

PORTLAND
IMPROVEMENT



Portland Improvement

ROBERT MOSES, *Director*

Consulting Engineers

MADIGAN-HYLAND
W. EARLE ANDREWS
GILMORE D. CLARKE
WADDELL & HARDESTY

Attorneys

HAWKINS, DELAFIELD & LONGFELLOW
RAYMOND P. McNULTY

NEW YORK CITY

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Director's Report

November 10, 1943

City of Portland
County of Multnomah
School District No. 1 of Multnomah County
Port of Portland
Commission of Public Docks

Dear Sirs:

You asked me to supervise the activities of engineers and attorneys in the preparation of a general report and recommendations for a postwar program. This program was to apply generally to construction work by the public bodies you represent and to include recommendations concerning arterial and other traffic ways, approaches and feeders, port, airport, rail and bus facilities, approaches thereto and coordination thereof, bridges and bridge approaches, school buildings and other school facilities, methods of financing self-liquidating crossing projects where practical, and any other matters which might in my judgment achieve these objectives.

It will be seen that the scope of the report was limited to certain very definite recommendations, all looking toward the expediting of needed and desirable public works to afford employment, stimulate business and help bridge the gap between the end of the war and the full resumption of private business. Arterial improvements were to head the list, but other objectives were also mentioned. It was not, as some seem to have thought, a responsibility of this group to suggest means of reviving business, new fields of private enterprise, or the expansion of old ones.

It is our understanding that we were asked to come to Portland because of experience in rather large-scale public works, because some of us were identified with recent studies of congested war production areas for the Army and Navy, and others with postwar planning and employment, particularly from the point of

view of public improvements, because practically all of us had been connected in one way or another with the supervision of work relief projects during the depression and had presumably learned some lessons from it, and, finally, because whatever wisdom we may have gained from such a background would not be warped by any local interest.

A quick diagnosis of this kind has, however, its decided limitations. It is as good as the diagnostician and no better. Any metaphor can be worked to death, but it is well always to keep in mind that the diagnostician is not the local family doctor or surgeon, and that he will not be around during the period of convalescence. Probably no operation will be needed. The native strength, resilience, and frame of mind of the patient will no doubt see him through. Public works are good medicine, but no panacea. The diagnostician gives his opinion and goes on his way. If he is a responsible person he is scrupulously careful about the opinion and tests it against all that he has done before, because he wants to leave something behind which will be really useful and will serve as a reliable guide to those who are responsible for determining and carrying out the program.

Portland is not the only community in the United States which will have a postwar employment problem growing out of a large increase in population due to rapidly expanded war industries. There are other cities in which the adjustments will be more complicated and some where they will be easier. Whatever the problem in this instance may prove to be, every citizen of Portland has a right to be proud of the fact that this community is prepared, while there is still time, to face the future with unclouded vision and with a determination to meet the challenge, whatever it may prove to be. The community which meets the problem early, squarely, and with no ducking, dodging and buck-passing and, on the other hand, with

none of the false pride which scorns state and federal aid, will somehow find the answer. Unfortunately very few states or cities have as yet been willing to do this, and the role of the federal government is only now beginning to reach the stage of conclusive debate.

It is a curious fact which impresses itself strongly on those of us who have looked into conditions in other congested war production areas, that the Portland district has stood the strain on its existing facilities very well. Streets, transportation, shops and other services are much less overloaded than in areas like Hampton Roads, Virginia, or San Diego, California. This is due partly to the adequacy of existing facilities and the common-sense handling of the situation. Measured by this extraordinary test the Portland district has shown a flexibility and a capacity to expand which prove that the physical improvements needed for future postwar growth are by no means as comprehensive and numerous as might be supposed.

