Over my many years of giving construction productivity improvement lectures at conventions and in-house seminars for construction firms, I have noted a strong interest in the topic and enthusiasm of the participants to get busy with the implementation of the many ideas, procedures, and techniques. However, I suspect that the number of individuals that have stayed the course and have sustained their productivity improvement effort to be much less. My experience tells me there are two main reasons why construction productivity improvement programs fail.

1. Constructors often focus on short term results rather than focus on the long term. The construction industry’s focus on the short term is caused by the fact that the industry constructs “projects”. Often the constructor measures results by means of focusing on project profits; the profit center is a project. Such a focus on short-term results may lead to frustration if efforts are made to improve productivity and benefits are not immediately measureable. It is important to remember that productivity improvement is often more of a marathon, not a one hundred yard dash!

2. One has often heard statements such as in order for a new program or effort to work, “top management” must support the program. One might propose that a program or new effort has a better chance of succeeding if “top leadership” supports and drives the program. “Managers”, not “leaders”, frequently administer productivity improvement programs. Managers typically possess the important skills such as planning, directing, measuring, and monitoring. While these are important skills of the construction supervisor, individuals that possess vision, motivation, team building, pride, and trust are skills of individuals that administer productivity programs that work. These skills are typically more identified as “leadership skills”.

In this article we will focus on “leadership skills” and give examples of how they apply to the implementation of a successful construction productivity improvement program.

I. Leaders are Idea Driven and are Visionaries

Tradition in the construction industry is often very strong. Individuals are often bull-headed about defending the ways of the past; “do it my way, or hit the highway”. This is not to say that construction tradition and experience is not important. One must know which end of the shovel to hold to be a good constructor. However, if experience means getting used to terms like “redo work”, “punch list”, or “double handling material”; one would propose that this type of experience is detrimental to the construction productivity improvement objective.

Past issues of this newsletter (Volume 18, Numbers 1 and 2) set out “Ten New Themes for Construction Productivity Improvement”. The issues set out a “vision” of improvement through ten new processes:

1. Formal continuous education program for all employees
2. Use of job audits to promote use of a productivity procedures manual with defined processes
3. Focus on implementing process management
4. Use of measurement and benchmarking
5. Implementation of defect analysis
6. Measurement of risk as a means of setting out productivity improvement
7. Focus on the vital few versus the useful many
8. Implementation of a best practice program
9. Focus on safety and quality as means of improving productivity
10. Implementing programs to make a job look like a firm
The reader is directed to the past two referenced newsletters for a more detailed description of the above ten “new” steps. The point is that they are NEW, they might be viewed as visionary. This is precisely what is needed in an industry where inefficiencies sometimes set the bar for future standards and goals.

II. Leaders Focus on Processes and Planning for the Desired Result

Simply proclaiming that the firm has the objective of increasing productivity will not by itself increase productivity. What is needed is a well-defined set of processes and procedures that will be implemented to achieve the desired objective. While it is important to set goals such as “we will achieve a five percent increase in productivity within two years”; it is equally important to set out specific processes, procedures, and plans that will be required to achieve the objective.

I am frequently asked at speaking engagements how I have had time to author fourteen books for the construction industry. With no intention of being boastful, I usually respond that I not only have written fourteen books, but I have always met the publishers contract date for delivery of the manuscript. This is unusual in that publishers indicate that only one of nine books ever started get finished, and only one of approximately fifty get finished by the initially contracted due date.

I point out that publishers typically contract for a book to be finished in two years. The author signs a contract to deliver the final manuscript two years from the date of signing the contract. There is very little, if any, contact between the publisher and the author during the two-year time period.

I learned many years ago that one does not get a book completed on time by merely targeting the two-year contract date. Instead, upon signing a book contract, I immediately set out milestone dates for the completion of each chapter. In addition, based on the preparation of a detailed outline, I attempt to set a budget of effort or man-hours that I have to schedule for myself to be able to meet each milestone. In effect, I complete books on time by managing the process; not merely setting the end goal.

The same can be true of a successful productivity program. Leaders plan and set out specific processes and procedures that will be taken to attain the desired productivity goal. Procedures and processes such as the following are planned and administered by the productivity leader.

