

# Policy and Procedure Review: State Highway Commission Liaison With "701" Planning in Wisconsin

BRUCE B. WILSON, Land Planning Supervisor, State Highway Commission of Wisconsin

•THE federal planning assistance program got under way in Wisconsin in September of 1959 when planning consultants started work on a comprehensive development plan for a community of some 14,000 population. As of July 1966, no less than 110 federally-aided local and county plans had been completed or initiated in Wisconsin. This activity is commonly referred to as "701" planning in reference to Section 701 of the U. S. Housing Act of 1954, as amended, which generally authorizes  $\frac{2}{3}$  federal matching funds for such planning activity in accordance with policies and procedures developed by the U. S. Department of Housing and Urban Development. Transportation studies partly financed with HPR funds, state planning activity, multi-county regional studies and special studies have also received federal "701" funds in Wisconsin. These latter programs, because of their size and complexity, receive the bulk of attention from highway agencies and researchers. This paper is concerned rather with the "701" planning assistance provided via state planning agencies to communities or groups of adjacent communities of less than 50,000 population and counties without regard to population.

The stated purpose of federal "701" aid is, "to assist state and local governments in solving planning problems resulting from the increasing concentration of population in metropolitan and other urban areas, including smaller communities; to facilitate comprehensive planning for urban development, including coordinated transportation systems, on a continuing basis by such governments; and to encourage such governments to establish and improve planning staffs" (1).

The 110 federally-aided planning assistance programs in Wisconsin can be described as varied in terms of geographic location, population size, level of government, and type of planning staff. Table 1 illustrates the distribution. Almost half of the local planning programs fall in the 1,000-4,999 population size group. Consultants have been retained for two-thirds of all local planning programs. While 22 private firms have participated in local planning assistance in Wisconsin, state records indicate 70 percent of consultant programs are being handled by seven firms carrying five or more programs each. Plan preparation by the state and other public staff has been limited to programs for communities of less than 10,000 population. Consultants also dominate the county planning programs, being responsible for all but one of the six county programs in the state.

All but a very few of the 110 "701" plans in Wisconsin have discussed or will discuss in some measure the location and function of state highways as coordinated with land use and community facilities plans. Clearly the State Highway Commission of Wisconsin should be and in fact has been involved in these local planning efforts. The purpose of this paper is to review and evaluate the first three years of the Commission's participation in such programs, from August 1963 to August 1966.

Throughout the paper the term "Planning Section" refers to the Urban and Advance Planning Section of the Planning and Research Division of the State Highway Commission of Wisconsin (see Fig. 1). "District Engineer" means engineer-in-charge of one

TABLE 1  
 "701" PLANNING ASSISTANCE PROGRAMS IN WISCONSIN AS OF JULY 1966

Population Size Group	Local Programs by Staff Type				County Programs by Staff Type		
	Consultant	State	Other <sup>a</sup>	Total	Consultant	State	Total
0-999	4	9	1	14			
1,000-4,999	26	19	1	46			
5,000-9,999	18	3	1	22			
10,000-24,999	15			15	3		3
25,000-50,000	7			7			
Over 50,000 (counties only)					2	1	3
Totals	70	31	3	104	5	1	6

<sup>a</sup>County Park and Planning Commission (2); City Planning Commission (1).

of the nine district offices of the Highway Commission; "state planning agency" refers to the Planning Division of the Wisconsin Department of Resource Development.

