

THE ROLE OF THE OWNER'S REPRESENTATIVE ON IPD PROJECTS

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ABSTRACT

The role of the Owner's Representative on an Integrated Project Delivery (IPD) project is described and contrasted with those of an Owner's Project Manager on a traditionally executed project. Key functions, roles and responsibilities, decision-making and behaviors are identified. These include the Owner's Representative role on the Core Team, the focus on value to the owner, and the way objectives in tension are managed and resolved by the team with support from the Owner's Representative.

KEYWORDS

IGLC22, Integrated Project Delivery, Owner's Representative, leadership

INTRODUCTION

The shift to lean construction from traditional practice began with a new way to manage work, an operating system. It soon became clear that the opportunity to innovate on projects was limited by the difficulty of moving money across boundaries. New forms of contract were established to facilitate this. As a result, both a new form of contract and new organizational structures and communications protocols were developed. This shift called for changes in management practices applied throughout the project. This paper focuses on the role of the Owner's Representative or Project Manager. The role and skills of the Owner's Representative required for IPD and traditional projects are described and compared.

THE MOVE TO IPD PROJECTS

In the mid to late 2000's the first contract for an Integrated Project Delivery scheme was prepared and used on a Sutter Health project in California. At the same time a hospital expansion project in St. Louis was using a similar agreement and being coached by one of the authors. Since then several variations of the original Integrated Agreement for Lean Project Delivery Between Owner, Architect and CM/GC (referred to as IFOA) have been prepared and used on projects around the US. Some were modifications of the IFOA and some were developed by legal experts for companies or organizations that were interested in trying an IPD scheme. Probably most importantly a joint group of organizations developed ConsensusDocs 300 which became the multi-party contract of choice for many users.

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At this time many projects are being executed using an IPD contract. Several papers and articles (e.g., Cohen, 2010) have been prepared with information describing the benefits and the problems with this method of contracting.

WHAT IPD MEANS FOR PROJECT LEADERSHIP

One of the important differences with an IPD contract is that it defines how a project is to be executed and managed. This is a significant difference from a traditional contract that typically only explains the conditions on site, responsibilities of the parties, warranties, who pays when things go wrong, timing of the work, costs, etc. An IPD contract usually explains what management systems or tools will be used (Last Planner® System, Target Value Design, etc.) and more importantly how the project will be managed. ConsensusDocs 300 states “The delivery of the Project shall be managed by the Core Group, which shall serve as the decision-making body for the delivery of the Project and shall employ collaborative methods for achieving the highest quality and most efficient and economical delivery of the Project”. The IFOA states simply that “The functioning and operation of the Project shall be governed by the Core Group”. Other contract forms have similar language but the outcome is similar – the project leadership is provided by a “team” or “group” made up of appropriate representatives from the contract signatories rather than a single Project Manager. This group must work together to define value as it exists for the owner and then collaborate to achieve it.

An IPD contract often references the “Five Big Ideas” of lean project delivery. These include:

1. Increasing the relatedness of members of the Integrated Project Delivery Team ("IPD Team");
2. Collaborating throughout design and construction with all members of the IPD Team;
3. Planning and managing the Project as a network of commitments;
4. Optimizing the Project as a whole, rather than any particular piece;
5. Tightly coupling learning with action (promoting continuous improvement throughout the life of the Project).

The Five Big Ideas can be part of the behavior on a typical project but must become part of the culture on an IPD project. This requires the management of an IPD project to incorporate these ideas in their daily behaviour and actions.

Finally, there is a clear difference in the role of management on a traditional project versus that required on a lean or, in our case, an IPD project. This difference can be described as follows:

Lean Method	Traditional Method
Leadership facilitates collaborative direction	Leadership dictates direction
Planning is collaborative, project-based and seeks to integrate efforts to eliminate negative iterations. The organization learns as the project evolves.	Planning is partitioned by trades and disciplines and is linear. It is predictive and generally fixed, setting parameters for management
Management develops a “network of commitments” to implement the plan. Processes and measures are integrated, proactive and designed to improve team performance.	Management controls are inflexible, autocratic – processes are fixed and measures are isolated and generally historical

WHO IS ON A CORE GROUP?

