Building Local Agency Capacity for Public Engagement in Local Road Systems Planning and Decision Making

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16. Abstract

Aging infrastructure, changing patterns in road demand, and persistently constrained revenues challenge the sustainability of local road systems. This research is a comparative analysis of public engagement methods for involving stakeholders in decision-making about these complex issues. It is the result of an engaged scholarship project conducted in three Minnesota counties: Beltrami, Dakota, and Jackson.

This report analyzes qualitative and quantitative data collected from 91 study participants through observations of policy dialogues, media content analysis, interviews, focus groups, and surveys of attitudes about these policy issues and public engagement methods. In-depth case studies of three counties describe the local road policy issues, the public engagement approaches, and their effects.

This research identifies convergences and divergences in information and perspectives among stakeholders. Tools developed for addressing the communication gaps are available at http://tinyurl.com/local-roads. Some public engagement methods allowed study participants to change their perspectives on what road management options were achievable and acceptable. This occurred through active recruitment of diverse stakeholders, focus groups with individuals of similar backgrounds, and a facilitated policy roundtable among all the different stakeholders. An additional finding relates to evaluation measures for public participation, which scholars and practitioners acknowledge are poorly developed. This study documents a fresh perspective by identifying the likes and dislikes of participants in public participation processes about how they are organized.

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Building Local Agency Capacity for Public Engagement in Local Road Systems Planning and Decision Making

Final Report

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Executive Summary

Persistent resource shortfalls and historic changes in usage of local road systems are challenging the sustainability of local road systems in Minnesota and elsewhere. The exact nature of the sustainability issues is difficult to pin down to one or two sources. Clearly, there are multiple sources of road system sustainability challenges. It is also true that the nature of the local road system sustainability problem is partly in the eye of the beholder. Divergences and convergences in information, perspectives, and preferences among the stakeholders in this issue potentially constrain or enable effective actions to address the challenges. In addition, the general public and elected officials may not be aware of the full extent of the challenges, in part because county engineers have been creative and effective in managing the road system, or because the costs of deferred maintenance activities are not immediately or yet visible to the public. Therefore, there is a need to develop and evaluate practical methods for communicating with and engaging diverse stakeholders in decision making regarding the complex, contested policy issues associated with local road systems. In addition, there is a need for additional research to understand the consequences of different engagement practices and to develop improved methods for evaluating public participation.

This report documents the methods and findings of an engaged scholarship project in which the research team collaborated with the public works leaders of three counties in Minnesota in a problem-solving approach to designing solutions to local road system policy issues that they prioritized. The research method included implementing and evaluating communication and engagement techniques for involving the public in decision-making regarding local road policy issues in Minnesota. In particular, it involves three focused study areas: Beltrami, Dakota, and Jackson counties. This report proceeds as follows:

- The relevance of this project for local road systems issues, developing public engagement capacity, and advancing basic research (Section 1)

- Synopsis of research methods (Section 2)

- Key local road sustainability issues as identified by stakeholders (Section 3)

- A communication tool for addressing information gaps about local road system sustainability (Section 4)

- Case studies of three different public engagement models (Section 5)

- Public preferences regarding engagement methods and evaluation criteria (Section 6)

- Recommendations (Section 7)

This report analyzes qualitative and quantitative data collected from 91 study participants through the observations of policy dialogues, media content analysis, interviews, focus groups, and surveys of attitudes about these policy issues and public engagement methods. In-depth case studies of three counties describe the local road policy issues, the public engagement approaches, and their effects. This research identifies convergences and divergences in information and perspectives among stakeholders. Tools developed for addressing the communication gaps are available at http://tinyurl.com/local-roads.

The three forms of public participation examined had different outcomes, as presented in Section 5. In Beltrami County, study participants looked at the challenges posed by the

combination of limited resources and a countywide road system with many roads in poor repair. Pre- and post-meeting surveys of the participants, and the dynamics of the meetings themselves, reveal that many participants changed their perspectives on what road management options were achievable and acceptable. On several policy options, through dialogue they moved from high divergence to near unanimity. Analysis of the data reveals the importance of the engagement design in explaining that shift, notably the active recruitment of diverse stakeholders, focus groups with individuals of similar backgrounds, and a facilitated policy roundtable among all the different stakeholders.

In Jackson County, a study group approach brought together a small group of neighbors and policymakers to address the concerns of the residents about safety at an intersection. However, current legislation and best practices for signage constrained what could be changed, and the case study demonstrates the need for careful communication about what can (and cannot) be negotiated, to avoid resentment.

In Dakota County, public engagement had already occurred about the effects of a new roundabout on traffic flow, through a traffic study and a series of open houses. The researchers interviewed participants in those meetings about their perspectives on these public consultation methods. The participants expressed mixed attitudes. On the one hand, they emphasized that good public engagement processes should allow them to have meaningful input and support decisions that are reached in transparent and fair ways. On the other, some expressed their displeasure that decisions had already been made, without taking their opinions into account or allowing them to influence the outcome.

The implications of this study extend beyond the three case study areas in several ways. They provide models and guidance for local governments that are grappling with transportation issues that similarly involve complexity, resource constraints and tradeoffs, and stakeholders with diverse kinds of knowledge, interests, and needs. In addition, this research advances knowledge in two areas of interest to scholars and practitioners of public engagement by providing participants' accounts of two phenomena:

- *How participants come to change their minds through deliberative dialogues.* Research interviews with participants and analysis of the focus group and roundtable transcripts suggest several reasons for participants changing their minds. The dialogues allowed people to gain more complete information about the issues and become better informed about options. Participants gained new perspectives and became more empathetic by associating the issue with individuals and their stories. With additional information and an enlarged view of the issues, new measures for evaluating and managing the problem emerged.

- *Participants' criteria and preferences for evaluating public participation.* Scholars and practitioners acknowledge that evaluation methods for public participation are poorly developed. This study documents a fresh perspective by identifying participants' likes and dislikes about how participation processes are organized. Their preferences, summarized in Table 3, are very consistent with what previously published research suggests about public engagement. This contributes an important validation, and triangulation from a fresh and thus far missing perspective, of the previous findings of researchers.

On the basis of these findings, the study recommends the following (Section 7):

- Create a go-to location for information about local road system sustainability issues that is informative, understandable, and reliable.

- Actively involve diverse stakeholders in local road system sustainability discussions.

- Consistently keep the public informed about local transportation issues and projects, but reserve public engagement efforts for complex issues that require more than technical expertise to address.

- Take an approach of sustained, deliberative dialogue to involve stakeholders in complex local road system issues.

- Introduce tested and commonsense criteria for public engagement efforts.

- Adopt and refine the public engagement methods used in this study through application in other jurisdictions and further study.

1   The Stakes for Researching Engagement in Local Road Systems Planning

1.1   Local Road Systems Challenges

Persistent resource shortfalls and historic changes in usage of local road systems are challenging the sustainability of local road systems in Minnesota and elsewhere. However, the exact nature of the sustainability issues is difficult to pin down to one or two sources. The sustainability problem is sometimes defined as a problem relating to many roads and bridges in the state reaching the end of the expected lifespan or suffering from delayed maintenance and reconstruction that have reduced their lifespan. Other sustainability discussions point to the absence of a workable model or plan for coping with the persistent combination of problems with the amount and flow of revenue streams plus rising costs of an expanding system and of materials or work to repair and maintain it. Yet another view is that the local road system needs to be fundamentally transformed, for example to serve new patterns of land use and population densities, to incorporate fully non-vehicle modalities such as bicycles, pedestrians, and public transit, or to adjust to much heavier transport vehicles. Clearly, there are multiple sources of road system sustainability challenges.

It is also true that the nature of the local road system sustainability problem is partly in the eye of the beholder. The public agencies responsible for roads have long been aware of the many, complex issues challenging sustainability. Indeed, they have been so resourceful with efficiencies, new technologies, or deferred maintenance, that in many places their constituents have not recognized the difficulties or faced the real costs of keeping up the existing road system. The costs of deferred maintenance activities are not immediately or yet visible to the public.

What is at stake when it comes to these different perspectives is that divergences and convergences in information, perspectives, and preferences among the stakeholders in this issue potentially constrain or enable effective actions to address the challenges. Moreover, stakeholders are suddenly paying much more attention. The importance and difficulty of maintaining roads have suddenly become much more visible to the public. The fifth anniversary of the high-profile collapse of the I-35W bridge in the Twin Cities, accompanied by a season of road washouts due to severe storms, have reminded the state's residents of vulnerabilities in the road system. A difficult winter has prompted actors as diverse as commuters and their employers, school districts, manufacturing firms, and the tourism industry of their dependence on high-quality snow plowing and road repair to get employees, schoolchildren, goods, and customers where they need to go. Social media, newspapers, and television news are suddenly abuzz with discussion about road conditions, complaints and kudos about the quality of road maintenance, and debate about how to address needs in the short- and long-term. Policymakers at all levels of government have begun to identify transportation systems, and public infrastructure generally, as priority areas for investment and attention, and to explore different financing options to address needs.

1.2   Public Engagement Needs

The time is ripe for public attention to these issues: the challenges are complex and the needs are great. Furthermore, stakeholders are not only entitled to have a say about these issues, but potentially a constraint and/or a great resource for forging solutions, where stakeholders are defined as anyone who can influence or will be affected by the decisions (Bryson, 2004). Indeed, public participation plays an important role in a variety of transportation-related activities, including planning, formal policymaking, program and service design, and evaluation. Notably, the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 imposed new requirements for public involvement in the planning process in the U.S.

However, thus far there has been limited public engagement on the particular issue of local road systems (Quick and Zhao, 2011). In the current research, public engagement is defined as involving stakeholders in making and implementing public policies and programs of government agencies, political leaders, or nonprofit organizations related to transportation. Transportation policy stakeholders are those with a stake in the decision, which may include the general public or groups with specific interests, for example due to their geographic location, transportation needs, or related concerns. One explanation for limited engagement is that the issue had not been garnering much public interest. Another is that public engagement is complex: there is no formula for doing public participation well. Like transportation services or infrastructure, public participation needs to be designed thoughtfully for the particular circumstances of each policy problem, location, and group of stakeholders (Bryson et al., 2013). Many transportation departments of local governments in Minnesota have lacked capacity to try, often due to a lack of staff or experience, where much of what they have implemented in the past concerns specific projects rather than long-range budgeting and planning at a system-wide level.

However, numerous benefits of effective public engagement are well documented. While public participation requires resources such as skill, time, and money, it generates numerous advantages (Innes and Booher, 2004; Roberts, 2004). Citizen participants contribute new information, different ways of seeing an issue, and motivation to address problems (Aleshire, 1970; Renn et al., 1993). Public participation can also result in more equitable distribution of limited public resources (Simonsen and Robbins, 2000; Abers, 2000). The public tends to have more informed involvement and a higher level of interest when given opportunities to identify priorities, shape decision-making parameters, or influence policy outcomes. Participatory decision-making generates better buy-in and can limit delays, mistakes, and lawsuits during project and policy implementation (Kweit and Kweit, 2007). Stakeholders are more likely to accept a decision reached in a participatory manner, even when it is not their individually preferred outcome, because they believe it was produced in a fair manner (Bies and Shapiro, 1988; Tyler and Degoey, 1995). In fact, inclusive participation can create relationships of trust, knowledge of and interest in transportation issues, or at least avenues for improved communication among parties, all of which are potential resources for problem-solving and policy implementation for old and new transportation policy issues (Feldman and Quick, 2009, Quick and Feldman, 2011).

These potential benefits merit additional attention from local public works leaders, though they need additional support to build capacity to implement public engagement in local road systems planning and decision-making, the topic of this research project. This project is a direct response to a workshop held in February, 2011, by the Minnesota Local Road

Research Board (LRRB), on systems planning for local roads. The key issue identified and discussed in this workshop was the complex task of planning for investment of limited resources to build and maintain local roads, including the possibility of reducing levels of service for local roads, for example by converting some paved roads to gravel surfacing. Counties in states outsides of Minnesota, such as South Dakota, North Dakota, and Michigan, have recently implemented strategies that include converting paved roads to gravel surfacing in order to save costs. In considering the implementation of these strategies in Minnesota, the LRRB workshop participants reflected that local governments were in need of tools to assist with systems planning and decision-making. They emphasized the need for tools for effective public education, engagement, and communication for systems planning in public roads investment, and called for more research about how to communicate with the public about the costs of sustaining current or expanded levels of transportation services, methods for presenting technical information to stakeholders, and processes for identifying desirable and pragmatic policy solutions. This project is a partial response to that request for assistance.

In addition, there is a need for additional basic research regarding effective practices for communicating with and engaging stakeholders in transportation policy-making. In particular, there are gaps in knowledge among scholars as well as practitioners of public engagement about how deliberative policy processes change participants' minds, and about how to evaluate public engagement.

1.3   <u>Understanding How Participants Change their Minds through Deliberation</u>

Previous theoretical and empirical research on participatory policy-making has established that participants in policy deliberations gain new knowledge and perspectives, and also frequently change their own views about policy problems and solutions. Indeed, many of the prominent claims about what is distinctive and important about deliberation, relative to other forms of democratic engagement, relate to these outcomes. Previous scholarship asserts that learning occurs through a combination of political theory about what deliberation should do and of empirical evidence of changes in participants' knowledge and views before and after deliberation. The existing scholarship asserts that deliberation facilitates sharing and generating knowledge (Roberts, 2004). Deliberating together transforms understandings of issues and interests (Abers, 2000; Fung, 2007; Mandarano, 2008) and enables participants to discover new problem definitions and solutions (Reich, 1990; Hajer and Wagenaar, 2003; Innes and Booher, 2010). Often the facilitators or conveners of deliberative conversations, not just the participants, gain new knowledge and perspectives or change their views (Roberts, 2004; Innes and Booher, 2010; Quick and Feldman, 2011). In fact, one of the more promising proposed methods for evaluating the effectiveness of deliberation efforts relates to measuring individual and collective learning (Deyle and Schively Slotterback, 2009).

We do not, however, have good accounts of *how* participants learn through deliberation. This research addresses that gap with a rich account, from participants' perspectives, of *how* they learned through the deliberative processes adopted in some of the study sites. The researchers present a case study of a series of deliberative policy dialogues about how to sustain the local road system in Beltrami County. Over the course of their participation in deliberative dialogues, many individuals changed their position from strong opposition to strong support for selected policy options, and the group as a whole moved from divergence to convergence on the most controversial policy option: local taxation. In this mixed method study, the researchers analyze

how the deliberative processes influenced participants to sustain or change their views through analyzing meeting transcripts, surveys that captured shifts in individuals' knowledge and attitudes before and after meetings, and follow-up interviews with participants to understand whether and how they changed their perceptions of the issues.

1.4   Enhancing Evaluation Criteria for Public Engagement.

Unfortunately, methods for evaluating public engagement are not well established and are rarely implemented. This problem is generally found in all policy fields, not specifically transportation. Effective and operable measures of participation could help policymakers learn from implementation so that they can enhance the effectiveness of the remainder of the participation effort they are currently working on and build long-term institutional capacity for future participation (Rowe and Frewer, 2000; Laurian and Shaw, 2009; Bryson et al., 2013). The standards introduced by ISTEA for public involvement provide a common reference point across the transportation sector in the U.S. They suggest public involvement be early and proactive, timely information be provided to the public, proof be given that explicit consideration was given to public input, and the input of traditionally underserved communities have been sought out and included in decision-making   .

There has been limited research on evaluating public engagement in transportation specifically. In a recent review of the literature, Wagner (2013) recommended three goals for public engagement in transportation, suggesting that measures need to be developed to evaluate performance on them. They are making engagement settings accessible, interactive, and oriented towards policy outcomes. Bickerstaff, Tolley, and Walker (2002) provide the most detailed guidance. They evaluated the implementation of a new national law in the U.K. that required local units of government to involve the public in transportation planning, according to four criteria: inclusivity, transparency, interactivity and continuity.

The shortage of guidance on evaluating public engagement is not specific to transportation policy. Research on evaluating engagement is generally limited, regardless of the policy content area. That is partly because of the complexity of engagement practice. Given varied and divergent purposes for public participation (Bryson et al. 2014), there is no single set of evaluation metrics for engagement. Instead, process designers should consider which possible outcomes of the process are most desirable and design measures accordingly (Rowe and Frewer, 2004; Bryson et al., 2013). The most common measures currently in use are counts of how many people participated, sometimes accompanied by some judgment about the perceived socioeconomic diversity and representativeness of the participants. These are reasonable guidelines, but they provide a somewhat limited view of public engagement. At best, they help to determine whether a decision-making process has the foundations to be participatory, defined as one which provides opportunities for numerous persons, representative of diverse socioeconomic groups, to supply their input and influence outcomes (Quick and Feldman, 2011). But they cannot be used to evaluate whether a decision-making process is inclusive, defined as involving diverse viewpoints and ways of knowing in a deliberative dialogue in which the participants co-produce an understanding of a policy problem and decisions about how to move forward in terms of process and policy content outcomes (Quick and Feldman, 2011). Existing research and models support supplementing simple counts and diversity evaluations with measures of a combination of different types of outcomes, such as the following (Innes and Booher, 1999;

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Margerum, 2002; Rowe, March, and Frewer, 2004; Schively, 2007; Mandarano, 2008; Deyle and Slotterback, 2009; Laurian and Shaw, 2009):

- Individual-, group-, *and* community- level outcomes from engagement;

- Content-oriented outcomes (e.g., whether the policy outcomes they supported do improve transportation efficiency or safety) *and* process-oriented outcomes (e.g., whether diverse stakeholders were effectively involved);

- Immediate impacts (the immediately discernible effects of the process, such as the quality of the agreements reached), mid-term outcomes (impacts that unfold during engagement, such as the creation of new partnerships), *and* long-term impacts (e.g., effects on the ongoing levels of collaboration and conflict among stakeholders); and

- Participant-oriented outcomes (e.g., participants' satisfaction with the process, recognizing that different stakeholders have different criteria for success).

The contribution of this research relates closely to the last of these kinds of outcomes, with a twist. This research adds a view from the perspective of *participants* in public engagement about what does – and does not – work well. Existing scholarship is normative and theoretical *or* based on empirical data gathered from surveys of facilitators and public managers. Drawing on interviews with thirty people who were involved in three different types of public engagement approaches in the three study counties, this report articulates their guidance on how – and how not – to organize a good public engagement process around local transportation issues. In the conclusion, the researchers also suggest several specific evaluation measures to consider, based upon their reflections.