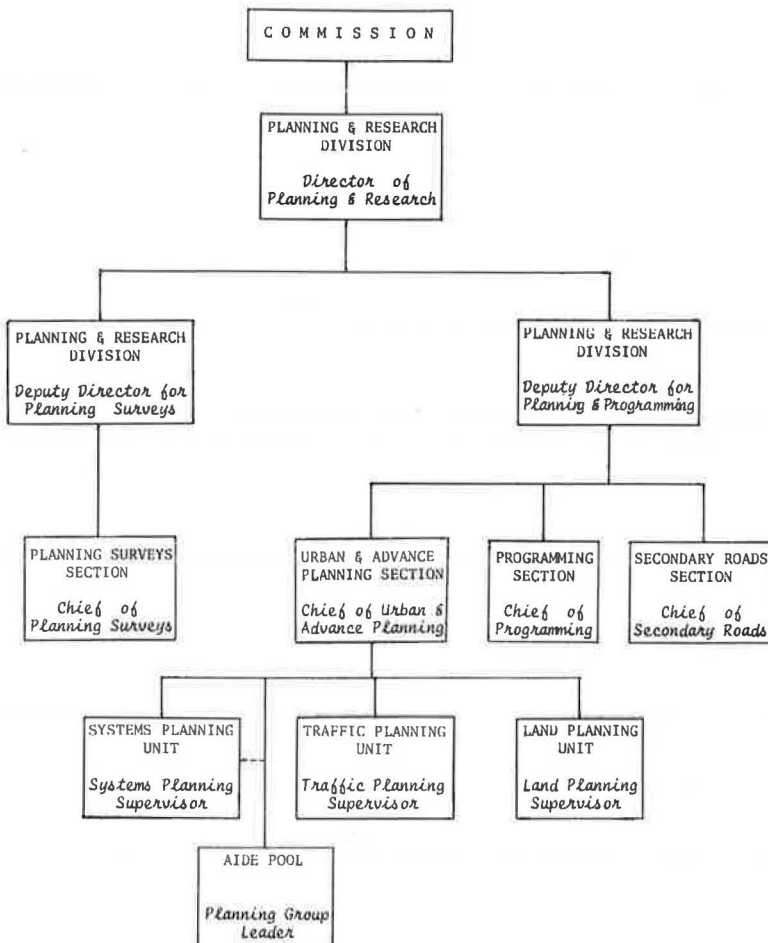


Figure 1. Wisconsin State Highway Commission Planning and Research Division.

TABLE 2  
"701" PLANNING WORK STARTS  
IN WISCONSIN

Year	No. of Work Starts	Cumulative Work Starts
1959	3	3
1960	5	8
1961	11	19
1962	11	30
1963	27	57
1964	15	72
1965	18	90
1966	20	
(as of July)	(incl. 11 pending)	110

## NEED FOR HIGHWAY COMMISSION INVOLVEMENT ESTABLISHED

"701" planning activity in Wisconsin started in 1959 with three programs and increased to a peak of 27 "new starts" in 1963 (Table 2). District Engineers began to be concerned when the first completed plans were brought to them by local units with questions as to whether proposed state route changes or improvements were feasible. One of the earliest plans generated considerable departmental correspondence by proposing a complete system of circumferential highways which seemingly could only be implemented by State Highway Commission action. The only avail-

able estimate of "bypassable" traffic was derived by the consultant from an external O-D study in another city of comparable size. State highway corridor planning in the area had not been completed. The Highway Commission was placed in the unenviable position of needing a comprehensive answer to local questions when no such answer was available. Even more fundamental, the community and the Highway Commission were simply not speaking the same language. A communications gap needed to be filled.

In August of 1960, D. F. Haist was appointed Chief of the Highway Commission's newly created Urban Planning and Development Section (now Urban and Advance Planning Section). One of the first jobs of the Planning Section was to make an evaluation of local highway planning in Wisconsin as a basis on which to proceed with the necessary state-local coordination. The results of an intensive formal inquiry and evaluation were published in two years (2).

The study confirmed the lack of communication between the Highway Commission and local units of government in local highway planning. Local units were simply not too concerned with the need for quantitative analysis, which is the everyday job of the Highway Commission engineer. On the other hand, the Highway Commission had not clearly and publicly expressed its long-range goals and objectives in terms of a highway facilities plan, thereby leaving the door open for local intuitive planning.

