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Fast Track Construction— Multi-Tasking in the Express Lane

Reacting to rapidly changing market dynamics is always on the mind of project owners. Meeting project timelines is always on the mind of project owners. Controlling project costs is always on the mind of project owners. Managing these expectations is the key to managing risk for design professionals. Managing these expectations becomes even more challenging when time becomes the primary focus. Juggling quality, cost and risk in the express lane is no easy task.

In Part One of this two part series, an overview of fast track construction and its associated risks will be addressed. Part Two will examine key contract provisions to help better allocate and manage fast track risks.

The Fast Track Delivery Process

Most construction projects follow a predetermined sequence: concept, schematic design, design development, construction documents, and construction administration. Fast track construction overlaps these stages to allow construction to begin earlier and proceed at a faster pace. To accomplish this, solid decision-making, open communications and an overall commitment to keep on task is essential. A typical fast track project includes the development of numerous bid packages to take full advantage of opportunities to overlap design with construction. A guaranteed maximum price (GMP) is established when the design is somewhere between 70 to 80 percent complete and can be as early as the completion of design development documents. These GMP documents, along with the contractor's assumptions, clarifications and allowances serve as the basis for evaluating project performance and changes over the course of construction. Construction is usually, not started until the owner and contractor have executed the guaranteed maximum price contract.

Additionally, fast track construction usually requires the early procurement of long lead-time construction components including:

- Structural Steel
- HVAC Equipment
- Elevators
- Curtain Wall Systems

Based on project complexity and schedule requirements, the owner and contractor may also select key trade contractors such as:

- Structural steel erectors
- Mechanical contractors
- Plumbing contractors
- Electrical contractors

Client Considerations

Working with the wrong owner is one of the biggest risks design professionals can take when working on a fast track project. In evaluating fast track projects, design professionals should consider these owner dynamics:

- ✓ Do they have construction experience or are they a “first timer”?
- ✓ Do they understand the risks that come with fast track construction?
- ✓ Are they willing to accept reasonable risk?
- ✓ Do they have the project management skills to effectively support the demands of fast track construction?
- ✓ Are they reluctant to budget for the increased contingencies that fast track projects require?
- ✓ Are they committed to assigning a fulltime, experienced project manager?
- ✓ Will they select the right construction team?
- ✓ Do they have a history of litigation?

Project Considerations

When evaluating fast track opportunities, design professionals should consider these questions:

- ✓ Does this project fit the firm’s expertise?
- ✓ Do we have the right project manager with experience in managing fast track projects?
- ✓ Do we have access to the right consultants with the resources to tackle a fast track project?

Contractor Considerations

Fast track construction is challenging enough without working with a contractor or construction manager that does not have exceptional fast track construction experience. The qualifications of the contractor’s project manager are equally important. Contractors that propose to use a project manager with limited or no experience with fast track projects should be questioned. Design professionals should always avoid working with construction professionals that have a history of spending as much time building a claim as they do constructing an office building.

Firm Culture

Fast track construction needs to align with firm culture. Overlapping design and construction is an entirely different dynamic than traditional design-bid-build projects. Before saying yes, design firms need to evaluate whether they can adapt to the rigors of fast track construction. Some designers have cultural difficulty with the fact that the design may be restrained by GMP assumptions, clarifications and allowances.

Long Lead-Time Procurement

Fast track projects will more than likely require buying critical material and equipment such as structural steel, mechanical equipment, curtain wall systems and electrical switchgear very early in the design process. Working with the contractor to identify these items as soon as possible helps the design team plan and execute the design in concert with the needs of the compressed project schedule. The contractor’s project schedule may be based on working with subcontractors, suppliers, and manufacturers that are selected based on the skills and expertise needed to meet the owner’s project timeline and not on price alone.

GMP/GMP Documents

Pricing fast track construction is most often based on guaranteed maximum priced (GMP) plans and specifications that are somewhere between 70% to 80% complete. These GMP pricing proposals developed by the constructor will include a long list of assumptions and dollar allowances to compensate for the incomplete design. The design team needs to scrutinize this “fill in” information in detail to confirm that there is full agreement that the design can be successfully completed to meet both the owner’s program and the design team’s vision for the completed project. All assumptions and allowances should define acceptable quality level for products, materials and finishes and provide pricing for both material and labor.

