CONSTRUCTION INDUSTRY INSTITUTE

MODEL FOR PARTNERING EXCELLENCE

Research Summary 102-1

Model for Partnering Excellence

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Partnering II Research Team

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Executive Summary

Partnering, a subject of previous CII research, is often an integral factor in the successful delivery of a construction project. Partnering's value to the industry lies in its ability to utilize the inherent strengths of all partners for the common and individual good, to speed project completion while observing high standards of safety and integrity, and to strengthen the competitive edge of all partners by producing products that meet the customers' need. Partnering's bottom line: a construction industry process that strengthens both projects and partners, tightens schedules, safeguards quality, and enhances each partner's competitive edge.

The CII Partnering II Research Team has published a book that describes a partnering implementation process model, CII Implementation Resource 102-2, Partnering Tool Kit. That publication presents five implementation phases for partnering, each having objectives and key success factors. The team also identified benchmarks that verify the benefits achievable through partnering in the areas of cost, schedule, safety, and quality.

The research team concluded that partnering can offer a competitive advantage for the U.S. construction industry. The team found six key factors in implementing and managing successful partnering relationships.

- Establishing Trust
- Getting Top Management's Support
- Establishing Win-Win Objectives
- Addressing Internal Barriers
- Getting Champion to Direct the Process
- Developing Measures, Linked to Objectives
Introduction

Background

The CII Partnering II Research Team is a follow-up to the original CII Partnering Task Force, which published its findings in 1991. That effort concluded that "existing relationships must continue to be successful and show measurable benefits, and a method of measuring the benefits of the broader application must be developed." Thus, CII established the Partnering II Research Team in early 1993 to measure the broad effects of partnering and to establish benchmarks related to partnering. Lacking such benchmarks, the Institute felt, partnering would reach only a fraction of its potential.

Although the original CII Partnering Task Force defined partnering as a multi-project approach, experience and recent research have shown that partnering's trusting, synergistic approach to project planning and execution can be successfully utilized in a variety of settings. In fact, single projects in both the public and private sector exemplify successful partnering arrangements.

CII Special Publication 17-1, In Search of Partnering Excellence, details the findings of the work of the Partnering Task Force, chartered to study the feasibility of partnering in the construction industry. The task force's objectives were to:

- identify the benefits and risks associated with partnering.
- provide guidelines to plan, organize, and select a partner.
- provide guidelines to implement a partnering relationship.
Partnering - What It Is

The original task force determined that partnering:

- is a proactive management process to integrate and optimize the services of each partner to best achieve their business objectives.
- is useful to improve response to changing business conditions, to improve quality and safety, to cut cost and schedule (cycle time), to build profit, and to strengthen use of resources.

The research team found three key ingredients present in nearly all successful partnering relationships:

- Leadership that, through faith in the process, continued to support partnering ideals in the midst of doubt and questioning.
- A situation where those involved adapted and accepted each respective manner of business with rewards tied to team accomplishments.
- A belief in the potential for win/win outcomes to grow from collaboration, and a willingness to pursue such joint gains.
- This framework fostered a change in attitude from adversarial to cooperative, from self-centered to team focused and from win/lose to win/win.

Partnering - What It Isn't

The task force also determined that partnering:

- is not a legal entity.
- is not a quick fix for poor performance.
- is not a panacea.
However, factors inherent in a partnering relationship (i.e., teamwork, trust, communications, shared vision, integrity) are key to promoting mutually rewarding goals for the partnering relationship and to developing a "win-win" mentality for all involved.

**Partnering - Three Crucial Issues**

The task force's work helped define partnering relationships. It stopped short, however, of developing a process to use and manage partnering relationships. First, there was no simple, yet complete, process model to establish and manage a successful partnering relationship. Second, there was no clear set of metrics to measure the results from partnering relationships or to assess the ongoing performance and quality of the relationship. Third, little if any benchmark data existed.

