

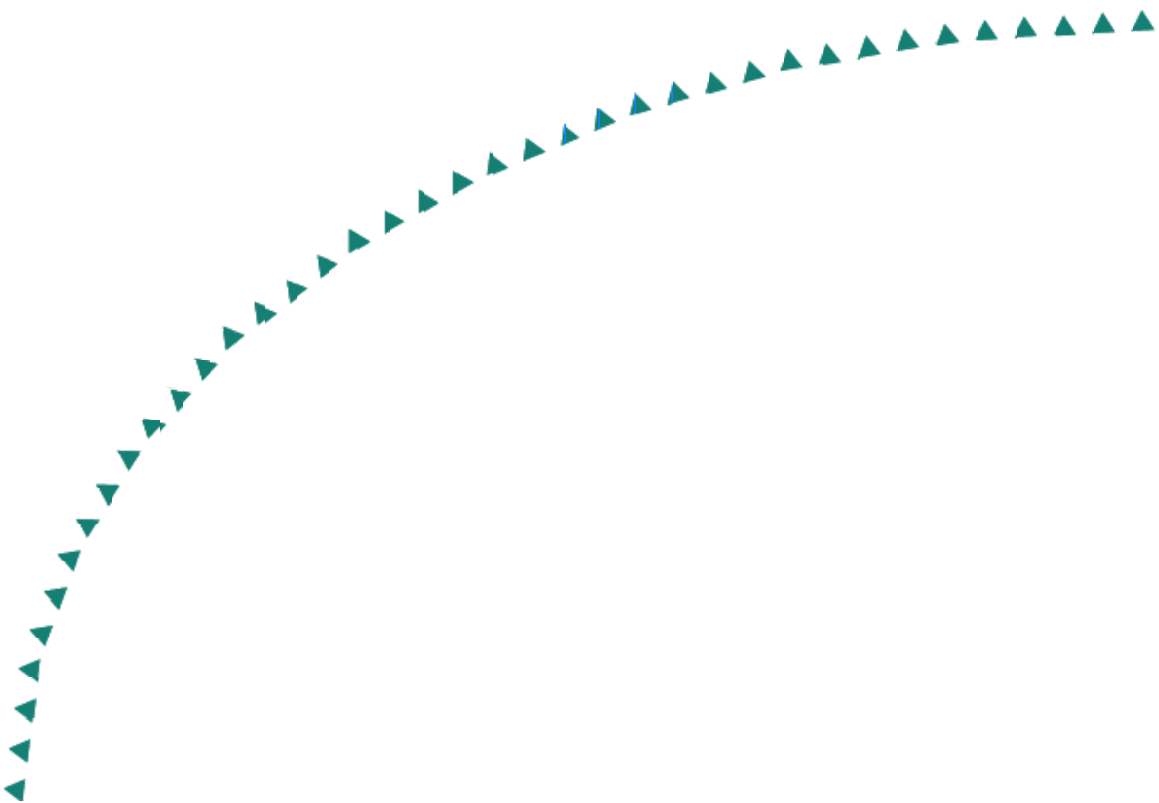
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Final Report

Developing a Simple System  
for Public Involvement Conflict  
Management



**Research**



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# **Developing a Simple System for Public Involvement Conflict Management**

## **Final Report**

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## **EXECUTIVE SUMMARY**

This report describes a project to develop a simple system for managing conflict in transportation project public involvement. While commercially taught systems are effective, they can be costly and complex, and seem more appropriate for those who can use them frequently. This work, by contrast, was focused on finding simple methods for managing less challenging projects and was aimed toward those who may do public involvement only occasionally.

The conflict management framework is derived from a distillation of expert opinion, based on discussions of specific projects by Minnesota transportation public involvement experts. They were interviewed using a standard set of questions about the project, the public involvement process, the reasons for conflict, how it was managed, what worked, and what didn't. The interviews encompassed a variety of project types and settings.

The framework is comprised of two components. The first is a simple organizational scheme for categorizing conflict to assist in determining the appropriate management strategy. The second part is the management strategies themselves. Key among these are principles for managing stakeholder relations so as to preclude the occurrence of conflict to the extent possible.

The report has two short chapters after the introduction. The first describes the history of the research, describes the methodology by which the current research was done, and gives a basic overview of the key elements of the conflict management framework. The second part contains the actual conflict management guidance that will be included in a later update of Mn/DOT's public involvement manual, *Hear Every Voice*.

# 1 INTRODUCTION

This report describes a research implementation project that was aimed at developing a short chapter on conflict management strategies to be used in transportation project public involvement. This chapter will be included in a planned update of the Minnesota Department of Transportation (Mn/DOT) public involvement manual, *Hear Every Voice (I)*. The present report includes this chapter as well as another chapter describing the project methodology.

Earlier work done as part of Mn/DOT's research program had developed a simple theoretical structure for categorizing types of conflict as a step toward developing specific management strategies (2, 3). The objectives of the current implementation project were to refine and further develop this theory of conflict types based on a large number of additional case studies and to operationalize the theory by providing specific guidance on how to avoid and manage the various types of conflict. The target audience was project managers with little public involvement experience and little time to learn about it, so the primary objective was to keep the guidance simple and focus on essentials, rather than attempting to be comprehensive.

The report contains two short chapters. The first describes the project objectives, history, and methodology, and gives a short summary of the results. The second chapter is the actual conflict management guidance that will be included in *Hear Every Voice*. Because the second chapter is intended to be used eventually as a standalone document, there is some repetition of results between the two chapters.

## 2 PROJECT METHODOLOGY AND RESULTS

While there is considerable interest in ways to improve the process and outcomes of transportation project public involvement, formal guidance to date has focused mostly on what might be called the logistics; that is, ways to encourage the public to participate, techniques for soliciting input and discussion, and so on (1, 4). There has been little explicit recognition in these documents that conflict might arise, let alone guidance on what to do about it. This is problematic for those that would typically be expected to use these documents, that is, project engineers and others with little experience in public involvement.

There are some conflict management tools available. The Systematic Development of Informed Consent (SDIC)® program (5) is widely regarded as very effective, but is costly to learn and complex to implement. Given this, it may be more appropriate for those who would be able to use it frequently, and for projects where conflict is relatively certain and likely to be severe. However, for many smaller projects where public involvement might be managed by those with limited experience, it would be useful to have simple methods for preventing limited conflicts from becoming significant.

