

Highways and Capital Programing

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This paper describes briefly the principles behind Philadelphia's "Capital Program" of central city renewal, including the over-all transportation planning involved.

• THE OBJECTIVE of a metropolitan highway system is to aid in the movement of people and goods within a metropolitan area with maximum economy, efficiency and dispatch. On this basis the highway system can be considered only in relation to the other methods of transportation in the region, including travel by rail, bus, and foot. It also should be considered in relation to the pattern of distribution of land uses because it is both influenced by them and influences them.

Much has been written about physical interrelation of systems of transportation with each other and with land uses, but little has been developed on financial interrelationships. It is just as important that the expenditures for highways in any community be properly related to those for mass transportation and be in balance with amounts spent for all other community services including health and welfare services, as it is that the systems be in balance in an engineering sense.

It may seem to a highway official that his only concern should be to get as much of the total allocation for his department as possible. Many such officials have learned that this policy, if it leads to a weakening of the mass transportation system, will only defeat the purposes of the highway system by deflecting to it more traffic than it can stand. Mass transit should be regarded as a complementing serv-

ice rather than as a competing service, and so treated in highway planning. In a broader sense, again perhaps one not easy for the highway official to accept, if the current fashion of giving the highway the largest slice of the financial pie continues to the point of causing serious curtailment of other essential municipal services, a definite reaction may set in. The thing which will prove best in the long run for everyone concerned is a municipal financial policy in which every community need is carefully evaluated in relation to every other need, and the funds apportioned among them in accordance with their urgency. The accomplishment of this requires definite legal procedures, skillful technical work, and a concrete and effective method for relating the procedures to the democratic process.

The capital program procedures in Philadelphia have been described by David A. Wallace in the August 1960 *Journal of the American Institute of Planners* as "the most democratic device which any city has yet achieved to ensure that the end product really reflects the aspirations and wishes of the majority of those involved." The framework for these procedures is set in the Philadelphia Home Rule Charter, drafted by a commission of prominent Philadelphia citizens and adopted by the voters in 1951.