2   Research Methods

Over a two-year period, the researchers developed and provided to local public works leaders decision-support information, methods, tools, and strategies to communicate with and engage elected officials, the media, and the general public to address these complex and sensitive issues. The focus of this study was county local road systems, meaning both the roads and bridges that are specifically the responsibility of county governments *and* the network of roads that are within the geographic boundaries of the county. The local road system located within a county's boundaries includes roads managed by cities, townships, tribal governments, the State of Minnesota, and federal agencies as well as by counties. This research has involved ninety-one individual study participants, whom the researchers engaged through interviews, surveys, and facilitated community meetings. This section describes the methods used for each stage of research or research question. It concludes with a few general notes about the protection of study participants, the types and number of interviews conducted for all phases of the project as a whole, and a note about the advantages of the mixed methods used in this study.

2.1   Data Collection and Analysis Methods

Initial scoping of convergences and divergences of understanding and attitudes on local roads issues. The initial step of the project was to gather data about the views of diverse stakeholders about local road systems issues, including their general level of attentiveness to the issue, their perceptions about whether there is currently a problem (and if so, to what extent and what its sources are), and their preferences about a variety of options for managing local roads. These results are reported in Section 3 of the report. At this stage, and throughout the project, the researchers gathered data on the perspectives of a variety of stakeholders, namely local public works leaders, elected officials, the Minnesota Department of Transportation (MnDOT), the media, a variety of interest groups with particular interests in transportation (e.g., major users of roads; interest groups with particular interests in transportation generally, particular modes of transportation such as bicycling, or sustainability), and the general public.

The primary data collection methods included observations, interviews with twenty-one individuals, discussions with ten additional county commissioners (in Beltrami and Jackson counties), and media content analysis (Appendix E). Observations were conducted of discussions of transportation issues by the state legislature (particularly the Transportation Finance Advisory Committee) and by county commissions. The twenty-one individuals interviewed were chosen because they had particular knowledge of the issue, for example because they were county engineers, MnDOT managers specializing in relevant content areas (e.g., local roads management, transportation finance, or public engagement efforts), or facilitators or researchers working on associated public engagement efforts such as those just described (Table 1). Accordingly, these were unstructured and extended interviews, designed to tap the specific expertise of each individual.

The researchers also participated in, studied the results of, and consulted with the organizers or related public outreach efforts, particularly the series of meetings sponsored by MnDOT to update the twenty-year Minnesota State Highway Investment Plan (MnSHIP), but also including dialogues hosted by the League of Minnesota Cities about quality of life priorities

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for Minnesotans and related studies (e.g., Schneider, Guo, and Rains, 2012). Similarly, this research team communicated periodically with researchers conducting a parallel project on Local Road Systems Preservation (led by SRF Consulting Group). That project was oriented to identifying technical solutions that utilize engineering, finance, and management technologies, whereas this project focused on the public communication and engagement aspects of this policy problem.

Table 1. Stakeholders interviewed in initial scoping of the divergences and convergences in knowledge and preferences regarding local roads issues.

Type of stakeholder	#	Sources
Public works managers of local governments	7	Transportation or public works directors of Beltrami, Blue Earth, Carlton, Dakota, Jackson, and Sibley Counties, and one county maintenance supervisor.
Elected officials	11	All five members of the Beltrami County Commission and all five members of the Jackson County Commission, as well as one Dakota County Commissioner.
Other informed individuals	13	Three people from MnDOT headquarters and one from a regional office, three from the SRF team working on the LRRB road system sustainability project, four from the League of Minnesota Cities, one from the Association of Minnesota Counties; and two researchers.

As part of this scoping analysis, the research team conducted a media content analysis. This consisted of a survey of coverage of local roads sustainability issues in Minnesota over the previous five years (November 2007-November 2012). The sources searched included Minnesota newspapers (regional, city, and local) and leading national papers for coverage of Minnesota transportation issues. The search engines used were Google News and Proquest News Search Index, with the following search terms (singly or in combination): Roads and Highways, Infrastructure, Transportation Planning, Road System, Budget Reduction, Service Level, and Cutback Management. For the eighteen articles identified through this method, the researchers evaluated to what extent these local road system sustainability issues were and were not covered.

Addressing communication and capacity gaps. Based upon the findings of this initial scoping, the research team developed a communication tool informing the interested public about the nature of the local road management issues in the state, the key reasons for current challenges for local roads, and a brief introduction to a number of options under consideration. That tool is described in Section 4. At a meeting of the Minnesota County Engineers Association in June 2013, the research team provided one workshop to introduce this tool and a second workshop on designing processes to engage the public in a variety of local roads systems issues. (The slide deck for the second workshop may be found in Appendix D).

Case studies of public engagement designs, implementation, and evaluation in three counties. The researchers developed public engagement plans in the three areas of the state previously identified and approved by the technical advisory panel for this project: Beltrami,

Dakota, and Jackson Counties. The dual purposes of this part of the research are to support implementation of public communication or engagement programs in those areas and to evaluate the approaches so that the effects could be compared and recommendations could be made about whether and how to use them in other settings. In this phase of the work, the researchers collaborated with local county public works staff to develop the topics and methods for their public communication and engagement plans, identify and recruit participants, and interpret the results. An integral part of this aspect of the research included individual and group interviews with the senior staff of city and county public works departments, county administrators, or county commissioners to develop the issue topics, identify stakeholders, and design the process for the public engagement efforts. These interviews began with open-ended questions about their key concerns and opportunities, and became more focused on the particular issue area that would be the topic of the public meeting. Some included consultations over maps and visits to particular road sites of interest.

In two of the counties (Beltrami and Jackson), the research team facilitated public engagement meetings. In these study areas, the researchers continue to engage with the local study partners, after facilitating meetings, to discuss interpretation of the data. In the third (Dakota), the researchers conducted confidential interviews of individuals who had participated in public engagement efforts facilitated by Dakota County and the City of Lakeville to gather participants' perspectives on their engagement methods.

In accordance with the different circumstances and needs of each area, the plans for public communication and engagement took different forms in the three counties. Because of the differences in methods, and because the methods are a key part of each case study, the methods for each public engagement approach are presented as part of the respective case study in Section 5. Table 1 summarizes the settings, public engagement topics, methods, and outcomes for the three areas. The diversity of approaches across the three counties is an advantage for the project as a whole, as it provides a greater range of models to develop, evaluate, and share for application in a broader array of settings across the state.

Evaluating the effects of public engagement methods from participants' perspectives. Evaluations of the approaches to public engagement in the three case study areas are based largely on interviews with participants. They were interviewed by a third party (Emily Saunoi-Sandgren), not by the public managers or the researchers who were involved directly in these interventions (Dr. Quick and Dr. Narváez in Beltrami and Jackson County cases, and Dakota County and City of Lakeville staff in the Dakota County case). The research team intentionally partitioned these roles to enable the study participants to speak comfortably and the project to gather better data. Appendix F shows the questions asked in the interviews, which lasted an average of forty minutes. This protocol was used for all participants, with two modifications. First, interview questions for the sponsors of each effort – such as the city and county engineers, administrator, or commissioner who organized or convened the community meetings – are slightly different. Second, in Beltrami County, and extra element was added to the interviews. The participants re-took the survey they had previously taken, at the focus group or roundtable meetings, about their key road system concerns and policy preferences (Appendix B). This was done to gage whether and how individual participants had changed their perspectives between the times before and after they participated in policy dialogues. It served as an opening to solicit explanations from the interviewees about whether and how they had changed their minds concerning particular policy options or priorities. Participants in the follow-up evaluation

interviews were chosen to represent the range of types of participants in each process (e.g., public managers, interested individual residents, community leaders). A total of twenty-six interviews were conducted, transcribed, and analyzed.

Recommendations. Finally, the researchers analyzed the findings for their public policy and public management implications, and generated a series of policy recommendations for public communication and engagement around local road system sustainability, summarized in Section 7 of this report.

2.2 Key Features of the Mixed Methods Used for the Study as a Whole

Informed consent. Informed consent to participate was obtained from every study participant, following a protocol for the protection of human subjects developed by the research team and approved by the Institutional Research Board of the University of Minnesota. Dialogues between the research staff at county commission meetings, conducted in Beltrami and Jackson Counties as part of the commissions' formally noticed, public meetings, were exceptions to the policies of maintaining confidentiality and obtaining informed consent since these meetings were public. These procedures ensure voluntary participation, protect participants' confidentiality, and minimize potential harm associated with participating. The research team will continue to uphold ethics for the treatment of human subjects and these protocols as data collection continues for this project.

Summary of interview methods. As described above, several kinds of interviews were conducted. The cumulative total of interviews was sixty-eight interviews with sixty-one individuals. Some people were involved in interviews of more than one type, and several were interviewed more than once. Interviews were of three general types:

- Exploratory interviews to identify key local roads issues and concerns, as summarized in Table 1. These interviews were conducted primarily at the beginning of the project, but continued throughout as needs and opportunities arose.

- Consultative interviews or meetings with project partners to design and interpret the public engagement efforts in the three case study areas. Sixteen such interviews or consultations were conducted with a total of eight persons.

- Feedback interviews with twenty-six participants in public engagement processes, using the protocol in Appendix F.

Advantages of this mixed methods approach. The mixed methods approach adopted in this project offers several advantages for the depth and validity of this research. First, this project intentionally made use of the researchers' initially naïve understandings regarding local road system transportation issues. It allowed the research team to empathize with, identify, and problematize the experience of people who are not intimately familiar with local road system issues (Geertz, 1973; Fortun, 2009). That participant observer perspective allowed the researchers to identify jargon that needs to be unpacked, discern patterns in the views of different kinds of stakeholders, and zero in on some of the common misunderstandings and divergences in opinion that could be addressed through better communication or facilitated engagement efforts. Second, the data provide the perspectives of many kinds of stakeholders, which were gathered and analyzed through a wide range of quantitative and qualitative modes of inquiry, including quantitative data from confidential individual surveys, qualitative data from in-depth interviews,

content analysis of public media and policy documents, close analysis of the dynamics of group dialogues in facilitated focus groups and policy roundtable, and comparative analysis across three case studies (Eisenhardt, 1989; Yin, 2003). This diversity of views and methods allowed the research team to triangulate among various interpretations of the policy issue and public engagement processes (Denzin, 1978; Altheide and Johnson, 1994; Yin, 2003). Together, these features allowed the researchers to generate thick descriptions, enhancing the validity of the interpretive analysis and inductive theory development (Glaser and Strauss, 1967; Geertz, 1973; Kirk and Miller, 1986; Lin, 1998; Yanow and Schwartz-Shea, 2013). The researchers analyzed these data using standard coding, categorizing, and memoing techniques (Glaser and Strauss, 1967; Emerson, Fretz, and Shaw, 1995; Lofland and Lofland, 1995; Corbin and Strauss, 2008).

3 Initial Stakeholder Perspectives on the Nature of the Local Roads Issue

The researchers gathered information about convergent and divergent perspectives on local roads issues in Minnesota. The methods are described in greater detail in Section 2. Briefly, they included interviews with seventeen individuals, discussions with the county commissions of two counties, observations of policy dialogues, and media content analysis.

3.1 Media Content Analysis

A thorough search of media for content analysis yielded only eighteen unique news media articles, a surprisingly small amount of media coverage of these issues in or about Minnesota for the five-year period surveyed (November 2007-November 2012). There is considerable coverage related to transportation in this five-year period due to four major transportation events:

1) The collapse of the I-35W bridge in Minneapolis in August 2007. The media content found through these search terms includes coverage of the event itself and subsequent discussion about its implications about the condition and integrity of bridge infrastructure elsewhere, both locally and nationally.

2) The American Recovery and Reinvestment Act of 2009 (ARRA). Coverage included descriptions of investments in transportation-related infrastructure.

3) June 2012 Duluth area flooding. Coverage was about the event itself and the process of rebuilding road infrastructure in the aftermath,

4) June 2012 passage of the federal transportation funding bill. Coverage included information on the political dynamics of the bill and details on what exactly is authorized under the bill.

Despite this coverage, road system sustainability seems to appear tangentially in the media as one of many types of public priorities that are at risk due to the current economy and political stalemates at both the state and federal levels. MinnPost (http://www.minnpost.com/) was the only outlet to produce coverage specifically relevant to road system sustainability in Minnesota, including lifespan of roads, weight limits, and very detailed arguments for why the gas tax is insufficient in serving the needs of transportation funding.

3.2 Key Patterns in Stakeholder Perceptions of Local Road System Sustainability

Analysis of the interviews, meetings with commissioners, observations of policy dialogues, and media content reveals the following patterns of initial stakeholder perspectives on the nature of the local roads issue.

There is a problem with sustaining local road systems, but the public is not necessarily aware of it. Discussions with county commissioners, public works leaders from counties around the state and MnDOT, and other researchers confirm that there are serious gaps between available funding and the work that would need to be done to keep the system going. However, the public and elected officials are not always aware of the full extent of the challenges, in part because county engineers have been creative and effective in managing the road system, or

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because the costs of deferred maintenance activities are not immediately or yet visible to the public.

Public involvement is currently of limited scope and intensity. Public involvement in these issues at the local county level is relatively limited. Local officials experience public interest mostly when it comes to the issues immediately affecting them, particularly snow clearance, washboarding, potholes, or easement requests on their own property. There is little public attention thus far to larger issues. For one thing, as described below, there has generally been very limited media coverage of local road systems challenges and opportunities. As this report goes to press, there seems to be a sudden increase in media and public attention, but it is too early to tell whether that will continue Even for those who do wish to learn, the issues are very complex, even for stakeholders with an active interest or some prior knowledge of aspects of the local road system. Elected officials anticipate this will be needed if they begin to introduce new taxation options or fee structures, but the elected officials interviewed at the outset of this project did not expect to make such changes in the near future. However, as this research is concluding, elected officials seem to be taking a keener interest in the aspects of local road systems.

Attention to sustainability is centered on its economic aspects. Economic sustainability is the focus of road system sustainability for all of the stakeholders interviewed. There has been little discussion of the social aspects and virtually no discussion of the environmental aspects of a "triple bottom line" approach to system sustainability. All stakeholders regard supporting economic activity as a primary, necessary function of roads that is vital to the health of their communities. The critical uses of roads that they identify include moving employees to and from their workplaces, the movement of products from the region (e.g., agricultural products, timber, locally manufactured equipment). Other uses of roads that these stakeholders have supported include the installation of equipment to construct wind farms and other infrastructure that is critical to the larger region, and to some extent the movement of visitors or cabin owners entering the area for recreation and tourism. In contrast, an area of expressed concern by elected officials is the toll on the local roads by traffic that traverses but does not originate, end in, or add value to the county, while local residents pay property taxes to counties, cities, and school districts. There is a sense that the increase in commercial and recreational traffic that goes through the county imposes additional burdens on the local road system that exceeds the revenues collected and allocated for their maintenance. Local officials express a desire to revisit the amounts or distribution of funding allocations to local government, but note that those decisions must be made at the state or federal level.

There are multiple sources of road system sustainability challenges. Road system sustainability is complex for many reasons. Attention has tended to emphasize the financial side of the picture, such as declining local tax revenues or gas tax and other state pass-throughs and simultaneously increasing costs for some key road construction and maintenance materials and labor. However, other factors are also driving the sustainability challenge. The needs for and uses of roads are changing in ways that local jurisdictions need and want to support to sustain their economies. For example, heavier loads for agriculture and timber harvesting and movement, energy-related infrastructure development and product movement, and heavy machinery production put a different strain on the road system compared to the smaller agricultural vehicles in use at the time many roads were constructed. In addition, public expectations are rising. As one elected commissioner put it, not long ago residents expected to be

snowed in for a day or so in rural Minnesota following a big storm, but now they and their employers expect the roads to be cleared even before a snowstorm is over.

Attitudes regarding the extent of a sustainable system are widely divergent. At the state level, there is a sense that some "right-sizing" of the road system is needed because the current road system may be overbuilt or is not quite the right transportation system for Minnesota to remain competitive in a changing economy. For many people, the suggestion that an ideal system might be rather different from the current one is hard to understand, much less accept. Arguments about "right-sizing" are expressed both from a demand side, given shifts in demographic patterns and economic activities in the state, and from a supply side, given declining revenues and rising costs to maintain the system. Some of the concerns raised at the state level about right-sizing relate to needs for enhancing infrastructure for pedestrians, cyclists, mass transit systems, or rail in addition to motorized vehicles. They point out that it is challenging logistically and financially to keep up the extensive spidery web of small rural roads. They suggest that in terms of relative priorities, those roads are perhaps not as important as they were to the state's vitality. Population and economic activities have shifted from the time when those roads were built, when agricultural vehicles were lighter in weight and more of the state's population lived in rural regions and depended on agriculture, as the balance of total population. On the other hand, residents, elected officials, and infrastructure managers from outside the Twin Cities area often seem to feel their needs are not being adequately met relative to the resources flowing to transportation systems in the metropolitan area.

Some county engineers feel that they can no longer sustain old levels of service for their roads, given their current needs and resources. For example, the public expectation is that county roads will be plowed or potholes will be fixed more promptly and frequently than on non-county roads, yet in some areas the level of demand and use no longer merits "county-level" service. They could be maintained at an adequate level, at far less expense, according to the expectations of municipal-level roads. Therefore, one solution that has been offered is to re-classify roads and turn them back to other jurisdictions, to bring expectations and resources into alignment and achieve better system-wide efficiency. Similarly, the researchers heard suggestions about increasing the share of local roads receiving state aid so that they can be maintained at a level commensurate with their heavier use. Local elected officials, however, are reluctant to take on downgrades in service right now. Several commissioners commented privately to the researchers that a lot of money is being spent to keep a few people happy and that there are some roads that probably should be closed or downgraded, but their constituents find that very hard to accept. If local jurisdictions want to pursue these options, tools for public communication and engagement will be particularly critical in these areas. In addition, as turn-backs might reduce costs in the long run, they can incur additional cost in the near term as roads have to be brought to an acceptable condition to the receiving jurisdiction, as well as a period of continued maintenance by the granting jurisdiction (typically two years).

The opportunities and trade-offs associated with changing road surfacing are complex. As mentioned, in recent years the costs of different road construction and maintenance materials have changed significantly. The availability of new materials and technology has affected the calculations regarding road design and maintenance scheduling. This is well known. However, another piece of "conventional wisdom" asserted at the beginning of this project is not panning out in the data. One of the concerns originally expressed by LRRB members requesting this project was that local jurisdictions needed tools for informing the public about tradeoffs

associated with different levels of services. In particular, there was a sense that some roads would need to be reverted to a gravel surface, and that the public would find that difficult to accept. However, the interview data collected in the project suggest that counties are not expecting to do this on a large scale any time soon. Furthermore, county engineers are often saying that it is not political pressure that is leading them to keep roads paved, but rather their calculations of the lifetime costs and benefits of different surfaces and the associated performance and maintenance. There are a number of factors regarding the choice of materials that go beyond traffic volume. These include seasonality of traffic and type of vehicle. The kind and frequency of traffic is an important factor as heavier loads accelerate road cracking and rutting, increasing maintenance costs and reducing the life of the road layers. In sum, local public works leaders recognize that choices regarding road surfacing are more complex than the distinction between paved and gravel surfaces. Several counties are experimenting, so far successfully, with new kinds of coating and surface options that minimize material costs (e.g., asphalt recycling in place), have longer life spans, or improve road safety (e.g., by reducing glazing and black ice).