• Supervisors are required to write up a best practice each month that would increase productivity at their job site. In turn, the “best practice” ideas are collected by the firm and shared with all supervisors.
• Prior to the start of each and every project, the project supervisor has to identify one productivity defect (e.g. redo work, double handling of material, etc.) that is to be measured, analyzed, and improved during the project.
• Prior to the start of a project, the project supervisory team is required to consider and sketch alternative project layouts (material lay down areas, equipment storage area, trailer locations, etc.) and select the optimal project layout that will accommodate productivity improvement.

A prior newsletter set out 100 best practices or processes that can be used for the productivity improvement objective. A good example of a client of mine that has found productivity success through implementing of specific process is Webcor Concrete, a large concrete contractor on the west coast. Leaders select and monitor processes to achieve their long-range goals.

III. Leaders are Team Builders, They Seek and Obtain Consensus from Participants

The construction industry and the construction firm are made up of individuals of diverse backgrounds, and with different priorities, objectives, and opinions. Various individuals in the firm carry different titles; examples include the following:

• Project managers (often college educated graduates)
• Superintendents (typically highly motivated and often have prior experience as a foreman, craftsman, etc.)
• Foreman (asked to be managers for the firm but often aligned to their work crew members)
• Estimators (often part of a centralized office team and not responsible for project performance)
• Craftspeople (individuals that are asked to produce but are left in the dark regarding budgets, and actual performance relative to the budget)
• Subcontractors (working with the general contractor but not within the daily control of the general contractor)
• Suppliers (independent of the on-site contractor team but critical to the contractor team in meeting project deadlines and objectives)
A successful productivity program needs the cooperation of all of the above. A program that benefits some but penalizes others will not work. Everyone must be pulling in the same direction.

Creativity and leadership must be used to set out procedures that will benefit each party to the construction process and obtain a “buy-in” to the overall objective. One example of this “team approach” is the encouraging (or requiring via contract agreement) of subcontractors to implement management practices such as preparing a man loaded scheduled, set out various interim milestones on the schedule, and requiring the subcontractor to implement their own proactive productivity project program.

Leaders recognize and utilize the different skills of individuals. They mold the skills of individuals into teams and recognize that the sum of the total parts can be greater than that of the parts. For example, there is often an argument in the construction industry as to who is more valuable, the college trained construction supervisor or the supervisor that comes from the school of hard knocks; i.e. the person that worked their way through the ranks. A client of mine implementing a proactive construction productivity program, Granite Construction (a large national contractor), has recognized the strengths of both of these individuals. In their attempt to develop a productivity team that visits jobs with the objective of collecting data and benchmarking best practices, a foreman that worked his way through the ranks of being a craftsman works as a team with a young recent college graduate trained in data collection and critiquing work processes. After a year or two of serving in this support or “staff” role, the two individuals return to their normal production jobs and another team made up of these two backgrounds is identified to do the same tasks the following year. The argument as to who is better to lead the productivity team is removed; the two individuals with different backgrounds and skills are combined.

I remember an engagement I had with a Hawaii firm to help them with a productivity improvement program on the Hyatt Regency Hotel in Kauai. As part to the program to measure productivity delays and defects that could be improved, we designed a small form for the back pocket of the craftsman and asked them to record when they were out of work waiting on their supervisor to inform them of what to do next. Not only did we find out that we were losing 7 percent of hourly productivity when workers were waiting on instructions; we indirectly got the craft workers into the productivity program of measuring productivity loss owing to the failure of the supervisor to assign them a secondary work program. The craftsman not only filled out the form, they enjoyed it! For once they were not being blamed for their productivity; they were being asked to monitor non-productive time owing to the supervisor. The collected data brought our attention to the need to have supervisors keep the workers informed of secondary work tasks and the need to keep workers constantly informed as to what work needed to be done when they finished their current work tasks. Leaders recognize that getting everyone involved and showing them the benefits of involvement is the only way to effectively implement a program that requires the cooperation of everyone. Leaders recognize that cannot be a dictator; they must lead by example and develop a team approach.

IV. Leaders are Consistent, But Flexible

On the surface, it appears that the leadership skills of consistent and flexible are contradictory terms. They are not. The leader of the construction program must be consistent in how they treat managers and subordinates, and require consistent use of a set of productivity processes. On the other hand, when processes or procedures do not work, they are flexible enough to admit their own mistake and tweak or abandon the process for an improved process.