**Objectives and Methods**

The Partnering II Research Team was established as a follow-up to the original CII Partnering Task Force. The research team was instructed by the CII Board of Advisors to study the findings of the original partnering research effort. The Board also established the Partnering II charter, which had the following three key objectives:

- Develop a set of metrics to assess the benefits of partnering.
- Determine partnering benchmarks for the construction industry.
- Identify key success factors for, as well as barriers to, effective implementation of partnering relationships.

The team met these objectives, studying both project-specific and long-term strategic alliances. Views and opinions were sought from both owners and contractors generally familiar with the partnering process. Contractors interviewed included architects/engineers, constructors, and construction managers. Most of those interviewed were from the heavy industrial and civil sectors. As a result, high-dollar projects were frequently studied.
The potential for leveraging partnering relationships for competitive advantage is barely tapped, according to the study's findings. Even the best performers are not achieving world-class results in all performance areas. The research did reveal, however, some impressive results that could be classified as benchmark or "best in class" (see Table 1).

Table 1. Benchmark (Best of Class) Results: Partnering vs. Traditional Construction

<table>
<thead>
<tr>
<th>Category</th>
<th>Result Area</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>Total Project Cost (TPC)</td>
<td>10% reduction</td>
</tr>
<tr>
<td></td>
<td>Construction Administration</td>
<td>24% reduction</td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td>50% reduction</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>$10 per hour reduction</td>
</tr>
<tr>
<td></td>
<td>Value Engineering</td>
<td>337% increase</td>
</tr>
<tr>
<td></td>
<td>Claims (% of TPC)</td>
<td>87% reduction</td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td>25% increase</td>
</tr>
<tr>
<td>Schedule</td>
<td>Overall Project</td>
<td>20% reduction</td>
</tr>
<tr>
<td></td>
<td>Schedule Changes</td>
<td>48% reduction</td>
</tr>
<tr>
<td></td>
<td>Schedule Compliance</td>
<td>Increased from 85% to 100%</td>
</tr>
<tr>
<td>Safety</td>
<td>Hours without lost time accidents</td>
<td>3 million vs. 48,000 industry</td>
</tr>
<tr>
<td></td>
<td>Lost work days</td>
<td>standard</td>
</tr>
<tr>
<td></td>
<td>No. of Dr. cases</td>
<td>4 vs. 6.8 industry</td>
</tr>
<tr>
<td></td>
<td>Safety rating</td>
<td>standard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>74% reduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5% of national avg.</td>
</tr>
<tr>
<td>Quality</td>
<td>Rework</td>
<td>50% reduction</td>
</tr>
<tr>
<td></td>
<td>Change orders</td>
<td>80% reduction</td>
</tr>
<tr>
<td></td>
<td>Direct work rate</td>
<td>42% increase</td>
</tr>
<tr>
<td>Claims</td>
<td>Number of claims</td>
<td>83% reduction</td>
</tr>
<tr>
<td></td>
<td>Projects with claims</td>
<td>68% reduction</td>
</tr>
<tr>
<td>Other</td>
<td>Job satisfaction</td>
<td>30% improvement</td>
</tr>
</tbody>
</table>
While these results are impressive, the team found several partnering relationships with far more aggressive goals, especially in cost reduction. For example, one relationship intends to cut total project cost by 20 percent, vs. traditional methods, within four years. A detailed plan will be followed, including measures and tracking process, to assess progress. This plan is discussed in Chapter 4.
The Partnering Process Model: Five Phases

The research showed that managing an effective partnering relationship is a five-phase process melding executive, management, and craft-level participation (see Figure 1). The five phases are described in this chapter.

The Partnering Process Model spans a variety of project types and partnering relationships, and is applicable to both project-specific and strategic alliances. For maximum benefit, it is necessary to tailor the model to each relationship or project. The model is a planning tool to aid in the implementation of partnering. It is not a detailed, step-by-step procedure to be followed blindly. Every partnering relationship is unique. Each demands detailed, relationship-specific planning by the owner and between the owner and contractor to produce a successful relationship.

