



**US Army Corps
of Engineers**

Water Resources Support Center
Institute for Water Resources

Pamphlet 4

ALTERNATIVE DISPUTE
RESOLUTION SERIES



PARTNERING

December 1991

IWR Pamphlet-91-ADR-P-4

The Corps Commitment to Alternative Dispute Resolution (ADR):

This pamphlet is one in a series of pamphlets describing applications of Alternative Dispute Resolution (ADR). The pamphlet is part of a Corps program to encourage its managers to develop and utilize new ways of resolving disputes. ADR techniques may be used to prevent disputes, resolve them at earlier stages, or settle them prior to formal litigation. ADR is a new field, and additional techniques are being developed all the time. These pamphlets are a means of providing Corps managers with examples of how other managers have employed ADR techniques. The information in this pamphlet is designed to stimulate innovation by Corps managers in the use of ADR techniques.

These pamphlets are produced under the proponentcy of the U.S. Army Corps of Engineers, Office of Chief Counsel, Lester Edelman, Chief Counsel; and the guidance of the U.S. Army Corps of Engineers Institute for Water Resources, Fort Belvoir, VA, Dr. Jerome Delli Priscoli, Program Manager.

For further information on the ADR Program and pamphlet contact Program Manager:

*Dr. Jerome Delli Priscoli
Institute for Water Resources
Casey Building
Ft. Belvoir, VA 22060-5586
Telephone: (703) 355-2372
Fax: (703) 355-3171*

Partnering

Alternative Dispute Resolution Series

Pamphlet 4

Written By:

Lester Edelman
Chief Counsel
U.S. Army Corps of Engineers

Frank Carr
Chief Trial Attorney
U.S. Army Corps of Engineers

Charles L. Lancaster
Charles L. Lancaster and Associates

December 1991

IWR Pamphlet 91-ADR-P-4

Table of Contents

Partnering	1
What is Partnering?	1
Why Use Partnering?.....	1
How Does Partnering Work?	2
How Do We Know It's Working?.....	3
What Concerns Are There About Partnering?.....	4
Partnering Experiences	7
Oliver Lock and Dam Replacement,	7
Initial Workshop	8
Changed Attitudes, Behaviors, Processes	8
Experience with Partnering	9
Lessons Learned.....	10
Bonneville Dam Navigation Lock	10
The Bonneville Navlock Diaphragm Wall	11
Initial Workshop	11
Outcome of the Partnering Process	12
Hatchery Wells Project.....	13
Initial Meeting	13
Outcome of the Partnering Process	14
Bonneville Main Lock Construction.....	14
Initial Workshop	14
Interim Results	14
Conclusion	15
Partnering Process	17
Early Preparation	17
Introduce the concept to bidders	17
Management Commitment	17
Secure Top Management Support and Commitment.....	17
Identify Partnering "Champions" for the Project	17
The Joint Partnering Workshop.....	18
Choose Participants for the Partnering Workshop	18
Select Neutral Facilitators for the Partnering Workshop	18
Conduct the Workshop	18
The Partnering Charter	19
Define Goals and Objectives.....	19
Follow-up Meetings and Evaluation.....	20
Arrange Regular Follow-up Meetings	20
Develop Evaluation Processes	20
Plan Combined Activities	20
Appendices	21
Bibliography of Partnering Resources	27

“Clearly, the best dispute resolution is dispute prevention. Acting to prevent disputes before they occur is key to building new cooperative relationships. By taking the time at the start of a project to identify common goals, common interests, lines of communication, and a commitment to cooperative problem solving, we encourage the will to resolve disputes and achieve project goals.”

LTG H. J. Hatch, Commander, U.S. Army Corps of Engineers
Policy Memorandum 11, 7 August 1990

Partnering

This pamphlet describes the concepts and implementation of an innovative new program, Partnering, designed to create a positive, disputes-prevention atmosphere during contract performance. Partnering uses team-building activities to help define common goals, improve communication, and foster a problem-solving attitude among a group of individuals who must work together throughout contract performance. While Partnering can be used to improve all kinds of working relationships within the Corps of Engineers, this pamphlet will concentrate on owner/contractor relations in construction contracts.

A central objective of Partnering is to encourage contracting parties to change from their traditional adversarial relationships to a more cooperative, team-based approach and to prevent disputes. The Partnering concept, therefore, is significant because it offers the most efficient form of dispute resolution: dispute prevention. Indeed, the benefits of successful owner/contractor relations go beyond preventing disputes and include improved communication, increased quality and efficiency, on-time performance, improved long-term relationships, and a fair profit and prompt payment for the contractor.

What is Partnering?

How many times have you reached the end of a construction project only to be faced with a number of unresolved conflicts, many of them in litigation? As an alternative to litigation, ADR offers techniques for resolving conflicts, but why wait? There is a way to prevent these conflicts during construction by establishing a partnering relationship between the owner and the contractor. Partnering lays the foundation for better working relations on a project including better dispute resolution. By taking steps *before construction begins* to change the adversarial mindset, to recognize common interests, and to establish an atmosphere of trust and candor in communications, Partnering helps develop a cooperative management team. This team has the ability to appreciate the roles and responsibilities each will have in carrying out the project.

Partnering is the creation of an owner-contractor relationship that promotes achievement of mutually beneficial goals.

It involves an agreement in principle to share the risks involved in completing the project, and to establish and promote a nurturing partnership environment. Partnering is not a contractual agreement, however, nor does it create any legally enforceable rights or duties. Rather, Partnering seeks to create a new cooperative attitude in completing government contracts. To create this attitude, each party must seek to understand the goals, objectives, and needs of the other—their “win” situation—and seek ways that these objectives can overlap.

Why Use Partnering?

From the beginning of a typical construction project, the structure of the relationship promotes an adversarial attitude between the parties. There are two distinct management teams, each making independent decisions with the intent of reaching their own goals for the project. These decisions directly affect the path each party chooses to achieve its goals—but they are often made in a vacuum, without

regard for the other party's interests and expectations. Communication may be limited—or non-existent! Conflicts are inevitable as paths diverge and expectations are not met. The worst stereotypes of the other side are remembered, and they seem to block the way to our goals. An adversarial management style takes over and the goals each party had for the project get lost in preparation for litigation. The stage is set for future conflict and, often, litigation.