Outside of SDIC®, formal advice on conflict management has been limited within the transportation field to a variety of case studies that have been published or presented at conferences (e.g. 6, 7, 8). These are valuable sources, but can be limited in their usefulness to non-experts for two reasons. First, the time needed to find and read them may not be justifiable to someone who does public involvement only occasionally. Second, it can be hard to know from such a limited data set what conflicts are common and what are the most effective methods for dealing with them. Case studies are sometimes interesting precisely because they are unusual.

In non-transportation fields such as labor relations or hazardous facility siting, a more extensive and general academic literature has arisen (e.g. 9, 10). However, while this literature may contain insights that are useful to transportation professionals, it is focused on different types of conflicts and on legal and institutional circumstances in which different types of management techniques are available and appropriate. It is also in many cases book-length and focused on a specific type of problem, and thus still of limited use to someone who wants a short but comprehensive summary.

In response to this lack of simple advice for non-experts, the Mn/DOT decided to update its public involvement guidance, *Hear Every Voice* (1), to include a chapter on conflict management, based on the results of an earlier research study that they had sponsored (2, 3). The objective was to develop a very simple general theory of conflict types and management strategies that would be specific to transportation, accessible to non-experts, and based on a variety of expert knowledge and opinion. The earlier research had developed a prototype scheme for categorizing conflicts based on a limited number of case studies. These categories included:



- Size and distribution of local benefits and costs
- Disagreement about the nature and importance of local impacts
- Ability to accurately define and engage relevant stakeholders
- Perceived legitimacy of the project
- Degree of ideological issues

The objectives of the new research were to greatly expand the number and types of case studies in order to refine the categories and develop more detailed ideas on management methods. The findings will eventually be developed into a chapter in *Hear Every Voice*. The conflict management framework is derived from discussions of specific projects by Minnesota transportation public involvement experts, and is comprised of two components. The first is a simple organizational scheme for categorizing conflict to assist in determining the appropriate management strategy. The second part is the management strategies themselves. The paper gives a basic overview of the key elements of these components.

## **Case Study Methodology**

The methodology was a type of Delphi technique. We started by identifying a list of local practitioners that we knew to have extensive experience in public involvement, and who were respected for their work in this field. These individuals then suggested others of similar experience or insight. We asked each person to choose a project that they had recently worked on that they felt provided important lessons about conflict and how to manage it. We ended up with about 20 total interviews; some talked about more than one project, while in a couple of cases different people discussed the same project.

Our primary objective was to study the projects that the experts in the field considered to be the most interesting. We also hoped to hear about a reasonably representative set of projects in the sense of geographical diversity, size and type of project, type of conflict, and so on. As it turned out, the projects that the practitioners chose, when taken as a group, achieved this objective as well (Table 1). About half were in the Twin Cities metro and half elsewhere in the state, similar to the state population. Most projects were improvements of existing facilities; either widening, interchange or intersection improvements, or changes related to access and traffic flow. Both project size and the degree of conflict ranged from quite small to very large. The stage of the project ranged from exploratory discussions to the time of construction. The individuals interviewed also came from a range of backgrounds: state and local governments, private consultants and contractors, and both engineering and planning backgrounds.

Most interviews were done by telephone; a few were live. All were based on a fixed set of questions which were provided in advance, although the interviewer could ask additional questions where appropriate for clarification or expansion of an interesting theme. The goal was to explore the prevalence and management of the previously identified conflict types, while not restricting the conversation to this predefined framework, so that it would be possible for new types to emerge if they existed. The types of questions included:

- Details about the project
- Details about the public involvement process
- Nature of the conflicts that were encountered (or avoided)
- Techniques for conflict management

The analysis was focused on two main issues. First, understanding the types of conflicts that were described in order to evaluate and refine the five-type framework that had emerged from the earlier project. Second, identifying the most generally useful conflict management strategies, either in response to a specific conflict type, or more general actions undertaken to prevent conflict from arising in the first place.

## **Conflict Types**

The interviews confirmed the previously identified five conflict types in that they all were observed on multiple occasions. The additional examples also helped to provide context and clarity regarding how and why the conflict types might manifest themselves, their relative frequency, and the ways in which a conflict might appear to be one type on the surface when it is really a different type at its source. This helped us to better understand how to prioritize the discussion of the various types of conflict.

We heard about a variety of examples of all the conflict types that we had previously observed:

**Size of Local Impacts:** These were, of course, a concern in every case. The most common issues were property takings, loss of direct highway access, noise and other construction impacts, business losses during road closures, impacts on parks and other environmental concerns, and problems associated with increased traffic levels. This is probably a fairly comprehensive list of the types of local impacts that road projects typically create. In some cases the effects on specific properties, such as schools and hospitals, were of broader community interest.

**Prediction of Local Impacts:** This type of conflict differs from the first in that it is more about people not understanding or not believing the agency's depiction of what the impacts will be. One example was people believing that it would be very hard to reach their properties after an access change. Another common scenario was when people who were opposed to a project, or wanted it to be implemented in a different way, continually questioned forecasts of noise levels or traffic flows.

While these situations appear similar, they seemed to arise for different reasons. Not understanding the impacts tended to be more innocuous and solvable with better information; while not believing them was more often a technique for opposing a project, and not necessarily solvable. We conclude that these are really two different types of conflict; the second is really a type of indirect project legitimacy conflict. Neither of them occurred too often in the projects discussed in our interviews, or at least did not usually persist long. Because of this, we felt that they could be better understood by being grouped as special cases of project impact conflict, rather than as unique types in their own right.

**Stakeholder-Related Conflicts:** In our original framework, this type had to do with problems arising from failing to include all relevant stakeholders in the discussion; the importance of this was confirmed by our interviews here. However, in our present round of case studies stakeholder relations, in a much broader form, this emerged as the dominant issue of successful public involvement. Not only did we identify two additional types of stakeholder-related conflicts, but it also became apparent that the successful resolution of other conflict types often was more dependent on good stakeholder relations than on the actual proposed solution to the conflict. These issues are discussed at more length below.

**Project Legitimacy:** Significant questions about the need for the project arose in a few cases, but less often than we expected. Part of this is probably because some of the larger projects had been through earlier public involvement phases where many of these types of issues had been resolved. In some cases individuals who felt they would suffer major impacts initiated disputes about project legitimacy in an effort to defend their interests by stopping the project. Better clarifying the nature of the impacts or offering appropriate mitigation or compensation could sometimes manage these types of objections. In other cases the dispute was more ideological. As a general point, serious disputes about project legitimacy are probably beyond the scope of the simple conflict management tools that we are developing, and would be best referred to a public involvement expert.

