carter Caves, Natural Bridge, and Cumberland Falls, and a 40-room addition and new dining-room at duPont Lodge in Cumberland Falls State Park. Kentucky is adding one new park to the system, a 3,000-acre tract surrounded by water on three sides on the lake created by the building of Wolf Creek Dam on the Cumberland River, by the Corps of Engineers.

Kentucky has followed the policy of operating all of its facilities with its own employees. We have only two concession operations in the entire system. These are boat docks on Kentucky Lake. We also operate one boat dock on this Lake with our own employees. We are very well satisfied with this method of operation. However, we have found that the whole question of whether the State can operate hotels and similar facilities profitably, depends upon whether the State is willing to employ well-qualified personnel without regard to political considerations. We have been willing and able to do this. For our larger hotels, we have employed men with a rich background of experience in the hotel business.

We have placed emphasis in recent years, in Kentucky, on gaining public support for the expansion program. The Kentucky State Chamber of Commerce has cooperated in this endeavor by sponsoring a series of tours throughout the State. The Governor and many important public and business men of the State have participated in these tours. Meeting are held in the towns visited on these tours and at the parks, and speeches are made, pointing out the value of this program. It has been an effective means of securing widespread support for further development.

For *Louisiana*, William W. Wells, Assistant Director, reported that State Parks in Louisiana are following a general trend of increased use and importance that is nationwide. Attendance and appropriations are greater than ever before. More interest is being shown in the park system and the benefits to be derived from it by members of the State Legislature and by other influential people.

We in Louisiana are enthused about two new parks. One is Lake Bistineau, located in the northwestern part of the state. It is being developed to serve the population radiating from Shreveport and other smaller cities in that section. The other is Audubon Memorial Park which is located near St. Francisville. It is a hauntingly beautiful area which occupies part of the Oakley Plantation where Audubon made many of the paintings for his famous "Birds of America."

We are attempting to do a million dollar job with an appropriation of $300,000 a year. The development goes slower than we like, but it is definitely going forward.

For *Michigan*, Arthur C. Elmer, Chief, Parks and Recreation Division, Department of Conservation, reported:

Like everyone else, we have much more need for money than we can extract out of the legislature. With the increase in outdoor recreation, it is imperative that additional funds be made available not only for the purchase of land but for the construction of new facilities and for maintaining those we now have. We are only starting in the field of outdoor recreation and while weather conditions this year reduced attendance in Michigan's parks by approximately a million people, the trend is definitely upwards.

One of our major accomplishments is in the field of group and school camping, both of which have increased very materially over the past several years. The interest in school camping, which involves the Departments of Public Instruction and Conservation as well as many other state departments, is growing by leaps and bounds, and we will shortly have considerable difficulty in finding the buildings in which to house the students who desire to participate in this newest venture in education.

Another accomplishment is a continuation of our land-purchase program. We now have approximately 150,000 acres of land in Michigan dedicated for park and recreation purposes. We need at least another hundred thousand and are progressing slowly but surely toward this end.

Like most States, our parks have grown like "Topsy" without too much thought to their particular location with reference to populations, accessibility, highways, natural features, and other criteria. We are now in the process of developing an over-all state park plan in which we propose to locate areas of outstanding historic and scenic interest which are not now state owned, reconsider some of the existing areas which are not of state caliber or significance, and generally trying to devise a plan of park and recreation expansion which will permit the orderly purchase and development as the need arises.

The Michigan Inter-Agency Council for Recreation, as now set up, headed by Edwin G. Rice as Executive Secretary, assumes the premise

that many public and private agencies have a legitimate role in recreation and that no single agency should claim, nor should it have responsibility for, leadership and service to an area of human activity so broad and diversified. Through the combined voluntary efforts of many state departments and agencies working together on common problems, Michigan plans to improve its recreational service programs.

For *Minnesota*, Lew E. Fiero, Director of Division of State Parks reported:

Minnesota has some 11,000 charted lakes within the State which serve the needs of the tourists and recreationally minded people equally as well, perhaps, as some of our state parks.

The 1949 Legislature appropriated to our State Parks Division approximately $214,000 for the year 1949 and 1950 and approximately $230,000 for the year 1950 and 1951. This includes maintenance and development. Our income from operations and services amounts to approximately $180,000 a year. However, in our State the Legislature has been rather antagonistic toward so-called dedicated receipts and has required that a recapitulation be made at the end of each calendar year and that not more than $15,000 be carried over at the end of the calendar year with which to purchase stores for re-sale, pay seasonal employees, and to purchase new equipment for replacement. As to new equipment, we are limited to the use of 3 percent of the gross income of any calendar year under the present arrangement. This limitation both as to carry-over and as to percentage of equipment replaced, we are endeavoring to have changed to more realistic proportions by the next session of the legislature.

In comparison with appropriations of other States, our operation, maintenance and development funds for our 51 park areas seem very small, indeed. We have no appropriations made directly to the State Parks Division for improvement of park drives and approaches. This is handled through an allotment process which provides some funds to each county in which a state park may be located for the improvement and maintenance of park drives and approach roads. It is rather an awkward arrangement which involves considerable time and work with each county to insure a limited amount of maintenance for development of roads or drives in any state park area. We are working closely with the State Highway department toward a solution of this problem.

In the 1949 Legislature, $58,000 was appropriated for new structures in some of the newer state parks. However, even so small an amount of development money has taxed our small central office staff considerably to design structures and site them properly since we have no architectural services available. This shortcoming we are also endeavoring to correct by action in the next legislature to provide a small planning

section which will include an architectural engineer and some drafting assistance.

We have one section of our maintenance personnel of which we are quite proud, namely, our state-wide maintenance crew which consists of but four men, two of which are carpenter foreman and general repairman respectively. We are endeavoring to provide them with essential equipment which will permit them to accomplish almost any type of repair work necessary in our state parks. They have been well trained and have made outstanding accomplishment in bringing the park repairs to a higher standard.

In conclusion, it might be observed that well trained personnel with plenty of initiative plus the proper equipment is vitally necessary in the maintenance of any state park system. We believe this state-wide maintenance crew is furnishing us the answer to many of the problems which are so difficult for any state park superintendent to handle during the busy season of the year when the traveling public takes most of his time.

For *Missouri*, Abner Gwinn, Chief of Parks, reported:

Missouri people and out-of-state visitors continue to use the State Parks in increasing numbers. There is now three times the use of these facilities to that immediately following World War II.

During the past year sixteen areas previously developed for organized camping agencies were heavily used, and the camping programs carried out were most beneficial. A summer naturalist, museum and guide service were provided in six of the larger parks and continued to be popular. One new overnight area of eight cabins was added at Big Lake State Park; and a small reservoir for swimming, boating and fishing brought near completion at another north Missouri park.

Protection of facilities through a maintenance and improvements program in all the parks has been given first priority, and an attempt is being made to raise the condition standard of all operating equipment. Greatly increased costs of operation and maintenance due to heavier use and rising prices are expected to affect the portion of total state park funds which can be programmed for new work.

For *New York*, James F. Evans, Director of State Parks, reported excellent progress on the park and parkway developments since 1945 to date. It is rather difficult to segregate our projects by years as most of them are overlapping. Since 1945, however, the park program in New York has amounted to $121,000,000—fifty-eight million of which was expended on the extension of parkways and the remainder on park construction.

One twenty-one mile section of four-lane parkway was dedicated by the Governor only a year ago last fall. This brings the Taconic Parkway twenty-one miles nearer Albany and to an excellent outlet road. Con-

tracts are being let shortly for another twelve miles. The Long Island system was extended some nine miles and construction has been started on both the Grand Island West River Parkway, Niagara Falls, and on the Lake Ontario Parkway connecting Rochester with the Hamlin Beach State Park.

The attendance during the past year in New York parks has reached the twenty-two million figure and the revenue just under two million.

The construction program was so varied that I will not take your time to detail it. It runs all the way from picnic grounds to a $4,000,000 stadium at Jones Beach.

For *North Carolina*, Thos. W. Morse, Superintendent of State Parks, reported:

Public use of the North Carolina State Parks for the first nine months of 1950 was almost 50% greater than for the corresponding period in 1949. There was extremely heavy use of swimming, picnicking, camping, group camping, boating and other active use facilities. In fact in a great many cases, *facilities* couldn't meet the demands placed on them. While the use of man-made facilities has been extremely heavy this year, the use of the *parks* themselves leaves much to be desired. To encourage more varied use of the parks, the Division of State Parks is enlisting the aid of municipal and industrial recreation organizations in forming and organizing hiking, nature study, camera, camping, and other clubs which would find the natural conditions in state parks ideal for their programs.

Several interesting projects in the field of history and archeology are being carried on. An exhaustive study of the history of Fort Macon has been completed and archeological exploration and excavation is being done at Town Creek Indian Mound and Morrow Mountain State Park. On the basis of this work, interpretive programs at these state parks can be much improved. Summer naturalists were employed at four of the North Carolina State Parks during the summer of 1950 and more public interest was shown in nature study than in any previous year.

The million and half dollar permanent improvements program is under way in the state parks. The larger part of this money is being spent on day use facilities such as picnicking, swimming, hiking and on roads, parking areas and utilities. Public camp grounds at six state parks and a group of six vacation cabins are also included in the program.

The work of the newly established State Personnel Department in studying state park positions and setting up job descriptions for them should, if adhered to, tend to improve selection of state park personnel. National defense has had its effect on personnel and several employees have been called to active military duty.

For *Ohio*, A. W. Marion, Director, Department of Natural Resources, reported that for the first time in its history the State has a Division of Parks. It is one of seven divisions in the Department of Natural Resources, created by the last session of the General Assembly under the provisions of Senate Bill 13.—N. B. (See 1949 National Conference on State Parks Yearbook for details).

The Division has been established and is functioning. A competent and well trained staff of career personnel has been employed to integrate, coordinate, and supervise the various phases of the work of this Division in order that the public good might best be served.

Areas comprising our state park system were obtained by transfer from various agencies and have been classified as follows:

		Acres
State Parks	16	22,074.85
State Lakes	5	30,000.00
Recreation Reserves	10	2,914.14
Lake Reserves	18	6,298.29
Canalways	2	139.10
Waysides	6	134.21
	Total.....	61,560.59

In addition to the above we have under lease two areas from the U. S. Engineers totaling 14,678 acres, with a third under negotiation, with an acreage of 6,571.

Lands along the shores of Lake Erie for the development of beach parks are being acquired. Painesville Beach, an area of 129 acres, east of Cleveland, is under option and will give the State of Ohio a public beach of approximately 6000 feet in length.

The new department and division are in the process of completing plans for the greatest development and use of state park facilities in Ohio's history. An appropriation of $6,500,000 earmarked for capital improvements will eventually provide much needed recreational facilities from Lake Erie to the Ohio River for the citizens of Ohio and her visitors.

For *Oklahoma*, J. H. Edwards reported:

Most of the States have been handicapped in developing their state park systems to the maximum recreational value by a lack of money to make needed improvements. I should like to bring to your attention the manner in which this problem was partially solved in Oklahoma. We, as investment bankers, were called in by the State Planning and Resources Board, which has charge of the state park system in Oklahoma, and were asked to suggest a means by which Lake Murray State Park in Oklahoma could be improved with revenue bonds. We prepared for the Board a model revenue law which the Board then presented to the Legislature and which was passed. We then worked with the archi-

tects and with the Board in preparing a set of plans for luxury type cabins and a central hotel which were to be built at the Lake Murray State Park. We determine the amount of a bond issue to be required to finance these improvements, and purchased the bonds and then marketed them.

We think that other States might well emulate what Oklahoma has done. The improvements have been completed since the early part of this year. They have been so successful that all debt service requirements for the year were met within the first three months of operation. Profits from the system are used within the park, further to extend and improve it, as well as to service the debt and these profits will permit the State to make other improvements for lower income groups for which funds would not otherwise be available. Money otherwise spent outside the State of Oklahoma is being retained and advantage taken of the recreational opportunities offered in Oklahoma by people who have heretofore gone outside the State. The improvements are without a peer in the entire southwest and the park is attracting people of all kinds, not only from Oklahoma but from all surrounding states, and in fact, from every state in the Union.

We think that every other State could do something of the same thing with its state park systems and we should be glad to talk with any state park system which is interested in the development at Murray and would like to do something of the kind itself. Lee Higginson Corporation, investment bankers of Boston, New York, and Chicago, were associated with us in the Oklahoma venture.

For *South Carolina*, Mrs. Earl H. Brown, Member District Advisory Committee, South Carolina State Parks Board, reported that the State has 19 State parks. Last year the General Assembly appropriated money for the construction of a twentieth park in Dillon County. When that park shall have been completed, the state will have reached its goal of at least one state park within a radius of 50 miles of all.

A new attendance record was attained this past year with a total of 2,089,712 visitors, practically one park visitor per person in the state.

Picnicking attracts one-third of all parks visitors. The 79 family cabins are over-subscribed a year in advance. Organized camping groups, nature clubs, conservation training schools and the like continue to seek their facilities. Large, well-equipped buildings for use as community centers are available at seven of the parks. These and other facilities make a year-round contribution to the State's well-being. So popular are these parks that industries, civic clubs, the highway department and interested individuals have made substantial contributions.

There are 4 parks set up for the use of negroes, and plans for at least three more are under way.

An annual Superintendents' Training meet is held. This year, in addition, five of our park Superintendents took an intensive two weeks training course at the N. C. State College. Our State Parks Director was pleased to receive a letter, this summer, from a gentlemen who said that he and his family had visited State parks in 31 states and in Canada, and that our "park system is second to none in cleanliness and in the courteous treatment given by the personnel who are running them."

I cannot close without thanking the Texas State Parks Board for the many courtesies and the unbounded hospitality which will make the 30th annual meeting a happy memory for years to come.

For *Tennessee*, S. C. Taylor reported that the State had 15 state parks with 135,000 acres, that a million and one half dollars had been appropriated by the legislature for the last period. The major emphasis is on the maintenance of existing buildings and new construction. There is the problem of securing new areas and the State has adopted a policy similar to that in South Carolina. The present forecast indicates that there will be three more parks for Whites and five more for Negroes.

For *South Dakota*, Harry R. Woodward, State Forester, reported:

Our state park system, with the exception of Custer, is in its infancy. In 1945 the Legislature directed the Game, Fish and Parks Commission to acquire by gift, purchase or condemnation, improve and manage other land areas suitable for park purposes in various portions of the State so that a comprehensive State Park System may be established. The Legislature set up a state forestry policy which provided for outdoor areas for recreation, for beautified highways and artificial lakes, and the growing and conservation of trees and forests, with the employment of skilled foresters. Thus the forestry and park activities were consolidated in the Department of Game and Fish under the direction of a technically trained State Forester, whose task is to increase and develop forest lands, including community forests, parks and recreational areas around natural and artificial lakes on state, county and municipal lands, in cooperation with local authorities.

During the five-year period of development the principal emphasis has been on tree planting covering 471 acres in all of these parks. Also the Park Supervisors have built about 250 picnic tables, 175 fireplaces and 75 toilets. I am optimistic about the future of our State Parks. In this short period during which we have been in operation, the attendance at the parks has gone from zero to 273,000 persons and 84,000 cars in 1949, excluding Custer State Park.

For *Texas*, Gordon K. Shearer, Executive Secretary, Texas State Parks Board reported:

Texas State Parks Board this year opened its Group Activity Camp

Program. None of the camps were completed in time for full season booking, but the inquiries that have been made regarding dates for next season indicate that these camps will fill a great need in Texas.

The camp at Bastrop was first to be completed, and is largest of the camps, because it was possible to obtain good structures from the hospital area of a nearby Army Camp and move them to the site. At Caddo Lake existing park structures were renovated and equipped for effective use as a group camp. It was placed in use as soon as the work could be completed. Camps at Fort Parker and Cleburne State Parks were finished so late in the school vacation season that they will get their first general use next spring.

This limited experience in group camps seems to bear out the belief that they would become one of the important phases of state park activity and so well satisfied have the park board members been with the innovation that a request has been made for funds to open additional camps.

In addition to appropriations for the group camps, the state legislature provided $40,000 now being expended for development of Stephen F. Austin State Park on the site of Austin's colony from which grew the State of Texas; and an equal amount for improvement under way at Lake Corpus Christi State Park, near the Texas gulf coast. On the coast also, at Port Isabel, the Texas State Parks Board has accepted a gift of the historic Lighthouse that guided early commerce, and will open a state park there in observance of the centennial anniversary of the building of the structure, within sight of which were fought the first pitched battle of the War with Mexico and the last of the Civil War.

Additional group camps are on our 1951–52 construction program.

For *Washington*, John R. Vanderzicht, Director State Parks and Recreation Commission, reported that, although there has been a State agency concerned with State Parks in the State of Washington since 1921, the present State Parks and Recreation Commission was authorized by the 1947 Legislature. The Commission is a seven member board appointed by the Governor with the consent of the Senate, serving staggered terms of six years.

To finance the operation of the Commission with adequate and continuing funds the 1949 Legislature, with the active and sincere support of the Washington State Good Roads Association and other interested organizations, provided that $1.20 of each $3.00 biennial driver's license be paid into the State Parks and Parkways fund together with one-quarter of the State Highway traffic violation fines and the earnings of any State Park operation. With such public support and with an assured and continuing income the 1949–1951 biennial budget was set up to provide $1,650,000 for capital improvement and $570,400 for operation and maintenance. The driver's license fund will amount to approxi-

mately $1,250,000 per biennium and the other funds will amount to about $500,000.

Capital outlay funds were used for parking facilities, tables and stoves, community kitchens, toilets, sewage disposal, and water systems principally, with work going forward on extensive repair and reconditioning of C.C.C. established facilities.

The State of Washington operates some forty-five developed and supervised State Parks consisting of 56,000 acres extending from the Pacific Coast and Puget Sound region through the high Cascade Mountains to Mount Spokane on the eastern border. Activities range from surf bathing and fishing to skiing and from simple picnics to organized camping. Last year over one and one-half million persons visited the State Parks including nearly one hundred thousand camping enthusiasts.

The Commission is assisted in its work on State Parks by the Washington State Parks Association; in historical development by the State Advisory Board on Historic Sites, a professional group; and in its recreational work by the Washington State Recreation Council and the Advisory Committee on Organized Camping.

For *West Virginia*, Kermit McKeever, Chief, Division of State Parks, reported that the Division of State Parks of West Virginia is one of six divisions of the Conservation Commission.

The Division of Forestry, through its State Forests, also provides recreation and vacation areas. State Forests, unlike Parks, are used for timber management and game management as well as for recreational use. The gentleman in charge of the State Forest areas of West Virginia is Mr. Hays Helmick, who also is attending this conference.

During the past year the attendance in our parks has increased slightly for day-use, while our cabin or vacation business has had a slight decline. This decline is probably due to our increase in cabin rates to a point to where it was felt that the vacationist was paying for value received, but not to the extent that there was a profit to the State.

Our 1949 Legislature recognized the need of our State Parks and we are now operating under our largest appropriation since our parks' creation. With the continued heavy demand from our people for such recreation areas, I can see our park system growing each year.

METROPOLITAN PLANNING

Planning and Development for Metropolitan Communities

MYRES S. McDOUGAL, Yale Law School, New Haven, Conn.

AS a preliminary may I say that to one who is returning to the study of planning problems after several years absence several conclusions stand out—and these are conclusions which I will want to emphasize:

(1) A very real consensus on goals and means among the peoples in our metropolitan communities is required if we are ever to achieve effective planning and development in such communities. No simple gadget, trick, miracle, or change in law will ever do the job. Planning and development activities must become part of a deep organic social process in each community. The problem is not so much one of manipulating formal authority and inventing new laws as it is of fundamental enlightenment and of changes in effective controls and of opinion among the wielders of real power. Our main task is that of clarifying goals and creating conditions appropriate to the use of the legal tools and alternatives we already have.

(2) There is, however, need for the development of certain new institutional practices. Notable among such needs are the following: (a) integration of the controls over land use by private agreements and public regulation, including the administration in the first instance of private covenants by skilled planning technicians; (b) the adaptation of the zoning device from simple-minded use segregation to the securing of *ordered* (by contemporary planning standards) mixed uses; and (c) the perfection and more extensive use of community-wide developmental authorities.

(3) There is need for still more *unified* administration of *all* planning and development powers over the *whole* area of interdependence within each metropolitan community.

I. Contemporary Goals.

Stated in highest level abstraction, our major goal is the development of metropolitan communities which will contribute most to the total policy of the democratic society in which we live. Such communities may be measured by their contributions both to individual human beings and to the other communities of which they are a part: (1) They may be measured by the degree to which they give to individual human beings the greatest possible access to values, including full opportunity to mature talents into socially-valued capacities and to participate in all community processes, power and other; (2) They

may be appraised in terms of the degree to which they contribute to the larger communities of the region and the Nation.

In more concrete terms, our goals may be cast in the dynamic demands of our people today. People today are demanding values which can only be secured if the communities in which they live have efficient physical environments. They are demanding healthful homes in attractive, convenient neighborhoods (at prices they can afford to pay), homes conveniently located with reference to schools, to shopping centers, to facilities for recreation and amusement, and to religious centers. They demand modern and efficient facilities for schools, shopping centers, government, recreation and amusement, with more parks and open spaces. They wish to live in neighborhood units that are conveniently located to their places of work. They are demanding that their communities have modern, efficient, convenient factories and other productive components. They are demanding that their communities have modern, efficient, economical, abundant public utilities and service, with street lay-outs and traffic circulation which will remove congestion, increase safety and reduce cost and delays. They are demanding that all the basic components of their community—habitation, productive, servicing, governmental—be efficiently and harmoniously located in relation to each other.

They are demanding, in short, a physical environment of appropriate efficiency to exploit to the utmost the potentialities of their resources and skills for the fullest production of all their values—wealth (in terms of a high standard of living), enlightenment, congenial personal relationships, the preservation and transmission of their moral and cultural patterns, the wide sharing of respect throughout the community, and a democratic diffusion of participation in the making of important decisions. They are demanding an efficiency in their institutions for land use planning and development and for the provision of public services which will make the most economical use of their financial resources and free more of their resources for pursuit of other values.

They are demanding an environment which will give a society based on private agreement and volition, with a minimum of central direction and coercion, a fair opportunity to show that it can be more productive of all the basic human values, including a high standard of living, than a society which operates by central, coercive rationing of both resources and the fruits of production.

For a community which seeks to meet these demands of its people and to plan and develop a physical enrironment and public services capable of liberating their greatest energies and initiative of its people the task is preeminently one of design and engineering: how specifically can the material environment, the more or less permanent forms, of this community be shaped, moulded and remoulded, and how can its

public utilities and services be developed and operated with the efficiency, to facilitate to the utmost the achievement of all of its preferred values. Beginning with such commonly accepted community values as providing easy access to modes of making a living on respected jobs, and the maximum development of the community for the production of real income; promoting the highest degree of physical and mental health and general well-being of an energetic and creative citizenry; affording maximum protection from contemporary instruments of war; providing maximum access to knowledge, to skill training, and to opportunities for the full enjoyment, both active and passive, of leisure time; development personalities with the characters, values, and skills appropriate to a free society and to any peculiar requirements of the community; securing a democratic and efficient ordering of cooperative activity for the achievement of group purposes; and so on—effective planning must offer precise, operational indices for each and all of these general preferences and invent and implement the blueprints of appropriate action. This I will assume our professional planners are prepared to do.

II. Existing Chaos and Decay of Our Communities.

With our goals so projected, let us contrast what we have. "Our cities and those of almost all the rest of the world," writes Mr. George Sessions Perry, "are punishing, ugly, spirit-quenching, monstrous hives in which people live the lives of frustrated insects."

Graphic description is offered in an unpublished manuscript by one of my students, Mr. Leo Borregard:

> The average city of today is a sprawling mass of blight and slum, residence and factory, business and railroad yard, park and garbage dump—an area without balance or form, criss-crossed by streets carrying buses and cars, intersected by rail lines with trains and subways which offer the sole uniformity the city has—noise, smoke and carbon monoxide. The hovels of the city sit near its center in an area of inflated land values, and spread ever outward infecting other areas, checked in some directions by the "super slums" of the park avenue, or by an occasional park, public building or museum, but flowing around these to pursue people who seek escape in the city's outskirts. The best homes are at the furthest commutable fringes, while in between are these various patterns of growth and decay, tied together by an ever-increasing maze of communication and transportation.
>
> Hand in hand with the physical chaos goes social chaos and disintegration. Atomistic individuals inhabit the urban community, individuals whose sense of belonging is shattered, whose sense of loneliness is acute. People with shallow roots, with myriads of loose social ties, whose days are divided between the central city and the barracks bedroom. Individuals who are "free to swim or drown, free to bet all (their) life on the 'big money', free to turn on the gas as . . . lost and beaten atom(s) in the anonymity of (their) furnished hall bedrooms."

This story of slums, blight, outmoded and congested centers, indiscriminate mixture of uses, dormitory suburbs, congested arteries, jelly-fish structure, cancerous growth, and so on, needs no elaborate statistical documentation. It is a matter of easy and every day observation. So also are the attendant institutional disorganization, financial instability, defeat of social values, and community destruction.

It likewise needs no emphasis that our contemporary governmental organization parallels this physical chaos. The following summary should suffice:

> The 1940 census revealed 140 metropolitan districts in the United States, ranging in population from 53,000 to 10,500,000. No one of these districts was organized as a single city. Instead in the 140 districts there were 172 central cities, 1699 suburban municipalities, 302 counties and a huge number of special districts and authorities. In Cook County in 1938 there were 89 cities and villages, 1 county, 30 townships, 195 school districts, 45 park districts, 1 forest preserve district, 4 sanitary districts, and finally 2 mosquito abatement districts. McDougal and Haber, Property, Wealth, Land: Allocation, Planning, and Development (1948).

III. Factors Conditioning Community Achievement.

The factors that condition a community's need for planning and development procedures, as well as the degree to which it can take advantage of such procedures, are both internal and external.

A. *Within the Community.* The most important conditioning factor in metropolitan communities today—indeed the factor that makes a territorial group a "community"—is interdependence. The degree to which any member of the community can achieve certain values depends upon the degree to which other members can achieve the same values and the total achievement of the community depends upon the efficiency with which its people apply their institutions to their resources.

Potentialities for the production of all values depend in large measure upon the productive, income-creating components of the community. What productive, income-creating components a community has depends, however, in turn in large measure upon the efficiency of its habitation and servicing components. Hence the interdependence of each and all on a community-wide basis.

The exact degree of interdependence within any particular community must of course depend upon the detailed inter-relation of the following factors: (a) *People:* numbers and characteristics; demands, expectations, and identifications; etc.; (b) *Existing distribution of values:* how much wealth, how distributed; how democratic and efficient the organization of power; how realistic the flow of information; the degree of health and well-being; etc.; (c) *Resources:* natural, topography, climate, geologic structure, access to water, etc.; man-made, the whole of technology; (d) *Institutions;* the major organized practices of the community with respect to all values and the degree of their efficiency.