It's as if two people are planning to travel together to a common destination, but each has his own map and refuses to show it to his traveling companion!

The bottom line is clear: The adversarial management relationship jeopardizes the ability of *either* side to realize its expectations. The result is increased costs for the taxpayer and declining profit margins for the contractor. This is truly a lose-lose outcome for all.

Both parties have recognized that there needs to be a better way of doing business. Efficiency and productivity must be increased. Neither the government nor contractors can afford the costly posturing that the present adversarial climate promotes. Partnering offers the chance to change from an adversarial style to a more cooperative, synergistic relationship that takes full advantage of the strengths of all team members.

Perhaps it was best summed up by Daniel Burns, Chief, Construction-Operations Division, North Pacific Division: "The end result [of current 'adversary management'] is a continuing upward spiral of risk and cost: risk of the contractor going broke, risk of projects taking much longer than necessary for completion, and risk of significant cost overruns. These costs do not

go to productive facilities, but instead to overhead, litigation, and contesting experts. Partnering seemed to offer the opportunity of harnessing the capabilities, talents, and positive energies of both owner and contractor groups and focusing them on mutually agreed-upon goals. It offered the opportunity for all parties to change preconceived attitudes in order for both to win in the long run."

How Does Partnering Work?

Partnering creates a climate for success by building a cooperative management team dedicated to a win-win atmosphere. To do this, the members of the team must undergo a change in mindset and discover how it is in their best interest to cooperate. The concepts of principled negotiation, where solutions are sought that serve the fundamental interests of both negotiating parties, are introduced.

There are three basic steps involved in establishing the Partnering relationship. Since Partnering is an attitude change aimed at building a new relationship, it is

Who Wins Here?

The government's project engineer watched with arms folded as the contractor's crew began a complicated concrete pour. He shook his head and said, "They'll never make their schedule with that equipment. The buckets are too small and they'll need another crane; they'll spend all their time filling buckets instead of pouring concrete." He turned and walked back to the management office, mentally preparing to deny the request for time extension that he knew would be coming. Why didn't he let the contractor's project manager know of his concerns? "That's their responsibility. They'll find out soon enough!"

important as a first step to establish the new relationship through personal contact. Success in a Partnering arrangement depends on the personal commitment of the management team. This commitment is built through personal relationships that must be formed early and reinforced throughout the project. The second step in Partnering is crafting a joint statement of goals and establishing common objectives in specific detail for reaching the goals. Achieving these intermediate objectives will lead to success for both the owner and the contractor. Finally, Partnering identifies specific disputes prevention processes designed to head off problems, evaluate performance, and promote cooperation.

Although these basic steps create the Partnering relationship, teamwork is essential to instill the Partnering spirit. Through a series of joint workshops, guided by facilitators, Partnering builds team spirit. The emphasis in the workshops is on identifying shared interests and focusing on cooperative effort.

There are other factors to consider in establishing a Partnering relationship. Here's a list of some of the considerations:

- prepare early for Partnering;
- secure top management support and commitment to Partnering;
- identify Partnering "champions;"
- choose participants for the Partnering workshop;
- select neutral facilitators for the Partnering workshop;
- conduct the joint workshop;
- create a Partnering Charter;

"I believe it is fair to say that quality work is never achieved in an adversarial relationship."

Lester Edelman, Chief Counsel
U.S. Army Corps of Engineers

- arrange regular follow-up sessions;
- plan combined activities.

Establishing cooperative processes for evaluating progress and solving problems is another feature of successful Partnering. Evaluation mechanisms should be specific in measuring the achievement of the objectives that will make the project a success. A system for problem-solving, which will provide for expedited decisions, should be established.

Another essential feature of Partnering is committed people. Partnering needs "champions" at a high management level, and other champions throughout the organization who are willing to take risks, use professional judgment, and make management decisions in a new cooperative environment. Partnering is people who believe in cooperation, rather than confrontation, as the most effective and efficient way to achieve their goals.

How Do We Know It's Working?

When Partnering is working, old adversarial patterns change and a new spirit pervades the working relationship. This new spirit has many indicators. Look for these signs of successful Partnering.

- **Sharing**—The partners share a common set of goals.

-
-
- **Clear Expectations**—Each partner's expectations are clearly stated, upfront, and provide the basis for working together.
 - **Trust and Confidence**—Partners actions are consistent and predictable. Trust is earned when one's actions are consistent with one's words. We must "walk the talk."
 - **Commitment**—Each partner must be willing to make a real commitment to participate in the partnership.
 - **Responsibility**—Responsibility is recognizing and accepting the consequences of our choices. Partners are accountable to each other and should agree up front on measures for mutual accountability.
 - **Courage**—Partners have the courage to forthrightly confront and resolve conflict.
 - **Understanding and Respect**—Partners understand and respect each other's responsibilities, authorities, expectations and boundaries, as well as any honest differences between them.
 - **Synergy**—The partnership is more than the sum of the individual partners. The relationship is more powerful than any of the partners working alone because it is based on the collective resources of the partners.
 - **Excellence**—Partners expect excellence from each other and give excellence in return.

These are the positive indicators of a successful Partnering effort. If you look closely at the list again, it's clear that most of these indicators are based on the ability

of the partners to communicate and solve problems.

What Concerns Are There About Partnering?

Some people have expressed a concern that Partnering may place the owner and the contractor "too close," and that there is a need for distance between the parties to maintain objectivity and proper oversight. Unfortunately, this adversarial attitude leads to some very expensive and counter-productive actions. Not only is the climate of trust and communication hindered, but distance between the parties can allow room for an expensive "wall of paper" to rise between the parties. Documents are exchanged to begin building a case for litigation.