Phase 1 - Owner's Internal Alignment

Phase 1 is the pre-planning stage of a partnering relationship. Decisions made here strongly impact the ensuing steps and, ultimately, the success of the relationship. The focus is on the owner's preparation and planning. This includes assessing internal abilities, future objectives, and internal alignment. Without leadership from the owner's organization, benefits are limited. Thus, the process must be driven by a champion within the owner's organization.

Critical Success Factors

Identify Business Drivers and Core Competencies

Identifying business drivers is the cornerstone of a successful partnering effort. Decisions on whether to partner, type of partnering, and who to partner with should all be based on identified business
[retrieve Figure 1. Partnering Implementation Process Model]
drivers. Examples of business drivers recognized by owners in successful partnering relationships include:

- Getting product to market faster.
- Expanding to a global market.
- Cutting engineering/construction costs.
- Reducing litigation.

Evaluate Partnering

Consideration to use partnering should begin with education on partnering concepts, costs, benefits, and industry benchmarks. The evaluation should conclude with the owner being able to answer two questions: Is partnering the best method to help achieve our business objectives? Is partnering the best method to supply the support needed to complement our core competencies? If the decision is to implement, expectations on implementation should be established up-front. The type of partnering relationship selected should be based upon these expectations.

Conduct Internal Alignment: Two Elements

Internal alignment involves two key activities. The first is determining the owner's internal ability to partner, which includes studying and analyzing company culture, work processes, and contracting methods. Engineering and construction capabilities must be candidly assessed to identify abilities and limitations. A partnering leader must be named to lead the implementation process.

The second activity in internal alignment is integrating partnering into the owner's strategic plan. Upper management decisions must be communicated across the company. The owner also must foster "internal partnering" by establishing trust within the organization and educating employees about partnering.
Phase 2 - Partner Selection

After the organization has identified its business drivers, decided to use the partnering process, and identified its core competencies, it is ready to search for a partner. Candidates are evaluated, the ideal being one who will enhance existing core competencies and provide improved services that benefit the business drivers. This search ends with selection of the best candidate(s). CII Special Publication 17-1 details the process of partner selection and discusses critical success factors in this phase.

Initial responsibility for success of this phase falls on the owner's upper management, which is responsible for forming a competent, diverse, and empowered selection team. The selection team then must conduct a thorough, unbiased evaluation of every candidate.

Contractors must answer the owner's inquiries honestly. They must also investigate the owner's motivations, needs, and expectations. This exploration, combined with open communication, will enhance the selection process.

Critical Success Factor Highlights

Form an Empowered Selection Team

The selection team should be diverse, with representation from all departments affected by partnering. The power vested in the team should be well-defined, such as whether the selection team provides only recommendations or actually selects the partner.

Develop a List of Selection Criteria

The information gathered in Phase 1 should be used to develop the partner selection criteria. These criteria must support the owner's business drivers and complement the owner's core competencies.

Develop a List of Potential Partners

A list of potential partners usually results from an owner's experience with multiple contractors. The research shows that several successful partnering relationships were spawned from existing or past business relationships. During interviews, representatives identified three factors that contributed to the selection decision:

- Potential partner's company culture
- Business practices
- Ability to align business objectives.
Screen Potential Partners

CII Special Publication 17-1 reviews the process for screening potential partners, for conducting in-depth interviews, and selecting the topics to address. The owner should develop and execute the selection process, keying on opportunities to support and add value to both parties' strategic objectives. Improved services desired by the owner and contractor should be identified.

Phase 3 - Partnering Relationship

The owner has now completed the partner selection process and is ready to begin Phase 3, which is the process of integration with the partner(s). This phase serves as the point where the parties--owner, contractor, A/E, and/or construction manager--come together to develop win-win objectives for the partnering relationship.