The members of the Core Group are defined by the contract. In most cases they include three - a representative of the Owner, the Design Professional and the Contractor or Constructor. Most contracts allow for the addition of other members and these can include representatives from the Engineer, Design Consultant or major trade partners (sub-contractors – typically Mechanical and Electrical). Some IPD project Core Groups have over ten members but having this number of members seems to dilute the sense of working together to provide governance of the project. It also minimizes the Core Group’s ability to make hard or controversial decisions. On projects that have started out with more than three to six members, management performance was significantly improved when membership was decreased to the more typical number.

DESIGN PROFESSIONAL AND CONSTRUCTOR REPRESENTATIVES

The qualifications for these two representatives are quite straight forward. ConsensusDocs 300 states simply that “The Design Professional’s authorized Core Group representative is _____, who shall possess full authority to bind the Design Professional in all matters requiring the Design Professional’s approval, authorization or written notice.” The description of the Constructor’s representative is similar. In reality, both of these representatives serve a role similar to a typical Project Manager with one caveat – they must not only be able to speak for their company but they must be close enough to the action that they understand the daily issues on the project. In other words the Core Group member must be a member of the project team not a Vice President who visits the site for a monthly Core Group meeting.

WHO IS THE OWNER’S REPRESENTATIVE?

This is not a simple question. Owners who build capital projects on a regular basis usually have an in-house group that provides management of their projects as they are

designed and built. The members of this group are qualified engineers, architects or managers. They regularly work with contractors and designers and can determine the owner's needs and requirements and relay them to the team.

Other owners who build capital projects once every few years or even decades do not have an in-house group to draw project managers from. They must either hire a project manager into the organization or engage a "project management" firm to provide a project manager for the owner. The terms on which this Project Management firm is engaged become critical – is the nominated project manager engaged to save the owner as much money as possible or is he or she to represent the owner on the IPD Core Team? The first makes it hard to treat the Design Professionals and Constructors as trusted partners and the second means that an appropriate relation with the Owner's staff must be established.

Another issue in representing an Owner is "Who makes the project decisions for the Owner?" In a hospital – is it the doctors and nurses or the facilities management group? In a university – is it the professors and students or the facilities management group? In many cases, this question is answered by having two Owner's Representatives on the Core Group – one from the users' group and one from the facilities/construction management group.

An Owner's Representative from the user's group may be especially helpful in those cases where the traditional Owner's Representative is from an outside organization.

WHAT IS THE ROLE OF AN OWNER'S REPRESENTATIVE?

ConsensusDocs 300 states simply "The Owner's authorized Core Group representative is _____, who shall be fully acquainted with the Project, and shall have authority to bind the Owner in all matters requiring the Owner's approval, authorization or written notice." This is very similar to the description for the other members of the Core Group however the IFOA states "The meetings of the Core Group shall be facilitated by the Owner's Representative." This requirement does not appear in the ConsensusDocs 300 or some other versions of IPD agreements but the need for the Owner's Representative to at least "facilitate" the Core Group meetings is critical to the Core Group functioning in a reasonable manner.

FACTORS FOR SUCCESS

VISIBILITY

The Core Group, to provide appropriate governance, must have a clear and unbiased understanding of the project status, whether the project is in the design, construction or commissioning phase. Today many means exist to make this happen – several of them described and required in the various IPD contracts.

The concept of displaying data or information on an A3 (11" x 17") document has been common since people started paying attention to the Toyota Production System (e.g., Liker 2004). Part of the Target Value Design process includes the display of cost information and the means of maintaining the Target Cost on an A3. The Core Group can rapidly and accurately review this data and make the appropriate decisions on maintaining the Target Cost.

Similarly, information on the Project Schedule can be displayed in adequate detail on an A3 for the Core Group to act.

One of the most creative (and successful) uses of A3 reporting is the A3 Project Summary Report. Originally designed to eliminate the need for a multi-page, bound book issued each month it includes cost, schedule, safety, weather, performance data, and issues on one A3 sheet. Some projects add a list of issues in the lower right hand corner that serve as an agenda for Core Group meetings. In each of these examples, the team members preparing the A3's must provide accurate, clear and well thought out data to enable the Core Group to function effectively.