Sustainability is viewed as long-term or future concern and not an urgent, immediate problem. The interviews and media review conducted in this project confirm that road system sustainability is not currently identified by the public as a pressing concern. In part, this is because counties are already actively managing these challenges. Road surfacing is a good example of how public works departments are already introducing numerous adaptations and innovations to address sustainability. In addition to these novel uses of materials and technology, however, other governance and management technologies are changing. For example, some counties are experimenting with new financial tools for adjusting how they collect fees from heavier vehicles, other areas are implementing reclassifications or turn-backs to reassign parts of their road systems to other jurisdictions or to road types that require less maintenance, while others are introducing new road maintenance vehicles that improve the durability of the vehicles and roads. The most significant message regarding the urgency of local road system sustainability is that local public works leaders and elected officials consider it to be an ongoing project. As one public works director expressed it, the work involves continuously seeking efficiencies and new approaches and rethinking how the work is done every day. There is no one-time, magical solution. To the extent public works professionals are already introducing adaptations and keeping their road systems going, there is no obvious watershed moment for involving the public.

There are some misleading misperceptions about the situation. Notably, the gas tax does not cover all of the costs of roads, notwithstanding the expectation of many members of the public that it *does* or *should*. Second, it might enhance public trust and attention to this issue if they were more aware of the ways in which local public works leaders have introduced innovations and found efficiencies to keep up the roads even with heightened demands, increasing costs, or diminished resources. Finally, sharing examples of innovations that other communities are introducing to manage their local road systems might diminish the confusion or reluctance that some stakeholders feel about those ideas.

4   Recommended Communication Tools

This project developed a communication tool to address the information and other gaps discovered through the research observations and interviews. The purpose of the tool is to convey technically complex budgetary and engineering information about local county road system planning and management, so that stakeholders may become better educated about the complexity and choices involved and become better-informed participants in policy-making. It may be used by public works leaders, elected officials, the media, or the general public. It is designed not only to be informative, but also to facilitate gathering information from key stakeholders about their ideas and preferences.

The tool has two components. They are designed to be used together, but could be used individually or customized. For example, local public works leaders could also use the presentation alone, without the recommended discussion questions and format, as a 10-20 minute presentation. Or they could use the recommended meeting design to organize a community meeting around a presentation of their own design about their local road issues.

4.1   Interactive Presentation on Local Road Systems

This may be viewed at http://tinyurl.com/local-roads. It is designed as a short, informational presentation to bring people to a common baseline from which to have an informed discussion about local road systems sustainability issues and options. It is *not* a statement of policy preferences or an invitation to make policy decisions. The presentation utilizes a Prezi© format to be interactive, allowing people to visualize different stakeholders as all having a place in the landscape of the local road system, symbolized by Figure 1.

Figure 1: Road system landscape schematic from the public communication tool.

The presentation zooms from the landscape shown in Figure1 back and forth to show different features or perspectives of the system (e.g., drivers, elected officials, public works departments, businesses producing or needing freight delivery, cyclists, etc.). It incorporates some basic information on the challenges presented by increasing costs for maintaining roads, deferred maintenance, and heightened pressure on roads from new trends in use. It also explains a few basic concepts about the system, such as how deferred maintenance amplifies total cost and a reminder that county governments do not manage every road within the county's borders. It also briefly presents several kinds of choices that would be available for matching resources and goals, including options for financing, engineering, jurisdictional alignment, and service levels. The presentation can be viewed online or downloaded as a Prezi© or a PowerPoint©. A suggested script to accompany the presentation is also available on the website. Local public works leaders can customize it to incorporate local maps, figures, and other information.

4.2   Recommended Design for Community Meetings

The design (conveyed in Appendix C) is a simple, effective format and schedule for organizing meetings to start a conversation about county local road systems issues, using the presentation as a warm-up. The recommended format may seem deceptively simple or self-evident. Its simplicity is intentional, as it is meant to be a highly accessible approach that people without a lot of prior experience with engagement could utilize. There is no single appropriate approach to public participation; this tool is designed for a particular purpose, which is to have a warm-up conversation about these complex issues, encourage people to learn from others' perspectives through small group conversation, scope the issue and get a sense of people's perspectives, but *not* make final policy decisions. It is designed for those purposes based upon the research team's knowledge of public engagement techniques and design. That knowledge is based upon extensive practical experience, a review of 250 published articles and books (summarized in Bryson, Quick, Schively Slotterback, and Crosby 2013), and the principal investigator's involvement in related empirical research on a variety of public engagement techniques and their consequences (Feldman and Quick, 2009; Quick and Zhao, 2011; Quick and Feldman, 2011, 2014; Sandfort and Quick, 2012; Quick and Sandfort, fc).

5   Development and Comparative Analysis of Diverse Public Engagement Models

The research team collaborated with public works leaders in Beltrami, Dakota, and Jackson Counties (Figure 2), to support implementation and/or evaluation of public communication and engagement strategies. Key features of the transportation systems in each location, the focal topic for the public engagement efforts, the engagement methods used, and the policy outcomes in each location are summarized in Table 2.

This section of the report describes the three counties separately, providing for each one an orientation to the local road policy problem, the communication and engagement activities undertaken, the results, and an evaluation of the strengths and weaknesses of these approaches.
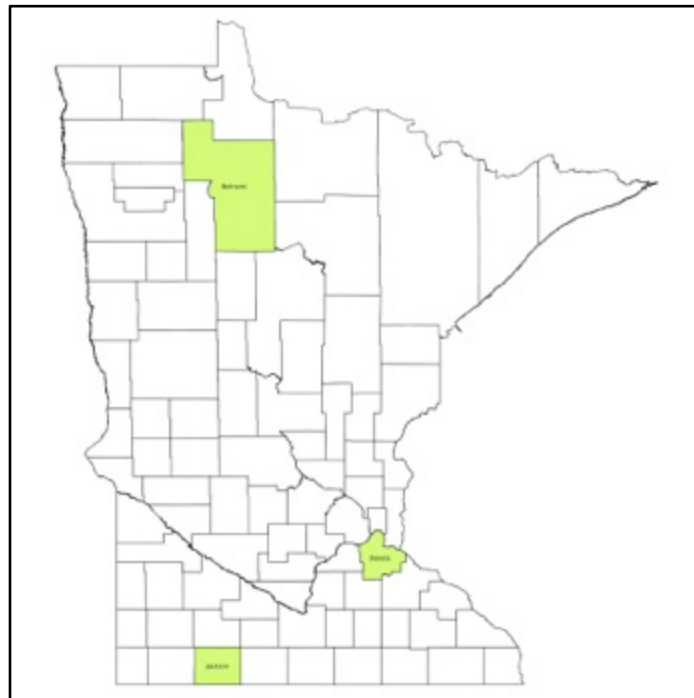
Figure 2: Location of the three case study counties.

Table 2: Key features of the three case study counties, including the topic and methods for the public engagement efforts.

	Beltrami	Dakota	Jackson
Focus of public engagement effort	System wide: Coping with an extensive county road system in poor repair.	Particular roadway: Addressing resident and school concerns about whether new roundabout would allow enough traffic flow breaks to enter busy road (CR 50).	Particular rural intersection: Neighbors want speed limit and additional signage, in conflict with state regulations and usual best practices.
Methods used in public engagement	Focus groups with particular interest groups, followed by analysis of the participants' input, followed by roundtable dialogue of all parties. Facilitators helped roundtable participants to focus on areas of disagreement or confusion to seek clarity, explore convergence. Evaluation.	Roundabout planning supplemented with additional community meetings to focus on off-site traffic flow concern. Special study, including a traffic flow simulation, was performed and shared. Evaluation. [The research team did the evaluation only, not the implementation, for this project.]	Small, multi-party study group convened twice to explore problem, limitations, and options. Mediated agreement was reached. Limited evaluation.
Policy decisions reached	Participants strongly opposed doing nothing and allowing roads to deteriorate, and came to strongly support a half-cent sales tax to fund transportation. Subsequently the county commissioners unanimously passed the half-cent sales tax, bolstered in part by support from champions developed through the engagement efforts.	Traffic flow simulation found that turns could safely be made. County engineer recommended proceeding with turnaround. The county commissioners accepted the traffic flow study and recommendations.	Some additional signage was installed, though it took somewhat longer than residents hoped. Residents have not implemented suggested pedestrian safety measures. The parties agreed to continue monitoring the issue while maintaining current signage recommendations from MNDOT and LRRB.
Geographic location	Northern Central	Twin Cities metro	Southwestern
Rural/urban	Mixed: rural with a regional center, eighteen people/square mile.	Urban, suburban, and rural areas, 709 people/square mile.	Rural, fourteen people/square mile.
Key features of road system	700 miles (1127 km) of county roads, including 300 miles (483 km) of gravel.	440 miles (708 km) of county roads, including ninety miles (145 km) of gravel.	520 miles (837 km) of county roads, including 148 miles (238 km) of gravel.
Major economic activities	Regional retail sales center, recreation and tourism, timber, agriculture.	Retail, industrial, transport (trucking hubs), and agriculture (corn, soy).	Agriculture, agroindustry requiring movement of inputs and products.
Other relevant features	There are extensive state, tribal and federal lands in the region which are exempt from property tax and complicating jurisdictional coordination for the road system as a whole.	Heavy commuting traffic as it is part of the Twin Cities metro area.	Construction and maintenance of wind power generators requires movement of heavy equipment (cranes), and materials (cement and aggregate). Ethanol plants and hog lots require constant movement of corn and feed, straining the road system.

Evaluations of the three plans are based largely on interviews with participants. As described in the description of methods (Section 2 of this report), they were interviewed by a third researcher (Emily Saunoi-Sandgren), not the public managers or the researchers who were involved directly in these interventions (Dr. Quick and Dr. Narváez in Beltrami and Jackson counties, or the staff of Dakota County and the City of Lakeville for the Dakota County project). The researchers' facilitation and feedback interview roles were kept separate to encourage the interview participants to speak frankly and to solicit better data. Similarly, the data were initially analyzed by a graduate research assistant (Brynn Saunders) to reduce any bias the facilitators might introduce into interpretation of the participants' feedback.

5.1   Beltrami County

5.1.1   Policy issue background

Residents in some areas of Beltrami County had been complaining about deteriorating road quality when the research team became involved in this project. On December 11, 2012, Bruce Hasbargen, the county engineer, presented a five-year road construction program to the county commissioners and attending public, estimating that $80 million are needed to bring the road system to an acceptable performance level from the current condition, the result of long periods of deferred maintenance and increased wear and tear from increased traffic volume (Beltrami County, 2013).

To address these issues, on July 11, 2013 the Beltrami County Commissioners passed a resolution to adopt a Wheelage Tax, a new transportation finance authorization passed during the 2013 legislative session (Minnesota statute § 163.051). The county treasurer estimates that $340,000 per year will be collected through a $10 annual fee for each motor vehicle residing in Beltrami County. The funds will be used to service a debt for $6 million in bonds to be issued for transportation capital improvements and maintenance. This resolution was adopted as an alternative to property tax increases, which were considered politically untenable and insufficient to cover transportation needs for the county because there is a high percentage of publicly owned property in Beltrami County and property tax rates are considered somewhat high already.

Following the adoption of the Wheelage Tax by Beltrami County, the researchers developed a plan to support a program to engage the public on the issue of transportation improvement and financing in a more systemic way (Appendix C). The plan considered a number of issues related to the conditions, unmet needs and the different options to finance local roads and bridges. Earlier in 2013, the Minnesota state legislature had introduced a new policy (Minnesota statute § 297A.993) to allow counties to institute a half-cent sales tax for transportation by a majority vote of their county commissioners. The sales tax revenues are for specific transportation projects designated by the county board.

On December 5, 2013 the Beltrami County Board of Commissioners, by a unanimous vote, passed a resolution approving the half-cent sales tax for transportation. According to the Transportation Alliance, a Minnesota coalition advocating for transportation, the half-cent sales tax will raise approximately $3 million per year for Beltrami County (Transportation Alliance, 2013).

Beltrami was one of the first counties in the state to adopt the local sales tax. The data from the public engagement meetings facilitated through this research, as well as from the

interviews conducted with stakeholders, suggest that the public engagement process implemented through this project was a key foundation for this policy outcome.

5.1.2 *Public engagement approach*

Indeed, in the policy conclusions at the conclusion of this report (Section 7), the research team strongly recommends this approach for involving stakeholders in discussions about the policy framework for local road policy issues at a system-wide level. That is *not* because of the particular content of the policy outcome (i.e., support for a local sales tax), but rather because a process build around deliberative dialogues allowed participants to study their options and identify the policy interventions that were most appropriate for their particular circumstances. During the public meetings, and as the researchers analyzed the transcripts of them and compared surveys of people's policy preferences as they first entered public meetings and after they had engaged in dialogues, the researchers discerned a great deal of learning and openness to new options. In Beltrami County, an outcome of strongly supporting a sales tax makes a lot of sense to a diverse array of stakeholders, but the same public engagement method, used in other locations, could and should support quite different policy decisions. The method is described in detail here because it requires skill and time to accomplish.

The public communication and engagement plan the researchers developed involved a model of deliberative dialogues with key stakeholders. Deliberative dialogues were chosen because research has shown that they are well suited to the needs of this setting. The potential benefits of deliberative dialogues, as summarized in Sections 1.3 and 1.4 of this report, are numerous. They can help the participants to gain a deeper understanding of complex problems, are an effective way to introduce new perspectives with which to view the multiple facets of an issue, can aid participants to discover new policy options, and may help the participants to make connections with each other that enable them to enhance their collective impact on the problem.

This public engagement method involved the following steps:

1. *Preliminary exploration of the local roads issues.* This was accomplished through two site visits to meet with local public works leaders and elected officials and tour the area, reviewing policy documents, media coverage, and other content, and exploratory interviews with county staff, state MnDOT employees, and elected officials.

2. *Topic scoping and engagement design.* In consultation with the county engineer and county administrator, the researchers defined the topic and decided on the design for the engagement process.

3. *Actively identifying and recruiting stakeholders for the engagement process.* This was an iterative process between the researchers and local collaborators to identify a broad array of stakeholders that neither side could have generated alone. For example, the researchers would not otherwise have been able to identify the particular residents who had been calling the county to complain about road conditions, nor find the contractors and other heavy vehicle users who use the local road system in that area. Conversely, the researchers identified some parties (e.g., local school district bus transportation managers, township volunteer fire and ambulance services, or the road system manager for the U.S. Forest Service lands in the county) that the county had not been considering as key stakeholders. A summary of the kinds of stakeholders who might be involved may be found in Table 4, on page 41. A great deal of effort and time spent in active recruitment –

including numerous letters, emails, and phone calls from *both* the researchers *and* the county highway department – were critical to getting buy-in and turnout for the meetings.

4. *A pre-meeting survey of knowledge, concerns, and preferences*. Upon entering the community meeting, all individuals were asked to complete a survey regarding their key concerns, their self-assessment of their level of knowledge, and their level of support or opposition for an array of policy options (Appendix B). For quantitative analysis, their expressed level of support was translated to a five-point Likert scale (Bernard, 2011: 327), ranging from strongly opposed (1), to somewhat opposed (2), to neutral (3), to somewhat in support (4), to strongly in support (5).

5. *Three focus group consultations, each with homogenous groups of key stakeholders*. These meetings were designed for education, exchange, exploration, and group learning about the issues — not for decision-making. Focus group participants received a one-page handout (Appendix A), developed by the researchers with input from the county engineer, to convey basic information about the local road system problems. Two members of the research team, Dr. Quick and Dr. Narváez, facilitated a deliberative dialogue for each focus group, using a standard structured series of questions, which was the same for all three groups. The individual groups were oriented to particular populations of stakeholders: members of the business community (3), public agencies that are responsible for or that use the regional road system to accomplish their core work (11), and members of the interested public (12). For each of the meetings, at least one county commissioner was present (2), as well as the county engineer, who listened to the dialogue and addressed questions. county administrator Kay Mack was present for two of the three meetings. A total of twenty-six participants took part in the three groups, held August 13 and 14, 2013.

6. *Analysis of surveys and focus group data*. Using observations during the focus groups, a transcript of the focus group, and the surveys, the researchers identified key concerns to reflect back to the group at the subsequent meeting. The researchers also identified areas where misunderstandings needed to be cleared up, or where people seemed inclined to change their support or opposition to a policy issue (in either direction) if they were given more information. Above all, the researchers facilitated the dialogue to focus on areas where there was greatest convergence and divergence in opinions and developed a way to present that information visually. The purpose was to make areas of agreement and disagreement immediately visible to the array of stakeholders. Pointing out areas of agreement helped them to see the level of support, legitimated the actions that could be taken on those areas, and helped them accept those issues as more or less resolved – for the moment- so that that could move on to other topics. Seeing the areas of divergence helped the participants and facilitators to use the opportunity for extended dialogue to focus on those more contentious, confusing, or ambiguous policy areas. The point was not to force consensus, but rather to spend some more time exploring the diversity of views.

7. *Policy roundtable with the full group*. A roundtable meeting was held on September 19, 2013 in Beltrami County (Figure 3). A diverse group of twenty-five persons, including three county commissioners, senior county staff, numerous township officials and other members of the interested public, several business people, and representatives of state, local, and tribal governments. At the workshop, the researchers

emphasized the convergences that had emerged through the focus groups. Those areas of convergence were near unanimity that the problem is serious and should be addressed, strong opposition for "do nothing and wait and see what happens," and strong support for innovation for methods and management of the roads. The researchers also explained that one policy option needed to be revisited, despite strong levels of support, because it is not viable, namely reallocating funds from state-mandated programs into transportation). Finally, the researchers facilitated the small group conversations to focus on areas where there had been more ambivalence, to provide more information (where needed) and to have a more in-depth exploration of the different and often contesting perspectives on the options. In facilitating the dialogues, the researchers focused attention on the half-cent local sales tax option in those dialogues since there had been much discussion about it.

Figure 3: Participants deliberating at Beltrami County policy roundtable dialogue.

