





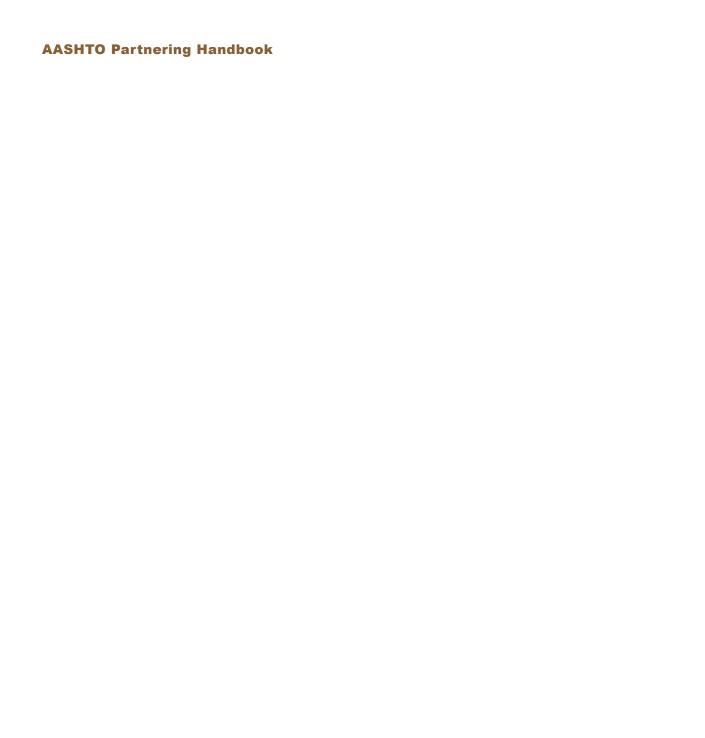
AASHTO PARTNERING HANDBOOK

2018

AMERICAN ASSOCIATION

OF STATE HIGHWAY AND

TRANSPORTATION OFFICIALS



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Foreword

The American Association of State Highway and Transportation Officials (AASHTO) Technical Subcommittee on Contract Administration is made up of members from various state Departments of Transportation (DOTs) and the Federal Highway Administration (FHWA). It was given the mission to review and update the 2005 AASHTO Partnering Handbook. The advent of alternative contracting methods like design—build, construction manager/general contractor, and public—private partnerships has fundamentally changed the way projects are being delivered across the nation. The handbook's first edition was written against a context of traditional design—bid—build project delivery where highway projects were awarded to the lowest responsive bidder. That contracting environment was one that could be vulnerable to adversarial relationships and litigation. Partnering was developed to address the negative consequences of the low-bid system.

Research on partnering clearly demonstrates that it provides a practical mechanism to positively resolve project issues, averting litigation.

A number of structural changes have taken place in the way highway projects are being delivered, most of which involve increasing the level of integration and collaboration between the DOT and its partners in the design and construction industries. The most prominent change is the increase in early contractor involvement in the design process. The second edition of this handbook was commissioned to capture the national experience with increasing collaboration during the design phase found in the alternative contracting practices and integrate it into the partnering process.

The second edition includes an organizational partnering maturity model that permits DOTs to assess themselves and determine those areas where additional guidance is needed to institutionalize the fundamental principles of partnering. This new handbook also defines three levels of partnering intensity that provide a means to tailor the partnering process to the agency's particular requirements based on their assessed level of maturity. The overarching goal of this handbook is:

To encourage public agencies to strive to create a project delivery environment where the principles of partnering have been institutionalized into routine business practices.

The contents of the revised handbook have been rigorously vetted in the field and found to add value to existing partnering programs. This handbook wll help educate key customers and partners on the benefits and methods of adopting partnering principles. The subcommittee members have spent a great number of hours to make this handbook a reality. No matter what business you are in, this handbook can help make partnering a way of life in everyday activities. Following the guidelines set forth in this handbook will help your company become a more valuable stakeholder in whatever business endeavor may be encountered.

AASHTO Technical Subcommittee on Contract Administration

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Chapter 1. Partnering: What Is It?