Another concern is the view that contract requirements will be relaxed in the interest of Partnering. This concern, however, is based on a misconception about the nature of Partnering. Partnering does not mean that the public interest takes a back seat to the interests of the parties. All federal procurement laws and regulations must be complied with by the parties. But this does *not* mean that the government and the contractor have to avoid cooperation to comply with laws and regulations. In a Partnering relationship, the contractor should understand and appreciate government regulatory requirements; and the government should understand and appreciate the contractor's expectations.

Some individuals have said that Partnering is all relationships and no substance, that the benefits are intangible and not worth the extra effort and expense. Experience has shown others that there are benefits, both tangible as well as intangible. This experience is detailed in this pamphlet. And the expense is not great,

even where a facilitated initial workshop and follow-up sessions are used. Costs are shared by the government and the contractor.

Perhaps the most telling comment, however, may be that no matter what the tangible advantages, Partnering represents the fair way of doing business. One Corps manager wrote: "I have field employees who say it's a pleasure to come to work and not be afraid to advise the contractor of any perceived problem and be proud of working on the project as a team member."

"I am occasionally asked if Partnering works. My answer is, even if there were to be no financial or performance advantages, it's clearly the ethical way of doing business. We in the Corps of Engineers are committed to our values of integrity, quality, professionalism and esprit de corps. Our country needs a capable, innovative Corps of Engineers and a capable, healthy construction industry."

COL Charles E. Cowan, Commander, Portland District
U.S. Army Corps of Engineers

Partnering Experiences

The Corps of Engineers has used Partnering in a number of construction contracts with positive results and valuable lessons learned. This section will describe some of the Corps' experiences with Partnering, and will also consider how Partnering can be applied to improve management of other kinds of contracts as well.

Two Corps Districts have been pioneers in using Partnering: Mobile District in the South Atlantic Division, and Portland District in the North Pacific Division. Each of these Districts has used Partnering on major construction projects, and has evaluated the experience.

Oliver Lock and Dam Replacement Mobile District

A \$110 million replacement lock and dam is being constructed on the Black Warrior-Tombigbee Waterway at Tuscaloosa, Alabama, to replace an old undersized lock. The new lock chamber will be 110 feet by 600 feet with a 28 foot lift, and the dam will be 800 feet long and 45 feet high. More than three million cubic yards of excavation will be required, along with 290,000 cubic yards of concrete and 1,750 tons of steel. This work comprises the major portion of the total replacement work, the actual lock and dam construction, at a cost of \$70 million. The contractor for the project is FRU-CON Construction Corp. of Ballwin, Missouri. The Notice to Proceed was provided to FRU-CON on 1 April 1988, with the new lock scheduled to open in the fall of 1991.

Dan Burns, then Chief of Construction at Mobile, had been considering using the Partnering concept on a Corps project for some time. He was familiar with private industry experience with Partnering and had researched the concept. Pioneering companies in the private sector such as DuPont and Fluor-Daniel offered the lessons of their experience to the Corps. When Mr. Burns approached FRU-CON management within days of the contract

award to suggest Partnering, they enthusiastically agreed. The initial Partnering workshop was scheduled for 18-22 April 1988.

As described earlier, top management commitment is a key to Partnering success. The following people displayed their commitment to the Partnering process by attending the opening workshop:

FRU-CON

Vice President
Project Manager
Project Engineer
Quality Control Rep.
Chief, Project Support

"Partnering is a new environment that nurtures team-building cooperation. It is not 'we' versus 'them,' but 'us.' The answer lies in the area of communications. Communicating goals and objectives and then allowing the organization to decide what is the best way to achieve those."

Bob Hassold, Fluor-Daniel Inc.
Oliver Partnering Workshop

Technical Project Support
Scheduling Expert

Corps

Chief of Construction
Resident Engineer
Assistant Resident Engineer
Office Engineer
Structural Engineer
Geotechnical Engineer
Construction Program Manager
Project Manager

Initial Workshop

These key individuals met for a four day facilitated team building workshop in Mobile. To further emphasize management commitment to the process, the president of FRU-CON and the Mobile District Engineer addressed the group, adding their support to the Partnering effort.

Professional facilitators were used at the workshop to develop teamwork, trust and communication through specific activities and participatory exercises. The activities and efforts were:

- experiential learning exercise on the value of cooperation vs. self-interest;
- nominal group exercise to identify strengths and potential problems;
- group development of action plans;
- exercise on problem-solving styles and their effects on interaction;
- exercise on leadership styles and effects;
- theory building discussion on conflict management;

- experiential exercise on applying theories of principled negotiation.

Specific products of the Partnering workshop addressed goals and objectives for the project, procedures for handling problems and evaluating success, and promoting team spirit:

- a Partnering agreement signed by all participants;
- a cooperatively-developed, structured team process for dealing with unexpected problems;
- a plan to employ Alternative Dispute Resolution options, if necessary;
- a project evaluation methodology, including specific ways to measure the achievement of team objectives;
- a team name and logo: "The Million Dollar Team";
- a plan for follow-up workshops to maintain and reinforce the partnership.

Changed Attitudes, Behaviors, Processes

The Oliver Partnering experience is being evaluated in part by using surveys of the participants to keep an on-going record of attitudes and perceptions. The first such survey was taken before the initial workshop and repeated after the conclusion of the workshop. Similar questionnaires have been used at each follow-up session. Since the project is not complete, no final conclusions can be made. However, some general observations from the preliminary results can be made, and they indicate a positive response to Partnering.

The preliminary results show positive improvements in communications and

teamwork on the Oliver project. This was especially true in comparing the surveys before and after the initial workshop, when all answers showed positive improvement. Later surveys show that team members continue to have a positive attitude toward the project, rating it well above the "typical" public construction project.

Participants were asked to assess changes in behavior patterns that could be attributed to Partnering. These questions addressed perceptions of how the parties acknowledge and face concerns and problems, the degree of cooperation, and response to issues. In each case, they were asked to assess their own behavior as well as the other partner's. Expectations were raised at the initial workshop and have lessened somewhat in later surveys. The overall rating remains good, however; and the evidence of successful problem-solving is positive.