B. *External to the Community.* The details here call for study of all factors of the type indicated above in all the larger communities—district, regional, national, global—of which the metropolitan community is a member. Consider the implications of the control of atomic energy in the hands of our enemies.

IV. The Planning Required to Control Coordinating Factors.

It is interdependences of the type outlined previously that determine the kind of planning contemporary metropolitan communities require. These interdependences require the continuous application of intelligence to the task of surveying changes in conditioning factors and of inventing alternatives to take account of these changes.

The problem is how can the people of a community use their intelligence to secure a physical environment and the public service which will best implement the pursuit of all their values.

We all act with some anticipation of the future,—with some picture of the ends we are seeking (however ill-defined or even unconscious) with some notion of the conditions and trends that circumscribe our action (however inadequate, partial, or even inaccurate) with some appraisal of what are appropriate means to our ends (however inadept, ineffective, or even inappropriate).

It is by the conscious, informed, and skilful use of intelligence that we lift this process of anticipating the future from episodic hunch to systematic prevision and calculation. It is this process of using intelligence, of exercising foresight and acting rationally, which is commonly called planning.

In preliminary statement, this process may be said to consist of four separate steps or procedures: (a) The clarification of general objectives and shaping of specific programs; (b) Study and appraisal of determining conditions and trends—people, values, institutions, technology, resources; (c) Invention of appropriate means to secure established goals; (d) Assisting in execution of programs and evaluating effects of action.

It is the perfecting of these procedures that is the great problem for metropolitan communities in the United States today. It is fantastic to assume that a metropolitan community under contemporary conditions can back itself into efficient institutions for seeking freedom and abundance by some mysterious kind of inadvertent indirection.

It may be emphasized that we are interested in *perfecting* a *process* and in establishing the conditions under which it can best operate and not in *defining* a *word.* People have debated endlessly and futilely about what planning really is, as if it were some absolute *ism* which could be clearly identified or located in space and time. Frequently the word is used with a complete confusion of the descriptive, predictive, and prescriptive functions of the language. It is used in a vague way to describe the practices which have previously gone under the label *planning;* these practices are unconsciously refurnished to conform to the notions of the writer as to what an effective planning process would be; and it is more or less assumed that the new confused usage may gain acceptance in the future.

It is of course impossible to offer realistic description of the planning process, without locating it in the total social process of which it is a

part. There are at least two ways in which the total social process, and its parts, can be usefully described; in terms of the values the people are seeking and in terms of the institutions (practices, operations and perspectives) through which they seek them.

In terms of values, the social process may be thought of as people seeking such representative values as power, wealth, respect, well-being (safety, health, character, comfort) enlightenment and skill and using anyone or all of these values to affect the production and distribution of any one or all. In such terms, as indicated, planning may usefully be regarded as a conscious use of enlightenment and skill to increase the production and sharing of all of a community's values.

To make such a description more fully meaningful it is necessary, however, to observe just who is using what enlightenment and skill, in precisely what context, to effect what distribution of values, with respect to whom. It is necessary, in other words, to describe the planning process in institutional terms and to note just who is making the important decisions about planning and with what effects.

It is important to emphasize that, in these terms, a community plans continuously, whether it knows it or not. Important decisions are being made all the time by private owners, singly or in collaboration with their neighbors, by bankers, by courts, by city officials and others, which do affect the community's allocation and planning of the use of its land resources and which have a tremendous cumulative effect on the extent to which the community can achieve its total values. In our kind of society there is a strong general preference that these decisions, insofar as they can be kept compatible with the community's over-all plan for land use and development and with the fullest securing of the community's basic values, should be made by private volition and agreement and not by central community direction and coercion. The qualification that private decision must be kept within the bounds of community plan for the most efficient use and development of its resources is, however, wholly accepted today and it is agreed that decisions which have community-wide effects must be subject to community regulation or direction. From this perspective there is no choice between planning and not planning, but simply between differing degrees in consciousness of, and efficiency in, planning. The problem for one who is concerned with implementing the policy of the whole community is to devise means to insure that the decisions about land use and development are as fully informed as possible, that the most effective means of implementing the decisions are chosen and acted upon, and that the whole process is kept amenable to democratic controls.

It is, therefore, a problem of greatest urgency to create, and to introduce into the flow of important decisions about land use and development, *institutions* through which the planning process can operate most effectively and through which decisions which have direct commu-

ity-wide effects can be made subject to the regulation and direction of community-wide representatives.

V. Legal Tools for Planning and Development.

The execution of planning and development programs requires the performance of certain specific tasks: (1) Determining the over-all physical *design* or ground-plan of the community; (2) Controlling specific uses within the overall design; (3) Controlling the quantity of land to be devoted to specific uses; (4) Securing actual development and improvement by (a) public agencies and (b) private enterprise; (5) The provision of public services and utilities; (6) Policing the *quality* of development; (7) Maintaining prices consumers can afford to pay. An indispensable initial task is of course the extension of unified governmental control to the whole area of the functionally interdependent community.

It is believed that thoroughly adequate legal tools, all well-tested in various parts of the country, are available for the performance of these tasks. Only the briefest indication can be made of some of the more important of these.

A. *Techniques for Establishing Powers in Areas of Efficient Size.* Such techniques include the extra-territorial exercise of central city powers, annexation and consolidation, city-county consolidation, intergovernmental agreements, and the creation of metropolitan-wide regional authorities. The first is anti-democratic in that it gives people in the suburbs little voice in decisions affecting them. The second is simple and effective but is commonly faced with insuperable political difficulties. The third is of very limited application and potentiality. The fourth depends upon the continued willingness to cooperate of the various participating units, only the fifth would seem to offer great immediate promise. Long tested in the form of "special districts," such an authority could be established over an area of functional size with at first only a few essential powers such as planning, zoning and limited taking and borrowing powers. "As the authority succeeds in its limited tasks, publicises its successes and wins confidence other powers could be added to it with, it might be hoped, lessening political opposition, until most of the important powers of municipal government could be integrated for the whole metropolitan area." (McDougal and Haber, supra at p. 6). The Federal government might greatly expedite the process by making its grants in aid dependent upon the establishment of such community-wide authority.

B. *Planning Laws and Subdivision Regulation: Securing Comprehensive Design.* Constitutional problems here are largely solved and a number of model statutes are available. The last time I made investigation, New Jersey, for instance, offered excellent example.

C. *Zoning Laws and Administration: Maintaining Community*

Design. Constitutional problems are rapidly being solved. Zoning has been sustained for a great variety of purposes. It can be extended to the control of undeveloped areas and the courts are coming more and more to tolerate its use "retroactively" to eliminate mistakes in developed areas.

The obvious failure of zoning has been caused not by the inherent limitations of the device but by its misapplications. It has customarily been crudely applied, without adequate advance planning, to rapidly expanding metropolitan organisms and designed for the purpose, not of achieving integrated neighborhood units according to technical planning standards, but rather of maintaining a simple-minded and impossible segregation of uses. The result has been legislative spot-zoning, administrative variances, a surfeit of judicial rulings of unreasonableness, and complete defeat of community values.

The remedy is not to discard zoning, but to *plan* before and during zoning and to zone for "neighborhoods" and appropriate "mixed uses" rather than for simple segregation.

D. *Tax Policies and Rational Use and Development.* Our land taxes are still administered in a most regressive fashion to hamper and inhibit improvement. Long experience in many different parts of the world suggests that such taxes can, in contrast, be easily managed to stimulate and promote rational development.

E. *Public Ownership as an Instrument of Planning and Development Policies.* Recent decisions indicate that there are no lasting constitutional impediments to a still wider use of public ownership. In *T.V.A.* v. *Welch*, the Supreme Court may have dealt a death blow to the "public purpose" doctrine, invented in the last century to enable municipalities to escape promised subsidies to railroads and since employed for the arbitrary harassment of all kinds of community activities.

There is need for the general adoption of improved condemnation procedures and for a wider use of excess condemnation.

F. *Financing Comprehensive Community Development.* The task of developing metropolitan communities appropriate for security and other values in the atomic age is so tremendous it requires the tapping of all possible sources of funds, public (at every governmental level) as well as private. Because of the national stake in the balanced development of all communities and because Federal tax powers can be managed less regressively and more uniformly than most state and local tax systems, it is desirable that the great bulk of public funds should come from the Federal government rather than from the states or localities.

The public corporation, taking the country as a whole, has been used to finance such varied undertakings as water conservation, electrification, public power, irrigation, sewers, toll bridges, hospitals, golf courses, and so on. Governmental authority should be chartered to operate

over the whole of a metropolitan community and should not be limited to isolated improvements. It should be free to initiate any improvement for which it can find the funds, subject only to conforming to the requirements of a comprehensive community plan.

Capital budget procedures could be improved and more widely used.

G. *Quality Controls: Safeguarding Standards of Livability.* The negative, restraining sanctions of the police power—building codes, health regulation, compulsory repair, vacation, demolition, etc.—can never adequately substitute for positive programs of construction but may serve as necessary supplements. Further study is needed on appropriate standards of fitness, efficient administrative procedures, and the impact of judicial requirements of notice, hearing, findings, appeal, review, personal liability of administering officers, and so on.

H. *Price Control: Land as a Public Utility.* Rent control makes but a bare beginning on the problem of insuring that land and its improvements are available to consumers at prices they can afford to pay. More effective controls may include zoning, taxing, credit extensions, rationalizing of building industry, adequate planning to safeguard investments, improving legal procedures for eminent domain and title proof, etc. The problem awaits imaginative exploration.

I. *Expanding the Role of Private Agreement.* The use of private agreement today is burdened by complex doctrine cast in the terms of easements, covenants, servitudes, conditions, and reverters. The highest courts of the land are confronted with a huge flow of cases on "building schemes" and the termination of restrictions—problems for which they have no special competence. A framework of community planning and skilled technical administration in the first instance are required to make private agreement a more effective instrument of individual and community policy.

J. *The Problem of Administration: Integrating the Exercise of Community Powers.* With all of its complexity, the problem of administering the planning and development powers of a metropolitan community is relatively simple in comparison with many problems our public administration experts have met and solved—such, for example, as organizing the Federal government for the successful conduct of war. The best minds among our experts should be enlisted for the creation of an appropriate model.

VI. A Program for Achieving Community Consensus.

It is a tenet to which all contemporary schools subscribe—that people act to maximize their values. The problem of one who would effectively promote community planning and development is, therefore, several-fold: (1) to aid the people in our metropolitan communities to know and clarify their values—to formulate for themselves as precisely as they can what they want out of their cities; (2) to deepen

peoples' consciousness of their interdependences—their understanding of the conditions under which their values must be sought; (3) to increase peoples' understanding of appropriate means—their understanding of the indispensability of applying the intelligence function to their public as well as private affairs.

It needs no emphasis that the extent to which a community will create efficient institutions for planning and development depends upon the extent to which its people are community conscious, the extent to which they recognize their interdependences and identify themselves and their interests with the whole community. The task of creating this necessary insight is obviously one which calls for the employment of all the techniques of public relations and enlightenment. The need is to bring to the people in our metropolitan communities both a vision of the potentialities of an efficient physical environment and a realistic knowledge of the contrasting reality of the present terrible losses from inefficient use of our environment. The mode of escape from this disparity could be dramatized by presentation of the many particularly successful examples of planning and development. It is here, however, that the lawyer had best retire in favor of the expert on public relations and enlightenment.

Planning the Metropolitan Boston Region

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IN THIS non-communist Nation of ours we and our employers constantly aver social objectives for our plans, whatever the actual practices of the people's elected representatives and their appointees. Parenthetically, here lies the root of the planner's greatest frustrations. Often these objectives are referred to as social *and* economic, or even *socio-economic*, but I submit that economics, as distinct from social planning, is merely a descriptive science, describing what ensues if certain bases are assumed and, like a trusty old race-horse, circling the closed track around back to these bases. It is strictly neutral, serving radical and reactionary, socialist and profascist, in turn. It is a means of gaining objectives, whether social or not. It is a useful tool of the planner, whether in recasting a limited portion of the social objective for practical handling or in setting up a financial scheme in more or less harmony with current practices to help achieve results.

Some of you already know my bias towards physical planning. While the most creditable portions of city and regional planning are social in their objectives, they are not, unlike many other aspects of social planning, habitually associated in the public mind today with radical communism, and so, for practical reasons if for no other, are better kept separate. Moreover, they are on the whole in a more ad-

vanced stage, and offer a more mature product. But there is a more cogent reason why the city and regional planning profession should not embrace social planning as such—welfare, dealing with crime, and the rest. To succeed, a plan must be more than a mere mosaic or kaleidoscopic picture of plans brought forth individually by specialists, —in planning for industry, transportation, housing, parks, and other functions. Some one individual must be more than a compiler, a fitter-together of picture puzzles: he must have a sufficient grasp of the main implications of each functional aspect to be able to integrate them all into a truly master plan.

We modestly claim that ability for our profession—so far as the plan relates to arrangement of land uses and physical works on the land. And the American Institute of Planners has wisely nailed its flag to that mast in so many words. When a profession embraces so many varieties of professionals that its members do not talk a common language, do not have the same general body of thought, it ceases to be a profession, and those it would serve are unable to identify its services. City and regional planning as now practiced is thus identified and given opportunities to perform on more than a theoretical basis.

Do not misunderstand me: a city or regional plan must have social objectives, and all important social objectives so far as they have physical counterparts must be included for the plan to be truly comprehensive—a large order. Also an integral part of the plan will be its means of effectuation—financial, governmental, its public relations, and so on. Promotion of industry and other livelihood in particular demands attention.

I come now to the particular subject of this paper, a regional plan for Boston. There is no insurmountable difficulty in setting up the social objectives of such a regional plan. There is no great difficulty—though it requires skill and intuitive ability—in setting up a physical pattern for the region, to facilitate these objectives. There is no theoretical difficulty—though a lot of tedious effort—in establishing a workable financial program for effectuating the plan. Even the governmental and administrative machinery for achieving results for the Boston region can be charted—and has been, repeatedly. But the rock that all these founder on is the unwillingness of the existing municipalities comprising the regional district, other than Boston itself and perhaps a few other unfortunates, to participate in regional action. No one has yet found a formula by which regional needs can be met and paid for without existing towns giving up some or much of their autonomy, whether by consolidation, by joint action, or by state domination. In our still somewhat democratic form of government, this the legislature of Massachusetts either cannot enforce or will not enact. Like the United States in relation to the world today, these municipalities at present prefer to go down in long run disaster rather than give

up any substantial part of their sovereignty. Since no existing agency, public or otherwise, is carrying on a campaign of educating the public to demand the benefits accruing under a suitable regional plan, the first step would appear obvious—to set up a vigorous voluntary association, not unlike the New York Regional Plan Association or the many British planning associations—to promote regional planning for metropolitan Boston.

What follows is an attempt at a concise technical summary of an actual Boston regional plan and what it can do for the region. Much of the work on this plan has already been done by the Massachusetts State Planning Board, which I have served as consulting planner. This is a balanced plan, emphasizing those aspects proven to be as a rule acceptable but not devoting undue space to those aspects—*e.g.* industrial promotion and urban redevelopment—which happen at the moment to be receiving greatest attention.

The Metropolitan Boston Region has attained a mature urban development, so that today its human and man-made resources are its greatest assets. Here is New England's chief seaport and trading center, and an important manufacturing area. The region's natural resources comprise favorable, gently rolling topography, an excellent harbor, scenic ocean shores, moderately fertile land interspersed with rough stretches of forest and wild areas, and some usable sand, gravel, and rock.

On this site stand one hundred cities and towns built up over a long period of years with much good housing, many business buildings and industrial plants, transportation facilities both within the region and tapping most of New England as its distributary or trading area, as well as the rest of the nation and the seaports of the world, and provision of the various utilities and services that go to make a community efficient and socially of high grade.

The region's economic future is sound, though not such as to induce spectacular expansion. It is estimated that the number gainfully employed will remain for several decades at about the 1940 level of 850,000. Industrial employment will decline, though a larger quantity and value of goods will be produced. Jobs in transportation, trade, and services, including government, will correspondingly increase. The standard of living will rise materially.

The region's total population of two and a half million will not change substantially in the next twenty-five years. There will be substantially fewer people under twenty years old and correspondingly more elderly people.

Distribution of people within the region will be more decentralized, reflecting particularly some redistribution of industry, improved facilities for travel, and the desire of many families to live in neighborhoods of low density of housing.

This region is sufficiently unified physically, socially, and economically so that its future development may be made far more effective if based on a comprehensive regional plan. The Legislature has charged the State Planning Board as one of its duties to prepare such a plan, dealing with matters affecting more than one municipality and avoiding matters of mere local concern.

The various departments of the state government on the one hand and the individual municipal governments on the other, as well as private agencies and citizens, may thus coordinate their activities to produce a well-rounded region with a minimum of overlapping efforts or failures to meet needs.

This plan is therefore primarily addressed to the state departments and to the local planning boards in the region, and in towns with no planning board to their selectmen, with a view both to securing their active participation and assistance in perfecting the plan and to furnishing them with a general regional framework for their own planning. In particular the public works programs may thus be made to yield the maximum of benefit. The plan should also furnish a valuable basis for cooperative efforts of existing and future voluntary regional organizations with kindred interests.

As a means to increasing the efficiency of the region, the regional master plan seeks to bring about a greater degree of physical coordination of its various activities, both private and public. Activities may be divided into two main groups,—land uses and lines of movement.

Land uses may be again broken into private uses and public services. Private uses may be brought into line through a zoning plan which sets aside appropriate areas for industry, business, and housing, and for part-time farming and various other rural uses. Recreational, educational, health, welfare, and other services may likewise be assigned locations where they will best serve the people.

To facilitate the movement of people and goods a network of major highways may be superimposed on the land-use pattern, together with a transit and bus system. Desirable modifications and extensions of railroads and terminals, Port of Boston facilities, and airports and airways, and the coordination of all types of transportation in a more unified service complete the picture. Plans to make water supply and sewage disposal systems adequate for future needs are also important elements of this region's master plan.

The master plan will influence the region by serving as a reliable basis and guide for testing the validity of a wide range of state and municipal actions. Zoning may be applied more accurately by individual communities if kept in harmony with the plan. Public works of many types may be carried out with greater assurance of enduring usefulness. Future through-streets and parks and widenings indicated on the plan may safely be reserved on each municipality's official map.

Residential redevelopment may be directed to areas most suitable and in need of such action. The plan will hold before everyone a vision of a better region, more convenient, more efficient, and with a full utilization and coordination of natural and man-made resources.

Most people cannot dwell in the region without a job for at least the head of each household. Planning will help to increase jobs, or at least to prevent their decrease. It will facilitate suitable jobs in appropriate places. In industry it will determine which types may, with benefit to the operator, locate in the region, and will determine the localities within the region where each type is beneficial to the community as well as to the operator. In business it will determine trading areas and populations as a basis for determining the possibilities of expansion or at least of continuation. It will determine what types of business will fit in each part of the community.

Practically all earning people must be housed at locations accessible to their work. Their homes should meet reasonable standards of decency as to light and air, sanitation, safety, privacy, and environment. Planning will determine which neighborhoods and dwellings are satisfactory if protected from blight, which need modernizing, which need redevelopment, and where new housing is needed as densities in old established districts are decreased or jobs are redistributed. It will also determine the most suitable types and densities for housing in each locality.

Most people will prefer to live in neighborhoods of moderate housing density. If present crowded areas are rebuilt to the lower density, many families will continue to find these more central locations suitable. A comparatively small minority will desire to live in large elevator apartment houses, preferably spaced well apart. A popular type will be the so-called garden apartment in shallow, two-story buildings, covering only a small portion of the land. For many the American ideal of a single-family detached house, not too near its neighbors for privacy, should always be within reach. A much smaller number will desire to utilize an acre or more of land in part-time cultivation of food and the enjoyment of landscape.

The dense development of the region for industry, business, and residence produces a central nucleus with irregularly radiating arms and beyond these small isolated centers. The surrounding belt of open land penetrates in wedges between these arms, making a crudely star-shaped urban area. Planning will continue this pattern and will indicate where the urban arms may advantageously be extended. It will also indicate the range of part-time farming coupled with other activities, the very limited areas suitable for commercial agriculture, and the more extensive areas that should be devoted to forestry.

Recreation, education, health, and welfare services must be adequately provided within reach of all citizens if the region is to meet its

obligations. Planning will indicate the extent and location of needed regional parks and other recreation facilities,—that is, areas serving more than a single municipality or part thereof. Naturally in this regional plan the more extensive types of recreation will receive chief emphasis: public forests and parks comprising stretches of wild land of scenic interest and suited for picnicking, hiking, and nature study will be linked together by one or more parkway strips to form continuous chains of open spaces, thus increasing their cumulative value for hiking, riding, bicycling, and short trips by automobile away from the urban environment. Ponds, streams, and salt water areas suitable for swimming and boating should each serve several communities. Great ocean beaches, both close in to Boston and to the north and the south, must be developed so that each serves a large part of the region. Provision for winter sports will readily fit into such a system. Such extensive games as golf will be provided by both private and public enterprise. In addition, isolated historic, scientific, and scenic sites must be preserved. Vacation resorts and notably Boston's famous "north" and "south shores" will be further protected, and developed for their economic value.

Likewise planning will indicate needed educational facilities of regional significance as well as hospitals, welfare institutions, and the like. On the other hand, local parks, schools, and health, welfare, and safety services will not be delineated, as they are properly the concern of each city and town plan.

Work cannot be carried on nor dwellings lived in unless convenient access is provided by suitable means of transportation for both people and goods. Planning will determine how far coordination and unification of transport methods can go to the benefit of the traveler or shipper and the community on the one hand and of the operator on the other.

Planning will determine the locations and capacities of the regional network of major highways, including limited access or express highways where vehicular traffic will be heaviest and parkways where passenger travel may be concentrated on attractive routes. Public transportation in rapid transit cars and buses will likewise be routed for maximum service. Some of the present suburban railroads may be incorporated in the rapid transit system.

The railroads are for the most part already fixed, the planning will lead to such improvement of freight terminals as the extension of interchange facilities to local freight houses and spurs and the further development of wholesale markets for handling of perishable goods.

Much remains to be done to bring the Port of Boston up to its highest usefulness for both coastwise and overseas shipping. Planning both of docks and other facilities and of rates and other controls will help to increase the tonnage handled.

Travel by air needs further development of ground facilities. Planning will plot a system of airports, both major ports for through transport services serving the region as a whole and minor ports for local taxi and private flying, serving each community. Most airports can be located so that each will serve several communities. The central airport at East Boston needs several auxiliary airports in about a 15-mile radius for special and overflow services and emergency landings.

Among the utilities serving the communities of the region, water supply and sewage disposal are the ones that need most to be incorporated as parts of the integrated comprehensive plan. Local distribution and collection are matters for municipal planning, but most communities find it advantageous to join with others in developing adequate and economical water supply sources. The new Metropolitan Water District supply, Quabbin Reservoir, is big enough for all municipalities not adequately and more cheaply supplied otherwise. Planning will determine how far this use of Quabbin water should go, what local sources should continue to be utilized, and what protection they need, and will answer such questions as whether there can be joint use of certain reserve supplies for recreation, wild life protection, and the like.

Parts of the region have adequate disposal of sewage, either in one of the two joint Metropolitan systems or independently, though in some cases the effluent should receive further treatment. In parts of the region with open development and sandy soil no public sewers are needed. Planning will determine where further use of Metropolitan sewers or other joint facilities will be advantageous and what treatment at each outfall is necessary for protection of the public. It will also determine what other pollution controls are needed on each stream of the region to abate any nuisances from industrial wastes and other sources, and will assure their greatest multiple use for all or at least for several purposes, especially for various types of recreation.

On a few streams of the region there occur occasional overflowings of the banks to the point of definite economic loss. While some of these are strictly local, others affect more than one town. Some streams get so low in summer as to be a nuisance to their neighborhood. Planning will determine what flow control measures are practical and will result in net benefits. For the Sudbury Valley a joint board has this spring reported to the state legislature a multiple use master plan, relating all such matters and other land use to one another in an integrated scheme.

There are other items that might be covered by the regional plan but these are either of minor significance or offer little chance of changes for the better, and so are omitted. It is considered to be wiser not to burden those phases of the regional plan which have at least a fighting chance of accomplishment with highly controversial proposals that

are sure to stir up major opposition and so jeopardize the entire plan. When all or most of the items enumerated above are brought together in a generally acceptable comprehensive plan, the regional will have technical tools with which to proceed to attain planned outcomes beneficial to all.

Let me re-iterate: we planners can design an excellent physical pattern for the Boston Region. Our fellow social scientists and others can help set the social objectives of the plan. Our fellow economists and students of government can help set up the means of effectuating the plan. It remains to sell this excellent plan so that the public demand for achieving it becomes overwhelming: a citizens' regional plan association is the logical next step.

Relationship Problems between Planning and Administrative Offices

RAYMOND V. LONG, Commissioner, Div. of Planning and Economic Development, Dept. of Conservation and Development, Richmond, Va.

RATHER than undertake a discourse on the theoretical relationship that should exist between municipal planning and administrative offices, may I *think* and *discuss* with you some of the problem relationships that actually exist? Such a frank discussion could lead to suggested solutions to some of these problems—and they do constitute real problems. If the strained relationships between planning commissions and administrative officers could be alleviated or corrected many individual or local conflicts would cease and the profession as a whole would benefit.

Among the questions that all of us raise, or with which we are confronted are:—

Why do some planning commissions get the job done and enjoy enviable relationships with administrative officials and others do not?

Why is it that during the height of the State planning organization movement, the latter part of the thirties, as Pitkin points out, forty-seven states had State planning boards or commissions and today only twelve carry the word "planning" in their title and only a few carry on the type of activity with which they started?

Why is it that some municipal planning commissions start out with fire and enthusiasm and in a short while are no longer in active existence?

INHERENT CONFLICT:—The most difficult problems to solve in this field are those based in inherent conflicts between planning officials and administrative officials. The town manager is confronted daily and hourly with problems that must be attended to *now*. The planner with the longer approach would avoid temporary

and expedient measures and tie them in with more nearly permanent improvements or long range plans. The city manager feels the people are unwilling to wait until the master plan develops for the solution to many needed improvements and which often call for the expenditure of relatively large sums of money. The planner would devote these expenditures to the gradual development of the master plan. Illustrations of such problems are found in most towns and cities and occur in nearly all fields of public improvements. Many such potential conflicts are avoided where there is sympathetic understanding and a conscious effort on the part of each to work together, but the inherent conflict is there. The planner must envision his work as a long range program but he dare not get too far away in his announced planning and thinking from the concepts and understanding of the citizenry he is serving nor should he attempt to present for acceptance on the part of the public plans that are too far in advance of the public's willingness and readiness to accept.