1.0 Partnering—Good Project Management

It is undeniable that partnering is a critical component to every transportation project. Partnering, at its core, is really about having a strong project management process in place. Establishing open lines of communication, making commitments to solve problems, treating all members of the team with respect, and focusing on the ultimate project purpose and associated goals are all key elements of what successful project

managers do. Monitoring and managing project schedules, scopes, costs, and budgets with a focus on safety, environmental responsibility, and quality all are key tasks of effective project management.

Partnering has historically been viewed as a highly formalized process that encourages cooperation, joint problem solving, and focusing as a team on the objectives of a project. Key elements of the partnering process have included partnering charters, escalation ladders, periodic workshops and meetings, and performance tracking, among other things.

part•ner (part-ner) n. One that is united or associated with another or others in an activity or a sphere of common interest:

v. part·nered, part·ner·ing, part·ners

v. tr. To make a partner of. To bring together as partners. To be the partner of.

v. intr. To work or perform as a partner or partners.

Oxford Dictionary 2017

Since its implementation on state department of transportation (DOT) highway projects in the 1980s, formalized partnering—and an emphasis on partnering, in general—has experienced an ebb and flow of use. As project personnel gained experience by participating in formal partnering workshops on several projects, the rituals of the formal, facilitated process—the workshops, charters, and related physical elements—are perceived to have become redundant. DOTs have focused on "institutionalizing" partnering so that, at some point, the formalized elements gradually diminish and the philosophies remain within the public and private entities that work on these projects. Beyond the physical elements of the project, the concept of partnering with all participating agencies remains a critical component to effective project management.

1.1 Purpose of Partnering

Public agencies must address, at a minimum, the following three areas of concern during project development and delivery:

- Maximizing project cost/time certainty while minimizing disruptions due to disputes
- Ensuring proactive project quality management
- Creating a safe environment for workers and the traveling public.

The move from traditional low-bid contracts to the increased use of alternative contracting methods (ACM) such as construction manager/general contractor (CMGC), design—build (DB), and public private partnerships (P3) created project management challenges for DOTs. Not only do ACM projects allow concurrent design and construction, they also move at a faster pace, demanding a much higher degree of both integra-

tion and active collaboration to meet the demands of an aggressive schedule. To foster enhanced collaboration, partnering has been found to be an effective tool for creating the necessary atmosphere for open, information-rich communication between the owner and its design consultants and construction contractors.

Therefore, the purpose of this handbook is to provide guidelines for applying the principles of partnering to projects delivered by all ACMs, as well as to traditional low-bid projects. It will also expand partnering in the DOT context to include program-level initiatives designed to avoid project-level disputes, and to swiftly resolve them when they do arise. The guidelines in this handbook recognize that to be effective, partnering must extend beyond facilitated workshops and nonbinding charters to embody a set of business practices that are institutionalized in an agency's policy documentation, contract administration manuals, and project development guidance. Agency personnel must be trained to properly execute those practices. It is also strongly recommended that any partnering program's performance should be measured. The results of the measurements should be evaluated, and feedback provided to achieve continuous improvement. Lastly, the program should have a partnering maintenance program to train new employees and industry partners, and debrief those that are leaving the agency.

The term "partnering" connotes different things to public agencies and members of the transportation industry. For private-sector projects, partnering is a long-term relationship created for a construction program which consists of multiple projects. Establishing strategic partnerships helps align each party's commercial interests,

A successful partnering program is like a *living* organism that grows and adapts as the agency's program of work changes.

allowing its members to better understand each other's motivations, reliability, and credibility. Oftentimes, strategic partnerships are made binding through memoranda of understanding/agreement or as a contract.

Since the private sector is not as heavily regulated as the public sector, its strategic partnerships are easier to form and the alignment of commercial interests is not as cumbersome. Public agencies are responsible for meeting the needs of political leaders, officials, and the taxpayers. Hence, their ability to engage in binding strategic partnerships with private entities is extremely limited or prohibited by statute. As a result, the public sector practices a nonbinding form of partnering designed to improve the adversarial atmosphere in which some public projects were delivered under low-bid, design-bid-build (DBB) procurement.