**Ideology:** Ideological statements were relatively common. However, in many cases they were simply initial tactics adopted to introduce concerns about direct impacts. In the projects that we studied, truly persistent disputes arising out of ideologies such as general opposition to highway expansion, desire for more transit, or to avoid facilitating sprawl happened rarely, and only in the Twin Cities area. Although they may be relatively uncommon, these types of conflicts can be among the hardest to successfully manage. Ideological conflict is ultimately a particular way of disputing the legitimacy of a project. Thus we decided it would be better grouped as a special case of project legitimacy conflict, rather than as a unique type in its own right.

In addition to confirming the five types we had already identified, the case studies also revealed two additional subtypes related to stakeholder relations. One was preexisting conflict among stakeholders spilling over into a new project. This made public involvement difficult in a way that was, to a large extent, independent of the project itself, because the parties did not trust each other to start with. This distrust sometimes had nothing to do with transportation, for example neighboring municipalities being at odds, or citizens mistrusting their local governments. In these cases there was a considerable public involvement challenge that had to be addressed before the project itself could even be meaningfully discussed.

A second new conflict subtype involved the stakeholders not trusting the transportation agency. In some cases this was a preexisting problem, due to poorly resolved public involvement problems on previous transportation projects. In other cases it seemed to be just general mistrust of “the State,” seen in opposition to local interests. Looking back, this type of conflict is also apparent in a couple of our original case studies as well, but its significance as a primary conflict source was less clear at that time.

While this seems similar to the other new subtype, we consider it to be distinct because different management techniques are available. An agency can do things to help build trust in itself, but it is hard to get other people to trust one another, especially when there is a longstanding conflict. Indeed, actions that were primarily aimed at building trust of the transportation agency were among the most cited conflict management methods. We discuss this critical point at greater length in the next section.

Given all these findings, we felt that the various types of conflicts could be better explained by grouping them into three broad categories: stakeholder-related, impact-related, and project legitimacy. We define these as follows:

**Stakeholder-related** conflicts are those that primarily arise from stakeholders' feelings about the transportation agency or about each other. These seem to derive primarily from three reasons: preexisting animosities, resentment at feeling marginalized or disrespected, and major points of view not being represented in the discussion. These types of conflict may manifest themselves in a clear way, or they may take the form of intractable opposition to a particular solution without any compelling reason being offered.

**Impact-related** conflicts are situations where the complaint is not posed in the form of opposition to the project per se, but rather as a desire that a particular impact be eliminated or minimized, or better explained, or better predicted. This type of conflict can reasonably be managed, at least given design and budget constraints. Often in cases where impacts cannot be further reduced, affected parties can be persuaded to accept them if stakeholder relations have been properly managed.

**Project legitimacy** conflicts are any complaint in which the actual need for the project, or for a particular implementation, is brought into question. These can arise for a variety of reasons. Probably the best case is opposition that arises early because people believe that they will be significantly impacted, but where they can be convinced that they will not be, or that the impacts can be mitigated. In cases like this the opposition to the project can be reduced to simpler discussions of specific impacts. There are also more difficult cases, such as preference for a different implementation (e.g. a bypass versus an improved route through town), significant and unavoidable impacts on some people, or ideological opposition to a project. These latter types are more difficult to manage, and to some extent are outside the scope of the guidelines that we are developing.

## **Conflict Management and Stakeholder Relations**

In addition to testing and refining the conflict categories, the other major objective of the case studies was to gain additional insight on conflict management techniques. We expected management techniques to be roughly aligned with the conflict types, while anticipating that some techniques might be aimed more at averting conflict rather than managing it after it manifested itself. Early on, we were surprised in some cases that the projects that our experts had chosen to talk about didn't seem to have any significant degree of conflict. However, on further examination, it became apparent that this lack of conflict was due to how the public involvement was managed; this was the point that our experts were implicitly making. As we accumulated more interviews, we

were struck by the prevalence of conflict avoidance rather than management; and even more so by the dominance of stakeholder relations as the central issue in this. As we worked to understand this, an important logic emerged.

Ultimately, there is only so much that can be done to respond to conflict after it arises. When problems arise with regard to project impacts, for example, mitigation is often possible, but in many cases this cannot solve the problem completely, or at all. Impacts such as property takings, or access restrictions, or increased local traffic, are often inherent in the project. In these cases public involvement consists less of discussing mitigation than of persuading people to accept an undesirable outcome. Similarly with conflicts about impact forecasts, there is only so much information that can be provided, and eventually people will believe it or they won't.

In these cases successful public involvement cannot depend entirely on the direct response to the problem; it must also involve a substantial element of trust and respect between the stakeholders and the transportation agency. These feelings cannot easily be instilled after the fact; to try to build trust and respect only after problems arise just appears self-interested and hence not credible. Thus the importance of good up-front conflict avoidance practices is not just because problems are easier to deal with when they are small, but because doing the right things before problems even emerge helps to convince stakeholders that the agency respects them and can be trusted.

Building the right kind of atmosphere for successful public involvement appears to be possible by observing a relatively short list of guidelines. All of them address the issue of building stakeholder trust and respect. Some of them are relevant to the management of other conflict types as well.

**Inclusion.** The first step is identifying and including all relevant stakeholders, including potential opponents. This had been identified as a key point in the earlier research in the context of ensuring that a single point of view would not dominate the discussion, and other benefits emerged in the present round of interviews. One important benefit was avoiding potential feelings of exclusion, which could lead to general ill-will or suspicions that the agency is trying to hide something. That is, there are trust-building benefits. It can also simplify impact mitigation in that potential problems can be identified sooner if all the relevant parties are at the table from the beginning. A particularly important stakeholder set in this regard is government agencies who may need to grant permits or who may be in a position to block the project, such as watershed districts, park services, or other natural environment-based agencies. Several experts also noted the importance of including potential project skeptics, to bring them into the process rather than letting them attack it from outside.

**Support from trusted locals.** In some cases a widely trusted local person played an important role in building support for the project, and especially in the context of creating a sense of trust of the transportation agency and its motives. This happened more in the parts of the state outside of the Twin Cities, possibly because it may be easier for individuals to become widely known and trusted in smaller communities. Larger metropolitan areas tend to be more politically fragmented, and thus perhaps less likely to have leaders who will be known to a substantial portion of stakeholders.

**Acknowledging impacts.** One type of method for averting potential conflict involved the immediate acknowledgement of negative impacts and good faith efforts to discuss them openly rather than waiting for complaints to be made and possibly for distrust to form. In some cases locals could point out impacts that the transportation agency had not thought of. Again, it was important to take these seriously, determine if they were valid, and either respectfully offer reasons for discounting them, or ideas for mitigation.

