

Questions asked by Aldermen about the Newton North High School Building Project

Questions regarding the Construction Manager at Risk

1. How will the proposed Construction Manager at Risk model work?

Under CM at Risk, a public owner prequalifies and selects a CM during the design phase. The CM provides planning, estimating, scheduling and other services during the design phase. When Design nears completion the CM and the owner negotiate a Guaranteed Maximum Price (GMP) and schedule.

2. In simple terms, how will the proposed Construction Manager at Risk model save money and improve quality?

Working with CM and in spirit of cooperation with owner and designers will lead to efficiencies. It will avoid unbuildable and costly design details. Design inconsistencies can be eliminated and change orders can be minimized. Having the ability to bid early construction packages as well as monitoring and auditing all construction costs can save money. The Construction Manager's ownership of the construction budget through early cost estimating leads to a guaranteed maximum price whereby any price change would be borne by the CM.

3. How does the City get the best price if the Construction Manager is pre-selected and then and only then gives the city a guarantee?

The best price is obtained by negotiation with the Construction Manager to a Guaranteed Maximum Price (GMP). These negotiations are clearly spelled out in the contract between the owner and the CM. It is an open book process where all financial information is observed by both the owner and the CM. The owner pays only the negotiated cost of the work plus the agreed fee to CM.

4. Why is the Construction Manager at Risk better than the old model of design -- bid -- select lowest general -- build?

The ability to pre qualify and select the CM based on reputation and record in controlling cost, meeting deadlines and satisfying customers.

5. In what other communities has a Construction Manager at Risk been tried and used and what were the outcomes of the projects? What lessons were learned?

To date the IG's Office has approved three projects to go forward with the CM at Risk delivery method:

Salem HS: \$30M Renovation

Milford: \$7M Nursing Home Expansion

Nantucket Airport: \$25M Expansion

DCAM CM at Risk Projects:

Bunker Hill Community College: \$16M Wellness Center

Worcester State College: \$12M Administration Building

Salem Trial Court: \$80M (RFP Issued)

Taunton Trial Court: \$54M (RFP Issued)

As this is new legislation, there is no current track record as to "lessons learned".
As Massachusetts School Building Authority (MSBA) still has a moratorium in effect for new projects, no additional projects have applied.

- Please find attached a list from the Division of Capital Asset Management (DCAM) of general contractors / construction managers who have been certified to handle a project of Newton North's size.

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Questions regarding the current Cost Estimations

1. *Can the cost estimator come up with an estimate of each of the three new building construction schemes so that we can see whether any of those alternatives would be less expensive?*

Three new Schemes are as shown, Total Project Costs at Jan. 2006 rates. Note that the building is assumed to be the same cost overall in the concept model provided, the differences are in the overall inclusion or exclusion of site works and features.

Scheme 1: \$129,023,000

Scheme 2 \$128,955,000

Scheme 3: \$129,810,000 (preferred central scheme)

2. *What role do post-Katrina construction industry demands, China's increased demand for steel, higher oil prices, and "specialty features such as the indoor swimming pool complex not found in other school projects" play in the anticipated cost increase?*

Prior to Katrina, industry observers expected approximately 6%-8% escalation for 2005, but after the upsurge of bid pricing in the last quarter of the year, it has been found that 2005 had an overall escalation rate in the industry of approximately 10%-12%. It is expected that once again, escalation rates should trend back towards the overall inflation rate for the economy, but the degree of uncertainty remains high after the unexpected changes last year.

3. *What are the assumptions that are being made regarding additional inflation and construction timetables in the Rider Hunt analysis?*

Rider Hunt Levett & Bailey has provided a table of projected costs for a range of escalation rates between 3% and 10% per annum, over the projected construction period. Based on expectations from 2005, the central band of this table (the range 5% to 8%) is the most likely outcome, without trying to calculate the probability of further catastrophic natural or world

events. Rider Hunt Levett & Bailey's current position is to take the high end of this probable range (8%) as a conservative stance. We are constantly reviewing escalation costs internally as a regular quarterly process with our own regional published indexes, and monitoring other industry cost indexes and rates.

As regards timetable, we have taken escalation to the projected mid-point of construction as the probable point of pricing that will be offered in the bid process. (For a Lump Sum Contract, the Bidders have to take the whole risk of being able to buy out subcontracts over the duration of the contract. For CM at Risk, the subcontracts are also let over the duration of the contract, but in this procurement the City can expect to work with its CM to monitor progress and achieve the best possible buyouts.) Consultation with the Project Manager and Design Team indicates a 18 month design period, and two and a half years construction schedule. This totals 34 months to mid-point of construction. For the hybrid scheme, the equivalent duration is 44 months. For the full scale renovation, done in many discrete sections in and around the school program, the original Task Force estimate was eight years. For escalation projections, therefore, a duration of 48 months was assumed.

