

Critical Administrative Problem Areas

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• AS A MAJOR State agency concerned with the administration of a public works program that reaches annual proportions of \$260 million in expenditures, and requires 4,400 employees to administer, the Michigan State Highway Department recognizes the importance of planning and its contribution to effective administration. Michigan has a highway network of approximately 100,000 mi of which the Michigan State Highway Department administers 10,000 mi as the trunkline system.

Highways, properly planned and properly constructed, serve as the framework for the growth and development of the State and the economic and social well-being of its people—whether they live in cities or in rural areas.

The highway administrator, in attempting to develop a highway network that will contribute most effectively to the economic and social needs of the State, must, as a matter of course, understand the implications of change that are ever present and apply them to the highways currently being built. Planning is a key to this understanding.

If the highway department's "house is in order," it can act intelligently, affirmatively, and effectively to coordinate efforts with those agencies that represent regional, metropolitan, county and city interest in sound development of these areas.

In Michigan, this means that facilities must be planned now for a rapidly growing population. Michigan's population, now 7.8 million, is expected to reach 12 million by 1980. In place of today's 3.3 million motor vehicles, there are expected to be 5.6 million cars and trucks operating by 1980. The trend, which by 1960 saw nearly 74 percent of Michigan's people living in urban areas, is expected to continue. It is anticipated that an increasingly larger percentage of this urban growth will take place in Suburban areas.

As a function of management, planning offers the highway administrator

the use of a rational design as contrasted with chance, the opportunity to reach a decision before a line of action is taken—instead of improvising after the action is taken. In the Michigan State Highway Department planning is a continuous process, planning joins research to arrangements and makes them proceed together, planning takes into account both the constants and the variables in a situation; it must operate as far as possible in terms of standards which include precisely defined objectives, and precisely defined technological ways and means of achievement.

In recognition of the important role of planning in administration, the planning function has been given organizational status as one of the major units of the department. The Office of Planning was created in 1957 and the Chief Planning Engineer given a direct line of access to the Managing Director.

As a part of this reorganization, these constituent units were grouped to make planning more effective: Programming Division, Route Location Division and Planning Division.

To make this reorganization effective, these divisions were allotted additional personnel qualified to perform the tasks assigned in this comprehensive approach to planning requirements. In addition to qualified engineers, personnel with training in finance, public administration, planning and the related social science disciplines were added to the planning staff.

With these organizational changes and staff additions, the department was in a position to implement the Commissioner's policy that no major highway construction would be undertaken in any municipality until a trunkline plan had been prepared which was acceptable to the department and the municipality concerned. This plan also had to provide the municipality with an integrated system of streets and trunklines as defined in a master plan.

Through this policy the department

sought to improve already close State-local planning relations; and to give a new emphasis and scope to these efforts.

These trunkline plans seek to accomplish the following:

1. Provide a highway network adequate to relieve current and anticipated congesting by providing improved highway service.

2. Develop a plan that will promote the sound economic growth and development of the area.

3. Coordinate highway construction with other Federal, State, and local projects, *i.e.*, urban renewal, flood control, sewage disposal, central business district revitalization, and other capital improvements.

4. Establish a program from which interrelated highway, road and street projects can be selected for construction, in stages, with assurance that each project will be a part of an over-all area and State system.

5. Advance statewide and nationwide highway service by integrating the area system with national, State and regional traffic ways.

The State trunkline plan and the related major rural corridor studies serve as an important coordinating device. The report, with its documentation, brings State and local planning activities into sharp focus. It provides the local planning agency as well as the State highway department with a record of the concepts and principles that went into the formulation of the proposal. It reduces the opportunity for "intuition" and "guess," and it underscores the areas of agreement and responsibility.

Based as these plans are, upon intensive study, analysis, and consultation, the trunkline plan (a) details the highway and community planning considerations that were studied, (b) demonstrates the compatibility of the plan with existing and long-range goals of the community and the State, and (c) gives public notice of the mutual agreement that has been reached between the local community planners and the highway department planners as a proposed system of highways.

