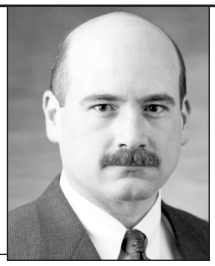
A View from the Ground Up: Calculating Damages Due to Construction Project Delay

By Orell C. Anderson, MAI, and Edward B. Gentilcore, Esq.



Orell C. Anderson

Edward B. Gentilcore

One of the most common problems in the construction industry is project schedule delay. The question is, What methodology should the real estate expert use for deriving indirect damages due to project delay in construction schedules? The starting point for such a calculation is the Detrimental Conditions Matrix (DC Matrix).[1] Further, a hypothetical case study for computing damages is set forth involving an apartment building. However, before embarking on this analysis, a brief overview of the legal principles implicated is warranted.

So much of every construction project is focused on time. Every element of the project in some way, shape, or form is dependent on timely execution as well as the timely and expeditious performance of items and events in the immediate and not-too-distant past. Despite even the most optimal environments and, to borrow a sailing term, the "most favorable of winds," unfortunate and unexpected events sometimes will arise. Such encounters are a function of less than optimal planning and preparation, while others are simply a consequence of circumstances as they play out from the complex orchestra of the construction environment. For example, what was originally viewed as the simple matter of changing the exterior facing material in a structure can set into motion a series of impacts including original order cancellation, modification of bid pricing, the time to get the material on site despite being back ordered due to the material's newfound popularity, and the time and costs associated with modifying the installation methods for this new facing material.

Certainly, the increased cost of this new material and any additional labor to install it are to be expected, but there are also time considerations that must be factored in as well. However, calculating these time and delay impacts are not as straightforward as adding up material invoices and labor hours from a time sheet. When undertaking a "delay" analysis, overhead of both the field and home office varieties must be considered and allocated in their proper measure to the delay so that the most realistic impact to the project can be captured. Of course, then all of those impacts must be translated into costs that will become part of a change order request or of a construction delay claim. A delicate balance must be sought and achieved so that these other allocated costs do not dramatically overshadow the additional labor and material expenses the given change entailed.

Another example of damages that can arise in such an environment is akin to delay impacts but is not identical because the end date of the project remains unaltered. In this scenario, there is additional work or there is delay to the construction efforts, necessitating an "acceleration" of the project through the addition of workers, crews, overtime, and any combination of the foregoing. In this accelerated setting, expedited material order costs, premium time, increased supervision, and inefficiency also become a part of the project lexicon. Nevertheless, even though these additional features make the acceleration claim even more difficult to calculate, if properly captured and presented, they should be as zealously pursued as any other time impact claim. Stated another way, if the original work was budgeted for a discrete period of time and with a finite number of material and labor hours, requiring more work in the same time or compressing the amount of time to perform the required work will produce impacts to the contractor as significant as a change in scope or a delay that causes the final completion date for the project to slip.

Of course, a contractor is not the only entity permitted to recover damages as a result of delay. In fact, the damages incurred by an owner/developer as a result of a contractor's delay can, in many cases, be financially more significant. The claims of an owner can be enormous when additional financing costs and lost revenues resulting from delayed completion are included. Indeed, many current construction contracts have turned to specific liquidated damage provisions that identify a certain amount of money to be paid to the owner/developer by the contractor in the event of delay. However, the inclusion of these clauses must be considered with care and precision insofar as that care and precision will directly translate to the clause's effectiveness and the owner/developer's rights following the triggering of such a provision.

In order to proceed on any claim for damages against a contractor, an owner must prove that the project was late and that the contractor was responsible for the delay. Once this has been determined, the owner/developer can then seek one of two basic types of delay damages. The owner may request liquidated damages (if provided for by the contract) or actual damages incurred as a result of the delay. Of course, depending upon how the liquidated damage provision is drafted, it *is* possible for the owner to recover both liquidated damages as well as any addi-

tional delay damages the owner may have incurred.[2] A typical liquidated damage provision reads as follows:

> The Contractor shall achieve completion of the entire work not later than one hundred twenty (120) days from the date of commencement, subject to adjustments of this Contract Time as provided in the Contract Documents (the "Completion Date"). The Contractor and the Contractor's Surety shall be liable for and shall pay the Owner the sum of twenty five hundred dollars ($2,500.00) per day as liquidated damages for each calendar day of delay after the date established above for completion of the work until the work required for achievement of completion is performed. The aforementioned liquidated damages are not a penalty and are a reasonable estimate of the damages the owner will suffer in the event the aforementioned Completion Date is not achieved.

