

# SIX BIGGEST MISTAKES OWNERS MAKE WHEN REVIEWING SCHEDULES

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*By Bill Haydt*

One of the things I do on a weekly basis is assist owners in the review of contractor-submitted schedules, including baseline schedules and schedule updates.

Consistently, I see owners make many of the same mistakes when reviewing these schedules. In this article, I will identify some of the biggest mistakes owners make and explain how to avoid making them yourself.

Naturally, I'll start with the baseline schedule.

## BASELINE SCHEDULE

### **Compliance with Contract Requirements**

One of the core requirements of any baseline schedule is that it complies with the contract. As you might expect, most owners immediately look to whether the submitted baseline schedule plans to meet the contractual completion date.

However, one of the biggest mistakes that owners make when reviewing the contractor's baseline schedule is failing to ensure that the schedule complies with the phasing and sequencing dictated by the contract.

For instance, the contract may require that a contractor only close one lane of a four-lane highway at a time and only one lane closure at a time for a maximum length of 10 miles. Despite this, the contractor submits its baseline schedule showing an on-time completion, but the phasing it included consists of multiple lane closures in excess of 10 miles occurring.

Without a careful examination by the owner, these discrepancies may never be caught. By the time it's realized, the baseline schedule and several schedule updates may have been accepted, all showing on-time completion but by relying on unallowable lane closures. When the owner requires the contractor to forecast an on-time completion and comply with the traffic control requirements, the contractor states that it can no longer meet the contract completion date without incurring acceleration costs. Regardless of its merits, the contractor is very likely to submit a demand for these costs claiming that the owner, by accepting its schedule submissions, accepted the contractor's plan to work in a manner that deviated from the contract.

Even if the contractor's failure to comply with the contract phasing requirements was inadvertent, by failing to catch this error early on, the owner has made it less likely that the project will be completed timely. In other words, even if the resultant delays are not the owner's fault and responsibility, the project may still be delivered

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late – which may reflect poorly on the owner’s representatives even if they’re not at fault.

In order to avoid such a dispute, owners should focus not just on what the forecast completion date is in the baseline schedule but also how the contractor plans to achieve that forecast completion date. A thorough review, which can often be done during a pre-baseline scheduling meeting and with the assistance of the owner’s representative and/or design professionals, of the phasing and sequencing in concert with a review of the work and the contractor’s planned work sequence is necessary to ensure owners protect themselves from this type of situation.

## **The Baseline’s Critical Path**

One of the most significant aspects of an owner’s review of a baseline schedule is identifying the critical path of the project. The critical path is defined as the longest continuous sequence of work that forecasts when the project will complete. As a result, only delays to the critical path can delay the project completion date.

Therefore, it is crucial to be aware of what sequence of work the contractor has represented as the critical path in its baseline schedule.

However, not only should owners make sure they understand what the critical path is, but they should ask themselves a much more fundamental question about the critical path, one that, in my opinion, is often overlooked by owners: Does the critical path *make sense*?

As the owner of a project, you have a good understanding of what it will take to build your project. You may have even completed similar projects under similar circumstances in the past. So, once you’ve identified what the critical path of the project is, you should make sure that it represents the path of work you’d expect to see as the critical path.

If it doesn’t, ask the contractor why. Asking questions is the best way to ensure that the contractor has a well-developed plan for completing the project, and that plan starts with having an accurate critical path.

This review should include not only the work being performed by the contractor, but also any work that may need to be performed by you, the owner, or another third party. As owner, you may be in the best position to understand the effort required to accomplish these tasks (for example, what it will take to install all of the FF&E), which often impact the critical path. Therefore, making the sure you

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communicate that effort to the contractor to ensure it accounts for these tasks is crucial in having a critical path that accurately reflects the project scope.

## **Getting a Baseline Schedule**

Don't worry, it's not just you. Owners occasionally struggle to get a contractor to submit a timely baseline schedule that meets the contractual requirements. When a difficult contractor refuses to comply with those contractual requirements, such as submitting a schedule that forecasts on-time completion, owners can stumble by refusing to accept any schedule from the contractor unless it strictly complies with the contract.

