

Public Involvement Process for Identifying Problems and Alternative Solutions for the Year 2010 Transportation Plan

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The objectives of the Toledo Metropolitan Area Council of Governments (TMACOG) for public involvement in development of its Year 2010 Transportation Plan were (a) to assist system planners in obtaining a better understanding of the system users' problems, (b) to allow as many solution options as possible to surface, (c) to obtain the assistance of the public groups in plan evaluation so that the plan would truly meet their needs, and (d) to build a broad base of ownership and understanding of the plan and attract a broad base of support for individual projects on the plan. With these objectives in mind, the Long-Range Plan Task Force was established and became the body responsible for developing and implementing an innovative public involvement process. A series of five public meetings were held at scattered locations throughout the TMACOG region, culminating in a "Charrette," an intensive brainstorming session held over a short period of time. The purpose of the five pre-Charrette public meetings was to identify the transportation issues, problems, and needs within each geographic subarea, to assure that adequate information on subarea problems would be available at the Charrette, and to generate interest and excitement about the Charrette. The Charrette itself, which had more than 100 people participating within thematic subgroups, was intended to unlock the creativity of the participants by focusing their attention intensively over a period of 24 hours on solutions to transportation problems facing the Toledo area. The spirit of cooperation and trust fostered by the Charrette was maintained by the Long-Range Plan Task Force through its subgroups as they refined the ideas from the Charrette and developed plan alternatives for testing and evaluation. The most important outcome of the Charrette was the fact that over 100 community leaders have a better understanding of their stake in transportation planning and have ownership of the Year 2010 Transportation Plan.

Historically, the Toledo Metropolitan Area Council of Governments (TMACOG) has recognized that the normal committee process used to assist decision making has a number of defects when attempts are made to use it to solve regional problems (1). This method, which is often referred to as the hierarchical method, is a process that gathers input from a variety of sources—citizens, staff, and policy experts—and grinds it through committee meetings, where all aspects of problems

and solutions are identified. The final policy-making body ultimately draws everything into a single, simple conclusion.

Although this process has merit—it provides a decision-making framework whose ground rules are widely accepted—it does not encourage creative thought in the understanding of problems and the development of solutions. Neither does it readily allow the use of the rare "off the wall" observations from lay people and experts that add a valuable dimension to the decision. Therefore, over the past two decades, TMACOG staff members have looked for other methods, particularly in the field of "group dynamics," to supplement the committee method. The need for other methods was especially acute in those cases in which committees have indicated that they need an outlook broader than their own inhibited one for the identification of problems and solutions.

When TMACOG set out to begin the process for development of its Year 2010 Transportation Plan, the limitations of the committee method were recognized:

- Creative thought is inhibited;
- The number of transportation problems and solutions that can be handled is limited;
- The policy-making groups responsible for making the final decision do not receive the problems and solutions in their original context or form;
- Viewpoints and priorities tend to be rigid; and
- Committee members do not always "buy into" the group decision if it is different from their own view, and the decision therefore may lack a broad base of support.

Because of these limitations, TMACOG staff members designed a new and innovative public involvement process to obtain input for the development of TMACOG's Year 2010 Transportation Plan. The process design focused on "group process" techniques. It was different from what most regional transportation agencies have done in the past in several ways:

- Substantive input from the public would be sought at the very beginning of the plan development process, before any lines were drawn on maps;
- A concept previously used successfully at the project development level, called the "management team" process (2), would be attempted at the regional scale to guide the entire plan development process; and

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- TMACOG would seek to focus its efforts on a major public meeting called a "Charrette."

The Charrette (3) is a process that brings together conflicting interests for a concentrated block of time, such as a weekend or a series of nightly meetings. All major public groups are represented. Charrettes normally bring together a small group of people who seek to reach a consensus on solutions to a well-defined physical problem related to planning or development (4). TMACOG's proposed Charrette would attempt to expand the traditional use of the process by using it to define problems in addition to seeking solutions, to develop solutions for physical problems widely scattered throughout the region, instead of only at one specific location, and to bring together a large group (about 100 people) representing major interests throughout the region, instead of the 10 to 20 people that usually come together at Charrettes.