The study recommendations can be summarized as follows:

1. State and federal construction aids in urban areas over 5,000 population should be conditioned upon preparation of documented local comprehensive plans.
2. The State Highway Commission should offer limited planning assistance to insure the incorporation of regional planning needs and the preparation of technically sound and workable plans. The establishment of regional needs implies the preparation of a documented statewide long-range highway system plan by the State Highway Commission. State highway plan refinement should permit maximum use of local implementation devices. Quantitative study in local planning programs requires a team approach with the State Highway Commission represented.
3. Local plans should receive mutual adoption by the local planning commission, the local legislative body, and the State Highway Commission.
4. Adjustment of Federal-Aid systems should comply with local plans prepared and adopted as above.
5. Continuing assistance by District Highway Commission personnel is required upon plan completion.

## INITIATION OF HIGHWAY COMMISSION ACTIVITY

The Highway Commission's first step was to develop central and district office staff to meet the urban planning job ahead. By March 1963, Systems Planning, Traffic Planning, and Land Planning Units had been staffed in the central office Planning Section and at least one engineer in each district was assigned urban planning responsibilities though in some cases this duty was part-time.

By this time the Planning Section was making frequent contact with the state planning agency in regard to procedural requirements which could be incorporated into the production of local plans so that they would conform more closely to what was reasonable and feasible in view of overall state highway needs and financing priorities. In early 1963, the state planning agency started work on the first "701" plan to be prepared by their staff, which was in addition to their continuing responsibility to administer plans prepared by private consultants. In response to the Planning Section's desire for coordination, working arrangements began to be formulated for direct Highway Commission participation in all "701" studies.

The Highway Commission with the review of the state planning agency issued its first policy memorandum on coordination with comprehensive community planning in August 1963. The policy memorandum outlined Planning Section responsibilities to supervise both the Commission's review of plans prepared by consultants and Commission participation in the formulation of plans prepared by state planning agency staff. The memorandum called for Commission activity in (a) the review of contracts, (b) the furnishing of data and advice, (c) the review and recommendation of planning proposals, and (d) the review of final plans.

The idea of contract review was adapted to our needs from an Illinois Highway Department procedure and, at the Planning Section's prompting, was backed up by a letter from the state planning director to eligible planning consultants. The letter required the Highway Commission to be contacted by consultants prior to finalization of local work programs. While the theme of the Highway Commission's policy statement was planning assistance and review, it was recognized initially that without some responsibility to guide, the usefulness of review would be limited.

To support the proposed review function, the Planning Section staff developed a plan review manual. A preliminary draft was distributed to district offices in September 1963. Taking into account the experience of other midwestern State Highway Departments, the manual was developed around a series of 88 questions designed to test the organization, research, analysis, plan development, and implementation phases of the local planning program. It was stressed that the review process should take place concurrently with the planning effort rather than await plan completion. The manual also contains procedures for and conditions of Highway Commission endorsement of local plans.

For those planning efforts undertaken directly by the state planning staff, district-central office Highway Commission personnel were to participate by providing (a) traffic volume data and projections, (b) determination of capacity, (c) data on existing or programmed area highway projects, and (d) recommendations for and an evaluation of the proposed transportation plan. In turn, at appropriate times, the state planning agency was to furnish to the Planning Section a population forecast and other socioeconomic projections and their probable distribution in the future land use plan.

Other steps taken by the Highway Commission to gear up for the planning assistance and review job centered on the task of training the district urban planning personnel. The training effort included the following:

1. An on-the-job training program was initiated in the central office using the Madison Area Transportation Study.
2. Personnel were sent to Northwestern University's two-week class in city planning for highway engineers.
3. Two 2-day discussion conferences were held with representatives of the state planning agency participating.
4. A lending library of planning texts was developed.
5. A coding index of planning topics was established and used for distributing a fairly constant flow of background materials.
6. Personnel were sent to the BPR Traffic Forecasting and Assignment course as frequently as positions were available.

