

Commissioning on Purpose® for the Commissioning Authority

How it Works in Everyday Projects

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Synopsis

Commissioning on Purpose is a new concept that has been adopted by Engineering Economics Inc (EEI), and is being shared with owners, A&E firms, contractors, facility operators and other commissioning firms throughout the United States. There are dual forces driving this concept. One force is the way the commissioning industry is continuing to evolve as an Owner's advocate. The commissioning voice is increasingly being introduced into the project very early, sometimes before the A&E firm is hired. That change is being driven by the Owner, who is clearly putting greater and greater value on the commissioning process.

The second driver has to do with the age old frustrations of building owners with the construction process itself, and its net results which often leave building operators very unhappy. Owners are increasingly frustrated with the well-worn perspectives from which a building is built and delivered, perspectives that cause considerable stress both during the construction process and throughout the continuing life of the building. *Commissioning on Purpose* addresses these issues.

Lofty concepts have a way of occasionally inspiring but often failing. They fail because of their inability to connect in a manner that allows us to use them in ways that are practical. They succeed when we discover ways that fit the context of our everyday lives. Without this ability – the ability to integrate ideas into practical, everyday applications – concepts usually become academic, detached from the practicality of life. *Commissioning on Purpose* succeeds or fails based on our ability as the Commissioning Authority to effectively integrate commissioning it into the construction process.

This paper provides actual, practical project-implemented examples and insights into centering a project, or the project's team members, on a building's purpose.

About the Author

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The Paradox of Change

Most people are hungry for a way to solve the problems of increasingly busy, over-scheduled and demanding lifestyles. This is certainly true in the workplace, and undeniably true in the fast-paced, high pressured world of construction. As the engine of technology and the economic forces of global change force Americans to become more and more productive, the age-old problem solving methods we have traditionally used often leave us frustrated and searching for alternatives.

In today's world, if we do not adapt, we get left behind. Yet sometimes, we are so preoccupied with what is on our plate, that to even consider a change is stressful, even if it is a positive one. This is the paradox of change in our current age: we are often too stressed to let go of what is not working in order to embrace a new way.

What motivates us to embrace new, better or more productive ways of living? Sometimes it is desperation, as is the case when we get laid off and have to retrain in a new industry, or when we find out we'll get demoted unless we learn the newest technology. Another way we get motivated is when we discover that a new principle or technology can relieve our stress by clearly making us more productive and efficient.

Commissioning on Purpose represents one of those paradoxical improvements. In other words, one way of looking at it is to say, "I do not really have the time to consider it. I have way too much on my plate, and besides, it sounds like a useless slogan or flavor-of-the-month." Another way of looking at it is by experiencing it, and through the experience itself come to the realization that it represents an improved way of approaching construction and commissioning. That is where its genuine value resides.

Defining Commissioning on Purpose

In a paper entitled "*Commissioning on Purpose*"¹, presented by two of my colleagues, James D. Coleman and Gretchen A. Coleman, P.E., to the *2004 National Conference on Building Commissioning*, they state:

*"As individuals, one of our greatest quests for many of us is to find our purpose in life. This can be seen by the extraordinary sales of the recent book *The Purpose Driven Life* by Rick Warren (approximately 25,000,000 copies sold to date). People who understand their purpose in life and live their life centered on their purpose are likely to have a happier, more meaningful and successful existence. Just as we believe that every person has a purpose, so should every building. The more centered that building is on supporting its purpose throughout its life span, the more benefit that building will provide. In other words, every building should have a reason for existence and all decisions regarding the planning, design, construction and operations of that building should be centered on that purpose. Furthermore, we believe that the purpose of the Commissioning Authority should be to help the owner clearly define and document the purpose of the building and carry the banner*

of that purpose with determination to assure that the final building has the desired effect of being centered on purpose.

If we aren't centering our building process on purpose today, then where are we centering the processes? How would the construction of a purpose centered building be different from what is being built today? What type of effects would this have on the ways owners funded buildings, how Architects and Engineers would design buildings, how construction teams would build buildings and how the buildings were operated and maintained? In our opinion, construction projects that are centered on purpose will require a new way of thinking and making decisions regarding the project."