PROCESS OBJECTIVES

The first objective of the public involvement process was to allow transportation system planners and technicians to develop a better understanding of the system and its problems from system users. The system user can provide a different and more intimate perspective on the impediments and discomforts of the system and can help verify whether objective data collected by system planners match the perceptions of users of the system.

The second objective of the process was to ensure that the intuition of individuals in the group is allowed to surface in the identification of possible solutions. All members of the group were to be brought together on an even basis so that the less forceful participants could be braver in offering ideas, while the more forceful would have to reduce their domination. If participants can take part on an equal footing in the absence of hierarchical structures, the solutions that emerge may be of better quality.

A third objective of the process was to ensure that a feeling of ownership of the plan and the planning process would develop among the participants. For ownership to develop, the participants in the process should all feel that they are each an important part of the planning process and that their views and contributions are being given due consideration. If participants have shared in the development of solutions, they will be more willing to support fully the plan that results, even though it may not reflect their personal priorities or those of the organizations that they represent. Also, they will be more committed to attracting the funding support needed to implement each of the projects in the plan.

The fourth objective of the process was to allow the public groups affected by proposed solutions to participate in the evaluation of all aspects—safety, environmental, political, social, and economic—of proposed solutions and to do so early in the process, before any "lines" are drawn on maps and before system alternatives are developed for computer testing.

DESIGN OF THE PROCESS

The existing decision-making process for TMACOG's transportation programs is shown in Figure 1. A technical subcommittee called the Streets and Highways Subcommittee (consist-

ing of engineers who represent TMACOG's member jurisdictions) makes recommendations to two transportation advisory committees called the Urban Area Citizens Advisory Committee (UACAC) and the Urban Area Technical Advisory Committee (UATAC). As its name suggests, the UACAC is composed of citizen representatives from TMACOG's member jurisdictions and various community organizations, whereas the UATAC is composed primarily of government representatives. These advisory committees make recommendations to a policy board called the Transportation and Land Use Committee (TALUC) that represents the TMACOG transportation study area. TALUC makes decisions on all transportation issues, subject to endorsement by the Executive Committee of TMACOG, a policy board that represents the entire TMACOG region.

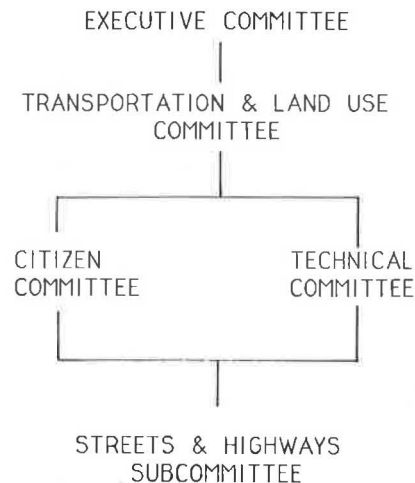


FIGURE 1 TMACOG committee structure.

Efforts were made to augment this process for development of the Year 2010 Transportation Plan so that it would include broader-based public involvement. At the same time, plans were made to reduce the extensive delays that could occur if decisions had to be endorsed by each TMACOG committee at every intermediate step in the 2010 plan development process, as laid down in TMACOG's process flow chart. The steps that were of concern were the development of evaluation procedures, estimation of financial resources, problem identification, development of alternative plans, and evaluation of alternative plans. It was felt that formal review by each committee should occur only at critical points in the process and not necessarily at every intermediate step. With assistance from the chairs of the committees, a new committee called the Long-Range Plan Task Force was conceived to undertake review at the intermediate steps. The task force would consist of citizens from UACAC, technicians and government officials from the Streets and Highways Subcommittee and UATAC, and elected officials from TALUC and the Executive Committee. It would also include representatives of other interest groups. The Long-Range Plan Task Force would work to secure input and ideas on problems and solutions from the various public groups, and to maximize ownership of the plan by all segments of the community.