#### POSITIVE RESULTS OF HIGHWAY COMMISSION INVOLVEMENT

After three years of joint effort by many persons to get the system in working order, and in spite of the many problems encountered, substantial progress has been made

toward the achievement of Highway Commission objectives, as evidenced by the following:

1. As of August 1966, 29 of 49 completed plans by consultants (about 60%) had received comprehensive reviews by district personnel. Comprehensive review of plans completed prior to early 1963 has been given second priority to concurrent review of 38 additional consultant plans now under way. Reviews are not considered complete until a summary statement is on file in the central office proposing how the district can and cannot work with the community in implementing the plan. In other words, the Highway Commission is preparing to answer those local questions before they are asked.

2. As of August 1966, two consultant plans had been formally endorsed by the State Highway Commission. The plans for the two cities of some 8,000 and 33,000 population both include potential reroutings of state trunk highways which were defined by a combination of consultant-local initiative and Highway Commission technical guidance. Since August 1966, two additional plans for cities of some 5,000 and 11,000 population have been endorsed by the Highway Commission.

Local pressure to depart from the plans has been noticeably diminished in both cases by the process of mutual plan adoption. In one case the Highway Commission refused to endorse the plan until a local issue was resolved. The desire for state-federal aid overcame the local disagreement. (Currently, two potential endorsements are being held in abeyance in similar situations.) In the other case of endorsement, pressure arose after mutual adoption but was quieted quickly when it was recognized as a step backward in state-local cooperation. The Highway Commission is proceeding to implement recommended relocations in one plan and is studying a plan to comprehensively adjust local Federal-Aid systems in accordance with the other. It should be noted finally that the Highway Commission did not actively solicit local requests for endorsement until early 1966 when completion of the overall state highway plan was imminent.

3. District-central office Highway Commission personnel have worked with the state planning staff to complete nine comprehensive plans for communities of less than 5,000 population. All but one of these plans (for a community which is not on a state trunk highway) have involved the joint consideration of highway-land use relationships by the two staffs. Proposals have been developed for potential route reservation, access control, and land use regulation which will affect the operation of the future state highway system. The Commission staff has been given sufficient latitude in report review so that the position on future highways can be carefully stated in the final reports. This becomes particularly important when state highway corridor planning has not been finalized in the vicinity of the particular community. Such state agency coordination has been a primary objective of local plans prepared by the state planning staff. Twenty-three additional planning programs of this type have been initiated, including three for cities over 5,000 population.

4. A positive result related to No. 3 above is that the good working relationship with the state planning agency staff has brought the planning and engineering disciplines closer together through the direct exposure to each other's assumptions and plan development criteria in state-prepared plans. In turn, this process of education has promoted a more realistic state agency review of plans prepared by consultants.

5. Of primary importance to the Highway Commission has been the good working relationship established between district urban planning personnel and local planning commissions in "701" planning. In many instances, involvement in local meetings by district personnel has resulted in beneficial use of highway data and better understanding of regional highway needs by local planning agencies. A partial listing of planning services provided to local planning efforts by the Commission includes (a) adjusting the local traffic counting program to better serve "701" planning needs; (b) providing copies of right-of-way plats; (c) providing readily available aerial photography and contour mapping; (d) providing information on design standards and cost data; (e) giving advice on the local use of traffic control devices, channelization, one-way streets, etc.; and (f) explaining long-range Highway Commission planning as expressed in the recently adopted functional highway plan.

TABLE 3  
MINIMUM TRAVEL HABIT STUDY REQUIREMENTS

Population Size Group	External Information Requirement			Internal Information Requirement		
	Roadside Interview	License Plate	Post Card	Home Interview	Telephone Survey	Internal Cordon
0-999	—	—	—	—	—	—
1,000-4,999	P-1	P-1	P-1	—	—	—
5,000-9,999	P-2	P-2	P-2	P-1	P-1	P-1
10,000-24,999	M	—	—	P-2	P-2	P-2
25,000-50,000	M	—	—	M	—	—

Key:

- = No Requirement
- P-1 = Possible Requirement (if appropriate)
- P-2 = Possible Requirement (some survey required)
- M = Minimum Requirement

Note: The exercise of "P's" is dependent upon individual community characteristics, such as total approaching volume exceeding 4,000 ADT, and considerations of the community's economic function, internal street system, and barriers to traffic flow.