One of the key elements in the success of capital programing is the ex-

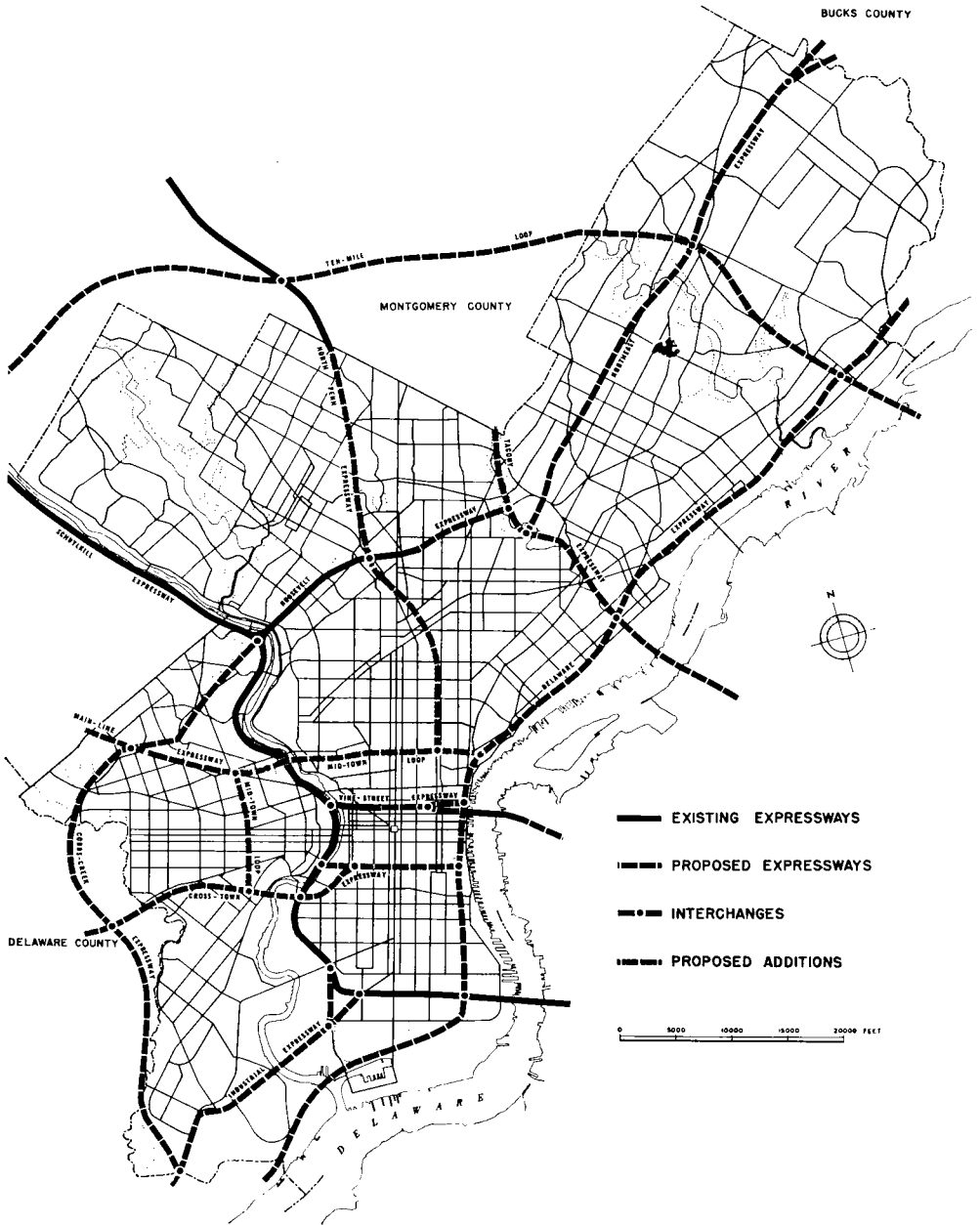


Figure 1. Philadelphia expressway and arterial system.

cellent provision in the charter which ties the planning commission in with the policy forming function of the administration by requiring that three of the four members of the mayor's cabinet serve on the commission, thus providing essential coordination and collaboration. These are the managing director, the director of commerce and the director of finance. The only cabinet member not included is the city solicitor, but he is represented by one of his deputies at commission meetings. Thus the commission conceives of its role in the proper light, that of aiding and advising the mayor in the formation of basic policy.

The most important single provision of the charter in respect to capital programing is the requirement that elected representatives of the city, the council, adopt by ordinance the full 6-yr program. This changes status of the program from that of the wishful thinking of the administrator to a firm policy statement by the city government. The charter further provides that no funds can be spent for capital improvements that are not in accord with the comprehensive capital program. New 6-yr programs are submitted by the planning commission each year, with a new year added at the end and the five intervening years modified as necessary, so the program is not inflexible nor stifling of initiative. A definite financial policy is worked out by the mayor with the assistance of his director of finance at the beginning of each 4-yr term, based on the tax policy enacted by the council. This sets the limit on the amount of tax-supported funds that can be spent in any one year on capital improvements, and imposes a disciplined financial control that assures the retention of a proper balance between operating and capital expenditures.

The program is published and widely distributed. It is discussed by

city-wide organizations and at local town meetings arranged in various parts of the city by the citizens' council on city planning. The legislative body holds public hearings before it adopts the program. But all the debate and difference of views are resolved, by the first of December, into a clear, specific and detailed statement of every dollar proposed to be spent over the next six years, and of the purposes to be achieved. This provides a firm base for long-range planning, for the commissioners of health, recreation, and highways, with the flow of funds assured that are necessary to obtain full benefit of state and Federal programs, and with the proper priorities of projects set as city policy.

In Philadelphia the city planning commission has just completed a comprehensive plan, setting forth the physical form for the fullest and finest ultimate development of the city. This covered all categories of the city's physical development including, for example, recreation facilities, police and fire stations, redevelopment, sewers and sewage disposal plants, art museums and libraries, and, of course, subways, elevateds, highways (Fig. 1), and parking facilities. Goals were established which represented, as well as could be formulated with the assistance of advisory committees and technical consultants, the optimum solution to each category of need. These were resolved into definite systems of physical facilities to serve each category of need, which, in time, were correlated into a total comprehensive physical development plan.

Unlike most plans of this sort, the work was extended to include careful estimates of the cost of completing each category of the plan. Since the plan was concerned with the ultimate development of the city, and was not intended to be a program, there was no need to "balance" expenditures between the various categories of de-