What happens then is the project begins and several months of work is performed without having any project schedule in place. By not accepting the baseline schedule, the owner essentially prevents itself from having a tool in place that can both depict the contractor's plan to construct the project and identify the status of the project. Then, when an impact or delay occurs, the owner and contractor have no tool in place to measure the performance of the contractor to date or the extent of the impact that occurred.

This is where an owner being flexible with the baseline schedule can benefit both the contractor and the owner. Being "flexible" doesn't mean allowing the contractor to sidestep a core contractual requirement. But it does mean getting a schedule in place despite a disagreement over an aspect of that schedule, such as the contractor's failure to comply with contractual completion date, so that you have a tool to measure progress while that dispute is resolved.

For example, you may want to include language that identifies your acceptance is based on some conditions. Below is a sample of language I've seen owners use:

*The Owner's acceptance of (Schedule Name) as the Baseline Schedule is further subject to a strict reservation of all of the Owner's rights, remedies, and arguments under the Contract and applicable law, including but not limited to the right to demand that Contractor prepare a recovery schedule and the right to impose liquidated damages based on any failure by Contractor to timely achieve the contract's originally specified milestones. Moreover, the Owner's conditional acceptance of (Schedule Name) as Contractor's Contract Baseline Schedule:*

- *Does not constitute tacit or constructive acceptance of the plan for the Work embodied by the Baseline Schedule.*

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- *Does not constitute an agreement to provide time extensions based on the Baseline Schedule.*
- *Does not relieve Contractor of its obligation to mitigate delays and increased costs, including as to any delays or other action Contractor contends are attributable to the Owner.*
- *Does not constitute the Owner's endorsement of the plan for the Work or its reasonableness. The Owner is also not agreeing that the plan for the Work embodied in the Baseline Schedule constitutes the most cost-effective solution to execution of the remaining Project Work.*
- *Does not waive the Owner's right to assess liquidated damages based on Contractor's delays to the Project.*
- *Does not constitute direction to accelerate the Project or constructive acceleration of the Project.*

By carefully communicating this position to the contractor, you've left open your ability to enforce the contract while also allowing you to get a crucial project management tool in place.

It is also important to remember that your contract provides tools to deal with an uncooperative contractor, such as withholding payment. However, be aware that these tools are often a bludgeon and, if you're wrong, they may put you in breach of contract. This is why many owners are hesitant to use them. Instead, you may find a middle ground in developing escalating consequences for issues such as getting a baseline schedule submitted from your contractor.

## SCHEDULE UPDATES

After the baseline has been accepted and work has begun, the contract typically requires the contractor to submit periodic schedule updates. These schedule updates represent progress made on the project during that particular update period.

Along with the updated schedule itself, contracts also typically require the contractor to provide some additional details, often in the form of a narrative, regarding the status of the project, work performed during the update period, description of the critical path, descriptions of impacts and delays, and potential

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future impacts and delays. During their review of these update schedules and narratives, I consistently see owners make many of the same mistakes.

## **The Project's Critical Path**

Just as with the baseline schedule, one of the most important pieces of information from the schedule update and the narrative accompanying the schedule update is what the critical path of the project is and how the contractor is describing that path. This information should generate several questions from an owner:

- Has the critical path changed from the previous update or from the baseline schedule?
- If so, why has it changed?
- And, again, the most important and often overlooked question of does the critical path *make sense*?

As I detailed previously, the critical path calculates the project's duration and only delays to the critical path can delay the project. Therefore, it is crucial to ensure that the critical path that is shown in the schedule update is accurate.

If the critical path is not accurate, you may find yourself and the contractor focusing resources on a path of work that will not benefit the project schedule. Moreover, after the project is over and a third party is analyzing the project delays, if the critical path depicted in the schedule updates is not accurate, the results of a delay analysis may be misleading or inaccurate.

For example, a recent project I worked on involved the construction of a new waterfront hotel with several public spaces and an outdoor pool and bar area. As would be anticipated, the baseline schedule identified the critical path running through the sitework, steel erection, hotel envelope, and interior finishes. However, when the project got to the point that the contractor was finishing up the envelope and beginning interior work, the schedule update submitted at that time identified the critical path as going through a site retaining wall necessary to complete the project's landscaping work. This should have raised a red flag for the owner and its representatives to question why the critical path did not include the completion of the hotel envelope and interiors. An after-the-fact analysis of this schedule update determined that while the wall and its related landscaping was a key component of the project, this work was improperly tied to the TCO for the hotel. Thus, this path

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of work had an incorrect logic tie and was artificially shown as the critical path of work and, in this case, a source of project delay.