The final evaluation factor deals with Partnering procedural issues. Questions on these issues were presented after follow up sessions but not after the initial workshop since none of the participants had any experience at that time with Partnering processes. Topics covered in these questions include the value of the problem-solving and monthly evaluation procedures that were developed at the initial Partnering workshop; an assessment of how much project progress was due to applying partnering concepts; and an assessment of the usefulness of follow-up sessions. Although Partnering has not solved all problems, the participants seem to agree that the process is an improvement over the adversarial approach to construction projects. Responses to a survey question asking whether Partnering was detrimental or

helpful to their organization's effectiveness were overwhelmingly positive.

Experience with Partnering

The Oliver project has not been without its problems. There have been controversies including difficult technical issues, one of which remains at issue. There have also been notable successes in problem-solving. Three examples indicate how the Partnering experience can pay dividends:

Miter Gates: Early in the contract, the contractor discussed with the government's resident engineer the contractor's alternatives for miter gate fabrication. The result of this collaborative discussion was the contractor's not selecting the low bidder in order to get more quality and schedule reliability. This has proven to be a sound decision contributing to overall project quality and a "critical path" item done well within the allotted time.

Sand Suppliers: This key material, sand, has presented problems throughout the heavy concrete production period. However, where the government would normally take an "it's your problem" attitude, the Partnering ethic has encouraged a joint effort to solve the problem. After extensive discussion and analysis, the government felt satisfied in allowing a different technical specification and, ultimately, a slightly different design mix for the concrete. Also, the government has assisted in trying to identify alternative sand suppliers and in determining their production capacity. The result has been a win-win solution. The resolution of a difficult problem in a technically sound manner allowed the project to proceed on schedule without cost to the government.

Left Bank Design: The contract required that the contractor prepare a structural

design for a braced cofferdam on the left abutment, facing downstream. The contractor, after reviewing the criteria and their field data, felt that it was questionable if not impossible to perform as the specifications intended. Instead of the defensive exchange of documents, a list of some of the contractor's considerations was provided and a joint meeting to discuss the issue was scheduled. At the meeting, the design of the braced cofferdam was discussed professionally and satisfactorily, rather than defending the details and 'intent' of the specifications. This was very productive for both parties and sped resolution of a difficult problem.

Lessons Learned

The Oliver Lock and Dam project is a pioneering effort for the Corps of Engineers. As with any new effort, there are lessons to be learned for the future in carrying out the project. Mobile leadership has concluded that the Partnering concept does make a positive difference in project outcome, and has identified a number of lessons which will be included in the project evaluation:

- an enduring commitment with *real* involvement of management is essential;
- the partnership must have constant reinforcement to avoid 'traditional' behavior;
- care must be exercised to assure realistic expectations, goals, and objectives early in the partnership. Set sights high, but make the targets achievable so they can endure throughout the project;
- Partnering can be applied successfully on single projects of fixed or limited

duration, characteristic of government contracts;

- it is highly desirable to include engineering and design personnel in Partnering activities and follow-up;
- The Partnering attitude can become pervasive if extended further into the participating organizations, to the level of foreman and superintendents, perhaps in phases as the project progresses.

Bonneville Dam Navigation Lock Portland District

The Portland District is managing the replacement of the navigation lock at Bonneville Dam on the Columbia River. The total project is estimated to cost \$330 million by the time it is completed in 1993. Five major contractors, with overlapping responsibilities and schedules, are involved in portions of the work. Coordination is complex, making a high degree of cooperation very important. The project faces many site-specific difficulties:

- the site is congested, with a main line railway running within 30 feet of the new lock at one point, and a major visitor center at the dam, which is vital to the local economy and attracts 400,000 visitors per year;
- the existing navigation lock must be kept in operation during construction;
- power generation from two power houses at the dam provides a significant amount of electricity to the Pacific Northwest and provides power to the well pumps at the dam salmon hatchery—power that cannot be interrupted for more than 5 minutes or fish begin to die;

-
-
- salmon migration season constrains the work schedule, with no in-water work permitted from mid-November to March;
 - the site geology is difficult, with an active slide area requiring special construction techniques in the approach to the lock.

Three contracts will be described here. All were part of the Bonneville Navigation Lock replacement and all used, or are using, Partnering concepts. Two of the contracts have been completed, while the largest is currently underway.

- **Bonneville Navlock Diaphragm Wall**

This was the first large project in the Portland District to use the Partnering process. The contract was awarded in early 1989 to S.J. Groves and Sons Construction, for a contract price of approximately \$34 million. It called for construction of diaphragm walls to provide the upstream approach to the lock in an area of slide activity and unknown underground geology. These unknowns added risk and uncertainty to important aspects of the construction.

The walls themselves are massive. They are 48 inches thick and up to 150 feet deep, constructed of reinforced concrete and steel pilē using the slurry trench method. Since the walls stabilize a slide area, they must be specially constructed. The piles must sometimes stand as close as 48 inches on center. These piles are heavy, built up steel sections. At some locations the pile sections are equivalent to the largest rolled steel shapes available anywhere in the world, at 848 pounds per foot.

The complexity of the job, the risks of unknown geology, and the intricacies of

the scheduling made managers in Portland realize that effective management would be a key to success of the diaphragm wall project and of the entire lock replacement work. They hoped Partnering would be the way to get the kind of cooperation that would lead to success.

Even before the contract was awarded, the Portland District Engineer, COL Charles Cowan, and his staff had discussed the likely objectives of the project *from the contractor's point of view*. They then considered which of these objectives the Corps would share with the contractor.

With this focus in mind, COL Cowan met with Groves' Vice President within days of the award of the diaphragm wall contract. Groves enthusiastically endorsed the Partnering concept and helped arrange the Partnering workshop. In addition to the workshop itself, the Resident Engineer and the Groves Project Manager together attended the Stephen R. Covey Center for Principle Centered Leadership, where they developed a personal working relationship while planning the Partnering structure.

Initial Workshop

The Partnering workshop was attended by key people who were all stakeholders in the success of the project: designers, engineers, managers, attorneys, superintendents, key subcontractors, and suppliers. At the facilitated workshop, they worked to develop an essential element of the Partnering ethic, the ability to step into one another's shoes so they could understand each other's needs, goals, and objectives. In that spirit, they wrote a Mission Statement and a set of objectives for the project:

Mission Statement

We, the partners involved with the Bonneville Navigation Lock Diaphragm Walls, are a trusting, cooperative team committed to providing a quality project, safely, on time, within budget so that all are proud to contribute.