Basic Psychological Difficulties:—The administrative officer must be a realist and reckon with people. The planner, unfortunately perhaps, is not always confronted with that necessity. The planner frequently brings criticism to himself and discredit to the profession by failing to think and plan in terms of concepts and understandings of the citizenry he is serving. The administrative official must reckon with the concerned or irate citizen whose basement is flooded, who must combat traffic snarls, who wants better or added school facilities, whose taxes are too high and many other realistic matters serious and real to him. The planner is concerned with such problems only indirectly.

The administrative official, long experienced in his departmental responsibility, often raises the question—why a planning commission to develop plans involving my department? How can a detached organization of planners be expected to know the needs, present and projected, of this department as well as we ourselves know them? In support of this thinking many important administrative departments add planning sections to their departments as planning takes on added importance and emphasis, thus adding to the relationship problems.

Within the last week a member of a city council discussed with me the problems confronted in organizing a planning commission for his city. He is well informed on the problems confronting administrative officers in a city, knows planning procedure, and is strongly in support of municipal planning. When the matter of passing the necessary ordinance and appropriating funds in support of a planning commission came before council, the city manager objected for reasons discussed above. He was sincere in his ob-

jections. He observed that the city had a balanced budget and setting up such a planning commission would not only upset the budget but would mean an unnecessary expenditure, since he and his assistants could do all the work necessary in developing a master plan for the city. This is not just an isolated or unusual incident; it prevails generally throughout the nation—particularly in the smaller cities and towns. Unfortunately it so often exists in those municipalities that are in most serious need of planning services.

TELLING VS. INFORMING:—It is not uncommon to hear reports and findings of planning commissions that tell the administrative officials what to do, when and how to do it, in contrast with reports and findings that lay before such officials factual information for their guidance and consideration. Where such practices are followed the effectiveness of the planning commission is likely to be short lived—the exceptions being where the city manager or other important official uses the planning commission as a strong right arm and enforce their plans. Administrative officials do not like to be *told.* Nor do they welcome a "looking down the nose" criticism. They will not tolerate strangers playing in their backyard.

You will say such attitudes should not exist and such relationships could and should be avoided. But they do exist and we have a long way yet to go in developing professional programs and standards that will guard against and prevent such relationships.

PUBLIC RELATIONS:—About a year ago the Chairman of a municipal planning commission came to my office, greatly discouraged and bitter in his complaint that his commission could get no action at all from the town manager or council. The commission had devoted much time over a period of a year-and-a-half in developing plans for the municipality, and could get no response whatever from the town officials. "In fact," he said, "I don't believe the manager or council knows the commission exists." After further inquiry I found that the planning commission had been meeting for about a year-and-a-half behind closed doors, without visiting town officials or inviting them in, and without holding a single public meeting. Yet this planning official seemed to be unaware of any shortcoming on the part of the commission. That city manager today has little use for planning. The city continues to grow in a hodgepodge fashion with evidence all around that growing problems are developing that must sooner or later be met.

The importance of good, sound public relations in the development of a planning program is fully recognized by everyone in this audience, and yet how many of us fall short in developing essential public relations?

Do we as planners always have clearly in mind what we are trying to do and are we sufficiently familiar with our plans to present them

realistically to administrative officials, or do we find ourselves *sometimes* resorting to evasiveness and cliches? The satire on planners, in which Mr. Arbuthnot, the cliche expert, testifies on planning, gives any one of us a good laugh but how many of us have *at times* been just about as unconvincing in explaining our plans as was Mr. Arbuthnot.

I do not know of any set of criteria that may be applied with unfailing good results for insuring good public relations in the field of planning, but certainly there must be an understanding of what we are planning to do and that understanding must be based in reality. Once such a program is determined it must be followed step by step in clear, straightforward, honest discussions with administrative officials and with the citizenry we are serving. The establishment of good public relations does not necessarily require high-pressure salesmanship but it does require patience and a self-assurance coupled with honesty and sincerity. Perhaps one big reason for many of our professional failures in the field of planning is an oversight on the part of our institutions offering courses in planning, to develop in the student a capacity to speak clearly and forcefully and also to write with clarity and understanding. These should be rigid requirements in any institutional course in planning. A student well-equipped in the mechanics of planning may be woefully lacking in his ability to explain clearly, honestly and straightforwardly his planning program to administrative officials and the citizenry he is serving.

These I believe to be the chief reasons for the difficult relationships.

The answer—not in better techniques and mechanics—but in better *understanding* of *people.*

F. A. Pitkin, Executive Director, Pennsylvania State Planning Board, declared as to metropolitan planning, we see that the objectives are clear, the necessity is obvious, the basic techniques have been developed and tested, and that the legal authorizations either exist or can be secured. We see that the big problem is that of securing action—first, in the creation of the metropolitan planning agency, and, second, in advancing an effective program after the agency has been created. To secure such action we must break the deadlock occasioned by inertia, local fears, tax differentials, political expediencies and personal and community jealousies.

We have had some excellent suggestions as to how we can secure effective action. This morning's session on "Citizen Education and Support" gives us one means of attack. Another good suggestion is that we take full advantage of any current or impending emergencies in trying to organize comprehensive planning on a metropolitan basis. The necessity for joint action on water supply, sewage collection and treatment or transportation may lead to a broader planning program.

TRANSPORTATION

The Interstate System in Urban Areas

THOS. H. MacDONALD, Commissioner of Public Roads, Washington, D. C.

AFTER five years, from a cold beginning and with all the handicaps of the reconversion period from a war economy to a resumption of a troubled peacetime routine of civic life, there is an encouraging number of urban arterial projects or partial projects now in service. Their performance, measured by vehicles safely carried in constantly increasing numbers, justifies confidence in the potentials of this relatively new approach to the multi-problem dilemma of urban area traffic. Where major results have been secured, they are the product of planning, but the planning was activated by, or made possible with, Federal allotments for urban construction and for anticipatory planning.

The sound selection of the urban area arterial plan of highways requires highly detailed studies and a series of progressive steps. There are no short cuts to enduring end results. When mass transportation was supplemented by the completely individualistic motor vehicle in fantastic numbers, planning from the top downward lost all authenticity. The highway net now has two major functions: first, to move traffic efficiently, safely and as directly as possible to its objectives, and second, to apply by means of adequate arterial expressways, the constant pressure necessary to accomplish the expansion as well as the redevelopment of outmoded city sections in conformity with a desirable, modern urban area pattern.

In the years just before the war traffic conditions on main highways became serious. This was particularly true of sections of routes into and through cities. A major reorientation of the highway program, having as a principal objective the modernization of main routes, appeared to be at hand when we were plunged into war. The need for major improvements had become so urgent that the 1944 highway legislation authorized a much enlarged postwar Federal-aid highway program and recognized urban major routes as a separate entity with dedicated funds.

This legislation authorized the selection of a National System of Interstate Highways not exceeding 40,000 miles in extent, and contemplated improvement with Federal assistance. The system initially recommended by the State highway departments was formally designated on August 2, 1947, and consists of our most heavily traveled highways connecting the larger cities. These cities are the principal focal points of highway travel. The greater portion of the travel on any main highway is bound to or from the nearest city or town. Accurate

knowledge as to the extent to which destinations are in urban areas was a guidepost in the conception of the system.

From 1921 to 1940 State and Federal interest had been centered mainly on highways outside of city limits. In the new undertaking particular emphasis is placed on development of the system in cities. The initial total system designation was 37,681 miles of principal highways including 2,882 miles of urban thoroughfares. In the face of insistent demands for inclusion of additional intercity routes there is a reserve of 2,319 miles for terminal distribution and circumferential routes. The fully developed system must include not only facilities for free and unobstructed movement outside of cities, but the same sort of service for components of the main traffic stream bound for the various sections within the city. The terminal pattern is maturing as rapidly as it is possible to produce the necessary factual data and to secure agreement among participating agencies. It should be noted that mileage limitations will restrict the urban routes on the Interstate System but each urban Federal-aid system will be completely integrated. Thus the whole mileage will serve as terminal facilities.

Since the war specific authorizations of Federal-aid funds have been available for improvement of urban highways—$125 million for each of the first three postwar fiscal years, and $112½ million for the fiscal years 1950 and 1951. These authorizations are a direct outgrowth of the Interstate System plan. The several reports that led to authorization of the system emphasized the priority of the need for improvements in cities. They pointed out the increasing difficulties as a vehicle approaches a city and the congestion and delay as it attempts to move within and through the city. These conditions constituted the greatest obstacles to travel on the main routes of the country and are the ones most urgently in need of correction.

While the Interstate System is the main network of highways of the country, planned to serve the movements between all regions, it would be a mistake to regard it as serving mainly a long-distance movement. On main highways approaching cities of 50,000 or more population, at least 80 per cent of the vehicles are bound for the city. For cities of 10,000 to 50,000 the figure is above 60 per cent.

As the highway passes through suburban areas it picks up large volumes of local traffic. On even the most important main highways the traffic within metropolitan areas is principally a local movement,—into the city in the morning—out from it in the afternoon. On urban sections of the Interstate System traffic averages 9,500 vehicles per day. As a general characteristic of the total traffic, only 13 per cent consists of passenger vehicles with out-of-State tags. The major causes of traffic difficulties,—the creators of the bumper-to-bumper columns of creeping vehicles,—are the daily worker, the frequent shopper and the local truck movements. On these activities the life of the city

depends. Serving them is more important than serving the through movement. On a volume basis the local movement is the prevailing segment.

No one acquainted with the characteristics of highway traffic advocates the serving of traffic from distant points with one set of facilities and the local movement with another. As they enter the city the two classes of movements have closely similar objectives. A very large portion of the vehicles are destined to or near the central business area. Some are going to outer segments of the city. Relatively few are bound for points beyond the city.

An analysis of traffic approaching the congested downtown areas of cities of 50 to 100 thousand population, shows that 84 per cent originates within the city. Forty-two per cent have destinations within the central business district, and 58 per cent pass on through to other sections of the city or to points outside the city.

The traffic pattern is different in every city. Each is the result of existing highway facilities, placement of businesses and industries and residential development. Natural obstacles and barriers alone account for the absence of any close similarity between city traffic patterns.

The Interstate System in urban areas must be designed to give a complete service to both the traffic from a distance, and the greater volume that will enter its routes near and within the cities. A first step in planning is to define the lines of traffic movement—where people come from and where they are going. Many people will say "That is easy to do; we know where people live and where businesses and industries are located." But ask individual drivers if they follow a reasonably direct route from home to work and there is a different story. Many vehicles passing through or near the center of the city are there only because there is no better route to an outer portion of the city. Full service is possible only with direct routes through the city passing near the central district with radial and properly spaced circumferential distribution routes as required.

The first step defines the lines of major traffic movement,—not the indirect lines often followed, but the lines desired for direct movement. Many of these studies are under way through cooperation between States and cities. Origin and destination surveys are being made to show where principal arteries should be placed. When full factual data have been analyzed, the second step is to select the arteries and then to improve them in a fully adequate manner.

When we begin selection of arteries and discussion of how they should be improved and financed, serious troubles begin. That is the time that the rocks of disaster often loom ahead. Many different agencies are involved in a complete plan for a metropolitan area. It is difficult to get them all to agree on any single plan. An expressway or other form of main artery almost always means the taking of some

residential and business property. Any given location will be favored by one group of interests and opposed by others.

It is easy for the opponents of any plan to recruit an opposing force. To those who do not like the project it immediately becomes a wide ditch or Chinese wall, regardless of the fact that properly located grade separation structures may bring freer and safer cross communication than has existed before. The improvement may be opposed because it will divide a city ward and lead to readjustment of political strength. The impression may be spread that the facility is to be built only to serve people passing through the city when it is obvious that local traffic will predominate.

It may be argued that there is no point in making it easier for vehicles to get into the city when there are too many there already. Packed parking spaces and congested cross streets are pointed out as reasons why we should not bring in more vehicles with no place to go. These are sound arguments if there is no intention of doing anything about the parking problem or the service streets. They are a part of the general problem that must be solved.

Federal, State and local agencies are all involved in planning and constructing main urban arteries. The necessity of reaching agreement on the basis of factual data should be uppermost in the minds of all parties from the inception of a project. Disagreement can best be avoided by having representatives of appropriate agencies and groups participate in the various planning steps.

There is no set formula for guiding a plan or project so that it always progresses through smooth waters, but we do have some good examples where obstacles have been avoided or overcome, and construction is under way or near at hand. Urban expressways are now under construction in several Texas, California and Ohio cities, and in Detroit, Chicago, Atlanta and Seattle.

New York State is instituting a plan that offers much promise of success in speeding up the steps that must precede construction. The Department of Public Works has created a Bureau of Arterial Route Planning which makes studies and prepares general plans for development of arterial routes. These are submitted to city officials for consideration and approval. When approved the routes become the only ones on which State assistance is available.

For our largest cities,—those that are the focal points on the Interstate System—the only possible solution on main arteries is the construction of expressways. Elimination of cross traffic and full control of access are features that give this form of improvement its great traffic capacity.

A four-lane expressway of modern design with controlled access will accommodate as much traffic at approximately twice the average speed as: (1) Five ordinary city streets, each 40 feet in width with

parking prohibited; (2) Eight ordinary city streets, each 42 feet wide with parking on both sides; (3) Five ordinary city streets, each 68 feet wide with parking on both sides; (4) About three ordinary city streets, each 68 feet wide with parking prohibited.

By "ordinary city streets" is meant those that have the average amount of left-turning movements and pedestrian interference prevalent in downtown areas.

Our largest cities cannot expect satisfactory traffic conditions until they construct full expressways. Only divided highways of four or more lanes, free of cross traffic and with controlled access, can handle the largest traffic volumes without congestion and delay. As we descend the scale of city size, the necessity for full expressways decreases. In cities of medium and small size it may be feasible to permit some of the more important cross streets to intersect at grade. The outstanding feature in distinguishing one type of arterial highways from another is the degree of control of access. The fewer the number of places at which vehicles may enter, the greater will be the safety and traffic capacity.

To plan a better transportation system for Washington, and to insure intelligent programming of highway construction funds which would lead to a step-by-step solution of traffic problems in their relative order of priority, in March, 1948, a comprehensive origin and destination survey was begun. This study covered not only the city of Washington but also the satellite areas of Virginia and Maryland where urban development was contiguous to that of Washington. In all, an area of 198 square miles was embraced. The study was financed jointly by the District of Columbia, the States of Maryland and Virginia, and the Bureau of Public Roads. To date $150,000 has been expended for field work and $36,000 has been allocated for analysis. A guiding committee representing the three political jurisdictions,—Public Roads, the National Capital Park and Planning Commission, the Department of Defense,—and the transit companies, is charged with the responsibility of conducting the survey and developing the analysis.

On each major road entering the area, a representative sample of all motor vehicles was interviewed during a typical day to determine the point of origin, the point of destination and the purpose of each trip. In all, 118,382 drivers of motor vehicles were interviewed at these stations. Within the designated area the members of one home in every twenty, selected by approved statistical methods, were interviewed to ascertain the origin, destination, purpose and mode of travel for each trip made the preceding day. These interviews reached 15,625 households and resulted in data on 83,750 actual trips. One-tenth of the drivers of trucks and taxis were interviewed, resulting in approximately 31,000 additional trips, or a total of 233,000 trips in round numbers.

These data were placed on punch cards, and basic travel tables were prepared showing the travel between small geographic units within the area. The field work was completed during the period March 1948 to October 1948. Approximately one year was required to code and punch the cards and prepare the travel tables. From these tables, plotted graphically, the principal lines of travel for motor vehicle users and mass transit patrons are apparent. These desire-line charts are now substantially complete, and there remains only the task of testing alternate plans with the assembled data to determine the economic feasibility of one or more schemes. This will require from a year to eighteen months from today to complete the study, although we believe that in the interim definite recommendations can be offered on the more immediate problems without danger of being inconsistent with the final plan.

The final pattern of arterial highways, not only for the greater Washington area but for all other metropolitan urban areas, will reduce to the characteristic wheel design, with radial lines extending from an inner distributing route encircling the focal center outward as far as may be desirable, integrated with circumferential connecting routes at spaced intervals. The pattern will rarely be symmetrical or balanced about an axis. It may be grossly distorted as a geometric shape, but it will always be composed of radial and circumferential components. Such a pattern lends itself to extension beyond any presently accepted urban area limits, and makes possible not only the service necessary, but supplies the inducement for the establishment of satellite cities,—the objective of our present ideas of desirable decentralization. The prime requisite of such a pattern is a strictly controlled access design type of arterial highway improvement.

While this pattern of major highway development is of proven worth, it can do only a part of the whole job. Equally essential are the extensions and rehabilitation of the mass transit system, the adjustment and improvement of the general street system, and the provision of not only adequate but generous areas for parking. In this last essential element lies the only hope of stabilizing the long range desirable urban area plan. The Interstate System concept has not only set in motion planning activities based on adequate factual data but has achieved highly encouraging results.

Traffic in Residence Streets

BURTON W. MARSH, Director, Traffic Engineering and Safety Department, American Automobile Association, Washington, D. C.

THE provision of attractive homes in residential subdivisions, where families can live comfortably and with the privacy, beauty and repose sought by most home owners, is not incompatible with high standards of traffic safety. On the contrary, the absence of traffic hazards and inconveniences will enhance these qualities of "liveability" and will help to maintain property values.

Furthermore, if adequate plans are made for arterial street capacity and if zoning and planning prevent unreasonable developments, residential area street designs for traffic safety should not later cause regret that the old-fashioned gridiron pattern was not retained. That is, in the reasonably near future there should need be no regret—for the distant future, who can say?

Developers of residential areas with good traffic safety values should find that they can capitalize financially on such designs.

It has been the contention of many traffic engineers that what has greatly decreased values in some residential areas and has turned others into slums has been combinations of high traffic volumes, noises, dangers and mounting traffic casualties. Where home purchasers once wanted a home on the main highway or street, they generally now want a home located on a quiet, little used street. They also want some assurance that traffic volumes will *remain* low.

With some of these thoughts in mind, a group of traffic-interested people some four years ago decided to get together with housing and land-use specialists to see if they could develop a guide, well-illustrated and in non-technical language, which builders could use to assure that traffic safety be given proper attention in the design and construction of new residential areas.

So, a special technical committee of some 40 specialists was organized under the sponsorship of the National Committee for Traffic Safety. I will not burden you with a history of the project. It is enough to say that at least four complete drafts were prepared, each was thoroughly reviewed, illustrations were prepared, and the document is now available in printed form. It is entitled "Building Traffic Safety Into Residential Developments" and is available through the National Committee for Traffic Safety, the new address of which is 425 North Michigan Avenue, Chicago, Illinois.

Neither time nor your patience will permit going into all of the details of traffic design in residential areas on which this committee has made suggestions. There was not even complete agreement on all points.

For example, the planning and housing people had a rather difficult time convincing traffic engineers that they should recommend fairly

narrow roadways in residential developments. The booklet which I just mentioned recommends for single-family residential areas a 26-foot roadway. Traffic engineers who have been plagued with narrow streets in many downtown areas believed such a width too narrow. Some of the reasons why this recommendation finally prevailed included: (1) Wide streets attract traffic, much of which may be through-bound and should never use a residential street at all, (2) Through-bound traffic should be collected and funneled into streets designed for the purpose. It then becomes economically justifiable to build wide multilane expressways with all of the latest traffic controls and built to the latest design standards; (3) Wide streets encourage speeding; (4) Wide streets encourage curb parking; (5) Wide streets present more of a pedestrian crossing problem at intersections and in residential areas many of the pedestrians are children.

Another element of resident design to which the committee gave a lot of thought was parking. It was admitted that whether liked or not, there would be some curb parking. Service vehicles, milk wagons, dry cleaners, etc., would almost invariably park temporarily at the curb. Because there would be more of such parking in multi-family development areas, the committee recommended a 32-foot roadway.

In single-family areas, it was generally agreed that parking for family cars should be off the street, either in an individual garage or in a private driveway, but that parking for special occasions could not be provided for on any economically justifiable basis. On such occasions guests would park at the curb and in private driveways.

Incidentally, in connection with driveway design, quite a point was made of the fact that the present low-slung automobiles either get hung up or damaged on many driveways built years ago. Many of you have had the experience of having the automobile tailpipe or bumper guards drag on the concrete upon entering or leaving driveways.

Parking, of course, should be provided in parking lots in apartment development areas. A lot of consideration was given to the distance people will walk—not how far they should walk. The design of parking lots was also considered.

Another question which was never fully agreed upon was that of the placement of public utilities. It was generally agreed that from the traffic safety standpoint utilities should not be placed directly under the roadway because of the fact that openings must be made frequently for either repairs or maintenance. There were some who believed that all utilities should be placed under the grass strip between the sidewalk and the pavement slab. There were some objections to placing certain utilities adjacent to each other, such as sanitary sewers next to water lines, or of having gas and water mains next to each other. Some of the developers maintain that storm sewers in many cases have to go up the middle of the street or the facility duplicated on each side, add-

ing tremendously to the expense. The idea of an underground concrete conduit with sidewalk on top of it was advanced and a number thought well of it.

Certainly the present situation, where it is almost impossible to locate some utilities placed a quarter or a half century ago, is not good and something better ought to be provided in any new residential area.

Another item which is considered carefully, but on which there was general agreement was the need for better provision for good sight distances at intersections. Allowing buildings to come up too near a corner or allowing hedges or shrubbery in what is considered a reasonable sight triangle should not only be prohibited in new developments, but steps should be taken to remove such sight obstructions in present residential areas.

There were a few objections to severe corner restrictions because they would reduce the usefulness of corner lots. This was not serious, however, and it was generally agreed that in single-family areas, with 26-foot roadways, the clear sight triangle should extend back 75 feet from the center lines of the intersecting streets. Such a clear sight triangle would not reduce the usefulness of corner lots to any objectionable degree.

Time will not permit a complete review of the suggested design and construction practices, so they are set forth in brief summary form:

Suggested Design and Construction Practices

1. *Location and Design of Development*

   Should be in harmony with major street plan of community.
   Should be accessible to main highway—but access controlled.
   Practical minimum distance between intersections on main highway—800 feet.

   Assuming not over 40 vehicles per 100 family units move during the peak hours, a roadway with one lane in each direction will provide for 750 family units.

   A minimum number of cross streets is desirable, consistent with circulation needs.

2. *Design of Local Residential Streets*

   Speed: Based on maximum of 25 m.p.h. in accord with Uniform Vehicle Code recommendation. Recommendations will be reasonably satisfactory even if some speeds exceed 25 m.p.h. a little.

	Single-family Units	*Multi-family Units*
Street Width:	50 feet	60 feet
Pavement Width:	26 feet	32 feet
Curbs:	Straight curb recommended	Same
Sidewalks:		
Width:	4 feet minimum	Same
Set-back:	3 feet minimum if no trees	Same
	7 feet minimum with trees	Same
Horizontal Alignment:	200 feet minimum sight distance	Same
Vertical Alignment:	6-8 per cent maximum grade desirable	
	3-4 per cent per 100 feet maximum rate of change	Same
Cul-de-sac	400-500 feet maximum length	Same
Turn-arounds:	40 feet minimum curb radius without parking	Same
	50 feet minimum curb radius with parking	Same
Pavement Surface:	Non-skid with strength to carry traffic load	Same

3. *Design of Feeder Streets*

Street Width:	60 feet
Pavement Width:	36 feet
Curbs:	Straight curb recommended
Sidewalks:	
Width:	4 feet minimum
Set-back:	3 feet minimum if no trees
	7 feet minimum with trees
Horizontal Alignment:	Same as for local residental streets
Vertical Alignment:	Same as for local residential streets
Pavement Surface:	Same as for local residential streets

4. *Intersection Design*

Sight Distance: when each is 75 feet	Such that each vehicle is visible to the other driver from the intersection, for 25 m.p.h. maximum speed. No building or other sight obstruction within sight triangle.
Vertical Alignment:	Flat grade within intersection.
	Flat section preferred from 50 feet to 100 feet each way from intersection, but in no case over 3-5 per cent grade.
	6 per cent maximum between 100 and 150 feet of intersection.
Horizontal Alignment:	90 degree intersections preferred; less than 60 degrees unduly hazardous.
	Curb radius for local and feeder streets—12 feet.
	Curb radius for feeder street intersecting main highway—50 feet.

5. *Sidewalks*

Placement:	Set-back should be minimum of 7 feet where trees are planted between curb and sidewalk; minimum of 3 feet if no trees.
Width:	4 feet minimum (4½-5 feet minimum near shopping centers).

6. *Parking in Residential Areas*

Ample off-street facilities should be provided.
Private garage or space, with private driveway, should be provided for single and semi-detached dwellings.
Parking bays not physically divided from roadway may be used on strictly local streets with little traffic. Requires 180 to 210 square feet per car.
Parking bays physically divided from roadway preferred on streets carrying more than local traffic, such as feeder streets. Requires approximately 360 square feet per car, including service aisles and divider.
Parking lot is most desirable off-street facility. Requires 275-300 square feet per car, including aisles.

7. *Alleys*

Not considered necessary or desirable in single-family developments.
May be necessary in group, row house or apartment developments.
If provided should be 20 feet wide and paved.

8. *Street Lighting*

Street lighting ample for traffic safety is necessary.
Subdivider not usually responsible for lighting, but if he is, he should obtain technical assistance.

9. *Curb Cuts for Driveways*

Curb return with radius of 3 to 5 feet desired. 7-foot radius desirable at parking lot entrances.

10. *Street Name Signs*

Height:	Not less than 7 feet above top of curb.
Placement:	Not less than one foot, nor more than 10 feet from curb.
Minimum Size of Letters:	4-inch height at intersections of main and secondary highways; 3-inch for local residential streets.
Night Visibility:	Reflectorization or illumination desirable.

11. *Shopping Centers*

Shopping center entrances and exits should be on feeder streets rather than main highways. If on main highways, should be limited as to location and number.
Adequate off-street parking should be provided. Grouping business establishments with common parking area suggested as economical use of land for parking.

12. *Public Utilities*

Placing of public utilities under roadway undesirable from traffic standpoint.

13. *Parks and Play Areas*

Should be in accord with master and recreation plans of community.
Play lot of 1500 to 2500 square feet desirable in each densely populated block containing 30 to 60 families—such as in apartment or multi-family areas.
Should be located away from trafficways or suitably fenced, or both.

Rail Entrances and Facilities in American Cities

ROBERT S. HENRY, Vice-President, Association of American Railroads, Washington, D. C.

THE people of America produce more and live better than any other people on the earth. For that happy fact there is more than one reason, but a major reason is the use which they make of transportation. It is transportation—or, rather, the liberal way in which transportation is used in this country as a great tool of production and distribution—which makes possible the highly productive specialized agriculture that is so conspicuous a feature of American life. It is the way transportation is used which makes possible the development of our urban and suburban areas as places of high production, as well as places of satisfactory residence.