8. *A post-meeting survey of knowledge, concerns, and preferences*. Participants were asked to complete the same survey form (Appendix B) again, to assess any changes in their self-assessment of their level of knowledge, their key concerns, and their support or opposition to key policy options. A total of twenty-four persons completed surveys both before and after one of the deliberative dialogues. That is over half of the total forty-two people who did at least one of the following: attended a focus group, attended the roundtable, or submitted a response to the survey (e.g., by mail even if they did not attend).

9. *Evaluation of the dialogues by the participants*. This follow-up evaluation was conducted through confidential interviews with twelve roundtable participants. The interviews were done one to three months following the policy dialogue, by phone. The interviewer was a third member of the project team, Emily Saunoi-Sandgren, who had not been present at the focus groups or roundtable. The interview participants were chosen to represent a diverse array of types of stakeholders (e.g., residents, businesspeople, and public agencies) and a range of levels of initial support or opposition

to various policy options. In the interviews, participants were asked to comment on any changes in the level of opposition or support they demonstrated between the pre-engagement and post-engagement survey. Specifically, they were asked whether any changes seemed significant to them, and to explain how they came to change their minds. They were also asked to reflect on what did and did not work well about the engagement method.

10. *Overall assessment of the intervention*. The researchers analyzed observations and transcripts from the policy roundtable, analyzed the pre- and post- survey results, the interview feedback, and ongoing policy development in Beltrami County. The analysis looked for any new patterns of convergence or divergence in opinion, which the researchers shared with the project collaborators. In addition, the researchers analyzed the data to address the two research gaps identified in Section 1, namely how participants come to change their minds through deliberation, and participants' preferred criteria or measures for evaluating the success of participation methods.

5.1.3   Engagement outcomes and evaluation

As mentioned, ultimately the county commission passed a half-cent sales tax for transportation in early December 2013. By all accounts, the public communication and engagement processes that were supported in part through this project were a key foundation for that outcome. This is a rich and multi-faceted data set that the researchers are continuing to analyze for future publications. Already, however, several findings stand out from the analysis.

Figure 5 illustrates the initial concerns of the participants. This word cloud was constructed from participants' responses, before the meetings, to a question on the survey that asked them to identify their top three concerns about the local road system. By the end of the community meetings, their concerns had changed somewhat.

Quite remarkably, the surveys showed that following the dialogues, the participants emerged supporting, or even very strongly supporting the half-cent sales tax option. This was in contrast to many of the opinions they recorded on their pre-dialogue survey forms or stated during the initial discussions, when they were strongly opposed to the idea. After the dialogues, however, in the surveys they completed or in comments they made at the conclusion of the meetings, many of the people who had been opposed made comments such as, "I was really opposed to this idea until I saw the need and the options, and now I think this is the most fair and viable option." The sales tax was the most remarkable, but it was not the only area in which the participants accomplished convergence, where they had begun with widely divergent and even conflicting views.

Figure 4: Word cloud of key initial concerns of participants

The feedback about the sales tax presents very strong evidence of a shift in attitudes, but shifts are also notable in the quantitative data collected in the surveys. Figure 5 demonstrates the initial attitudes of support (represented with green, for "go"), neutrality (represented in yellow, for neutral / proceed with caution), and opposition (represented with red, for "no") expressed in the surveys completed by people who had not participated in a policy dialogue.

In contrast, Figure 6 shows their attitudes after participating in a policy dialogue. In Figure 7, the side-by-side columns for each policy issue contrast attitudes before and after the dialogue on single-policy issues, pointing to increasing opposition to turnbacks (reassigning county roads to townships or cities) and increasing support for limiting use or charging fees for road use by heavy vehicles (to minimize or recover costs from the damage they do to roads) and increasing support for the half-cent sales tax.
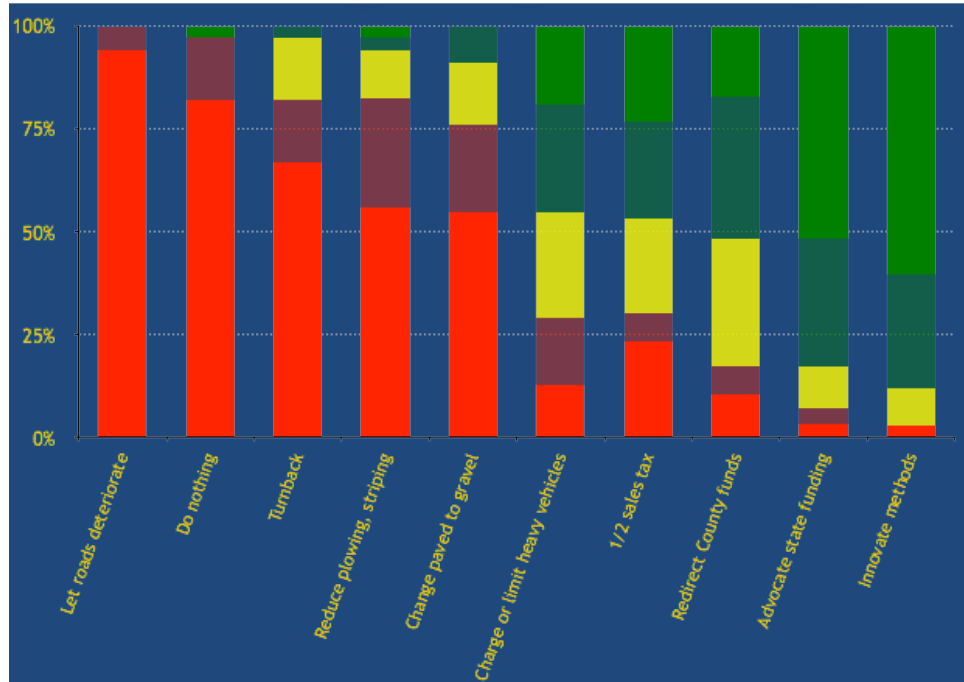
Figure 5: Pre-engagement participant preferences on local road system policy options.
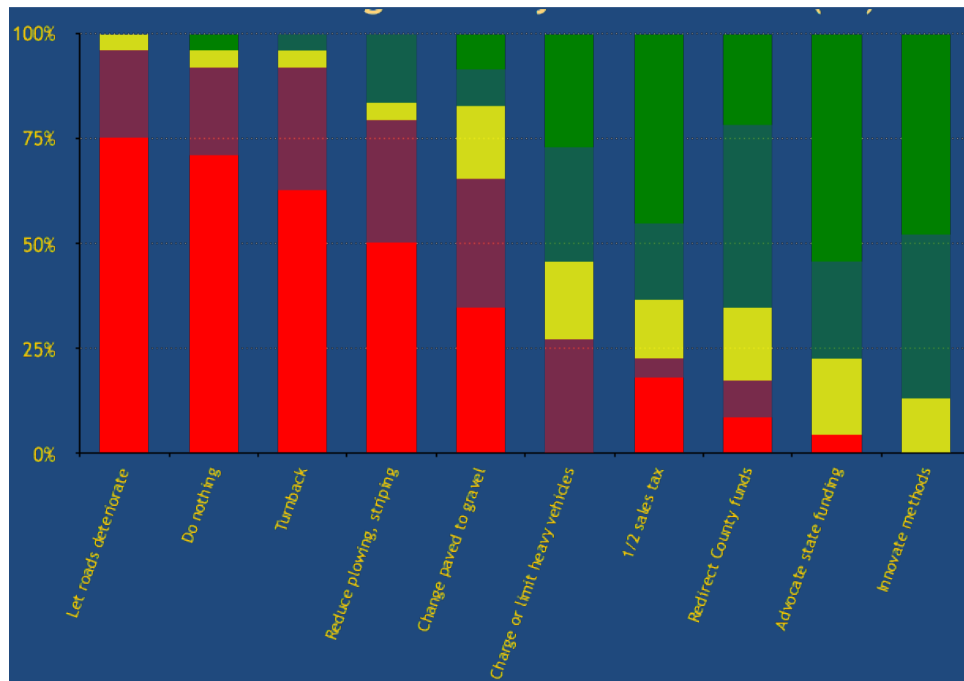
Figure 6: Post-engagement participant preferences on local road system policy options.
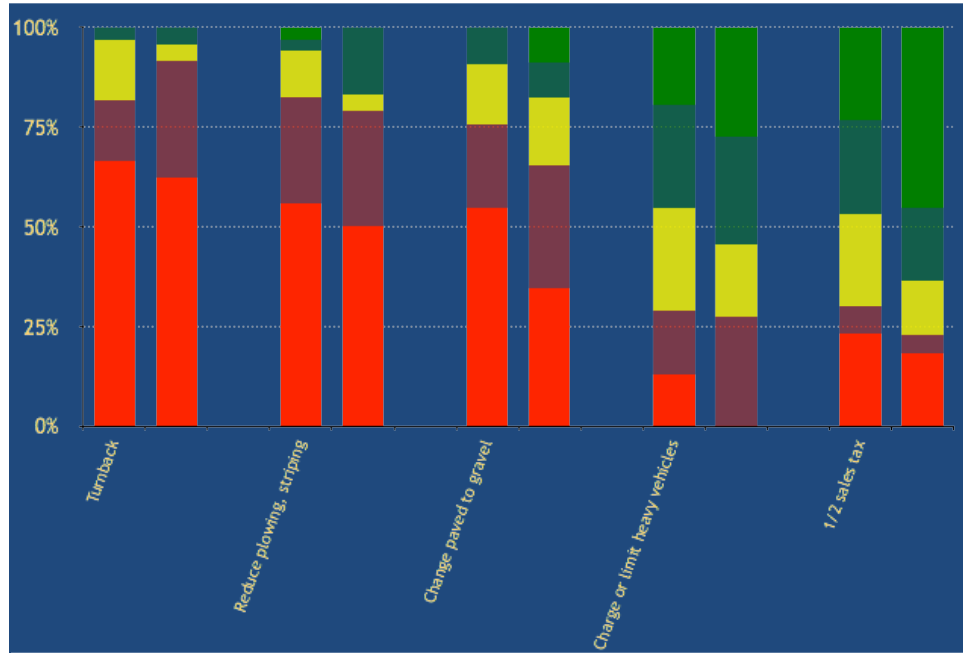
Figure 7: Shift in attitudes, pre- and post- engagement, on policy areas of initially high divergence in attitudes.

Research interviews with participants and analysis of the focus group and roundtable transcripts suggest several reasons for participants changing their minds:

The dialogues allowed people to gain more complete information about the issues and to become better informed about options. This was critical for them to change their minds about the nature of the problem and the viability and attractiveness of different policy options. The idea of the half-cent sales tax gained increased acceptance as participants realized that the revenues would be specifically targeted to transportation and as a way to capture revenue from purchases made within the county. Many local road users do not live in Beltrami County or do not pay property taxes, but do make purchases in the county, which is a regional hub for shopping. At the same time, they learned that property taxes, which are already high, would have to be multiplied several times in order to gain the same revenues as a sales tax, or accepted the fact that some funds used for other county activities may not legally be reassigned to roads.

They gained new perspectives and became more empathetic by associating the issue with individuals and their stories. For example, they heard from township fire companies and a trainer for ambulance staff that their teams would drive fire trucks and ambulances as fast as possible to respond to emergencies, no matter the condition of the roads, but that poor conditions imposed terrible wear on their vehicles. People who had been invited because they had contacted the county to complain about the conditions on their particular segment of the county road system heard from others all over the county with similar concerns. Collectively, they and other stakeholders began to see that the problem was widespread and systemic, and that the solutions would have to be systemic as well.

New measures for evaluating and managing the problem became available for consideration. In the dialogues about the worst roads, a sense also emerged that their deterioration was symptomatic of a system-wide problem with underfunding that would need to

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be addressed holistically and strategically. At the same time, stories from more rural areas of the county compelled people to see their needs differently. Notably, school officials from rural school districts described how poor road conditions make their students' trips to and from school – sometimes as long as three hours a day - very uncomfortable. Hearing that the county engineer was prioritizing road repair based upon the highest number of vehicle miles traveled on given roadways (i.e., the highest volume of traffic), a school district superintendent suggested that "qualitative" as well as "quantitative" measures should be used. Residents of outlying areas of the county chimed in, suggesting that while only a small percentage of the total traffic in the county may be using their closest county roads, a very high percentage of their travel – to work, school, shopping, services, or church – was on that road. Their point of view was compelling, and at the conclusion of the roundtable, the county engineer told the group he would begin considering what he described as "qualitative as well as quantitative" measures to identify needs and priorities.

Non-experts became more modest about their level of knowledge. Figure 8 shows all participants' initial, pre-meeting survey responses to a question about how well-informed they considered themselves to be about local road issues. Paradoxically, those with specialized expertise or responsibilities for local road systems were less likely to consider themselves highly informed than members of the interested public. The researchers' interpretation is that representatives of agencies that manage or depend upon roads within the county are more aware of the complex relationships connecting multiple features of the system, options for managing it, and tradeoffs, and so judged their capacity to understand the system more modestly. Following the meetings there was greater recognition by other parties of the complexity of these issues.
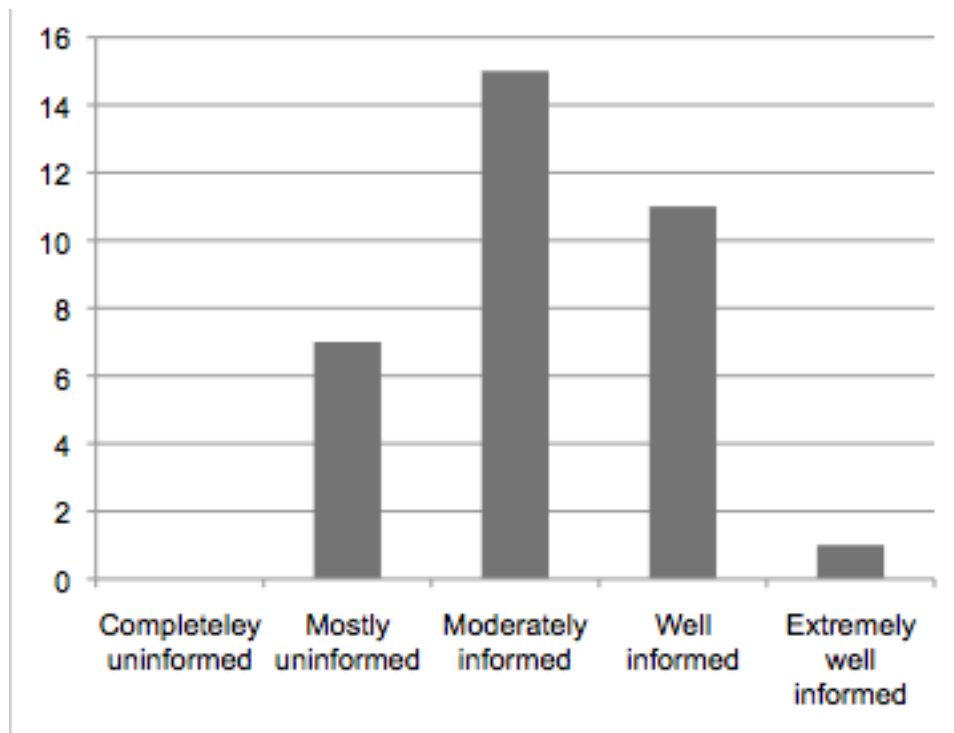

Figure 8: Participants' self-assessment of their level of knowledge of local roads issues.

Trust with the county government was built over the course of the meetings, but participants requested improved and ongoing communication about highway issues. Participants' combativeness and frustration with the county government, particularly the highway department, diminished as the dialogues proceeded. Constituents voiced their opinions freely and asked hard questions. They found that the county engineer, commissioners, and administrators took them seriously, answered their questions, and sympathized with many of their concerns. Several commented that they came to see the county had more limitations, and/or was doing a better job than they had realized. During the meeting, they pressed for more information and criticized some decisions that had been made. When they heard the county engineer, administrator, or commissioners explain their actions, residents were more accepting of the decision. However, they indicated they would have been less confused or angered in the first place if the county had explained it to them with signs on the road, better media coverage, or letters to them.

All of the participants interviewed later spoke highly of the meeting process and felt it was a meaningful use of their time. This came as a surprise to many, as they said they had very low expectations of the meetings before attending. The explanation they give for their low expectations was that they had previously attended many bad public meetings. They were referring to meetings called by various public agencies, not particularly or exclusively Beltrami County. Asked to explain what they had disliked about those previous meetings, they said that they had not learned anything new, that progress was not made on the problem, or that they felt they were not able to contribute to or influence understandings of the issues and solution. In contrast, they felt that in the dialogues conducted in this project, there was genuine multi-directional communication and learning among the attendees, the "right" people were present and listening to the communication (e.g. county engineer, county commissioners), and they did influence policy outcomes.

5.2   Dakota County

5.2.1   Policy issue background

This consultation looked at engagement efforts around a specific segment of roadway, specifically traffic control at and near the intersection of Kenwood Trail and 185th Street in Lakeville, Minnesota, where traffic volume was growing to a point that the existing signal was not enough to manage flow and safety. Around 2011, regional engineers determined that, given information about traffic delays, crashes, short-term and life cycle costs, a multi-lane roundabout should be installed at the intersection. Some federal funding commitments to cover part of the construction were secured, and county commissioners and city council both endorsed the plan in principle, so Dakota County hired a consultant to begin design. When they presented their plans for creating a roundabout with federal funding support at an open house in July 2012, citizens who attended the public meeting raised concerns about the effects the roundabout would have on traffic flows a mile or more south of the intersection (Figure 9). These residents had not been on original mailing lists about the project because they lived some distance from the intersection.

Specifically, they voiced concerned that with the roundabout, there would be a smooth and continuous movement of vehicles on Kenwood Trail without enough gaps in the traffic flow for people to pull onto it safely, particularly to make left turns onto the road. They suggested a traffic signal might be needed to create breaks in the traffic flow. In particular, they were

concerned about access to and from Jaguar Neighborhood, which has only one entry or exit to the residential area, namely from Kenwood Trail. They had expressed similar concerns about Kenwood Trail Middle School, which is also only accessible from Kenwood Trail. Both the neighborhood and the school do not have good options to create additional entry points because of bodies of water and other topographic features. Residents pressed the point at a city council meeting to approve the roundabout in September 2012, where the City of Lakeville was due to vote to fulfill its commitment to cover 45% of the design costs for the roundabout project to proceed. The city commission requested a corridor study on the effects of the roundabout, to which the county and city engineers agreed.

Figure 9: Access concerns associated with Dakota County roundabout.