Project Objectives

- Complete the project to meet the design intent.
- Complete the contract without need for litigation.
- Achieve value engineering savings of \$1 million.
- Control cost growth to less than 2%.
- Finish the project 60 days ahead of scheduled completion.
- Impose no delay to following contracts.
- Suffer no lost time from injuries.
- Construct and administer the contract so that all contractors and suppliers are treated fairly.
- Provide safe visitor access and minimize disruption to all Bonneville Lock and Dam facilities.

The principles embodied in the Mission Statement are transformed into specific, measurable objectives that can be evaluated as the project progresses. These objectives are the guideposts for Partnering.

An implementation plan for the process was established at the initial workshop. Evaluation was carried out quarterly as

the project progressed, using joint evaluation forms that were developed at the initial Partnering workshop. These forms were used as a gauge of progress and an indicator of the need for extra effort.

Outcome of the Partnering Process

The Diaphragm Wall project is now complete. What have been the results of the Partnering process? The project has been successful despite the site challenges and business changes during the project. (Groves was acquired by the Torno America company during construction—Torno embraced Partnering and continued the process which was begun with Groves). Compare these outcomes to the Partnership objectives:

- There were no outstanding claims or litigation.
- Value engineering savings amounted to over \$1.8 million on a \$34 million project. This can be compared to a total VE savings of \$750,000 on the \$310 million contract for the second powerhouse at Bonneville Dam, a non-Partnered project.
- Controllable cost growth has been held to 3.3%, compared with a typical 10% cost growth over the life of a major construction project.
- The project was completed on schedule.
- No lost-time injuries were suffered on the project.
- Relative to comparable projects, there was a two-thirds reduction in letters and case-building paperwork.

Not all of the Partnering objectives were fully achieved, but the performance of the team was outstanding when compared with similar non-Partnered projects. These are the tangible measures and benefits of Partnering; there are also other rewards. In summing up, Portland District Chief of Construction Howard Jones noted: "The rewards in cost savings and avoidance of litigation alone far outweighed the efforts required to attain them. In addition, the less tangible rewards of improved organizational morale and effectiveness of execution were also great and may, in the long run, be worth even more."

• Hatchery Wells Project

This project illustrates how a relatively small dollar amount project can use Partnering principles. The construction of the replacement for the Bonneville Navigation Lock required replacing the wells which supply water to the salmon hatchery at the dam. The contract was awarded in October, 1989 to Morrison-Knudsen. The water supply to the hatchery is critical, making it important for the job to proceed smoothly. Portland managers felt Partnering could be of benefit, though they chose to scale down the effort based on the size of the project. However, the basic elements of Partnering—mutually developed goals and evaluation, management support and improved communication—were all present.

Initial Meeting

For this project, the Partnering meeting took only one-half day. No facilitator was used—the managers relied on their knowledge of Partnering principles. By honestly sharing information about their most significant interests and concerns, the managers jointly established goals and procedures for the project.

A review of their jointly developed goals shows how each side recognized that a win-win outcome could come from cooperation:

- develop wells to maximum volume with no damage to the aquifer;
- establish good communications at all levels and share non-routine letters in first draft form;
- review and return submittals within two weeks;
- promptly submit operations and maintenance manuals;
- complete the project on-schedule and without litigation;
- hold project cost growth to less than 5%;
- suffer no lost-time accidents;
- decide to construct the optional well at the earliest possible date;
- respond to well screen designs promptly and hold joint working meetings to discuss comments and secure approvals.

In this list are both basic principles of good management (communications, scheduling, cost growth, safety) as well as project-specific elements that will tell the tale of success if they are achieved. Getting the key parties together, even for as short a workshop as one-half day, got this project off to a positive start. Partnering was the cause of the success that was realized.

Outcome of the Partnering Process

How successful was this project? *All* of the goals were met. The project was completed one month early with no lost-time accidents. It was 4.38% *under* budget, and returned a \$72,000 value engineering savings—outstanding for a \$5 million project.

• Bonneville Main Lock Construction

The third example from Portland's experience is the largest project of the three and is still underway. Construction of the Main Lock is a \$140 million project, awarded in March of 1990 to a joint venture of Kiewit Pacific Co. and Al Johnson Construction Co. The complexities of the job and the site have already been listed. It was targeted for Partnering early on. COL Cowan made a presentation on Partnering at the pre-bid conference, and a clause was included in the contract inviting the successful bidder to participate in Partnering. After bids were opened, COL Cowan met with principals of the Kiewit/Johnson team to extend the invitation personally.

Initial Workshop

The outline of the Partnering process was similar to the Diaphragm Wall Partnering. After the early contact to propose Partnering, a facilitated workshop was planned. This workshop included 40 people from Portland District, Kiewit/Johnson, and some of the major subcontractors, from field construction, home office engineering, and operations. This large group learned about partnering concepts, and about establishing win-win systems and relationships. The focus was on quickly building a project team able to work cooperatively and synergistically to solve problems. Anticipated issues and

problems were discussed along with specific action plans to meet them. Major issues that were identified were 1) maintaining a tight performance schedule; 2) meeting design intent; 3) guarding on-site and public safety; 4) preserving hatchery operations; and 5) avoiding litigation.

Using this issues list, workshop participants wrote a specific set of common goals for the project.

- **Safety:** Suffer no fatalities; maintain the lost time accident rate at less than 1 per 200,000 man-hours; incur no general public liability claims over \$500.
- **Quality:** Meet design intent; institute a joint quality management program; build it right the first time.
- **On-time lock opening:** Effect the timely resolution of issues; establish joint management of the schedule.
- **Maintain fish hatchery integrity.**
- **Value engineering:** Achieve the goal of \$10 million total project savings.
- **Produce no litigation.**
- **Cost growth:** Cooperate to limit cost growth to less than 5% and to minimize contractor and subcontractor costs.
- **Minimize paperwork.**
- **Enjoyable project:** Make the project enjoyable through partnering at all levels.