**Clarity.** A key point, and one that could lead to disastrous outcomes if not observed, is to be very clear about why the project is necessary and hence what characteristics it needs to have. In some cases these parameters may be flexible; still it is critical to be clear about what aspects of the project are open to debate and which are not.

**Flexibility.** Aspects of the project that are not fixed by engineering or budget constraints should be left to local stakeholders to influence. In some cases there was sufficient flexibility in the project that it was possible for the agency to simply describe the problem and then let the stakeholders figure out their preferred solution given the necessary constraints. A significant example where this worked was a situation in which a road widening would have impacted a known Native American burial area. Another case involved an access upgrade, where locals were asked to choose from a variety of options for placement of interchanges and other access issues.

**Personal interaction.** Several experts noted a preference, where possible, for small working meetings, focused on a particular issue, rather than large open public forums. In smaller meetings stakeholders are more likely to feel that their ideas are being heard and acted upon. Others emphasized the importance of personal interaction such as responding promptly to complaints, and even visiting people in their homes to talk about their concerns. As one expert put it: “People will be floored that someone from the government actually calls them.” Another idea that was cited several times was breaking large projects into smaller components, to reduce group sizes and so that people could focus on the issues that they cared most about.

## **Conclusion**

The objective of this research was to better understand transportation project public involvement conflicts, with the aim of developing simple guidelines that could be used by non-experts to better manage their projects. The research started from a system of five independent conflict types, of which each was presumed to have its own unique management strategies. These types were confirmed as important and in some cases further subdivided. To a certain extent, type-specific conflict management strategies also were supported by the research findings. However, an unexpected result was the dominant role played by well-managed stakeholder relations, both in averting problems in the first place, and also in resolving them once they arose. This was the case regardless of the type of conflict.

Ultimately, given the study findings, it seemed to add clarity to the system to reorganize the five original conflict types and their subdivisions to a more hierarchical three: stakeholder-related, project legitimacy, and impact-related. These three categories and their subtypes are useful in helping public involvement professionals to understand

the range of problems that can arise and how they might relate to each other. The fact that there seems to be such a small number of distinct types of conflict gives reason for optimism that simple conflict management tools can have a significant impact on the success of public involvement processes.

However, the strategies that were suggested for managing conflict did not correspond particularly closely to the conflict types. Indeed, the most notable feature of the case studies done in this project was the prevalence of strategies related to stakeholder relations, and their applicability to all types of conflict. The second most notable feature was the fact that these strategies were almost always applied prior to the manifestation of any actual conflict. There is a critically important logic that explains this finding.

While in some cases problems can be mitigated, or impacted parties can be compensated, in other situations the impacts are inherent in the project. In these cases successful public involvement consists of persuading people to accept a personally undesirable outcome for the sake of the larger public good. Accomplishing this is not a matter of information or logic; it is a matter of the emotions of the affected parties. First they must believe that there is in fact a significant public benefit to justify their sacrifice, and this belief is largely a function of the trust they place in the transportation agency's information. Second, they must be sufficiently satisfied with how they have been treated that they are not left with any desire for retribution. Both of these outcomes are primarily influenced by the degree of trust and respect between the transportation agency and the affected parties.

Feelings of trust and respect cannot easily be instilled after problems arise; to attempt to do so appears self-interested and hence not credible. Thus the importance of good up-front stakeholder relations and conflict avoidance practices is not just because problems are easier to deal with when they are small, but because doing the right things before problems even emerge helps to convince stakeholders that the agency respects them and can be trusted. Because of this, the guidelines on conflict management practices that we develop based on this research will focus more on preventative actions and stakeholder relations, and less on reactive practices derived from specific conflict types.

A second step of this research will involve asking public involvement professionals to evaluate the framework described in this paper, in particular the conflict categories and the key management strategies, to determine if this method of organization is consistent with the experience of experts. The conflict management guidelines that will then result from this will cover the findings described in this paper in more detail, and use more examples to illustrate the specific connections between problems and solutions. While this paper is aimed at giving a broad overview of the major results, the guidelines will focus more on specific actions that can be taken before and during public involvement processes to avert and manage conflict of various types.

While the conflict management framework described here is simple, a key skill of public involvement experts is experience and intuition about how to implement the principles. Not everyone is equally blessed with this ability. In this sense there could be limitations on how much a simple system such as this can help. But as a practical matter much public involvement is done by non-experts, so this approach seems worth pursuing further.

**TABLE 1: Case Study Projects**

<b>Project</b>	<b>Project Stage</b>	<b>Location</b>	<b>Main Conflict Issues</b>	<b>Degree of Conflict</b>
TH 38 Grand Rapids-Effie	Advanced planning	Rural	Chippewa National Forest, environmental	Low
I35W--downtown to 46th	Advanced planning	Minneapolis	Neighborhood traffic	High
Hiawatha upgrade	Construction and just prior	Minneapolis	Environmental, park impacts, ideology	Extreme
US 52 upgrade, Rochester	Construction and just prior	Small metro	Business impacts, right of way, construction impacts	Medium
Highway 8, Taylor's Falls	Exploratory	Small town	Environmental, pedestrian safety, historic town, park	Medium
Highway 280, Lauderdale/Roseville	Advanced planning	Twin cities inner suburb	Residential takings, business access points	Medium
Highway 65 Blaine	Advanced planning	Twin cities outer suburb	Business access	High
Highway 10 Anoka County	Exploratory	Twin Cities outer suburb	Identifying priorities, property impacts	Low
Maumee River Bridge, Toledo, Ohio	Construction and just prior	Small city (Non-MN)	Neighborhood impacts	Medium
Townhouse development	Construction and just prior	Twin cities suburban	Construction impacts, traffic, neighborhood	Low
TH 36 Stillwater-Oak Park Heights	Exploratory	Small city	Previous conflict, loss of intersections, bridge	High
US 52 upgrade Orinoco to Pine Island	Advanced planning	Rural and small town	Local access points on highway, takings	Low
10/32 interchange Hawley	Construction and just prior	Rural	Takings, access	Low
Housing development	Construction and just prior	Twin cities exurban	Local impacts, environment	Medium
TH60 Worthington to Iowa border	Advanced planning	Rural, small town	Desirability of bypass	High
I35E/694 reconstruction	Advanced planning	Twin cities suburban	Local impacts, aesthetics	High
St. Croix River crossing, Stillwater	Advanced planning	Small city	Environment, local impacts, ideological	Extreme
US 212 southwest metro	Construction and just prior	Twin cities suburban	Local impacts, access, construction impacts	High
TH100 west metro	Construction and just prior	Twin cities suburban	Takings, school, environment, construction	Medium
Several small projects	Construction and just prior	Rural & small town	Takings, environment, Native American	Low
Crosstown commons	Advanced planning	Twin cities suburban	Takings, access, traffic, ideology	Medium



### **3 MANAGING CONFLICT IN PUBLIC INVOLVEMENT**

It is an unfortunate but unavoidable fact that conflict can arise during public involvement processes. In some situations this conflict can be complex, and in the worst cases it can significantly impact the project cost and schedule. Conflict can also lead to more problems on future projects if it is not managed and resolved in an appropriate way. Thus there is value, even for the public involvement novice, in knowing something about the types of things that could happen, what can be done to avoid or minimize the level of conflict, and what to do if it does occur.

