

DRAFT Total-Cost-of-Ownership Estimator

School Name: XYZ Elementary School

Grades Served: PK-5

LEA: Any County

Design Capacity: 818

Completed by:

Date:

3/26/2019

---

## Estimated Total Cost of Ownership (30 Years)

|                               | If Built at State-Eligible Size | As Proposed          |
|-------------------------------|---------------------------------|----------------------|
| Gross Square Feet per Student | 111.1                           | 119.8                |
| Total Gross Square Feet       | 90,884                          | 98,000               |
| Cost per Gross Square Foot    |                                 | \$ 418               |
| <b>Total Cost</b>             | <b>\$ 90,135,510</b>            | <b>\$ 96,256,480</b> |
| per student                   | \$ 110,190                      | \$117,673            |

### 30-year Cost of Capital

#### Maintenance

(Systemics, major repairs, program-support changes = 2% of MACC or Calc'd Lifecycle Costs) →

### 30-year Cost to

#### Maintain & Operate

(Routine & emergent maint.; utilities; custodial = 2% of MACC or Calc'd Lifecycle Costs) →

### First Costs

(Hard & soft costs of construction, incl. site development but excl. site acquisition) →

# DRAFT Total-Cost-of-Ownership Estimator

Enter project information in pink cells on page 2.

School Name: *XYZ Elementary*

Grades Served: *PK-5*

LEA: *Any County*

Completed by:

Date: *3/26/2019*

Local Design Capacity **818**

## TOTAL COST OF OWNERSHIP

### 1) At State-Eligible Building Size of **90,884** GSF

|  |             | Local               | + | State CIP           | = | Total               |
|--|-------------|---------------------|---|---------------------|---|---------------------|
| Cost to Build                          | Per Student | \$20,442            |   | \$34,018            |   | \$54,460            |
|  | Total       | <b>\$16,721,233</b> |   | <b>\$27,826,863</b> |   | <b>\$44,548,096</b> |
|  |             | +                   |   | +                   |   | +                   |
| 30-year Cost to Maintain & Operate     | Per Student | \$31,392            |   | \$24,338            |   | \$55,730            |
|  | Total       | <b>\$25,678,910</b> |   | <b>\$19,908,504</b> |   | <b>\$45,587,414</b> |
|  |             | =                   |   | =                   |   | =                   |
| <b>30-Year Total Cost of Ownership</b> | Per Student | \$20,442            |   | \$34,018            |   | \$110,190           |
|  | Total       | <b>\$42,400,143</b> |   | <b>\$47,735,367</b> |   | <b>\$90,135,510</b> |

### 2) At Designed Building Size of **98,000** GSF

|  |             | Local               | + | State CIP           | = | Total               |
|--|-------------|---------------------|---|---------------------|---|---------------------|
| Cost to Build                          | Per Student | \$23,561            |   | \$34,018            |   | \$57,579            |
|  | Total       | <b>\$19,272,817</b> |   | <b>\$27,826,863</b> |   | <b>\$47,099,680</b> |
|  |             | +                   |   | +                   |   | +                   |
| 30-year Cost to Maintain & Operate     | Per Student | \$35,756            |   | \$24,338            |   | \$60,094            |
|  | Total       | <b>\$29,248,296</b> |   | <b>\$19,908,504</b> |   | <b>\$49,156,800</b> |
|  |             | =                   |   | =                   |   | =                   |
| <b>30-Year Total Cost of Ownership</b> | Per Student | \$59,317            |   | \$58,356            |   | \$117,673           |
|  | Total       | <b>\$48,521,113</b> |   | <b>\$47,735,367</b> |   | <b>\$96,256,480</b> |

**Total Cost Premium: \$ 6,120,970    \$ -    \$ 6,120,970**

## ANNUAL COST OF OWNERSHIP

### 1) At State-Eligible Building Size of **90,884** GSF

|   | % of MACC/Calc. Lifecycle Costs | Local            | + | State CIP        | = | Total              |
|---|---------------------------------|------------------|---|------------------|---|--------------------|
| M&O (Routine & emergent; utilities; custodial)                                      | 2%                              | \$759,790        |   | \$0              |   | \$759,790          |
| Capital Maintenance (Systemics, Major Repairs, Program Support/Modernize/Additions) | 2%                              | \$144,360        |   | \$615,430        |   | \$759,790          |
| <b>Total</b>  | <b>4%</b>                       | <b>\$904,150</b> |   | <b>\$615,430</b> |   | <b>\$1,519,580</b> |