As a result of meetings with various committee chairs and key members, consensus built toward a Charrette as the preferred technique for securing citizen involvement early in the

STAGES OF PLAN DEVELOPMENT	DEVELOP FORECASTING PROCEDURES	DEVELOP INFORMATION FOR FORECASTING	DEVELOP EVALUATION PROCEDURES	ESTIMATE FINANCIAL RESOURCES	IDENTIFY FUTURE PROBLEMS	IDENTIFY ALTERNATIVE SOLUTIONS	DEVELOP ALTERNATIVE PLANS	EVALUATE ALTERNATIVE PLANS	PREPARE AND ADOPT PLAN
PARTICIPANTS									
TMACOG Ex. Comm.	(N/A)	Ex. Comm. approval 1/85	(N/A)	(N/A)	Ex. Comm. TALUC				(may include redoing stages 6-8 if new al- ternatives are uncovered) Exec. Comm. adoption 4/88
Transportation Advisory Committees and TALUC	TALUC approved procedures in 9/86	TALUC approval of policies and assumptions 1/85	TALUC to adopt goals, objectives and process 12/86	(N/A)	(Pre- charrette media involve- ment	CHARRETTE (4/87)	Advisory Committees and TALUC to approve alternative plans by 7/87		TALUC to adopt plan in 4/88
Charrette/ Public Meetings	(N/A)	(N/A)	(N/A)	(N/A)					OUR PLAN
Streets and Highways Subcommittee of UATAC	(N/A)	(N/A)	(N/A)	(N/A)	Region- wide concerns	Subject area portion	Geographic area portion	Neighborhood meetings in 1/88	UATAC and UACAC review plan in 3/88
					UATAC Streets & Hwys. Task Force	Sts. & Hwys. reviews alternate solutions	Streets & Hwys. Subcommittee reviews alt. plans, early 6/87	(N/A)	Streets & Hwys. Subcommittee reviews by early 3/88
Task Force with mainly TALUC, UATAC, and UACAC representatives	(N/A)	(N/A)	Ad-hoc Task Force assisted staff and identified goals and objectives through 11/86	Task Force will review estimates in 2/87	Task Force helps coordinate pre-charrette activities and provides qualitative information 3/87	Task Force shares in conducting the charrette, and reviews input from econ. devel. professionals in 3/87	Task Force reviews and refines output from charrette and prepares 5-10 feasible alternative plans for evaluation, 5/87	Task Force provides qualitative information for neighbor- hood meetings (12/87) and reviews and refines output from meetings (2/88)	Task Force uses output from neighbor- meetings to prepare final plan, 2/88
TMACOG Staff	Staff completed development of procedures in 7/86	Staff completed work in 7/86	Staff developed procedures through 11/86	Staff will prepare estimates in 1/87	Staff provides quantitative information in 3/87	Staff seeks input from econ. devel. professionals 2/87	Staff provides information on impacts of extremes 5/87	Staff provides quantifiable impacts of alternatives 12/87	Staff compiles public comments in 2/88
	<-----STAGES COMPLETED----->			<-----STAGES UNDERWAY----->		<-----STAGES		Not yet begun.	>----->

FIGURE 2 TMACOG's 2010 Transportation Plan development process.

process. In the design for public involvement, as indicated in Figure 2 (5), the Charrette became the centerpiece of the initial phase of plan development. Its end product was to be a list of prioritized problems and suggested solutions. The Long-Range Plan Task Force would prepare for the Charrette, implement the Charrette process, and refine the output from the Charrette to develop plan alternatives. In the next phase of plan development—evaluation of alternative plans—a series of public meetings would be conducted throughout the region, and the task force would then prepare the final plan on the basis of public input from the meetings.