Critical Success Factors

Develop Trusting Relationship

Every partnering relationship studied emphasized the impact of trust on the success of partnering. Some allowed trust to develop naturally. Others made specific efforts to increase trust, using business and social opportunities. Activities that increase face-to-face contact (workshops, common offices, teambuilding sessions) encourage people to try to solve problems at the lowest possible level. Many managers noted a need to conduct follow-up workshops and teambuilding sessions regularly to refresh employees on the relationship's goals and mission.
Develop Aligned Relationship Objectives that Support Each Party's Strategic Objectives

In Phase 1, the owner undergoes an internal evaluation and alignment process. The goal is to implement an internal partnering program to prepare for future partnering relationships. In Phase 3, the contractor performs the same procedures as the owner in Phase 1. The contracting entity identifies its strategic objectives and reaches internal alignment. Participants should include representatives from all service groups and all levels of management involved in the relationship. The results of this meeting are:

- Development of win-win objectives.
- Creation of the partnering charter.

Objectives should be developed as general goals, specific milestones, and conditions for success. Interviewees stated that developing the concepts in a team atmosphere was crucial to success. Most leaders stated that the win-win objectives were developed by substantial team planning, and the objectives were regularly re-evaluated.

Develop Relationship Measures Based on Objectives and Incentives

A partnering relationship cannot blindly use measures created by another relationship: strategic objectives of separate relationships, based on the different owners' objectives, may be worlds apart. Each relationship must develop a measurement system tailored to its objectives.

Using incentives seems to promote and enhance the benefits of the partnering process. Incentives direct attention of both parties to goals developed by the relationship. The primary benefit of incentives is that both parties win: the owner achieves the identified goals; the contractor increases profit and satisfies the customer by meeting the objectives. The use of incentives also forces partners to define the project's goals, expectations, and measures.
Create a Separate, Empowered Organization

Chances for success on a partnered project increase when participants are able to devote full attention to the partnering effort. To assist in this effort, partners have found the creation of a separate entity to be valuable. This entity experiences a freedom from differing corporate agendas because it is focused solely on the success of and fulfillment of the partnering objectives. A separate entity also helps to establish a sense of team unity within the relationship.

Develop a Conflict Resolution Process

Most partnering relationships in the study had an informal resolution process. This was most successful when the process was created by a team of representatives from both parties. Often the process was formulated at kick-off meetings, workshops, or teambuilding sessions. A typical conflict resolution process consisted of a simple problem escalation ladder. The ladder specifies that problems should be dealt with at the lowest possible level. If the personnel at one level cannot resolve a dispute in a specified time, the dispute moves to the next management level. This process continues until issues are resolved.

Phase 4 - Project Alignment

After selecting a partner and establishing a relationship defined by aligned objectives supporting mutual interests, attention must then shift to Phase 4, aligning the project. The emphasis now is on producing a quality product within the schedule and budget constraints imposed.

Critical Success Factors

Develop Project Objectives, Incentives, and Measures

Project objectives must be aligned so that each partner can set goals. Some examples of project objectives are: early completion; zero accidents; and for engineering changes to cost less than one percent of project costs. Goals should then be supported by incentives. For example, there could be compensation incentives for early completion, recognition of employees for zero accidents, and financial incentive for minimal design changes. By supporting the goals with incentives, the partnership is likely to satisfy or exceed project goals.
Once the framework is set for performance evaluation, measures must be developed to track progress in key areas. One benefit of such measures is that they may provide for interim payments to the contractor rather than waiting for project completion. If there is an incentive to complete the project within 1000 calendar days, it is to everybody's advantage if the reward is distributed in smaller portions according to each milestone reached. Here, the contractor earns rewards early on, barriers to reaching incentives become visible to all, and in general, monitoring of project progression improves.

Consistency of Key Individuals

Effective, continuing leadership in the form of a champion is critical for the success of a partnering relationship. When a leadership position is vacated, those affected often lose a sense of direction. Employees gain confidence and security following prolonged exposure to circumstances which are consistent. Successful interpersonal relationships are vital. To ensure cooperation and collaboration, every attempt should be made to retain personnel who support the partnering relationship and are committed to its success. This continuity aids in establishing trust, consistent policy, and clarity of purpose.