Commissioning on Purpose asks the fundamental questions regarding the very nature and existence of the building, and carries the banner of purpose throughout the entire construction process. It begins with the development of a Purpose Statement, and continues through the rough and tumble world of design and construction. It remains available as a centering influence even as the building ages and decades pass.

Centering a building on its purpose gives the entire team, over the lifetime of the building, a common point on which to center, a point so apparent that once it is defined, it becomes very difficult to argue with the core truth of its position. Hence *it can become a very easy point to agree on*. It is through such agreements that a common will develops to base building design, construction and life cost decisions upon the bedrock of the building's purpose.

When conflicts arise, the building's Purpose Statement can often be used as a higher perspective, a point of view that allows people to remove themselves, at least for a moment, from the intractability of their position, giving them some space to reconsider a better approach, a more centered viewpoint.

But *Commissioning on Purpose* is not limited to a Purpose Statement. Its greater value lies in the ability of the Commissioning Authority, along with the rest of the team, to integrate the Purpose Statement into the project, and to integrate the whole concept of Building Purpose into the project.

How Would that Work in an Actual Application?

We exist in the everyday world, so it makes much more sense to learn how to understand and apply this concept in real world applications than it does to apply it in classroom environments or in purely theoretical terms. After all, we are the Project Manager, the Engineer, the Commissioning Authority or the Owner. We are not salesmen or marketers who are explaining big concepts in large sweeps and broad brush strokes. We are the people who are on the front lines, and it either works for us and our customers, or it does not.

One way to understand *Commissioning on Purpose* is to find ways to better understand the concept of purpose itself. This is not only a wise approach, in that we begin to learn about this concept in digestible bites, but it is an essential approach because it also

teaches us how to apply the concept in the areas where it is most needed: everyday project and commissioning applications.

When we first rolled out the concept of *Commissioning on Purpose*, we quickly realized that people often confuse purpose with need. We decided we needed a way to develop sufficient clarity in our own minds concerning the definition of purpose. As we went through this process, we discovered that one of the best ways to get an initial grasp on the concept was by developing comparisons of purpose versus need.

For example, let's say a university wants to build a new engineering building because their enrollment is increasing and they require more space. If we ask what the purpose of the building is, a typical response would be, "We need more space for more engineering students." In this case it is easy to see that the response is not centered in purpose because the respondent actually uses the word 'need'.

The purpose of the building would sound different: "The new engineering building is a facility designed and operated to train America's future engineers." While this is a simplified version of a Purpose Statement, it demonstrates the difference between purpose and need.

Here is another example: If we ask the owner/design team to define the purpose of a new fire station, a typical response might be "It is a building to house fire fighting equipment and firefighters." A Purpose Statement would reveal something very different: "The purpose of this building is to facilitate the saving of lives and property."

Once we learned to distinguish between purpose and need, we were ready to take our first steps toward application. We started by searching for ways to apply it in our everyday projects.

Example 1, Never Using the Word 'Purpose'

One of our large commissioning projects had been in a protracted impasse. After repeatedly rejecting balancing reports, the project had come to a standstill, and all commissioning activities had ceased.

Months had passed, the building was occupied, and the construction manager was losing interest in finishing the commissioning and TAB work. The mechanical contractor, meanwhile, had become defensive of their TAB subcontractor, because all of the blame for delays seemed to be falling in their direction. The Owner was highly frustrated, and the Operations and Maintenance (O&M) staff had long since realized that they were fated to have a dysfunctional facility. Meanwhile, this brand new showcase technology building was cold (it was winter in the Northern U.S.), and the building operators were receiving constant tenant complaints.

Certainly one perspective we can employ when cast in a similar position is to use our tried and true project manager skills. But so far, project management skills had failed to solve the problem. Unfortunately, as the Commissioning Authority, our position was *adding* stress to the project, not relieving it. It was the "correct" position to take, but the act of taking it was making things worse, not better. We were, inadvertently, adding imbalance to the project.