In fall 1986, the various TMACOG committees discussed at their meetings the planning process that had been designed jointly by their chairs. Because these group leaders had been intimately involved in the design of the process, all members of each committee began to feel that they had ownership of the process. The process was adopted by each committee, and each committee named its representatives to the task force.

PREPARATION FOR THE CHARRETTE

In December 1986, the Long-Range Plan Task Force met for the first time and formed five subcommittees to research and recommend actions for the Charrette. The committees dealt with the following elements:

Process and Leadership. This group's assignment included finding a keynote speaker who could inspire those present to think creatively. They also had to recommend facilitators for the smaller groups into which the larger group would be subdivided and to choose a date (or dates) for the Charrette.

Themes. These committee members were told to recommend the subject matter for each subgroup.

Location. Recommendation of an appropriate location that would cause the participants to "think regionally" was the charge of this group.

Participants. This group recommended organizations or specific persons who should be invited to the Charrette.

Pre-Charrette Publicity and Public Relations. This subcommittee was instructed to recommend ways to ensure that the public would be aware of the coming event and its importance and to maximize participation by key community leaders.

To ensure that adequate input by geographic area would be obtained, the task force proposed a series of five pre-Charrette meetings to be held at scattered locations throughout the region. The purpose of these meetings would be to provide pre-Charrette interest, background, and discussion among participants, to identify the transportation problems and needs within each geographic area, and to ensure that adequate information on subarea problems would be available to participants at the Charrette.

A list of 188 potential nominees was compiled from nominees recommended by individual members of the task force. The list included elected officials, technicians, transportation providers, major employers, development interests, neighborhood organizations, and other key groups in the Toledo area. About 120 nominees were selected, and members of the task force assisted with invitations, making personal telephone calls to invite the nominees to pre-Charrette meetings and to the Charrette.

PRE-CHARRETTE PUBLIC MEETINGS

Pre-Charrette meetings were held in five subareas of TMACOG's planning region over a period of 2 weeks in March 1987. The main task at these meetings was to elicit the participants' perceptions of the transportation problems that they anticipated through the year 2010 and to group these problems by theme for consideration by theme subgroups at the Charrette. However, the meetings were also designed to get participants to "buy into" the process; to demonstrate that TMACOG really intended to listen to them; to stimulate interest and creativity with creative displays; and to show that TMACOG could do a professional job in presenting information and facilitating meetings.

By far the most challenging of the premeeting activities was the development of appropriate displays and slides to set the mood for brainstorming and creative thinking at the meeting while at the same time conveying necessary information for informed discussion. After registration, meeting attendees moved through five stations in the exhibition area. Each station displayed information on one of five proposed Charrette themes. Seating was located around a final work station for use during a brainstorming session in which two facilitators worked jointly to record on a map the various problems suggested by the participants. Next the problems were clustered by category. Titles for general clusters were first solicited from the participants, and each title was written on a sheet of newsprint. The participants were then asked to pick all those problems on the map that belonged in each cluster group. The clustering of problems was designed to assist in finalizing the theme topics to be used in the Charrette. During the final phase of the meeting, participants were asked to sign up for one cluster group to serve as representatives of the subarea meeting in the Charrette theme subgroups. The names of these volunteers were listed with each problem cluster on the newsprint sheets.

By the conclusion of each pre-Charrette meeting, the participants had seen and understood the information available about the region and had together created the list of problems to be addressed at the Charrette. The process served to build up the "eventness" of the Charrette and increased the participants' commitment to the process. The high-quality, informative displays and the prompt and professional handling of the meeting agenda further convinced the participants that TMACOG really "had its act together."

A report on the pre-Charrette meetings was developed (6). The report listed the problems that surfaced at all five meetings. These problems were grouped into one of five theme groups, and a map for each theme illustrated the listed problems. The report was provided to all Charrette participants a few days in advance of the Charrette so that they could review it, be prepared for the event, and see how their subarea meeting group agreed—or disagreed—with groups at other subarea meetings.