The benefits of this working relationship are two-way. Urban planning personnel have reported learning something new and important for future highway planning from local plan review in each district—factors such as proposals for local land development, local desires concerning service from regional routes, and local street extension plans. This information is put to real use when the Highway Commission wants to investigate new highway locations near the community.

It can be stated generally that since the Highway Commission initiated its formal policy of coordination with local planning in August 1963, district urban planning personnel have actively participated in the formulation of arterial highway proposals in most if not all local planning programs. There have been differences of opinion but the team approach is resulting in the preparation of many plans which the Commission would be willing to endorse if requested.

6. Involvement in local planning commission meetings has basic administrative benefits as well. Through written reports submitted by district urban planning personnel, the central office Planning Section can keep up-to-date on local planning throughout the state. The meeting reports are also valuable as (a) background information for preparing formal plan endorsements, (b) a source for reporting current reactions on planning programs to the state planning agency, (c) a means of informing central office design and right-of-way personnel of pertinent local information, and (d) a source document for reconstructing Commission involvement in a local planning program at any later date.

As a conclusion to the positive results of Highway Commission involvement in local "701" planning it can be stated that this program has brought the Commission and communities closer together and improved the communications gap which once existed. The Commission's first uncertain reactions to the "701" program have been replaced by the attitude that this program is an integral part of overall highway planning effort.

#### PROBLEMS ENCOUNTERED IN HIGHWAY COMMISSION INVOLVEMENT

Positive results such as those listed can serve as a comforting reminder that an agency is on the right track, but the continuing improvement of agency policy requires a close look at problem areas as well. The following problem areas are arranged in the approximate order of occurrence in the planning process.

1. Some consultants have reacted unfavorably to Highway Commission review of their local work programs. The primary conflict is the additional program cost re-



quired to meet Highway Commission desires for more quantitative and comprehensive studies of transportation needs. As an initial goal, for example, the Planning Section set up the suggested guidelines for O-D surveys given in Table 3. Considering the typical costs of early "701" plans in Wisconsin and the requirement of the consultants to undertake balanced planning programs, the guidelines for communities between 5,000 and 25,000 population became particularly unpalatable.

A Planning Section study of contract costs in October 1963 indicated a typical cost of \$12,500 for a plan for a Wisconsin community of 5,000 population. About 10 percent of total contract cost seems to be the guideline for transportation analysis in the small community plans. Ten percent of \$12,500 might finance a one- or two-station external survey, assuming current Commission costs, and even then would leave little monies for other aspects of transportation analysis. Consultant concern is most evident from smaller planning firms with limited traffic survey, analysis, and forecasting experience; this would be more costly to them because it requires extensive preparation and research.

2. The Highway Commission has had to overcome some concern by the state planning agency that it might be encroaching on their established responsibility of negotiating contracts with consultants for "701" planning work. It was evident that the well-developed working relationship with the state planning agency might be jeopardized by continued insistence on a critical review of contract details. We were, after all, to a certain degree participating in the "701" planning process at the invitation of the state planning agency. A compromise was finally reached whereby copies of signed contracts were available to us to aid in plan review.

3. A corollary to the problems in contract review was the occasional tardiness of the Highway Commission's invitation into the local planning process. In the opinion of the author, involvement at the data-gathering stage is too late. There have been cases of consultants attacking the wrong highway planning problems, doing unnecessary traffic analysis, and ending up with a plan that satisfies neither the local community nor the Highway Commission. In one case, the Highway Commission was seeking a consensus at the local level on refined highway locations, but found instead an unnecessary concentration on establishing corridor traffic desires which had previously been estimated by the Commission. In other cases where regional transportation studies were pending, detailed local transportation studies might simply have been deferred. In still others the Commission might have recommended special studies related to the most pressing area needs. There have been, of course, many cases where the Highway Commission and the consultant's staff have collaborated in work directed toward the salient problems.