Empower Project Team

Any organization that wants to foster trust must transfer control over processes to the people involved. As each member assumes responsibility for decisions made, gone are the days when "It's the boss's fault." Accountability shifts from the leaders to the supporting personnel, who often have a keener insight into the actions needed. This shifting of power unleashes creative ability, expedites processes, and instills greater confidence within each employee. The result is improved morale, which translates to an improved work atmosphere for all.
Provide Appropriate Tools and Resources

The study identified many tools to help achieve partnering goals. Personal computers have revolutionized businesses, building efficiency in nearly all areas. In construction, using bar codes and scanning devices improves tracking of material quantities, improving communication, enhancing security, and reducing excess inventory. Efficient exchange of information exists through electronic data interchange (EDI); companies perform transactions via computers. This on-line exchange of information speeds communication by removing barriers and redundant activities. Results include improved communication and reduced cycle time and cost. Video conferences can substitute for face-to-face contact. Partners can share database files and electronic drawings. It is critical to identify and use such tools as part of a company's tools and resources.

Develop and Implement Communication Methods

With new personnel dependent on one another for success, communication must be tailored to be both efficient and effective. Cellular phones, electronic beepers, or hand-held radios are often essential for communication. On partnered projects, these devices should be used across organizational lines. Use of e-mail or offices that are co-located can help to remove barriers.

Dispute Resolution at Lowest Level

The first step in a dispute resolution process is to focus on resolving disputes at the level from which they arose. Those involved with creating the dispute should make every effort to resolve it. If resolution is not possible, a clear statement should be written regarding the nature of the dispute and the reason for its continuation. The goal: first, to make all accountable for actions taken; second, to facilitate clear communication; and third, to document results. Finally, the process should cite time frames for resolution at each level of the process. An example of suggested action times for the various levels is:

- Supervisor level 24 hours
- Project manager level 2 days
- Executive level 1 week
Most project-specific partnering relationships begin with formal dispute resolution processes. As a relationship matures, such formalities vanish. Similar to the effect of the learning curve on productivity, dispute resolution processes speed up when the players fully realize their role and authority. Through emphasizing resolution, participants learn that it is their duty to cooperate, and that it is unacceptable to pass problems along to someone else.

Social Activities to Nurture Trust and Promote Teamwork

Much can be done to establish trust and improve relationships among partnering participants through social activities that direct attention away from work. After-work barbecues, recreational outings, family-based or athletic events have the pleasant side-effect of establishing friendships, and were cited for that. While friendship may not be the intended goal, social activities are crucial to understanding and appreciating members.

Phase 5 - Work Process Alignment

This permeation of the partnering message throughout all organizational levels is Phase 5, Work Process Alignment. The chief concern is to establish a framework for managing each project and for monitoring performance. The effort is to speed movement of policies and procedures through all project levels. Moving the lofty goals and ideals of partnering from executive level to craft personnel is a daunting task that is open to misinterpretation. The partnership will succeed only if all personnel support the partnering principles. If teamwork is lacking or if processes are a burden at any organizational level, it will be difficult to succeed.
Critical Success Factors

Communication of Project Objectives

When a manager must answer for results achieved, the manager must understand the grading criteria. If success is determined according to specific objectives, attention will be given to pursuing excellence in these areas. At each successive lower level within partnered projects, including the craft level, performance objectives must be effectively communicated. If safety is of greatest concern, simply telling employees to be safe will achieve few results. When an employee sees that great effort to achieve the objectives is fairly rewarded however, then the employee usually tries to reach the objective. Thus, communication of project objectives is effective when it not only informs the employee of desired results, but offers incentives for reaching them.

Analyze Work Processes

At organizational levels where labor-related activities are greatest, process efficiency assumes highest importance. Employees want to work in the simplest manner possible, and depend on procedures allowing for such. Many activities require efforts from a wide variety of organizations. Proper use of partnering techniques can consolidate and expedite processes by eliminating redundant tasks and streamlining reviews and approvals.

Allocation of Resources

Along with expediting work processes through efficient scheduling and coordinated effort, it is vital to provide appropriate tools and supplies. Productivity depends on resources.