5.2.2   *Public engagement approach*

The research team was not involved in implementing a public communication and engagement effort in Dakota County. Instead, the researchers responded to a request from Dakota County to evaluate the effectiveness of their existing engagement practices. In particular, they asked the researchers to help them fill in a missing piece for them - *participants'* evaluation of what they do. As a neutral third party, the researchers were uniquely able to gather that data for their use, using the protocol in Appendix F. The research team interviewed twelve participants in the engagement process, in addition to interviews with three engineering or planning staff from Dakota County and the City of Lakeville. For the research project as a whole, the data from Dakota County play a particular central part in the recommendations about evaluation criteria for public engagement (Section 6).

The county had not done an analysis of the effects of the roundabout on traffic movement 1.5 miles (2.4 km) away. Furthermore, they did not find an example from other counties. So they

developed a new modeling approach that would look at the problem on a vehicle-by-vehicle scale, and ran six different scenarios for different times of the day, short- and long-term timeframes, and with and without different kinds of traffic controls. In November 2012, the county had a series of public meetings to share what the study process would be, to help identify issues that should be included in the study, and to let stakeholders know how they could be involved. They also decided, and communicated with the public, that thereafter they would have community meetings with four geographically distinct sub-areas, because the issues of concern would be a little different at different physical points on the corridor. All meetings were held at the same local high school. The county and city worked with some particularly concerned residents as point people to mobilize participation in some areas, posted notices in the local newspaper, and sent direct mailings to residents of the areas in the study corridor. At those meetings, a consultant explained the study and then there was a question and answer period. Few comments were provided, but the county and city felt that constituents appreciated that their concerns were being listened to and that there was an explanation of how the process would proceed. In addition, the city and county staff used the traffic study as an impetus to reach out to a group that would not necessarily be affected by the roundabout, but that could be affected by future changes on the roadway. This group is comprised of business and property owners in a small business district where the road may need to be widened to handle increased traffic. In February 2013, they held individual meetings with these business owners to lay groundwork for long-term conversations about the highway. In March 2013, they had a presentation and open house at Kenwood trail middle school to share information about the study's progress, for which they had a good turnout, and also posted information on a project website.

The study determined that there would be adequate gaps in the traffic flow without the installation of additional traffic signals. The simulation found that, even with the roundabout, drivers leaving the Jaguar neighborhood and the school campus would be able to make left-hand turns onto Kenwood trail. The county and city then presented the results of the study to the city council and at a school district board meeting. in October 2013, when the final report was completed, the city council and county commission formally approved the study, with no objections expressed by the public.

5.2.3 *Engagement outcomes and evaluation*

The research interviews with the twelve participants in the engagement process capture the perspectives of residents, business owners, and a school official from Kenwood Trail Middle School. They reveal mixed satisfaction with the engagement process. On the positive side, residents were complimentary about the willingness of the city and county staff members to listen, take them seriously, and adapt their plans to stop and study residents' concerns. Some lauded the county for making what they considered a significant change in their plans, consisting of reframing the problem they had been working on from traffic control at the intersection to traffic flow along an extended section of the corridor, investing additional funds and time in a new study and creating a new model, and holding an additional set of community meetings. They appreciated being asked for their opinions about the roundabout and, once they had identified their concerns about the traffic flow, about the scope of the corridor study project. What they liked about the meetings was the opportunity to ask questions, to express concerns, and to be consulted about and informed of the project progress. They appreciated the professional competence and respectful comportment they observed of the county, city, and consulting staff

in meetings. Finally, they appreciated having a variety of kinds of stakeholders at meetings, and the opportunity to look at the issues from a variety of perspectives.

In contrast, some of the participants interviewed were very unhappy, feeling that they had no opportunity to influence the outcomes. Their concerns were very consistent, and centered on one problem: their feeling that the engineers had already made up their minds, so that the community meetings were "window dressing" designed to "sell" or legitimate a decision that was not truly up for negotiation. Similarly, they were frustrated that there was no venue for their concerns. However, it is important note that the decision these participants felt had been made – or the problem they wanted to discuss, which was not on the table – were all about whether or not there should be a roundabout. Their observation that the roundabout was not up for discussion is probably a fair reflection of the process: after several years of prior study and decision-making about the 185th Street and Kenwood Trail intersection, a yes/no decision on the roundabout was not as open for continuing debate as other options for traffic control that might be needed to control its effects. One resolution to their dissatisfaction could have been more frequent or explicit communication about what topics were and were not on the table for discussion.

The researchers asked interviewees open-ended questions about whether the public engagement format was a "good" process, how they felt about the process, their participation, and the policy outcomes; or whether they had any suggestions about how Dakota County or the City of Lakeville could improve their engagement efforts. The criteria and measures that the interviewees brought up in their responses are very consistent with what already appears in the literature. That is, the study participants emphasize that good public engagement processes allow them to have meaningful input and support decisions that are reached in transparent and fair ways. Those who were unhappy complained that the decisions had already been made, so that they could not influence them. (Appendix C and Section 6 convey recommended measures, based largely on participant feedback on the Dakota County process, but also informed by participant feedback on Beltrami and Jackson Counties).

5.3   Jackson County

5.3.1   Policy issue background

The policy issue in Jackson County concerned a dispute over whether a reduced speed limit zone could or should be introduced at an intersection of two county roads in a rural region (Figure 10)

Figure 10: Aerial view of intersection of County Roads 4 and 9, Jackson County.

Neighbors are concerned about poor visibility on approaches to the intersection, heavy agricultural vehicles moving at high speed and missing the turn, the safety of children residing in homes and of people attending church and community meetings at the church immediately adjacent to the intersection, and a sudden increase in traffic volume due to drivers re-routing to avoid construction on a nearby, parallel highway (US 71).

Figure 11: Ground view of intersection of County Roads 4 and 9, Jackson County.

The expertise of engineers in the county highway department and regional MnDOT office, on the other hand, suggests that this is not one of the county or state's particularly dangerous intersections, and also leads them to be skeptical that reducing the speed limit would change behavior and that a traffic study would support a speed limit decrease. The county engineer wanted to adhere to standard best practices and regulations for signage, speed, etc. He was concerned about the implications of diverging from those standards for one case, and wanted to uphold fairness and consistency, the legitimacy of the rules, and fluid traffic flow throughout the region.

5.3.2 *Public engagement approach*

The public engagement approach in Jackson County was a study group to address differences in perspectives on local road system issues, to move beyond impasse to action. The researchers developed this approach because of the specific features of this policy problem and decision *and* because the county engineer asked the research team to develop and model a "study group" approach for similar problems. While the researchers tailored the approach to this particular situation, there are lessons to be learned for comparable problems all over the state that share some of its key features, namely: the challenges of communicating among lay and expert perspectives, tensions between taking a highly localized or a more county-wide view in perceiving and addressing road system problems, and conflicts among disputing parties.

The study group model involves a series of three structured conversations interspersed with time in between for the parties to gather more information, build support, or sift through options. The approach is informed by the *Getting to Yes* approach advocated by Fisher, Ury, and Patton (1991) and other models of mediation. The meetings were facilitated by the researchers, using the following steps:

1. *Problem identification by parties and facilitators*. The researchers held these confidential meetings separately with each party to identify key interests (as opposed to positions), brainstorm options, and identify areas where more information is needed. The researchers also used these meetings to build trust and secure buy-in for a "study group" approach of having the parties co-produce a problem definition, options, and possible solutions. This was done through an in-person meeting with four local residents, a church official, and a county commissioner on August 2, 2013, and through phone calls and an in-person meeting with the county engineer prior to and on the same day.

2. *Exploration of options by study group as a whole*. At the study group meeting, the researchers met with all stakeholders at one time. The group discussed options, shared information to address the questions previously raised, evaluated constraints and opportunities, and identified some workable options and preferences. In facilitating the meetings, we aimed for consensus but did not require it, and took a strong role in asking the parties to clarify what would and would not be done, and when. This meeting was held on September 23, 2013. The participants agreed on the following three solutions. The county would install new signage to help drivers navigate and inform them of a blind intersection, while maintaining current signage recommendations from MNDOT and LRRB (MNDOT 2010A, 2010B). The county would continue trying to purchase a property and remove a building at the corner to improve visibility (depending upon the outcome of an environmental risk assessments, which were ongoing at that time, to

discern the impacts of fuel storage tanks that had been on the property), and the church was encouraged to utilize removable pedestrian crossing signs to draw attention to pedestrians during periods of high use. In addition, the research team, acting as mediators and honest brokers for the study group participants, asked the neighbors to acknowledge that it would not be reasonable to have the work done within days and asked the county engineer to suggest a workable timeline for getting at least the signs done. The county agreed to do the work, and after some discussion other county work and the logistics of making the changes, all agreed the residents would not press or complain to the highway department unless there was no progress as of mid-November 2013.

3. *Ongoing monitoring and communication about the problem, effects of the interventions, and additional options*. The participants agreed to this as their next step, but it seems to have been difficult to implement. At the time of the September 2013 meeting, they had incomplete information about one of the options (the purchase and removal of the old country store to improve visibility) and decided, in lieu of an additional study group meeting, to wait for that information and to see how the signage worked. By early December 2013, the signage had not been installed, and residents seemed frustrated and were seeking other ways to press for action. In early 2014, some additional signage was installed, but residents have not taken up using the temporary pedestrian crossing signs the county engineer had suggested.

4. *Evaluation of the dialogues by the participants*. Four participants were interviewed using the standard evaluation interview protocol (Appendix F) via phone by a third member of the project team, Emily Saunoi-Sandgren, who had not been involved in the study group meetings.

5.3.3   *Engagement outcomes and evaluation*

One of the notable outcomes of the Jackson County effort is that the participants discovered some unexpected options for addressing their concerns. The township residents and elected representatives persistently drew attention to problems at the intersection, educated themselves about what options and jurisdiction they do and do not have under state laws and policies, and insisted that some resolution be found. Through the dialogues, the participants did discover some mutually agreeable solutions, namely to improve signage to help drivers navigate and inform them of a blind intersection and to try to remove a building to improve visibility. These were not the only or preferred outcomes advocated by every participant. To the end, they articulated different positions, with the county and state engineering professionals advising that changing the speed limit would not change driving behavior, while local residents and the county commissioner who represents them insisting that driving behavior at the intersection is not safe and that the speed limit should be changed. Despite their oppositional views, however, they arrived at some creative, alternative options to accomplish some comparable outcomes.

The researchers do not have enough data to present a complete evaluation of participants' views of this process. Despite persistent efforts, the research team has completed interviews with only four people. This number is too small to provide confidentiality and be representative of the diverse stakeholders involved.

It seemed participants have been reluctant to be interviewed because they are unsure how to interpret why the agreements they reached have not been implemented. One resident did tell a

member of a research team, during a November 2013 call to set up an interview time, "We don't know why not even the signs have been done... Nobody down here is very happy, we feel like those meetings were a waste of time," others may be reserving judgment until they get more information. The research team is in a similar position, wanting to reserve judgment because the information available is incomplete. Unfortunately, that picture will remain incomplete. Several residents who had agreed to be interviewed were unavailable at the previously arranged times. Standard practices for the protection of human subjects, the particular Institutional Research Board (IRB) protocol approved for this project, as well as the research ethics embraced by the members of the research team, all endorse the principle that study participants' involvement in the project is voluntary, that their participation should not come at any detriment to them, and that they may withdraw at any time for any reason. The researchers decided, after several attempts to reach the parties and several missed appointments, to interpret the participants' response as a desire to withdraw from further participation, and have not made additional attempts to reach them.

Even with the limited data, however, the research team does have four improvements to suggest for processes of this type:

- *Walk the site as a team.* The September 23 meeting was rushed, and plans to walk the site together had to be abandoned. While everyone had explored the area individually and was very aware of some of its features, there would have been advantages of re-investigating it together. Engaging directly with the terrain, for example to gain a collective sense of where visibility is limited and dangerous, or to decide together where signs of what type could legally and most effectively be posted, would have built buy-in from all parties to the agreed upon solutions.

- *Conduct a Road Safety Audit with stakeholders.* Walking the site is a common practice when conducting a Road Safety Audit in a manner that the engaged stakeholders and transportation specialist can together examine the safety concerns and implementation feasibility of the given problem, in this case the rural intersection in question. By working through this process, there is an opportunity to proactively take measures to reduce the actual and perceived safety issues identified for the intersection, to promote an awareness of the current best practices that can have an impact in ameliorating the issues around the intersection while establishing a procedure for dealing with similar situations in the county (and other jurisdictions). The current practice in place is outlined by the Federal Highway Administration where they recommend Road Safety Audits (RSAs) for both new projects and existing roads and intersections (USDOT/FHWA) In addition, the 2010 Minnesota's Best Practices for Traffic Sign Maintenance/Management Handbook outlines current regulations and evaluative procedures, but also details current research that shows how and when signage is and is not effective for impacting safety and traffic control (MNDOT 2010B). Examining the site together allows transportation specialists to engage stakeholders on the possible measures and stakeholders to explain what they experience.

- *Reserve public consultation for non-technical problems. Simply make an executive decision based upon expertise and resources, and do not involve stakeholders if there is not much to negotiate.* Jackson County possibly did not require a deliberative process to produce these outcomes. It was valuable for residents to gain attention for their concerns, for everyone to exchange information and build a common understanding of what would

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and would not be possible, and to build relationships. This is a typical way to inform the public responsibly in a democratic society. However, the meetings were merely informative, but framed as if they were consultative, an invitation for the various parties to engage in a mutual effort of creative problem solving and involvement in deciding upon solutions.[1] In fact, the options were constrained – by the physical terrain, state law, best practices in transportation engineering and planning, limited county resources, and the county's fiduciary responsibilities to not purchase risky properties – so there was not as much room for influencing the outcomes as residents expected. When the solutions everyone helped to create were not implemented according to the agreed timeline, participants may have felt even more strongly that the meetings had been a "waste" of their investment of ideas, time, and good will.

- *Follow through and communicate*. There is likely a very good explanation for why implementation was delayed, but because the county did not communicate with residents about it, the experience seems to have damaged rather than built trust between the parties. The four cornerstones of building trust between public agencies and with stakeholders are competence (understanding and managing the policy or planning problem well), caring (being empathetic with stakeholders' concerns), consistency (generally performing well, despite some occasional mistakes or fumbles), and communication (keeping dialogue open, letting people know what to expect, being forthcoming about problems) (Ozawa, 2012). In this case, gaps in communication are eroding trust.

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[1] See *Spectrum of Public Participation* (IAPP, 2007) for an explanation of the differences between informing, consulting with, involving, and empowering the public to decide on policy and planning issues. The spectrum suggests particular communication strategies for establishing appropriate expectations, in alignment with various levels of influence that the public can exert on outcomes. Misalignment of expectations and options for influence can damage relationships and lead to burnout.

6 Public Preferences Regarding Engagement Methods and Evaluation Criteria

As stated in the introduction (Section 1), one of the identified gaps in public engagement practice and literature that this project has aimed to address is a dearth of good criteria for evaluating public participation efforts across all policy and planning areas, not just transportation (Nabatchi, 2010; Bryson et al., 2013). The criteria developed in this study are informed by three types of sources, namely previous studies, tests of evaluation criteria from the literature through this research project, and the suggestions made during confidential research interviews with twenty-six participants from across the three study sites and engagement methods. Their likes and dislikes about engagement were quite consistent across the three study sites, and are summarized briefly in Table 3.

Table 3. Participants' likes and dislikes about how public participation is organized for local road system policy decision-making.

Participants like it when…	Participants dislike it when…
They are able to provide meaningful input that influenced decisions. They are asked to participate at a point when there is still some time to influence decisions.	The decision seems to already be made, so participation is inauthentic. Participation feels like "window dressing" to legitimate an existing decision or to "sell" it, or comes too late to impact the policy or plan.
Public officials and managers listen, take participants' concerns seriously, and respect the validity of their knowledge and opinions.	The meeting does not give them an opportunity to work on their particular interest / concern. They turn up to be heard, but are told their issue is not on the table for discussion, or that is it not negotiable.
They get to learn something new, for example by gaining new information or hearing new perspectives.	
There is an in-depth dialogue, and diverse views are represented and exchanged.	Their knowledge is not accepted or respected, when "the rules" or "the experts" dismiss the value of, or cannot accommodate, their knowledge and perspectives.
The decision-making process feels authentic, transparent, and fair. They can accept the outcome because the decision-making process is fair, even if they don't like the content of the decision.	Important stakeholders are not aware of the meeting or are not in attendance.
They get to see that the public officials and managers are competent and caring. They especially appreciate learning that they are doing their best under constraints, not being unresponsive or lazy.	Transportation system management innovations feel too risky or untested, or are not adequately explained.
	Engagement efforts are convened by people / institutions that have previously broken their trust, which takes a long time to restore.

Indeed, the study participants' preferences were very consistent with what previously published research suggests about public engagement. The researcher conducting the interviews at one point had the sense that the participants were familiar with the scholarly literature because their feedback was so consistent with it. One possible interpretation of the data is that it does not reveal anything new. Another, however, is that it contributes an important validation, and triangulation from a fresh and thus far missing perspective, of the previous findings of researchers.

The research team has not been able to find a comparable study of participants' perspectives on what constitutes good or bad public engagement. Given the call for criteria to measure participant-centered outcomes or satisfaction with engagement, this provides an important additional view. The researchers have developed their observations in a set of proposed questions to use in evaluating public participation around local road systems issues (Appendix F). As importantly, the criteria should be used to drive the design process for the engagement effort, not just introduced afterwards, to facilitate aligning the intended purpose of the engagement, the organization of it, and its evaluation.

7   Recommendations

The research team's responsibilities during this task were to conduct an evaluation and provide recommendations for public involvement in road systems sustainability in Minnesota. To do so, the researchers evaluated the results of Tasks 2-5. The required deliverable is a set of interim recommendations about communication and engagement for local public work leaders around the state, suggesting ways in which these practices and tools could be applied, perhaps with additional refinement, to related transportation systems sustainability issues. The research team has identified *six key recommendations*, each described in greater detail below:

1. Create a go-to location for information about local road system sustainability issues that is informative, understandable, and reliable.

2. Actively involve diverse stakeholders in local road system sustainability discussions.

3. Take an approach of sustained, deliberative dialogue to involve stakeholders in complex local road system issues.

4. Consistently keep the public informed about local transportation issues and projects, but reserve public engagement efforts for non-technical problems.

5. Introduce tested and commonsense criteria for public engagement efforts.

6. Adopt and refine the public engagement methods used in this study through application in other jurisdictions and further study.

7.1   Create a go-to location for information about local road system sustainability issues that is informative, understandable, and reliable.

Throughout this project, from the preliminary interviews with people around the state to scope out the nature of the public communication and engagement problems, through the work to develop, implement, or evaluate communication and engagement efforts in three counties, the researchers consistently found considerable confusion about local road system issues: whether there is a problem, what the problem is, and why there should be a problem. The commonly heard refrain, "Shouldn't the gas tax take care of that?" is an example of misperceptions about the costs, sources of income, and options for maintaining local roads.

