QUANTUM SNAPSHOTS, ARTICLE ONE: VALUING VARIATIONS

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The first in a short series of five articles that consider principles of quantification. Each article produced in the series is intended to provide an informal insight and it is asked that they are read in this context. The first article considers the valuation of variations.

Most competently drafted construction contracts contain a prescribed valuation mechanism to determine the value of a variation. Typically, the valuation is a tiered approach:

- based on prior agreement;
- applicable rates or prices in the contract;
- rates or prices to the extent it is reasonable to use them; or
- reasonable rates or prices (being market rates in most instances) plus reasonable allowances for overheads and profit.

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Valuing a Variation

In a well-coordinated contract, prescribed mechanisms direct the valuer (or Superintendent in an Australian Standard context) to a specific list of rates or prices. Absent this, the valuer should consider the rates and prices that form the pricing schedule, bill of quantities, schedule of rates or other contract schedules that include rate or price information.

Whilst construction contracts more often than not refer to "reasonable" rates or prices, those contracts do not assist in defining the bounds of reasonableness. This turns on traditional quantity surveying fundamentals of measurability, the volume and nature of work, the conditions under which work is carried out, the sequences of work, market conditions and so forth. Invariably, a change on a construction site is rarely an isolated event, but instead part of a more-widespread change of design, construction materials, methodology or client preferences.

I will leave aside the initial question of whether there is entitlement under the construction contract for the contractor to claim a variation. The seeds of many disputes are sown in the argument over who bears responsibility for variations or changes on a construction project. These arguments are best orchestrated by experienced legal practitioners.

The Valuation Process

"The correct approach to valuation is driven by the terms of the construction contract and the circumstances. The valuer should consider the circumstances as they relate to each claim."

The first step in the valuation process is to consider the appropriateness of the rates that form the contract. That is, how similar is the work forming the variation to the work that formed the rate in the contract. If the work is identical, then the valuation of the change ought to be straightforward. For example, a variation that requires the contractor to increase the area of a concrete slab foundation. If the increase in area does not give rise to a change in the work methodology, the planned productivity, or the resources required to perform the work, the valuation ought to simply be the increase in quantity multiplied by the cubic metre rate for concrete in the contract. Simply put, the contract rate is applicable to additional work that is performed under identical conditions.

If the additional work is similar and executed under similar conditions, for example, a change to the specification of the concrete slab, the contract rate should be adjusted. In this example, if there is no change to the work methodology, rate of production or the resources required, the valuation is to simply omit the proportion of the contract rate for the planned concrete material and apply the cost for the new specification of concrete material.

The adjustment of a contract rate should not be seen by the contractor as an opportunity to recover cost overruns that may have arisen from underestimation in tender prices or inefficiencies in work performed to date. Similarly, it should not be seen by the employer as an opportunity to reduce or discount a contract rate that provides the contractor with a margin (off-site overhead and profit) that is greater than the tendered margin for the contract as a whole. Smart contractors often include a greater percentage for margin against items of work that are likely to be varied post contract award (a separate topic in and of itself).

If the work required for the change is dissimilar, a new rate (often referred to as a star rate) may be estimated from first principles. For example, a change from a standard specification of concrete to rapid-set, fast curing, concrete (also known as expedient concrete). In addition to the change in material type, this change is likely to require a greater number of labour resources as well as different types of plant and equipment. For example, expedient concrete works often require on site mixing trucks that work back-to-back to ensure the concrete is poured and finished before it starts to cure. The valuer may need to consider savings in formwork, reinforcement and the like. Time related costs may also require consideration.

The first principles approach for a star rate should quantify the specific resources required to perform the variation work. Rates of production are then applied to produce a reasonable rate per cubic metre of concrete in substitution for the rate in the contract. If planned resources are included in the rate, or a proportion of it, the first principles approach should have regard to the contract rates for those resources.

If the change falls outside the contractor's capabilities or expertise, a specialist subcontractor may be required. The contractor or valuer may need to seek pricing from the market, ideally through a competitive tendering process.

The correct approach to valuation is driven by the terms of the construction contract and the circumstances. The valuer should consider the circumstances as they relate to each claim.

Please reach out if you would like to discuss this or any other valuation principle in more detail.