Simultaneously, with the reorganization and strengthening of the planning function, the department announced the development and made public a schedule of a 5-yr construction program. By this device, the local units of government were given sufficient notice of planning highway department activities to tie their local planning in with the impact of this accelerated program.

In 1961, a second 5-yr program was announced, this to consist largely of projects in the urban areas of the State. A detailed schedule of awards by quarters for the 5-yr period was again published.

The "lead time" provided to cities by the announcement of the second 5-yr program, has made possible the closer correlation of highway building plans with local public works improvement plans.

As an outgrowth of efforts to develop coordinated State-local highway plans, the Planning Division developed a "Highway Planning Report Checklist" which has served to formalize the procedures which have been found most useful.

This checklist stresses the planning criteria and community assessments that are needed to assure that a new highway would be a compatible part of the community's design for its growth. The checklist has found immediate acceptance in Michigan. It has also been of interest to planning agencies in other States.

The concepts expressed in the checklist are not unique or necessarily new, but they are documented in a logical sequence which reflects long-standing engineering tests and concept of community development. The availability of the data contemplated by this document, simplified analysis and makes the decision-making process more effective and a more valid one.

Although the reorganization of the department and the increased emphasis on the planning function, have achieved important advances in coordinating State-local planning activities, there are problems still remaining to be solved.

The preparation and the subsequent publication of trunkline plans has

created considerable public interest. It has also brought with it some problems that are worthy of note.

Publication in local newspapers of these plans has given some people the impression that the highways proposed were going to be built tomorrow. Others have used the schematic maps as exact locations for the new highways. Local planning agencies and the department have had to be prepared to orient the general public to the use of this document and especially its limitations.

The construction program is in process and is substantially on the established and announced schedule. From this, it could be assumed that the planning operation is satisfactory. Planning personnel are experienced and dedicated—working nights with public groups and days on the regular planning operation. However, the planning and design situation changes greatly as the program proceeds. The time needs within the department make it necessary to revise old procedures and methods.

Present procedure on urban projects is as follows:

1. The needs are determined by a highway needs study. The needs study is a function of the Office of Planning and is a joint venture with the highway department, the 83 counties, and all municipalities actively cooperating.

2. A determination is made of the amount of urban funds which will be available for the given period of time. A 5-yr construction award period has been used for planning and announcing a program.

3. Based on the priority need for the specific job and the expected time needed to prepare the job for contract, each step in preparing the job for award of construction contract is scheduled. A uniform work load award schedule, by years, is desired and established.

4. On urban projects working with the local planning organization, the Planning Division obtains a major thoroughfare plan prepared and approved by the municipality.

5. The Planning Division completes its trunkline plan to fit the urban

thoroughfare plan and obtains the approval of the planning director for the municipality.

6. The route location report is prepared and the approval of the local governing body is obtained for the highway department construction project. This requires meetings with the council to which, generally, the public is invited. In many localities, depending upon location of the route or routes selected, the sales job necessary by the Planning and Route Location Divisions is tedious and requires persistence and dedication.

7. On approval of the route and the route location report, the project goes to engineering for surveys. The route report depicts interchange types and locations; but does not generally define them in exact location, except on some major projects in the largest urban areas. Survey selects the exact location in the field; Design works out the detailed geometrics, makes additional studies on structures, establishes grades, width of ramps and all other pertinent details, including borrow and drainage requirements.

8. Road closure agreements and cost participation agreements are also a responsibility of the Engineering Division and are initiated after the project is in the design stage.

9. The Bureau of Public Roads gets copies of the route reports and of the preliminary right-of-way drawings; and, of course, of the complete right-of-way drawings. All problems, questions on right-of-way, drainage, Bureau questions and justifications must be worked out completely before programming and appraisal work on partial takes. At this stage, grading and drainage and slope lines must be ready for staking in the field.

About once a month, Design, Right-of-Way and Programming go over schedules for the year ahead to determine how the established schedule is being met. In the past several months, from the results of these meetings, it appears that procedures must change somewhat. There is too much redesign. These changes increase beyond reason design costs and necessitate design overtime.

The changes make for too late and too costly justification of details to the Bureau of Public Roads—all of which results in reduction of right-of-way procurement time, and some delays in contract awards.