Many people believe that the use of Building Information Modeling (BIM) is critical to the success of an IPD project (e.g., Kymmell, 2008). They believe this because the team, especially the Core Group, can visualize the design, pre-con work and actual construction status much easier from a good 3D model than from looking at collections of drawings. This ease of visualization becomes important for the team to collaborate more effectively.

The use of BIM becomes even more useful if the team is located in a "big room", another innovation from the Toyota Production System. Here, the owners, designers and contractors share a common room or facility. The facility can be in one location during design but during the construction phase being at the actual project site is important. Allowing superintendents, foremen and project managers from different contractors to speak or even shout across a desk to each other becomes a huge plus. In some cases the Owner's Representative and the Contractor's Project Manager sit next to each other or share a cubicle – typically "big rooms" have no offices. In cases where this has happened, both have praised the situation as one that provides much greater collaboration and felt that their ability to implement a successful project was greatly enhanced.

A part of the visibility factor includes a defined method and scope of communication – a "communication protocol" in the language of IPD agreements. The Core Group is typically required to prepare the protocol. In so doing they establish the visibility that all members have, whether by electronic messaging or old fashioned discussion. On one IPD project, the Owner's Representative claimed to have more and better knowledge of the Contractor's operations – both positive and negative – than he had ever had on any other project.

DECISION MAKING

Decision making is one of the most important tasks for a Core Group. The ability of the Core Group to do this effectively, in a timely fashion, is often based on the Owner's Representative's ability to lead (or facilitate) the group. Barbara Bryson, in her book "The Owner's Dilemma" (e.g., Bryson 2010) describes a decision making process consisting of seven steps. She claims the first six can be done in a single meeting. All of them require the Owner's Representative to do his or her job effectively – in other words the Owner's Representative must demonstrate an ability to get the appropriate information from the owner in a timely manner.

The seven steps are:

1. Clearly define the decision to be made with the team

2. Identify decision stakeholders
3. Identify decision risk
4. Determine what information is required to make the decision
5. Determine if the decision is the team's responsibility or if it must be made by others
6. Schedule the decision process
7. Collect the information and make the decision

Clearly these relatively simple, if difficult to execute, steps establish a way for the team to move on to the work of providing governance and executing the project. They require the Owner's Representative to obtain data and opinions from the stakeholders. Here the Owner's Representative must demonstrate not only his ability to obtain the data but in many cases must lead, encourage, even drive his own organization to accept or agree upon these answers. This is why a qualified Owner's Representative is critical to a project.

Note further that step 7 says "Make the decision". Here again is an opportunity for the Owner's Representative to bring a new system or process to benefit the project. In the '80's Jim Suhr, (e.g., Suhr, 1999) who worked at the US Forest Service and many other organizations, discovered (his term) that "decisions must be based on the importance of advantages". In 1990, Suhr left the Forest Service to spend time developing and teaching the "Choosing by Advantages Decision-making System"(CBA).

As the name implies the system involves identifying alternatives (sub-contractors, HVAC systems, roofing materials, building layouts, etc.) that must be considered. Then determine the attributes (a characteristic or consequence) of each alternative. Finally, methodically and collaboratively, identify the advantage that each attribute has over the attribute of another alternative. The importance of each advantage is established and the total value of the advantages is calculated.

The system requires training and practice to be accepted but when used in its entirety to make a decision there is seldom a reversal. In one case where a team made a critical decision using CBA to determine the basic layout of a new office facility, all the work had been done in abject fear of a vice president's review. They were shocked when the vice president was shown their listing of attributes, advantages and total values and his sole comment was "Great job!!". In other words it works, with some effort at the beginning to learn a new system; the payoff for the team (and owner) is tremendous.

LEADERSHIP

In the lean world, or in our case the IPD world, leadership has a different flavor. Remember the table of differences at the beginning of this paper where in the lean world "Leadership facilitates collaborative direction" and in the traditional world "Leadership dictates direction". How does the Owner's Representative provide this type of lean leadership?