The earliest towns grew up on the sea or at river landings or, after a while, at cross roads in the interior. The coming of the steam railroad provided a new sort of highway, the road of rails, and a new sort of vehicle, the train of cars. This new highway and this new vehicle could carry real "pay loads"—so that, for the first time in history it became possible to transport bulky, low-priced goods to and from places remote from navigable water. What that meant to the development of a continental nation such as the United States is beyond calculation.

We are accustomed to think of planning as a new art, almost an infant art. And so it is in the sense of comprehensive planning of urban or rural areas but even in the apparently haphazard growth of the railroads there has had to be a lot of planning. The very location and construction of a railroad is in itself an act of planning, and in most cases an act of bold and venturesome planning, requiring study of the possibilities of terrain, estimates of traffic sources and destinations, the laying out of facilities of many sorts in addition to the track itself—all to be planned and executed in advance of established needs.

Cities grew up around these railroad facilities, and in some cases by their very growth have restricted the use of the facilities themselves. Since now, in many cases, it is possible to restore free circulation around the rail arteries only at enormous expense, proposals are often made to solve the problems of rail entrances and facilities by cutting the arteries themselves, tieing them off as the surgeons say, and doing without the circulation which they afford.

Such proposals are the more common since the coming of other forms of mechanically powered land transportation. Paved highways and motor vehicles have taken over considerable portions of the work once done by trains on tracks, and there is even a disposition in some quarters to feel that they will, in time, replace trains in the essential task of providing the nation's basic transportation.

There are many uncertainties about planning for the future but

here is one certainty—railroads will still be used to haul the major industrial load. This is true for simple and sufficient physical and economic reasons. The railroad track offers the most economical way in which to support and to move heavy loads. This is true of construction costs, for a dollar of expenditure on railroad track will support heavier loads than any other surface. It is equally true of the expenditure of mechanical power in movement, for the smooth surface of steel on steel permits the maximum movement for the smallest expenditure of power. It is, most importantly of all, true as to the expenditure of manpower, for only on the surface of parallel raised rails, not only supporting but guiding the wheels of cars in trains, is it possible to combine the flexibility and convenience of the individually loaded and individually unloaded freight car with the economy of mass movement between stations in long trains of cars, pulled by a locomotive unit and handled by a small crew of men. That can be done on rails because the long trains of cars "track" behind the engine at good speed—and it can be done on no surface known to man, or within the range of man's imagination, other than the railroad track.

The immense importance of this fact can be appreciated when it is realized that the average charge for hauling a ton of freight one mile by rail—even after the increases made necessary by war and postwar inflation of wages and prices—is only about one and one-third cents. No other form of transportation hauling general freight to and from all parts of the country offers service at anything like so low a charge. The average charge of motor trucks reporting to the Interstate Commerce Commission, in fact, is not less than four times as much.

So industry will continue to depend upon rail transportation for its major needs—and, indeed, directly and indirectly, for substantially all its transportation.

And our cities will continue to depend, in large part, upon industry for employment, for payrolls, for the taxes to support public services, for their very economic life. An inescapable element of sound urban planning, then, is the protection of adequate and suitable areas for industrial development—and that means, too, the protection of adequate access of such areas to railroad trackage and facilities.

Comprehensive city planning is not only a new art but a high and difficult—even a dangerous—art. It demands of its practitioners knowledge which approaches to omniscience. It demands vision verging on the prophetic. It calls for disinterestedness of the highest order. It is, in short, an art to be undertaken only in the humility of spirit evidenced in the line of the Scottish bard—"The best laid plans of mice and men gae aft agley."

But some things are obvious. It is clear that a well developed residential area should not be encroached upon by industrial expansion. It is equally clear—though not always so well recognized and acted

upon—that potential industrial areas should not be encroached upon by the so-called "higher" types of development.

It is clear, too, that the industrial development of the future will require greater land areas than the older industries. The one-floor assembly-line type of plant requires more room than the old-style multiple-floor factory building. And then there is the problem of adequate passenger transport, including its modern angle of sufficient parking space around the plant for the automobiles of the men employed. That is peculiarly an American problem, and one which never ceases to amaze European observers, but it is all to the good that the men engaged in industry should be able to afford, in such large numbers, the automotive products which are so large a part of American production.

It is equally obvious that these larger areas must be so located that they may be reached not only from railroad tracks but also from streets and highways, and in some instances from waterways. But along with this necessity for large areas so served, there goes the other necessity for the location of major highways sufficiently far away from the railroad tracks to allow such access. Too often, great highway projects have been located alongside the railroad right of way—right against the end of the crossties, as the saying is—without leaving either the necessary area for the industrial development which both forms of transportation could serve so well, or the opportunity to get trackage into plants without crossing busy, and sometimes uncrossable, highways.

These things are important not only to industrial development but to civic progress—for it should not be forgotten that in American cities, for the most part, one cannot be had without the other. There are a few so-called "dormitory" towns, satellites to great cities; there are a few colonies of persons retired with a sufficient income; there are a few village state capitals, and there is the one and only Washington—but with these exceptions, there are no towns and cities of consequence in America which do not rest upon the economic base of commerce and industry.

There has been in the past a tendency among some urban planners, I understand, to somewhat overlook this essential fact, and to concentrate upon the residential advantages of boulevards, parks, playgrounds, schools, and other facilities which—fine in themselves—yet contribute little or nothing to the taxable support of public services. There must be, in sound planning, a balance between, on the one hand, those facilities which are created by the spending of tax money, and which do not themselves contribute to the tax income of the community and, on the other hand, the industrial and commercial developments whose tax payments are so necessary to the support of both the individual and the common projects of the community.

These principles, which are increasingly coming to be recognized as fundamental in any comprehensive city planning, have recently

been admirably stated by the Joint Committee on Industrial Zoning, representing the Association of State Planning & Development Agencies, the American Institute of Planners, the American Society of Civil Engineers, the Society of Industrial Realtors, and the American Railway Development Association. I shall not undertake to repeat this valuable statement of principles which, I am sure, is familiar to most of you, but shall only call attention to two or three sentences in it:

> Industrial use is a legitimate land use possessing integrity comparable to other classes of land uses established under zoning. Therefore, industry should not be spoken of as a 'lower use' . . . The protection of good industrial areas from encroachment by residential development is as logical as the protection of residential areas from encroachment by industry.

To this general observation, there are added particular observations as to transportation phases of industrial development—that "suitable areas adjacent to railroads rights-of-way should be zoned for industrial use," and that new highways should be located "at some distance from parallel railroads to provide industrial property between the highway and the railroad, room for grade separation and approaches when necessary, and rail and highway access to adjacent industrial land without spur tracks across the highway."

To these sound general observations I would add another—and that is, to consult with the railroad representatives, and particularly the industrial development representatives of railroads, in making plans for industrial areas. To most of you, I know, such a suggestion is superfluous. You have been doing that all along, but to those who have not taken advantage of the special qualifications and experience of these railroad men—and have not given consideration to the special requirements of industrial land use with reference to railroad entrances and facilities—I would commend their willing services.

Airport Facilities in the Comprehensive Plan

PHILLIPS MOORE, Director, CAA Office of Airports, Washington, D. C.

IT IS important in that the entire future of the proposed airport depends on careful planning and it is complicated by the fact that it involves so many diversified factors, any one of which, if not given proper consideration, also could affect the successful operation of the airport.

With air transportation offering a well established and fast means of travel and for the shipment of commodities, it is essential that com-

munities around the country provide for airports in their overall planning. It is not enough that a city just decide to build an airport—it must incorporate airport development into its comprehensive plan along with its other public works.

In general, there are three separate and distinct steps involved in the development of an airport. They are planning, construction and operation. Of the three steps, those of planning and operation are so interrelated that it is next to impossible to discuss one without reference to the other. However, since we are discussing planning here today, I will adhere to that subject as far as possible. In the planning of an airport the overall economics of air transportation must be considered and in turn applied to the community involved. In this respect several important questions present themselves as follows to airport planners:

1. Shall there be an airport?
2. What kind of an airport is required, and what will it cost?
3. What type and size of aircraft can safely and reliably use the airport?
4. What capacity must the airport have from the standpoint of accommodating the peak hour traffic load, and the activities incidental to it?
5. What facilities must the airport have for expeditious flow and safety of traffic, for convenience of passengers, protection of commodities and for capitalizing on sources of potential revenue?
6. What will it cost to operate and maintain the airport, its plant and structures?
7. What are the sources of revenue from air transportation in itself and how much revenue can logically be derived within the ability of the users (both the operators and the customers) to pay?
8. What are the sources of non-aviation revenue that may be derived and how much money will they bring in?
9. What is the value of the operation of the airport to the community and its citizens aside from the aeronautical and non-aeronautical revenue that will be reflected in the airport's financial statements?

In searching for the answers to these questions, the community planners will find that some lie within the community itself while the others will be found in looking into the economics of air transportation itself. On the part of the community, population, wealth, the trade area, business characteristics, markets and future business potential, are the factors which will determine the community need for an airport.

From the aeronautical point of view the airport planners must decide first what type of airport should be constructed. The Civil Aeronautics Administration classifies airports as follows: Intercontinental Express; Intercontinental; Continental; Express; Trunk Line; Feeder; Secondary; Personal.

These designations are based on the maximum type of service operating from the airport and determine the size of the facility, at least that of the primary runway. Obviously, it would not be wise either from an aeronautical or cost standpoint to plan for an Intercontinental airport at a location where a Feeder type would be adequate. By the same token airport planners are warned against underestimating the size of the airport under consideration. Plans for future development both in area and type of service should get long and serious thought before

final decisions are made. We, in the CAA, have found in our airport experience that overdevelopment of an airport is preferable to underdevelopment.

In this respect it is impossible to say just exactly what direction aviation will go—or how fast. I can say on good authority that the very best of planning went into Washington National Airport. Yet less than ten years after the field was opened we find ourselves looking around for a site for another airport to take the burden off the badly overcrowded Washington Airport. I'll venture a guess that back in the late 1930's when work was ready to start on the airport not one single voice was raised with the opinion that the airport would not be adequate to serve the Washington area by 1950. This, however, was an unusual case and was no fault of the airport planners. In the first place the stimulus of the war on air travel and shipments by air plus the facts that the population of Washington jumped almost overnight had a great deal to do with the present situation.

Of course every airport planner is not faced with the problem of trying to figure out how some future war will affect his airport. Neither is he planning an airport to serve the Nation's capital. He is, however, confronted with a sometimes bewildering number of important considerations. Will the airport be on a main airline route? What are the prospects for private flying? Will the community be able to support the airport? What is the best location? What other airports are in the vicinity—and what type are they? These and many more are questions that involve study and sound decisions.

Another consideration for present-day planners is the jet problem. It is Aviation itself and the airports segment of the industry have not felt the impact of commercial civilian jet operations. No one can say what implications jet aircraft will have on the present or future airports of the country. It will require general use of jet aircraft before airport requirements can be determined.

All these things—and many more—must be considered by the airport planners. In many cases it may be necessary to compromise—to accept some obviously poor points while capitalizing on other excellent features which would be impossible under other conditions.

In short, airport planning is a combination of sound judgment—crystal gazing—and hard work. Whatever the combination it is the finished product that counts and a well thought out and well operated airport can be an accomplishment of which a community might well be proud as it places a community right squarely on the air map.

Introduction

WALTER SCHMIDT, of Cincinnati, Ohio, Past President of the Urban Land Institute and the National Association of Real Estate Boards, made an introductory statement in which he recommended off-street parking and raised the question as to whether the municipality or private owners should own and/or operate such facilities. He thought that the public necessity for providing adequate parking in order to stabilize real estate values justifies the use of the power of eminent domain, and he strongly recommended that businessmen and city officials exert every effort to obtain satisfactory state enabling legislation permitting the establishment of public parking agencies. Where the power of eminent domain is applied and public funds are used, he recommended that the land remain in public ownership in the interests of permanency and proper location. But he thought the operation of the parking facilities should be in the hands of private enterprise, with public control of rates charged for parking.

Mr. Schmidt estimated that there should be provision for not less than 2½ to 3 times the number of permanent off-street parking facilities in a city which already had provision for some 13,000 cars. He thought that there was no danger of over-providing such parking in the foreseeable future.

In selecting sites for parking facilities he declared that it is essential that they be located so as to minimize the necessity for traffic to enter the highly congested area in the full knowledge of the origin and destination of cars entering the central area.

To improve traffic flow extensive use of one-way streets would be helpful where there is heavy traffic during peak hours. Left turns should be eliminated wherever possible on heavy traffic streets; and traffic officers should supplement mechanical controls at critical intersections. Generally streets should not be widened until curb parking has been eliminated and one-way traffic explored. Mr. Schmidt thought that acute corner intersections should be eliminated, even at the cost of wrecking buildings.

Parking Problems of American Cities

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PERHAPS one of the most vexing and frustrating situations which arises in connection with automobile use is that experienced when one is seeking a satisfactory place to park his car after he has arrived at his destination in the central business district of a city or town. If convenient curb parking is permitted, he usually finds that the few available spaces have been preempted. If an open stall is found, the length of time allowed for parking is probably too short to accomplish the purpose in mind and leads to worry about apprehension and fine. If no place is available at nearby curbs, either because all spaces have been taken or because parking is legally prohibited, search is initiated for a free space at some other less convenient curb which when found is too far away. Looking then for a stall in some parking lot or garage, one usually has difficulty in finding such place really convenient to his purpose. When such a place is found, he may feel that the fee is too high, or that the attendants are too rough either on his car or on his finer sensibilities. Next time he vows he will take his business some other place where he can park conveniently and without worry, fear, and frustration.

Routes and Terminals. From a broader and longer range viewpoint, the parking aspect of highway traffic seemingly grows worse as the years go by. While significant development aimed towards the improvement of routes for auto travel are being planned and carried out, little or nothing seems to be accomplished which will better parking conditions in the hearts of American cities. On the one hand, official agencies of Federal, state and city governments are charged with the job of building and maintaining better routes for highway travel, and considerable sums of money are appropriated each year for such purposes. But on the other hand, nearly all official action which has been taken in parking matters has dealt primarily with more and more stringent regulation and prohibition of parking at the curbs. In a few rare exceptions in smaller towns, local government officials have not only exercised restrictive measures regulating the use of curb space for parking but also have adopted creative measures whereby off-street parking space has been provided.

The public responsibility for providing routes for highway travel and the private responsibility to provide terminal space for highway vehicles is a policy which has long been accepted. While street space is employed for parking purposes, such parking must and has given way to demands for movement.

The continuous movement of vehicles into and through the central district, however, does place a high demand on reserving street space

for movement. Throughout the business day from 50 to 60% and during the rush hours from 60 to 90% of the vehicles moving in the central business district are merely passing through the district, and these drivers are not looking for a place to park. The demand for movement takes priority over demand for parking, and with increased traffic flow, it follows that more and more stringent curb parking regulations must be adopted.

Yet it must be recognized that movement alone can never accomplish the ends of transportation. Terminal space is as fundamental as is route space. In spite of the volume of moving traffic found in the central districts of our cities during the working day, less than 10% of the highway vehicles found at any instant are in motion and 90% are parked either at the curb or in some off-street parking space.

The demand for parking facility at any instant of the working day, therefore, involves far more drivers than are concerned with route facility alone.

Since every automobile that is in use has to be parked when it is not in the actual business of moving people, a measure of the over-all parking demand is reflected in motor vehicle registration. Today there are over forty million motor vehicles in operation in the United States. This is twice the number we had in 1925 and four times the number we had when we were coming out of World War I in 1920. Traffic flow is now ⅓ greater than it was just before we entered World War II. As a matter of fact, there are over four hundred billion vehicle miles of motor vehicle travel generated each year and studies show that about ½ of this travel arises in urban areas. Motor vehicle use has become so completely a part of the American way of life that it is now estimated that we will spend approximately 30 billion dollars annually or ⅛ of our total national income on automotive transportation. One person out of seven employed persons is directly or indirectly engaged in the provision of highway transportation. Approximately 80 cents out of the consumer transportation dollar is spent on automobile purchase and operation, while it is noteworthy that automobile costs rank fourth in total consumer expenditures following food, housing, and clothing.

It is clear that automobile use is still in its ascendancy and if full use of the motor vehicle is to be enjoyed, developments must not only be made in street and highway route improvements but also with parking and loading facilities properly located and designed to accommodate the terminal business of motor vehicle use.

The Automobile and Retail Trade. Because of improvements which have been made in developing the networks of hard surfaced routes and because of the speed of movement provided by the automobile, the individual can now travel 25 or 30 miles in less time than he could travel 4 or 5 miles by horse and buggy. These factors have accordingly increased the potential trading radius of a given urban center. At uni-

form densities of population it follows that the total number of potential customers to any trading center increases as the square of the trading radius.

Again, because of the increased over-lapping of trading areas of the diverse trading centers, due to increased trading radius, there exists an increased competition for the auto trade from such overlapping areas. Towns are in direct competition with each other for retail business.

The potential purchasing power of these vehicle users, however, may be driven away from one trade center to another, for the individual who finds it not only irritating to drive downtown but is also frustrated in an attempt to park his vehicle while downtown, soon learns that he can travel over the road net to other locations to satisfy his need for services and goods. Thus it is seen that cities and towns are in direct competition one with the other for the consumer purchases that are represented by the automobile owners. Even within the same metropolitan area, those sections which are more accessible and provide more satisfactory parking space have a distinct advantage in attracting trade to their places of business. It seems clear that in the future those business districts which provide facilities to accommodate more and more motor vehicles will be in the advantageous position to serve more and more of the public.

Still further, when we look at merchandising processes in this automobile age we find that an increasing amount of consumer goods are standardized products nationally advertised and sometimes even nationally priced. It makes little difference to the consumer of these goods at what point he procures them. Naturally that point which is most conveniently accessible to him will have the advantage in gaining his trade. There are a declining number of the basic commodities which require comparison both as to quality and cost by the consumer. Accordingly, with such standardized merchandise readily available for distribution, there is always the ready entrepreneur to serve the public at whatever point in the confluence of transportation he can find the opportunity to render this retail service. This is dramatized by the erection of new shopping centers near new housing developments and nearby major traffic interchanges, where people, cars, and space are available.

Parking and Land Value. Since accessibility to population is of such fundamental importance in serving the public, it is evident that land values are also affected by inadequate traffic and parking facilities. Unless the points of highest land value in cities are made more accessible and provide convenient parking space at prices satisfactory to the motoring public, it can only be expected that there will be a shrinkage in their real estate values. Indeed, a study of assessed valuations in hearts of business districts shows that central business districts are decreasing in value at a more rapid rate than other sections of the city.

Yet as the record stands today, only a very small percent (less than 5% of the total area in cities) contributes the largest percent (in excess of 50%) of land value and accordingly tax revenues.

From every aspect we are driven to the conclusion that our parking and traffic problems are on the ascendency, and unless improvement is forthcoming very soon, the entire character, at least of the larger cities, will be changed so that the central business district will become merely one of many focal points in the traffic stream instead of the single major focal point. Property values therein will thereby suffer a considable shrinkage in capital value.

Motivating Factors. From the conditions described above as developing today, it follows that there are three factors which must be reckoned with if parking improvements are to be made in the hearts of our cities. In the first place, there is that group which is represented by the individual automobile owner or driver. In the second place there is that element which involves the legislative and administrative branches of government, and in the third place there is the land owner and his operator whose capital values are involved.

It has already been suggested that due to the network of streets in the ordinary city, the individual who cannot quickly and readily achieve his purpose in the heart of cities and having in his hands a flexible means of transportation represented by the automobile, will seek other areas to satisfy his wants. As an individual he is rather powerless to create any parking space for himself in the central business district, and while he is able to buy parking space at a price, it may be at a price which is too high for his purse. For example, if an automobile operator travels five miles to the business district he will have spent approximately twenty cents in movements (at an operating cost of 4 cents a mile). If after arriving at the central business district he has to pay thirty-five cents for a place to park, he finds that he is paying more for parking than he is for movement and may consider it unreasonable. Yet he has no other choice but to pay the price or go elsewhere. Still in most cities the business of creating parking space off-street is considered as a business venture for a gain and not as an ancillary facility to other land use.

Again, when the parking program is reviewed from the standpoint of individual motivation for its improvement, there is little or no probability that there could be effectively organized group action by all individual motorists who may wish to seek improvement of parking conditions in any central district. It would be an almost impossible task to create such an organization not only because of the numbers of people involved but because of the changing and varied demands among individuals and the diverse political jurisdictions from which they come. Experience shows, however, that the individual motorist is willing to contribute something to the expense of providing a satisfactory parking space in the central district. The exact price, of course,

varies with the size of the town, the income level of the community at a particular time and the comparative costs entailed in areas which are in competition one with the other.

From the viewpoint of the administrative and legislative branches of government, it is clear that today the legislatures and police have passed regulations which are nearly unenforceable. Since movement alone does not achieve the ends of transportation, without proper terminal facilities there results an utter frustration. To ask a police officer to enforce a "no-parking" rule in the heart of the city is asking an almost impossible achievement, and even when pressure is put on, the curbs still remain full of parked automobiles, violators are not apprehended or their cases are dismissed in the police court.

Thus the administrative branches of government cannot be expected to solve the parking problem at curbs. It may be taken as axiomatic that the curbs will never satisfy the parking demands of transportation in central business districts. City administrators, while frequently requested to do so, cannot be expected to lead the city out of the parking wilderness. To accomplish this would require appropriation of funds and the passage of laws which at once becomes a legislative matter.

When the parking problem is viewed from the legislative angle, it is clear that the relief of parking does not make very good politics. Each individual councilman or legislator is confronted with more immediate problems from his own wards or areas of the city, and parking in the central city, must, therefore, assume a place of secondary importance in his political platform.

City legislators, moreover, ordinarily do not have any monetary interest in the land values of the central business district properties, and while they are interested in maintaining stabilized land values and thereby a stabilized basis of tax revenues, such objectives are not easily translated to the average voter at the following election. It follows, therefore, that the city legislator, while he may be clearly willing and anxious to improve parking conditions in a central city, of political necessity must place himself in the position of reflecting a demand either of the central city or of his own voter to do so. Usually the voters in the ward have problems of more immediate and direct personal concern than those which arise from inadequate parking spaces in the downtown district.

There is a dependence placed on the legislator to reflect the desires of his community in improving parking matters in his jurisdiction. In this connection it seems clear that the legislator may be looked to in matters pertaining to factual study and analysis of parking demand and supply, the acquisition and control of land for parking purposes, the adoption of zoning and building laws which will enforce creation of parking space, and in larger cities perhaps the creation of parking authority and assignment of administrative duties involved therewith.

In the final analysis, however, the average legislator must have a demand registered with him. He will usually be found willing and anxious to respond to the wishes of his voters and the business interests of the central city. He cannot be expected, however, to lead the way, to propose methods and ways of achieving improved parking conditions especially in those cities where an important part of the population moves by common carrier as in buses and street cars.

The Land Owner and Operator. Attention is now directed to the landowner and operator of land in the central business district. It seems that if they are to continue their capital values, they must maintain a high degree of accessibility as well as satisfactory parking arrangements. Just how much parking they should provide and at what price is a matter of business judgment. Again, the amount of capital they can place in parking facilities and the amount of capitalization which can be provided by charging the individual automobile driver is a matter of business acumen which must be made in the light of the severity of the competition from other business sections or other cities. The blue chips that are placed in chance are, in the final analysis, the chips of the land owner and operator in the central business district where parking is a problem.

Ordinarily no individual land owner or operator, however, can do much about the parking problem on his own initiative and effort, for if he does so he will also be providing parking space for his adjacent competitors. But there exists a community of land owner and operator interest in central sections which may be organized for the common good of that particular group. Such an organization, in turn, will form a springboard for action by government authority, which action will lead to the creation of facilities that will attract the purchasing power of the individual to the central city.

Formation of Policy. It is seen from the foregoing discussion that there is a lack of aggressive policy looking toward relief of present parking conditions in central cities. To allow this policy to continue seems an utter waste of community resources. Clearly what is needed in each community is the creation of some body so constituted that it will objectively weigh interests, rights and responsibilities of each of the three motivating factors to the end that it will achieve a maximum degree of satisfaction to all. This job, of course, calls for leadership which properly should grow out of that community of interests which represents the businessman of the central city, for it is his capital values that are at stake. The legislatures of twenty-four states have already passed statutory laws authorizing cities to provide or foster the provision of parking facilities but the policy which is to be pursued in each city is a problem for the city alone to decide.

There should be created in each area where parking problems exist a parking agency properly constituted for that area which will have

powers and duties of planning, financing, land acquisition, construction, maintenance, operation and other functions necessary to the creation of satisfactory parking conditions. Such an agency may be a unit of government or of private interests, and this decision rests properly with the citizens of the particular area at point.

Engineering Studies Necessary. When leadership is emergent, one of the first jobs is to determine the location, capacity, design, costs and other matters of parking structures. In this regard it becomes essential to carry out traffic and parking studies employing traffic engineering skills and techniques. Thus it becomes necessary to study the origin and destination of parking demand to determine the current needs in transportation and the desires of persons reaching the central city. An illustrative analysis of the daily interchange of automobile traffic between the central business district and other outlying areas included nearly 40% of all automobile travel within the city of Tulsa, Oklahoma. From such factual studies there will be developed objective criteria which are fundamentally necessary in determining the location, capacity, and design of parking facilities. Parking studies which have been carried out by official agencies in a number of American cities have developed some very interesting characteristics of the relative amount of parking space which is actually available in the central business districts. It has been shown that as the size of the city increases in population, the parking space per thousand population decreases markedly, so that the ratio of actual demand for parking space to the supply available in the central business district increases so that in cities of less than 25,000 there is demand for parking four automobiles in space only provided for three; whereas in the larger metropolitan centers there is evidence that five times as much parking space is required as is available.

Again, these engineering studies have developed some rather interesting facts concerning the length of time parked and walking distances required in different sized cities. The evidence shows that the automobile is used for short trips requiring a minimum of terminal time in the smaller cities but its use in larger cities is preponderantly toward longer terminal time. Thus in the smaller cities only 5% of the vehicles were found to park four or more hours while in the larger cities as much as 25% were found to require this duration of parking. Studies have shown that there is a correlation between the size of city and walking distances. For example, in the smaller cities only 5 to 10% were required to walk over 500 feet from their parking space to ultimate destination whereas in the larger cities this larger trip on foot was required by about a third of the parkers. Clearly, the increased severity of the problem in the larger cities is indicated by these data.