How to overcome these delays is the present problem. From a schedule standpoint, approvals of urban projects form a major delay in the procedure schedule. The goal is to award contracts, including urban construction contracts, on the date scheduled and at a reasonable design preparation cost.

In Michigan, by legislative act, it is necessary to obtain route approval of the governing body of any incorporated municipality, before proceeding with construction of the urban project. This should not be considered as restrictive legislation. This requirement forces a good job by making it necessary to consider all the problems which will be brought about by construction of the highway. It is necessary to consider tax base loss to the community, access to areas, division of the municipality, problems to residential and business areas and many other problems, with the final determination that what the municipality is requested to approve is the best plan and route that can be provided. These are all problems which should be and must be worked out even if it were not necessary to obtain the approval of the local governing body.

One weakness which must be remedied is not always being in a position to answer all questions pertaining to a route or routes when presenting the plan for local approval. It has not always been possible to define complete limits of take, how much of a factory parking area will be taken, how much of the resident's back yard will be included in the take. If several routes are presented, with a recommended preferred route, definite cost estimates and statements of the amounts of tax base affected by each route must be prepared and have local concurrence prior to general discussion with the local approving authority.

There have been good results in the largest urban area where the approval was handled as a separate project, with

a designated person handling the project approval. Here, too, the operation must be revised so approval of a package can be requested. A "package" means going to the City Council only once for approval of route, road closures and all agreements, including the cost participation agreement.

Early route agreements in many municipalities have often been pushed at the expense of design and right-of-way operating time. Submission of the job to the Design Division with an order to proceed with surveys and design with no further need to consult with local governing bodies will bring about lower design and contract preparation costs and reduce the time required to get the job under construction. This means it will be necessary to work with major industrial organizations to show them how they will be affected, work with the city engineer and city planning organizations, discuss the problem with major property owner organizations affected, have worked out the detail and presented to the Bureau the advantages and costs of the proposed interchanges—so that neither the municipality nor the Bureau will ask for revisions or further detail once the design stage is reached.

It is important and a substantial time-saver if cost agreements and road closure agreements can be packaged in this one approval to eliminate future revisions required by changes in Council personnel and bargaining practices. Early railroad agreements at the time of Council approvals will also step up ultimate construction schedules.

To further improve coordinating efforts, the Department, through the Office of Planning, has been cooperating with the Michigan Department of Administration, the present Section "701," Housing Act of 1961 program agency, for Michigan. Applicants for planning assistance under the Federal program have been formally offered the complete cooperation of the State highway department in the preparation of their transportation plans. Upon receipt of notice from the State Department of Administration that a municipality has applied for an urban planning assist-

ance grant, the Office of Planning informs the applicant of its readiness to supply relevant information on traffic and transportation studies on request. Research is coordinated with the proposed planning studies, where practical.

A formal contact has also been established with cities that are applying for urban renewal loans and grants to insure close coordination of their projects, where applicable, with proposed highway projects. The opportunity exists, in certain instances, for the city to use the planned highway project as part of its local financial participation required for urban renewal. A case in point is the City of Pontiac where the Perimeter Road expenditure by the department is, in part, serving as a credit toward the city's local share of an urban renewal project.

Although the department has strengthened the internal position of the planning function, coordination with other planning agencies is sometimes made more difficult because the same integration does not exist in all local jurisdictions. This subject is of concern to professional planners and local administrators. By the very nature of municipal government organization, the decision-making process at the local level cannot be as completely integrated as it can be in a single department.

The difficulties encountered in getting decisions at the local level do, however, mean that highway departments must allow more lead time for this phase of planning. It also implies that perhaps even more technical assistance can be provided within the realm of the department's competency in this area.

Cooperation with such organizations as the Michigan Municipal League—with its interest in highway matters—has also been effective in the effort to promote the understanding which is antecedent to cooperative effort.

As Michigan does not have a State planning agency, some of the planning that would be performed by such an agency, must be done by the highway department if its responsibility for a well-planned highway network is to be discharged.