Liquidated damage provisions such as these have been enforced by the courts.[3] Assuming that the contractor is found to be responsible for the delay, the owner/developer is generally entitled to impose the liquidated damage amount as provided for in the contract. However, the amount of liquidated damages must reasonably relate to the actual costs that an owner would incur as a result of delay.[4] Liquidated damages in an excessive amount will not be permitted as they do not bear any reasonable relation to the actual damages incurred by an owner/developer.

Separate and apart from any liquidated damage clause, the most significant types of damages that can be claimed by an owner/developer as a result of delay are actual damages. These damages may include the following:

- Lost revenues and profits from the project
- Extended costs for owner personnel
- Extended construction interest and fees
- Costs of owner's personnel hired to operate the facility/project who cannot be put to work
- Additional extended architect, project management, and/or engineering fees
- Extended insurance premiums
- Additional utility costs
- Rental of substitute facilities during delay period

In fact, the categories and types of actual damages incurred by an owner/developer can conceivably be anything reasonably related to the delay. Of the actual damages incurred by an owner, lost profits are clearly the largest single component. If the opening of a new facility was delayed by the contractor, the owner may be entitled to the recovery of reasonable revenues it would have received had the facility been completed on time. The larger and more potential profits from the facility, the more profits to which the owner may be entitled.

Of course, the foregoing begs the question, how does an owner/developer accurately and adequately set forth those types of costs and damages? Enter the real estate expert.

The Expert's Analysis

Delay and construction defects are considered a DC Class VI—Building Condition. Many appraisers, real estate economists, real estate analysts, and attorneys are familiar with the DC Matrix, which outlines the assessment, repair, and ongoing stages with cost, use, and risk issues. The DC Matrix frames the three stages of analysis and related issues that may warrant consideration for matters involving any detrimental condition.[5]

The assessment and repair stages include the following issues while the property condition is corrected or repaired.

- **Costs:** These are the costs (direct damages) associated with assessing and repairing a defect or addressing the delay. In construction delay, the cost and delay period are generally provided by qualified construction experts and not the real estate damage expert.
- **Use:** This category includes any disruptions to utility or lost revenues during the assessment and repair stages (indirect damages). This issue is typically the scope of the expert's assignment when a project's construction schedule is interrupted due to delay.
- **Risk:** This includes the uncertainty factor and project incentive to entice a buyer to purchase a property that is damaged but not yet assessed or repaired, which could exist as a result of a history of construction defects and delay. This is often not germane and is not addressed in this article.

Delay can happen for a variety of reasons, such as material shortages, scheduling, and regulatory issues. They also can be a consequence of poor workmanship and construction defects. The methodology for a lost rent calculation is illustrated within the following hypothetical case study:

The Sunset is a 230-unit apartment complex. The subject property encompasses an entire city block and is comprised of two apartment buildings. A significant portion of the Sunset is currently under construction, and occupancy levels are low.

As a consequence of poor workmanship and substandard project oversight, the walkways and open areas were improperly sloped so that the sheet drainage "ponded" and caused water intrusion into the units themselves. The incorrectly poured slabs needed to be partially removed and replaced with the proper slopes as set forth within the building plans.

The real estate expert has been provided a "special assumption and limiting condition" that the subject property has sustained an eight-week project delay. This information was based on calculations by a qualified construction expert, which also reconciled with the realities of correcting the problem.

The owner has a history of buying land, developing apartments, and holding the real estate asset over a long period of time. The firm is a diversified real estate development and management company with more than $2.9 billion in real estate assets. The portfolio includes retail, office, and 25,000 apartment units in 80 communities. The owner does not generally develop a project for short-term resale but holds its properties long-term.

The concern in addressing this case is to determine the appropriate point in the project's cash flow to measure damages. In other words, should the calculation be limited to only the first eight weeks during the initial rent-up or measured at a point when the subject property has reached stabilized occupancy?

When the objective, such as in this case, is to hold the property for a long-term period, damages generally should be based upon stabilized occupancy. (*See Figure 1.*) This chart shows that the property owner has the same absorption[6] with or without the delay. The damage is really based in the fact that the owner would have enjoyed eight weeks of stabilized income that it will now not receive as a consequence of the delay.