Methods of Finance. One of the most difficult and knotty problems to solve in the creation of parking facilities is the method of financing

which will be employed. There seems to be emerging three broad patterns of finance. In the larger cities it would appear that the entire cost of parking facilities will be borne by the automobile user through parking fees. Collection of these fees serves as security for the issuance of revenue bonds on a twenty or thirty year basis. Under these conditions a public authority is usually created as the administrative agency. On the other hand, in the very small towns where there does not exist a common carrier transportation system, there seems to be emerging a policy of making facilities in central areas. Thus a recent survey shows that 345 out of 875 cities have created off-street parking space as a public improvement. In some few instances these cities are charging a fee through the use of parking meters or other devices to retire the costs involved. In the third place, in the medium-sized city which enjoys a common carrier passenger system there is some evidence of the government and the benefited properties sharing the cost and management of providing off-street parking space. In cases of this type the special benefit assessment play is employed with or without the charge of a fee for parking. Where private interests dominate, shares in a limited parking corporation are sold. Such corporations may obtain certain benefits from governmental action.

Conclusion. Parking is one of the foremost current problems in American cities. To allow parking matters to drift is a waste of community resources in that it destroys the utility of the individual automobile, it deteriorates land value of central business districts, and it assesses a higher tax burden on the small property owner. Genuine leadership is required by both government officials and business agents to bring together the forces of government, business and individual automobile owners into a well-balanced policy of procedure which will employ engineering studies in the location, capacity and design of off-street parking facilities and which will form financial plans which are best suited to the particular community.

TABLE I

Curb and Off-Street Spaces Available in Central Business Districts*

City Population Group (000's)	Parking Spaces Per 1000 Population			Ratio of Demand to Supply[1] in Core of District
	Curb	Off-Street	Total	
Less than 25	54	36	90	1.31
25– 50	41	19	60	1.31
50–100	23	24	57	1.45
100–250	17	25	42	1.67
250–500	7	21	28	3.27
Over 500	3	9	12	4.67

*The core is that part of district where the stalls in each block are inadequate to meet the demand for parking. These are among highest land values.

TABLE II
Length of Time Parked and Walking Distance*

Population Group (000's)	Per Cent Parked		Per Cent Walking	
	Less Than Thirty Minutes	Four Hours or More	Less Than 400 feet	500 feet and Over
Less than 25	56	8	69	9
25– 50	50	10	78	5
50–100	52	10	77	7
100–250	46	14	65	14
250–500	24	20	63	19
Over 500	28	25	46	30

*Source: Some Travel & Parking Habits Observed in Parking Studies, Mimeo. Burrage, R. H. and Hitchcock, S. T., Public Roads Administration.

Character and Extent of Off-Street Parking

KENNETH KNAPP, City Engineer, Rochester, N. Y.

I AM NOT an expert on off-street parking, but rather merely a City Engineer who has taken an assignment. It has been said that inadequate parking is a major cause of the decentralization of business districts. This decentralization lowers property values which tends toward smaller tax returns and therefore should be of vital interest to every city, town and village throughout the whole nation. Parking on streets certainly does not help the situation, as it merely serves to narrow the street by at least two lanes of traffic and if the parking spaces are filled and deliveries have to be made in downtown areas, the only thing to be done is to double park the delivery trucks, which further narrows down the driving area of the street. As a result, most cities have started to ban parking on important business streets. This means only one thing—that off-street parking must take the place of curb parking. The character of off-street parking depends upon the proximity to shopping districts, theaters, eating places, industrial and business areas. These factors affect the parking time, which determines the type of parking service which must be provided. Persons going shopping do not generally park for long periods of time. Those persons who are going to lunch or dinner generally park for an hour or two. Theater goers park up to three hours. In industrial and business areas, however, there is a demand for all day parking by the week or by the month.

These various times of parking are reflected in the prices charged, the shorter times being charged at a higher rate than the longer periods. Some stations in our town make a point of turning away customers who are going to park for a long time so they can make a better turn over on short time parkers. One of the easiest ways to blight a downtown area is to not provide sufficient off-street parking.

I am more familiar with Rochester than with many other cities.

The downtown area of Rochester, which comprises all of the shopping districts and the theater districts as well as a large number of eating places and hotels, has 172 parking lots. These lots have a parking capacity of approximately 9850 cars. If we can take the results of the origin and destination survey made by the State of New York in Rochester, it is quite obvious that there are not sufficient parking spaces in the downtown district of the City. At present there are but three ramp garages in the City and these are rather well placed in various sections of the downtown district. The result of this lack of parking makes it a rather difficult problem for the average driver to come to the downtown district to do his shopping. By comparison, he can very easily go to one of the shopping centers near his home where he will find plenty of parking space which he doesn't have to pay for.

In order to alleviate the situation as much as possible, the City began a few years ago to acquire tax delinquent property which it turned into metered parking stations. Some of these metered parking stations are very close to the downtown area and because of their simplicity of operation have become very popular and a source of revenue.

The design of these stations was accomplished by the Engineering Bureau. The stalls and maneuvering space are bituminous macadam. The total cost of the four stations was somewhat over $80,000 exclusive of land. The car capacity is about 335 cars. The cost per stall varies from $204 to $392. The rates as set up by the Council for parking in these stations varies with the classification but is generally $.05 per hour.

All meters are to be used without charge from 6 A.M. to 1 P.M. Sundays.

Another problem with which we are confronted is—should the construction of offstreet parking facilities be paid for by the City or should they be paid for by the merchants and business people? Personally, I think it is a responsibility of both the City government and the owners of property to protect the interests of highly valued property, as it benefits both of them. In many cities the merchants themselves, in order to attract people to their stores, have built garages and parking stations so that persons can readily avail themselves of a place to park convenient to the store. A large number of stores will honor parking tickets from privately owned parking stations, but this doesn't seem to really do the trick as there is a lot of red tape to getting your sales slip stamped so that the parking man will be able to collect his fee.

Another problem we are faced with is where to get the money for the installation of these parking stations. Practically all municipalities are in rather poor financial condition and a great many of them are not able to embark on a large scale offstreet parking program. That is one reason why the City of Rochester has built these offstreet parking lots with metered service so that as the funds become available from these stations, new stations can be built with the proceeds.

The revenue from these stations varies with their proximity to the business district. One station received as much as $4.00 per stall per week. Another station which was built in a small shopping district on the outskirts has only taken in a little over $300 during the twelve months it has been in service. The location of this station, which was on City owned property, was too close to large free parking areas provided by some chain stores. It has been suggested that this station be abandoned.

In our town we have no restrictions in the building code which require that provision be made for off-street parking. If we are going to keep business downtown in the high value area, we should see that provision is made in all building codes for adequate parking to take care of the building use. If so, just what kind of rules should we adopt? We must definitely state the number of car spaces that should be provided for each type of building use. Quite a few cities have ordinances of this kind and it is my opinion that they would be very effective provided we were not dealing with new buildings but rather with old buildings generally on narrow streets, the majority of them occupying the entire area of the property. Should the building restrictions be made retroactive, it is doubtful if the owners of business property could find enough parking space within walking distance to comply with the regulations. The next question is—how far will a person walk from a parked car to get to his destination? The automobile has become so much a part of everyone's way of living that we are all becoming conscious of the fact not of how far we must go in the car but how far we must go after we have got out of the car. For that reason the parking station should be as close to the business area as possible.

In almost every centralized area there are buildings which have not been maintained properly and due to this neglect the income from them is not what could be expected if they had been properly maintained. If we could inaugurate a schooling campaign to teach the owners of such buildings that they can make more money by razing a building and operating a parking station, this would also give us an added amount of parking space which would in turn relieve the situation. Everyone knows that a fair-sized properly designed, well operated parking station in a downtown area will produce returns far above the rental of a first floor store, and there are many buildings where the only rented area is the first floor. I hope that in the discussion which follows, we can settle some of these questions.

What is to be done about offstreet parking in centralized business areas has reached the point at present where it is just like the weather—we talk a lot about it but do nothing. Unless some concerted effort is made throughout the country to increase offstreet parking, we will be faced with decentralization of our most valuable property.

Some cities have gone to the establishment of a parking authority.

This may be the answer to the problem of offstreet parking provided we use some of the tools Professor McDougal told us about this afternoon.

The statute or ordinance or whatever your town needs to make it legal should provide that the Parking Authority be possessed of certain powers and have a certain amount of income or budgetary funds to accomplish its purpose. It should have sufficient personnel to do its own work and should be free from interference. Of course, I know this is idealism but after all, aren't we all idealists? The personnel would be used to keep continual check on the offstreet and on street parking to determine where there is need for additional facilities. It should have power to condemn property to be used for additional parking. It should be given the determination of rates for various localities. This function would govern the rates in Authority run stations and not in private stations. The income from all parking facilities should be turned over to the Parking Authority and not to the General Fund until such time as there is no need for further expansion. The members of the Parking Authority should consist of businessmen, planners and engineers and should serve terms of at least six years. The changing of personnel on a thing of this kind is ruinous to continuity of thought and operation. We are dealing with City governments and quite often they change with the political swing and when they do a new group comes into power and throws out all the plans which have been made. Therefore, the term of office on this Authority should be long enough so that the planning and operation can be continuous. In our town all curb parking and offstreet parking is run and operated by the traffic bureau, which is a branch of the Police Department. The main function is to collect the money and repair the meters. In addition, this bureau has to paint traffic lines and cross walks as well as locate and maintain traffic signals. The bureau is undermanned but is striving nobly to keep up to its job. Parking is such a vital part of the overall picture that it should have a place of its own and the Parking Authority would be that place. I forgot to mention one other province of such an Authority. They should be the ones to determine when there was sufficient offstreet parking to abandon curb parking on any street.

One of our speakers said something about citizen interest. I would like to take a little time here to tell you how citizen interest works. In our town we have a river, the Genesee River, which flows through the town from south to north. Some of the citizens for the past twenty years have advocated the building of a parking station over this river. Like all rivers, it carries a great many dead trees and other wood along with it when the Spring freshets occur. If we use columns to support the floor of the parking station they would in a short time become fouled with all kinds of flotsam and jetsam and the cost of removing it in times of low water would be appalling. The only way to do the job, would be to channelize the river. Since I have been in the Engineering Depart-

ment, estimates have been made for this project at least three times. Each time it comes up as a new suggestion due to changing administrations. On each side of the river are a lot of old rookeries which back up to the river. The cost of purchasing these properties and grading them off and paving them would be about half of the cost of decking over the river and would provide better means of access as well as more parking space.

The Impact of New Shopping Centers Upon Established Business Districts

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OVER the last twenty years or so there has been slowly developing in this country a new shopping concept. This has now crystallized to the point where a large volume of construction has taken place and millions of dollars' worth of additional construction is in the planning stage. Shopping centers will certainly constitute one of the dominant building types of the next decade.

In China there is one car for every 9,000 inhabitants, and in Russia one for every 1,000 inhabitants. Great Britain has a ratio of one automobile for every twenty-six persons. In the United States, however, we have roughly one for every five people. To the American of today an automobile means as much as a horse formerly meant to a cowboy. The average person is prouder of his car than he is of his house, and takes better care of it. It is his constant companion for his briefest errand, and for his nearest visit. Americans like automobiles, and they like to shop by automobile. In the shopping process, the automobile is not just a means of transportation for the customer; it is also a means of transportation for those purchases which the customer makes.

Most of what I have just stated has been true in this country for a good many years. So it may be asked, what is new and different about the present situation?

Two factors combine today to mark the beginning of a new era of vital concern for the majority of established business districts in America. The first is the constantly more serious congestion which in turn is resulting in the ever greater inefficiency of our existing business centers. The second is the now well-proven appeal and resulting financial success of the new drive-in shopping centers which are being built in ever increasing numbers upon open or relatively open land outside of built-up areas.

Every new product goes through a formative stage. The drive-in shopping center is essentially a machine for better merchandising, and it has had to go through the usual process of experimentation, trial and

error. Many centers both large and small have, however, now been constructed, and many different types of layout have been experimented with. The overwhelming majority of these centers have proved very successful from the financial viewpoint, and there exists today a sufficient body of knowledge as to the planning problems involved so that it is now possible for the first time to predict with some assurance the essential features which future centers will incorporate.

In this field it would appear that we are now at about the point which was reached by the mechanical refrigerator in 1925, or television in 1949. I do not mean to imply that what the mechanical refrigerator did to the icebox, and television is now doing to older forms of entertainment, the new drive-in shopping center will do to the established business districts of this country. But unless real progress can be made in meeting the situation, it would appear likely that in a majority of cases, the share of the retail business in any given community which is transacted in established retail centers will be reduced to the point where profits and tax revenue will be seriously affected.

I am speaking primarily of other than the downtown business districts of our great metropolitan centers, where public transportation inevitably plays the dominant role and where automobile traffic presents very special and individual problems. I am speaking principally of the central business districts of our medium-sized and smaller communities, and of the outlying business districts of our bigger communities, where the automobile is the dominant though not usually the only means of transportation.

While new shopping centers wherever built should make a valuable contribution to the life of the community, the preservation of the values which already exist in our established business centers is, of course, of great importance to every city as well as to the owners and tenants of retail business property. Even if we would like to, this world's most wealthy nation is not wealthy enough to be able to rebuild its cities to meet the needs of our automobile age. We can, however, and must do more modernizing of our cities than we are doing, and we must face particularly the radical modernization of our existing business districts.

In order that established business districts may be in the strongest possible position to meet the competition which they may expect from new centers, it is necessary to understand as fully as possible the nature of the competition that may be anticipated. The best lawyers, I am told, in important trials may actually prepare rough briefs covering their opponent's case, in order thereby to be in a position to defend themselves most effectively. It would be well if leading merchants of established centers would take the time to try to imagine what they would do if they were to be sponsors of a competing new center.

Perhaps it would be helpful to highlight what the ideal shopping center of 1951 may reasonably be expected to offer. The first and

most fundamental fact with regard to the new shopping center is that it is an overall integrated organism. Its most fundamental characteristic is its improved efficiency; it is a machine for better merchandising.

Of almost equal importance is the fact that it will possess aesthetic appeal to a remarkable degree, equal to the selling appeal inherent today in the finest new individual stores currently being built.

There will be an overall unity about the center, yet there will be offered a wide range of merchandise and service. The shopping center as a whole may be thought of almost as a single establishment, the different shops which it contains bearing somewhat the same relation to the whole as the different departments of a fine department store bear to the store as a whole. In fact many of the same elements which have contributed to the great success of the large metropolitan department stores in this country are today contributing to the success of the best shopping centers built in recent years. But the aesthetic appeal of a fine shopping center consisting of a group of buildings goes beyond what is possible with any individual structure, one element of great importance being present which no department store can offer. I refer to the appeal of sun and open air, and an attractive landscape setting.

Much more is involved in an ideal shopping center such as we are considering than merely locating a liberal-sized well paved parking lot next to a row of nice modern stores. If a shopping center partakes of some of the characteristics of a department store, it also has some of the characteristics of a terminal. Every well-located shopping center is at the focal point of a system of radiating automobile arteries. Even though, in any given case, a substantial number of customers may be expected to come on foot or by public conveyance, first and foremost we must provide parking for all of those who come by private automobile. This much is obvious and fundamental. But what is not so obvious and what unfortunately has been almost universally overlooked in centers built up to this time, is the need for efficiently meeting that other requirement of a terminal; namely, the handling of freight, that is the physical articles for the sale of which the center exists.

Shopping centers are not mere display booths. The great majority of the merchandise of all kinds that is sold on the premises must be physically conveyed on the premises from the seller's possession to the buyer's possession. A customer may be willing to park her car somewhere in the middle of a parking lot and transport herself, with or without accompanying children, to the stores which seek her patronage. But if those stores are to sell the maximum of goods to that customer at the lowest prices *and* with the highest profits, there must be some efficient means for transferring those goods to the customer's possession at a point where she is willing and happy to take possession. There appear to be only four ways to solve this problem, and only one, the last, seems to us to have any real merit.

First, the merchant can insist on the customer taking delivery of her purchases at the counter or door of the store. Some stores do this. It does not, however, encourage her to buy more goods either in the same or other stores in the shopping center. A variation, tried in some centers, is to loan the customer a cart so that she at least does not have to carry the goods in her hands. But what does the customer do with it as whe continues her shopping tour? And how does the storekeeper get it back?

Second, the merchant can agree to deliver the customer's purchases to her house. From the customer's viewpoint this has several objections. She has to wait until later in the day, or the next day, to gain possession. She has to be at home, or arrange for somebody else to be at home, when the package may be delivered—and she has no way of knowing just when it is likely to be delivered. And finally, she knows that it adds to the cost of her purchase, directly or indirectly. What is important to the customer is equally important to the merchant, and he must face not only the added costs involved in home delivery but the added nuisance of providing such service.

Third, the merchant can undertake to have the customer's purchases carried out to the customer's parked car. For purchases of any bulk, and particularly food, this is today the most common practice. It is difficult to administer, and it is a nuisance to the customer since, if she makes purchases in several stores, she must either walk back to her parked car each time with the *carry-out boy*, leave her goods exposed to theft in an unlocked car, or wait until she completes her purchases in several stores and then try to arrange for simultaneous carry-out service from each. Such a carry-out service constitutes a major expense to the merchants, involving duplication of effort and costs which if capitalized come to very large figures. A variation of this procedure is to make the customer drive up and stop along the sidewalk in front of the store where the customer's purchases can be placed in her car, without the need for a long trip to some perhaps distant point in the parking area. This procedure, however, is cumbersome, creates at best a major traffic snarl, and is only possible where the store faces directly upon a sidewalk paralleling a traffic lane.

The *fourth*, and most convenient and economical solution, is to provide a well worked-out package pick-up system whereby the customer may shop freely in many stores uninhibited by the burden of accumulating packages or other problems. In arranging such a pick-up solution, many difficult problems are involved. But once solved, large rewards are to be expected: Increased customer goodwill, a greater volume of business for the center as a whole, and lower operating costs for most merchants.

The next several years will undoubtedly see great progress in handling this phase of what I have called the terminal problem. A satisfac-

tory and economical solution is of great importance since the whole trend of mass merchandising requires the elimination of home deliveries. When I was a child, in the community where I was brought up probably ninety percent of all purchases, other than small objects which could easily be carried in the hand, had to be delivered by the local merchants to their customers' homes. Today probably eighty percent or more are taken home by the customers in their automobiles. Home deliveries, like house servants, belong to another era.

There is another approach to some of these problems that it will be well to consider. I have reference to that special technique exemplified by the gasoline filling station and the auto-bank. In our work we have called this Auto-Shopping. We visualize it strictly as a supplementary technique—not as a substitute. In essence it involves the customer going in her car directly to the point of sale, where she makes her purchase and takes delivery. By this procedure, the point of parking, the point of sale, and the point of delivery are one and the same, and the customer need not in most cases even leave her car unless she wishes to.

Auto-Shopping has for many years been an established fact, and the total annual volume of sales made by this well-proven method runs into the hundreds of millions of dollars. While the technique has heretofore been used only for a limited range of commodities—namely those associated with the automobile—it is equally suitable for other articles not requiring prolonged selection. That it is suitable also for transactions not requiring prolonged negotiation is well demonstrated by the success of most auto-banks.

In spite of the advantages which Auto-Shopping can provide, it appears that only customer demand is likely to cause its extensive use at any early date in new shopping centers. So-called impulse buying looms large in the opinion of most merchants, and it is felt that Auto-Shopping may not properly expose the customer to temptation. Since a shopping center provides convenient and liberal parking, it is argued that the customer should be given no choice, but be forced to leave her car for even the smallest errand. The rather extensive study which we have devoted to this subject leads us to believe that this line of argument is wrong. We feel that the provision of good Auto-Shopping facilities, well adapted to each type of merchandise, will be a valuable supplement to the usual type of shopping on foot, and will increase customer good-will and the overall pulling power of the shopping center with the result that there will be an overall increase in sales volume and profits.

But Auto-Shopping is too big a subject for detailed discussion at this time. I raise it here for only one reason. While its value to a new shopping center with liberal parking may be challenged, there can be little question as to its value to any business area where parking space is limited.

In addition to such features as have already been mentioned, there are of course numerous other advantages offered by the newer types of drive-in shopping centers. Clean and attractive rest-rooms, for example, are usually provided for the project as a whole. In addition, promotional activities and advertising can frequently be carried forward on a cooperative basis, so as to produce maximum results for all merchants in the shopping center at the lowest possible cost.

The designing of a good modern shopping center consists primarily of a problem in site organization. But it involves the most intimate combination of architectural and land-planning skills, and the traffic engineer must also play a fundamental part in the process. All thinking, however, must be dominated by the merchandising viewpoint. I will take only a few minutes more to mention some points which have seemed to our organization to be particularly important from a planning point of view.

Pedestrian traffic must be concentrated as much as possible within a limited area. By the proper arrangement of stores, an even distribution of pedestrian traffic should be achieved so far as possible. Unproductive gaps between store fronts should be eliminated, or kept to the absolute minimum. Except in very small centers, all pedestrian walks should if possible have stores fronting on both sides, so as to assure the most intimate shopping atmosphere and avoid a long strung-out effect. On other than level sites full advantage should so far as possible be taken of all differences in grade through the use of split-levels, mezzanines or other arrangements. Such features may add immeasurably to the compactness, economy, convenience, and efficiency of the solution.

All truck bays and service areas should if possible be fully concealed from view. All entrances to stores from parking areas should be designed for maximum customer appeal, regardless of whether located in what might be thought of as the front or rear of the store. In larger centers it will be found that parking areas must be disposed on two or more sides of the store structures, in order to keep to a minimum the average walking distance from parked cars. In one of the largest and otherwise most successful shopping centers now in operation in this country, the stores were located directly along the highway on one side with all parking on the other side. Experience has indicated in this instance that the limited value of the highway frontage from the viewpoint of store window advertising is by no means sufficient to make up for the great inconvenience resulting from the greater distances which the average customer must walk when parking in the one large parking area.

If parking space is at all limited, doctors' offices should normally not be included in the project, in view of the large amount of slow-turnover parking which inevitably results. Special parking must be

provided for store personnel. This should be so located as to be beyond, and not interfere with, parking for customers.

For the best results truck traffic should be completely segregated from customer automobile traffic, and pedestrians in turn completely segregated from both. This is of course easier said than done.

No shopping center now existing in this country combines all of the features which I have presented. However, all of the elements discussed exist in successful centers now in operation. Many projects now in the design stage will upon completion be found to contain most if not all of the advantages described.

It is not too difficult to see that the next few years will bring forth many further improvements and refinements in this rapidly expanding field. Such new centers will contribute greatly in many ways to the areas which they serve, but they will also provide serious competition for existing business districts.

What is being done today that may help to meet this competition? What can be done?

Present thinking is limited largely to four ideas:

First, the elimination of through traffic. This is fundamental.

Second, the improvement of tributary arteries serving the business district so as to eliminate traffic congestion for those traveling to the center. This is excellent, of course. But as is well realized, to the extent that it is successful it merely adds to the pressing traffic problems within the business district itself.

Third, the provision of more off-street parking within the business area. This of course is essential. But unfortunately such parking areas, instead of being located well within the business district, are usually located only barely within it. While excellent for the needs of all-day parking for office workers and store employees, such peripheral parking is usually highly unsatisfactory for serving shoppers' requirements.

Fourth, the provision upon public pavements of controlled short-time parking through the use of the police power, with or without parking meters.

As to the last, except as may be necessary to assure the elimination of all-day parking, controls of this kind are most unfortunate and objectionable, from the point of view of both customers and merchants.

Fear of possible arrest, or concern with the need of moving one's car at the end of a specified time or of feeding more cash into a parking meter, is in basic conflict with the goal of creating an ideal shopping environment. This is especially true in the case of women, who do most of the buying. Except as parking meters may be used as a temporary expedient to raise money for the creation of off-street parking, they are a visual announcement of defeat. Any retail district which must count on using parking meters on a permanent basis is off to a sad start in the race for business.

Now, as to what can perhaps be done. Lest anyone may assume that I have some magic formula to propose, I would like to eliminate that possibility at once. To the extent that I have something concrete to suggest, it is only this: *It is later than most people think, and the cure must be much more drastic than most have assumed.* Only the boldest and most forceful action can serve to meet the problem. The patient has cancer and radical surgery should be planned now. There is no time to lose.

Specifically, what *can* be done that is not typically being done today? Perhaps if we recollect the new competition we shall be able to get some suggestions.

Obviously, and most important, all traffic other than that essential to the shopping district must be completely eliminated from within the shopping area. This is, of course, being done in many communities. But in what percentage of the cases where it should be done, is it in fact being done?

A larger volume of off-street parking must be provided than is now thought of as being necessary or possible. And such parking must be conveniently located, not at the periphery of the business center (except in very small centers), but close at hand for the convenient use of shoppers. If this requires tearing down buildings, then it requires tearing down buildings. If this can be provided only through parking on roofs, in basements, or sub-basements, or by double-decking, or the construction of multi-story garages, the answer is the same. If it means constructing new buildings in whole or in part on stilts as has been recently proposed by one of this country's most successful and distinguished store architects, the answer is still the same. Wishful thinking to the effect that our cancer patient can be rejuvenated by a few vitamin pills will not help us. If obsolete building or zoning ordinances prevent the necessary cures, there is no time to be lost in the revision of such ordinances.

So much for off-street parking. As to on-street parking, we need more, not less. In fact, with all but strictly local traffic eliminated, the streets themselves should so far as possible be converted into parking lots for the use of other than all-day parkers.

Let me go even further. Sidewalk widths should be carefully considered, and then cut to the irreducible minimum wherever such action will serve to make possible more on-street parking immediately adjacent to merchandising space. Such narrower sidewalks will give a more intimate shopping atmosphere and, with the adjacent pavements devoted only to parking and slow-moving local traffic, will be found entirely safe. It is said that no night club can succeed if the customers have elbow room. To a considerable extent, this psychology is also true of business districts. Many a retail center, particularly in western cities, is planned on too liberal a scale for its own good when considered

from a merchandising viewport. Where there now exist wide sidewalks in combination with wide pavements devoted to through traffic, business would be improved by the substitution of narrower sidewalks and wider pavements devoted exclusively to parking and associated strictly local traffic. Customers with or without small children in tow should feel it practicable and safe to cross from one side of the street to the other at frequent intervals.

If what I have just suggested sounds like an approval of jay walking, my answer is that in the middle of a good shopping area it should be safe to jay walk. If that requires a wholly new approach to traffic problems in shopping centers, then a wholly new approach is needed and needed desperately. If adequate parking can be provided in other locations sufficiently nearby, consideration should certainly be given to closing off the entire street and converting it into a pedestrian mall, as has been proposed for Rye, New York. Perhaps we cannot reach such goals, but we should realize at least what our goals should be, from a merchandising viewpoint.

Auto-Shopping is essentially a technique for achieving greater efficiency in getting customers into and out of a shopping center in a hurry—without any sense of hurry, and with all errands done.

Why, if a person wishes to leave some clothes to be cleaned, should he have to hunt for a parking space, struggle into it, walk perhaps several blocks, crossing perhaps several streets and lugging perhaps, in addition to the clothes, a child or two in the process—then walk all the way back and perhaps have to struggle out of the same parking space he struggled into? Why should he not be able, in rain or shine, to drive right up to the cleaner's shop, as he would to a filling station pump—and leave his clothes, as he would leave a tire to be repaired?