Bid Packages

Fast track construction requires multiple bid packages. These piece meal documents need to be clearly defined during contract negotiations. Starting the clock on fast track construction without a road map is a sure fire recipe for disaster. Work with the project owner's contractor to develop a bidding schedule where all parties have a complete understanding of what's required each step of the way.

The Importance of Establishing "Doable" completion dates

Based on the need to expand and remodel a historic NFL stadium, the Owner, with input from the design and construction teams, accepted that it would be impossible to complete the construction over the 8 months between seasons. Therefore, football was played for one season at a nearby college stadium, allowing for a doable fast track timeline of 20 months.

Design professionals should always take the steps necessary to assure that the owner's project completion date is doable in the real world and is not based on market conditions which are impossible to meet even with fast track construction.

Creep

Scope and design creep are two of the most dangerous risks facing fast track projects. The owner, design team and contractor must constantly monitor scope and design creep to assure that the final design is consistent with GMP. Someone on the design team should be specifically accountable for managing scope and design creep. Weekly meetings with the contractor's estimating staff are critical. These "GMP control" meetings should be managed using agendas, promptly-issued meeting notes, clearly-defined action items, and consistent follow up. Agreeing on what the GMP is and isn't is paramount. This includes having a complete understanding of the GMP including the contractor's clarifications, assumptions and allowances:

OVER-MANAGING CREEP IS ESSENTIAL TO REDUCING PROFESSIONAL LIABILITY EXPOSURES

Contingencies

The phrase "the best-laid plans of mice and men often go awry" is more than applicable to construction and certainly fast track construction. Fast track projects should always include contingency plans designed to mitigate risk. "Plan Bs" that allow owner occupancy to overlap the completion of construction can preserve valued business relationships and prevent costly disputes. Understanding what's important to the project owner can be used in planning and scheduling fast track construction so if things go sideways there are options that can be implemented to the owner's benefit.

Overtime/Shiftwork

The Construction Industry Institute found that after working overtime for six to eight weeks, labor costs are inflated by 50 percent with the productive returns no greater than what would be accomplished in a 40-hour week. Records indicate that continuous overtime operations beyond eight weeks results in an actual productive return of less work accomplishment than a standard

40-hour work week. The loss in productivity occurs almost immediately. Working a 50-hour overtime schedule for as little as just two weeks can reduce productivity to the equivalent of just a 45-hour work week. Overtime and shift work is not only very costly but is of little value if used for any extended period of time.

Plan Bs

A Success Story

The Project

\$50 Million Fast Track Project

This project demonstrates the role Plan Bs can play in managing fast track risks.

The reconstruction of the five star hotel faced an aggressive timeline. To manage risk and still market the grand reopening date, the project plan incorporated a Plan B that provided for the more marketable upper floors of the hotel to be completed first. Construction on the floors below the lobby level were allowed, if necessary, to finish after the grand opening. In the end, the hotel opened on time while construction was completing on a few of the remaining lower floors.

Working with the owner and construction team to develop a Plan B is good risk management.

Plan B

Projects rarely, if ever, go according to plan. Lagging projects can reach a point where no amount of money, overtime or shiftwork can save the completion date. The project is lost. A Plan B, however, may mitigate fast track schedule risks. Developing and implementing schedule contingency plans can provide workable solutions that allow the project owner to benefit from completed elements of the project while construction continues. **See Side Bar.**

Expectations

Managing expectations is critical to managing fast track project risks. Before agreeing to a fast track project, design professional should have a frank and open discussion with the project owner and the GMP contractor. The exchange should address these key factors:

- ✓ The number of design packages needed to support the GMP schedule.
- ✓ The increased construction costs associated with multiple bid packages due to design errors and omissions arising out of the need for multiple design packages.
- ✓ Turn-around times for submittals and requests for information.
- ✓ The change order process.
- ✓ The need for the project owner to make prompt decisions and provide critical information.
- ✓ GMP budget line items for overtime and shift work.
- ✓ The importance of full-time onsite construction phase services.
- ✓ The contractor's use of clarifications, assumptions and allowances in developing the GMP.
- ✓ The contractor's use of negotiated agreements with key subcontractors, manufacturers and suppliers.
- ✓ The use of design-build subcontractors.

Conclusions

Fast track construction is far more challenging than the seemingly simple concept of overlapping design and construction. Fast track construction costs more than design-bid-build. Fast track construction is more risky than design-bid-build. Fast track construction demands more from all players including the owner, design team, contractor and subcontractors. Part Two will explore the role that contracts play in allocating and managing fast track construction risks.