Nearly a year had passed since Substantial Completion and occupancy, and nothing had happened. It was clear that unless we made some substantial changes in our own approach, or unless we were able to catalyze some substantial changes in the team's approach, the project was never going to be fully commissioned. We decided to adjust our approach and deal with the problem from the perspective of *Commissioning on Purpose*.

In this case, we had entered into a contract to commission the building before the concept of *Commissioning on Purpose* was developed. We did not have a Purpose Statement, but that did not stop us from finding ways to center on the building's purpose. We discovered a way to do that through one aspect of the Owner's design requirements:

To have an operable, functional building, that worked per design, and operated in a manner that maximized design efficiency, so that current and long term tenants would be comfortable, and that the Owner would have a building that they could afford to manage and operate over time.

We focused on key words in this statement: *operable, functional, comfortable, affordable* and *efficient*. Once we had this established, we made an impassioned plea to the Owner, stating that we believed we had a responsibility to make a stand for the Owner's best interest. We explained that we could not accept that this building would be left unbalanced or incompletely commissioned. We could not accept that the Owner would have an *uncomfortable, inefficient, unmanageable building*.

We focused on the positive side of these words with other team members, stating, "The owner deserves to have a building that is comfortable, efficient, and manageable, one with which they are happy. We need to do whatever we can, as a team, to make sure they are satisfied. We cannot leave them with an uncomfortable building."

Almost instantly, the situation began to improve. The purpose-centered message clearly resonated with the Owner. It was clear to us that they sensed something new was coming into the project. They probably could not have explained it, but they sensed it.

With the contractors, we pointed out that unless we got past this point, the Owner was going to be forced to live with a poorly performing building. It was a point with which no one could disagree. Not one member would admit that it was acceptable to give the Owner an inoperable building. Everyone agreed on this central point. *Centering on the building's purpose helped us identify a common point upon which everyone could agree.* We were finally able to start moving forward again. We were not overt or obvious about it this new focus point; we just used good project management skills to implement the concept. No one was offended. In fact, the very opposite occurred.

The Construction Manager (CM) exclaimed during a highly attended commissioning meeting, "We are finally talking with each other! We actually have a productive discussion going on! We haven't had this." Scanning across the room, he drove his new-found point home with emphasis, "We *must* keep doing this." The CM also stated during the same meeting, "You (the Cx team) are giving me points to focus on. This is great! I haven't had that."

All of this happened after we began focusing the project on the building's purpose. Before that change in perspective took place, there had been months of deadlock. The Owner pulled us aside after another commissioning meeting and stated, "We are finally beginning to realize that commissioning has a deeper value, one that we haven't understood."

We did not achieve any of this by making a big deal about *Commissioning on Purpose*, or the "building's purpose". In fact, we never used either of these phrases or even the word 'purpose'. Instead, we simply focused on an easy-to-relate-to-aspect of the building's purpose, and by centering on that simple truth, the project began moving forward, *unifying on a common point*.

Example 2, Focusing on the Word 'Purpose'

Gretchen Coleman, one of my colleagues mentioned above, was working on a large commissioning project in the medical sector, located in the southwest United States. Gretchen is an industry veteran, having sat on the Building Commissioning Association (BCA) Board of Directors for 6 years. She is currently a member of the BCA's Certification Committee, and one of the first 8 people in the nation to receive the BCA's Certified Commissioning Professional (CCP) designation. Involved in what we believe was the first 3rd party commissioning project performed in the United States, Gretchen is widely viewed by many of her peers as an industry leader.

When we first developed the concept of centering on a building's purpose, Gretchen became determined to find a way to implement it into her southwest U.S. project.

"I decided to simply use the word purpose," she recalled. "I started talking about the purpose of the building in our commissioning meetings. It was really amazing because after just a few times of simply saying the word 'purpose', everyone was using the word. And they continued to use it.

"This shifted the focus from finger pointing and positioning to solving the problems. It was a subtle change, and I don't think that anyone was aware of it but me. No one was paying any attention to it, but it made meetings more productive and instilled more of a sense of teamwork than we had experienced before."

Gretchen's experience is another validation of our findings: that centering on a building's purpose has practical value for the project beyond the commissioning process.

Example 3, Focusing on the Owner's Purpose

Centering on a building's or even an owner's purpose can yield surprisingly effective results, even in the public sector.