A successful partnering program is like a living organism that grows and adapts as the agency's program of work changes. Since the delivery of DOT projects can be technically and financially complex, the partnering program cannot be a one-size-fits-all initiative. In order to make a compelling business case for investing the resources necessary to maintain an effective partnering program, the program itself must be flexible enough to vary across a spectrum of possible forms. This handbook will call that variation "partnering intensity," which ranges from very informal to highly structured based on the requirements of a given project or program.

1.2 Dispelling the Myths and Misconceptions: What Partnering Is and Is Not

Before getting into the details of how to implement a successful partnering programs, it is important to first address the myths and misconceptions that have challenged DOT partnering programs for the past two decades.

1.2.1 The Partnering "Stigma"

When the U.S. Army Corps of Engineers (USACE) first experimented with partnering in the 1980s, its implementation was met with skepticism within its own ranks, as well as among the ranks of its construction contractors. The same reaction was found when partnering was introduced to the highway construction industry by the Arizona DOT in the early 1990s. By that time, the American Road and Transportation Builders Association (ARTBA) and the Associated General Contractors of America (AGC) had embraced the concept and actively promoted its implementation throughout the nation. Like most new business approaches, partnering was initially met with skepticism.

In the late 1990s, partnering research showed that partnering did have a positive impact on project success, as measured by the number of disputes that evolved into claims and litigation. Nevertheless, there is continued hesitation to accept new partnering practices. Additionally, there is often a misperception that partnering allows the terms and conditions of the contract to be altered "in the spirit of partnering" without going through proper contract modifications, as specifically detailed in the contract documents. Therefore an understanding of what is and is not partnering is essential to its successful implementation.

1.2.2 What Is Partnering and What It Is Not?

Partnering is:

- A process of building relationships that include positive communications, cooperation, goodwill, honesty, and trust.
- A process that helps all team members learn and respect the perspectives of the other team members.
- A structure to ensure task assignments and accountability are clear.
- A process that keeps the team focused on the big picture and jointly solving problems large and small to ensure project goals are met.
- A commitment by all parties to work within the parameters and guidelines established.
- A process to ensure a commitment by all parties to project performance measures including safety, quality, environmental responsibility, schedule, and budget.

Partnering is not:

- A process which allows the contract to be altered or contract provisions to be modified without specific written contract amendments.
- A process where the transportation agency can assume that the contractor will complete tasks without compensation, or where the contractor can expect the transportation agency to ignore contractural requirements.

Initially, partnering was a formal process, beginning with a partnering workshop, which includes all partners' input, and with tangible deliverables, including:

- Partners' communication and roles matrix,
- A charter (mission, goals, and guidelines),
- An issue resolution process,
- Action plans,

- A partnering evaulation program,
- Meeting follow-up strategies, and
- A report that includes all partnership agreements.

Many of these elements are simply effective project management practices. What has set partnering apart from traditional project management is the project charter, the partnering workshop, the outside facilitator, follow-up meetings, the partering survey, and a project partnering report.

1.2.3 Partnering Is About Shared Responsibility

The Maryland State Highway Administration (MSHA) describes partnering as "A process based on trust and an open, honest attitude in which all participants in a project recognize both common and individual objectives and work to achieve those objectives through improved communication and cooperation." The ultimate purpose of partnering is to create a multi-participant team in which all key participants are committed to a common purpose, goals, and work approach for which they hold themselves mutually accountable.

Shared responsibility means fulfilling commitments to the team and ensuring, as much as possible, the successes of all members of the team. The approach must allow for the fact that, while the members of the team share many common interests, they will have differing authorities, interests, and objectives that must be accommodated.

When formalized partnering was first used, there was a hope that the philosophies of partnering would become "just a way of doing business" and the need for formal workshops would be reduced or eliminated. The evolution of partnering shows this to be true—at least in part. For those transportation agencies that have truly institutionalized partnering—with periodic training, project performance monitoring, escalation processes, etc.—this does appear to be the case. However, the world is changing drammatically at transportation agencies across the country. Downsizing, decentralization, retirements, and the increased use of consultants to manage and deliver projects all create a continuing need to reinforce the philosophies of partnering.