Risk Allocation

When negotiating fast track design agreements, dealing with the elephant in the room can keep you from being trampled on later. Addressing the realities of fast track construction with clients, while maybe uncomfortable and bit awkward, is critically important. Be prepared to bring these issues to the bargaining table:

- ✓ The Increased risks associated with fast track.
- ✓ The need for more design fees including increased dollars for project management construction phase services.
- ✓ The added construction costs associated with fast track construction including overtime, shift-work labor inefficiencies and rework/tear out.
- ✓ The increased demands placed on the Owner's management staff.
- ✓ The need to "over manage" information and decisions.
- ✓ Understanding that the GMP is really not a guarantee.
- ✓ Realizing that hitting the completion date is not a given.

Design Agreements

Include an insurable standard of Care

Every professional services agreement should include an insurable standard of care provision:

*The Design Professional shall perform its services consistent with the professional skill and care ordinarily provided by other design professionals practicing in the same or similar locality under the **same or similar circumstances**. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project.*

As indicated, a design professional's performance on a fast track project should be measured against other design professionals performing similar services on similar fast track projects in similar localities.

Address the Increased Cost of Fast Track Construction

Understandably, the number of design errors/omissions, change orders and contractor requests for information on fast track construction will be greater than other project delivery methods. Project owners need to acknowledge this dynamic by including appropriate contract provisions:

- § 5.3.1 The Owner acknowledges that accelerated, phased or fast-track scheduling provides a benefit, but also carries with it associated risks. Such risks include the Owner incurring costs for the Architect to coordinate and redesign portions of the Project affected by procuring or installing elements of the Project prior to the completion of all relevant Construction Documents, and costs for the Contractor to remove and replace previously installed Work. If the Owner selects accelerated, phased or fast-track scheduling, the Owner agrees to include in the budget for the Project sufficient contingencies to cover such costs.

AIA DOCUMENT B103TM – 2007 STANDARD FORM OF AGREEMENT BETWEEN OWNER AND ARCHITECT FOR A LARGE OR COMPLEX PROJECT

Be Leery of Betterment Provisions

Betterment is term used to describe something that must be added to the construction documents to provide for a functional project. Since the Owner would have paid for the omitted item had it been included in the design documents, the owner, under the legal theory of betterment, bears the cost of the betterment/omission. Fast track construction, with its multiple bid packages, is prone to issues relating to betterments/omissions. Read contract provisions with care. Don't take responsibility for the "off-the-shelf" cost of any betterment/omission. Liability, if any, should be limited to the additional costs associated with adding the betterment/omission to the project. These extra costs might include tear-out and build-back of completed construction but not the cost of the omitted item. Don't agree to pay for any additional costs associated with the betterment/omission until found negligent in the performance of professional services. Don't agree to pay for things that the owner should write the check for. Hanover does not provide coverage for betterments.

Code Compliance and Betterments

Many owners keep score when it comes to design errors and omissions, as described in this scenario.

In response to what they believed to be excessive construction cost overruns, a large metropolitan school district instituted a cost recovery program to recoup as much money as they could for design errors and omissions. A typical issue was the cost of omissions.

In obtaining the occupancy permit for a large school renovation, the code inspector demanded that an additional layer of drywall be added to a stairway to meet the required fire rating for a building exit. While agreeing that the additional drywall was as a betterment, the school district took the position that they paid a 20 percent premium over what they would have paid had the drywall been included in the construction documents on bid day.

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Negotiate for Fulltime Project Management

Fast track construction is a demanding, complex, and very often chaotic process where strong project management skills are essential. "Part-timers" and project managers that are expected to perform production work are on a slippery slope. Managing fast track designs is a fulltime job. All key design disciplines should be led by dedicated project managers with the skills to deal with all the "moving parts" that come with fast track construction.

Make the Case for Onsite Construction Phase Services

Having fulltime, onsite design team presence during a construction is an absolute must to keep up with the demand for information and decisions in real time. Dealing with the host of issues and "paper" that come with multiple bid packages and compressed construction schedules cannot

be accomplished with a part-time construction staff located in offices miles away from the construction site. Responding to the barrage of submittals, requests for information and change orders is a fulltime job.

Say No to Liquidated Damages

Fast track construction projects raise the possibility that owners will include liquidated damages provisions in design agreements, as well as their contracts for construction. Design professionals, however, need to push back. Hanover does not accept liquidated damages as the true measure of damages. Hanover may pay **actual and reasonable** damages upon a finding of negligence in the performance of professional services.