A federal agency needed an evaluation of the effectiveness and quality of their Operations and Maintenance (O&M). The O&M teams included private contractors and two government agencies. The facility comprised over 2 million square feet.

A preliminary assessment quickly showed that quality control of the O&M process was seriously impaired. The typical evaluation would be to recommend solutions and perhaps do some finger pointing. However, unless the root causes were addressed, any solutions and recommendations that were implemented would only be effective over the short term. If the root causes were not addressed, history would repeat itself. In this case, unfortunately, the root causes were deep and to address them meant approaching much deeper issues within federal agencies.

We did not fool ourselves into believing we were the first people to ever realize this. Nevertheless, a number of people suggested we were naïve and idealistic to think solutions focused on root causes could be implemented, particularly in federal agencies. Perhaps they were right, but we decided to forge ahead and use the concept of *Commissioning on Purpose* to build our solution model.

There were two federal agencies involved. Each agency's mission statement was examined. These could also be called "purpose statements". It immediately became clear that both agencies had drifted off course in the area of O&M, with respect to their mission statements. It also became apparent this was the core cause of their problems.

This deviation then became the focal point of the assessment team. When talking among ourselves, it became the main topic of our conversation. We constantly harped on the point, to ensure that the value and perspective of purpose would imbue our approach to solving the problem. It was not discussed openly with anyone outside of our own group, but we committed ourselves to practicing it. Soon it began to subtly permeate our reports, interviews, meetings and recommendations.

This new way of thinking had some very dramatic results. We began to see it filtering into the Owner's statements. We heard it coming back to us in their conversations and comments, giving us the feedback that they were 'on-board'. We were also informed that a cabinet-level federal official had become aware of the problem and was willing to become personally involved to bring the agencies' own sense of mission (purpose) back into Operations and Maintenance.

That represented a benchmark in our initial attempts to develop practical applications: We realized that a purpose centered approach:

- Has a universal appeal that draws in support, ranging from field level personnel to senior management;
- Clearly helps create an effective consensus for positive and practical changes and improvements;
- Can help every member of the team become more aware of the core issues, whether in the construction process or in the operation and maintenance of a facility;
- Can help each team member to center on those issues, instead of wasting time and energy on more peripheral and less meaningful things.

The Value of Centering on a Building's Purpose

Each commissioning provider has his or her own unique approach to commissioning, and while the approach is hopefully grounded in national industry standards, the provider nevertheless brings their own unique qualities to the table.

The same can also be said of building owners: each owner has varying expectations of the commissioning process, ranging from highly informed and educated understandings of the value of commissioning, to uncertain expectations coupled with a hope for an improved construction process and a better building.

By distilling these different qualities, approaches and perspectives, we find that the essence of commissioning's value lies in its ability to bring about improvements in an industry that historically struggles with the same issues, over and over. This struggle often becomes discouraging and tiring.

From this perspective we believe it is the responsibility of the commissioning Project Manager to understand the nature of these struggles and to understand what the Owner is *really* asking the Commissioning Provider to accomplish.

What the Owner really wants, and what the Owner may actually be saying could be two seemingly different things. But when the essence of commissioning's genuine value is distilled, what remains is a hope for a much needed change. A fundamental question then arises: upon what do we center this change?

We believe the answer is "on the building's or Owner's purpose."

As previously stated, centering on purpose is an innate inner desire, something to which people and teams of people respond because it touches a core point that is hard to disagree with – even in the construction industry. It is our opinion that building Owners and the American construction industry have the potential to radically improve the way business is done, just by making a small adjustment in thinking and approach.

In Jiu Jitsu, a Grab is a Gift

Here is a final example of the benefits of centering on purpose, but done using a martial arts analogy.

Successful commissioning and construction is often hampered by deadlocks and finger pointing. Issues and problems are avoided, and solution processes are often viewed with dread, prompting antagonistic attitudes and stress. *Commissioning on Purpose* seeks to overcome that negativity.

In my years of martial arts training and instruction, I have learned that there are different perspectives on how to view an attack. In Jiu Jitsu we learn that a grab is a gift, because if someone grabs our wrist or arm, we know where that particular hand is. *And one thing it is not doing is hitting us!* That is why it is a gift.