If there were today no filling stations, you would have to park your car at the nearest convenient or inconvenient location, walk to the gasoline store, make your purchase, and then walk all the way back again with your purchase to complete delivery to your car.

Which process is more efficient? Which makes the least demand on available space? It does not take any advanced mathematics to see that the speed and efficiency with which the ordinary service station handles its customers helps to cut demand on space and frees more parking for the use of persons with errands for which the Auto-Shopping technique is unsuitable.

If you need to cash a check at the bank, is your community's business center better off if your bank has an auto-banking window, which permits you to complete your errand in a few minutes; or if it has no auto-banking window and you are accordingly forced to occupy a parking space for the much longer period of time necessary to complete your errand—or drive around the block a few times while your companion cashes the check?

Filling stations, auto-banks, drive-in cleaners, and all other such establishments, of types now developed or likely to be developed, serve greatly to increase the efficiency of the shopping district. To the extent that they do so, they are desirable and should be encouraged. The use of such Auto-Shopping techniques increases the volume of business which can be transacted in any given period of time within any given business district.

Obviously such facilities should, so far as practicable, be located around the periphery of the retail area, and not at or near its center. If to make this possible old buildings must be torn down or new buildings must be built in whole or in part on stilts, then so be it. Just as livery stables gave way to modern service stations, so will many structures in existing business districts give way to such improved shopping facilities.

I have left until the end the subject of aesthetics, not because it is unimportant but rather because of its great importance. Every progressive merchant knows the significance today of a fine display of merchandise, good store fixtures, and a modern store front. If that is true of individual stores, it should be even more true of groups of stores. One of the main appeals possessed by the new type of shopping center is the aesthetic appeal. One of the main objectives in the revitalization of any existing business center, should be to improve the overall attractiveness and visual charm of the retail merchandising area. In this connection it may be of interest to mention the recent trend toward the replanting of trees on business streets, as on Fifth Avenue in New York, and on North Michigan Avenue and even State Street in Chicago. To the extent that pavements in retail areas can be converted into parking spaces, there will be many odd corners left over which can be attractively landscaped to the great benefit of the annual volume of business done.

Perhaps such a program as is here suggested sounds too difficult or too expensive for any ordinary community to afford. But perhaps the failure to adopt such a program can be afforded even less.

As every city planner knows, part-way measures may not yield nearly as big returns on the investment as full-way measures. In many communities, it may be easier to effect a program of the type discussed than one less likely to stir the imagination and gain the enthusiastic support of leading merchants.

To put such a program into effect will in any case require the most intensive effort and the fullest cooperation of city officials, merchants, and leading citizens. With such cooperation, however, central business districts will be able to gain many of the advantages possible in new outlying shopping centers, to the great benefit of the community.

Established business heretofore has frequently felt it could afford to temporize with the problem of the automobile. No matter how bad the traffic and parking situation might be, there was still no place else

for the customer to go. With no adequate selection of merchandise elsewhere available, the public had to do business in the established districts. But from now on, there is going to be competition, or the serious threat of it—and that situation is going to mean more and better support for community planning in thousands of communities.

Location of Federal Buildings

GILBERT S. UNDERWOOD, Director of the Design and Construction Division, Public Buildings Service, General Services Administration, Washington, D. C.

IT IS the policy of the General Services Administration, through its Public Buildings Service, to work closely and cooperate with local planning authorities wherever possible in the selection of sites for Federal buildings. We are ever mindful of the fact that—especially in the smaller cities and towns—the post office or perhaps some other Federal building, is the physical symbol to citizens of their national government, but there are circumstances where the proposed site for a Federal structure is so tied to other existing facilities that we have no choice in location.

General Services Administration does not pioneer on new civic center plans unless we have reason to believe that the ultimate plan will be carried out. But where we are convinced that the plan is sound we do everything possible to help further it. Factors which determine the selection of sites for a large city are different from those governing the choice in a smaller city or town. In the smaller city or town, for example, we avoid a location on the main street. We have found that the better spot is a block off the main highway somewhere at a potential future center of retail business. We must consider not only pedestrian traffic in the smaller communities but the motor traffic as well.

Selection of sites for post offices in the smaller cities and towns today has been tremendously affected by the introduction by the Post Office Department of what is known as the "Hy-Po," an abbreviation for Highway Post Office—which is a 45-foot motor vehicle that operates to and from the larger postal centers *separating* mail within a prescribed area. It has replaced the familiar mail train in many communities. In Los Angeles, for example, we have designed the Terminal Annex post office to accommodate 10 "Hy-Pos" at present, with facilities for many more in the future. Increase in mail car rates forced the Post Office Department to use these vehicles. Because of the "Hy-Po," post office sites require more space than formerly. Also, it increases the necessity of locating off main streets to afford them more space in which to maneuver.

Selection of a site in the large city is much the same except that

emphasis here is more on pedestrian traffic. The Federal building is likely to be a combination of post office, court house and offices housing numerous Government agencies. The best location, therefore, is in the office building district easily accessible to pedestrians and near parking areas if possible. But here, too, the more desirable site is off the main arteries of traffic.

The General Services Administration acquires sites, designs and constructs many types of buildings other than the familiar post office. They include hospitals, laboratories, health centers, post office garages, border stations—in fact, some 50 or more types. The location of each involves a special study of factors like real estate values, service to the public, the relation to public utilities and even the possibility of helicopter landings on the roofs of some structures. The General Services Administration, in choosing sites for Government buildings, does much as any good city planning body would do. And successfully, we hope.

Fresh Meadows, New York

GENERAL OTTO L. NELSON, JR., Vice-President in charge of Housing,
New York Life Insurance Company, New York, N. Y.

THE New York Life Insurance Company in Fresh Meadows, its first housing project, determined to study the whole project. The company architect, G. Harmon Gurney, worked with the commissioned architects, Voorhees, Walker, Foley & Smith, to make a long advance study of housing before choosing the site. The project is *investment building* as opposed to *speculative building.* It has the advantage of ample funds for large-scale operation, over a long period which permits a sound investment in good living conditions.

The project was planned, not so much as a form of land use, those in charge tried to visualize the family life, from marriage to old age and then to provide a variety of units suited to changing family requirements, so that people could live at Fresh Meadows without being forced to move away. This has resulted in a diversity of units not commonly found.

The basic fact of Fresh Meadows is the low population density. In its gross 174 acres, there are 11,000 people, in 3,000 apartments, or 17 families per acre. The site, the former Fresh Meadows Country Club, was purchased because its land cost and other attributes fitted into the plan for living.

There are those who raise some objection to the two 13-story apartment houses; yet these two buildings, concentrating on small land area a sizeable proportion of the smaller apartment units, make possible one of Fresh Meadows' most attractive features—its vast areas of open verdure. A great acreage right beside these tall structures is open lawn and woods, for that spacious vista so much desired by city dwellers. Esthetically, the tall buildings are quite pleasing; they are at once a landmark, to be seen from the Boulevard, and a focus for the many two- and three-story buildings scattered around them. Actually they do not suggest congestion, but just the opposite.

The buildings are disposed in small groups, each group informally outlining a neighborhood. Each little group has its own play yard, with equipment, its own stretch of lawn, with benches and trees, its own limited vista, its little private terrace gardens, and the buildings are varied in each grouping, even to different brick color. Such a concept of planning explains why the site plan is not done in sweeping curves, or in a tree-like pattern of cul-de-sacs. In general the views in Fresh Meadows are kept in small scale, with the exception of the open central park area, and the wooded six-acre tract where a stand of tall oaks is preserved as a natural oasis.

*General Nelson spoke without notes and asked that the written record be condensed from the article in the *Architectural Record*, December, 1949.

The neighborhood idea also required that streets should bring the family car to the door. The necessities of family life are provided from three separate shopping centers. One is large enough to attract branch stores of well known metropolitan department stores, with theatres, restaurants and bowling alleys. The two smaller centers house groups of service stores in park-like surroundings, with wide walks and planted trees.

Planning at Fresh Meadows assumed that automobiles are a convenience as well as a hazard. The automobile is controlled, not banned.

1. *Bring the car to the door.* A great new American business—tourist camps and highway hotels—has been built on this basic premise.

2. *Provide sufficient roadway.* Bringing the car to the door necessitates a certain minimum of roadways.

3. *Keep the roads continuous.* Why should the milkman have to pass twice? The principle of continuous roadways was considered of great importance, in the interests of free traffic for both service trucks and tenants' cars. The final decision here was that the cul-de-sac overstresses protection against the automobile.

4. *Make speeding impossible.* The safety of road system is carefully planned in several ways. Streets are kept short; only one is continuous through the project, and that by insistance of the city authorities. There are oval center islands which tend to slow down cars. In some places the street pattern is calculated to keep cars turning frequently enough to keep them at slow speed. It is difficult to drive over 15 miles an hour. Another safety principle was to keep the road exits from the project at safe points, not to bring them out indiscriminately.

5. *Eliminate short cuts.* The final major principle was to keep the pattern so broken up that no road would become a short cut. While the automobile was made welcome in Fresh Meadows, its counterpart, the garage, is always a plague in a housing development. Here the decision went in favor of a few large parking garages. The next question was capacity required. More garage space was planned than was finally built; the end figure was one car for each two apartments. It may be necessary to add more later. There is plenty of room for additional buildings.

Placing the buildings in a residential neighborhood was the next problem, Here it is done by using six-level, staggered-level type of building, each sunk about half into the ground. The buildings then emerge from the ground in scale with surrounding buildings.

Planning for play and recreation takes several forms:

1. *For pre-school children*, each neighborhood group has in the center of the open lawn area a paved play yard with swings, slides, sand-box and other equipment. The interior walks are suitable for tricycles and other juvenile rolling stock. Children are naturally attracted to the inside rather than the outside streets.

2. *For larger children* is a reserved area, in the center of the development available for youngsters for ball games and other sports.

3. *For everybody* there is a reserved area, a large city block square, which is just plain woods suitable for picnics and other outdoor uses.

4. *For adults* there are the restaurants, theatre and bowling alley, and provision has been made for other adult activities as yet unplanned. Clubrooms are available in the restaurant building, and various activity rooms are reserved in the basement.

Plans for the 13-story apartment buildings provided for reinforced concrete construction to house up to 450 people per acre at 20 percent land coverage, served by one pair of elevators. A double cruciform arrangement provides good orientation. Interior foyers give each room privacy and add only 2½ percent to the total cost for each apartment.

Important points in the plans of 3-story apartment buildings are: (1) entrance foyers for a sense of privacy; (2) generous dining space in all units; (3) generous closet space; (4) cross ventilation, with double outlook for most apartments; (5) fireproof construction.

Row houses all face living rooms to interior courts, though main entrance opens to street. Some units have separate vestibules, with dining space combined with kitchen; some reverse this—separate dining rooms, with small vestibule extending out from dining room. Bedroom space on second floor is arranged in various combinations—one to three bedrooms per apartment.

Park Forest—A New Community Designed for Better Living

H. EVERT KINCAID, Kincaid and Hutchinson, Community Planners & Architects, Chicago, Illinois

DOORS to new apartments have now opened to more than 2400 families in Chicagoland's most modern suburban community—"Park Forest,"—and other families are moving in every day to make their homes in comfortable apartments built in parklike surroundings.

Two short years ago, the land upon which now stand 3010 rental units and the initial sections of a large shopping center, was occupied by an abandoned golf course and paper platted subdivisions.

Surrounding the area of initial construction are rolling acres of woods and farmland and a group of shallow lakes which attract wild fowl throughout most of the year. To the east and contiguous to the town site lies more than 1000 acres of land making up the beautiful Sauk Trail Forest Preserve—a part of the extensive and popular Cook County Forest Preserve system.

Across the north portion of the town site is located the tracks of

the Michigan Central Railroad, paralleled by the E. J. & E. Belt Line Railroad a quarter of a mile to the south. To the west, approximately one-half mile from the westerly portions of the community, run the electric powered suburban trains of the Illinois Central Railroad, providing fast and comfortable transportation to Chicago's "loop."

Such were the conditions surveyed by large-scale, operative builder Nathan Manilow, who had already created several outstanding residential developments in the Chicago Area. His dreams and ambitions to build a complete new town had caused him to investigate almost every large tract of land within reasonable commuting distance of Chicago. Obstacles of many kinds were encountered in his search for an area which would meet the criteria thought essential to the creation of the ideal project he envisioned.

Scattered and unknown ownerships, owners unwilling to sell, lack of sanitation and water facilities, poor surface drainage, soil conditions, inadequate transportation services, and the location of existing highways, were but some of the factors which had to be weighed before land purchase could be begun or plans of any kind started.

The Selected Site. After months of title searches and the taking of options in various alternate locations, Mr. Manilow, with the counsel of his associates, decided that the Sauk Trail area offered the greatest advantages for the future occupants of his community-to-be. Here it was possible to assemble 2400 acres of land at a reasonable price. Railroad facilities were ideal to serve the proposed town, both for manufacturing and commercial purposes, and for commutation to Chicago. The purchased area was protected on the east by the above mentioned forest preserve and on the south by rugged, wooded terrain. To the west lay the sparsely developed community of Richton Park, and to the north the famous Olympia Fields Country Club, and some vacant land, part of which has since been purchased by Lions International Club for development as its principal headquarters.

The chosen site is located 30 miles south of Chicago's "Loop," contiguous to the western portions of Chicago Heights, an average suburban community in the highly industrialized Calumet area of the Chicago Region,—and a short distance south of the desirable residential community of Flossmoor, and a cluster of Country Clubs.

The Developers—American Community Builders. Upon acquiring the site, Mr. Manilow was then ready to enlist the aid of highly skilled people who would bring together the "know-how" needed to finance, design, and construct one of the largest private housing developments ever undertaken.

From Washington, D. C. came Philip M. Klutznick, who, as Commissioner of Public Housing during the difficult war years, had successfully met the challenge of building badly needed homes in the arsenal centers of the nation, to become president of American Com-

munity Builders, Inc.,—the developing company created to do the job.

Also attracted from the east were Charles Waldman, a man highly trained in urban engineering, and Elbert Peets, long noted for his accomplishments in Community planning. Both of these men had played important parts in the building of the government "Greenbelt Towns," located near Washington, D. C., Cincinnati, and Milwaukee.

Consoer, Townsend and Associates, one of Chicago's leading engineering firms was engaged to design a system of utilities to accommodate upwards of 25,000 people, and to solve the difficult drainage problems of the area.

Early in the formative stages, Jerold Loebl was attracted into the company as an officer. He brought with him the highly competent skills of his architectural associates, Norman Schlossman and Richard Bennett—a firm with much experience in the design and engineering of large scale housing projects, both public and private.

Supporting this team of trained technicians and administrators was a corp of legal talent which had to deal swiftly with the problems of land purchase, disannexations, zoning, negotiations for utility services, financing and a multitude of legal matters which can never be seen in the finished product but are all important toward achieving profitable goals for all concerned.

The stage was set for scores of architects, engineers, and surveyors to begin developing the plans for Park Forest—a name well chosen because of the natural surroundings and terrain which give the project a "Park" character.

The Town Plan. From carefully prepared topographic surveys a town plan rapidly took form with a large shopping center providing the focal point of interest near the geographic center of the purchased site. A curvilinear street pattern provides easy access to all parts of the proposed development and takes full advantage of natural contours. Space has been reserved for schools, public buildings, churches and recreation areas, around which were designed the many groups of buildings. Within this area have now been laid over 8 miles of bituminous and concrete paving; more than 23 miles of curb and gutter; and over 900,000 square feet of sidewalks.

Utilities. The sanitation problem was solved by extending a 24″ and 36″ trunk line sewar 18,000 feet to connect with the sanitary district system in the adjoining Bloom Township. Storm water drainage was designed to take advantage of natural run-off into Thorn Creek running along the south boundary of the tract and through Sauk Trail Forest Preserve, and into the lakes lying within the purchased area which empty into Butterfield Creek to the north.

Water supply had to come from deep wells drilled upon the property. A water company was formed and now possesses three fine wells and a large water softener plant capable of supplying 3000 gallons of palatable

water per hour to the residents of the Village. Within the shopping center is another well supplying water for air-conditioning units.

Apartment Dwellings. All of the dwelling units built to date, 3010 in number, are of the row-house, party-wall type in groups of 2 to 8 per structure. There are 204—one bedroom, 3½ room units; 2014—two bedroom, 5 room homes; and 702—three bedroom, 6 room dwellings renting from $75.00 to $99.50 per month without utilities, except for water.

The dwelling structures are architecturally attractive and constructed with a variety of exterior materials. The room sizes are large and one of the features is the amount of storage space in each unit. Each apartment has a full basement and is heated by a gas-fired furnace.

The buildings are grouped around large open courts with parking compounds provided at the rear of all dwellings. Each tenant has private yard space at the front and rear of his home which he is expected to maintain; but all parkways, courts and play space will be maintained by the management.

Village Incorporated. On February 1, 1949 the project area was incorporated under the laws of Illinois as the Village of Park Forest. A Board of Trustees was elected by the people then occupying the completed homes with Dennis O'Harrow, Assistant Director of the American Society of Planning Officials, as the first Village president. A fire and police department was soon formed—although there is little need for police protection except to regulate traffic. A Plan Commission was appointed to help shape the plans for future growth and development, and a School Board was formed to develop educational facilities and to conduct a school program in some of the apartment structures as a temporary measure.

The child population of tenants is averaging about one and eight-tenths to the family, with about one child being of school age. Since almost 25 percent of the Park Forest families are of the Catholic faith, the Catholic Bishop is now prepared to erect a parochial school and church on a centrally located site (6.7 acres) made available by American Community Builders. Arrangements for church construction are also under way by other groups and sites are being selected with the aid and benefit of studies prepared by the Chicago Federation of Churches.

Population. Population markers at the corporate limits, showing but a few hundred people a year ago, have had to be changed almost daily to keep pace with the rapid growth.

At this date there are approximately 9000 people living in Park Forest and by the end of June all of the 3010 apartments will be occupied, accounting for a population of some 11,500 people. Family sizes to date have been averaging 3.8 persons.

Downtown Shopping Center. A unique and beautifully planned shopping center will provide the Village with stores and services of all kinds, as well as amusement and recreational facilities. Canopies overhead

will protect shoppers in inclement weather, and will interconnect all structures. There will be no streets to cross within the shopping area since all shops face onto an open landscaped area, designed for the comfort and convenience of the shopper. Nearly 15 acres of adjacent property encircling the shopping area will serve to park 3000 cars.

Construction has progressed to a point which has permitted the opening of a large food store, drug store and restaurant, and a number of small shops supplying children's apparel, shoes, dry cleaning, and other services. A 1050 seat theater will be completed in July with a group of stores assembled in an attached structure.

An unusual service to shoppers will soon be inaugurated. Each customer will be given a number upon arriving at the "downtown area." All purchases made will be stamped with his or her number and, if desired, sent to a central point, where upon call from the shopper all parcels will be loaded into the purchaser's auto or made available for pickup.

Landscape Development. Project landscaping is another distinctive feature of the development. Many of the residential courts were seeded and planted last fall to relieve the occupants of the dirt and mud characteristic of most construction jobs. Planting of deciduous trees, flowering crabs and hawthorns, and the seeding of lawns is now going forward rapidly. More than 7464 trees will be planted in the apartment areas and over 8,000,000 square feet of lawn area will be seeded.

Financing. The construction of dwelling units and the development of the grounds has been accomplished under mortgage financing insured by the Federal Housing Administration. The mortgages have been purchased by several large well known insurance companies. Valuable counsel was received from officials of the F.H.A. Chicago insuring office and from the F.H.A. land planning consultants during the early planning stages, which has helped make Park Forest a desirable investment risk as well as an attractive development.

Single Family Neighborhoods. In June of 1949 the owners began giving thought to the development of approximately 950 acres of beautiful rolling land included in the initial purchase area and lying mostly to the south of the apartment units. Sauk Trail and Monee Roads, converging at Western Avenue, created a large triangle, wherein there was opportunity to lay out protected residential neighborhoods for owner occupancy homes.

For this work the firm of Kincaid & Hutchinson, Community Planners and Architects, was engaged to design the subdivision areas and to complete some of the details of the overall Village plan; also to coordinate the surveys and engineering to be prepared in collaboration with Consoer, Townsend and Associates.

Plans for Indianwood Boulevard were extended from the "Downtown Center" in a southwesterly direction, cutting across Sauk Trail to connect with Monee Road at the far southwest corner of the property.

Another major street, to be known as Blackhawk Drive, will bisect the property in a triangle, beginning at Monee Road and extending in a northwesterly alignment to provide an outlet onto Sauk Trail, which is the approach to the Illinois Central R.R. station at Richton Park, a half-mile away. These roads, none of which should attract much outside extraneous traffic, will provide the principal lines of circulation within the Village. The acreage is divided into 4 complete neighborhoods, in addition to the apartment areas, each with a large school site and park forming the nucleus of the neighborhood.

Parks and Recreational Areas. The owners have put particular emphasis upon the need for open space and have generously provided for park and recreational areas. More than twelve per cent of the gross acreage is devoted to public school sites and neighborhood parks. This does not include the large park areas around the lakes which hold unusual opportunities for all types of recreational activities. In addition, as has already been mentioned, more than 1000 acres of scenic land, including a good sized lake, are contained in the Sauk Trail Forest Preserve. Within this large area are picnic facilities, shelters, bridle paths, and opportunity for nature studies.

The smallest public elementary school site is 8 acres, with the average being better than 10 acres in area. The selected and reserved high school site is at the geographical center of the Village and becomes a part of the large park development.

Streets. Only twenty-one per cent of the gross area has been dedicated to streets, yet adequate circulation will be provided for all types of traffic.

The street widths vary from 50 feet for minor residential streets to 80 and 100 feet for the major collector thoroughfares, such as Blackhawk Drive and Indianwood Boulevard. Roadway widths are designed to accommodate traffic in accordance with the character of the street.

The street system follows the natural contours of the property and all roadways will be constructed to follow natural grades, thereby avoiding expensive cut and fill.

Street Improvements. Pavements specified are macadam with black top surfacing, bounded by rolled concrete curbs and gutters. Sidewalks will be constructed on both sides of the street and will be placed adjacent to the roadways on minor and lightly traveled residential streets. There are definite economies to be realized and desired advantages to be gained in building sidewalks as an integral part of the paved surfaces.

Underground utilities will be placed within the parkway strips except for storm sewers. All wires for electric and telephone services will be in underground conduits where crossing streets and providing for street lighting. Poles will carry the lines overhead in rear line easements of each block.

Contracts have been let and construction started to develop all

land improvements for the approximately 3000 lots to be improved with single family dwellings.

Residential Lots. The typical lot size is 60′ x 125′, with a large percentage being of greater area. Only 60 percent of the gross acreage is devoted to subdivided residential sites, the remaining area being reserved for streets, schools, parks, churches, public buildings and business properties.

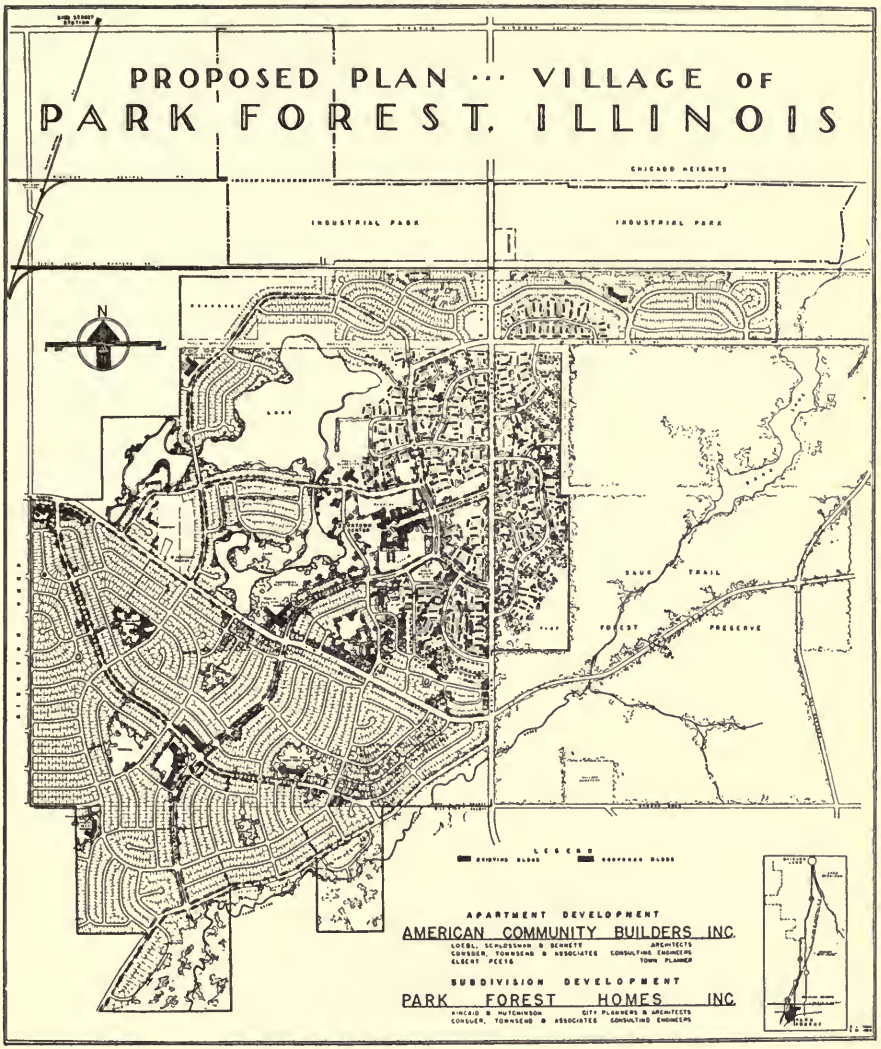
Houses. A variety of homes, mostly of the one story type, will be constructed through mass production methods. Variation will be secured through use of different building materials, architectural details, orientation on the lots, variation in setbacks, and in landscaping. The latter will play an important part in final appearance and acceptability on the part of the owners.

Shopping Centers. Two secondary shopping centers are designed to provide for neighborhood needs and to supplement shopping facilities in the "downtown center." Parking areas will be a feature in each instance.

Good services and well stocked stores are assured the occupants of Park Forest because of the complete control of retail business development. There will be little opportunity for competitive business to locate, except at a considerable distance from the centers within the Village.

Industrial Park. It is anticipated that the Village can ultimately provide suitable opportunities for employment within the corporate area. The land lying between the Michigan Central R.R. and the E. J. & E. Belt Line R.R. being located on the proper side of the Village for prevailing winds, will provide space for developing a large number of selected manufacturing plants arranged in an "Industrial Park." Considerable interest has already been received by the owners.

