My Favorite Spec Provisions

(and Other Reasons Why I'm a Scheduling Geek)

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Yes, I admit it – I am a scheduling geek. My favorite class in college included manual CPM calculations. My wife had to have an intervention so I did not put our wedding planning calendar in P3. But why? What is it about these relationship lines and date calculations that I find so fascinating? Perhaps it goes back to project management fundamentals – plan the work and work the plan. Maybe it's the ability for a schedule to communicate complex construction sequencing in a clear, graphical form. Maybe it's the ability for a schedule to provide insight on the current health and future of a project. The truth is some combination of all of those…and the fact that I am just a schedule geek at heart.

Now, how do you ensure that a schedule facilitates effective project management and communicates project sequencing and project health? From an owner and designer's perspective, it takes the form of the scheduling specification requirements. Scheduling specs represent the ground rules by which all parties intend to manage the schedule, and there are a number of spec provisions I consider essential. So here goes – here are this scheduling geek's favorite scheduling specification provisions:

STATUS-ONLY AND REVISION SUBMISSIONS

For periodic updates, specifications usually state something to the effect of "*provide a monthly schedule update three days prior to the monthly progress meeting.*" What exactly should a "monthly schedule update" look like? As you can imagine, this broad language leads to wide interpretation by contractors. A typical periodic schedule update involves documenting progress by assigning actual start and actual finish dates, adjusting remaining durations, and making associated updates to cost and resource loading. However, in many cases, a contractor will also incorporate additional logic and duration changes in its update to reflect changes in approach or sequence of the work. As a schedule is a living document, it is not unexpected that adjustments will be needed throughout the course of a project. In fact, these adjustments should be encouraged if they contribute to schedule realism. However, both of these types of modifications may impact the forecasted dates, including overall project completion, and it is hard to discern the individual impacts of each of these types of revisions when they are both included in the same schedule update.

It is for this reason that I like to see two submissions of a schedule update (sometimes called a half-step, bifurcated update, or status-only and revision). The first submission captures the contractor's progress in isolation (just assigning actual start and actual finish dates, remaining duration adjustments, and applicable updates to cost and

resource loading). This "status-only" update provides an opportunity to review the contractor's performance over the past update period compared to its plan at the start of that period. Production issues and out-of-sequence progress are readily identified. The second "revision" submission provides an opportunity for the contractor to make adjustments as necessary to account for items such as sequence changes or faster- or slower-than-anticipated production. This second submission, however, should not be used by a contractor to model the time impact of an alleged changed condition – this should be handled through the process for time extension requests.

REQUEST FOR TIME EXTENSION

Wow, that was a subtle transition, but still appropriate nonetheless. Through our dispute resolution services, we see this all the time: specs that provide little guidance on how a contractor is to request a time extension. What often results is that the owner/designer is never satisfied with the contractor's submission and unwilling to grant a time extension. Like many other aspects of construction contracts, some upfront time spent crafting reasonable specification language for time extension requests saves significant time, money, and most importantly, facilitates the administration of the contract during construction, which can reduce the likelihood of disputes. Key aspects to detail include: the time limits for time extension submissions and the appropriate method for analyzing schedule impacts, i.e. prospective or retrospective analyses. Ideally, most requests will rely upon the prospective approach, but certain circumstances do benefit from retrospective analysis.

A SCHEDULE NARRATIVE

A schedule narrative can be a great communication tool if it is substantive. The narrative:

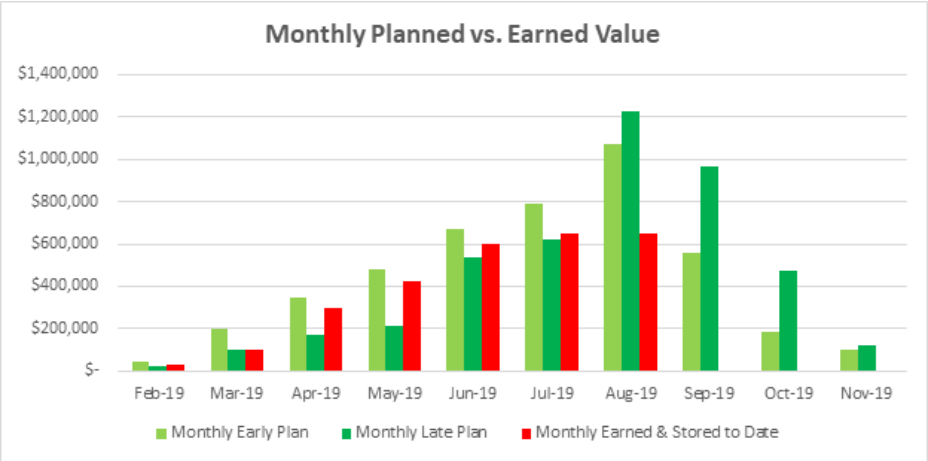
- Explains the contractor's plan for meeting any contract-required completion date
- Identifies and explains assumptions, sequencing, and restraints such as labor, material, and equipment for key work elements
- Communicates the contractor's thorough analysis of the schedule, including status, forecast, trends, and potential delaying factors
- Describes the critical path and any near critical paths
- Describes any current or anticipated problem areas or delaying factors and their impact
- Provides an explanation of corrective actions taken or required to be taken
- Addresses changes to project milestones and other key dates and any trends in the forecasted dates
- Explains any and all changes incorporated into a schedule revision, including changes to the critical path

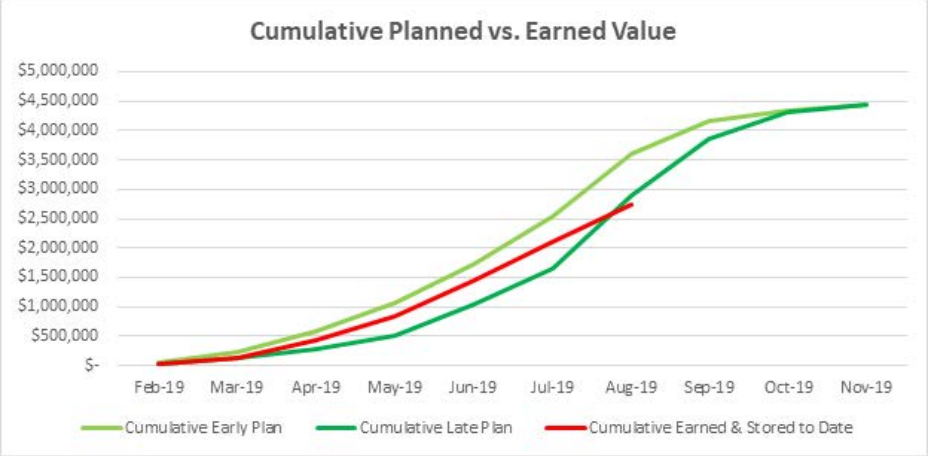
WEATHER

Just about every claim we analyze has some reference to an alleged weather impact. In most of those cases, the specification provides little to no guidance on what constitutes a weather impact. As such, adding one clearly written paragraph to the specifications can save hours of wasted time, meetings, and letter writing and allow the parties to resolve any weather impacts contemporaneously.

COST LOADING

For the owner, cost-loaded schedules can serve as a financial tool to show the rate of expenditure expected and is a source of valuable information on how the project is tracking compared to the original baseline. For example, the following graphs depict a project's forecasted cumulative and monthly earnings based on both early (light green) and late (dark green) dates.





As seen in the graphs above, actual data (red) should be included to compare actual status against the project's baseline. In this example, the project was tracking well until the most current month in which the actual earnings were significantly behind both planned early and late earnings as evidenced by the actual (red) line dropping below both the early (light green) and late (dark green) forecasted earnings. This earned value information can be invaluable for trending a contractor's progress and evaluating the reasonableness of the forecasted completion date.

CONCLUSION

Ultimately, properly crafted specifications allow the parties to:

- Understand the contractor's progress and the implications of schedule changes
- Resolve time extension requests and alleged weather impacts in a timely manner
- Identify performance trends and forecasts

Why does this schedule geek find these specification requirements so great? They all focus on one primary objective – creating a tool that provides decision-makers with the best information possible to make decisions.

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