4. *Why does Rider Hunt's Newton North estimate have a cost per square foot so much higher than the comparable high schools they cite as costing \$225 to \$259 per square foot (in 2005 dollars)?*

From the spreadsheets displayed today, the **Construction Cost** only estimate for the new building, excluding the site, is about \$240 per SF. This is within the range of costs for other school projects presently planned, and comparable with SF rates for other schools recently completed. For the proposed new Scheme #, we add about another \$30 per finished SF for the entire site works. The cost per SF for the **Total Project Cost** at \$335 includes all the soft costs, supervision and indirect costs necessary to the project. In order to perform realistic comparative analysis, it is necessary to isolate building costs from site and other costs, and review the types of construction, major site factors, and so forth. The contracted building Construction Cost is used as the most consistent comparable measure. Site works and additional facilities, sporting or utilities, may be part of the total contract. However, these can also be fully or partially procured in another contract or project.

5. *What is the breakdown among the sources of cost increase in the Rider Hunt analysis among steel, energy, labor and other factors? What percentage increase is being used for each factor in the low (\$353/square foot) and high (\$412/square foot) estimates for beyond their current price levels?*

The rates used by Rider Hunt Levett and Bailey as concept rates for this project are industry-historical rates and include the changes in build-up costs that have been caused by construction material increases.

6. *What are the actual costs for steel (\$/ton) and oil (\$/barrel) built into the low-end and high-end assumptions, and how would increases or decreases in those commodity prices affect the high school's cost?*

This is a concept estimate, not measured from specific plans and specification, so our percentage range for projections is based on building construction industry escalation trends and does not represent an exact prediction for the future.

7. *What are the time frame assumptions for the Rider Hunt analysis: when are they assuming the project will go out to bid and when are they assuming the construction will begin?*

For our schedule assumptions, please refer to Question (3) above. Please note that the entire Design Team and the Project Manager have considered the possible schedules and these figures are a consensus agreement on the timetable.

8. *How much more per square foot is being built into the Rider Hunt model for the "specialty features" of Newton North? The range of overall figures of \$353 to \$412 per square foot represents an average price per square foot for the entire school, so what are the costs per square foot for the various components?*

"Specialty Areas" are shown in the detailed Program for the school, including the swimming pool facility. Each major type of area has an applied Square Foot rate, which is a Concept or Planning rate based on comparable facilities and relevant breakdown at top level Uniformat II format. As noted in the question, this provides more finessing than just using overall comparable school rates per SF, however, we need to emphasize that the rates used are not specifically measured against an actual design. The entire program is broken down into area types as displayed on the spreadsheet to the DRC, and the totals then rolled up into the summary rows shown in the report and presentation of 1/25. Detail rows were not displayed for that presentation. The result is a 'blended' rate for the whole program, taking total building construction cost divided by gross floor area.

9. *To what extent are the estimated costs being inflated by site constraints?*

Each design option has particular site work requirements, which are shown in the conceptual, order-of-magnitude allowances for each scheme. Additional amounts for existing foundation remediation is provided for Scheme 1 and Scheme 2. For Scheme 3, the football field is moved and rebuilt, and additional earthwork is needed for the recessed gymnasium and pool. Different numbers of car spaces alter parking lot allowances. The detail list of components for each option is listed in the spreadsheet and was viewed at the DRC. Again, Rider Hunt Levett & Bailey emphasize that we have made typical, average provisions for each of the facilities or utilities shown, or used high level unit rates as allowances for other components such as car park spaces.

10. *What are the potential cost savings that could be achieved through re-using parts of the existing Newton North High School structure, such as the swimming pool complex and the athletic facilities?*

To re-use the pool complex and the athletic center, GUND have produced a new hybrid using these components as well as the auditorium. A preliminary estimate was done for the renovations necessary as well as the new construction work. The cost in Jan 2006 values shows savings as shown, however the escalation range tables show clearly that the escalation from a more extended construction period may well use up the benefited saving in the long run.

11. *What are the potential cost savings that could be achieved through using space more efficiently to reduce the overall square footage of the building?*

The efficiency factor of this concept design is set at 1.410, i.e. the Program space is multiplied by this factor to produce the Gross Floor Area. The value chosen has been the subject of considerable review by the Design Team and the Project Manager, and the Team believes it is an aggressive enough goal not to be considered wasteful, or generate excessive space in any way.