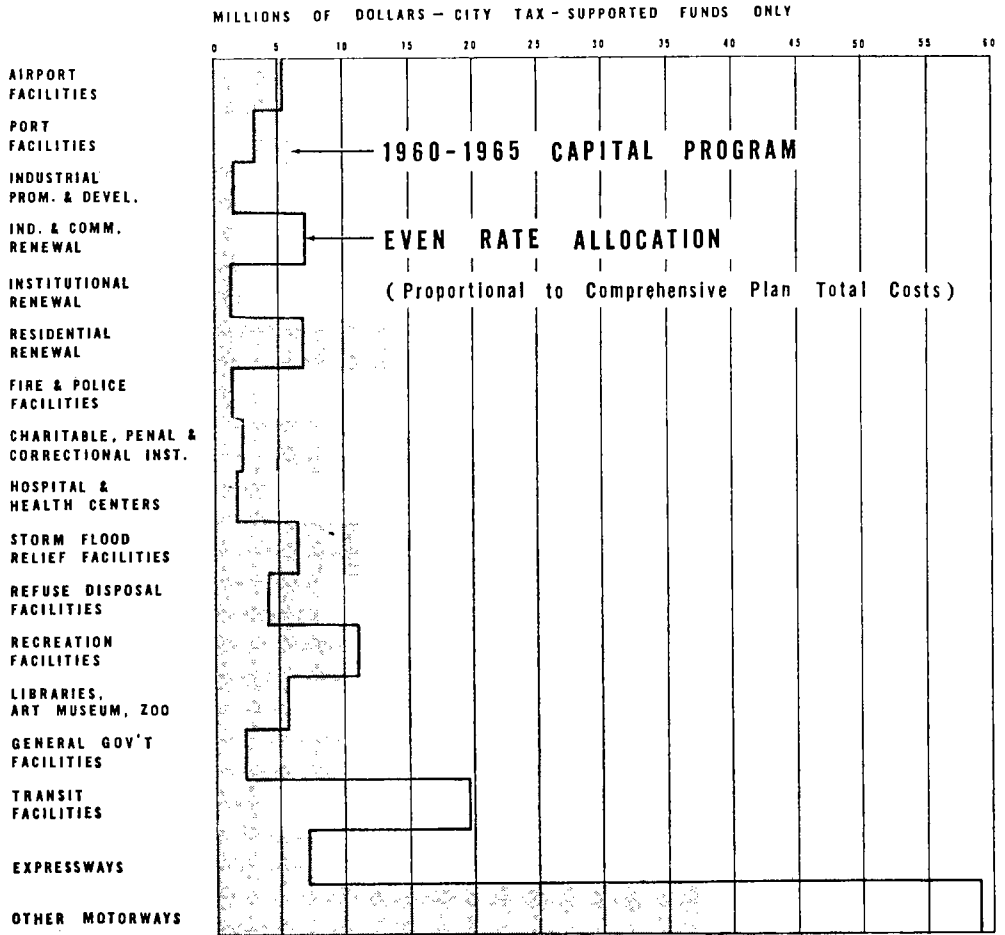


Figure 2. Comprehensive plan and 1960-65 capital program.

velopment at this point. Only after the plan was completed in its full scope, and careful estimates made of the cost of fully achieving all of its goals, could the balancing process implicit in good capital programing be carried out. It is the mixing together of partially formulated goals, partial cost estimates and short-range priority considerations which makes for much of the confusion which currently exists in capital programing.

Because the total cost of the comprehensive plan had been calculated and a definite policy on the amount of money that the city would spend

on capital improvements each year had been established, it was a simple matter to calculate the length of time that would be required to complete the plan, assuming continuation of that rate of expenditure. In Philadelphia's case the plan requires 9 billion dollars of private investment and 3½ billion dollars of public funds divided as follows: Federal and state governments, \$1,720,000,000; board of education, \$280,000,000; city self-sustaining projects, \$560,000,000; city tax-supported projects, \$920,000,000. Assuming a continuation of present state and Federal policies, it

is the latter figure that sets the rate of the program. It is evident that a continuation of the present policy of spending \$25,000,000 a year of tax-supported funds would see the completion of the entire plan in 37 years. This establishes a basic rate of expenditure which becomes the key element in capital programing.

Inasmuch as the total cost of the comprehensive plan is known, it is possible to figure the total amount that would have to be spent on any particular category of the plan during the 6-yr period of the capital program, if each category of the plan were carried along at the same rate of speed (or $\frac{1}{3.7}$ th of each group were done each year)—the whole arriving at completion in the 37th year. From this an "even rate profile" can be drawn and compared with the actual expenditure for each phase of city development as set forth in the adopted program (Fig. 2).

Of course, the even rate profile will be markedly different from the actual profile of expenditures as set by council in the officially adopted program because some phases of community development should be accelerated at the expense of others. However, by the comparison of these profiles, the direction of such acceleration and deceleration may be clearly seen, and a definite strategy of city development worked out and adopted. It must also be clear that the nature of the comprehensive plan itself becomes very important because it determines the even rate profile. It is here that the basic decisions are made; in traffic terms it would include the relationship between highways and mass transportation (Fig. 3). Thus a city which makes a comprehensive plan assumption that virtually all transportation will be achieved by highways will have a very different even rate profile than one in which a rail system, surface, elevated or subway, is a major part of the transportation network.

In actual practice, in Philadelphia this procedure has tended to lead to greater emphasis on the rail transportation system. At first this may seem to be to the disadvantage of the highway official. Time may prove, however, that this is the wisest thing that could be done, from the point of view of the city as a whole, and from the point of view of the highway user as well.

In summary, the process of proper capital programing is as follows:

1. Establishing goals for each category of community need.
2. Determining the physical facilities necessary to achieve these goals, and resolving these into a definite, comprehensive, coordinated physical development plan.
3. Calculating the cost of completion of the physical facilities for each category.
4. Establishing a definite tax policy based on the community's capacity and willingness to support its public services.
5. Establishing a policy setting the relationship between tax expenditure for operation and for capital purposes, and for the latter between debt service and pay-as-you-go. From this a definite rate of expenditure for capital improvements can be derived.
6. Applying this rate to the total cost of the comprehensive plan to determine the period of time necessary to complete the plan.
7. Using the time period so derived as a basis, and assuming an even rate of development of each category, to prepare an even rate profile.
8. Using this even rate profile as a reference, preparing a capital program recommendation based on a definite strategy accelerating those categories of most urgent need, and decelerating others, with the ultimate goals always clearly in mind.