While partnering is typically considered an agency-implemented process, the construction and consulting engineering industries (collectively called the "Industry") are key participants in this process. The needs, desires, changing deomographics, and many other elements that agencies need to consider also exist on the private side. Partnering's formal application remains an extremely valuable process for complex projects that include key risk elements, critical agency objectives or goals (such as opening a project before a specfic event occurs), new processes for the agency and/or industry (i.e., ACMs), and/or other unique elements.

1.3 The Evolution of Partnering

Partnering on highway construction contracts was a revolutionary change that sought to improve upon the sometimes adversarial relationship between project sponsors and industry participants to one that recognized that both owners and contractors share the same three objectives in all projects: to complete the project on time, on budget, and to the level of quality set forth in the contract. Partnering aligned each party's business objectives by utilizing team-building tools and fostering an early understanding of the specific challenges of the project. After two decades of use, the results of partnering have generally been positive. Thus, the fundamental question is no longer whether or not formal partnering works, but rather whether

¹ MSHA 2015.

"Partnering is not a new concept. It has been around informally for a long time. In 1929, New York businessmen developed a team and decided to build the tallest building in the world. In 18 months, the Empire State Building was completed, sometimes developing at a rate of four and a half stories a week.

It was the team's continuous cooperation, spirit of trust, open communication, and coordination that caused the construction process to be a success for all stakeholders."

Ohio DOT Partnering Handbook 2005

there is sufficient return on investment for the time and resources expended in using it.

In answer to this question, agencies need to evaluate their fundamental business practices to adapt to partnering's principles, and assess if their members have embraced the values associated with partnering. In an ideal project delivery environment, both the owner and the contractor would make decisions based on "best-for-project" basis rather than a "best-forme" approach. This goal has yet to be fully achieved and as such, both agencies and industry understand that fully implementing partnering does come with a cost.

Hence, in the resource-constrained environment in which the nation's transportation

infrastructure must be built, DOTs have evolved their partnering program's content to match the available resources. For example, the Utah DOT (UDOT) has developed three levels of partnering: informal, semi-formal, and formal (see Section 3.1 for details). UDOT has also developed a formal decision tool to determine which level is most appropriate for a given project. The research conducted for this handbook also found a number of DOTs that use informal partnering for projects where they believe that the cost of a formal, facilitated workshop is not justified. The varying levels of partnering efforts will be called "partnering intensity" in this handbook.

Research also led to defining program-level efforts to employ the principles of partnering as "Institutionalized Partnering." Institutionalizing the principles of partnering involves their formal adoption and publication as standard operating procedures and processes. For the purposes of this handbook, a practice is said to be institutionalized if the DOT has included it in some form of contract administration document, like a general provision, construction administration manual, or local regulation. An example is a standing dispute escalation process that is followed on all projects regardless of the presence of a partnering arrangement.

The act of codifying partnering-related business practices is part of determining an agency's organizational project management maturity, which is detailed in Section 3.2. Appendix C provides an organizational partnering maturity modeling tool, which is intended to assist DOTs in identifying those aspects of their partnering programs that lack formal documentation and as a result cannot be considered to be institutionalized. As an organization's partnering maturity increases, the amount of standardized procedures for implementing partnering also increases. The aim is to determine a given agency's required level of project management maturity rather than to pursue the goal of documenting everything. This documentation of institutional values and business practices is critical to maintain consistency in construction contract administration procedures, as staff turnover over time is inevitable. As a result, the question becomes which practices should be documented to meet the preferences and constraints of the agency's business culture.

1.4 Principles of Partnering

The Arizona DOT defines partnering as following these seven principles:

- Trust is knowing that a partner will look out for the other partner's best interests.
- Commitment is keeping agreements.
- Communication means sharing information in an open and honest way.
- Cooperation, Teamwork, and Relationships relate to how partners work together toward common goals.
- **Issue Resolution** is having agreements and/or a process in place so that issues are prevented, if possible, or identified and resolved before they harm the partnership or the project, if not.
- Measurement and Feedback evaluates the progress of the partnership towards its goals.
- Continuous Improvement uses feedback to determine and implement the changes necessary to sustain the partnership.