Conflict obviously can come in varying levels of severity. The objective here is just to provide a few basic principles for common basic situations, to avoid having minor problems become major ones. If major conflict occurs, or seems likely to, it is best to seek the help of someone with experience in this. There are more sophisticated techniques that experienced practitioners can bring to bear, and there is an element of art involved for they will have a better feel. (See the last section of this chapter for further information on how to do this.)

This short introduction to conflict management has three parts. The first is a short outline of a few basic types of conflict. Most problems seem to be variations or combinations of these basic types, so they provide a simple basis for understanding the types of things that can happen. The second part discusses basic public involvement techniques that will reduce the degree of conflict and make resolution easier when it does occur; these are a baseline set of methods that should be applied in every project. The final part outlines some further ideas for identifying, managing, and resolving specific types of conflict; these are methods that should be applied as needed given the specifics of the situation.

#### **Types of Conflict**

At some level, every project is different and poses its own unique possibilities for conflict. On the surface, this could make public involvement seem like a task best left to those with considerable experience. However, at a more basic level, most conflicts seem to be variations and combinations of a few general types; this makes it more feasible for the public involvement novice to first, be able to interpret what is happening, and second, to be able to manage many situations using a few basic techniques.

This section briefly outlines the most common conflict types. The objective here is just to put these forth as a framework for understanding the range of situations that can arise and the types of circumstances that might provoke them. This framework then serves as a basis for the discussions of management techniques in the following two sections.

Conflicts can be grouped into three broad categories, each of which has a number of specific types within it. The broad categories are based on the source or severity of the conflict. Impact-related conflicts arise out of the characteristics of the transportation project itself, while stakeholder-related conflicts have more to do with the public involvement process than with the actual project. The third type, project legitimacy

conflicts, could arise from either of these sources, but are distinguished by the severity of the conflict. The following provides more detail about each of these types.

**Impact-related conflicts** arise from concern about project impacts; that they be eliminated or minimized, or better explained, or better predicted. This is the most basic category of conflict, and the one that is in some ways the easiest to manage. Three common types are:

- That an impact be mitigated: People prefer fewer impacts to more and will want to have as much mitigation as is possible within the project scope. One important complication is that people will be affected differently, and thus may have different preferences regarding mitigation. For example, some people may want a sound wall, and others may oppose it because they don't want their view blocked.
- That it be better explained: Sometimes people can't intuit or visualize what an impact will really be in a way that has meaning to them. For example, reducing access points to a highway fundamentally changes how people (or business customers) use the road, and they may struggle to understand what that will mean in terms of travel time to a specific property. Another common example is difficulty envisioning what a major reconstruction and/or expansion will actually look like relative to the surrounding area.
- That forecasts are inaccurate: This is when people basically understand what the impact is, but aren't convinced that it is being correctly forecast. This would commonly arise in relation to traffic or noise levels, for example.

These types of conflict can reasonably be managed, given design and budget constraints. Often in cases where impacts cannot be further reduced, affected parties can be persuaded to accept them if stakeholder relations have been properly managed, as described in the "General Principles for Avoiding Conflict" section of this chapter.

The key complication with regard to impact-related conflicts is recognizing when a problem is really in this category, and when an apparent impact-related conflict is really a front for a different category of problem. For example, endless questions about impacts or forecasts may really arise from distrust of the transportation agency, or animosity toward another stakeholder who perhaps favors a certain solution, or even as a way of trying to kill the project by indefinite delay. That is to say, there could be cases where people don't really want their questions to be answered, or their concerns to be addressed, because their real objective lies somewhere else.

It may not be easy to tell if questions are really about impacts or if they are manifestations of a different type of conflict. One clue might be in the tone of the questions; another might be if each time questions are answered, a new round of objections and questions follows. The following sections describing the other conflict types might also help by providing some additional ideas in terms of the other kinds of things that might be going on.

**Stakeholder-related conflicts** are those that primarily arise from stakeholders' feelings about the transportation agency, or about each other, or about the public involvement process itself. Some common types are:

- Preexisting animosities among the stakeholders: Because transportation projects can impact large geographic areas, they have the potential to involve a variety of stakeholders, some of whom may bring preexisting issues to the table. This can be problematic if it facilitates a situation where one group inherently distrusts or opposes any solution that another group favors; that is, if groups are suspicious of the very idea of consensus.
- Distrust of the transportation agency or of individuals involved in the project: There will always be people that don't trust the transportation agency or the government in general. This need not pose a major problem unless this distrust is or becomes widespread among the broader set of stakeholders. Such general distrust typically arises for a reason: either the agency did something in the past that created lingering suspicion of its motives now, or it did something now that gave a bad impression. This sort of problem, in other words, is very much avoidable with good public involvement practices.
- Stakeholder dissatisfaction with the public involvement process itself: This can arise for a number of reasons. One might be the desire for more decision-making authority, or resentment that certain issues are not open to debate. Some individuals or groups may feel that their ideas are not being seriously considered. Finally, there is not always a perfect correlation between how much people are impacted by a project and how strong their opinions are. Giving an equal voice to people who are less impacted runs the risk of alienating those who more impacted, while giving more voice to the latter could provoke those whose opinions are discounted.

These types of conflict may manifest themselves in a clear way, or they may take the form of intractable opposition to a particular solution without any compelling reason being offered, or in interminable delaying tactics. In some cases the conflict may be inherent in the groups or individuals involved, but there are important ways in which the management of the public involvement process can reduce the severity of these types of problems, as discussed in the next section of this chapter.