Interim Results

These are ambitious project goals. However, with 29% of the project com-

plete as of February 1991, the project was on schedule and cost growth was 2.55%. There has been a major reduction in paperwork and no litigation. The team consensus is that the Partnering process is responsible for the good results so far.

• **Conclusion**

Partnering in the three Portland projects and the Mobile project share some common features. In each case, after a decision was made to use Partnering, initial contacts were made by committed managers to establish personal, non-adversarial relationships with the contractor. Then a group workshop was held to extend the concept to a larger working group. The workshop has some specific products: establish a joint charter of goals and objectives; adopt a problem-solving alternative disputes resolution method; and develop an evaluation process to keep track of how objectives are being met. The rationale behind these project Partnering efforts was the same: create win-win team relationships that will benefit both parties in time, dollars, and morale.

Howard B. Jones is the Chief of the Construction Division in the Portland District of the Corps. He described the benefits of Partnering at the ASCE Construction Congress in 1991: "Partnering provides an opportunity to work effectively with the contractor and a forum where we can discuss issues and develop mutually acceptable solutions. On a variety of projects, some of them quite large, we have seen impressive benefits in cost containment, on-schedule completion, value engineering savings, safety records, and organizational morale."

Partnering: A Growing Concept

Experience with Partnering has made people think of expanding the concept to other areas. In construction, interested parties are hoping to use Partnering concepts to enhance the working relationship of architect-engineering consultants and the Corps. Portland has used Partnering concepts in small contract administration, such as service oriented contracts for printing work. Managers for environmental cleanup projects are considering Partnering as a way to manage that complicated and sensitive work. Partnering efforts are beginning to include cost share sponsors as members of the team—they will share the risks so they should be included in the team building effort. Partnering is being used to facilitate a study of a possible future project, with participation from the potential cost-share partners. Finally, Partnering concepts are being used internally to create win-win working relationships within the Districts. Management effectiveness begins at home!

"I personally believe in and want to see the Corps lawyers practice preventive law. This requires putting our efforts into avoiding disputes, and not wasting precious resources in litigation. Partnering offers a ray of hope in avoiding disputes and building cooperative relationships."

Lester Edelman, Chief Counsel, U.S. Army Corps of Engineers

Partnering Process

A successful Partnering program starts with an understanding of the important elements of the process and careful planning of each step. Essentially, the important elements are 1) early preparation, 2) management commitment to the concept, 3) a joint workshop, 4) a team charter, and 5) follow-up meetings and evaluation processes. These elements are more fully described below.

Early Preparation

- **Introduce the Concept to Bidders**

After an internal commitment has been made to use Partnering in a contract, the Corps should state its intent to use the concept in its solicitation for bids. This will introduce the concept to the bidders. Points to be stressed are that Partnering is a voluntary relationship designed to improve cooperation and communications during construction.

Possible wording for a general statement of intent to use Partnering is found in Appendix A.

Management Commitment

- **Secure Top Management Support and Commitment**

Partnering requires a personal commitment between contracting parties to accept a new relationship and a senior management decision to commit resources to the effort. Top management of both the Corps and the contractor must be supportive.

Visible top management commitment sends the vital message that Partnering is acceptable and will be supported. Management support, instilling enthusiasm and overcoming obstacles, empowers people to act. Top managers can most visibly show their support by attending the

Partnering workshop and introducing the concept in person.

A Partnering program can be implemented without a huge commitment of resources. The additional costs (for the workshop and facilitators) are relatively small and are shared by the parties. There is a commitment of management time, and there must be a willingness to "go the extra mile" for the benefit of the team.

- **Identify Partnering "Champions" for the Project**

Partnering needs "champions" to foster the new relationship. There are two kinds of champions that an effective Partnering program needs: a top management champion who will instill the Partnering ethic within the organization, and a "managing partner" champion who will carry out the nurturing of the Partnering relationship throughout the course of the contract. Top management support is vitally important to provide the favorable environment for Partnering to grow. Operational level champions for Partnering are important in the day-to-day managing of the process by providing administrative and logistical support, encouraging communication, and promoting problem-solving. The Resident Engineer is the natural choice for operational level champion.

The Joint Partnering Workshop

- **Choose Participants for the Partnering Workshop**

A Partnering workshop is the starting point for the new relationship. The participants in the Partnering workshop should be key stakeholders in the success of the project. On construction projects, the Corps Area or Resident Engineer, the contractor project manager, and their principal assistants are key stakeholders. The personal involvement of key stakeholders is vitally important. Other considerations for the Partnering workshop are the size and complexity of the project, since these factors will control the number and specialties of participants at the workshop. Also consider including Corps District and home office personnel.

In large projects, before the Partnering workshop, the Resident Engineer and the Project Manager may attend a training center that specializes in principle-centered leadership training. This is an opportunity for these two key leaders to establish a respectful, trusting relationship and plan for the Partnering workshop.

- **Select Neutral Facilitators for the Workshop**

Partnering depends on developing relationships and committing to cooperation toward common goals. The change in mindset from the adversarial to the cooperative does not come automatically, simply by talking about it. An effective way to develop this new attitude is to use a neutral facilitator to guide the workshop.

A neutral facilitator is a third party who manages the process of the workshop and who can guide the participants to discover for themselves the benefits of cooperative

action. Professional facilitators provide expertise in organizational development, communications, group dynamics, and team building. As an outsider, the facilitator can devote attention to guiding the workshop in developing the Partnering structure. Because the facilitator has no association with either party, the impartial status allows the facilitator to be the focus of comments or criticism from one side to the other without the resentment or conflict that may be the result of a direct confrontation.

A facilitated workshop is recommended for larger projects. However, it may not always be possible to employ a professional facilitator. As an alternative, consider a facilitator from another District to serve at the Partnering workshop. Remember it is important that the facilitator should not be directly or indirectly involved in the project. The parties should develop their own goals with the impartial facilitator assisting.