It takes a bit of training for our students to actually start viewing it this way, but when they make the switch a fascinating change in perspective occurs, a change that sometimes alters their life. Things that were formally insurmountable obstacles or fears lose their power and influence when viewed in a more positive light.

If someone comes up behind us and puts us in an over-arm bear hug, most people respond by struggling. Unfortunately, the more we struggle the more aggressive the attacker becomes. In Jiu Jitsu we relax. We relax into the grab and find our way out. The way to escape is not apparent when we struggle but becomes very apparent when we relax and utilize our training.

When projects have problems, we should stop and realize that we have a gift. We have the problem grabbing us. It is not hitting us. It is just a grab that is asking us to pay it some attention. It is reaching out and asking us to help it identify with purpose.

If we struggle, which represents construction's typical conflicts, we cannot see a way to escape, and... it tends to escalate. But if we relax and focus on a higher perspective - like the owner's or building's purpose - the problem will begin to resolve. It gravitates in the direction of becoming more unified with purpose.

It is a funny thing about being in a grab. When the defender relaxes and focuses on a higher perspective, the same thing starts to happen to the attacker – on some level or another. Similarly, construction's conflicts begin to resolve in the direction of a solution when we center the conflict on a higher perspective.

Talk to people about the purpose of a building, and you will see a change in perspective occur. It is as though the mind goes into an overview mode, a mode of thinking that elevates the participant to a vantage point where things start becoming clearer and easier to resolve. It's just like when an airplane climbs through the clouds to emerge into blue skies – it all becomes much clearer and easier to see.

Centering on a building's purpose, even in very small ways, can yield noticeable positive results:

- It helps shift the focus from finger-pointing to constructive accomplishment;
- It helps move a project out of deadlocks;
- It brings a much needed higher perspective into the construction process by centering on a point that is hard to deny as valuable or true;
- It helps get people talking in a way that is open and free flowing, even in adverse situations;
- And it accomplishes these things in a subtle manner that doesn't offend anyone.

Commissioning on Purpose achieves its goal by implementing small, practical applications. Then, over time, an awareness of its value begins to grow.

Calm at the Center of the Storm

As the Coleman's implied in their paper, it is basic math and logic. Just as people tend to be happier and more productive when they are performing their life's purpose, we can extrapolate that building owners, designers, construction teams and occupants will be more satisfied if they are working on, maintaining or occupying a building that was built centered on its purpose.

The ideal purpose-centered building centers people in their own purpose when they are in the building. The ideal commissioning Project Manager understands this and helps the entire team become more centered in the building's purpose as well. As a result, everyone has an opportunity to share in the benefits of that experience.

Commissioning on Purpose does not in any way advocate abandoning the positive values of our traditional design and construction approaches. Rather, it suggests that centering in the building's purpose will introduce elements into the process that, at first glance, may appear to only be enhancements. However, purpose is deeper than an enhancement. That is why it is so powerful.

My Sensei (martial arts teacher) illustrates this concept. He says that if you want to improve something – whether it is about yourself, or a problem, or a goal, etc. – that the best way to do this is to get as close to the center of it as possible. You can have a far greater effect with much less effort if you are at the center of something than way out on its exterior. There's far less movement inside the eye of a hurricane than out on its extremities.

Identifying with a building's purpose is like being in the eye of the storm. The storm represents the everyday stress and difficulties of designing, building, commissioning and operating a building. The eye is the thing everyone is hoping to tap into, because if we are tapped into the eye when we deal with project problems, we are at the point that is common or central to every element of the problem. We can make improvements with less effort and energy. We are more efficient. We are at the point that everyone can agree, a point that will tend to unify the team.

It is our hope that Owners, commissioning providers and professionals throughout the construction industry will consider the benefits of being able to have a common point of agreement that could unify an entire team throughout the life of a project.

References

1. Coleman, James. D and Gretchen A. *Commissioning on Purpose*. <http://www.eeiengineers.com/CxingonPurpose.pdf>. EEI, Roanoke, 2004.