This is an example of why one of the first things owners should do when reviewing a schedule update submitted by a contractor is make sure the critical path in that update makes sense and represents what you, the owner, anticipates the critical path of work on the project should be. When that critical path of work is not what you expected, make the contractor explain to you why the critical path is what it is to ensure that the schedule update is correct. An occasional meeting between the project stakeholders is one way to make sure all parties are on the same page and in agreement as to what the project's critical path is.

## **Ignoring Near-Critical Paths**

While much of the focus on schedule updates involves the critical path, and rightfully so, owners often make the mistake of only focusing on the critical path. What they fail to pay attention to are the near-critical paths of work that are often just a few days of delay away from becoming critical and responsible for delaying the project. On most projects, especially those that are a bit more complex, the critical path rarely remains the same throughout the project. Often, I see several paths of work jockeying back and forth and the critical path shifting on a weekly basis.

The term "near-critical" is rarely defined and often means different things on different projects. Sometimes, near-critical can mean an activity or work path with as little as a week or 10 days of float, sometimes it can mean as much as 30 days of float. What is important, however, is for owners to understand their project's near-critical paths of work and to track the performance of those paths of work in conjunction with tracking the critical path of work.

For example, I often see projects where the contractor is only making planned progress on the critical path of work and less-than-planned progress on the rest of the project. For much of these projects, the schedule reflects that the work will be completed on time. However, at a certain point, usually later on in the project, the lack of progress to the other paths of work catches up to the contractor. At this point, there are numerous paths of work that become critical or near-critical. This means that for the contractor to maintain the project schedule and the planned completion date, it will have to progress all of these paths at the same time but may

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not have the resources to do so. This can create significant delays late in the work that the project is unable to recover from.

By knowing the near-critical paths on your project, you can ensure that through the schedule update reviews the contractor is allocating the necessary resources to the work to complete your project on time.

## **Getting the Most Out of Your Updates**

One mistake owners make that doesn't always affect a project right away, but certainly has a significant effect when the project gets to a stage where a claim has been submitted, is not requiring the contractor to supply meaningful and, at a minimum, the contractually-required schedule update information.

First and foremost, owners need to make sure they are getting timely schedule updates. A schedule update is a snapshot in time that identifies, for both the owner and the contractor, the work that has been completed, what the plan is to complete the remaining project work, and what the forecasted completion date is. But the plan and forecasted completion date shown in this schedule update is only truly useful when that schedule update is received in a timely manner.

A schedule update submitted late may limit your ability to act on the information provided in the schedule update. For example, suppose you, as an owner, receive a schedule update a month late that shows an owner-caused delay has been impacting the project for the last month. Had you known a month ago that you were responsible for delaying the project, then you would have had an opportunity, a month ago, to act on it and potentially mitigate that delay. However, not demanding timely schedule update submissions and receiving out of date schedule updates limits your ability to actively manage and resolve the issue and the resultant delay and may even allow the contractor the opportunity to re-write the history.

While it would be a mistake to think you need a schedule update to figure out what the status of your project is, timely submitted schedule updates are essential to identify what upcoming work the contractor is planning to perform and what schedule risks exist that require your attention.

However, that's not to say getting your schedule updates from a contractor, even if they are late, isn't very important. I also often see owners who fail to enforce the contract by failing to demand submission of all the scheduling information that the contractor is required to produce, no matter how late it is. It is important to



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document what the contractor believed the status of the project to be at any given point.

Owners should be making sure that they not only get every schedule update but that they also get them in live, native format. After all, if you're paying for the development of that schedule, it's yours and you own it. Demand it. Even if you don't have access to scheduling software, one day you might be in the position where you need a consultant to review those schedules and having the native file provides a more accurate and comprehensive evaluation of the project delays. By avoiding some of these key mistakes when reviewing baseline schedules and monthly schedule updates, you will help your contractors provide more meaningful, accurate schedule information and, as a result, put your project in a better position to succeed.

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