CHARRETTE: DAY ONE

The physical arrangement of the hall used for the Charrette included a central seating area focused on a giant map of the

PROBLEM TRACKING FORM
2010 TRANSPORTATION PLAN CHARRETTE

PROBLEM ID#

I. DESCRIPTION:

IV. For each "Preferred Solution", assign a score from 0 to 10 (0 is poorest, 10 is best) relative to the following criteria:

- A. Solution increases the competitive advantage of Toledo area vs. the rest of the world.
- B. Creates new non-construction job opportunities.
- C. Reduces the delay of traffic.
- D. Helps make transit more viable.
- E. Reduces the risk (or frequency) of accidents.
- F. Does not create many new problems.
- G. Has a good benefit to cost ratio.
- H. Solution is creative.

Preferred Solutions

	Criteria Scores								Total Score
	A	B	C	D	E	F	G	H	
1.									
2.									
3.									
4.									
5.									
6.									
7.									

II. List of solutions to this problem:

- | | |
|-----------|-----------|
| 1. _____ | 11. _____ |
| 2. _____ | 12. _____ |
| 3. _____ | 13. _____ |
| 4. _____ | 14. _____ |
| 5. _____ | 15. _____ |
| 6. _____ | 16. _____ |
| 7. _____ | 17. _____ |
| 8. _____ | 18. _____ |
| 9. _____ | 19. _____ |
| 10. _____ | 20. _____ |

V. Re-list Preferred Solutions in order of scores:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

III. Place * next to "Preferred Solutions" and list them under item IV on the reverse side.

FIGURE 3 Problem tracking form used during the Charrette.

region, with work areas laid out on the perimeter of the room. Displays of data on the region's economy, land use, transportation systems, and growth trends were posted around the room, with information that related to a particular theme located in the appropriate work area. The problems suggested at the pre-Charrette meetings were posted on the walls on "problem tracking forms" (Figure 3) in the appropriate work group area. The five theme groups were

- Transportation as it Impacts Development,
- Transportation on Freeways and Across the Maumee,
- Transportation on the Street System,
- Transportation of People: Non-Automobile, and
- Transportation of Goods.

Each government entity in the region was represented. Elected officials, consumers, and providers were present, and participants included truck owners, road builders, bicycle riders, freight train users, developers, environmentalists, handicapped rights activists, public transit executives, leaders of professional organizations, and neighborhood leaders—all the parties that would be affected by the plan to be developed.

The Charrette was held from 4:00 p.m. on Thursday, April 2, 1987, until 2:30 p.m. on Friday, April 3, 1987. Several of the participants were on hand even before the registration time at 4:00 p.m. on Thursday—an indication of the high level of interest that had been generated. A microcomputer (Figure 4) that was located in the center of the room to demonstrate

technical planning procedures drew a considerable number of the early arrivals. At 4:30 p.m. the Charrette Facilitator provided the opening instructions. Each participant was asked to pair up with another participant in the same theme subgroup. Each pair of participants was provided with an assignment sheet, which was to be filled in after reviewing the identified problems that were stated in bold letters on the problem tracking forms that were posted on the wall. The pair would note on the assignment sheet at least one problem that might affect the issues that their theme group had been assigned to address and at least one problem from their theme group's list that might affect another group's issues (Figure 5). The purpose of the assignment was to familiarize the participants with problems that had already been identified at the pre-Charrette meetings.

The assignment was followed by dinner. The dinner seating was by theme group to foster communication and group identity. After the dinner, the keynote speaker, a national figure in the transportation field, provided information on and insight into trends in funding and planning for transportation systems (Figure 6).

The next event was the first meeting of the theme groups. Each group completed the list of problems assigned to it (Figure 7). As new problems were suggested, the group facilitator located them on a map, while the recorder wrote them down on a new problem tracking form, which was then posted on the wall. This gave any participant who did not attend a pre-Charrette meeting an opportunity to buy into the problem list.



FIGURE 4 A microcomputer was used to demonstrate technical planning procedures on the first day of the Charrette.