In an effort to obtain adequate staff, a training program was developed with Michigan State University which enables students to study and work at the same time. However, this solution is not completely satisfactory. It means that trained personnel must devote a considerable part of their time to training; and, when personnel are trained, many are hired away at salaries higher than present salary scale. The training expended is not a complete loss, if the personnel remain in the State and in the highway or municipal transportation field.

As more work is scheduled for construction in urban areas, the planning task becomes more complex. Problems of corridor selection and route location are magnified many times in contrast with these same problems in rural areas.

In densely built-up areas, application of planning principles must be more precise and many more variables must also be considered. The challenge of planning in these areas calls for an upgrading of present planning skills and the addition of related skills to the planning process.

Translated into budgetary terms this implies that the increased construction costs in these urban areas must be accompanied by an increase in planning costs if the skill of the engineers is to be matched with the important planning knowledge they need to be able to do their work well.

Planning is necessary to preserve and maintain an existing highway system, a major responsibility of State highway departments. But it is even more indispensable if this system is to be expanded and integrated with the changing development pattern of the State, especially in view of the rapid rate of change that is occurring in urban areas. It becomes necessary to anticipate future community patterns and forecast the resulting transportation requirements.

For the State highway department to be able to carry out its assignments effectively, its efforts must be coordinated with the efforts the communities of the State. It is the task of the local planner to define community goals and

objectives which will be accepted and implemented by community action. It is the assignment of the highway planner to translate local development patterns in terms of traffic and traffic facilities. Highway planning, thus can be seen to require cooperative effort, and coordination makes the process work.

The State highway departments across the country are in a unique position to assist in plan implementation. Highway plans, unlike so many other plans, do not remain on the shelves to gather dust. They are a guide for action, and the action follows soon thereafter. Sometimes too quickly for the administrator who must marshal men, materials, and money to get the project built.

It is in the interest of the State highway department to see that current and realistic urban arterial street and highway plans are developed by the urban areas of Michigan in cooperation with the department.

State highway departments have a special responsibility to see that these plans are technically adequate, *i.e.*, they are able to meet the future traffic demands which will be placed upon them and they are properly integrated with the highway and land use development.

State highway departments, responsible as they are for a statewide highway system, must ascertain that area, regional, and State transportation needs are integrated with local highway system planning.

State highway departments must display an even greater sensitivity to the problems of the urban areas; and to do so, they must participate more and more

in local planning problems. What is local today may very well have a wider import tomorrow.

Approaching the time when 8 out of 10 citizens will live in urban areas, it becomes even more true than in the past that the economic and social well-being of these urban citizens will determine the prosperity of the United States.

Historians have noted that great civilizations of the past have reached their peak development in urban environments; and it has also been pointed out that in these same urban areas the deterioration which preceded national collapse was first in evidence.

Planners alone have not yet found the answer to the problem of decay at the core of urban areas; nor have they solved the problem of urban sprawl on the periphery.

Highway administrators know that soundly planned and soundly built highway transportation promotes the growth and development of communities, the State and the nation.

Application of present knowledge together with a better appreciation and understanding of the dimensions of the problems that confront urban areas, may make it possible to make an even more positive contribution to the future of the cities.

The plight of the cities is a matter of great public concern. Highway administrators, community planners, State and local legislative bodies must respond to this genuine interest by developing new solutions for the problems presented. New concepts must be formulated to serve as the basis for testing new proposals. A new dimension to cooperative efforts may well provide the best answer.

DISCUSSION

Steele.—I have visited a number of the States over the past few years in connection with their long-range fiscal plan. One of the problems that comes up is: On what basis are we going to allot aids to the cities, the counties, etc.? There are two elements in the picture. One is outstanding debt. How should

that enter into the picture of allocating a share of the income from motor vehicle user taxes to the cities? The other is should allocations be on the basis of the program that is proposed or on some other basis?

It is rather obvious that you have two problems here that are not easy to

solve. At least one State is thinking of this possibility, even though they know that there is a certain amount of penalizing of some cities involved. They will help the counties and the cities to bail themselves out, and then they will pay additional aids on the basis of either a proposed program period or the proposed financing period, or possibly even on what might be called the cost period, that is, the period over which the facilities will be used and will be productive.