Portland has always been a conservative town. Founded in 1845, the third generation of descendants of the original settlers are prominent in its affairs today. Sandy Boulevard is the Oregon Trail of less than one hundred years ago. Many of the older residents can remember clearly when the city had only 40,000 inhabitants. Some of them liked it better that way, and there are still honest, conservative and by no means reactionary leaders in the community who are not anxious that it shall grow rapidly or become a great metropolis, who accepted war expansion as a patriotic sacrifice, but believe that it is neither possible nor desirable to keep all of the war workers attracted from other parts of the country in and around Portland when the war is over and the vast construction projects, notably in shipbuilding, have been curtailed or shut down. It is impossible not to sympathize with those who wish that Portland shall keep as long as possible the flavor of a transplanted New England.

There are others in Portland who believe that the future of the entire region is so promising that not only all war workers but many more outsiders can and should be invited into the community to make and share the prosperity which is already on the horizon. It is pointed out by representatives of this group that plastics and plywood are natural products of the forest and that they can best be manufactured near the source, especially if power, transportation, climate and other factors are favorable. There are those who believe that the further rapid development of electric

energy from falling water along the Columbia River will attract industry, which in turn will require great numbers of new people. They concede that there will be a loss of customers right after peace is declared, if war orders are cancelled and new ones from other sources here and abroad are not obtained quickly, but they think that a great North Pacific Empire, with water power as its controlling force, is about to come into being.

These federal power enthusiasts are not without great political and social as well as economic objectives in which private enterprise is to play a comparatively subordinate role. These objectives begin to emerge when we consider, for instance, the publications of the defunct National Resources Planning Board. It is claimed by advocates of the power theory that a vast expansion of the aluminum industry logically belongs in the Oregon, Washington and Idaho area served by Columbia River power. The clay from which alumina can be extracted undoubtedly exists here. Power, rail and other facilities are present also. It seems probable that a pilot or experimental plant will be started immediately. To date, however, the evidence is that we have enough aluminum in hand and sight for war purposes, that no reliable conclusions can as yet be drawn as to the economic practicality of extracting alumina from clay as distinguished from mining bauxite where it is found in large quantities, and that the peacetime use of aluminum is as yet a matter of speculation. Certainly it would be unwise to count on the immediate postwar expansion of power plants or to expect large additional employment on the assumption that aluminum manufacture from the ground up will be the great new enterprise of Oregon or the North Pacific area generally.

There is still another group in the Portland area which believes that since the Kaiser associates have revived shipbuilding in this area at the instance of the federal government, and since they have brought great numbers of people into the area and have settled them there, they must by the same token be held responsible for keeping this population at some kind of work, whether it be shipbuilding or something else. Some think that this is a moral responsibility shared by the Kaiser group, the Maritime Commission and the federal government generally. Others insist, or perhaps merely hope, that the same initiative, inventive genius, and enthusiasm which have

characterized the Kaiser war enterprises will find new outlets on the postwar Pacific Coast as yet uncharted but as sure as salvation.

There is still another variety of public opinion which reasons in this way. The European war is bound to end first. The Japanese war will then be the main thing. The Atlantic ports and industries will be less busy. The six big Pacific ports will become the gateways through which vast quantities of material will be shipped to the Far East. Even if Pacific shipbuilding is cut down, the plants such as those in the Portland area will be used for tremendous stevedoring and embarkation activities and for repair of Navy vessels which will employ many of the workmen now engaged in shipbuilding and related work. By the time this phase is over and the war is finally won there will be orders for new ships from United States, Dutch, Scandinavian, Chinese and other sources, the more inevitable because the flat tops and Liberty ships have no rosier commercial future than the wooden ships after the First World War. There is, however, a serious flaw in this argument. The splendid war record of the Kaiser plants should not blind us to the fact that these yards, no matter what their present output may be, are overloaded and overmanned, and that those which survive will have to be ruthlessly overhauled and cut down if we expect to compete with other nations which have a much lower wage and living standard.