**Project legitimacy conflicts** are any complaint in which the actual need for the project, or for a particular implementation, is brought into question. That is, these conflicts are distinguished from the other two types by their high degree of severity, rather than by the underlying source of the conflict. This creates the need for different management techniques. They can arise for a variety of reasons:

- Disagreements about project objectives or how to achieve them: Since projects affect people differently, there could be groups who see the status quo as preferable to a proposed project. When there are different ways that a transportation problem can be solved (for example, a bypass around a town or widening the road through the town), there will be different winners and losers. Those on the side that is likely to lose may come to oppose the project entirely.
- Unwillingness to accept impacts under any circumstances: In some cases affected parties may feel that the project would cause irreparable damage for which any mitigation would be inadequate. Losing a good view, damages to

natural areas, and greatly increased traffic levels could be examples of situations that would provoke such opposition.

- Ideological opposition to a project: There are those who are opposed to any highway improvement that might facilitate more or faster driving, or suburban development.
- Bargaining: Municipalities and others could use approval of a project as a bargaining chip to secure guarantees of other, unrelated transportation investments.

Probably the best case scenario is when opposition to a project occurs at the very beginning because people believe that they will be significantly impacted, but where they can be convinced that they will not be, or that the impacts can be mitigated. In cases like this the opposition to the project can sometimes be reversed, and reduced to simpler discussions of specific impacts.

However, if opposition to the project is persistent and widespread, this is probably a situation that requires handling by someone with expertise in doing this. As such, this primer does not provide much advice in terms of how to manage these types of conflict.

## **General Principles for Avoiding Conflict**

Establishing good relations with and among the stakeholders seems like clearly a good idea with regard to managing stakeholder-related conflict. By contrast, it is tempting to assume that impact-related conflicts can be handled with mitigation strategies and better information. However, a strong case can be made that good stakeholder relations are just as important for these types of conflict. This is the critical point of this conflict management tutorial.

Ultimately, there is only so much that can be done to respond to conflict after it arises. With project impacts, for example, in many cases mitigation cannot solve the problem completely, or at all. Impacts such as access restrictions or increased local traffic are often inherent in the project. In these cases successful public involvement consists largely of persuading people to accept an undesirable outcome. Similarly with conflicts about impact forecasts, there is only so much information that can be provided, and eventually people will either believe it or they won't.

In these cases successful public involvement cannot depend entirely on the direct response to the problem; it must also involve a substantial element of trust and respect between the stakeholders and the transportation agency. These feelings cannot easily be instilled after the fact; to try to build trust and respect only after problems arise just appears self-interested and hence not credible. This points to the importance of good up-front conflict avoidance practices. These are critical because doing the right things before problems even emerge helps to convince stakeholders that the agency respects them and can be trusted.

Building the right kind of atmosphere for successful public involvement appears to be possible by observing a relatively short list of guidelines. These basic principles should be applied to every project regardless of circumstances, in order to create the

proper climate for the management of the project-specific problems. The principles can be roughly grouped into three stages: planning and anticipation, establishing relationships, and providing information.

**Planning and Anticipation.** The first step is examining the situation, trying to anticipate where and why conflicts might arise, and forming a plan for how to handle them. Features of the situation that might be relevant include:

- Does the project benefit locals, or does it mostly benefit through traffic at some local expense? If locals benefit, then they have a built-in incentive to work through any problems that arise, and this should simplify the process.
- Is the project in an open or built-up area?
- Will the project impact environmentally sensitive areas?
- Are there cultural issues, such as impacts on Native American lands, or disproportionate impacts on minority or low-income neighborhoods?
- Will there be significant property takings or access changes?
- Will the construction itself cause significant disruption to local businesses or households?
- Will the project lead to higher or faster traffic flows, or bring traffic closer to homes, or farther away from businesses?
- Will the project affect local access to key destinations such as schools, parks, hospitals, or local businesses?
- Are there controversial aspects that can be identified through interviews with community leaders?

Thinking through these issues upfront has three advantages. First, there is then an opportunity to form a plan for how to talk about these issues, rather than being surprised when they come up in a public meeting. Second, it provides a basis for thinking about what individuals and groups are most important to include in the public involvement process. Finally, having thought through these issues beforehand is a key element in convincing the public that its concerns are being taken seriously.

Once a basic plan is in place, the next two principles are focused on establishing relationships. In general, this means figuring out who needs to be involved and how to get them to trust each other and the transportation agency.

**Inclusion.** The first step is identifying and including all relevant stakeholders, including potential opponents. It is important to bring potential project skeptics into the process rather than letting them attack it from outside, where it is harder to mount a defense. Making a special effort to include them could also temper suspicion that they might have of the transportation agency and its motives. There is also value in hearing and understanding these opposing viewpoints in that they can be help to identify impacts that might not be obvious or important to those that generally support the project. In addition to seeking out potential opponents, there are a number of other groups whose participation might be important depending on the project:

- Local businesses, and especially major traffic generators such as hospitals, schools, and large businesses
- Local residents, and especially immigrant or minority groups that might normally avoid participation
- Local governments, planning departments, neighborhood councils, etc.
- Local emergency response (fire, police)
- Government agencies that may need to grant permits, such as watershed districts, park services, or other natural environment-based agencies
- Representatives of “alternative” road uses, such as transit, biking, and walking

When individuals are representing a group, such as a city or government agency, there can be value in verifying that they actually have authority to make decisions on that group’s behalf, and that they are interacting with the group to keep them up to date on the progress of the discussions.

At the first meeting, have participating stakeholders state their name, who they are representing, and their specific interest in the project. This will help to give them the credibility among the other stakeholders to work together. Then engage them to develop and agree on the purpose and need for the project; this helps develop a sense of ownership of the project.

**Support from trusted locals.** In some cases a widely trusted local person can play an important role in building support for the project, and especially in the context of creating a sense of trust of the transportation agency and its motives. In smaller places, an influential member of the local community might play this role. In larger cities, a person who can bring a big-picture perspective can be important; for example, a state senator or Metropolitan Council representative. This can help to bring together smaller communities who may otherwise become too focused on their own local concerns to the exclusion of the larger project objectives.

The last four principles are about how to provide the right information in the right way so as to maintain and build on the trust that has been established.

**Clarity.** A key point is to be very clear about why the project is necessary and hence what characteristics it needs to have. In some cases these parameters may be flexible; still it is critical to be clear about what aspects of the project are open to debate and which are not. In some cases engineering or budget constraints may mean that certain physical aspects of the design are non-negotiable. In other cases the objective may be just to solve some particular safety or traffic flow problem, and the actual way this is accomplished might be fairly open. In general, it is usually ideal to be clear about those things that really can’t be changed, but to leave as many things as possible out of this category.