4. Being very familiar with highway planning data, district-central office staff have occasionally overestimated the clarity of such data to consultants and local planning commissions. One consultant, for example, misinterpreted a proposed drainage-way on a right-of-way plat to be a future roadway. Traffic data, assignments and capacities can also be misinterpreted unless they are carefully explained by Highway Commission traffic engineers. The various ways that traffic counts must be factored, the ways that assignments must be adjusted, and new capacity concepts are all subjects for local education.

5. It has been the position of the Highway Commission that it should not be alone in endorsing a local plan; the plan must first be adopted by the plan commission (as provided by state statute) and endorsed by the local legislative body (usually by resolution). One of the unexpected problems encountered in local plan review has been the hesitancy of some local units of government to adopt and endorse their own plans. This formal acceptance is often withheld because the benefit is not apparent to local units of government, or because the community is split on acceptance of one or more plan elements. This delay in local plan acceptance has required that some urgently needed highway improvements be made prior to plan endorsement. This action in itself eliminates some of the enticement to mutual plan adoption. In other words, the local unit already has part of what it wants. This should happen less frequently as plan adoption becomes a more accepted practice in Wisconsin.

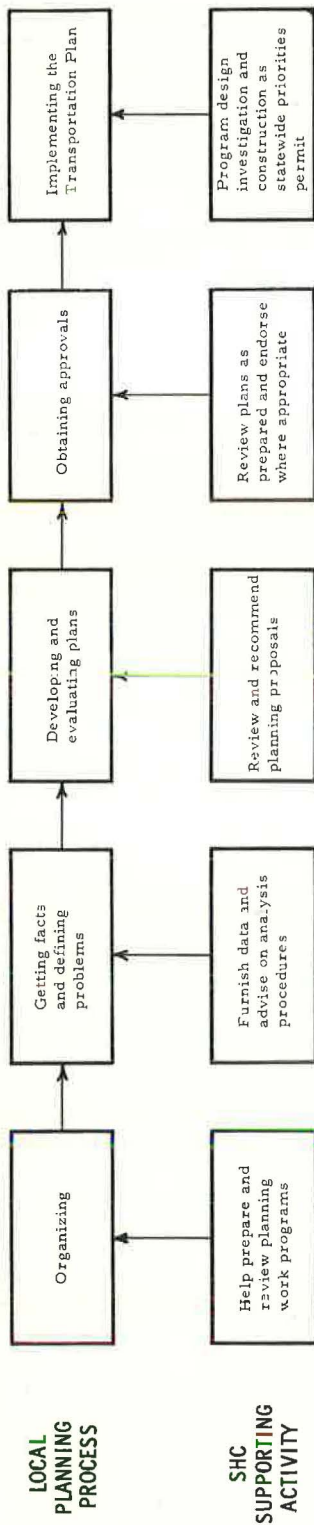


Figure 2. State-local planning cooperation.

Since Highway Commission adoption of a state highway plan has been imminent for several months, the Planning Section has been actively promoting local adoption and endorsement of plans and subsequent requests for Highway Commission endorsement. This promotion effort has included letters to localities from district offices when there seemed to be a reasonable chance for mutual plan adoption. The responses show a definite interest by many communities once they are approached directly.

### SOME SUGGESTED POLICY MODIFICATIONS

Brand-new approaches to liaison with "701" planning are not required in Wisconsin. However, some modifications to a basically workable policy are suggested.

Local planning assistance must be offered by the Highway Commission prior to the contract-writing stage. Simply stated, the Commission needs to get in on the initial problem definition stage (Fig. 2). A good start has been made recently in conjunction with revised procedures of the state planning agency. That agency is now attempting to guide the preparation of general work programs for communities before the community talks to consultants. As a result of recent discussions with the state planning staff, the Highway Commission is now being asked to help define local transportation planning needs. The Planning Section of course relies on the district offices for initial recommendations based on their local knowledge. Initially a few reports of "no problems" were received, but now some rather long and interesting memos describe in detail the need to work out particular highway location and protection problems with the community involved. Every effort should be made to inject these real problem issues into the local planning process, even if pertinent Highway Commission planning is still in its preliminary stages. The alternative to this is the risk of promoting planning programs which attack vague and unreal problems of little importance to anyone.