1.5 Making the Business Case for Partnering

Implementing an agency-wide partnering program is not cost-free. Since all public entities must operate in a resource-constrained environment that is subject to the ebb and flow of political preferences, every expense must be justified by demonstrating value for money. A study conducted by Bresnan in 2007 summarizes the issue as follows:

"Partnering in the construction industry context (and perhaps elsewhere too) might be seen as, in many ways, a fragile phenomenon, often dependent on the convergence of a number of key commercial and organizational supporting conditions. As such and, in the continuing absence of systematic research that unambiguously points to its benefits, it still constitutes something of a leap of faith. To base such a faith on slim philosophical and empirical foundations is to court the possibility of that faith being undermined when problems are encountered and the complex reality of partnering is confronted." (italics added).

The research developed for this handbook is intended to fill that gap in the body of knowledge. A summary of the results of the study to quantify the costs and benefits of partnering is contained in Appendix D.

The business case for partnering includes both tangible and intangible benefits. It is highly dependent on a given agency's organizational partnering maturity. A less mature DOT will need to depend more on the tangible benefits found in other states to make the value-for-money case because its upper management and their overseers will be less inclined to make the "leap of faith" described by Bresnan above as they will be less familiar with the value of the intangible benefits of enhanced business relationships. Additionally, DOTs that have not adopted some or all available alternative contracting methods will find that it is "difficult to rapidly change a corporate culture that has been operating the same way for decades." The irony is that the evidence of high organizational maturity includes establishing systems to measure project performance and feeding that output back into the process to maintain continuous process improvement.

² Bresnan 2007.

³ Mollaoglu et al. 2015.

1.5.1 Summary of Tangible Benefits

The research developed four categories of metrics. Table 1-1 summarizes the overall findings of the research with regard to each category. Partnering has continually provided a medium to enhance project performance through active, information-rich communications aimed at identifying and resolving issues before they lead to disputes that could negatively impact project performance.

Table 1-1. Summary of Partnering's Tangible Benefits by Metric Category

Metric Category	Definition	Summarized Research Findings for Category
Cost-Time	These are classic project per- formance metrics with regard to changes in budget and schedule.	Partnering's primary benefit on all types of project delivery is to increase both cost and schedule certainty. Its impact on both cost and schedule growth is trivial on DBB. It appears to have a somewhat more positive impact on CMGC and DB projects.
Legal–Regulatory*	These are metrics associated with the cost and time to resolve disputes and claims. This category also includes violations of environmental and other applicable codes.	The primary benefit in this category is related to enhanced cost and schedule certainty as the probability of disputes that lead to litigation is reduced. Claims are much less prevalent on CMGC, DB, and P3 projects, partly due to the contractual structure that tacitly encourages partnering through legal integration of the parties to the contract.
Safety-Quality	These metrics measure the performance of project safety and quality management plans and programs.	Partnering is perceived as having a strong positive impact in this category based on the survey research. Again, the use of ACMs appears to promote improvements in this category.
Project Communications	These metrics attempt to quantify the level and quality of the communications that are developed within a project delivery team.	The survey found that partnering was considered a way to enhance both timely and meaningful communication within project delivery teams.

^{*} There is one caveat that must be noted with regard to the Legal-Regulatory category. A review of current construction case law found a trend where some courts appeared to interpret the contents of "nonbinding" partnering charters as evidence of a breach on the implied covenant of "good faith and fair dealing" (GFFD).⁴ In laymen's terms, this concept protects a plaintiff that relied on a promise to its detriment from damage. Two of the 20 cases reviewed asserted a breach of GFFD and referred to the project's partnering charter as evidence that the promise was made. In both cases, the general contractor (GC) asserting the claim prevailed over the owner. In both cases, the claimant made reference to the contents of the partnering agreement as evidence to prove that the owner made a promise in writing in the partnering charter, and the GC had the right to rely on that promise when damages were incurred, comprising the GFFD claim, albeit secondary to the primary basis found in the project's contract. While the finding is not legally authoritative, it does warrant a word of caution with regard to whether or not promises made in a partnering charter are indeed nonbinding.