Conclusion. This brief and sketchy description of the development of Park Forest, has of necessity, omitted many details which are important to the success of the project. That it is a success is proved by the fine character of young families being attracted to the Village. It is already hailed as an ideal community wherein to raise a family, and as the open spaces are landscaped and developed for use and single family homes made available, Park Forest should mature into a veritable "park for good living."


PROPOSED PLAN ··· VILLAGE OF
PARK FOREST, ILLINOIS
CHICAGO HEIGHTS
INDUSTRIAL PARK
INDUSTRIAL PARK
N
VAUX TRAIL
FOREST PRESERVE
LEGEND
EXISTING BLDGS
PROPOSED BLDGS
APARTMENT DEVELOPMENT
AMERICAN COMMUNITY BUILDERS INC.
LOEBL, SCHLOSSMAN & BENNETT ARCHITECTS
COMSUER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS
ELBERT PEETS TOWN PLANNER
SUBDIVISION DEVELOPMENT
PARK FOREST HOMES INC.
KINCAID & HUTCHINSON CITY PLANNERS & ARCHITECTS
CONSUER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS

North Kansas City

HOWARD T. FISHER, President, Howard T. Fisher's Associates, Inc., Architects and Engineers, Chicago and New York

Introduction. North Kansas City, Missouri, presents the very interesting case history of an industrial satellite community which, though created out of whole cloth and well planned at the start, has subsequently suffered from the almost total absence of planning study.

The object of my talk will be to tell something of the history of this city and to report upon the current work that is now being carried forward, under the sponsorship of Mr. Arthur Rubloff, President of the North Kansas City Development Company, with the objective of establishing it as the finest industrial community in America.

At the outset, Mr. Rubloff authorized a complete review and analysis of every aspect of the North Kansas City situation and, before proceeding with the design of any of the individual buildings required, the preparation of an up-to-date comprehensive master plan for the entire community. When he assigned this commission to our firm—although his organization was sponsoring and defraying the cost of the work—he stressed particularly that we were to be guided at all times by what we might feel were the best interests of the community as a whole without regard to the more immediate and narrow interests of the North Kansas City Development Company. In all of our subsequent dealings, not only with Mr. Rubloff but with all of his business associates as well, we have found this viewpoint to be controlling.

The North Kansas City project is therefore an interesting example of a city planning study which is being financed by a private business enterprise, although directed toward benefiting an entire community, the interests of which go far beyond those of the sponsoring organization.

Though now completely surrounded by Kansas City, Missouri, and Kansas City, Kansas, North Kansas City is an independent municipality with its own city government. It contains in excess of one hundred million dollars' worth of factories and other buildings, aside from those owned by our client. However, in view of the importance of the position of our client in the community and the very friendly relationships which it has been able to develop, the North Kansas City Development Company and its advisors undoubtedly have a very unusual opportunity for guiding the future course of the community.

I would like to take this opportunity to express our appreciation for the early cooperation of the Kansas City Plan Commission. Mr. John M. Picton of that organization very generously offered all possible aid and gave freely of his time. As our work progresses and as we get into more specific problems, we hope to be able to profit much more fully from his kind assistance.

What is North Kansas City? As already indicated, North Kansas

City is a high-grade industrial community contained entirely within the body of the Kansas City Metropolitan Area. Located on the north side of the Missouri River, it occupies a little over four square miles of land situated in a great bend of the river which penetrates south to a point within several blocks of the business center of Kansas City, Missouri. The Kansas City municipal airport is also located within this bend, immediately adjacent to the southwest. Extending along the north boundary of the city is a gently rolling country-side formerly devoted to farms, but now being subdivided and built up with houses. This particular area has recently been made a part of Kansas City, Missouri.

While North Kansas City was created from the beginning to serve the needs of manufacturers, it is unlike some of the other industrial developments of the Kansas City area in that it was designed to present a complete well-rounded community with its own housing, public buildings, etc. Up to the present time, however, the majority of workers employed in North Kansas City have lived elsewhere, either driving their own cars or travelling by bus to their places of employment. Yet North Kansas City offers, we believe, numerous advantages even to those employees who do not live within its limits. Since it has its own business district, workers in the area find a full range of convenient shopping facilities immediately at hand. There are also a theater and two banks. Other projects, such as a clinic, a modern bowling alley, and a recreational center are now in a development stage.

At the present time a little over 4,000 people are living within the community. It is considered probable that the population will increase to 10,000 within the next few years, and that an ultimate population of from 12,000 to 15,000 may be expected. The first step toward more housing is already well advanced in the form of a large rental project to be financed with Federal Housing Administration mortgage insurance. Designs for this have been under way since last autumn and construction should now commence within a matter of days. Additional projects beyond this are contemplated as rapidly as conditions may warrant.

History of North Kansas City. Land acquisition for North Kansas City was started in 1901 by G. F. Swift of the packing firm of Swift & Company. In 1902, after J. Ogden Armour of Armour & Company had joined in the venture, the North Kansas City Development Company was created. In June of that year the greatest flood in Missouri River history occurred and, without levee protection, Messrs. Armour and Swift saw their property completely inundated. In 1904 the Burlington Railroad joined in the venture. After 1930, ownership of the company passed through a number of hands until its acquisition in 1947 by the present group of owners, consisting of Charles Allen of Allen & Company, Arthur Rubloff, and others.

Previous to the last world war, a number of large industrial developments had been established within the city. Since then, as a result particularly of the accelerated industrial expansion in this country due to the war, many additional projects have been constructed.

Unfortunately, however, North Kansas City was not the primary concern of those business executives in control of its destiny, with the result that the city became somewhat of an orphan. No progress of planning was maintained and a great many business decisions were reached on a basis of short-term thinking.

Fortunately, the North Kansas City Development Company now fully realizes the great importance to it of sound planning and the extreme need, from a strictly business viewpoint, of a clear-cut program to serve as a guide for present and future action. And also fortunately, few errors in the past were so serious as to be beyond repair at this time or of such a magnitude as to create great difficulties.

Program of the North Kansas City Development Company. The present program of the North Kansas City Development Company provides for a considerable amount of construction over the next few years, in residential and commercial as well as industrial fields. However, the general policy heretofore followed of selling land outright will be discontinued. Present income tax legislation leads industry more than ever to seek facilities on a rental basis, but the new policy of the North Kansas City Development Company of retaining ownership results primarily from its wish by this means to be able to assure the finest possible future for the community.

Unfortunately, in the past, it was frequently found that when property was sold outright, it was later developed in an entirely different manner than contemplated at the time of the sale. In a few cases, industrial sites were actually split up and sold on the open market in small parcels, resulting in the existance today of an area of sub-standard housing. We hope to be able to work out a solution for this particular situation, which fortunately is not of such magnitude as to present a serious problem. In other cases, land sold for industrial uses was objectionably converted to small-scale commercial uses, in locations quite inappropriate for this purpose. Zoning should have prevented these situations but ordinances were inadequately written and enforced to accomplish the necessary objective.

In trying to work out the soundest possible future for the community, considered in its broadest terms, the following principal problems have had to be faced: (1) The need for more housing to meet the requirements of present and prospective industry and to provide a satisfactory number of additional customers for the shopping center; (2) the very serious traffic situation resulting from the fact that one of the city's two main arteries passes directly through the center of the business district; and (3) the need for certain improvements in the

business district to create the most effective possible shopping environment.

The North Kansas City Development Company's assignment to our firm includes all phases of the architectural and engineering work contemplated by our client within the community. Although I have long had a personal interest in city planning work, I should explain that our firm has not heretofore primarily specialized in this field. In the execution of the city planning aspects of this assignment, we have accordingly supplemented our own knowledge by the specialized assistance of a number of consultants to whom we would like to give proper credit. These have included particularly Robert C. Weinberg, City Planner, of New York, but also Kenneth C. Welch of Grand Rapids and George W. Barton who is associated with the Traffic Institute of Northwestern University.

The work to be undertaken falls in the following principal categories: industrial, commercial, residential and civic.

Industrial. As might have been expected, since North Kansas City was created to serve industry, its facilities for this purpose are outstanding. Railroad and switching facilities, we are assured by the Burlington Railroad, are among the very finest in this country. Good highway connections are available and still better ones are contemplated. As the city borders on the Missouri River for a considerable distance, barge transportation is also possible.

Except for one small area, a complete and excellent system of levees now exists for the entire community. Most of the city, and all of the industrial portion, is level and accordingly capable of the most economical development for factory purposes. There is an excellent and abundant water supply. Full sewage and storm water facilities have heretofore been provided and will continue to be provided as the remaining land is developed.

Perhaps the greatest single advantage to industry is the fact that North Kansas City is a well-rounded community, with a sound future. Probably the only shortcoming of the city from an industrial viewpoint is the fact that bus transportation is today less good than might be desired. The further growth of the community should greatly improve this situation. In addition, the recent annexation by Kansas City of the entire area north of the municipality will, we trust, further assist in effecting a sound solution.

Commercial. Up to the present time the business center of North Kansas City was allowed to develop pretty much on a hit-and-miss basis. No adequate planning was ever devoted to this subject. The zoning ordinances of the community, either as a result of initial limitations or inadequate enforcement, failed to prevent the spread of small miscellaneous business ventures into a variety of locations which were neither sound for their sponsors nor the community.

Within the last several years, land was sold for a large factory in a location that should have been reserved for the clearly foreseeable expansion of the commercial area. Also at the very time when extensive investments were being made in store construction at points a few hundred feet from the principal intersection, equally well located property was being sold and thus, without any assurances as to its future use, was passing from the control of our client.

The greatest single advantage of the North Kansas City business district is undoubtedly the very liberal amount of well located off-street parking space which is available, either now developed or shortly to be developed. In the contrast, however, the greatest disadvantage is the fact that the city's main east and west automobile highway is at present routed directly through the center of the business district. The most difficult task which we have had to face in our current work has been to develop a practical and inexpensive means of by-passing this through-traffic, and yet still maintain a relationship which would assure the soundest future development and growth for the business district.

We are tentatively proposing an arrangement whereby westbound traffic is routed a block or two to the north of the present artery, with eastbound traffic correspondingly routed on the south. This is easy to accomplish, and the advantages are sufficiently great as to make this, we believe, the best overall answer to the problem. Complicating any solution is the relationship to present and prospective bus routes, terminals, and interchange points for those moving between Kansas City and outer areas to the north.

The North Kansas City Development Company owns approximately twelve blocks of business property which is occupied today by many of the leading merchandising organizations of the country. More than most real estate men, I believe, Mr. Rubloff recognizes and understands the extreme importance of parking to business. He has accordingly given us a free hand in allocating, for this purpose, high priced land which had previously been thought of as suitable for early development with commercial structures. As a consequence, the final plan for the business center will probably have the largest ratio of parking to commercial area of any community of its kind in the country.

With these and other changes and improvements now in the planning stage, the North Kansas City business district will, we believe, be converted into an extremely sound shopping center offering many of the advantages which are usually found today only in the best of the new drive-in establishments being developed in outlying areas.

As the land to the north which has been annexed by Kansas City builds up over coming years, North Kansas City can be expected to develop as the largest shopping center in that portion of the metropolitan district lying north of the Missouri River. Within easy walking distance

of most of the residential land of North Kansas City, it also lies strategically in the center of a series of converging arteries feeding in from all directions in the line of flow toward Kansas City.

Residential. The original plan laid out for North Kansas City undoubtedly put the residential area in the best possible location; namely, north of the business district and in the open end of the great V-shape of the railway facilities. In spite of the fact that all of the industrial land in the community with a few small exceptions, can be served directly by railway sidings, tracks at no point cross either of the present two main traffic arteries.

The residential property owned today by the North Kansas City Development Company is of two types: A large tract of level land well located near the business district and bus transportation routes, and several large tracts of hillside land located at a greater distance and along the northern city limits.

It is the level property which is now being developed with a rental housing project. The first installment consists of 666 dwelling units of from one to three bedrooms each, arranged in structures containing from two to twelve units. These are grouped in several large superblocks. The project immediately contemplated, plus the others to follow, will undoubtedly provide a tremendous added appeal to those industries thinking of locating in the North Kansas City area.

Two additional areas of level land, well located in relation to the shopping center, which were heretofore considered as available for industrial purposes, we have recommended to be held for the future development of apartments at such time as the community may be more fully built up and such construction may be justified.

The North Kansas City Development Company is not interested in building housing from the standpoint of any money that can be made directly from that source. In our design work in this connection, Mr. Rubloff has stressed repeatedly the importance of giving people a better place to live within the community at the lowest cost possible without regard to profits. In taking this position he is, of course, not motivated by any philanthropic sentiments, since providing more good housing within the community will benefit his company indirectly in various ways.

As for the hillside land, which has an attractive character and a fine view, we have suggested first that part of this be set aside for park purposes. The balance will then be developed for single family houses, it being contemplated in this case that the land will be sold outright to individual buyers, subject to suitable controls. It is hoped by this means to develop a good residential community which will appeal to executives and other higher paid employees of the local industries. At the present time those who administer businesses in North Kansas City with few exceptions live outside of the community and do not take an

active interest in its affairs. It is hoped that this situation can be altered at least in part. The first segment of the hillside will be subdivided in the near future, at a point immediately adjacent to the park land to which I have referred, and additional areas will be subdivided thereafter as necessary to meet the demand.

When all residential property within the city limits may be completely exhausted, there will still be available large tracts of land, equal to any foreseeable needs, in the adjacent area annexed by Kansas City, of which area the hillside land within North Kansas City is a natural extension.

Civic. The greatest civic improvement required is undoubtedly the re-routing of through automobile traffic outside of the business district, as already mentioned.

Next in importance has been the problem created by a contemplated super-highway which had been tentatively projected approximately through the center of the city in a north and south direction. I am glad to be able to report that a satisfactory location for this improvement has now been agreed upon which meets the planning needs of Kansas City, North Kansas City and the surrounding region, and that this appears to have the approval of all the various governmental agencies concerned. The pinning down of this problem has been of the very greatest benefit, since otherwise many phases of our program would have been seriously delayed.

Other contemplated civic activities include steps to beautify the two present main automobile highways, and to effect various improvements in certain details of the street system. We are, for example, recommending that a number of streets at one point be completely vacated and, through proper landscaping, be converted into park purposes. At the present time a group of important civic elements, consisting of a park, a school, a library, a municipal swimming pool, a high school and an athletic field, are subdivided by several streets. Our analysis of the situation indicates that these separating pavements can be abandoned without creating any problems and with a great improvement in attractiveness, convenience and safety.

Generally speaking, the existing system of major streets lends itself well to the needs of the new master plan. As already indicated there are no railway grade crossings on major arteries. The natural slope of the land permits easy grades for the high level bridges over the Missouri River and for the railroad tracks just south of the city limits which parallel the river. A new post office is also in the planning stage, and ultimately other municipal buildings may be required.

Extensive study has been given to recreational areas. By a lucky combination of circumstances, it will be possible to achieve a continuous landscaped strip of very considerable extent. This will start near the center of the city at the location established for future apartments

south of the business district. Incorporating the proposed consolidated area which I have just mentioned, plus a primary school and a present park, it will continue north to the base of the hillside area. Here the presence of a long strip of land held publicly for levee purposes provides a possible ribbon of park almost the full east and west length of the city. This will connect at the west to a large Kansas City park just outside of the city limits and in the other direction can be extended all the way to the Missouri River at the eastern edge of the city. Further supplementing this, it is proposed to establish rights-of-way around or through the hillside developments for walking and horseback riding use. The continuous greenbelt strips thus provided will offer unusual recreational opportunities, such as is enjoyed by very few of even our finest suburban communities.

Community Action. So much for the major physical changes and improvements now contemplated. There remain several very important problems of community action, and in this connection it is of interest to note that the work already done is beginning to have a marked effect upon local morale and community spirit.

Work under this heading would include the establishment in the near future of a local planning commission and the complete review and revision of the existing zoning ordinance.

The clear-cut character of existing and potential land uses, as dictated by topography, principal arteries, railroad facilities, etc., will undoubtedly greatly simplify the problem of rezoning. The usually encountered host of complicating factors resulting from physical and legal problems, conflicting ownerships and political rivalries should in the present case be conspicuous by their absence.

We are very optimistic as to the support which our client can expect to receive from all segments of the local community: residents, merchants, property owners, workers, and industrial executives. We believe that the great majority, if not all of the master plan will surely be effected, and that major accomplishments toward that goal will be achieved within the immediately foreseeable future. If so, the dream of our client that North Kansas City shall be the finest industrial community in America may be realized.

Low Cost Housing and Community Development in California

DAVID D. BOHANNON, San Mateo, Calif.

SHORTLY the Bureau of the Census will confirm the unpredicted growth of population in our country. It will also emphasize the fact that there has been a considerable shift of population. It is estimated that the population of California will show an addition of Three Million people, making a total of Ten Million people. This would indicate a ratio of three for one over the national average of 16% increase. For the last five years, 20% of all residential and rental units built have been in California.

Although California has shown this great population growth, only for the short period following the war was there an acute shortage of living space. Overall housing production has been such that as far as shelter requirements go, the need should be fairly well taken care of. There are still communities where there is a subnormal supply of housing available. Usually the reason for the lag in production is due to the problems confronting the builder in such localities, indicating a less attractive opportunity. However, due to the rapid expansion of building activity and the formation of new building organizations, together with improved techniques and the development of really good low priced houses, it will not be long until builders will meet the needs of these communities. Wherever there is a genuine demand, concentration of building activity in the metropolitan areas and suburbs is forcing land prices out of the economy market. This concentration of builders has brought about a desirable objective, a wide variety of houses in the lowest price bracket. This is the reason for the marked improvement in design and quality in the current market. Many of these builders with their new "know how" are seeking new opportunities in a less crowded market where land prices will permit continuation of their profitable operations. It is in this market that the big volume during the last year was sold. It is interesting to observe the pattern which has followed the strong campaign started in 1948 by the National Association of Home Builder's urging its members to produce for the lower priced market. Builders have found this market more profitable than the higher priced market to operate in. The competition to produce at a lower price has brought forth an unprecedented volume of housing.

It is well to understand the difference between the homebuilding industry of today and that of several years ago. At the National Association of Home Builder's Convention in February there were some 16,000 registrations. The keen interest of builders from every part of the country, in very phase—from land planning to merchandising was significant. Association publications were enthusiastically subscribed

to. Builders take great pride and vie with each other to have their best plans and ideas published in Association literature and trade magazines. Thus the techniques which have produced the most outstanding accomplishments become available immediately to the entire industry. Add to this, ample mortgage funds on most favorable terms, a ready market, and it is quite obvious why there is more progress in a few months today than was shown in a few years prewar. Builders are now finding it necessary to greatly improve the character and design of their houses and subdivisions. There is a constantly increasing pressure upon the builders to meet this demand without exceeding the monthly paying ability of his customers and without completely squeezing out his profit margin.

With the shorter work week and the natural desire to enjoy better living there is an ever increasing public awareness of the benefits of good planning of residential development. This tremendous building volume is carried out by thousands of builders, architects, and technicians. A check of the homebuilding magazines during the last few years and back some years even before the war will demonstrate that California has made a real contribution to advanced home design and production techniques. The California market has been willing to accept more advanced architectural treatment. We, in California, find that due to the continued activity, outstanding talent in the field of architecture has been developed and attracted to California because of the wide opportunity to merchandise the advanced design and ideas, both in the contemporary and traditional schools of thought. Competition is so keen that the merchandising conscious merchant builder has reached out for help from those who have the training, imagination, and talent to interpret into physical reality homes embodying Home Economist type thinking, climate control and proper land use. The pressure of a price ceiling has brought amazing results in live-ability within a wide and popular price bracket.

In California there are many capable building organizations; some of them are nationally known for their performance. There is keen competition between builders and this competition carries through to the hundreds of smaller builders, many of whom successfully compete with the large building organizations.

The homeseeking public have been educated to expect more and more in every phase of home development. It is now possible for the prospective purchasers to visit many model homes and developments to compare quality and value. Builders are increasingly aware of the competition not only from other builders but with other demands for the consumer dollar. The challenge has pressed into use the best of the warborn methods of mass production techniques and the result to date is a high dollar value to the home buyer.

In many communities level land has been totally used up and it is now necessary to move into the hills for home development. There is a necessity for planning commissions and engineering departments to realistically cooperate with community developers to avoid excessive requirements in street design, widths and block lengths. They should recognize reasonable compromises dictated by topography; hillside terrain being most desirable for residential living. Yet this type of land cannot be developed unless road specifications are in keeping with minimum traffic requirements rather than maximum engineering required for major arterial traffic. The trend toward much better cooperation between city and county planning and engineering departments is evidence of a desire to attain the highest degree of community development.

There is now emerging a public demand for something more than the minimum house. In the coming months we will witness a rapid transition and a competition between builders to produce a house not only architecturally attractive but finished and equipped as well as larger more expensive homes. There is no lack of purchasers able and willing to pay the down payment and the monthly carrying charges, ranging from $60 to $90 per month. An outdoor living trend and a climate conscious state have produced a delightful use of the site for garden and house orientation for climate control. True, this state of improved house and site use is only now emerging to a level of general appreciation.

With the exception of major executives who have little leisure time, the average employee only spends forty hours a week at his place of employment. He has time for community recreation or for whatever his interests may be. The evidence of this is visible in the high degree of owner improvement that has taken place in the well planned war built communities, such as San Lorenzo Village, which have become individually owned by the occupants. Community interest and pride are manifest in the well kept gardens, front and rear, and the many additions and variations owners have built. San Lorenzo how has three churches, four very modern well planned schools, with an additional one now building; a community center, a shopping center with adequate parking; and recreational facilities. The Village functions by a Homes Association, a non-profit corporation, with a maximum assessment of $2.00 per month per house. The Homes Association has no debt, a modern Fire Department resulting in lowest fire insurance rates for the home owners, complete street cleaning, maintenance of playgrounds, parks, streets, trees, etc. The important thing is the high degree of improvement that has taken place in the original development of 1500 homes, which has since expanded to over 3000 homes and is still growing. For three consecutive years, the San Lorenzo Garden Club has won first place at the famous Alameda County Flower Show, held in the Oakland Civic Auditorium.

These people are employed in all stations of activity. They represent over five hundred individual places of employment, ranging from mechanics to corporation executives. It is an ideal example of democracy at work. The Directors of the Homes Association, elected by popular vote, are a cross section of American life. The fact that all of this is accomplished by the people themselves without excessive monthly carrying cost, with all important pride in home ownership and resultant interest in Community Affairs is living evidence that we have nothing to fear as far as our democracy is concerned, if more self-supporting communities are encouraged.

Most of what I have said in making my report of the California scene applies equally to the national picture. Recent reports by the National Resources Board and the Commonwealth Club of California with respect to the desirability of more communities instead of continued concentration in existing urban areas are thought provocative.

With freeway developments, the high ratio of automobiles and the growth in numbers of two-car families, the building of new communities is often a better solution than fringe development. It is cheaper to build new decentralized communities than to rebuild central slum areas. Likewise it is cheaper for industrial expansion to go to outlying but suitably located sites. It is no longer necessary to have nearby tenements for workers to be barracked in. Our central urban cores can be better used for functions that must be closely related, and can be better served by mass transportation from outlying residential areas. By such specialization, we will come closer to preserving the overall tax base of the entire community, though there may be some falling off of extremely high values of urban land that can only be supported by extreme sacrifice on the part of the community, and by indirect subsidy for unsound parking and traffic solutions. In most cases, analysis of values would prove it unwise to increase parking in urban centers. Therefore, horizontal expansion, even though at intervals of distance, to allow for suitable terrain, will produce more enduring values, and higher social standards. And it will actually result in less time loss for the greatest number of people, in movement to and from home and employment.

The Responsibility of Cities for Slum Clearance and Slum Prevention

SHERWOOD REEDER, City Manager, Richmond, Va.

A GROWING interest in making our cities more gracious places in which to live is probably the major reason why so many of us are gathered here in Washington to take part in the National Conference on Planning. Among other things we are beginning to realize that the perpetuation of the filth and congestion in our city slums represents an economic waste we can ill afford. Furthermore, citizens generally are demanding more attractive places to work and live so that the run-down-at-the-heel community is beginning to lose out all along the line.

Slums, however, are not something new, they are not the product of modern times. Early in history one finds evidences of high density, overcrowding of rooms and lack of adequate sanitation, all of which are still problems of urban living.

The problem of social control of housing conditions likewise runs far into the past. Nomad groups solved their housing problems by means of periodic migrations. Certainly for them this was the simplest and most effective method of slum clearance. And, lest we forget, Rome in the days of her greatest civilization and power, preeminent in administration, literature, and law, boasting engineering feats that exceeded the aqueducts of Assyria and sewerage systems not to be paralleled for centuries to come, suffered from the absence of street planning and from a tenement problem of grave proportions.

And so we see, the modern slum problem is not something novel to the present day, neither is it the same wherever it is found. Each city is a problem in itself and should be studied with reference to an immense number of variable local features, such as history and tradition, past growth and its causes, current trends and their characteristics, and the interplay of the myriad factors in the economic, political, and social processes. On the other hand, each community, if discriminating, can borrow profitably from the experience of others which is another reason why we attend gatherings such as this.

Speaking for myself, I am satisfied that the problems of slum clearance and slum prevention are local problems and they can be solved effectively only at the local level. Anyone who attempts to devise a formula or a pattern designed to meet this problem for all cities in the nation is bound to be disappointed. The responsibility rests with the cities while the role of the Federal agencies, as I see it, is primarily one of rendering financial aid. Even this would not be necessary if the Federal government and the states would grant local communities

adequate sources of revenue so they would not have to journey to Washington and their respective state capitals with hat in hand.

Fortunately, most of the tools required to tackle the problems of slum prevention are now available to our cities. What is needed is more comprehensive and vigorous use of the powers we now possess and are using in a generally desultory way. As we gain in experience in the use of these powers we will learn better how to make them more productive of the ends we are seeking to achieve.

The first of these tools on my list is good city planning and effective planning administration. Unless we plan soundly for the future needs of our city, we cannot prevent ultimate blight and consequent slums. Just having a master plan is not enough for a city must jealously protect its plan from constant attacks by those who would place individual interest above community welfare. There is an old business adage which admonishes that we should "plan our work" and then "work our plan." Likewise a city plan is meaningless unless we make it mean something by following it.

Secondly, we need to keep our zoning ordinances and subdivision regulations up to the highest standard which our particular community will accept as reasonable. Frequently it is not practical, or even possible, to bring these standards up to where they should be all at one time, but such a situation must not discourage us from making another try in due course. Zoning regulations and subdivision rules must be tailor-made and simply cannot be transplanted from one city to another with any great hope of success.

Another important instrument to prevent future blight is the building code. Most of us would be shocked to learn how great a part of the existing structures in our respective cities are non-conforming with respect to building code requirements.

