



Cost Management + Project Controls + Owner Representation + Professional Training

September 1, 2023

Thomas J Kravitz, Planning Director  
City of Warwick Planning Department  
Sawtooth Annex Building  
65 Centerville Road  
Warwick, RI 02886

Re: City of Warwick Public Schools  
Pilgrim High School and Tollgate High School Renovation Projects  
Schematic Design (SD) Construction Cost Estimate Development

Mr. Kravitz:

This letter is a follow up to Ellana's schematic design estimates issued on August 18, 2023 for the construction of new high school projects to replace the existing high school buildings:

Pilgrim High School located at 111 Pilgrim Parkway, Warwick RI and  
Toll Gate High School located at 575 Centerville Road, Warwick, RI

Ellana was tasked to provide an independent construction cost estimate for each school to be compared against two other qualified construction cost consulting firms and provide comments and findings against previous preliminary budget costs for construction.

**Background:**

Ellana, Inc. is a WBE/MBE certified construction consulting firm established in 1988 with continued service to the owners, architects, engineers across the A/E/C industry. We have numerous office locations across the northeast region of the United States and provide our clients with exceptional services in the areas of cost estimating, scheduling, contract administration and project controls across many business sectors including K-12 public schools and higher education.

Some of our recent RIDE and RI school district K-12 projects include the following:

Middleton, RI Public Schools, Gaudet Middle School and Middletown High School, (August, 2023)  
Tiverton, RI Public Schools, RIDE Stage II (Various school locations), (August, 2023)  
Westerly, RI Public Schools, Dunn & Springbrook Schools, (August, 2023)  
Providence RI Public Schools, Harry Kizirian School (May, 2023)  
Pawtucket, RI Public Schools, McCabe ES, ADA Improvements, (May, 2023)  
RI School for the Deaf, Culinary Arts Classroom renovation, (June, 2023)

Our firm has also provided cost estimating services for some of the State of RI higher education campuses including Rhode Island College and University of Rhode Island.



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### **Methodology:**

Ellana, Inc received the RIDE Stage II Schematic Design Package for Pilgrim HS, dated 02/03/2022 and the RIDE Stage II Schematic Design Package for Toll Gate HS, dated 02/15/2022 and provided a CSI divisional trade cost estimate for each school based on these original sets of documents. It was understood and agreed that Ellana would price these original sets of documents with the knowledge that extensive value engineering (VE) was completed through cost reconciliation of the two previous cost estimating firms to reduce the overall construction cost budgets for each school. Ellana adjusted our costing efforts to accommodate the included and accepted VE for the project at the SD level of design.

In preparing our cost estimate, Ellana completed quantity take-off of the SD documents and provided a CSI unit rate detailed estimate for the quantities determined for our estimate. Unit rates were established based on current market conditions, reconciled values within the industry, union and non-union labor agreements, historical data from similar projects and projected costs of labor, material and equipment. These efforts helped establish the trade cost value of the work.

Additional mark-ups and contingencies were added to the trade cost value of work to account for design scope unknowns, project location, project type, contract procurement method, anticipated start and finish dates of construction, escalation, and current market conditions at the time of the estimate development. Mark-ups and contingencies included in Ellana's estimate for each school included the following:

1. Escalation as a percentage carried for cover anticipated increased costs of materials, labor and equipment costs through the anticipated project completion schedule.
2. General Conditions as a percentage carried by the awarding general contractor to provide adequate staffing management, on-site supervision and support for the duration of the contract.
3. General Requirements as a percentage carried by the awarding general contractor to provide temporary and permanent consumable time, materials and equipment to provide a safe, clean construction work zone for all trade contractors' work for the duration of the contract.
4. Bonds and insurances as a percentage carried by the awarding general contractor to provide adequate bonding and insurance coverage for the project commonly based on an overall construction cost value of the project.
5. Overhead & Profit as a percentage carried by the awarding general contractor for applicable overhead costs incurred from the project and their profit for completing the project.

Colliers, the owner's project manager for the project, provided a CSI schedule of values report, dated 01/12/2023, that outlined the costs from each of the independent estimating firms for each school for us to reference and compare to. A detailed estimate from C2E was included in the Stage II report provided while a detailed estimate from PM&C was not available at the time of our estimate endeavor.

Once our independent cost estimates for each school were completed, we compared our estimated construction cost values against those of previous cost estimates for each school project.

### **Summary of Findings:**

Ellana provided a schematic design cost estimate to the City of Warwick, RI for each school on 08/18/2023 following the same CSI schedule of values cost allocations as the earlier estimating firms had provided. This allowed for easier comparison of our costs to that of the earlier estimates.



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As a result of our estimating efforts the following was concluded and presented below:

School	Estimator #1 Ellana, Inc.	Estimator #2 PM & C	Estimator #3 C2E	Low Estimate	Ellana % Above Low \$\$
Pilgrim HS	\$ 150,758,081	\$ 133,468,878	\$ 133,133,319	\$ 133,133,319	+ 13.24%
Toll Gate HS	\$ 150,598,284	\$ 141,577,470	\$143,615,514	\$ 141,577,470	+ 6.37%

Though Ellana was not involved with the value engineering efforts to reduce the overall project costs at each school, efforts were made to capture the VE scope reductions accepted and included in the subsequent VE estimates by both PM&C and C2E completed in January 2023. A major value engineering item for each school was to reduce the overall gross square footage (GSF) of each school which had impactful savings at each school location.

Through reviewing the previous cost estimates from PM&C and C2E, we encountered quantities and costs that differed slightly from what was included within our estimate. In most instances of differences, in cases of either quantity or unit rates, slight cost variances either higher or lower were observed between the three estimates. This variation is common in the estimating industry as an estimator is providing their costs based on their own interpretation and expected costs of the work which vary from firm to firm.

**Conclusion:**

Ellana’s construction cost estimates were higher than those of PM&C and C2E. These variances were due in part to quantities listed, unit rates carried and below the line mark-ups and contingencies added. This variance is common in the profession as each estimating firm prices items and scopes of work differently. At the schematic design phase of the project, the variance percentages from the three estimating firms are within a reasonable percentage difference. Commonly at SD phase, this variance percentage ranges from 5-15%. It is Ellana’s goal to provide an estimate of an average bid return from a pool of qualified and capable contractors.

School	Size (GSF)	Trade Cost	Mark-ups %	Total Construction Cost	Cost/GSF
Pilgrim HS	232,268 GSF	\$ 127,329,460	18.4%	\$ 150,758,081	\$ 649.07/GSF
Toll Gate HS	221,400 GSF	\$ 127,194,497	18.4%	\$ 150,598,284	\$ 680.20/GSF

It is Ellana’s professional opinion that our estimates for each school represent a fair and reasonable cost of expected bid returns when each of these school projects is fully designed and competitively bid to the construction market. Variables that affect public bid projects include project type, size of the building, project location, bid schedule, project start and finish dates of construction and bid participation of subcontractors and general contractors to list a few. It is our goal to provide a cost estimate that accounts for these variables which will represent a fair cost of work for the project.

From our most recent cost estimating efforts on other RIDE projects along with extensive K-12 projects for the Massachusetts School Building Authority (MSBA), Ellana is confident in our deliverables and costing for the Pilgrim High School and Toll Gate High School projects. The costs/GSF noted above are comparable to other recent high school project completed in the MA and RI area or are in line with current school design projects that are in construction documents phase of design.



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We appreciate being included in these two exciting high school projects and look forward to assisting the various city and town planning groups within the RIDE system.

Please feel free to reach out to our office with any questions or concerns.

Thank you,

*Kevin Putney*

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