The typical construction firm has many strengths to include well-trained, innovative, trust worthy, and hard working individuals. However, one attribute the firm typically does not exhibit is the use of consistent practices. In any one firm, some individuals do a good job of timely accurate job site record keeping while others do not. Similarly, some supervisors in the same firm may be aligned to the preparation and use of formalized plans and schedules while others may resist the formalized planning objective. Construction supervisors and managers are and should be empowered to make their own decisions, but they should not be empowered to decide which processes or procedures they will utilize. If a schedule is good for some jobs, it is good for all jobs. Consistency leads to quality and to productivity improvement.

The leader must demonstrate consistency of his or her own actions in monitoring the use of set out productivity procedures and processes. Once productivity procedures are decided upon, there should be no exception or arbitrariness as to their use. A previous newsletter on quality improvement discussed the benefits of implementing bonuses for alliance with procedures rather using bonuses for results.

The implementation of a construction productivity program requires the setting out and consistent use of innovative, sometimes untested, processes and procedures. Given the fact that they are new and given the fact
that the construction process is difficult and ever changing, processes and procedures will likely need some tweaking, modification, or abandonment. A leader recognizes the need to be flexible. When something isn’t working, a leader is willing to admit it, even if it entails omitting his or her own incorrect actions and/or assumptions. He or she needs to be attentive to the views of his subordinates while also “staying the course” until proven wrong. Decisive, consistent, but flexible leadership is required.

V. Leaders do not Accept Failure, They are Not Whiners or Blamers; They are Problem Solvers and Opportunists

There is no doubt that the construction process is a difficult one. Workers that don’t show up, designers that may procrastinate regarding a decision, material shortages, unexpected weather, multiple labor crafts, work rules, and equipment breakdowns are just a few of the “bumps in the road” that make the construction project challenging and sometimes frustrating. However, one might argue that the harder the playing field, the bigger the spread there is between winners and losers. While construction firm bankruptcies are fairly common, there are also fortunes built in the construction industry. Leaders see problems as opportunities; they instill this attitude in their subordinates.

I’m reminded of an incident that happened to me a few years ago in my role as a construction professor. It occurred when I took my students on a field trip to Chicago. With the objective of showing students some real-world construction projects, I had rented a bus and had lined up two projects to visit in the Chicago area. When we arrived at the first site, the construction supervisor greeted us and started to tell the students about the following:

• During the past month, there had been an unexpected number of rain days. The supervisor told the students that owing to this bad weather, the project schedule had slipped and the project was behind schedule.
• The supervisor went on to say that one of the SOP subcontractors on the project was not manning the project sufficiently and as a result the scheduling was slipping and causing financial difficulties.
• Finally, the supervisor informed the students about the contract administration of the designer on the project. The supervisor indicated that the designer was slow in turning shop drawing, slow in turning RFI’s, and slow in processing change orders. The supervisor said that the non-responsive designer was causing significant project delays and cash flow problems for all the contractors on the site.

Everything out of the supervisor’s mouth was either negative, they, or blame. The supervisor was a whinner!

Within a hour, the students and I boarded the bus and went to a second site; a site not more than 2 miles from the first site. Having arranged this site location visit also, we were greeted by the supervisor of this project. The supervisor started to tell the students about the following:

• During the past month, there had been an unexpected number of rain days. In fact, given the close proximity of the project to the site of the first visit, the supervisor was subject to the same rain. However, rather than complain about the weather, the supervisor illustrated to the students that via using a critical path updated schedule with the set out activity floats, the supervisor was able to recover the rain days.
• The supervisor also went on to talk about how one of his early project subcontractors was understaffing the project. However, the supervisor described to the students how he sat the subcontractor down and showed him if he would put more workers on the site that everyone would win; especially the subcontractor. The supervisor indicated that the subcontractor improved his staffing and how the two of them worked as a team thereafter.
• Finally, the supervisor informed the students about the slow and inadequate contract administration of the designer on the project. The supervisor indicated that this was a problem at the beginning of the project. However, by holding the designer “accountable” by keeping track of how long decisions were taking and by showing the designer what the negative effect was on the project, the supervisor indicated that the designer was getting better; i.e. the designer was taking less time to process important requests such as RFI’s.

The second supervisor had the SAME problems as the first. However, the second supervisor was not a blamer, he didn’t focus on “they”, he focused on “we”. What was a problem for the first supervisor was an opportunity for the second supervisor. There is no question that problems loom every day at a construction site. Leaders don’t see problems, they see opportunities! They do not accept failure.

List of Past Newsletter Issues; Upcoming Seminars or Events; Available Publications

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http://hilltop.bradley.edu/~jadrian/