### 2) At Designed Building Size of **98,000** GSF

|   | % of MACC/Calc. Lifecycle Costs | Local            | + | State CIP        | = | Total              |
|---|---------------------------------|------------------|---|------------------|---|--------------------|
| M&O (Routine & emergent; utilities; custodial)                                      | 2%                              | \$819,280        |   | \$0              |   | \$819,280          |
| Capital Maintenance (Systemics, Major Repairs, Program Support/Modernize/Additions) | 2%                              | \$155,663        |   | \$663,617        |   | \$819,280          |
| <b>Total</b>  | <b>4%</b>                       | <b>\$974,943</b> |   | <b>\$663,617</b> |   | <b>\$1,638,560</b> |

**Annual Cost Premium: \$ 70,793    \$ 48,187    \$ 118,980**

**Total Cost Premium: \$ 2,123,784    \$ 1,445,601    \$ 3,569,386**

## DRAFT Total-Cost-of-Ownership Estimator

| Project Information  |   | References          |   |
|--|---|---------------------|---|
|  | Grades Served                                       | PK-5                | LEA   |
|  | Current Enrollment ( <i>if repl./renov./add'n</i> ) | 825                 | # of students currently enrolled in facility  |
| <b>Projected Enrollment Eligible for State Funding Participation</b> | # Gen.-Ed. Students                                 | 781                 | 7-year projection per APG adjacency calculati |
|  | C/S/W-level Special-Educ. Students                  | 37                  | 7-year projection per APG adjacency calculati |
|  | # CTE Students                                      | 0                   | 7-year projection per APG adjacency calculati |
|  | <b>Total # Students</b>                             | <b>818</b>          | 7-year projection per APG adjacency calculati |
| <b>Square Footage Eligible for State Funding Participation (GSF)</b> | General Education                                   | 81,224              | GSF allowed under APG App. 102B               |
|  | Special Education                                   | 6,660               | GSF allowed under APG App. 102B               |
|  | CTE   | -                   | GSF allowed under APG App. 102B               |
|  | Cooperative Use ( <i>Max. 3,000</i> )               | 3,000               | GSF allowed under APG App. 102B               |
|  | <b>IAC Maximum Eligible Gross Area</b>              | <b>90,884</b>       |   |
| <b>State Funding Participation</b>                                   | IAC-Eligible Square Foot Cost                       | \$378               | Current-year CIP, Sec. X                      |
|  | IAC Max. Eligible Cost                              | \$34,354,152        |   |
|  | State Share   | 81%                 | Current-year CIP, Sec. X                      |
|  | <b>IAC Maximum Project Funding</b>                  | <b>\$27,826,863</b> |   |
|  | Local Design Capacity                               | 818                 |   |
|  | Project Gross Square Feet (GSF)                     | 98,000              |   |
|  | Project GSF Per Student                             | 119.8               |   |
|  | Teacher FTEs  | 55.0                |   |
|  | Non-Teacher Personnel FTEs                          | 30.0                |   |
|  | # Teachers per Student                              | 14.9                |   |
|  | # FTEs per Student                                  | 9.6                 |   |
|  | Projected Cost per GSF to Build                     | \$418               |   |

| Estimated Project Costs As Proposed      |                        |                     |                        |  |
|--|------------------------|---------------------|------------------------|--|
| Max. Allowable Const. Cost (MACC)        | Local                  | State               | Total                  |  |
| Project Cost without Soft Costs          | \$13,137,137           | \$27,826,863        | \$40,964,000           |  |
| Project Soft Costs (in addition to MACC) |                        |                     |                        |  |
| Long Range Planning Cost                 | \$20,000               |                     | \$20,000               |  |
| Design Cost (% of MACC) 6%               | \$2,457,840            |                     | \$2,457,840            |  |
| Land Cost                                | <del>\$3,500,000</del> |                     | <del>\$3,500,000</del> |  |
| Demolition Cost                          | \$0                    |                     | \$0                    |  |
| Off-site Infrastructure Cost             | \$1,200,000            |                     | \$1,200,000            |  |
| FF&E (4-7% of MACC) 6%                   | \$2,457,840            |                     | \$2,457,840            |  |
| <b>Total Soft Costs</b>                  | <b>\$6,135,680</b>     | <b>\$0</b>          | <b>\$6,135,680</b>     |  |
| <b>Total Project Costs</b>               | <b>\$19,272,817</b>    | <b>\$27,826,863</b> | <b>\$47,099,680</b>    |  |

| Projected First Costs of Building School Facility                                  |                     |                     |                     |
|--|---------------------|---------------------|---------------------|
|  | Local               | State               | Total               |
| <b><i>If Enrolled to Current Enrollment</i></b>                                    |                     |                     |                     |
| Per Student Excluding Soft Costs   | \$15,924            | \$33,730            | \$49,653            |
| Per Student With all Project Costs   | \$23,361            | \$33,730            | \$57,091            |
| <b><i>If Enrolled to Design Capacity</i></b>                                       |                     |                     |                     |
| Per Student Excluding Soft Costs   | \$16,060            | \$34,018            | \$50,078            |
| Per Student With all Project Costs   | \$23,561            | \$34,018            | \$57,579            |
| <b><i>If Built at IAC Eligible GSF/Student and Enrolled to Design Capacity</i></b> |                     |                     |                     |
| Per Student excluding Soft Costs   | \$9,454             | \$34,018            | \$43,472            |
| Per Student with all Project Costs   | \$20,442            | \$34,018            | \$54,460            |
| <b>Total Project Cost</b>  | <b>\$16,721,233</b> | <b>\$27,826,863</b> | <b>\$44,548,096</b> |
| <i>Savings vs. As Proposed</i>   | \$2,551,584         |                     | \$2,551,584         |