1.5.2 Summary of Intangible Benefits

While much more difficult to measure than the tangible benefits, two categories of intangible benefits were established: perceptional benefits and relational benefits. Perceptional benefits are those that are accrued based on project performance and are probably most strongly related to an agency's reputation for delivering perceived value for money. Relational benefits are those that are accrued internally by the project delivery team and are largely a function of the team's ability to communicate in an open and timely manner about issues and potential problems.

The research found that the greatest perceptional benefit was "legacy skill development." In other words, the partnering "spirit" created an impression that the DOT and its industry partners worked as a cohesive

MacMahon 2014.

team, and the result was the individual members of each entity developed trust and respect to help them arrive at a mutually agreeable resolution to issues as they arose. Hence, the "legacy" was realized on subsequent projects as individuals, who had personally "institutionalized" the principles and values of partnering based on past positive experiences, focused on the alignment of business objectives between the partner organizations.

The primary relational benefits are similarly connected to legacy skill development. The research found that partnering, regardless of its intensity, promoted increased communication and cooperation. It also appeared to positively stimulate trust and teamwork. In fact, 12 DOTs had institutionalized these principles by including them in DOT contract administration documents.

1.6 How to Use This Handbook

The guidance contained in this handbook is intended to assist DOTs in developing project-level partnering plans for all types of construction projects delivered by both traditional and alternative methods. The term "partnering" has come to cover a wide range of project management relationships, including internal partnering and partnering with third-party stakeholders. This handbook is focused on project-level partnering. It also encourages its users to institutionalize those partnering principles that they find valuable in their contract administration documents and manuals, to develop a consistent approach to project delivery and a predictable business culture that emphasizes the sharing of risk.

This handbook contains 14 chapters divided into four general categories. The first group, Chapters 1–3, provides the information necessary for the user new to partnering to understand its principles and the AASHTO philosophy for implementing a project-level partnering program. The second grouping, Chapters 4 through 7, provides information on how to apply partnering to projects delivered using alternative methods, specifically, CMGC, DB, and P3 project delivery. Chapters 8 through 10 furnish information on promulgating partnering at the programmatic level and using partnering as a risk management tool. The final four chapters (11 through 14) cover how to plan a workshop for each level of intensity and how to measure partnered project performance with continuous improvement feedback.

The process for utilizing the information contained in this handbook is shown in Figure 1-1.

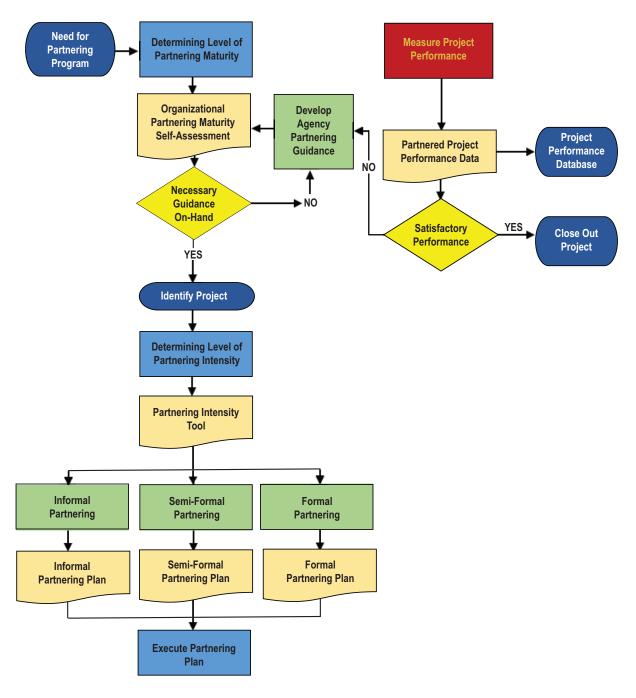


Figure 1-1. Partnering Process Chart