Another aspect of clarity is making sure the participants understand the public involvement process itself; that is, what topics will be discussed, what the objectives of the discussions are and how long they will last, who has decision-making authority, and exactly what role the public will play in the decision-making process. To the extent that the public is making decisions, establish how this will be done, for example, majority voting. If it is not possible to reach consensus on these basic ground rules up front, there may be a more serious public involvement problem requiring expert help.

**Flexibility.** Aspects of the project that are not fixed by engineering or budget constraints should be left to local stakeholders to influence. In some cases there may be sufficient flexibility in the project that it will be possible for the agency to simply describe the problem and then let the stakeholders figure out their preferred solution given the necessary constraints. This flexibility can be kept on a reasonable schedule by offering a few broad alternatives and letting people pick and choose among them. For example, if an open-access highway is being changed to limited access, there may be a few reasonable options in terms of where the access points should be and how they should be designed. The local participants could consider the pros and cons of these alternatives and choose among them.

**Acknowledging impacts and being open with information.** A key method for averting potential conflict involves the immediate acknowledgement of negative impacts and good faith efforts to discuss them openly, rather than waiting for complaints to be made and possibly for distrust to form. Discussing in good faith means taking comments and questions seriously, determining if they are valid, and responding to them in some way. Generally, it is best to give the public and stakeholders access to any information that is available. Withholding information runs the risk of giving the impression of having something to hide.

**Break large projects down.** It is often preferable to use small working meetings or ongoing working groups, focused on a particular issue or a specific part of a corridor, rather than large open public forums. In smaller meetings stakeholders have more opportunity to interact with agency representatives, and are more likely to feel that their ideas are being heard and acted upon. When small working groups are used, it is important to give them clearly defined problems and to keep them on an aggressive but realistic schedule, so that they stay focused on the right issues.

In some cases it may also be appropriate to work with some particular stakeholder groups separately, as they may have fundamentally different concerns. In any case, every effort should be made to determine convenient times and places for groups to meet.

## **Managing Conflict After It Starts**

While the previous section discussed a set of principles for managing public involvement so as to prevent conflict from arising, this section focuses on techniques for managing it when it does. Even if all the public involvement basics are done right, conflicts can and will still arise in response to the circumstances of the specific project. Handling this is a matter of three steps: the immediate response, determining the type of conflict (which may not be what it appears on the surface), and developing a method for addressing it.

For the immediate response, the attitude of problem solving is important. Approach conflict with the intent of solving the problem, not with the intent of defending your position. Focus first on trying to understand the complaint and its source. Sometimes people just need to let off steam, or to make a statement. Let them do this, then try to respond to them later, one-on-one, where it will be possible to have a more reasoned discussion. Getting into an argument in front of a group doesn't do anyone any favors.

Generally, personal interaction is important. This includes responding promptly to complaints and questions, holding one-to-one meetings, and even visiting people in their homes to talk about their concerns. As one expert put it: "People will be floored that someone from the government actually calls them." No one likes to be ignored. People may still harbor concerns, but going the extra mile can soften the situation.

The next step is determining the type of conflict. The first priority is establishing if the legitimacy of the project is in question. When people argue that the project shouldn't be done, you have to consider it. Sometimes they may have a point. In other cases they may just be concerned about impacts to themselves, and the problem might be reduced to something simpler by meeting with them to make sure they understand what the impacts will really be. But if the impacts are severe and inevitable, then there may be a more serious problem that requires expert assistance.

Challenges to the legitimacy of the project need not be a fatal problem if they are contained within a very small group of people. However, if these serious concerns become widespread and persistent, then we recommend seeking the advice and help of someone with experience in managing public involvement. See "For More Information" at the end of the chapter.

If project legitimacy is not in question, the conflict can probably be classed into one of the variety of types listed earlier under "Impact-related conflicts" and "Stakeholder-related conflicts." The remainder of this section discusses ways of approaching some of these specific types of conflict. This is by no means an exhaustive list, but just a few key techniques that have worked in a variety of situations.

### **Impact-related conflicts**

Generally, the solution to complaints about impacts is to try to find some way of mitigating them. This may be limited by engineering and budget constraints, and if so, this needs to be made clear to the participants. This may provide an opportunity for some give and take if there are other points on which the local community needs to compromise as well.

Usually mitigating impacts is going to be so situation-specific that general principles are hard to come by. Thus we do not discuss specific strategies here. We do, however, note two general techniques: context sensitive design, and innovative contract management. These represent some general tools for reducing the impacts of the project and of the construction, respectively. There is more information on these in the last section of this chapter. As a related note, it is worth bearing in mind that problems and conflicts can continue through the construction phase. The contractor should also



understand the importance of taking public involvement seriously; it would be unfortunate to create lasting public resentment at such a late stage of the process.

Some people's basis for concerns about impacts will be because the impacts are to them (that is, they have no philosophical issue over the impact). Others will bring up questions about impacts because the impacts are associated with an alternative that affects them (e.g. arguing that you need to avoid the wetland because to go around it you would also have to go around their property). Still others have philosophical objections. It is important to be clear on what is happening in a given case.

Sometimes mitigation can only partially solve the problem. People can continue to harbor objections based on impacts, but if they believe the process and project are legitimate and you have listened to them, they are much more likely to accept the impacts. This goes back to the importance of good up-front conflict avoidance practices.

Questions about forecasts can take two forms: not understanding them, or not believing them. These are fundamentally different problems. In terms of helping people understand, again, it is somewhat situation-dependent. Generally, getting away from numbers and trying to describe impacts more directly and visually is a good strategy.

Common strategies include comparisons to other roads that may have similar designs or traffic levels, and developing maps of point-to-point travel times to give intuitive meaning to the impact of access changes. A sound meter can help demonstrate what a given decibel level would really sound like. Aerial photos can be a good technique for helping people visualize where a new or expanded road will be and how access might change. Computer simulations of the new road and surrounding area may be even more effective, but are probably not feasible for most small projects.

When participants question the accuracy of the forecasts, the first thing to establish is whether they really don't believe them, or if they just don't understand them. It is important to focus on trying to provide context so people can understand how forecasts were developed. People may be suspicious of the "black box" nature of some forecasts; trying to explain the results in more intuitive terms may help.