These speculations, prophecies and hopes are interesting and significant. If, however, we were to pursue them very far we would never reach the very limited conclusions as to which our opinion was asked. Nor is very much gained by the familiar device of inventing pretentious equations and formulas so dear to those who hate to exercise judgment. We have no right to assume that there will be full employment in and around Portland immediately after the war, that is employment at high wages sufficient to take care of all the present 137,000 war workers, as well as those discharged from the armed forces. We must assume that there will be a slump, and that at least a large percentage of war workers must retire voluntarily or be laid off.

Retirement of most of the women workers will help. It is much more difficult to figure out how many of the newcomers not previously resident in the community will wish to or ought to go home. Contrary to the general impression, a very large proportion of

all shipyard workers in the Portland area came from west of the Rockies and not from the four corners of the country. Figures on these and other matters are included in the consultants' report which follows. Questionnaires on a subject of this kind are obviously very undependable as sources of accurate information. Casual inquiries at the right times and places and directed to people who are talking frankly and off the record, are much more revealing, but also inconclusive.

In a community with such a conservative background there are bound to be two widely divergent points of view as to the disposition of war workers after the war, and as usual there is a middle ground between two extremes on which the average common-sense citizen can stand and ultimately find himself in a majority. The more conservative and less recent settlers will contend that a community gaited to slow and steady growth should not be swamped with transients whose contribution is doubtful because many will stay through inertia and the hope of an easy life in a pleasant climate amid beautiful surroundings rather than because of any genuine continuing interest. On the other hand, more radical thinkers with a national outlook and less respect for state and municipal traditions and lines will contend that mobility of population is the first principle of democracy. They will urge that a territory which in the early days actually campaigned for settlers and asked only that a man bring a willingness to work, should not now dismiss war workers who were recruited for the emergency, who did their part and who in the end are likely to be just as good settlers as the original ones. They can make a pretty good argument that it is a bit rough to order those who have spent a large part of their war earnings in the Portland area to make tracks as soon as their pockets are empty.

In between these contending philosophies is the attitude of the less articulate run-of-the-mill fellow who sees no reason why the community should not grow, has, on the other hand, no enthusiasm for a succession of booms and depressions, and knows that all of the transients can't stay. He believes that somehow the situation will adjust itself through force of circumstances so that those who really belong elsewhere and have their roots down in other soil will go home, and so that the more adventurous and those better adapted to the Northwest, will stay on. These middle-roaders realize that you can neither push peo-

ple out of a community by main force nor induce them all to remain by empty promises of plenty of work and high pay.

The point which cannot be driven home too hard is that there will be a period of unemployment even if all women in industry retire gracefully, if at least half of the newcomers go back to their homes or elsewhere, and if business revives and expands in answer to insistent unsatisfied consumer demands. For some time a certain number of shipyard workers within the draft age have been released for military service each month and their places have been filled by women or by older men. There is no evidence to justify these replacements.

It seems originally to have been the thought of those who invited us to make this report that we could justify a works program of \$100,000,000 to employ some 30,000 people in the Portland area in the eighteen months after the war. We have found that a \$60,000,000 construction program, employing a varying number up to 20,000 for two years, represents all that the area can afford, all that is necessary and justifiable, and as much as in any event could be completed in this time. \$15,000,000 will be required for land for this \$60,000,000 construction program, thus raising the grand total to \$75,000,000.

Among ivory-tower planners who will accept nothing short of a revolution in urban life, this report is bound to be disappointing because, in accordance with our instructions, we are recommending only limited public improvements in the urgent class which this community, with help from the state and federal governments, can afford to compress and expedite in order to help meet the postwar emergency.

We believe that this program can be financed without too great a strain, especially if, as is to be expected, there will be federal and in part state contributions toward construction and state and county contributions toward land. It happens that there are first-rate projects all ultimately needed on any reasonably high standards. These are projects which, with variations and modifications in detail, would be bound to be undertaken in the Portland area within the five or at most ten years following the war, and which can be telescoped into a period of about two years in order to speed up employment and recovery, if sufficiently energetic public officials, backed by leading citizens and the press, become convinced that such a program is necessary, and in any event are sufficiently im-

pressed to do the designing and preliminary work now.