12. *What are the potential cost savings that could be achieved through relocating the school to another site with fewer constraints?*

Rider Hunt Levett & Bailey would need to consider any other alternative sites with GUND, to articulate how the equivalent provision of the features shown on the Concept drawings would be provided. On a brand-new, 'green field' site without any existing buildings or services, poor foundations or significant site level reduction, we could observe that building demolition, hazmat, and site demolition would be avoided. Conversely, provision of services may be significantly higher. We would find it necessary to assess each possible site on its own merits and requirements.

13. *What are the potential cost savings that could be achieved through locking in commodity prices such as steel and PVC piping to protect against future price increases?*
Requested by: Alderman Parker

It has been advised by the Project Manager, in their capacity as CM on other jobs, that pre-buying specific components may have some worthwhile cost benefits. As the design is not advanced sufficiently in any way, no allowance has been made as yet for savings that may be accrued in this manner.

14. *What are the differences in the cost savings reductions for each school option?*

At this concept stage, Rider Hunt Levett & Bailey have not differentiated between the different school building designs for each option. Therefore, there is currently no measure of potential cost saving reductions between new construction schemes. Each site, however, has been summarized according to the tables presented to the Design Review Committee.

Questions about the Design of the Newton North High School Project

- 1. Have there been any serious attempts at designing a preliminary site plan on some of the other locations that would lessen the negative impact on the neighborhood? No*
- 2. Will there be an analysis of sustainable design and compliance with LEED requirements, etc.? If so, when will it be presented? Yes. Sustainable design initiatives have been presented to the Design Review Committee and the High Performance Buildings Coalition.*

Questions about Financing the Newton North High School Project

(Note: These issues have been deferred for the time being in order to get timely answers for the prior questions.)

- 1. Could we solicit private contributions to support the project? If so, would we be able to offer naming opportunities?*
- 2. Could you please provide a document that shows the process to get the GMP?*
- 3. What are the potential cost savings that could be achieved through selling 20-year bonds sooner to lock in low interest rates and to avoid having to sell interest-only bond anticipation notes?*
- 4. Do we still have a chance of getting additional state aid through the School Building Assistance Fund?*
- 5. Could we solicit private contributions to support the project? If so, would we be able to offer naming opportunities?*
- 6. What would the effect on the financing be if we were to propose a partial debt exclusion override? Would such an override allow us to sell 20-year bonds sooner, locking in lower interest rates as well as reducing our reliance on bond anticipation notes, thereby reducing the overall costs of the project?*
- 7. What would the effect of a small annual operating override dedicated to paying for capital expenditures be? Could such an override pay the additional borrowing costs associated with the increase in Newton North construction costs and also make additional funds available for other projects like fixing our fire stations and finishing Newton South?*

8. *Is there any possibility that we could apply for federal grants or other federal assistance to address costs associated with parts of the project? Should we ask out Congressional Delegation to look into including support for the project in the federal budget?*
9. *What will be the annual operating budget outlays for each scenario to support the high school's construction costs (direct outlay + principle payments on debt + interest payments on debt) for each year of the borrowing schedule?*

Questions about the Process for the Newton North High School Project

1. *Does the Mayor approve the site plan before or after the school committee? The City ordinance provides the necessary steps that are needed in approving projects such as this..*
2. *Since Turner Construction is the Project Manager, can it bid for the Construction Manager at Risk job? No. If so, does our Project Manager recuse himself from the selection process, and if so, who replaces him on the selection committee? Can we, and would there be any benefit to, ask Turner not to bid on the CMR job? Turner Construction knew when it signed on as Project Manager they would not be allowed to be the CM at Risk.*

Questions about Asking the Voters about the Newton North High School Project

(Note: These issues have been deferred for the time being in order to get timely answers for the prior questions.)

- 1. Should we place an advisory question on the ballot and if so, should the question be an up-or-down vote on a recommended plan or a menu of options?*
- 2. Should a ballot question be descriptive ("borrow funds to build a new high school") or quantitative ("support borrowing up to \$150 million for construction of a new high school")? If quantitative, what dollar figure should be used? Should it be contingent on additional state aid?*
- 3. Should we wait to hear back from the state before placing a question on the ballot?*
- 4. Is there an alternative way to measure public support other than a ballot question that would be acceptable to the community?*

Items that will be addressed by Sandy Pooler at the February 15, 2006 Newton North Advisory Committee Meeting:

1. A joint analysis with City comptroller David Wilkinson of the impact of the Newton North funding plan on future operating budgets of the city.
2. The history of the city's taxing capacity and its levels of taxable new growth.
3. A comparison of the city's debt ratios with those of other Massachusetts communities.
4. The history of the city's debt levels and the percentages that the city's debt service have been of the city's operating budgets.