These are some of the practical problems that are facing not only the highway administrators, but also the governors and the State legislatures.

Granum.—Mr. Hill, you said your office of planning consists of three basic functions, and the problems you deal with dealt almost entirely with the programing area.

Are we to assume that basically your problems relate to the over-all office of planning, or are confined, then, largely, to the programing functions?

Hill.—I was speaking principally of the office of planning, and the problem of obtaining the major thoroughfare plan. Preparing the trunk line plan to fit that major thoroughfare plan is a function and responsibility of the planning division, located in the office of planning.

We have no problems in the scheduling division. Those are problems which are not within our own organization.

In the route location division, our problems are not quite as pronounced as in the planning division, because a major part of the responsibilities of the route location division are also problems which we can handle.

The major problem is the planning division's problem of getting the approval of the route, which is prepared by the route location division. We have much joint effort between the route location division and the planning division.

Granum.—This problem of getting municipal approval is basically the function of the planning group within the office.

Babcock.—Mr. Hill, you say you do not have too much trouble in scheduling your planning. This is something I

would like some guidance on. I find this is the most difficult end of it from our standpoint because you can put engineering into a schedule, but I have never found that you can put planning into a schedule. Do you try to set a specific schedule for the planning?

Hill.—We set a definite date for the approval of the route by the municipality, and work towards that date. In some areas, we do not think we are going to have such tremendous problems. I might mention just a few.

In Lansing, they want much more than we can give them, because their priorities are not adequate to give them the routes that they want. We do not have the money to give them all the routes that they have the money to fit into their plan.

We go into a community such as Bay City, and we must be the driving force. We set the date, which is probably three or four years in advance, because we are going to have to start hammering on them to get their master plan prepared, and then to fit the trunk line plan into their master plan. We may be a year late with it, but we set a date.

The reason we program and plan is that we are programing all our funds into that 5-yr period. We expect to have no funds other than for emergency work during the period. If that job does not make it we will have some additional money not tied down. But so far, in our first 5-yr plan, every job which we have had out of a \$1.25 billion schedule has been made.

Babcock.—I was just wondering, because we find it is difficult to do that first stage in the planning. We estimated an up-grading of a 2-lane highway to a 4-lane divided one. This is rural, and we thought this would be a simple planning operation which would take about 60 days. We have been on it a year and a half. Therefore, we try to give a little more flexibility. The only thing we are afraid of is that if we try to set too specific a deadline, we are going to get an answer that might not be the best answer.

Wiley.—I believe I understood you to say that you do have trouble, particularly in municipalities, and even sometimes

in rural areas, in hitting the date you thought you could get the job ready. If this is true, then I believe this is a difficulty in scheduling, rather than in operation, perhaps.

Hill.—No. That is why we have our round-table discussions so often. We have programed every step, from getting agreements with the communities through route reports, surveys, preliminary design, final design, preliminary right-of-way drawings, final right-of-way drawings, etc.

Wiley.—In other words, you anticipate where you think you are going to have trouble with local communities, and you allow adequate lead time?

Hill.—Yes. In fact, for the first time, in the past five years, we have some jobs on the shelf, which we will pull down in April, May, or June of this year, and get them out to award.

Wiley.—I would say that is really remarkable, if anybody can set up a schedule for that many years and hit it fairly consistently.

Hill.—Another advantage that we think we have gained in this scheduling and programing: We used to get delegations in constantly, with their specific job that they had to have. We announce our program. It is announced in the papers, and every local community knows what the program is. In fact, most of the property owners along the routes we are taking know it. And when the delegations come in, we can tell them, "We can't put on your program. We have programed every dime we have coming in. We have no more money. If we put on your program, we will have to take a higher priority program off. So we will consider yours in the next 5-yr period."

And the drop-off in these delegations has been tremendous. It has permitted us to go to work, instead of just meeting with these organizations.

Carley.—I do not think Mr. Babcock missed what I heard, that the State of Michigan is interested in comprehensive planning, and there is not any comprehensive State planning agency. Therefore, they have even appealed officially to the Federal Government that they go ahead on a statewide program.