As a matter of fact, there is no reason to aim at employing 20,000 people all at once on the day after the war ends. The war may end gradually. There will be more pressure for military than for industrial demobilization. There is every indication that the federal authorities, who have studied this matter, understand the dangers of too rapid demobilization and, if anything, will advise that the process be too slow rather than too swift. The best public works program is therefore one which begins with rather small projects requiring a good deal of manual labor and comparatively little skilled labor, equipment and material; which follows with large construction projects requiring time for fabrication and delivery of material and heavy equipment and the selection of skilled or semi-skilled men; and which has in reserve flexible projects which can meet emergency unemployment problems. Graphs indicating the curve of employment on public works in the two-year period following the end of war appear in the consultants' report, along with details of the program which we recommend.

As to these recommendations, many cover ground already broken by competent local public officials, engineers and technicians. We have reviewed these projects, not invented them. Here and there we have suggested changes. If occasionally we have found it necessary to be critical it will be seen that this has occurred rarely and that we have found much more to praise than to take exception to.

The report of the consultants which follows represents the opinion of all those engaged in the study. While I have in no sense dictated their conclusions, I have taken part in the preparation of their report and believe it is sound and trustworthy.

Before summarizing the proposed program, and at the risk of offending a few of the more sensitive citizens, I should like to make some general observations.

The appearance of the city of Portland, in spite of its magnificent surroundings and rather orderly development, is marred by the unnecessary ugliness of certain highly conspicuous places. For example, the Union Station, aside from its location, is old and obsolete. Access to trains is primitive and unworthy of the great railroads which use it, and of the impressive transcontinental service they have inaugurated. There have been suggestions that a high-level

access to trains and other repairs and readjustments in the Union Station are all that is required. We believe that funds expended in this way would be wasted and that an entirely new station should be built by the terminal company. Railroad stations should be as modern as airports. As it is, the first and last impressions of visitors on entering and leaving Portland by rail are bad. Excepting certain joint terminals, the railroads operate their own separate freight facilities, and while these should also be combined, efforts along these lines in other cities, including New York, have been so uniformly unsuccessful and resistance so great that we do not press consolidation as part of the immediate postwar program.

A new long-haul bus terminal is also badly needed and, in view of railroad interest in this form of transportation, efforts should be made to find a location adjacent to the proposed new Union Station. The present area in the triangle which includes the station and the Steel and Broadway Bridge approaches, bounded by Broadway, Flanders Street and the railroads, should be improved. The proposed access drives and ramps leading to the west bridgehead of the Steel Bridge are unnecessarily ugly and complicated and efforts to save a gas tank and other eyesores in this area seem to us to be wasted. There is an opportunity here to clear the triangle from the station to the two bridges and to design within it bridge, railroad, bus, and street approaches which will rehabilitate the entire section.

The rectangle in the vicinity of the City Hall, within which the major public buildings are found, is badly run down. The buildings themselves are architecturally good and have a long and useful life before them, but the area around them should be cleared out and a park and a genuine civic center established there. Some of the cleared area should be permanently under park management, and some of it should be temporarily landscaped but available later for additional public buildings.

Similarly the west Willamette waterfront, probably the most conspicuous place in all of Portland, requires landscaping and some reconstruction. Trees should be planted in the plots along the esplanade. Additional center landscaped malls should be established between the Public Market and Pine Street as indicated in the text and illustrations in the consultants' report. Here again, trees should be planted and there should be beds for roses and other flower exhibits

at the proper time. There should also be a row of trees on the sidewalk facing Front Avenue. These improvements would make an enormous difference in the appearance of the waterfront. It may be stated parenthetically that we have been puzzled by the problem presented by the Market. It is futile to review the steps which brought this building into being, and led into the courts. We have no desire to embarrass the local authorities at a time when a solution is in sight.