- **Conduct the Workshop**

The Partnering workshop helps participants establish open communications, develop a team spirit, set long range Partnering goals for the project, and gain commitment to the implementation plan. A combination of group activities, lectures, and experiential learning exercises has been effective in helping groups reach these goals in the workshop setting.

Suggestions for a successful Partnering workshop include conducting the workshop as soon as possible after contract award; scheduling the workshop for several days since new working relationships take time to develop; using a location away from the office or project site to allow participants the chance to get away

from their daily duties and concentrate on Partnering.

The Partnering workshop should mold a single-minded joint management team for the project. To build an effective team, the workshop must strengthen the ability of the participants to communicate as a team. Team members must also develop and practice the skills and attitudes required of teamwork. At the workshop, one of the important activities will be to learn from the past and create for the future. This involves an honest evaluation of the strengths and weaknesses of past experiences and the strengths and weaknesses of the project team. The team then makes a group decision about positive strategies.

Since no project can be completed without the need to solve problems and resolve conflicts, conflict management and problem-solving skills should be a part of the workshop as well. The team must develop a problem-solving strategy that enables managers to address problems quickly and efficiently. "No action" on a problem is not an option! Problems that are not addressed sow the seeds of discord and division for the team. Expedited negotiations and alternative dispute resolution (ADR) techniques offer methods for successful resolution of problems.

"The participants in the workshop need to recognize that honest, good faith differences may arise during construction and that alternative disputes resolution processes will provide a procedurally satisfying way to address these differences without destroying the relationship."

Frank Carr, Chief Trial Attorney
U.S. Army Corps of Engineers

The Partnering Charter

• Define Goals and Objectives

At the conclusion of the Partnering workshop, the parties need to create a blueprint for their new relationship, which can be summed up in a Charter. The Partnering Charter defines the long-term goals and objectives for the project. This is a win-win charter. It is a collaborative effort written at the workshop by all participants and therefore includes the overlapping goals of the project team. Common goals are: a **quality project carried out safely, in a timely and cost effective manner**. To achieve these goals, the team must transform them into concrete objectives and action items which can be measured at follow-up sessions. If all the goals and objectives are achieved, both contracting parties will win.

The Partnering Charter should include objectives that will provide measurable milestones for success on the project. These objectives should be specific and should be the framework for a Partnering implementation plan. As an example, the following is a list of some project objectives:

- meet the design intent;
- encourage a maximum amount of value engineering savings;
- limit cost growth;
- cause no impact to follow-on projects;
- lose no time due to job-related injuries;
- encourage a fair sharing of contract risks;
- use ADR methods;

-
-
- avoid litigation;
 - finish ahead of schedule;
 - include an implementation plan.

The implementation plan fills out these objectives by including measurable details. For example, the implementation plan can call for a specific number of value engineering submittals or a target dollar amount of savings; a specified cost growth percentage; or a joint safety awareness program. These are just a few examples of how specifics can be added to the objectives to make them part of a viable plan for ensuring project success.

Follow-up Meetings and Evaluation

- **Arrange Regular Follow-up Meetings**

The importance of following up on the initial Partnering workshop cannot be stressed enough. The lessons of Partnering need continued reinforcing so they do not fade with time or under the stress of the job. On-going evaluation of Partnering goals and objectives is essential. The best method is to conduct regularly scheduled follow-up sessions between the key leaders.

- **Develop Evaluation Processes**

To evaluate performance, successful Partnering efforts have included a jointly developed evaluation form. The evaluation form assigns weights to the Partnering objectives relative to the overall project. Ratings are determined for each evaluation period, and then compared to an agreed-upon standard. Corps and contractor leaders jointly rate performance. The result is a numerical score as well as a narrative evaluation. Such an evaluation can be the focus for a

team meeting where problems are addressed and the values of partnership are encouraged and reinforced. Evaluation is important for good management of a project and encouragement of Partnering values.

- **Plan Combined Activities**

There are other ways to advance the Partnering relationship through combined activities. **Follow-up workshops** could be scheduled to nurture the lessons and skills of Partnering. **Debriefing sessions** following significant milestones in the project could be the occasion for review of achievement. **Awards ceremonies** jointly conducted could recognize and reinforce cooperative effort. **Professional development programs** such as lectures, workshops, and breakfast seminars could be scheduled to emphasize job skills as well as team work.



Appendices

Appendix A

Dan Burns, former Chief of Construction at the Corps' Mobile District, included the following statement in the solicitation for bids on the Oliver Lock and Dam Replacement project. This statement is a brief description of some of the goals of a Partnering effort, and emphasizes that participation is encouraged, but is voluntary. It also stresses that the costs of all Partnering activities will be shared by the Government and the contractor. A statement which gives a brief description of Partnering is recommended in bid solicitations.

"In order to complete this contract most beneficially for both parties, the Government proposes to form a Partnering relationship with the Contractor. This Partnering relationship will draw on the strengths of each party in an effort to achieve a quality project done right the first time, within budget and on schedule. The Partnering relationship will be bilateral and participation will be totally voluntary. Any costs associated with Partnering will be shared equally with no change in contract price."

Another sample Special Clause that might be included in a solicitation:

"In order to most effectively accomplish this contract, the Government is encouraging the formation of a cohesive partnership with the contractor and its subcontractors. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done right the first time, within budget, and on schedule. This partnership would be bilateral in make-up and participation will be totally voluntary. Any cost associated with effecting this partnership will be agreed to by both parties and will be shared equally with no change in contract price."

Appendix B

Partnering relies on identifying and working cooperatively to achieve a jointly-defined set of goals and objectives for a project. These guiding principles are embodied in a written document drafted at the Partnering workshop. This is one of the most important products of the workshop. Sometimes called a Partnering Agreement, a Partnering Charter, or a Mission Statement, it is signed by the key people who attend the Partnering workshop. It then becomes the touchstone for reinforcing cooperative relationships and the basis for evaluating the success of the Partnering team.

What follows are two examples of Partnering Charters. One is a broadly-worded statement of principles followed by a list of goals; the other is a statement which includes a series of measures for success in the text. These examples are not intended to be "forms" to be filled out and should not be used verbatim at any Partnering workshop. They are a suggestion of some of the subjects that might be considered by the people at the workshop when they draft their own Charter.