The communication tool the research team developed and introduced to local public works leaders through a Minnesota County Engineers Association (MCEA) workshop is designed to address this need. Available at tinyurl.com/local-roads, it is an informative, easily understandable, and reliable way to convey basic information about local road system sustainability issues and opportunities in counties. The researchers recommend making this communication tool more accessible and visible to the public or to other organizations that might use them. Currently it is housed on a Humphrey School website, but it could be relocated to or cross-posted on the websites of related organizations, such as MnDOT, MCEA, the Association of Minnesota Counties, Center for Transportation Studies, or the Transportation Alliance. While it is currently oriented to county-level perspectives and concerns, it could be tailored to the concerns of Minnesota cities and townships and perhaps posted on the League of Minnesota Cities or Minnesota Association of Townships websites.

7.2 Actively involve diverse stakeholders in local road system sustainability discussions.

The research conducted in the three counties demonstrates the value of involving key stakeholders who represent diverse perspectives. Specifically, targeting communication efforts towards key stakeholders, rather than orienting primary efforts towards reaching the general public, is strongly recommended. It is difficult to reach every potential stakeholder who might be affected by local road systems. In fact the county engineers in one of the three study sites, Dakota County, are well aware of that limitation, and have expressed concern and frustration over how hard it is to reach some key constituents. Everyday commuters benefit from passing through an area where roads have been improved, but do not reside in the affected jurisdiction. Therefore the county government does not have a way to identify and reach them as easily as they can contact residents of the immediate area. Roadside signs advertising meetings may not be effective either, because commuters passing through an area may not regard themselves as sufficiently invested in the issues to respond to roadside invitations to provide comment. The challenges of identifying and accessing stakeholders from other jurisdictions and of helping people from outside the area to see their connection with a local policy issue and decision-making venue, are not specific to Dakota County. They are commonly experienced in transportation planning (Quick and Zhao, 2011).

We recommend that the best approach is to make a concerted effort to reach *key* stakeholders with a particular interest in the transportation policy issues or project, which begins with actively *identifying* and then *recruiting* them. Through analysis of initial interviews and ongoing observation of dialogues about this policy issue and through focused consultations in the three counties, the research team recommends that, for local road systems, key stakeholders would typically include people from the broadly defined categories shown in Table 4. Some people and organizations would identify with more than one of these categories.

Where the project concerns a specific section of road or intersection (as in Dakota and Jackson Counties, as shown in Table 4), "everyday citizens" who live or work near the project will very likely be interested in getting involved. In contrast, for system-wide policy concerns (such as the case presented above for Beltrami County), the issues are perceived as remote or less immediate, in which case it is especially important to reach out to representatives of key stakeholder groups. In either case, interviews with participants in the three counties consistently indicate that what motivates people to get involved is a feeling that they are "close to," immediately affected by, or have particular knowledge or expertise to contribute.

In addition to identifying diverse stakeholders, making great efforts to engage them is strongly recommended. It is hard to engage key stakeholders in local road systems issues, often because of competing demands for their attention, because they do not have good information about why the issue is relevant to them or feel they lack needed expertise to participate (problems that the communication tool is designed to address), or because they doubt that their participation will have any meaningful impact on decisions. Consequently, public managers who want public meetings to be successful must budget a great deal of time to make active, personal, and repeated recruitment efforts. For the Beltrami County project, for example, members of the research team spent about thirty hours making repeated, personal appeals, through a variety of mediums (emails, phone calls, personal introductions, posted letters) in order to gain diverse participation at the community meetings, in addition to the phone calls and emails that county staff made.

Table 4. Types and examples of key stakeholder groups for local road system policy discussions.

Stakeholder groups	Examples
Political leaders who shape policy	Elected officials such as county commissioners; city councils, township officers, county sheriffs, planning commissioners, and state legislators Advocacy and interest groups, for example those working on roads, transit, the business climate, or fiscal/taxation issues.
Public manages who have expertise and make operational decisions about resources for maintaining roads	County engineers and administrators. City transportation, public works, and planning directors and city managers. MnDOT state and regional offices. Managers of other governments with roadways in the area (MnDOT, tribal nations, U.S. Forest Service).
Entities that need or impact the roads to do their work	Enterprises that need roads to move inputs and products for their business (ex. farmers, manufacturers, construction trades). Transportation service providers, including transit authorities and school districts. Delivery services that use the roads daily and know their condition (e.g., U.S. Postal Service, United Parcel Service). Major employers, hospitality businesses, medical centers, educational institutions, and other service providers whose employees, customers, or clients must be able to access their operations. Businesses that impact roadway quality because they move heavy vehicles (ex. farming products, logging, construction and contracting, mining). Emergency response services that need to move fire trucks, ambulances, or police vehicles reliably and quickly to provide effective responses.
Interested members of the general public	People living near a roadway or intersection where there are safety or maintenance concerns, or where changes to the roadway are proposed. Individuals interested in fiscal management, taxation, and other aspects of government resource use. People who use the road to get to work, school, shopping, and services. Taxpayers.

However, the payoff for the effort is substantial, as data from Beltrami County illustrate. Data collected during the focus groups and subsequent interviews indicate *both* that the meeting was unusually diverse in terms of the perspectives shared *and* that that diversity provided particular benefits. Analysis of the data reveals some novel findings as well as some results that are consistent with previous research (Table 5).

Table 5. Benefits of securing diverse stakeholder participation.

Findings of previous research	Beltrami County outcomes
Through exchanging among diverse perspectives, participants enlarge their understanding and appreciation of the issues. They may shift decision-making to a more appropriate geographic scale (Margerum, 2002), or begin to see a bigger picture of shared interests (Reich, 1990; Abers, 2000; Quick and Feldman, 2011).	Residents concerned about the particular county roads that they use most often came to see, through dialogue with people with comparable concerns across the county, that road maintenance issues were widespread, that it wouldn't be fair to fix only "their" road, and that a system-wide approach would be needed to address their collective concerns.
The stakeholders produced policies, plans, and projects of higher quality through engaging and learning from a diverse range of perspectives, thereby introducing new ways of understanding the problem or new metrics (Feldman et al., 2006; Innes and Booher, 2010).	Those who were present endorsed combining traditional measures (such as prioritizing road segments with the highest amount of daily traffic) with "qualitative" measures (such as prioritizing road segments in rural areas with less total daily traffic, but which are central parts of the trips residents make every time they get on the road system).
Diversity builds trust in the process. Including divergent perspectives in a dialogue, and viewing changes in policy as a result of different views, helps participants trust that their contributions are meaningful and the dialogue is authentic. Elsewhere, trust has been eroded when participants feel that a process is simply designed to validate a pre-determined outcome (Arnstein, 1969; Flyvbjerg, 1998; Feldman and Quick, 2009).	Beltrami County participants had a high level of satisfaction in the process. They described it as a meaningful use of their time and many became champions of the decisions they had reached together.
Previous studies in deliberation and engagement have <u>not</u> documented the particular value for policy advocacy of having stakeholders who initially hold divergent views come to agreement on selected policy recommendations. ***This is a novel finding.***	A diverse range of stakeholders, who originally held divergent views, turned up at Beltrami County Commission meetings to advocate for the local sales tax option. Analysis of the data suggests that the fact that these stakeholders were diverse – particularly that they initially had opposing views, that they gave public accounts of being compelled through deliberation to change their minds, and unity that they subsequently demonstrated – made them more effective and legitimate to the county commissioners, to the constituencies these participants represented, to the media, and to the general public.

7.3   Take an approach of sustained, deliberative dialogue to involve stakeholders in complex local road system issues.

Of the three study sites, Beltrami County is the best model of sustained, deliberative dialogue. In that county, the research team utilized a process of focus groups, surveys of concerns and preferences, analysis of convergence and divergence, and a carefully facilitated dialogue, involving diverse stakeholders, to probe the areas of divergence. The process emphasized learning and exchange among diverse views, having participants influence policy outcomes, and building broad-based support and advocacy for the ideas the participants generated. This was accomplished in part through actively identifying and recruiting diverse stakeholders, using graphics and stories to help participants easily follow what they were learning and how they were converging or diverging, and having numerous meetings (rather than a one-time gathering) to encourage relationships and provide participants with time to reflect and consult with their peers.

As previous research would suggest, meaningful inclusion in a deliberative conversation generated support among the participants for the policy decisions and their implementation (Webler, Kastenholz, and Renn, 1995; Deyle and Slotterback, 2009). This encourages participants to share responsibility for addressing a complex public problem with no easy answer (Crosby and Bryson, 2005; Morse, 2010), helping to foster champions for local roads, including the people who turned out for the county commission meeting to support the local sales tax.

Again, the research team wants to be explicit that we are not recommending the Beltrami County model because it resulted in approval of the sales tax. It is not support for the sales tax specifically that is a measure of the success of this process, but rather the learning, and well-informed positions that participants formed to support an option that seemed to be the most appropriate response for the opportunities, needs, and constraints of their particular region. The best policy solutions for other regions might be quite different. In addition, an extended deliberative process might not be appropriate in every county. For example, if residents are not very aware of or interested in transportation, public works leaders might need to put more attention into general outreach and communication about these issues prior to having deliberative meetings. Alternatively, if other pressing issues are competing with transportation for resources and attention, public works leaders should consult with senior county managers or elected officials about good timing for inviting public discussion about transportation needs.

7.4   Consistently keep the public informed about local transportation issues and projects, but reserve public engagement efforts for non-technical problems.

The Beltrami County data point to a strong need to keep the public informed about transportation policies and projects. Residents repeatedly asked for status updates on 5-year plans, information about how and why particular projects were being implemented, and especially for explanations about why proposed work was *not* being done.

Preliminary analysis of the Jackson County model implies that sometimes informing stakeholders is sufficient, and that more involved public engagement processes should be reserved for non-technical problems. This might be the case when discovery of new options is not really needed, where options are very tightly constrained by law, engineering parameters, or finances; or when solving a problem simply calls for resources to be mobilized (e.g., attention of

the county public works department, political will, funds). In these cases, it may be best to simply make stakeholders aware of available technical solutions, and perhaps to consult with them about their preferences among a range of pre-vetted options that are technically, legally, and financially viable. If that is the extent of the planned participation, it is important not to frame their participation as an opportunity to deliberate about or strongly influence the outcomes.

Evaluation data from all three counties indicate that stakeholder satisfaction depends on an appropriate alignment of what they are led to expect that they may contribute, and what they actually may contribute. In Dakota County, for example, where study participants were largely very satisfied with the process, the exceptions were people who protested bitterly that the decisions had already been made by the public agencies. Even without making any judgment about the validity of their perception that the decisions had already been made, the researchers do recognize the power of that critique. It reinforces the recommendation that greater levels of involvement should not be invited – or implied – when the agencies and issues involved will not accommodate a high level of stakeholder influence on outcomes.

7.5   Introduce tested and commonsense criteria for evaluating public engagement efforts.

There is a demonstrated need to improve methods for evaluating public engagement. This study finds remarkable consistency between the commonsense preferences of participants in public engagement and scholars of public participation about what is (un)fair, (un)productive, and (in)authentic in public participation. Therefore, it is strongly recommended the likes and dislikes presented in Table 3 and the evaluation questions laid out in Appendix F be carefully considered when designing and evaluating public participation efforts.

7.6   Adopt and refine the public engagement methods used in this study through application in other jurisdictions and further study.

This research lays groundwork for improving existing criteria for evaluating public engagement, but the researchers recommend implementing the proposed measures and refining them further through additional study. Similarly, each of the three public communication and engagement plans has been at least partially successful in addressing the particular needs of its context and in satisfying some or all participants. For building public awareness and support for addressing local road sustainability regionally and systemically, the Beltrami County model has been highly effective and is strongly recommended for implementation elsewhere. Similarly, for public engagement and communication about specific roadway or intersection projects, the Dakota County approach has been quite successful.

One of the ways in which the researchers recommend refining the models is through additional study. In December 2013, the Local Road Research Board approved a study, to be implemented starting in July 2014, to conduct additional research in other parts of Minnesota. Its purposes are to continue providing support to public works leaders who want to improve their communication and engagement with the public about local road system sustainability issues, and to continue strengthening the research initiated here through additional, comparative data from other contexts. Members of the current research team will be leading the upcoming project.

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Appendix A.   **Issues and Options Overview for Beltrami County**

Beltrami County Road System: Issues and Options Overview

The Beltrami County Highway Department is responsible for maintaining and managing the roads and bridges under its jurisdiction with a goal of providing a safe and efficient means for the vehicular transportation of people and goods throughout Beltrami County. The Department oversees 464 miles of County State Aid Highways, 251 miles of County Roads, 32 miles of Unorganized Township Roads, and 124 bridges on County and Township systems. Of the approximately 750 miles maintained, 400 miles are surfaced with bituminous. Other local, state, and federal agencies are responsible for other parts of the road system in our county.

For a variety of reasons, costs to maintain the road system are increasing faster than revenues. The difference will need to be addressed through some combination of three general methods: changing the level of service, using new construction/maintenance methods, and increasing revenues.

Change Level of Service

- Reduce extent of county routes by turning them over to townships
- Reduce level of maintenance/let roads deteriorate (more potholes, less blading, more washboards on gravel routes, less snowplowing, reducing edge line striping)
- Turn bituminous into gravel surface
- Setting vehicle weight restrictions

Use New Construction/Maintenance methods

- Full depth reclamation with light surfacing (grinding up bituminous and surfacing with chip seal)
- Stabilizing gravel surfaces (using chlorides, Base One, or similar products)

Increasing Revenues

- Federal funding (new Federal Highway bill reduced the amount available to County projects)
- Increase State funding through gas tax or other fee increase
- Increase local revenues
  - Use reserves (County Board recently designated $6.5 million)
  - Reallocate from other areas
  - Increase local levy or bonding
  - Adopt wheelage tax (County Board recently adopted, estimated to raise $340,000/year)
  - Adopt local option sales tax for transportation by up to ½ cent (County Board authorized by last state legislative session)

Appendix B.   **Pre- and Post- Engagement Survey of Beltrami County Participants**

Beltrami County Road System: Issues and Options

CONFIDENTIAL Participant Survey

	I am strongly opposed	I am somewhat opposed	I am neutral	I support it somewhat.	I support it strongly.	I don't have enough information
Advocate for state funding increase (gas tax, other).						

Beltrami County Road System: Issues and Options

<u>CONFIDENTIAL</u> *Participant Survey*

4. There are several options for trying to address the current and anticipated mismatch between available resources and needs or expectations for the local road system in Beltrami County. What is your level of support for each option? *(Check one for each option.)*

	I am strongly opposed	*I am somewhat opposed*	*I am neutral*	*I support it somewhat.*	*I support it strongly.*	*I don't have enough information*
Do nothing and see what happens.						
Innovate with construction or maintenance methods						
Reduce county system. Turn roads over to townships.						
Reduce level of maintenance (plowing, blading, striping).						
Let roads deteriorate (potholes, etc.)						
Turn bituminous into gravel surface.						
Limit and/or charge for heavy vehicles.						
Have County Board adopt ½ cent local sales tax.						
Reallocate County funds from other areas to roads.						

Beltrami County Road System: Issues and Options

<u>*CONFIDENTIAL*</u> *Participant Survey*
*Please complete this brief survey. Your responses are <u>**confidential**</u>.*

1. Briefly, what brought you here today, and what would you like to accomplish by participating today?

2. How well informed do you consider yourself to be about issues associated with Beltrami County's local road systems? (Circle one.)

Completely uninformed	Mostly uninformed	Moderately Informed	Well informed	Extremely well informed

3. In your own words, what 2-3 aspects of the road system in Beltrami County are you particularly interested in sustaining into the future?

a) _____

b) _____

c) _____

Appendix C. **Recommended Design for Community Meetings**

| End of event +
40 minutes | **Visiting & Clean-up** | Visit with participants as they are leaving, listening for ideas, addressing questions, and providing them with ways to stay connected with these issues.

Gather butcher block papers, other records of people's ideas.

Clean up / restore room. |

Guide for facilitators: Sustaining Our Local Road Systems: A Community Conversation

Minutes 55-70	**Question Two** *What are your thoughts about options for sustaining our local road system?*	Reminder: This is the opportunity to share preferences about these options and to generate new ideas. Facilitators circulate among tables, listen in for common themes, encourage everyone to participate, help groups that are stuck. Encourage people to record ideas on the butcher block paper (note: These will be your crib notes later on all of the discussions you can't be part of!) Remind the group around minute 65 (10 minutes into this round) that they have a few minutes to wrap up, select 2-3 points to communicate, and choose a person to report back *briefly* to the group as a whole.
Minutes 70-85	**Idea Exchange**	Ask the tables to *briefly* share their ideas with the whole group. Emphasize & enforce brevity! Have one of the facilitators take notes on a flip chart, whiteboard, etc., and another be actively listening, calling on people, managing the time, etc.
Minutes 85-90	**Wrap-Up**	Thank the hosts/sponsors and participants again. Explain what the next steps will be. Highlight a few take-aways from the discussion (ex., 2-3 key themes that came up, 1-2 key things you learned from the discussion). Indicate what your next steps will be, and explain how the participants can be involved (ex. to be sent a report, to be invited to future meetings, to communicate via hearings, etc.) End promptly. (This is important to show participants that their time is valued and to encourage them to participate again in future.)

Guide for facilitators: Sustaining Our Local Road Systems: A Community Conversation

Minutes 20-35	**Question One** *What are the key priorities for sustaining our local road system?*	Start small group discussions. Reminder: For now, please focus on what kind of features you want our local road system or services to have. We will talk about solutions next! Facilitators circulate among tables, listen in for common themes, help groups that are stuck. Remind the group around minute 30 (10 minutes into this round) that they have 5 minutes left, invite them to make a few notes about the key topics, ideas, or points they want to share with the next group.
Minutes 35-45	**Move Tables & Exchange**	Have participants disperse to new tables (with one staying at the original table). Ask people to introduce themselves to those at their new table. Ask them to describe briefly the key points form their previous table. Emphasize that they do this *succinctly,* and warn them when there are 5 minutes left to complete this.
Minutes 45-55	**Presentation Two** Introduction to Policy Options	Deliver presentation: • Share what has been learned from similar conversations around the state, through the Community Conversations and MnSHIP efforts. • Briefly present the four types of policy options, providing examples or illustrations of each. Emphasize this is not comprehensive, and that not every one of these idea would be viable in your region. Instead, the goal of this part of the presentation is to stimulate thinking by sharing examples and ideas.