There are books, courses, lectures and advice on how to do this however for simple ideas we can consider Barbara Bryson's values from the Owner's Dilemma (e.g., Bryson 2010). They include:

- Strive for transparency because information is power
- Lead with exuberance and caring consideration
- Seek excellence
- Make decisions at the most powerful level and the most powerful moment
- Be tough when it is important to the team's success
- Build and preserve relationships
- Give people what they need to do their jobs

Simple, easy to understand, but clearly different from the way Owner's Representatives or Project Managers behaved in the past. Bryson elaborates on each of these and provides details on how to make them part of the team's day-to-day culture. Nowhere is it stated that the Owner's Representative must know all there is to know about making the project a success so he or she can "dictate direction". He or she must draw on the team for that success. He or she must insure that each team member can do their job, that all of them feel a part of the effort and finally that all understand the final goal or owner's value proposition for the project.

It is easy to go beyond Barbara Bryson when we are talking about leadership. John Kotter in his book "Leading Change" (e.g., Kotter 1996) presents a detailed plan for creating major change and isn't that what we are doing when we start on the IPD path?

He feels strongly about the need for the leader (the Owner's Representative) to establish a sense of urgency at the very beginning of the project. Then to create a guiding coalition (the Core Group) that develops a vision and strategy. This group must insure that the rest of the team understands and believes in the change vision before they are required to implement it – Kotter calls it empowerment. He stresses the need for short term wins to provide satisfaction and keep the effort alive. Finally Kotter stresses the consolidation of early gains and producing even more change so that the team is anchored in this new way of doing projects.

Even without a Bryson value list or a Kotter change system, the Owner's Representative can incorporate some behavior changes in his or her daily routine:

- Design the project as a "network of commitments" (remember the 5 Big Ideas). Make sure the team understands what a reliable promise is – make reliable promises yourself. Confirm that the person who commits to you understands that you require a reliable promise – expect no less.
- Go and See as the Toyota people would say or just walk around, be part of the action, don't discuss issues in the office – go to the design floor or work face to understand the issues or problems.
- Make sure that the project's successes are displayed. Have posters on the wall with metrics demonstrating the speed of handling RFI's or submittals. Visually

demonstrate any and all safety issues, show the number of days until the next critical target date, display the results of Target Value Design – remember Bryson’s transparency value.

- Require that continuous improvement and waste elimination is on everyone’s mind. Ask for and reward ideas for improvement. Make certain that improvements are recognized by all. Establish a group to make this even more visible.

CONCLUSION

The ideas in this paper have been drawn from actual IPD contracts and books relevant to the subject. The goal as stated in an IFOA is:

“The purpose of the IPD Team is to facilitate collaborative design, construction and commissioning of the Project. By forming an IPD Team, the Parties intend to gain the benefit of an open and creative learning environment, where IPD Team members are encouraged to share ideas freely in an atmosphere of mutual respect and tolerance. IPD Team members shall work together and individually to achieve transparent and cooperative exchange of information in all matters relating to the Project, and to share ideas for improving Project delivery as contemplated in the Project Evaluation Criteria. IPD Team members shall actively promote harmony, collaboration and cooperation among all entities performing on the Project”

We propose that the Owner’s Representative has a critical and essential role to play in making this happen. There are numerous examples where the Owner’s Representative was not strong enough or did not have the support of the Owner’s team. Where he or she was unfamiliar with the tools discussed above or had the wrong incentives for success causing the entire IPD process to be deemed a failure.

We have suggested, all be it briefly, numerous tools, processes and behaviors that can help an Owner’s Representative make a very positive difference in the outcome of an IPD project. We also suggest that in some cases there is a need for a consultant or someone with experience in IPD to help the Owner’s Representative and the project team understand all of the above and to make these ideas part of the project story.

We close with this thought. Integrated Project Delivery is the most basic change in doing capital construction projects since Critical Path Management or the first Computer Aided Design and Drafting (CADD) systems were accepted as necessary tools. Further that the role of the Owner’s Representative is key to making this change ever more important and successful.

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