With problem areas generally defined, the process of contract review also becomes more meaningful. Concentration



on isolated contract detail can be replaced by concern with overall contract conformance to planning needs. If expensive traffic analysis is required, it can be more readily justified when related to problem issues. On the other hand, the Planning Section needs to develop more refined criteria for determining if a consultant should be required to prepare any traffic forecast at all. Local problems may simply not be directly related to traffic volume but rather to such items as circulation pattern, parking, traffic mix, access to major routes, and neighborhood disruption. Finally, it is believed that increased Highway Commission involvement prior to the contract writing stage as described could preclude the need for involvement in contract negotiation itself.

A valuable service can be performed for "701" planning by providing local planning programs with traffic forecasts available in the Planning Section. This is now being done to an increasing degree. Just as local population forecasts should be expected to be compatible with state and regional forecasts supplied by the state planning staff, so should local traffic forecasts be expected to be compatible with the statewide assignments being developed as part of the state highway plan effort. The requirements for expensive traffic forecasting by consultants on local routes should be carefully evaluated in all cases. This suggestion can only be achieved through earlier involvement in local planning programs.

There is a need for the Planning and Research Division to make available guidelines to consultants and communities for the use of highway planning data available in the central and district offices. Enough experience has been gained in working with communities to begin to formalize recommendations for local use of such data. Specifically, it is recommended that a publication be prepared on the multiple use of highway planning data. This will aid efforts to get the Highway Commission and local communities talking the same language on the subject of highway planning.

Increasing use can be made of recent products of the state highway planning program to strengthen and support local planning. Already the meaning of the various elements of the functional system plan for local planning is being realized by the state planning agency, consultants, and others. There is general recognition that the highest type of arterial is planned to serve the longest trips with highest mobility, while increasing amounts of land access may be provided by successively lower types of arterials. The Commission's freeway-expressway plan, based on the functional plan and future traffic volume, is generally indicative of the need for future relief routes or bypasses and should permit a general estimate of right-of-way widths required. In short, local plans can be and are now being prepared within a framework of established regional needs.

However, all of the preceding is not enough to achieve detailed state-local plan coordination. Potential opportunities exist for preserving future highway right-of-way, planning access arrangements properly related to future local street systems, developing guidelines for land development adjacent to arterials and intersecting roads, etc. Such coordination will require accelerating refinement of the initial functional highway plan in some areas. High priority should be given to preliminary design investigations to finalize centerline locations where opportunities for coordination with local planning exist. A recent step forward has been the preparation of a statewide priority plan for preliminary design investigations which take into account the need to reserve highway right-of-way in rapidly developing urban fringe areas.

If the initial "701" planning investment is to bring about lasting state-local coordination, the Commission must increase its efforts to stimulate continued local planning and volunteer to participate with the community in this activity. One-time cooperation in plan implementation will not be enough; contact must be maintained for plan reevaluation purposes. Commission endorsement letters of local plans specifically call for plan updating within five years. The Commission now has a plan of its own to review and update, which will require local reaction and feedback. One district urban planning supervisor recently visited all communities in his district having completed plans and questioned their current status. This example should be followed in the other districts. Commission personnel could sit on local technical coordinating committees

which would meet at appropriate intervals. The basic steps in Figure 2 could be repeated on a selective, limited basis. Whatever the solution, the valuable state-local interaction stimulated by the "701" program should be maintained.

#### REFERENCES

1. Urban Planning Program Guide. Housing and Home Finance Agency, Aug. 1963.
2. Bauer, Kurt W. Local Highway Planning in Wisconsin. State Highway Commission of Wisconsin and U. S. Bureau of Public Roads, April 1962. This publication includes an analysis of an urban planning inventory undertaken from March to September of 1960 as requested by the Bureau of Public Roads and an in-depth analysis of the factors influencing the success and failure of local highway planning in six selected urban areas.