Statement with Goals Listed

Partnering Charter

We, (the organizations), the partners in the construction of (project name), are a trusting and cooperative team, committed to quality work, safety, on-time delivery, within budget so that all are proud to contribute.

- Complete the project so that it meets the design intent.
- Complete the project without litigation.
- Achieve Value Engineering savings of \$___.
- Control cost growth to less than ___%.
- Finish the project ___ days ahead of schedule.
- Suffer no lost time injuries by promoting a safe job site.
- Ensure fair treatment for all parties.
- Solve problems at the first opportunity, at the lowest possible management level.
- Use Alternative Dispute Resolution (ADR) if needed to aid problem solving.
- (Other objectives as defined by the parties at the Partnering workshop.)

Statement and Goals Combined

Partnering Charter

Our Charter for success in construction of (project name) is our commitment to work cooperatively and in harmony and to communicate openly in an atmosphere of confidence and trust. We will work as a team to build action plans, to break down communication barriers, resolve conflicts at the lowest possible level, to streamline the paperwork process, and build a team spirit to achieve maximum success for all: a quality project, a safe job site, on time completion, within budget with a fair profit for the contractor.

Bibliography of Partnering Resources

- Carr, Frank, and David Johnson, "The Corps: Putting the Handshake back into Construction," *The Subcontractor*, vol. 13, no. 1, July 1991.
- Carr, Frank, "Partnering, Disputes Avoidance The Army Corps of Engineers Way," *The Punchlist*, American Arbitration Association, vol. 14, no. 3, 1991.
- Cibinic, John and Ralph C. Nash, "Partnering: A New Corps of Engineers Effort to Avoid Disputes," *The Nash and Cibinic Report*, vol. 5, no. 6, 1991.
- Construction Industry Institute, "Partnering: Meeting the Challenges of the Future," CII Partnering Task Force Interim Report, August 1989.
- Cowan, COL Charles E., "A Strategy for Partnering in the Public Sector," Paper presented to the ASCE Construction Congress, April 15, 1991.
- Cowan, COL Charles E., "Partnering in Fixed Price Contracts - A New Paradigm," Speech, January 14, 1990.
- Gray, Barbara. *Collaborating*. San Francisco: Jossey-Bass Publishers, 1989.
- Geary, Richard, Pres. Kiewit Pacific Co., "Contractor View of Partnering on Bonneville Lock," Paper presented at ASCE Construction Congress, April 15, 1991.
- Hancher, Donn E., *In Search of Partnering Excellence: Final Report of the Partnering Task Force of the Construction Industry Institute*, Construction Industry Institute, University of Texas at Austin, February 1991.
- Hartnett, J. T., "Partnering," *The Military Engineer*, vol. 82, no. 536, July 1990.
- Hatch, LTG H. J., "Partnership Ethic vs. Adversary Relationship," Speech, SAME Senior Executive Group, Omaha, NE, 16 October 1990.
- Johnson, David P., "Partnering in Government Contracts: The Ultimate in Dispute Resolution?" *World Arbitration and Mediation Report*, vol. 1, no. 7, November 1990.
- Jones, Howard B., "Partnering on the Bonneville Navigation Lock," paper presented at the ASCE Construction Congress, April 15, 1991.
- Kanter, Rosabeth Moss. *When Giants Learn to Dance*. New York: Simon and Schuster, 1989.

Mosley, D. C., C. C. Moore, M. L. Slagle, "Partnering: Guidelines for Win-Win Project Management," submitted to *Project Management Journal*, July 1990.

Mosley, D. C., C. C. Moore, M. L. Slagle, and D. R. Burns, "The Role of the O. D. Consultant in Partnering," *Organization Development Journal*, vol. 8, no. 3, Fall 1990, pp. 43-49.

Slagle, M. L., "Initial Partnering Evaluation Report: Oliver Lock and Dam Replacement Project," Report to Corps of Engineers, Mobile District, December 22, 1989.

U.S. Army Corps of Engineers, "Sponsors' Partnership Kit," Directorate of Civil Works, 1989.

U.S. Army Corps of Engineers, Mobile District, "A Guide to Partnering for Construction Projects: A Process for Implementation," January 1990.

U.S. Army Corps of Engineers, Mobile District, "Partnering," Informational Brochure, August 1989.

Wormington, J. R., "Cape's New Facility Highlights Success of Total-Quality Approach," *The Missileer*, vol. 32, no. 31, Friday Aug. 10, 1990.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE December 1991	3. REPORT TYPE AND DATES COVERED
---	--	---

4. TITLE AND SUBTITLE Partnering	5. FUNDING NUMBERS
--	---------------------------

6. AUTHOR(S) Lester Edleman, Frank Carr, and Charles L. Lancaster	
---	--

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) USACE, Headquarters 20 Massachusetts Avenue, NW Washington, DC 20213-1000	8. PERFORMING ORGANIZATION REPORT NUMBER
--	---

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) USACE, Institute for Water Resources 7701 Telegraph Road Ft. Belvoir, VA 22060-5586	10. SPONSORING/MONITORING AGENCY REPORT NUMBER IWR Pamphlet 91-ADR-P-4
---	--

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT Unclassified/Unlimited	12b. DISTRIBUTION CODE
---	-------------------------------

13. ABSTRACT (Maximum 200 words) This pamphlet describes the concepts and implementation of an innovative new program, Partnering, designed to create a positive, disputes-prevention atmosphere during contract performance. Partnering uses team-building activities to help define common goals, improve communication, and foster a problem-solving attitude among a group of individuals who must work together throughout contract performance. While Partnering can be used to improve all kinds of working relationships within the Corps of Engineering, this pamphlet will concentrate on owner/contractor relations in construction contracts.

14. SUBJECT TERMS Partnering, partnering experiences, process, early preparation, management commitment, joint partnering workshop, partnering charter, follow-up meeting and evaluation	15. NUMBER OF PAGES 32
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited
--	---	--	--