Guide for facilitators: Sustaining Our Local Road Systems: A Community Conversation

Event start to 15 minutes	**Presentation One** Introduction to Topic	Ask everyone to settle into a chair. Begin promptly. Formally greet group, thank them for coming, thank hosts Explain the event has two main purposes: 1) to orient people to the topic of local roads, which will be accomplished through brief presentations 2) to explore and gather community input on the issues and options, through small group discussions. 3) It is _not_ to make decisions. Deliver presentation on issues.
Minutes 15-20	**Orientation** Explain small group meeting format, goals, and how to participate	Use the prompts and diagrams in the slide deck about the world café format. Generally, explain: • To facilitate that sharing and learning, we will be meeting in small groups. • You do not need to be an expert! Everyone in this room has relevant expertise of various sorts. What we want everyone to do is to listen, share ideas and perspectives, ask questions of one another, and learn. • There are large sheets of paper and markers at each table. Please pick up a marker and us it to make notes, to draw pictures, or whatever! • You are all responsible for including everyone in the conversation. And, you will all be an ambassador for your group. After the first question, you will spread out across other tables and share what you learned from your group. • We are going to have two rounds of questions. Here is how they are related: the first is about what we care most about in our local road system, what we want most to sustain. The second is about options for making that happen.

Guide for facilitators: Sustaining Our Local Road Systems: A Community Conversation

Recommended time allotment: 90 minutes for the meeting, 60 minutes for setting up

Recommended number of facilitators: 2

Reasons for choosing this meeting format: This meeting format, known as World Café, is easy to organize and does not require special training. It is an excellent way to explore the questions and issues that matter most to those who are participating. The small groups format is hospitable and strongly encourages everyone's participation. Through encouraging a great deal of exchange among participants, it facilitates sharing of diverse perspectives and the discovery of new ideas and options. It is best suited to the exploration of ideas, preferences, or information or problems that are new to the participants. It is *not* a decision-making format.

Resources: For more information: See http://www.theworldcafe.com or pose questions or request clarification from the LRRB research team at ksquick@umn.edu.

-60 minutes to event start	**Event Set-Up**	Facilitator 1: Set up slide projector, projection screen, and slides.
	Room Layout	Facilitator 2: Set up tables for 4-6 persons each for your total number of participants. Small, round tables are preferable because they reinforce the principle of equality among the participants. If you are expecting a small number of total participants, use smaller tables (ex. 3 tables of 4 people each). If you are expecting a larger group, use larger tables (ex. 6 tables of 6 people each).
	Food & Beverage	
	Supplies	
	Slide projector & test	
		For each table, bring 3-5 large sheets of butcher block paper, and enough colored markers for each person to have at least one.
		Set out beverages and snacks. Even very simple refreshments will contribute greatly to a welcoming, conversational environment.
		Set up a flip chart or tape butcher block paper to the wall for the facilitators to take notes.
-15 minutes to event start	**Greeting**	Facilitators greet participants at the door, provide agendas, direct people to tables, invite them to have refreshments, manage overflow as necessary

**Appendix D.   Public Communication and Engagement Tools
          (Minnesota County Engineers Association workshop handout)**

Proposed Criteria and Measures for Evaluating Public Engagement Efforts

Types of criteria for evaluating engagement[1]	How this study tested the criteria	Highlights of preliminary data analysis	Recommended questions or measures
Impacts of participation on groups, such as whether they discovered shared interests, discerned new ways of understanding the issue, or created new policy options.	We gathered ethnographic data on these phenomena through participant observation in the Jackson and Beltrami County cases.	The data gathered through the surveys also helped the participants see where there was convergence and divergence among their views, guided and legitimated the facilitators' choices to focus on areas of highest ambiguity and divergence, and helped the county administrators and elected officials to view emerging consensus and act upon it. With minor modifications, the same instrument would be appropriate for participants in similar processes in other counties. With minor modifications, the same instrument would be appropriate for participants in similar processes in other counties.	See the questions in the preceding column or Appendix 2. In addition, in interviews ask: Did any novel or surprising policies, plans, partnerships, or understandings of the issues emerge from interacting in the group or interpreting stakeholders' input? Has this process altered relationships (for better or worse) among all or selected participants? If so, how? [This question could be asked in a survey of individual participants or assessed for the group as a whole by a public manager sponsoring the effort, a facilitator, or an outside evaluator.]
Quality of decision outcomes, such as whether the process produced well-informed decisions that content area experts would support, or pragmatic recommendations that could be implemented.	In all three study areas, we have communicated with the county engineers and with other transportation policy leaders or experts about the results, to garner their evaluations.	For all three study areas, content area experts are satisfied with the outcomes of the public engagement efforts, viewed in terms of technical criteria (for example relating to safety and legality) and workability (relating to the availability of funding, staffing, and other resources).	These need to be developed specifically for the context, and then evaluated in conjunction with relevant content area experts. For example, a county financial management staff or public financing experts should be consulted about revenue-related policy decisions, whereas transportation safety engineers should be consulted about safety-related policy decisions.
Long-term results, such as whether the understandings or agreements reached are still in place, whether participants have sustained partnerships, or whether participation affected their response to subsequent engagement opportunities.	The short study period has not accommodated long-term evaluation. However, the research team proposes conducting a few additional interviews with a subset of existing study participants in 2015 or 2016.	Not applicable.	Are you satisfied with the outcomes of these efforts? Why? Has your involvement in this process affected anything you have done subsequently? For example, have been involved in meetings or advocacy about this or related issues? Was there anything about this experience that led you to respond in that way?

Proposed Criteria and Measures for Evaluating Public Engagement Efforts

Types of criteria for evaluating engagement[1]	How this study tested the criteria	Highlights of preliminary data analysis	Recommended questions or measures
Participant satisfaction, measured through stakeholders' perceptions about what constitute good criteria for evaluating public engagement processes.	Dakota County specifically asked for help to discern how stakeholders were responding to their engagement efforts. Through interviews with participants in their project, we probed for participants' views about whether the engagement process was effective, satisfying, or fair, and why.	There is strong overlap between the language stakeholders use to describe what would constitute a good (or bad) process and the other kinds of criteria found in the literature. They particularly emphasize that good processes allow them to have meaningful input, support decisions in transparent and fair ways, and are authentic (meaning that they are not invited to weigh in on decisions that have already been made and will not be changed).	Did you consider your participation in this process to be productive? Was it a good use of your time, could you influence decisions, Was this process fair? Even if the decision or outcome was not what you most wanted, was it reached in a transparent and appropriate way? Were you able to participate in the ways that you expected to? Was there transparent communication about how (and how much) you could influence the decisions? Has there been follow through? Do you know how the decisions were implemented? Has there been additional communication about what to expect next? Are you satisfied with the outcomes of these efforts? Why?
Impacts of participation on individuals, namely whether, what, and how they changed or learned through their engagement.	Through the Beltrami County project, we were able to test changes in individual and group attitudes through pre- and post- meeting surveys of participants (Appendix 2).	These criteria proved very useful for measuring whether, how, and how much participants' attitudes changed for the purposes of evaluating the process as a whole. With minor modifications, the same instrument would be appropriate for participants in similar processes in other counties.	See Appendix 2 for more detail. Suggested pre- and post – meeting survey questions include: What brings you to participate in this process? What do you hope to accomplish? What are your greatest concerns about the local road system? How well informed do you consider yourself to be about local road system issues? What is your level of support (on a five-point scale from "strongly opposed" through "neutral" to "strongly in support") on the following policy options [a diverse range of 8-10 options such as "Do nothing and let roads deteriorate" or "Introduce a local sales tax for roads"].

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[1] These general categories of evaluation criteria are drawn from previous studies (especially Deyle and Slotterback 2009; Innes and Booher 1999; Laurian and Shaw 2009; Mandarano 2008; Margerum 2002; Milward and Provan 2000; Schively 2007).

Appendix E.   Media Content Analysis

Source	Author	Date	Title	Brief Summary
MinnPost	Marlys Harris	7/13/2012	New federal highway bill: Truth and consequences for Minnesota	"The Highway Trust Fund supplies most of the money, courtesy of your Federal gas tax (18.4 cents a gallon). (Minnesota increased its own gas tax a couple of years ago, and it ticked up a half penny at the start of July.) Oberstar points out that when the Highway Trust Fund started up in the Eisenhower administration, the gas tax was 3 cents, or 10 percent of the cost of a gallon of gas, and, he says, "Nobody complained."
MinnPost	Joe Kimball	9/27/2012	Logging trucks clog downtown Duluth to protest interstate weight limits	"Logging trucks, some loaded with cargo of giant logs, rolled through downtown Duluth this morning to draw attention to complaints about weight limits on interstate highways that lead some trucks to use state highways and city streets instead."
MinnPost	Dan Salomone	10/2/2012	To balance our revenue system, start with a balanced discussion	"Balance matters: A balanced tax system provides a reliable source of funding for important state and local services that all Minnesotans rely on - such as public safety, roads and highways, health care, education and our social safety net for those in need. (Other taxes, user fees - such as fishing licenses and vehicle registrations - and federal funding also make up part of our state budget.) But in the last dozen years, the share of sales tax revenue has dropped sharply, while income tax revenue has been unsteady."
Chisago County Press	Anon.	10/18/2012	Big-picture highway system plans being laid for state	The purpose of this short article seems to be to inform the public on the transportation planning process in Minnesota, placing recent city council discussion in context with the overall state plan. No specific projects are described.
Star Tribune	Tim Harlow	10/26/2012	MnDOT wins award for road improvement plan: The International Road Federation salutes Minnesota.	"Along with pavement upgrades, the program includes installing freeway management systems, curb ramps and sidewalks to comply with the Americans With Disabilities Act, traffic signal enhancements, and replacing culverts and drainage systems. "

Source	Author	Date	Title	Brief Summary
Grand Forks Herald	Kevin Bonham	9/24/2011	Bridge fixes a fix for budget?	"According to Transportation for America, the size of the federal transportation program increased 14 percent between 2006 and 2009, while state-level needs increased 47 percent. Besides lobbying for more resources, the group is asking Congress to ensure funds sent to states for bridge repair are used only for that purpose. "
Grand Forks Herald	Brad Dokken	11/11/2011	DNR, Kittson Co. reach resolution	This article is not about road sustainability, however, it represents a collaboration between the state DNR and county officials over a dispute on road/ditch use for ATVs. The article talks about the strained relationship between the state and the county and how they were able to overcome it to create a "win-win situation."
MinnPost	Conrad deFiebre	5/10/2012	Rough road ahead for Minnesota drivers	"[...]while the per-gallon tax rate at the pump hasn't budged in 19 years and remains a tiny fraction of nearly every other industrialized nation's, the hidden levy poor pavement exacts in increased fuel consumption, mangled suspensions and premature wear and tear keeps going up. The next part of Kahn and Levinson's plan, "Expand It Second," calls for a Federal Highway Bank that would offer states construction loans "contingent on meeting strict performance criteria and demonstration of an ability to repay the loan through direct user charges [read: tolls] and capture some of the increase in land values near the transportation improvement."
Star Tribune	Paul Levy	6/23/2012	Fore! Golf carts to hit the roads in Ramsey: ATVs will also have access to city streets. Critics think it's a shot the City Council muffed.	"In Ramsey, golf carts soon will have the green light to travel on city streets -- a move the mayor hails but that two council members think makes as much sense as teeing off with a putter...We're cutting staff, cutting budgets, our roads need to be fixed and we're worried about golf carts?" said Randy Backous, one of the two no votes when the City Council passed the ordinance, 4-2."
MinnPost	Mark Glaess	6/26/2012	For road longevity, include fly-ash measure in transportation bill	"A key piece of our high quality of life -- especially in rural Minnesota -- is our transportation system because it connects us to the people and places most important to us. Fly ash allows contractors to double the lifespan of roads and build bridges that will stand for 100 years. As we rebuild our exhausted transportation infrastructure, we have the opportunity to ensure that a bridge built today does not require replacement before 2050 and instead focus our attention on more necessary projects. "
Star Tribune	Corey Mitchell	7/5/2012	Will new funding fail our bridges?: Backers say federal bill offers needed flexibility, but some question priorities.	""Safety tends to slip without rigorous oversight," Oberstar said. Since the August 2007 collapse of the eight-lane, steel-truss 35W bridge, which killed 13 and injured 145, transportation experts have warned that infrastructure spending was headed in the wrong direction. "

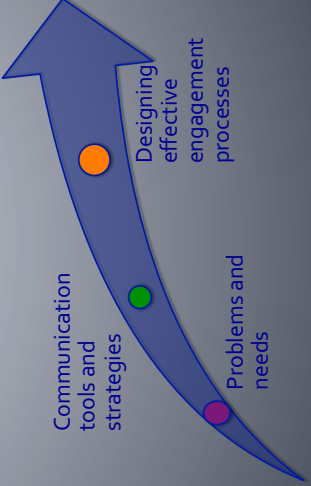| Source	Author	Date	Title	Brief Summary
Star Tribune	Lori Sturdevant	12/16/2007	Are jobs about to move on down the road?: That's the case being made by the newest advocates for transportation funding.	"The president of a 160-employee engineering firm made that point so forcefully at a state Chamber of Commerce Grow Minnesota! luncheon on Dec. 4 that some of his listeners likely had trouble swallowing their mousse dessert. Construction professionals stayed in Minnesota in recent years despite the state's refusal to spend more on transportation, because a hot housing market and business boom kept them occupied."
Star Tribune	Anon.	2/15/2008	What can state do to help ailing economy?: Look to the future and invest in infrastructure, workforce.	"No, state government can't pull Minnesota out of the current economic malaise, although passing a bonding bill and funding needed road and bridge construction would eventually provide a modest boost. What state government can do is ensure that its policies position the state for growth in future economic cycles. "
Grand Forks Herald	Scott Wente	3/1/2008	Oberstar: Gas tax hike yields federal money for projects	"U.S. Rep. Jim Oberstar, chairman of the House Transportation and Infrastructure Committee, said Friday that his home state could pull in an additional $160 million in federal money over a five-year period based on the nickel-pergallon increase that will take effect this year."
Star Tribune	Kevin Diaz	7/17/2008	Is state's bridge spending lagging?: A House panel says Minnesota uses only half its allotted federal funds. MnDOT says that doesn't accurately reflect investment.	"Congressional investigators say Minnesota has spent barely half of the money available under a federal highway program intended for substandard bridges, one of the lowest rates in the nation. But Minnesota transportation officials say the report is not an accurate reflection of the state's overall rate of investment in bridges, which they say is among the highest in the nation. The dispute, coming nearly a year after the Interstate 35W bridge collapse in Minneapolis, arises from legislation calling for a $1.9 billion national highway bridge reconstruction program. "
Pittsburgh Post-Gazette	Phineas Baxandall	8/1/2008	The next bridge collapse we must spend more to fix existing bridges and roads	"The major reasons for this systematic failure are short-sighted politics and misguided policies that cause funding for bridge repair to compete unsuccessfully against money for new highways. "
Grand Forks Herald	Chuck Haga	9/13/2008	Sale fit for a 'King of Trails'	This article is not about road sustainability, however, it talks about the emotional aspect a road can represent to residents. It refers to a U.S. highway road where an annual rummage sale occurs in Northern MN.
Star Tribune	Kevin Diaz	12/29/2008	Minnesotans line up for a stimulus shot	"The first big wave of change in the new Obama administration, a roughly $850 billion economic stimulus package, has brought out a swarm of Minnesota officials, businesses and special interest groups vying for a chunk of the nationwide infrastructure buildup. With President-elect Barack Obama and the Democratic-led Congress poised to embark on the nation's biggest building spree since the interstate highway system was built a half-century ago, road builders and building contractors from every corner of America are sharpening their pencils at the prospect of more work. "

Appendix F.   Recommended Dimensions and Criteria for Evaluating Public Participation

Design is iterative

Assess and design for context and purpose (1-2)

Enlist resources and manage the participation (3-10)

Evaluate and redesign continuously (11-12)

Source: Bryson, Quick, Schively Slotterback, and Crosby 2013

Table 2 Multiple Purposes of Public Participation, with Associated Design Considerations and Proposed Outcome Evaluation Criteria

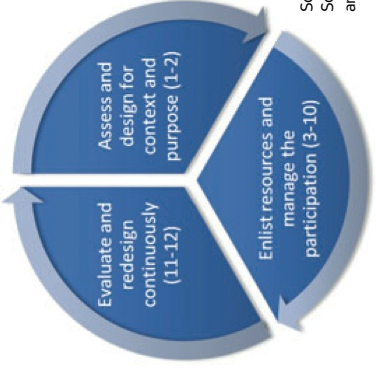| Purposes	Design Considerations	Proposed Outcome Evaluation Criteria
Meet legal requirements—for example, to provide public notices of upcoming actions or in preliminary scoping efforts for environmental impact assessments (Brody, Godschalk, and Burby 2003; Slotterback 2008)	• Clarify legal requirements • Observe sunshine laws • Consider alternatives to traditional public notices and meetings—for example, use of social media and online comment boards may be effective and efficient ways to fulfil these requirements.	• Legal requirements for public noticing and comment met • Efficient cost of communication and outreach
Embody the ideals of democratic participation and inclusion—for example—to achieve or represent the public interest through diverse participation, provide an opportunity for participants to enhance their own capacities to engage in democratic citizenship, or produce lasting achievements of public value (Mansbridge 1999; Young 2000; Fung and Wright 2003; Nabatchi 2010)	• Perform stakeholder analysis and design the process to encourage active participation by those with interests at stake, making particular efforts to be inclusive • Act in response to participants' contributions, encouraging diverse views and reflecting them in outcomes • Deliberative approaches can help participants develop capacity and commitment for ongoing contributions	• Inclusiveness of composition of participants • Discernible, communicated impact of participation on outcomes • Positive effects on citizenship (e.g., participants' increased understanding of how to participate in democratic processes, greater commitment to do so, or elevated sense of efficacy in ability to affect decision making)
Advance social justice—for example, by improving equity in distributing public services or by increasing a marginalized group's influence over decisions (Albers 2000; Andrews, Cowell, and Downe 2010; Corburn 2003)	• Perform stakeholder analysis and recruit diverse stakeholders • Enable diverse participation (i.e., by enabling multiple ways to participate, providing language translation or child care, and selecting accessible meeting locations and times) • Consider the distribution of benefits and harms	• Adequacy and diversity of stakeholder representation • Improved distribution of benefits and harms ensuing from the decisions
Inform the public—for example, about decisions that have been made or about changes in policies, resources, or programs (Nabatchi 2012b)	• Informing the public and maintaining transparency about decisions may be sufficient	• Large number of people reached or the target population reached • Diversity of modes or venues used to inform public • Increased public awareness of targeted policy issues • Public satisfied they have been informed
Enhance understanding of public problems, and explore and generate potential solutions (Deyle and Slotterback 2009; Godschalk and Stiftel 1981; Webler et al. 1995)	• Deliberative approaches and small-group formats can help participants understand issues and contribute to problem solving • Design processes for sharing information and engaging and exchanging views among participants to promote understanding and discovery of new options; help participants learn about each other's perspectives, the broader context, and possibly change their views, present information in various formats and from a variety of sources (Daniels and Walker 1996; Webler et al. 1995) • Balance technical expertise and broader stakeholder representation (Innes and Booher 2010)	• Changes in individual or collective assumptions, frameworks, or preferences • Changes in participants' knowledge of issues, ability to articulate interests, and appreciation of other perspective • Generation of new problem definitions and potential solutions
projects their	• Use deliberative, collaborative approaches to promote learning (Forester 1999; Healey 1997; Innes and Booher 2010) • Shift decision making to an appropriate scale (e.g., regional, local) to take advantage of relevant knowledge and investment in outcomes (Koontz and Thomas 2006; Mandarano 2008; Margerum 2011)	• Validation of the quality of decisions by informed content experts, using context-specific criteria related to, for example, economic efficiency, safety, reliability, feasibility, equity, environmental impact, etc.