We are unable to recommend major improvements of the east Willamette waterfront. Many of the docks are in poor condition, but their improvement must be left to the private owners after the war. A clean-up contract to pull out piles and loose timbers and for minor repairs would not cost very much, but it seems doubtful whether the Port of Portland or the Commission of Public Docks would be justified in spending public money for this purpose. At first blush anyone conversant with urban waterfront improvements would think of a reconstruction of the east Willamette docks, with provision for esplanades between them, readjustment of tracks and streets, and with a proper system of ramps connecting with the bridges. The trouble is that the cost would be prohibitive. Such an improvement is justified along the Hudson or East Rivers on Manhattan Island, or below Brooklyn Heights on New York Harbor, or along the Allegheny and Monongahela Rivers in the Golden Triangle in Pittsburgh; but Portland simply cannot afford it. We have therefore suggested that access to Water Avenue near the municipal terminal, be improved with the railroads continuing to run at grade on it, and that additional space be provided for loading and parking, the expense to be borne by the Commission of Public Docks. As an alternative, the Port of Portland Commission might finance this work after it has provided for the airport improvement recommended hereafter. This might involve expansion of conventional activities of the Commission, but freight handling is a logical part of port development and one which every other port authority places high on the list of its responsibilities.

We are convinced that the new East Side Thruway which will draw away vehicular traffic not destined for the docks and warehouses on East Water Avenue should be located between Seventh and Eighth Avenues, where a first-rate thruway can be built at reasonable cost leading to the extension of McLoughlin

Boulevard on the south and to the proposed new bridge over the Willamette in the vicinity of Skidmore or Fremont Street.

In this and other communities there is always a great deal of talk about a safe, adequate and protected airport. It seems to us that the present airport, with a number of minor improvements, will be reasonably satisfactory if the part in use by the Army is included, and assuming that Army use shrinks after the war, and that the military forces will consent to use the civil airport. The tendency everywhere is to be exuberant and extravagant about future airport developments, in the face of the fact that no one really knows very much about postwar civil airport needs and that the tendency is to exaggerate these needs because of the magnificent part which airplanes are taking in the war. The fact is that the Portland airport, surrounded as it is by the Army property and by additional flat and open country, can be expanded to meet almost any eventuality. When the two present airports are combined, that is, the city and Army fields, and missing land gaps are acquired, a new up-to-date runway system can be laid out fitting into the present runway pattern, and with the control and operations center somewhat nearer the city in the southerly part of the development. This is a task for the Port of Portland Commission, and will require all of the funds available to it without a referendum in the year following the end of the war. The present inadequate approaches to the airport should be improved as outlined in the consultants' report.

We wish we could see in the offing some great new development of the port, but it is not in sight. There is no reason, on the other hand, to assume either a decline or a static condition. Lumber manufacture is Oregon's first industry, but it is no longer Portland's first freightship activity. Petroleum and gasoline products rank first in volume and the Portland area is a distributing center for these products. Lumber is second, and wheat third. Increase in usage will be healthy and gradual, but justifies no immediate large postwar public expenditures. Initiative, energy and enthusiasm will undoubtedly be brought to bear on future port problems, but certain natural advantages of other ports cannot be overcome by slogans or grandiose pronouncements.

The greatest port asset of the area today consists of the three Kaiser yards. The one in Vancouver seems to have a definite future on a limited scale, not for

shipbuilding but for some other manufacturing, possibly involving aluminum. The other two yards have a doubtful future in ship construction but perhaps an intermediate use as ports of embarkation and as ship repair yards, which is by no means certain but a good deal more promising. There is no more important duty to be performed in the Portland area than that of studying the possible shift in the Kaiser yards from construction to embarkation at the end of the first phase of the war, when Portland is likely to be one of the bottlenecks which must be widened for immense concentrated shipments to the Far East. Plans for immediate conversion of the Navy yards from construction to loading are also important, and from them lessons can be learned to guide conversion of the larger Maritime Commission yards later on.