I forgot to buttress my argument, that the State of California in that freeway study two years ago did exactly what I was talking about, and now Michigan is saying they want to do it. So it is possible for highway commissions to go into that large and comprehensive a program.

Hill.—I do not know how we will handle it, because one of the items you mentioned earlier is that we have earmarked funds in Michigan, and we fight tooth and nail to see that those funds are not used for anything else except highway purposes.

There may be some connotation in the 701 funds, which means that we will have to get some funds from some other unit of government, or somewhere else, in order to do the planning, which is not strictly highway planning. But I think we can find the way to do it.

As I mentioned, we do not have a planning organization in Michigan, and I for one would certainly like to see one, but I can see some problems if we had an organization such as yours. I do not know where our planning and your planning would have their dividing line.

Holmes.—I was interested in that 701 program. I know you had requested the highway department to be the qualified applicants for 701 funds in Michigan. That does require that any planning that is done with those funds be comprehensive planning, under the definition of the Housing Act, which certainly goes far beyond the normal requirements for highway planning. And I would presume, also, you would tap some other State funds besides highway user funds for that purpose. I do not know how successful you would be, but I imagine you would try.

The thing that intrigued me was your comment, if I got it right, and that is what I would like to get clear—the fact that the community must participate under your law in the planning of a highway program, or participate in a highway program, and that does include the planning of it. Then they are contributing, or that contribution can be then used as a part of the one-third matching of the community for 701 grant.

Hill.—By legislative act, any community of over 30,000 must participate in the cost of the highway construction—it starts with 25 percent and goes up to 37½ percent—all funds, after taking out Federal participation. So in Interstate money, it means 2½ percent; and 7½ percent State; and then, of course, the 10 percent Federal.

The legislature also has required that any incorporated community regardless of size must approve a route within that community before we can construct. That does not mean cost participation because if they are under 35,000 they do not have to participate in cost. But we must go to their council or their legislative body and get the approval of the route before we can go into the community and construct the route.

That in itself makes us do considerable planning with that organization. In many areas we meet first with the manufacturing organizations or industrial organizations. You also have to meet with the landowner organizations and the engineering organizations, then with the planning organizations, that is, the city planning groups.

If we get enough weight from the manufacturing or industrial organizations, the local people, and the business organizations, and the city's own engineering organization, we can get the council approval which is what we need.

Holmes.—I thought you had said that the fiscal contribution that the community makes toward the highway program could be used as the one-third matching requirement in connection with the 701 grant, which would extend that planning to comprehensive planning.

Hill.—It was with redevelopment planning, urban redevelopment planning. For instance, we have a project in Pontiac, the periphery route. We are trying to see whether we can save the core of Pontiac, which is one of Michigan's major automotive cities and is fairly well dying at the core, with a periphery route. The funds which we are expending on this periphery route will be Pontiac's share, or their urban renewal development project.

Babcock.—The reason I took the posi-

tion I have taken is that in the matter of comprehensive planning, perhaps we in North Carolina are ahead of some of the States in the approach.

The State highway department pays 60 percent of the cost of the development of a comprehensive plan for a city out of SP funds.

My second point is that in North Carolina we have a law requiring a comprehensive plan mutually adopted by both the city and the State highway commission before any projects are built.

We have no city in the State with a population in its corporate limits or beyond in excess of 20,000 which does not have a mutually adopted, comprehensive land development plan. We are in the process of working in area redevelopment in detail. We have been very fortunate. Practically every city of 20,000 has a competent planning staff, probably because the university has developed so much of this planning.

Perhaps I am a little biased in my approach. The reason I am biased is that where you have the comprehensive land development plan and where you have the transportation plan and these things mutually adopted together and worked out in detail, the local government which had a hand in it is very knowledgeable of the entire plan. At the same time the local government is picking up right-of-way that would otherwise block development of future streets and things of that sort.

That is the reason I feel fundamentally they need to be in it: they are working very close with us in picking up this right-of-way as we go along and in letting us know about situations. They can do that much better at the local level than we can.

Holmes.—Our position is that you cannot plan transportation without recognizing the interaction between land use and transportation. If no land use plan exists, the highway department has no alternative but to participate in the preparation of one to the extent that it is needed for transportation planning.