While the damages are calculated using stabilized income, it is not appropriate to base the damages upon the potential gross income (PGI). Rather, it would be appropriate to commence the calculation utilizing the effective gross income (EGI). (*See Figure 2.*)

The first step in the calculations themselves requires the real estate expert to determine the appropriate market rents. This is done by collecting and analyzing apartment rental comparables and comparing them to the rents projected by the property owner. Adjustments to the projected rents may be necessary if the subject property's anticipated rents do not reconcile with the actual market.[7]

Next, an analysis must be conducted to estimate a vacancy factor. This is completed by utilizing the rental comparable data and published sources and reviewing the competing projects under construction. In this example, a vacancy and collection factor of 5 percent was determined.

An essential remaining question remains as to whether the lost rent due to the delay is based on EGI, NOI, or something in between. Such a final calculation should be considered on a case-by-case basis, depending upon the structure of the expenses.

While fixed expenses should certainly be deducted from the rents, a question arises as to the inclusion or exclusion of variable expenses. As a rule of thumb, it would be more impracticable to cut variable costs for shorter delays as compared to longer delays. This is somewhat analogous to a homeowner who goes on a vacation and does not shut off his utilities or lay off service providers. He or she would continue to incur those expenses regardless of whether he or she occupied the home or was on vacation. As such, in this case, the Sunset apartment owners would likely not fire their staff, turn off all utilities, and stop paying taxes and insurance because units are effectively vacant for an eight-week period. On the other hand, if there is a long delay, it may be practical to cut staff and other variable expenses.

In any case, the real estate expert must consider variable expenses on a case-by-case basis to arrive at the lost income calculation. The concluded annualized figure would then be divided by 365 days to yield a daily damage amount. That number would then be multiplied by 56 days (seven days/week @ eight weeks' delay = 56 days) to yield the total delay damages. In this hypothetical case, assuming that fixed expenses were subtracted from EGI, the indicated rental loss would be $649,486. If all fixed and variable expenses were applied to the calculation, the loss would be $497,552.

As with many construction damage claims, the certainty sought to be achieved in a construction delay damage case by an owner/developer requires recognition of the underlying legal principles, plus a strong, well-reasoned, and fully supported expert analysis. By following a recognized and developed methodology (such as that discussed above) as the foundation, the owner/developer's damage claim due to the contractor's delay stands a much greater chance for ultimate success.

Orell C. Anderson, MAI, is a principal with the real estate damage firm of Bell Anderson & Sanders LLC in Laguna Beach, California. He specializes in real estate damage economics and may be contacted at either orell@realestatedamages.com or (949) 497-7606. He is currently the Real Estate Damages Subcommittee Chairperson for the ABA Section of Litigation, Environmental Litigation Committee.

Edward B. Gentilcore, currently serving as the ABA Liaison for the Construction Litigation Committee, is a partner in the Pittsburgh office of Reed Smith LLP and a member of its Construction Industry Group. He regularly represents owners, design professionals, contractors, subcontractors, and material suppliers in matters involving a wide variety of construction-related issues including design-build, delay claims, extras disputes, contract preparation, negotiation and compliance, bid protests, construction safety, prompt payment, and mechanics' liens. He can be reached at egentilcore@reedsmith.com or at 412-288-4274.

Endnotes

[1] Randall Bell, Real Estate Damages: An Analysis of Detrimental Conditions (Appraisal Institute 1999).

[2] *See, e.g.*, Metro. Dade County v. Frank J. Rooney, Inc., 627 So. 2d 1248 (Fla. 3d DCA 1993); Hall Constr. Co. v. Beynon, 1507 So. 2d 1225 (Fla. 5th DCA 1987).

[3] *See, e.g.*, Thomas H. Ross, Inc. v. Seigfriend, 592 A.2d 1353 (Pa. Super. 1991).

[4] *See, e.g.*, Daniel Int'l Corp. v. Fischbach & Moore, Inc., 916 F.2d 1061 (5th Cir. 1990).

[5] Orell C. Anderson, *Environmental Contamination: An Analysis in the Context of the DC Matrix*, Appraisal J., July 2001, at 322–23.

[6] Appraisal Institute, Dictionary of Real Estate Appraisal 2 (4th ed. 2002). "The actual or expected period required from the time a property is initially offered for lease, purchase, or use by its eventual users until all portions have been sold or stabilized occupancy has been achieved. Although marketing may begin before the completion of construction, most forecasters consider the absorption period to begin after the completion of construction."

[7] For long absorption, it also may be necessary to estimate the absorption period and discount the damages to a net present value.