We have examined the school program of District No. 1 of Multnomah County with special reference to immediate postwar construction. Our conclusions may be summarized as follows: The school situation in Portland is exceptionally good when we consider how many war workers are being accommodated. A number of obsolete schools should be replaced, but the School District is in excellent financial condition and can easily carry out the limited program recommended. Specifically we urge the construction of a new high school west of the present Lincoln High School. Maintenance inside school buildings is first-rate, but some funds should be spent on the exteriors, including relandscaping and rehabilitation of athletic fields. When this is done we strongly urge that the City and the School District work out a joint program for the use of the school recreation areas within the City, as outlined in the consultants' report.

These and other conspicuously needed improvements will all fall short of success unless Portland adopts much sounder and stricter zoning regulations. Present regulations are inadequate and their administration ineffective. It is astonishing that a community so progressive in other respects should allow the unregulated mixture of all sorts of commercial, industrial, residential and recreational uses; should fail to segregate and stabilize these uses; and should permit one kind of use to harm and often destroy another. The time for academic debates about the merits of zoning is over. The constitutional aspects of the problem are fairly well settled, and the tendency of courts is to be more and more liberal in upholding even the most stringent zoning regulations on the basis of po-

lice power or otherwise. The whole subject is far beyond the stage of experiment and there are enough precedents all over the country to serve as a guide. It is not too much to say that an adequate zoning system is one of the tests of community vision, cooperation and civic consciousness.

Most war production areas are cursed with miscellaneous badly planned and constructed temporary housing developments. The Portland area has on the whole been fortunate in its war housing. Most of it should be removed within the two-year period provided by federal law. The largest single development, however, at Vanport City, seems to us to be destined for a longer life. These buildings can be kept in repair and be made reasonably comfortable and attractive for some time after the war. It is neither practical nor desirable that all of these buildings be torn down within two years, especially if a substantial part of the war population is to remain and to be properly housed. Probably all of the houses will not be needed. The number to be torn down cannot be determined now. The decision must await future developments as to the number of workers required in the area. Assuming, as we must, that Vanport City is too big for postwar use and that there is no serious housing shortage now, we are completely mystified by the breaking of ground for federal housing of 5000 additional workers at East Vanport City.

We wish that it were possible to recommend several self-supporting projects somewhere within the Portland area to be financed by bonds sold to the public and supported by tolls. Only one such project is practical. This is a new interstate bridge between North Portland and Vancouver. The present bridge is fairly adequate. Its improved approaches in North Portland will be satisfactory. The Vancouver approach through the main street of the city is impossible. The present Interstate Bridge was a toll structure but is now free. It carried before the war some 6,000,000 vehicles a year. A new approach could be built along the west boundary of the Vancouver Barracks if the War Department would give up a narrow strip for the purpose. If this new approach were built, a new low-level bridge could eventually be built just east of the present one. We prefer the alternative, which is to build a new high-level bridge about a half mile to the east, with an approach running along the east boundary of the Vancouver Barracks.

Whichever location were chosen a toll could not be

imposed at the new bridge unless a similar toll were imposed at the existing crossing, and the two bridges would have to be operated together under an interstate arrangement. Adequate approaches to either bridge on the Vancouver side would be included in the financing. On the Oregon side a temporary connection would be provided at Union Avenue. Assuming that traffic over both bridges would not fall below 6,000,000 a ten cent toll for passenger cars and a graduated toll for trucks and buses would support a sound self-liquidating structure if there were a federal subsidy of 30%, as indicated in the consultants' report. There are, however, complications in dealing with people in two states, restoring tolls where they have been eliminated, and other questions of local approval as to which we have little judgment.

Coming now to a summary of the proposed program more fully described in the consultants' report, the construction recommended may be divided into four parts.