However, we do not feel that we have the authority to participate in a broad comprehensive land use plan which goes

well beyond the needs of transportation. Frequently, that is what local planning people would like to have us do.

Carley.—You say 60 percent of all of the local planning in your cities is paid for by the State highway commission out of $1\frac{1}{2}$ percent funds?

Babcock.—I better explain why we get to this 60 percent. There is the Federal planning in a small city, which is $66\frac{2}{3}$ - $33\frac{1}{3}$, which taking out administrative cost, brings it to about 60-40. We work on this same general basis of 60-40. We are working with sufficient basic land use planning to do the transportation plan. If they want to come in and do other planning and get planning to specifically detail their zoning, subdivision, and all of these other requirements, this is beyond the pale.

As far as getting the basic framework of growth, location, probable location, industry, business, shopping centers, yes; but if you want to go into the specific planning that others are doing into zoning regulation and subdivision control and that type of thing, no. You would have to use other Federal money.

Campbell.—This goes back to another subject. Out of your 5-yr plan, is that a "moving" 5-yr plan that you have? By "moving" is meant that a year is added as a year is completed.

Hill.—No, we had a 5-yr plan beginning July 1, 1957, terminating June 30, 1962. The second 5-yr plan picks up after the termination of the first.

Campbell.—How does that affect your lead time? When you start a new program, have you entirely new projects to be considered?

Hill.—We do not put any new projects into the 5-yr plan. In our second 5-yr plan, we have about \$80 million worth of planning and right-of-way procurement for construction jobs which will be awarded in the third 5-yr plan. So we do have the planning lead time, and the preparation, surveys preparation, of preliminary plans, and the procurement of right-of-way. We have other jobs which will go through the planning stage, and we expect a route approval by June 30, 1967, which would not have any money for right-of-way involved. That right-of-way procurement would

probably come in 1968 and 1969, and construction later.

Carley.—I think this fits within the context of programming for years ahead. I would like to ask a question that I would only like to see hands on and not necessarily for the record. In programming for the future, how many of these State highway people have put political pressures on them from a legislature or some other place that make difficulty for program scheduling?

Froehlich.—You get all kinds of pressures. You can get pressures to do it, and get pressures not to do it. You get pressures by the same person to do it and then not to do it.

Carley.—I am aware, of course, that you get pressures. But I mean in terms of undue pressure to the point where it really fouls up the whole planning process.

Hager.—We had in 1959 an appropriation of \$484 million, to cover our needs, which amounted to \$527 million. So there was \$43 million worth of roads that had to be left out.

By 1961, certain people who supported the \$484 million bill were disappointed people, as we had to drop some of the jobs. So recognizing that they gave us \$43 million less to do with than we needed, they decided they would come out with a \$150 million program and include those \$43 million in other jobs which were necessary throughout the State.

And for the first time in the history of Connecticut, the Highway Commissioner has been directed to complete that 4-yr program which was the \$484 million program, which was designated by projects, and the \$150 million. They listed the projects, 24 of them, and put an amount on each project which we cannot exceed.

Now, if you don't think that hurts planning. . . . We cannot tell until the day a project is designed whether we are going to have enough money to do it or not. But the estimates that we gave the legislature on these roads go back to 1959—and they set up the same price for them; the cost index has not been considered; nothing has been considered. So we are in trouble.

Telford.—Everyone has had similar problems at one time or another. However it might be interesting to point out the success we have had in California with a long-range program. We have had set up by the legislature a basic framework. It is a master plan of freeways for the State, together with a program of financing over a period of about 20 years. For example, there is on my desk a map showing our 8-yr program. It is very helpful when these men who have been elected by popular vote come in and want to talk. I can

point out, "Well, now, gentlemen, here is what the money adds up to. Which one of these do you want to take out to put yours in?"

We cannot say this before a legislative committee, but when we get them in our own territory, we can very often talk to them about the problem and point out that we do have a plan, and that a lot of consideration has been given to this plan. This technique is very helpful in overcoming these pressures if we have a specific plan well thought out, which can be easily presented.