

The first step is to develop a process for risk management. This doesn't have to be a major white paper effort, but it is a good idea to formally lay down the outline of a process in a memo form.

Key considerations that should be taken into account include:

**Who will be the members of the risk management group?** Typically, that group will include the Director of Construction, the in-house Project Manager, the Architect, and if a contracted Project Manager is being utilized, they should be included as well. Although the Contractor may be brought in from time-to-time to brainstorm on project risk, they should not be a permanent member of the risk group since many of the risks will revolve around the contractor and sub-contractor's performance.

**What risk categories will be considered?** While this may seem inconsequential, defining risk categories can act as a trigger during the risk identification process. Risk categories that are often utilized include:

**Political/Legal Risks** – These might community opposition, etc. For to get public financing for a middle-class neighborhood that is ignored the risk that the neighbors to the project and, as a result, have government's approval to use tax project.

Who will be the members of the risk management group and what risk categories will be considered?

range from zoning issues to example, a developer is attempting low-income housing project in a opposed to the project. They would be so vehemently opposed been unable to get the local incremental financing for the

**Physical Risks** – This category can equipment failure to defective process can often degrade into a product substitution process in the effort to reduce project costs. Clearly identifying the physical risks associated with those substitutions allows for an informed decision based on cost/risk/benefits.

cover a wide range of issues, from materials. The "value engineering"

**Design** – The diligence and structure of the A/E selection process often determines a host of potential design issues. Drawing and system coordination issues, quantity misstatements, specification issues, inadequate design schedule, program/scope misunderstanding, lack of input from operations and maintenance personnel, lack of input from the building users – all of these can have significant impact on the quality, budget, and timing of a project.

**Logistical/Procurement Issues** – If the factory in Sweden making the turbines for a power plant goes on strike for 2 months, what impact does that have on the project? After Katrina, here in New Orleans, availability of labor, materials, and equipment all became major issues, affecting both the pricing and timing of the rebuilding effort. While that may seem an extreme example, many owners have experienced the issues of too few contractors chasing too many projects, a shortage of skilled laborers,

and the unavailability of materials (the carpet industry used to be famous for shutting down production runs for a month or two at a time, wrecking havoc on those who were hoping to utilize "just-in-time" delivery).

**Financial** – With the current state of the economy, many projects are experiencing issues related to the tightening of credit, both on the Contractor and the Owner's side. Other potential issues include unanticipated bidding/project buyout results, significant inflation over the project life-cycle cash flow timing, and the solvency of the contractors business.

**Construction** – The list of potential risks involved in assembling materials, systems, and equipment on site is significant and fraught with risk. Some of the more obvious include mismatches between bids and project requirements, poor understanding of the requirements to implement the projects plans and specifications, change order documentation and management, field quantities variance to design quantities, and schedule constraints compromising construction quality. For a dopey example, think of the television show Extreme Makeover Home Edition, which attempts to construct entire houses in 48 hours by putting hundreds of volunteers on the job. The project may look good on TV, but I can guarantee that if the drywall float doesn't have time to dry before it is painted, or if the wood floors don't have time to season themselves to the humidity characteristics of the house, there will be major issues to follow.

Once the basic categories have been established, the next step in the process is to define the risk identification process. That will be the subject of my next post.

-Robert Stickney, Partner | RPM

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