The first part includes express arteries to be constructed by the State Highway Commission. This represents no departure from established custom in the state of Oregon, because the state has for some time assumed responsibility for arterial construction in Portland. The state has an able Highway Commission. Its executive, the State Highway Engineer, has followed highway design and construction throughout the country, knows what has been going on and has taken advantage of accomplishments elsewhere which seemed of value at home. This Commission already has plans for several major improvements in the Portland district in various stages of completion. Apparently there is no basic difference between the objectives of the State Highway Commission and the conclusions of our consultants. There are, however, differences, some of them important, in location and scope. My own feeling, looking at this part of the program in perspective, is that it is in good shape. What is required is a prompt decision on the projects still in the stage of discussion, determination of the volume of work in the Portland area and immediate concentration on grinding out detailed plans and scheduling the actual progress of contracts.

The state of Oregon has been exceptionally progressive in its attitude toward urban traffic, and the narrow rural point of view, which has governed so much highway construction in recent years in other states, has had little influence on the distribution of

federal and state highway funds in Oregon. The state highway authorities have apparently kept in mind that the Portland area today has about 40% of the state population, that there are only thirty cities in the United States with a population of over 300,000 and that Portland, even in 1940 before the war expansion, ranked twenty-sixth. It is our earnest recommendation that design funds sufficient for a \$20,000,000 construction program be allocated to the Portland area.

The second part of the program would consist of \$20,000,000 of construction on sanitation, public buildings, port, school, sewer and other major developments. As to some of these projects, there is already local approval, others are being debated or have not as yet been analyzed. Funds are already available for designing a \$10,000,000 sewage disposal system required to eliminate pollution of the Willamette River. It is possible that the federal government may before long provide funds toward design, and later for the construction, of postwar sanitation and health projects throughout the country, paralleling the federal highway program. If this should happen Portland should receive considerable assistance on its sewage disposal program, thereby reducing the cost to the locality.

As to sources of postwar construction funds, it is impossible to anticipate precisely what will happen, but some assumptions based on depression experience must be made. It seems likely that in this and other communities federal subventions, grants or contributions of as much as 50% will be made available, somewhat more than the public works grants of the depression period but less than the federal contribution to work relief. Based on highway experience we see no reason to fear federal dictation because of the matching of funds. To what extent states as distinguished from municipalities will be called on to contribute is a matter of useless speculation until the federal attitude is more clearly defined.

The third part of the program consists of street, park, tree planting and miscellaneous work, running to a total of \$12,000,000. Many miles of streets need repairing and paving, and there is an almost complete absence of a street tree planting program although the climate is one in which trees grow quickly and in great variety. Planting of street trees on a large scale will greatly improve the general appearance of the Portland area. There is an endless amount of work to

be done in the parks and playgrounds which as a whole are not worthy of the community. As to playgrounds, most of them are little more than well-maintained lots. Design of parks in many cases is inferior or nonexistent. There has been a hit-and-miss development. The present Portland Zoo is unworthy of the city and, incidentally, is not in the best possible place. Portland does not require a scientific zoological collection. What it needs is a simple, compact menagerie like the ones in Central and Prospect Parks in New York, easily accessible to the majority of citizens. After considerable searching we have recommended the acquisition of a new area which we believe is admirably suited to the purpose, provided it can be bought at a reasonable figure. If not, we recommend the reconstruction of the zoo at or near the present location in Washington Park.

Most of the street and more than half of the postwar park work should be done by contract, but a good deal of park and playground work might and some of it probably must be done by force account because of the difficulty of preparing detailed specifications for rather fussy small improvements, and the desirability of having some flexibility in the program to insure comparatively large employment of unskilled men if the emergencies require it. Various miscellaneous small projects are outlined in the consultants' report.

The fourth part of the program consists of state work outside of the area, but within commuting distance, on which workers resident in the area would naturally be employed, including, for example, construction of the Wolf Creek and Columbia River Highways, the Wilsonville Cut-off, and the cleaning up of burned-over lands, at a construction cost with work benefit to Portland amounting to \$8,000,000. Here highway planning funds are already available to the State Highway Commission.