FIGURE 5 Pairs of participants from the theme groups examine problems as part of the first day's activities.

After each group had listed additional problems, its members reviewed the entire list to consolidate similar problems and clarify the problem statements (Figure 8). Occasionally, the group would feel that one of their assigned problems should be discussed by another theme group. The problem tracking form for that issue would be given to a group volunteer who would take it over to the group that was the most appropriate to handle the matter (Figure 9).

After trading problems, each group consolidated the problem statements that remained. Finally, they prioritized the problem statements that were still posted. Each participant was given five votes to "spend" on any five problems. Participants then raised their hands to vote for the five most important problems in the region. The problem with the highest total votes was the most important problem for the group as a whole.

The program ended for the night with the whole Charrette group moving from one theme work area to the next to listen to group reports, to see if one group's problems might affect



FIGURE 6 The keynote speaker addresses the participants at the working dinner on the first day.



FIGURE 7 After dinner on the first day, the theme groups work to complete their problem lists.

another group, and to get an overview of the transportation problems facing the whole region.

CHARRETTE: DAY TWO

The second day's activities focused on solutions. Several participants arrived before the appointed time of 7:30 a.m., again indicating the eagerness of the participants to get back to work. The first item of business was for each theme group to discuss the following questions: Were there problems on its list that another group should handle because of related issues on the other group's list? Or were there problems on another group's list that should be handled by their group? In either case, the participant who suggested a switch went to the other group and negotiated the switch.

Each group then began to work on the development of solutions. The group was divided into clusters of two to four people. This division was arbitrary and was made by the group facilitator, who ensured that each cluster consisted of people with diverse backgrounds. Next, the problem tracking forms that had been posted on the wall were distributed to the cluster groups by an "auctioning" process (Figure 10). The group



FIGURE 8 Members of a theme group consolidate and clarify their list of problems.



FIGURE 9 A volunteer runner carries an unwanted problem form from his theme group to a more appropriate group.



FIGURE 10 On the second day, a theme group facilitator "auctions" a problem to her group's solution clusters.

facilitator removed a problem form from the wall, read it, and asked which cluster wanted it. The problems that had been given high rankings by the theme group on the previous night were auctioned off first. The group facilitator tried to ensure that each cluster had a reasonable number of problems to handle and that the problems assigned to any one cluster were similar.

The group facilitator then instructed the cluster groups on procedures for the development of solutions. The goal was to work quickly and cover a large number of ideas rather than to develop one or two in great detail. The rules were as follows:

- Do not consider practicality; record all "wild" ideas.
- Think about how the world will be different in 2010 and how that could change a problem or open up new solutions.
- Look for ways to reduce the magnitude of the problem, such as by changing transportation modes.
- Look for ways to reduce the magnitude of a problem by fixing something at another location.
- Look for both low-cost, short-term fixes and expensive, longer-term fixes.

Each problem tracking form had 20 short blank spaces. The cluster groups proceeded to fill in as many of the blank spaces as they could, putting down every idea that crossed their minds, no matter how wild (Figures 11 and 12). By break time, which



FIGURE 11 The cluster groups organized on the second day brainstorm to come up with solutions to their assigned problems.

was scheduled for 10:00 a.m., most cluster groups had completed work on the problems assigned to them. Those that didn't worked through the break. After the break, each cluster group reported to the theme group on its most practical and most extreme ideas. Each cluster group then selected a few preferred solutions for each problem and proceeded to analyze them (Figure 13) on the back of the Problem Tracking Form (Figure 3). The evaluation proceeded as follows. Each preferred solution was given a numerical score (0 to 10) related to



FIGURE 12 A large map helps these cluster group members to solve their assigned problems.



FIGURE 13 Members of a cluster group analyze their preferred solutions.

several criteria that had been developed on the basis of the 2010 plan goals and objectives (5) that had been adopted by all TMACOG committees. Scores were then totaled across all criteria for each solution. The total scores for each solution were then used by the cluster group as a guide to the final ranking of the preferred solutions.