## DRAFT Total-Cost-of-Ownership Estimator

| Estimated Annualized Cost of Ownership   |  |                                 |  |                     |                     |
|--|--|---------------------------------|--|---------------------|---------------------|
| <b>AT DESIGNED BLDG. SIZE</b>  |  |                                 |  |                     |                     |
|  | % of MACC or Calculated<br>Lifecycle Costs | Local                           |  | State               | Total               |
| <b>M&amp;O</b><br>(Routine, emergent, utilities, & custodial)  | 2%   | \$819,280                       |  | \$0                 | \$819,280           |
| <b>Capital Maintenance</b><br>(Systemics, Major Repairs, Program<br><i>Facility Replacement or Renewal (Optional)</i><br><i>"Sinking Fund"</i> ) | 2%   | \$155,663                       |  | \$663,617           | \$819,280           |
|  | 2%   | \$819,280                       |  | \$0                 | \$819,280           |
| <b>AT STATE-ELIGIBLE BUILDING SIZE</b>   |  |                                 |  |                     |                     |
|  | % of MACC or Calculated<br>Lifecycle Costs | Local                           |  | State               | Total               |
| <b>M&amp;O</b><br>(Routine, emergent, utilities, & custodial)  | 2%   | \$759,790                       |  | \$0                 | \$759,790           |
| <b>Capital Maintenance</b><br>(Systemics, Major Repairs, Program<br><i>Facility Replacement or Renewal (Optional)</i><br><i>"Sinking Fund"</i> ) | 2%   | \$96,173                        |  | \$663,617           | \$759,790           |
|  | 2%   | \$759,790                       |  | \$0                 | \$759,790           |
| Projected Total Cost of Ownership  |  |                                 |  |                     |                     |
| <b>AT DESIGNED BLDG. SIZE</b>  |  |                                 |  |                     |                     |
|  |  | Local                           |  | State               | Total               |
| <b>M&amp;O</b>   | <b>2%</b>                                  | <b>\$24,578,400</b>             |  | <b>\$0</b>          | <b>\$24,578,400</b> |
|  |  | Per Student (@ Design Capacity) |  | \$30,047            | \$0                 |
| <b>M&amp;O + Capital Maintenance</b>   | <b>4%</b>                                  | <b>\$29,248,296</b>             |  | <b>\$19,908,504</b> | <b>\$49,156,800</b> |
|  |  | Per Student (@ Design Capacity) |  | \$35,756            | \$24,338            |
| <b>Project Costs</b>   | <b>MACC + Soft Costs</b>                   | <b>\$19,272,817</b>             |  | <b>\$27,826,863</b> | <b>\$47,099,680</b> |
|  |  | Per Student (@ Design Capacity) |  | \$23,561            | \$34,018            |
|  | <b>TOTAL COST</b>                          | <b>\$48,521,113</b>             |  | <b>\$47,735,367</b> | <b>\$96,256,480</b> |
|  |  | Per Student (@ Design Capacity) |  | \$59,317            | \$58,356            |
| <b>AT STATE-ELIGIBLE BUILDING SIZE</b>   |  |                                 |  |                     |                     |
|  |  | Local                           |  | State               | Total               |
| <b>M&amp;O</b>   | <b>2%</b>                                  | <b>\$22,793,707</b>             |  | <b>\$0</b>          | <b>\$22,793,707</b> |
|  |  | Per Student (@ Design Capacity) |  | \$27,865            | \$0                 |
| <b>M&amp;O + Capital Maintenance</b>   | <b>4%</b>                                  | <b>\$25,678,910</b>             |  | <b>\$19,908,504</b> | <b>\$45,587,414</b> |
|  |  | Per Student (@ Design Capacity) |  | \$31,392            | \$24,338            |
| <b>Project Costs</b>   | <b>MACC + Soft Costs</b>                   | <b>\$16,721,233</b>             |  | <b>\$27,826,863</b> | <b>\$44,548,096</b> |
|  |  | Per Student (@ Design Capacity) |  | \$20,442            | \$34,018            |
|  | <b>TOTAL COST</b>                          | <b>\$42,400,143</b>             |  | <b>\$47,735,367</b> | <b>\$90,135,510</b> |
|  |  | Per Student (@ Design Capacity) |  | \$51,834            | \$58,356            |