

Our recent projects have not reached \$50 million where Partnerships procurement methods. Saanich school districts to have selected CM or DB contracts for our three recent option for school construction renovations in BC have employed risk for unknown conditions, but projects too. Owners should be decisions as well as accepting of In return for this time, there will be and control. We've involved the CM is fully integrated into the project design, cost control and construction our construction manager found another specialized building component, which might have been missed if we were relying solely on elemental cost estimates. The CM works closely with our quantity surveyor (QS) in budgeting general conditions while confirming various assumptions. Ultimately, the CM 'signs-onto' managing the overall budget and develops costs for each work package to evaluate tenders. There must be good communication between the CM, designers and QS as progress estimates are developed to increase accuracy and obtain the buy-in of all parties. Cost reductions needed to be made at a couple of stages during the design for NSMS, but those decisions were made as a full team.

'Policy pundits' would promote that owners must 'transfer risk to those who are most capable of managing it'. An experienced owner is better able to control all of the risks by managing scope, schedule, quality and cost through engaging an integrated professional team, which includes the builder. The other two procurement forms do not reduce risk, they only transfer risk in return for a stipulated price, but there is a risk premium for someone else to manage it. Change orders, no matter what procurement method, are still a risk to be managed.

Some schools have been procured through DB with additional program area, but that comes at a cost of reduced lifecycle or quality of equipment or materials. Unless a project is designated to DB, a school district is not entitled to surplus space. That being the case, the focus is to build for the educational program and quality of facility. Under DB, control over equipment or material selection is given over to the contractor's team with their focus to first cost and profit margin rather than quality, lifecycle cost or sustainable maintenance. DB teams may not be successful in a particular proposal, causing business losses. The gratuity to unsuccessful DB teams is not sufficient to offset all costs for preparing that bid. DB proposals are completed nearly to the point of design development drawings, with detailed submittal requirements, including energy calculations and LEED criteria. How long can firms sustain such losses, before they no longer participate? An owner must also engage a consultant shadow team to write performance specifications to evaluate the DB proposals along with the firms' final submittal documents. An added constraint for DB teams is that consultants commit to a single proponent team of several that are competing for the RFP, increasing their business risks for failure, but their reward potential is limited to a standard fees. There are added fees, gratuity payments to the unsuccessful DB teams and management costs for a shadow team and facilitator in this complex process for specifying performance, designing and evaluating the DB teams' solution. I'm not sure how you can wring this much water from a stone, since school budgets are anything but extravagant! At the end of the project, how does an owner actually determine whether the performance specifications were achieved without quality audits?

It is not easy to meet the Canadian Green Building Council requirements for a temperate climate school at a 44 point level for gold certification.

Saanich School District is one of the few BC school districts to have selected CM in-place of stipulated sum general (GC) or DB contracts for our three recent projects.

the design-build (DB) threshold of BC evaluates risk-benefit of alternate School District is one of the few BC in-place of stipulated sum general (GC) projects. CM is often the preferred in the United States. Many seismic CM to improve control and mitigate there are advantages to CM for new willing to be an active participant in some added payment administration. greater project accounting, reporting right from the start, so that the builder team to give the best overview of implementation. By way of example, savings of over \$125,000 by sourcing



NORTH SAANICH MIDDLE SCHOOL, cont'd

In contrast, CM offers clear benefits in quality assurance and relationships. Despite GC's having varying approaches to good business relationship-building, nothing beats the CM being directly employed by the owner. The big caution is that a GC can't mask as a CM – there is a different culture. Some GC's are brokers for their sub-contractors and look to an administration fee and change order billing as a benefit. A CM provides a service for a fixed fee, not through mark-up. All site staff is charged at cost plus payroll burden with a limited administrative cost. A CM has no benefit in mark-up or change order payment, but rather changes are an impediment, so they seek to reduce them as much as possible. The overall costs for CM could be lower than that of a GC. A spread of 1 to 2 percent on \$25 Million represents \$250,000 to \$500,000 – isn't that better to spend into building quality? Through CM cost reporting is improved through monthly project overviews – every line item, contract or contemplated change order is captured, projected to completion with an assessment of whether strategic adjustments might be needed out to the project's completion. Any contingency allowance is fully open-book and cost savings are to the owner's benefit. The CM builds relationships and respect and contributes constructability or material cost advice. A CM reports to the owner and primarily maintains the owner's interests rather than a GC or DB to the 'bottom line'. Consequently, you have a very accomplished advocate when change order discussions occur! So too, the superintendent is a CM employee and carries out the owner's interests – an important person on-site! During design, a CM is reviewing drawings, creating work package are potential gaps or big change CM does not have a significant any particular work packages, but of work for sub-trade bidding to Through GC, subtrades choose from multiple specification bids, a GC may miss sub-trade cost in their tender. All GC have GC is potentially fraught with or the owner.

Quality relates to the architectural a warehouse, but what does that on education. We are raising a teachers. Aestheticism is an which may be secondary and is not these buildings don't have the

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descriptions and seeing whether there cost for coordination issues. A 'true' workforce onsite nor do they bid on write tight well documented scopes promote the best market competition. different combinations of work drawn divisions. In the limited time to prepare exclusions or fail to include for the contingency to manage multiple risks. adversarial relationships to sub-trades

product – anyone could build a box like say about the value that society places generation of artists, engineers and important part of our environment, a performance measure for DB since same 'joie de vivre'.

For those that have known of my period with government in the late 1990's for implementing \$900 per square meter schools, you may think I converted like the Apostle Paul on the road to Damascus! I learned government decided for quantity over quality to limit debt in reducing class-size or eliminating portable classrooms. The DB approach is similar, if additional program space for the same cost is an agenda. I learned that there could be savings in one area to spend strategically for improving critical building elements through value engineering. I learned that a developer-built school sustained early building envelope failure while construction-managed schools were better-built. I learned that GC was anything but a fixed price and adversarial arguments resulted over changes and costs. GC are more variable depending on market conditions with post-tender addenda being much more complex in quality and budget control. On joining Saanich school district, I was determined to apply this learning against 'more for less' and rather exercise greater control through value engineering to meet both beauty and budget. A CM assists in cost, quality and value control. Each of our three construction-managed schools has succeeded in these criteria and each has employed significant enhancement.

In summary, an owner can bring their CM (builder) on-board to provide preconstruction expertise and budget control while having their CM represent their interests to manage and control quality and costs. The owner will know exactly what he is paying their CM as the fee is fixed at the preconstruction stage and the CM provides all change order management without any markup. An owner can thus have the CM working in their interest and they can do so for the same or lower fee than under a potentially adversarial GC, as well as having complete control over all aspects of the project to engineer value and spend strategically. If you were to procure a DB, a shadow team and facilitator is needed to navigate the more complex process to specify and evaluate the DB proposals, but a DB will employ a CM approach to their own advantage.