When doubts persist, there is the possibility that the real problem is that people don't feel that the project is legitimate, or that the agency is trustworthy; that is, it may be a symptom of a more serious problem. It may be necessary to step back and consider this possibility. If this doesn't seem to be the case, and if the complaints about the forecasts don't seem to have much validity, one option is to encourage the questioners to hire someone to do their own analysis. This could mean, for example, hiring a consultant to develop independent traffic forecasts, or an appraiser to analyze impacts on property values. Having this independent look might convince the skeptics that the forecasts are right after all, or it may at least help to clarify what their questions really are.

### **Stakeholder-related conflicts**

If stakeholders don't want to work together, work with them individually if this is feasible. Sometimes a third party, such as a higher governmental unit or a mutually respected individual might be able to facilitate a setting in which opposing groups can work together. Removing the transportation agency from the picture in this way could

help to avoid situations in which there may be a need or desire to take sides, which could just exacerbate the problem.

Generally, when stakeholders start to disagree, remind them of what they agree on (hopefully the objectives of the project). Keep coming back to this if necessary. Try to get them to keep the bigger picture in mind. Bear in mind, though, that this type of conflict may be inevitable and may need to be accepted at some level. Benefits to particular stakeholders can affect how they feel about certain aspects of a project, and stakeholders may prioritize benefits differently (for example, economic viability may not be a favored benefit for some environmental groups).

Conflicts arising from distrust of the transportation agency can be minimized by good up-front public involvement practices, as outlined in the previous section. If the distrust is residual from an earlier project, then it may be necessary to first address what happened before, and convince the stakeholders that it won't happen again. In these situations it may sometimes be necessary to start the process from a very basic level, listening to people's needs and complaints in general, before starting explicit discussion of the current project.

One key strategy for minimizing distrust is having a few important and respected stakeholders supporting the project from the beginning, for example, city or county governments and engineering and planning staff. In some cases it may even be appropriate to let the city or county take the lead on the public involvement, so there is less appearance of a project being imposed from the outside.

Conflicts or concerns about the public involvement process itself will hopefully be minimized by good up front practices to make sure appropriate stakeholders are included, that the purpose of the process is clear and that the stakeholders agree with it, and that there is sufficient flexibility in the outcome that they can believe they are actually having an impact.

Dealing with conflicts about the process when they do arise requires walking a fine line. On the one hand, it is important to take everyone's concerns seriously; allow enough time for the issue to be discussed, reviewed, and for everyone to be heard. On the other hand, if the discontent is limited to a small number of people, it may be appropriate to place some limits on the discussion if everyone else is in agreement on the solution. One solution is to place strict time limits on when formal comments can be made. Another is to allow only written comments; this can eliminate situations in which opponents monopolize meetings with spoken comments.

If the conflict has to do with people wanting to discuss issues that are not on the table, or wanting to make binding decisions when their role is advisory, or wanting to have veto power over group decisions, then the solution may be simply to go back to the agreement at the beginning of the process at which these issues were decided. Other stakeholders should be willing to provide support on sticking with these agreements. (Obviously this only works if these issues were indeed resolved at the beginning of the process.) Generally, as specific issues are decided, they should be taken off the table and it should be made clear that they are not appropriate subjects for further discussion unless significant new information comes to light.

## **For More Information**

Some problems require expert assistance. There are many individuals in Minnesota and elsewhere with considerable experience in public involvement. Some work for Mn/DOT; it should be possible to find someone by working through a district engineer or a contact at central office. Most transportation consultants also offer public involvement services, and can offer people who can assist with difficult cases.

There is also additional guidance available online. Mn/DOT's public involvement website ([www.dot.state.mn.us/pubinvolve/partner.html](http://www.dot.state.mn.us/pubinvolve/partner.html)) includes the text of *Hear Every Voice*, as well as FHWA guidance and other materials. Information on the SDIC® program can be found at the website of the Institute for Participatory Management ([www.consentbuilding.com/sdicinfo.htm](http://www.consentbuilding.com/sdicinfo.htm)).

There is also considerable information available regarding specific impact mitigation techniques. Context sensitive design is well documented online; a good introductory site is the University of Minnesota Center for Transportation Studies ([www.cts.umn.edu/education/csd/index.html](http://www.cts.umn.edu/education/csd/index.html)). Construction impacts can sometimes be mitigated through innovative contract management practices, which have the potential to substantially reduce construction times and closures. There is information on this at the Mn/DOT construction website ([www.dot.state.mn.us/const/tools/innovativecontract.html](http://www.dot.state.mn.us/const/tools/innovativecontract.html)).

## REFERENCES

1. Minnesota Department of Transportation. *Hear Every Voice: A Guide to Public Involvement at Mn/DOT*, 1999.
2. Barnes, G. and P. Langworthy. Understanding and Managing Conflict in Transportation Project Public Involvement. In *Transportation Research Record: Journal of the Transportation Research Board No. 1895*, TRB, National Research Council, 2004, pp. 102-107.
3. Barnes, G. and P. Langworthy. Increasing the Value of Public Involvement in Transportation Project Planning. Minnesota Department of Transportation, Report 2004-20, 2004.
4. Howard/Stein-Hudson Associates Inc. and Parsons Brinckerhoff Quade and Douglas. *Public Involvement Techniques for Transportation Decision-Making*. (Publication No. FHWA-PD-96-031. Federal Highway Administration, Federal Transit Administration, 1996.)
5. Bleiker, H. and A. Bleiker. *Systematic Development of Informed Consent* ©. Institute for Participatory Management and Planning. [www.consentbuilding.com](http://www.consentbuilding.com). Accessed July 21, 2005.
6. Bates, T. and D. Wahl. We Can't Hear You! San Diego's Techniques for Getting Balanced Community Input in Major Investment Studies. Presented at 76th Annual Meeting of the Transportation Research Board, Washington, D.C., 1997.
7. Keever, D. and G. Frankoski. In the Possibilities are the Solutions: Assessment and Implications of the Public Involvement Process During the Environmental Impact Study of the Woodrow Wilson Bridge. Presented at 78th Annual Meeting of the Transportation Research Board, Washington, D.C., 1999.
8. Hale, D. Creating a Successful Public Involvement Program for Major Investment Studies. Presented at Transportation Research Board Mid-Year Meeting, 2000.
9. Kweit, M. and R. Kweit. *Implementing Citizen Participation in a Bureaucratic Society*. Praeger Publishers, New York, 1981.
10. Ury, W., J. Brett, and S. Goldberg. *Getting Disputes Resolved: Designing Systems to Reduce the Costs of Conflict*. Jossey-Bass Publishers, San Francisco, 1988.