Let me emphasize that a city may have the best master plan technicians know how to prepare, it may have a model zoning ordinance, the latest in up-to-date subdivision regulations, and an up-to-the minute building code, but it will not be preventing slums unless these instruments are being used effectively. A partisan or otherwise ineffective Board of Zoning Appeals can quickly, but surely, mutilate beyond recognition the best zoning ordinance ever adopted. These things are useful tools but they must be directed by those who know how to use them.

And so with adequate planning, effective zoning, progressive subdivision regulation and modern building codes, much can be accomplished in preventing slums of tomorrow. In metropolitan areas, however, these efforts will prove discouraging, if not largely ineffective, unless there is the utmost cooperation among the governmental units throughout the urban area both as to standards and enforcement. The metropolitan aspect of this problem is a very complicated and a very real part of the problem of preventing future slums.

I hope you have noted that all of these items which have been mentioned are 100% local responsibility. These are the things cities can do and these are the things cities are doing with varying degrees of effectiveness to prevent the spread of slums.

Now, what can our cities do to correct some of the bad conditions which already exist? Here again the backbone of any intelligent action must be sound community planning. Likewise, zoning and the building code can prove helpful in keeping conditions from becoming worse and, in the case of the latter, by forcing demolition of dilapidated buildings where restoration appears impractical or uneconomic.

Another tool which is not new, but is becoming more clearly identified, is the housing code which may or may not be a part of the building code. Such a code deals primarily with standards of occupancy and the general condition of the premises. A similar approach is the establishment of a code of minimum housing standards administered by the Health Department as a health and sanitation program about which Baltimore has received so much publicity in recent months. Much can be said in favor of such a program so long as one does not contend that the Baltimore approach is the complete answer to the slum prolem. It is not.

Up to now every item I have mentioned has been a local government responsibility, solely and completely. But what about the area which through obsolescence and physical decay has reached a stage where all that remains is to demolish it and start over again? Here is where a major operation is involved. This is the kind of a situation where the city may not be able to finance the remedy completely on its own. It is in this kind of a situation that most cities will have to look to the Federal Government for some financial assistance. Congress wisely specified that even in these situations where cities may need help, the initiative for doing something about the matter shall remain in the hands of local officials.

Let us hope that in the Federal slum clearance and redevelopment program now launching there will not be the same attempt to achieve standardization such as we have witnessed in the public housing program since its inception. Our cities need help and they welcome constructive cooperation, but the responsibility for slum elimination rests with the cities. We want to work together with our friends in the Housing and Home Finance Agency but let us see to it that the terms "local autonomy" and "local initiative" are something more than mere words. I am sure I can say to you with full confidence that the cities will accept their responsibility.

Roland R. Randall of Philadelphia, declared that the redevelopment of industry and housing are essential to raise living standards and promote industrial economy. Better zoning to protect industry is needed, also greater flexibility in planning to meet changing needs.

Community Building is Good Business

C. A. COLLIER, Vice-President, Georgia Power Co., Atlanta, Ga.

THE basic principle of the Georgia Power Company's Better Home Towns Program, about which I am going to talk today, is community improvement through self-help. In this program I think you will find an example of the American spirit of initiative and enterprise reawakened to improve living conditions and to enlarge economic opportunities in towns that a few years ago were dying on the vine.

During the past six years the Georgia Power Company has spent several hundred thousand dollars on this development program for the people of its service area, which comprises five-sixths of the State of Georgia's 59,000 square miles and 80 per cent of its population. This program is no charity. It is generally recognized in Georgia as an unusually public-spirited activity for a single company to promote, but in no sense is it a charitable proposition. It is good business every inch of the way. It is a good investment in the business man's sense of the word. As I will show a little later, this program justifies itself in several ways. It is worth what it costs by virtue of the good will it brings the Georgia Power Company. It is a more effective public relations activity, causes more favorable publicity, than anything else the Company has ever done. It has paid its way in the added revenues it has brought the Company. And at the same time it has added materially to the socio-economic welfare of the people of the state.

The community development program of the Georgia Power Company was devised in an effort to help cure the economic and social ills of Georgia. Since you can evaluate its effectiveness only if you have some idea of the conditions that formerly prevailed, let me go back a few years. First I will state the problem, next describe the plan, and finally report the results.

The Problem

In 1943, Georgia, like most of the country, was enjoying war production prosperity. Things were better than they had been in a long, long while. But anyone with a long enough memory had reason to wonder if that prosperity would be lasting. During and immediately after the first World War the people of the South had been profligate with their easy money, dissipating it in "silk shirt" spending, instead of investing it in ways that would improve the economy in the future. By the end of 1920 the boll weavil depression hit the South, and Georgia especially hard, well ahead of the general depression. Of course, Georgia suffered through the general one, too. In effect, Georgia had many years of depression.

Here are some figures that show how things were skidding. The dollar value of the state's agricultural products, exclusive of livestock, was about $536,540,000 in 1919. In 1939 it had dwindled down to approximately $141,700,000, or roughly one-fourth of the 1919 figure.

The annual dollar value of manufactured products fell by nearly $16,000,000 in the same period. In the 10 years from 1929 to 1939 the number of manufacturing plants in Georgia was reduced from 4,090 to 3,150. Per capita income dropped in the same decade from $329 to $290.

There were aspects of this retrogression that can't be expressed dollar-wise. Many of the towns of Georgia became run-down, unlivable places. Thousands of the urban and rural dwellings were unpainted, weather-wracked structures, in poor repair and lacking even the simplest modern living conveniences. Business buildings, the shops and stores, were little better. In most of the towns there was an almost complete lack of social and recreational facilities such as community houses, public playgrounds, swimming pools and club houses for young people. In 1944 there were only 4,111 general hospital beds in the state having American Medical Association approval, though the need was estimated at 14,000.

If you think I have painted an unduly dismal picture, consider what was shown by a survey made as late as 1941 in a typical Georgia county. In that county 61 per cent of the dwellings were without a coat of paint, 24 per cent were not ceiled, 25 per cent had no window panes, 36 per cent lacked screens, 35 per cent did not fence their gardens against the neighbor's cattle, 37 per cent were without cows, BUT 75 per cent had from one to four hound dogs.

Serious as were such deficiencies, there was yet another situation which, in my opinion, was the worst symptom of our economic and social ill-health. That was the loss of our young people. Of that part of the rural population which was between the ages of 10 and 29 years in 1920, over 680,000 persons had migrated by 1940. That number was 58.8 of the total within those age limits. How could we account for a trend like that? Obviously some of them were youngsters who left Georgia because their parents moved away. But it was reasonable to assume that the great majority of these people, the ones in the upper teens and in the twenties, migrated of their own choosing because Georgia failed to offer them the opportunities for a livelihood and successful living that they hoped to find elsewhere. In other words, our lack of economic opportunity and the inferior living conditions in our towns were driving our own young people away from us. Now it is hardly necessary to point out to you that the young men and women who had the initiative to pull stakes were the most enterprising, most intelligent and most courageous ones. They were the young people with the qualities of character and mind that would make the best leaders and the best citizens. And we were losing them.

In 1943 and 1944, when our program was incubating, the state was faced with a special problem regarding that exodus, and a special opportunity to stem it. Georgia had about 350,000 of its citizens, mostly young people, serving in the armed forces. They had traveled, seen new sights and better ways of living. After the war, would they come back to their own dingy little Georgia towns? And if they did return, would they stay? Or would they start a new migration from Georgia to fairer fields?

Georgia was forever wooing new industries, out-of-state capital. Yet more than once an industrialist, taken to look at an otherwise suitable location, had answered, "We couldn't expect our supervisory personnel to live in this kind of a town."

If the economic weakness of the so-called "Empire State of the South" was in the communities, wouldn't its economic salvation be found there, too? Something was needed to clean up and build up the towns of Georgia. War production prosperity wouldn't last forever. But the old aimlessness might. Without some kind of plan, some kind of special effort, what reason to expect a better aftermath this time than followed World War I?

So a plan was evolved.

The Plan

The Georgia Better Home Towns Program is no fancy social planning. It is no giveaway, no dole, involves no subsidies. Although the Georgia Power Company has put a good deal of money into it, not one penny has been given to anyone except in the form of prizes for actual accomplishments on a competitive basis. Most of the expenditure has been for personnel to take the program to the people and for advertising and other promotional activities. So far as the communities are concerned, the program operates entirely on the basic principle of self-reliance and self-help.

The Georgia Better Home Towns Program hasn't attempted to do things for people. Instead, it has encouraged them to do things for themselves. It has proved to be a highly effective and influential organization to stimulate the citizenry's enthusiasm for community improvement. Instead of paying people to perform chores of sometimes questionable worth, instead of presenting handouts for local projects, it persuades people to assert their economic independence by rolling up their sleeves and going to work for what they want.

The Better Home Towns Program didn't set out to create a new Georgia overnight. As a matter of fact, it got off to a rather modest beginning. It was started in the summer of 1944, during the war, when materials were hard to get. People couldn't build much, or remodel much. So the accent at the outset was on face-lifting. Citizens were urged to clean up their communities, repair and repaint their homes, remove the trash dumps, beautify private and public property, spruce

up the stores and other places of business. It was a first things first proposition.

Later, as funds and materials became available, came the paving, water and sewerage projects, the new buildings, the new businesses and industrial plants. Communities were encouraged to set up small local industries, financed with local capital and processing local raw products, thus providing new employment opportunities at home.

The organization of the program in a typical Georgia town was something like this. Assisted by representatives of the Company, community leaders would form a Better Home Town Committee. Using a detailed check list furnished by the Company, they would then make a critical self-appraisal of their town to determine its most serious faults and deficiencies. This, in turn, would suggest various projects of first importance, and a sub-committee would be appointed to promote each one. In many communities the town hall idea has been adopted to enlist the widest possible interest and participation by the citizens.

To introduce the program to the public and implement its progress, the Georgia Power Company created a community development division, composed of a staff of specialists working exclusively on the Better Home Towns Program and related activities. In each of the six geographical divisions into which the Company's service area is divided we placed a community development representative. As now constituted, the department includes a manager with headquarters in Atlanta, two research engineers, a field supervisor, the six division representatives, the manager of the industrial section, and the manager of the agricultural section. One member of the advertising department works exclusively on community development matters, and other members give the program part of their time.

At the local levels, a large number of other employes are extremely active in the program. This includes our six division managers, six division sales supervisors, 23 district managers and 73 local managers. Also cooperating are nine wholesale town representatives, the manager of the rural division and six rural engineers, the approximately 50 members of the home service department and other personnel.

In the early days of the movement, when it was being introduced to the people of Georgia, personal contact was a particularly important mode of promotion. Company representatives addressed hundreds of gatherings and met with countless groups throughout the state.

A continuous program of newspaper advertising and widespread publicity have kept the program before the public. Radio also has been extensively used. Folders and frequent bulletins to the local committees have helped keep interest high. A series of booklets, issued from time to time, have provided local leaders with specific suggestions and step by step procedures: how to organize committees, how to check community shortcomings, how to select objectives, how

to recruit community-wide participation, how to accomplish the desired results.

Each year the Company has sponsored a prize contest as a highly successful attention getter. For several years these affairs took the form of letter writing contests on community development subjects, the number of entries ranging from 6,000 to over 7,000 per contest. In 1948 a different idea was tried. Instead of a competition among individuals, it was made a competition among communities and was called the Champion Home Town Contest. This type of contest has been so successful and has produced so many tangible benefits to the participating towns that it is now accepted as an annual institution.

From the beginning, the number of Georgia towns taking part in the Better Home Towns movement has exceeded 200. The first Champion Home Town Contest was entered by 209 communities, and the second one had 266 towns competing.

Hand in hand with this town improvement activity has gone the Company's work in support of improved agricultural practices in Georgia. This includes an annual hybrid corn raising contest for 4-H Club members, a winter grazing contest for members of the Future Farmers of America, and a year-round grazing contest for enrollees in the Veterans Farm Training Program. It may be of interest to note that 1,872 boys took part in the most recent winter grazing contest, and 9,824 veterans participated in the last year-round grazing contest. Permanent pastures are of great importance to the growing livestock industry in Georgia.

I have merely outlined the salient features of our community development program. There are also several related activities that cannot be discussed in the allotted time. Now let us see what has been happening since this program began. I believe you will agree with me that something unique has been taking place in Georgia.

The Results

First, I wish to offer the perfectly obvious comment that whatever the advances that have been made, no single program, no single undertaking is to be credited with all of them. Of course not. No one pretends that this program has been the sole implement of progress in Georgia. But it is the only one organized on a state-wide scale, with a large personnel, vigorously and consistently promoted through advertising and other means. In operation six years now, it was the original program of its kind when established and has since been copied in a number of other states.

I want to say, also, that the success of this program is not so much a feather in the cap of the Georgia Power Company as it is a testimonial to the basic stability of the people of Georgia. They are the ones who have made it work. Throughout, it has been based on a few simple but

strong emotional appeals to the community and state pride of the citizens, their sense of shame, their desire to improve their standard of living and their position in life, their eagerness to create better opportunities for their children, their sense of personal dignity and integrity. The citizens, thousands of them, in the communities of Georgia, have responded to those appeals and have done the work. The Georgia Better Home Towns Program has become truly their program.

A basic assumption from the start was that new businesses and industries would be attracted to the better towns, the ones of good appearance that offered desirable living conditions, a pleasant social atmosphere and adequate recreational facilities. As a consequence, many a Georgia town has practically made itself over. Here are a few highlights of the accomplishments in the period from September, 1944, to the first of 1950.

The communities held 864 clean-up, paint-up campaigns. They completed 1,288 recreational projects. There were 822 street and sidewalk improvement projects, 363 sewerage improvement programs and 400 public park improvements. New school improvements to existing school buildings totaled 943. Two hundred and 47 community houses were constructed. Church improvements, including new churches, were 1,022 in number. And so on down the list. Note that 180 new hotels and motor courts were built, in connection with our efforts to develop a bigger tourist trade.

Here is an item of special significance, I think. A few minutes ago I mentioned that Goergia had been woefully lacking in general hospital facilities, there being only 4,111 beds in A.M.A. approved hospitals in the state. While there still is a shortage of such facilities, we have almost doubled them in just five years. As of July 1, 1949, we had 7,939 beds in general hospitals, a gain of 3,828. I cite that statistic because I believe it is representative of the rapid progress Georgia has made in recent years in raising the public standards of health and welfare.

That a resultant business and industrial advance has ensued is well borne out by the figures. In the past four years, 1946 through 1949, a total of 1,699 new manufacturing plants were established in the territory served by the Georgia Power Company. These represent an aggregate capital investment of $124,455,000 and a combined annual payroll of $67,872,000. They employ some 38,000 workers. They are mostly small local plants financed by local capital, as is indicated by the average capital investment of only $73,000.

In the same four years a total of 8,661 new service establishments were started. By service establishments is meant a wide variety of business places, including shoe repair shops, stores, printing shops, theaters, diaper services, laundries and whatnot. These new establishments employ about 30,300 workers, have an aggregate annual payroll of about $60,750,000 and a combined capital investment of over $127,000,000.

The new industries and the new service establishments, totaling 10,360, provide employment for about 68,700 persons and pay them more than $128,600,000 a year.

You will recall that the dollar value of Georgia's manufactured products decreased substantially during the bleak period up to 1939. But look what has happened since. In 1939 the total was only $677,400,000. In 1948 it was four times that much, the actual figure, according to the Blue Book of Southern Progress, being $2,809,700,000.

What about per capita income? Well, we in Georgia and the South are still behind the average for the whole nation, but we are gaining faster. In 1930 per capita income in Georgia was a mere $274. In 1948 it was $971, or an increase of 254 per cent, whereas the national gain in the same years was only 137 per cent.

Now along with this development of the towns of Georgia there has been a widespread movement to put new life into the state's agriculture. Various agencies and interests have contributed to this work, among them the Georgia Power Company. Our participation has included the corn yield and grazing contests previously mentioned, the gift of a $3,500 mobile soil testing unit to the Georgia Experiment Station, donations to the state to finance research resulting in the development of new strains of hybrid corn, and the Company's own large-scale soil conservation and reforestation projects on its own lands.

The ruination of Southern agriculture was the one-crop system. For years cotton was king, and when cotton fell, the whole agricultural economy crashed. Thanks to the fine teaching of the Soil Conservation Service, the Georgia Extension Service and others, the agricultural economy has been transformed. Diversified farming is the order of the day, and mechanization is well advanced. In 1919 the value of Georgia's farm production was about $536,500,000, of which $356,500,000 was in cotton lint and cotton seed. Cotton was then 66 per cent of the total. In 1948, however, the value of agricultural production, not counting livestock, was $528,923,000, of which only $139,241,000 was cotton. That was only 26 per cent of the whole. Other major crops include corn, oats, peanuts and tobacco. Livestock, incidentally, has become an important industry in Georgia, with production in 1938 valued at $164,977,000. That is why my Company has been putting great stress on year-round pastures.

Illustrative of the progress in mechanization are the figures on farm tractors. In 1929 there were only 2,200 tractors in Georgia. As late as 1940 there were only 9,000. But in 1945 the number had jumped to about 25,000, and today it is estimated at more than 50,000.

Business, industrial and agricultural expansion has been more or less general over the nation, you may say, and that is quite true. But there are two aspects of the progress in Georgia that make it stand out. One is the rate of improvement and the other is its stability.

The U. S. Department of Commerce reported recently that in 1949 Georgia business not only made a better showing than the nation as a whole, but also exceeded the rest of the Southeast. This statement was based on such indices as value of new building, production of electric energy, manufacturing employment, bank deposits and railroad revenues.

That Georgia has been having a sound, durable business expansion is indicated by U. S. Department of Commerce figures on business failures. During the period from 1944 through 1948 the Georgia rate of business failures was less than the national rate in three years and more than the national rate in two years. But look at the marked difference in 1948. Whereas the national rate was 94 failures in every 1,000 businesses, the Georgia rate was only 43. The next lowest rate was 72 for Maine and Rhode Island.

We people in the Georgia Power Company are Georgians and naturally take pride in the progressiveness of our state. We want it to deserve having good things said about it. But I cannot truthfully say that the expenditure of our energies, our time and money on the community development program has been motivated solely by state pride. Actually the program was given purpose by what is called an enlightened self-interest. First, we knew that a higher standard of living in Georgia ultimately would enlarge the market for our product, electric service. And we also anticipated that there would be an immediate return in the form of new business, industrial and residential customers.

As to the latter, here are some figures:

Between 1944 and the end of 1949 the number of electric customers of the Georgia Power Company increased from 282,092 to 419,473, or 48 per cent. The amount of electricity sold went up 43 per cent, from 2,789,191,291 kilowatt hours to 3,985,923,884 kilowatt hours. During the same years, the national increase was considerably less, being 29 per cent as to customers and 26 per cent as to energy.

For many years the average annual consumption per residential customer in Georgia has been materially higher than the national average. It has maintained that lead, growing from 1,732 kilowatt hours a year in 1944 to 2,417 kilowatt hours in 1949, an increase of 39 per cent. Today the Georgia average is about 30 per cent higher than the national average.

The Georgia Better Home Towns Program has greatly heightened the prestige of the Georgia Power Company. As I mentioned earlier, it has brought us much favorable publicity. So far we have clipped more than 35,000 column inches of free publicity from the newspapers of Georgia. In addition, special articles about the program have appeared in national publications like *Reader's Digest*, *Coronet*, *Newsweek*, *Printer's Ink* and *Manufacturers Record*. It has been the subject of numerous commendatory editorials in the Georgia press.

The Georgia Better Home Towns Program is but one of the forces

for progress at work today in Georgia, but a major force. I think the public now regards it as almost an indispensable. I know that the towns of our territory would not have allowed us to omit the Champion Home Town Contest this year if we had wanted to.

After all, we have really just got well started. We must admit that our towns were formerly quite backward. They still have much to do, great opportunity for development. The same is true of business and industry in Georgia. Diversified industrialization is relatively new with us. It has much more opportunity ahead than history behind. The advancement of our section is bound to continue and we can accelerate it by vision and work.

Citizen Education and Support for Community Improvements

HAYDEN B. JOHNSON, Executive Director,
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THE subject of citizen education and support of community improvements obviously covers many things; the remarks which follow will be limited, therefore, to one particular phase of the subject —getting action on plants. My original interest in this whole subject lay in community planning, which might be defined as the process of working out plans for community improvements. Early in my experience, however, I realized that one of the most important phases of community planning was concerned with citizen education concerning plans and with getting action on them. There are too many official planning programs being carried on today with little, if any, official or public interest, and, on the other hand, there are numerous citizen groups which are working very hard without specific aims and goals. There can be no question that planning without action is of little value, and that one of the most important problems facing those of us who are interested in planning is the general question of ways of making planning more effective.

There are, undoubtedly, many ways of bringing this about, but I should like to discuss briefly the activities of a rather unique organization which I believe is making some progress in this direction which may be of general interest. I should like first to discuss the organization and activities of the Poughkeepsie (New York) Area Development Association, and then discuss in detail several general conclusions about its activities and experience.

The Poughkeepsie Area Development Association is a non-profit, non-partisan, fact-finding organization devoted to the development of the Poughkeepsie area. The Association is both a citizen organization and a planning agency, so that it is not only in a position to prepare

reports and plans, but can also work out courses of action to bring them into being.

The Association was the logical growth of a definite community need. The City of Poughkeepsie is completely surrounded by the Town of Poughkeepsie, and relations between the two local governments have not been as cooperative and constructive as would be desirable. The City of Poughkeepsie is the center of a small-scale metropolitan area comprising a total of seven towns, and within this area only two planning commissions exist, in the City and in the Town of Poughkeepsie, only one of which had funds sufficient to carry out a real planning program. In addition, there was a lack of community action *for* things and a rather serious lack of available facts relating to current problems.

A group of civic leaders and business men, concerned about the lack of planning in the area, decided to form a citizens' organization, and with the help of the Regional Plan Association the Poughkeepsie Area Development Association was founded in 1948. The basic operating funds were obtained from some twenty major industries, banks, and other businesses, to make possible a minimum budget of $22,500 for each of two years. The office was established in October 1948 with a staff of five, including, in addition to the Executive Director, a Planning Technician, Research Associate, Secretary, and Draftsman.

During the first six months, major emphasis was placed on the collection of facts and in getting the staff acquainted with the area. The preparation of a series of survey reports was begun, and general factual reports on Schools, City Government, Housing, and Traffic have been completed, with other reports on City Finances, Town Government and Finances, Recreation and other phases of community development under way. At the same time several reports have been prepared setting forth courses of action on earlier survey reports, the most recent of which is a specific plan for the development of a plant for the Poughkeepsie High School. Results of the Association's activities to date consist of creating general public interest in the Association and in its objectives, and thus making the people of the area more aware of the possibilities of planning. However, specific accomplishments include the fact that the Poughkeepsie Planning Commission, for the first time in many years, has been given an appropriation, which is being spent on a restudy of the zoning ordinance. To assist them in this work they have hired a staff member of the Association for a period of six months. Another result is that a one-way street plan for the business section, proposed by the Association in its Traffic Report, is now in effect and has proved successful. Local officials and civic leaders are more and more calling on the Association for information and facts, and the people in outlying towns, both within and without the area, are asking for assistance. A member of the staff is working with officials in the Town of Hyde Park on the preparation of a zoning ordinance,

and in general there is developing some awareness of the possibilities of planning on a local and regional basis.

The basic program of the Association consists of gathering together facts dealing with a variety of problems and making them available to the general public. The facts are then analyzed and possible solutions studied in an effort to find out what people want. Working wherever possible with other agencies, plans are then prepared which include ways and means of securing action on the plans. This whole program has been summarized most simply as PLANS—FACTS—ACTION. The organization and operation of the Poughkeepsie Area Development Association is, of course, based on conditions as they exist in Poughkeepsie, which has, like all cities, unique specific problems. However, the experiences which we have had in Poughkeepsie may be useful for others, and for that reason are listed five main conclusions which we have reached on the basis of our experience to date.

1. *Keep the goals of the program within the realm of the possible.*

It is essential that practical working possibilities be kept in mind. The area under study should be kept to a workable size and if necessary large areas should be split up to make this possible. This is one of the big advantages of a planning program in a relatively small city, but is a principle which must be adopted in large cities so that both the staff and the general public are able to clearly visualize the whole program. In other words, plan the possible, because plans beyond the range of people's powers of visualization have little chance of success.

2. *A citizens' organization needs a sound technical basis.*

Facts are the most important need of any planning program, and, without them a citizens' organization will become merely a discussion group. There is always the danger that too much discussion of solutions to a problem will take place before the problem itself is adequately defined. Only by having a sound technical staff that can prepare the necessary factual material as a basis for plan preparation and action on the plans can a citizens' planning program be made effective.

3. *Citizen interest should be developed on the basis of results and not on promises.*

In Poughkeepsie attention has been directed toward producing results which would stimulate citizen interest in the Association. We have appointed study committees and sub-committees representative of the community to a very limited degree, only insofar as program activities were available for action by these groups. Where much time is devoted to the formation of large numbers of citizens' groups, representative of the entire community, there is always a serious danger that the citizen interest will outdistance the technical development of the program, and that by the time technical development has advanced to the point where citizen interest could be utilized, this interest has been largely dissipated. In Poughkeepsie the Association worked very

quietly during its initial stages and got much of the basic survey work done before taking it to the public. Factual reports are prepared by the staff, whereas plans and action programs are developed with citizen assistance. This has meant that in general public interest has followed, rather than preceded, the development of a technical program, and has made it possible for the program to move considerably faster than might otherwise have been the case.

4. *The program should be developed in cooperation with existing agencies, both official and unofficial.*

By carefully working out in advance which agencies are already working in a specific field it is possible to avoid much duplication and to eliminate much of the feeling that so often develops that a planning agency is working in the field of another agency. A planning agency can be most useful if its function as a coordinating agency is appreciated both by public officials and by the public at large. Unfortunately it is not always possible to do this because some agencies will not work with anyone else. In such a case a citizen agency can always proceed with its own program, but this course should be resorted to only as a last resort.

5. *A citizens' organization must be non-partisan but it should not be non-political.*

Any action in community improvements will necessarily involve politics, which in the final analysis might best be defined as the machinery by which government is operated. Therefore, if a planning agency is to be successful and if action is to be the result of its program, the political facts of life must be constantly borne in mind and considerable attention given to the matter of securing political action. A planning agency which merely prepares reports and hopes someone will do something about them can never be effective.

In conclusion it would seem obvious that a planning program to be effective must have two perhaps equally important phases—a strong technical program and a well developed citizens' action program. It is of little importance whether both phases of the program are operated by one agency, as in Poughkeepsie, or by two separate agencies. What is important is that there be close collaboration between the two phases of the program and that they be developed in close relation to each other in terms of program and of timing. Only by constantly bearing in mind that a planning program has this dual nature will we be able to get the majority of plans which are developed out of reports filed in bookcases and into actual existence for the benefit of people, which is after all our ultimate goal.