Cluster groups then began preparing their reports, which were scheduled to be made to the full Charrette group. Blank maps had been provided to all cluster groups for use in developing solutions. These maps were also used by the groups to prepare graphics to be used in their reports (Figure 14). Over lunch, the cluster groups began their presentations (Figure 15). One cluster group from each theme group was called to speak until all theme groups had had one of their cluster groups on stage, after which a second round of reporting began. There was considerable discussion after each report.

The Charrette adjourned with a wrap-up from the Chief Facilitator, recognition of task force members and support team, and a final ceremonial signing, by each participant, of giant letters transmitting the Charrette results to the task force for consideration in development of the Year 2010 Transportation Plan.



FIGURE 14 Members of a cluster use one of the blank maps provided by the Charrette planners as an illustration in their cluster presentation.



FIGURE 15 The cluster groups from each theme group take turns in presenting their problem solutions at the working lunch on the second day.

EVALUATION OF THE CHARRETTE PROCESS

By the conclusion of the Charrette, it was clear that TMACOG had made great progress toward achieving its initial objectives for public involvement. A list of prioritized problems and alternative solutions to address them had been obtained (7). The most important end product of the Charrette, however, was the fact that over 100 key community leaders now better understood their stake in transportation planning and had ownership of the solutions proposed for the Year 2010 Plan, which was to be produced over the next several months. Their contribution to plan development ensured that the Year 2010 Plan would be a better plan and that it would have a broad base of support for attracting a higher level of transportation funding.

Several elements in the process could have been more effective. First, identification of problems received a disproportionate emphasis at the Charrette in comparison with the time spent on generating and evaluating solutions. A brief look at solutions by the theme groups by the end of the first day could have overcome this problem. The group reports at the end of

the first day could then have served to add stimulation for creative thinking on the next day.

Second, a disproportionate amount of effort was expended by the cluster subgroups to score each solution against several criteria. Some of this time could have been better spent in sharing their recommendations with the rest of the theme group and modifying the recommendations on the basis of discussion within the theme group. Such interaction among cluster groups would not only have contributed to a better quality product but would also have generated a higher level of ownership of the prioritized solutions by all theme group members.

Third, the final reporting session (from noon to 2:30 p.m. on the second day) was too long. It began with great excitement but soon began to deteriorate because one report was usually unrelated to the next. Also, theme groups should have been brought back together after the reporting session to modify and finalize their recommendations on the basis of what they had heard at the reporting session. This would have effectively utilized the interaction among theme groups to produce a better product.

POST-CHARRETTE PROCESS

Over the 6-month period between April and October 1987, the Long-Range Plan Task Force molded the output from the Charrette into alternative highway system plans and transit system plans for computer testing and subsequent development of the Year 2010 Transportation Plan. Significant steps in the post-Charrette process were (a) evaluation of the Charrette, both successes and disappointments, (b) clarification and refinement of the problem and solution lists from the Charrette and further definition of intangible solutions—primarily policies involving land use or travel—to allow computer testing and evaluation of their effects, and (c) development of financially constrained alternative transportation plans for computer testing and development of a strategic highway plan for the year 2010.

Process Evaluation

A debriefing of task force members and the support team was held immediately after the Charrette. Later, more formal evaluation surveys were undertaken, including a survey of all TMACOG staff who assisted in the Charrette and surveys of task force members and Charrette participants.

Refinement

The lists of solutions were documented in a special report (7). The next step was to refine these solutions and to also address those problems that the Street System Subgroup had not been able to address at the Charrette because of time constraints. The task force members were divided into five subgroups by theme. Charrette participants and other key people who were not task force members were added to the subgroups when the subgroup members thought that such additions were appropriate. This subgroup process had not been envisioned before the Charrette and was a spontaneous result of the high level of interest displayed by several of the Charrette participants, who ex-

pressed a desire to continue their involvement in the process. The work of the task force subgroups was incorporated into a report (8) that not only documented the refined solutions and their ranks but also categorized the nonproject solutions into land use, travel, and other issues.