It is apparent that design funds for somewhat more than half of the entire \$60,000,000 construction program are presently available, that is for the state highway and sewer work. About \$800,000 will be required immediately for the preparation of detailed specifications for the rest of the program. We recommend that bonds be authorized in this amount at the earliest possible date. A breakdown of this design fund is more fully outlined in the consultants' report.

Let us turn now to the difficult problem of land acquisition. As previously indicated, approximately

\$15,000,000 is needed for the acquisition of land for the \$60,000,000 construction program. Obviously you can't build public improvements on property in private ownership. Moreover, purchases and condemnation of land cannot wait until the war is over if construction is to start without delay. It is natural, on the other hand, for conservative citizens and taxpayers to be skeptical about vesting title now in land not actually needed until later on. The tendency therefore is to postpone this unpleasant subject and leave it in abeyance until it is too late to do anything about it. This is one of the surest ways of scuttling a public works program. Assuming, however, that Portland is ready to face it, there are some difficult problems in the way. It has been the practice of the state, for example, to provide only 40% of the cost of arterial rights of way. The other 60% has been borne by the City. There has been considerable agitation for federal contributions toward right of way acquisition as well as design and construction of highways on the federal program, and federal law now authorizes such contributions. It seems to us, however, very improbable that postwar federal highway appropriations will include provision for payment of federal subsidies toward expensive rights of way within cities.

It is our suggestion that the cost of arterial rights of way in the Portland area be divided equally between the state and the county. We do not believe that the City can afford to contribute if it is to provide its proper share of the cost of other features of the works program. It seems likely that the cost of arterial rights of way, including land for bridge approaches and anchorages, will total \$10,000,000. Land required for other improvements will amount to approximately \$5,000,000, most of which will have to be paid by the City. State appropriations and county and city bond issues will be required to carry out these suggestions as to land acquisition.

Even a limited works program such as we recommend is not easy to carry out. It represents a volume of design and land acquisition, scheduling, contract letting and work on the ground, not to speak of the manufacture and delivery of materials and equipment, never before attempted in the same period of time in this or any other community of comparable size. Competent design forces are scarce and the tendency always is to assume that the permanent engineers, architects and draftsmen can turn out the work with a little

overtime. Actually the projects are filed and saved up to be worked on when these inadequate forces get around to it. As a squirrel buries nuts for future consumption, the tendency of a permanent staff, especially if it is dependent on special design, construction and inspection funds for a livelihood, is to keep plenty of plans in abeyance and not to work itself out of a job. It is almost always opposed to the hiring of any outside consultants, especially if the entire job of design or inspection is handled by contract. This is human nature which is not very different in Portland than in other American governments, with or without civil service.

Progress records on design, especially of emergency work, are notoriously undependable. Practices of engineering executives vary enormously. One executive is so conscientious that he marks progress zero even when major policy questions have been determined by preliminary plans. Another chalks up 50% when he has barked his first order to his subordinates.

The shelf or reservoir of complete plans and specifications does not end the problem for the duration. The projects must be broken down into men, material and equipment so as to find out what work can actually be started, how long it will last, how many it will employ, and what effect it will have elsewhere. It is, after all, the effect on employment and pump priming in other communities which justifies the federal and state contributions without which any major municipal program is destined for failure.

There are other problems which must be worked out in advance. The question of how many contractors are available must be discussed. Soldier preference must be figured out. Someone must decide what part of the work is to be done by hire of men and equipment rather than contract in order to insure sufficient flexibility. There must also be a consideration of state highway and other projects in the open country within commuting distance from Portland. Moreover, not far from Portland along the Wolf Creek Highway is an immense burned-over area from which millions of bare and charred sticks of timber have not been removed. This is one of the most appalling and desolate areas in the West, and miles of it front on a fine highway leading to beautiful recreation spots. A large number of men from the Portland area could be employed under the supervision of the State Board of Forestry in clearing this waste, and a smaller number later on, in reforestation.