General Construction

<i>Contractor ID</i>	<i>Contractor Name</i> <i>Street</i> <i>Single Limit</i>	<i>City</i> <i>Aggregate Limit</i>	<i>State</i>	<i>Zip</i>	<i>Phone</i> <i>Expiration Date</i>
0194	BOND BROTHERS, INC. PO BOX 26 / 145 SPRING STREET \$195,700,000	EVERETT \$331,714,000	MA	02149	617-387-3400 03/10/2006
1458	CIANBRO CORPORATION ONE HUNNEWELL SQ / PO BOX 1000 \$350,000,000	PITTSFIELD \$500,000,000	ME	04967	207-487-3311 05/21/2006
0375	DANIEL O'CONNELL'S SONS, INC. P.O. BOX 267/ 480 HAMPDEN ST. \$150,000,000	HOLYOKE \$250,000,000	MA	01041	413-534-5667 02/02/2006
0802	DIMEO CONSTRUCTION COMPANY 75 CHAPMAN ST \$140,400,000	PROVIDENCE \$350,000,000	RI	02905	401-781-9800 03/07/2006
0531	FLUOR NE., INC. 700 NARRAGANSETT PK DR-S ENTRC \$200,000,000	PAWTUCKET \$1,133,600,000	RI	02861	401-438-3500 12/22/2005
0639	GEORGE B.H. MACOMBER CO. ONE DESIGN CENTER PL., STE 600 \$150,000,000	BOSTON \$350,000,000	MA	02210	617-478-6200 04/28/2006
0884	GILBANE BUILDING COMPANY 175 HIGHLAND AVENUE \$279,017,000	NEEDHAM \$1,000,000,000	MA	02494	781-453-1991 10/28/2006
0073	J. F. WHITE CONTRACTING COMPANY 10 BURR STREET/ P.O. BOX 9020 \$133,380,000	FRAMINGHAM \$410,026,000	MA	01701	508-879-4700 10/18/2006
0819	KIEWIT CONSTRUCTION COMPANY ONE MAYNARD DRIVE, 2ND FL. SO. \$250,000,000	PARK RIDGE \$3,818,016,000	NJ	07656	201-391-2266 11/08/2006
1017	O & G INDUSTRIES, INC. 112 WALL STREET \$163,854,000	TORRINGTON \$750,000,000	CT	06790	860-489-9261 09/28/2006
0489	O'CONNOR CONSTRUCTORS, INC. 45 INDUSTRIAL DRIVE \$148,392,000	CANTON \$192,969,000	MA	02021	617-364-9000 01/03/2006
1103	PAYTON CONSTRUCTION CORPORATION 273 SUMMER STREET \$128,351,000	BOSTON \$300,000,000	MA	02210	617-423-9035 05/22/2006
0069	PERINI CORPORATION 73 MT. WAYTE AVENUE \$250,000,000	FRAMINGHAM \$824,790,000	MA	01701	508-628-2000 11/23/2006

General Construction

1152	SKANSKA USA BUILDING, INC. 270 CONGRESS ST. \$250,000,000	BOSTON \$3,500,000,000	MA 02210	617-574-1400 12/13/2006
0843	SUFFOLK CONSTRUCTION CO., INC. 65 ALLERTON STREET \$117,243,000	BOSTON \$1,300,000,000	MA 02119	617-445-3500 12/01/2006
0764	THE MORGANTI GROUP, INC. 100 MILL PLAIN RD. \$105,449,000	DANBURY \$304,911,000	CT 06811	203-743-2675 04/06/2006
1235	THE WHITING-TURNER CONTRACTING COMPANY ONE SPEEN STREET, SUITE 120 \$242,188,000	FRAMINGHAM \$3,000,000,000	MA 01701	508-875-4100 09/08/2006
1604	WALSH BROTHERS, INC. 210 COMMERCIAL STREET \$125,000,000	BOSTON \$250,000,000	MA 02109	6178784800 11/03/2006
1146	WALSH CONSTRUCTION COMPANY OF ILLINOIS 2 COMMERCIAL STREET \$250,000,000	SHARON \$2,329,689,000	MA 02067	6172929800 06/15/2006