To refine and clarify nonproject solutions, the task force formed three "issue" subgroups that again brought in key participants from the Charrette who had expressed interest in being involved in specific issues. The first subgroup's charge was to further define land use policy alternatives, the second was to further define travel policy alternatives, and the third was to address the following questions relating to other issues that were not amenable to testing by computerized travel models:

- How should other policy issues be evaluated?
- Should other policy issues be considered in development of the 2010 Plan?
- If not, by whom and when should they be dealt with?

It was important to deal with these questions because several solutions that emerged from the Charrette (such as rail, airport, seaport, truck, and elderly and handicapped mobility issues) were related to issues that are not normally dealt with in the long-range transportation plan that TMACOG is responsible for developing.

The end products of the three issue subgroups (9) were the following:

- Land use policy alternatives (from the Land Use Issues Subgroup);
- Travel policy alternatives (from the Travel Subgroup);
- Organizational structure for evaluation and selection of policies related to other issues that should be considered in the 2010 plan (from the Other Issues Subgroup); and
- A list of highway projects prioritized by each issue subgroup for further consideration in the development of alternative highway plans for computer testing.

Development of Alternative Transportation Plans

The task force reviewed the work of the three issue subgroups (9) and set up four new subgroups, which again included key Charrette participants. A Transit/Ridesharing Subgroup was formed to review travel policy alternatives related to transit and ridesharing, and three subarea subgroups were formed to review and prioritize highway projects within each of three geographic subareas.

The Transit/Ridesharing Subgroup developed a set of transit and ridesharing policies. These policies were recommended to the task force for computer testing (10) and were adopted by the task force. The three subarea subgroups prioritized all projects proposed within their respective geographic subareas (11). By using the regional project priorities that had been developed previously by the issue subgroups and the geographic priorities developed by the subarea subgroups, the task force then developed for computer testing two alternative financially constrained highway system plans and a single draft strategic needs-based highway plan (12) representing the financially unconstrained highway improvement needs of the region.

The draft strategic highway plan developed by the task force is the final project output of the Charrette because it includes all of the highway projects suggested at the Charrette, refined, screened, or modified by the Task Force. After a technical review of traffic impacts of the draft Plan by TMACOG staff on the basis of a computerized traffic assignment of forecasted year 2010 vehicular traffic on the system, this plan will be refined by the task force to become TMACOG's 2010 Strategic Highway Plan.

CONCLUSION

At the time of writing (February 1988), 10 months had passed since the Charrette. The spirit of cooperation and trust that had been fostered by the Charrette was still being maintained and reinforced by the task force. References were frequently being made to Charrette sentiment with respect to policies and projects during the deliberations of the subgroups and the task force, and public input obtained at the Charrette was being used to give shape to the final Year 2010 Transportation Plan.

A clear indication of the success of the public involvement process is the ease with which ownership of the transportation plan alternatives developed throughout TMACOG's committee structure. The two alternative financially constrained highway plans, the draft strategic highway plan developed by the task force, and the transit/ridesharing policy recommendations were adopted by the Streets and Highway Subcommittee, UACAC, UATAC, and TALUC as though they were routine decisions. Members of each committee who had participated in the task force deliberations spoke strongly at their respective committee meetings in favor of the consensus decisions of the task force.

The authors expect the final plan development and adoption process to build upon the positive experiences documented in this paper. After adoption by TMACOG, the plan will be taken to the local member governments for adoption. A measure of the success of the process will be the ease with which the plan is adopted by city councils and county commissions whose representatives were involved in the Charrette process. The final measure of the success of the process, of course, will be the extent to which the region is successful in getting region-

wide public support as each project on the plan proceeds to the implementation phase over the next 20 years.

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The contents of this paper do not necessarily reflect the official views or policies of the Federal Highway Administration, which is the current employer of the first author.