See handout

Thank you!

Communication tools and strategies

Problems and needs

Designing effective engagement processes

2d. How will it be organized?

- Sequence and schedule
- Invitations
- Techniques
- Locations
- Etc.
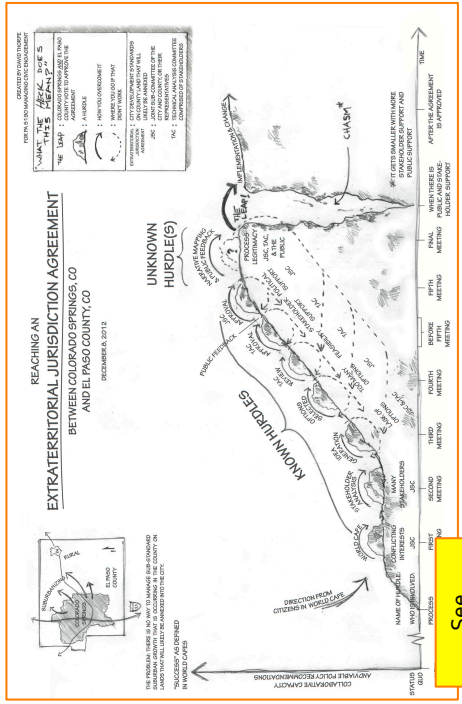
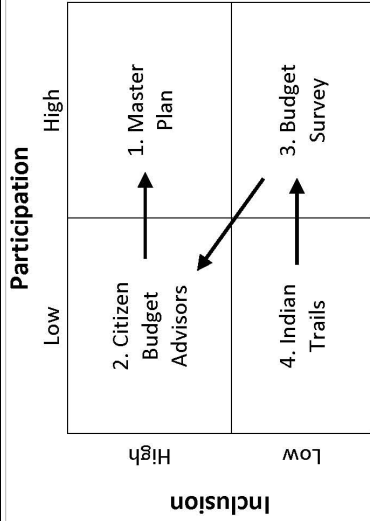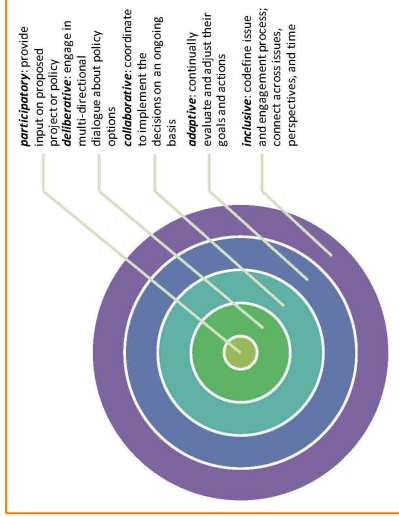## 3. How will you evaluate it?

- Individual, group, and community level outcomes (ex. individual and group learning)
- Process-oriented outcomes (ex. incorporating a diverse stakeholders)
- Content-oriented outcomes (ex. improving environmental participation)
- Participants' satisfaction with the process
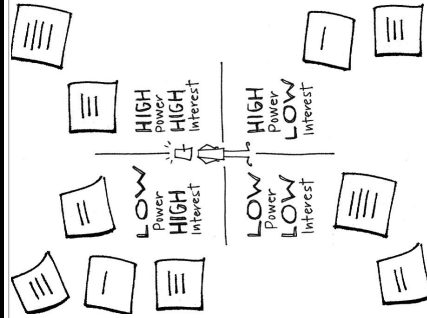- Immediate, interim, and long-term impacts

2c. Align your communication

See handout
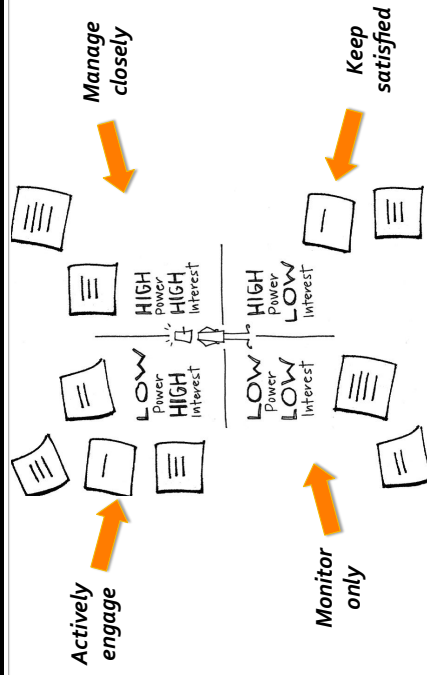
(REACHING AN EXTRATERRITORIAL JURISDICTION AGREEMENT)

See examples

Source: David Thorpe

2a. Can you go beyond participation

participatory: provide input on proposed project or policy

deliberative: engage in multi-directional dialogue about policy options

collaborative: coordinate to implement the decisions on an ongoing basis

adaptive: continually evaluate and adjust their goals and actions

inclusive: codefine issue and engagement process; connect across issues, perspectives, and time

Focusing your effort

Manage closely

Keep satisfied

Actively engage

Monitor only

HIGH Power HIGH Interest

HIGH Power LOW Interest

LOW Power HIGH Interest

LOW Power LOW Interest

Community satisfaction

Participation

Low — High

Inclusion

High — Low

1. Master Plan

2. Citizen Budget Advisors

3. Budget Survey

4. Indian Trails

2b. Engage key stakeholders

HIGH Power HIGH Interest

HIGH Power LOW Interest

LOW Power HIGH Interest

LOW Power LOW Interest

Paradoxical result

How can 21 be more participatory than 800?

.

Budget Advisors

GRAND RAPIDS, MICHIGAN - 2006 - 2007
BUDGET SUMMARY
PREPARED FOR CITY RESIDENTS TO PROVIDE A BRIEF
OVERVIEW OF THE PRELIMINARY FISCAL PLAN

➔ Citizen Budget Advisors

➔ Approved budget

➔ Ongoing efforts
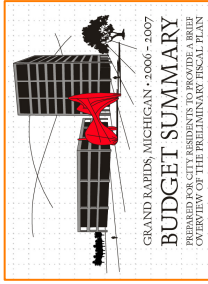
Participation *and* inclusion

Highly participatory processes:
- Oriented to **input**.
- Emphasize broad, representative participation and access
- Collect input, which influences decisions

Highly inclusive processes:
- Build ongoing capacity
- Engage diverse ways of knowing
- Have participants co-produce the process and content
- Make connections over time & issues

Inclusion
high
low

Participation
high
low

Paradoxical result

How can 21 be more participatory than 800?

- It is *not* more participatory.

- In this case, it is more *inclusive.*

F-4

Learning from Grand Rapids

Budget Survey

- Budget crisis
- Budget survey
- Community backlash
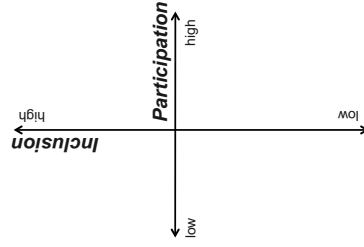
2. How will you manage it?

a. Consider going beyond participation

b. Engage key stakeholders

c. Align communication with purpose

d. Design elements: online and/or in person, sequencing of steps, scheduling

e. Identify resources

Studying Grand Rapids

- Longstanding commitment and high expectations for public engagement
- Experimentation instead of formula
- Comparison of 21 processes

1. What's the purpose?

- Meet legal mandates
- Embody or enact the ideals of democracy
- Engage participants to represent or discover the public interest
- Learn: improve understanding of problems and options, generate solutions
- Share information
- Manage conflict and resolve disputes
- Limit delays, mistakes, and lawsuits
- Produce greater support for the process and outcomes
- Build relationships, social capital, and trust for ongoing work

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Your project

- What are the purposes of your public engagement process?

Building trust through 4Cs

- Communication
- Competence
- Care for public good
- Consistency (you mean well and usually get it right)

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	• Use deliberative, collaborative approaches to promote learning (Forester 1999; Healey 1997; Innes and Booher 2010) • Shift decision making to an appropriate scale (e.g., regional, local) to take advantage of relevant knowledge and investment in outcomes (Koontz and Thomas 2006; Mandarano 2008; Margerum 2011)	• Validation of the quality of decisions by informed content experts, using context-specific criteria related to, for example, economic efficiency, safety, reliability, feasibility, equity, environmental impact, etc.

See handout

Designing engagement

Design questions

1. What is the context and purpose?
2. How will we manage the process (participants, communication, resources, and techniques)?
3. How will we evaluate its outcomes?

Your project

- Jot a few notes about a public engagement effort that you need to help organize.
  - What is it about?
  - Why are you doing it?
  - Who will be involved?
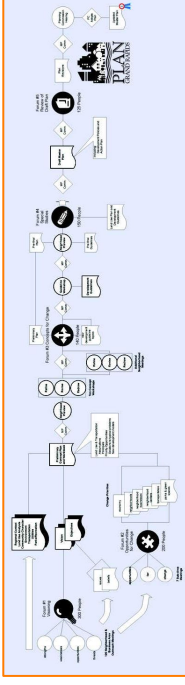 - When will it be happening?
  - How will it be organized?

Table 1 Design Guidelines for Public Participation   (Source: Bryson et al. 2013)

Assess and design for context and purpose

1. Assess and fit the design to the context and the problem
2. Identify purposes and design to achieve them

Enlist resources and manage the participation

3. Analyze and appropriately involve stakeholders
4. Work with stakeholders to establish the legitimacy of the process
5. Foster effective leadership
6. Seek resources for and through participation
7. Create appropriate rules and structures to guide the process
8. Use inclusive processes to engage diversity productively
9. Manage power dynamics
10. Use technologies of various kinds to achieve participation purposes

Evaluate and redesign continuously

11. Develop and use evaluation measures
12. Design and redesign

See handout ...terrelated, iterative tasks, not a step-by-step template.

Your examples

- Jot a few notes about a public engagement effort you have experienced that was noteworthy in some way
  - What made it noteworthy or memorable?
  - What were the goals and outcomes?
  - How was it organized?
  - What kinds of resources did it require?

Lots of experimentation

- Advisory boards
- Project review teams
- Using GIS for monitoring participation
- Social media
- Consensus conference
- SDIC
- ....And many, many more

RESEARCH REPORT

CENTER FOR
TRANSPORTATION STUDIES
UNIVERSITY OF MINNESOTA

Suggested Design and Management Techniques for Enhancing Public Engagement in Transportation Policymaking

Kathryn S. Quick
Zhirong Jerry Zhao
Humphrey School of Public Affairs
University of Minnesota

CTS 11-24

See handout

Engagement processes

Designing effective engagement processes

Communication tools and strategies

Problems and needs

State of the field

- Current context
  - Increasing desire for deliberative processes
  - "Participation as input"
  - More resources in than out
  - Frequently unsatisfying
  - Rarely evaluated
- Ongoing challenges
  - Public trust and legitimacy
  - Complex and technical issues
  - Poor diversity in participation
  - Limits on decision-making authority

Putting the tool into use

1. Suggested meeting format [handout]

2. Matching communication and purpose [IAP2 Spectrum handout]

3. Modifying the Prezi for your use [demonstration]
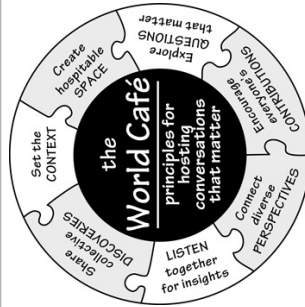
Aligning communication and purpose

IAP2 Spectrum of Public Participation

	Inform	Consult	Involve	Collaborate	Empower
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Increasing Level of Public Impact

See handout

Tinyurl.com/local-roads

Goals: informing and launching dialogue

See handout

Communication tool

Communication tools and strategies

Designing effective engagement processes

Problems and needs

Goals: informing and launching dialogue

the World Café
principles for hosting conversations that matter

Set the CONTEXT
Create hospitable SPACE
Explore QUESTIONS that matter
Encourage everyone's CONTRIBUTIONS
Connect diverse PERSPECTIVES
LISTEN together for insights
Share collective DISCOVERIES

Research findings (cont'd)

- Lack of understanding of how roads are funded
  - gas tax and tab fees only cover a small portion—vehicle sales tax, property tax are as important
- Many elected officials are unaware or skittish about some possible options
  - excess weight fees, gravel tax, new sales tax rules, changing road services levels, etc.
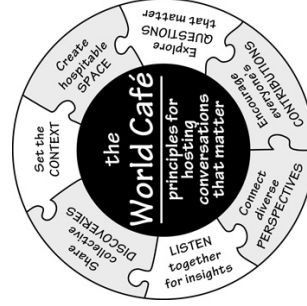 - …and there is pressure to fund other programs besides transportation

Public communication tool

Our Road System

See handout
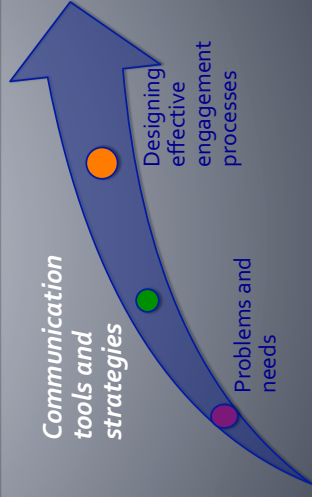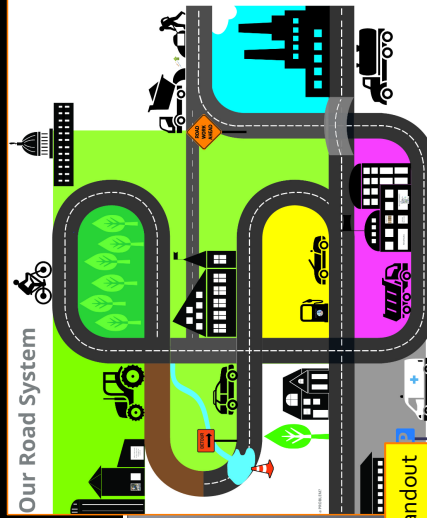
Research Questions

- What are the communication problems?
  - Level of public awareness of issues
  - Significant misunderstandings or missing information
  - Differing perceptions of nature or extent of problem or of solutions
- What are the engagement problems?
  - Current strategies and their efficacy
  - Needs for additional, new, or changed efforts

Data collection & analysis

- Interviews with stakeholders
  - TAP members
  - County engineers and staff
  - MnDOT staff
  - Policy makers (commissioners, legislators)
  - Other stakeholders

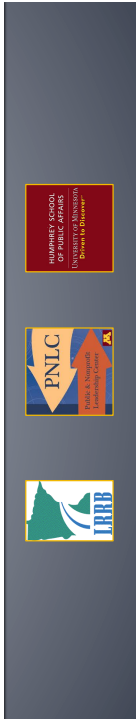## Data collection & analysis

- Observations of transportation committees and processes
  - County Commissioners
  - 2013 House and Senate transportation committees
  - MnSHIP 20-year plan
- Document and media review
  - Reports
  - News
  - Academic literature
  - Social media
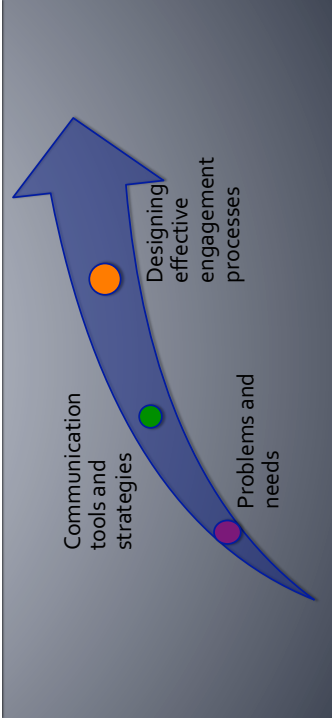
Research findings

- There are problems in maintaining the local roads network
  - An increasing gap between use, funding and the work that needs to be done
- There is a lack of public engagement
  - Road systems are very complex
  - There is little media coverage
  - The public and elected officials are not always aware of the many challenges

Agenda for our 2 sessions

Communication tools and strategies

Designing effective engagement processes
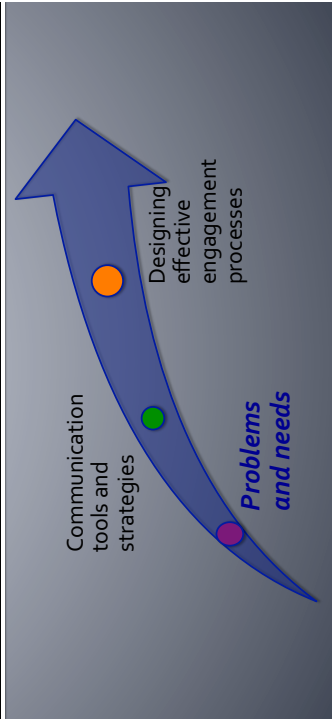
Problems and needs

Public Communication and Engagement Tools

Minnesota County Engineers Association
Summer 2013 Meeting
Kathy Quick, Guillermo Narvaez, Emily Saunoi-Sandgren, and Jerry Zhao

HUMPHREY SCHOOL OF PUBLIC AFFAIRS
UNIVERSITY OF MINNESOTA
Driven to Discover

PNLC

Public & Nonprofit Leadership Center

LRRB

Purpose of Project

- LRRB is interested in
  - Public communications
    - How to best inform various road users and public at large about local road systems issues in different jurisdictions
    - …. In this project, counties in particular
  - Public engagement
    - How to involve them in decision making
    - … In ways that are productive

Research project

Communication tools and strategies

Designing effective engagement processes

Problems and needs