Strike Consequential Damages Provisions

Many owners turn to fast track construction to gain a competitive edge. Being "first to market" comes with expectations of increased revenue and market share. When a project completion date is missed, however, the fallout can lead to huge and uninsurable liability problems for design professionals. Hanover does not provide coverage for consequential damages assumed by contract. To keep the rewards in line with the risks, design professionals should include a mutual waiver of consequential damages in their contracts to avoid exposure to what can be speculative, far-reaching and uninsurable damages:

- § 8.1.3 The Architect and Owner waive consequential damages for claims, disputes or other matters in question arising out of or relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement, except as specifically provided in Section 9.7.

AIA B101- 2007 OWNER ARCHITECT AGREEMENT

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The school district's claim against the design professional included these line items:

Tear-out/cleanup
Repainting
20% material/labor premium

Design professionals need to push back against this kind of overly aggressive attack on the professional standard of care. Construction documents are never perfect and code compliance can be a "moving target" that often requires retrofitting completed construction.

It is unreasonable for design professionals to be familiar with "all" codes that might govern a project. Projects are often governed by various jurisdictions, some of which may be in conflict. Furthermore codes are complicated and difficult to interpret, and therefore, the "proper" application of code requirement is a variable that should not necessarily be used to measure design performance. Remember, professional liability insurance covers negligence in the performance of professional services.

Don't be quick to assume liability for omissions and betterments without first addressing your duties and responsibilities as a professional.

Contracts for Construction

Construction contracts should also reflect an equitable allocation of risk. While project owners may think that fast track construction comes with a guarantee of an on-budget, on-time project, there are risks that can derail even the most-qualified construction team. Risks that are beyond the contractor's control. Risks that contractors should not be asked to assume.

Include a Differing Site Conditions Provision

As with any project, fast track construction contracts should include a differing site conditions clause that fairly allocates the risks associated with project unknowns.

There are basically two types of differing site conditions:

- A Type 1 differing site condition is a condition that is materially different from what is shown or indicated in the contract documents. An example of a Type 1 differing site condition would be a rock elevation higher than reasonably anticipated based on the soil report.
- Type 2 differing site conditions are unknown physical conditions, of an unusual nature which differs materially from those ordinarily encountered and generally recognized as inherent in the work. An example of a Type 2 condition would be finding a buried fuel tank at a building site that was previously a corn field.

Differing site condition risks are best evaluated in conjunction with the information provided in detailed geotechnical and environmental test reports.

Address Force Majeure/Adverse Weather

Fast track construction contracts should also address acts of god and other force majeure events that cannot be reasonably anticipated or controlled by either the project owner or the contractor. These provisions, taken from the AIA 201, in part, address force majeure events including labor disputes, fire, delivery delays, casualties and unusually severe weather:

- § 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control; or by delay authorized by the Owner pending mediation and arbitration; or by other causes that the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

- § 15.1.5.2 If adverse weather conditions are the basis for a claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on scheduled construction.

AIA A 201-2007 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

Acknowledge Construction Delay

Unfortunately, fast track projects are not immune to schedule delays. Therefore construction contracts should address project delay events. Four commonly used types of contractor delays are:

- ✓ Inexcusable delay
- ✓ Excusable, compensable delay
- ✓ Excusable, non-compensable delay
- ✓ Concurrent delay

Inexcusable delays are delays which are the contractor's fault and therefore there is no adjustment in the contract for additional time and money. Excusable, non-compensable delays are excusable delays where neither the contractor nor owner is at fault including adverse weather, other acts of God, and labor disputes. While not compensated for the delay, in most instances the contractor is entitled to a time extension. Excusable, compensable delays are excusable delays which entitle the contractor to both time and money and include delays caused by the owner and the design team.

Define Design-Build Subcontractor Responsibilities

Fast track construction often requires the use of design-build subcontractors. This makes design performance requirements critically important.

Design professionals must work closely with the owner to clearly define the operational and performance requirements for these design-build players. Additionally, all design-build subcontractors should be required to carry appropriate professional liability insurance for their design liability exposures.

Closing Thoughts

In many ways, fast track construction is a gamble where owners are willing to bet large sums of money for the chance to win big in the marketplace. As with any game of chance, there are no real guarantees when it comes to time and money in the construction industry. Nevertheless, there are steps that design professionals can take to help owners hedge their bet. Addressing and planning for the risks that can derail fast track projects is a good place to start.

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