

# **ACT 34 HEARING BOOKLET**

## **Bristol Township School District**

**For the Proposed:**

**New Construction of:  
Ralph Waldo Emerson  
Elementary School**

Date: October 10, 2013  
Time: 7:30 PM – 9:00 PM  
Location: Bristol Township School District



SCHRADERGROUP architecture, LLC  
Design . Planning . Programming



## BRISTOL TOWNSHIP SCHOOL DISTRICT

LEVITTOWN, PENNSYLVANIA

### BOARD OF SCHOOL DIRECTORS

Ms. Angela M. Nober  
Ms. Stacy B. Gerlach  
Ms. Katherine N. Bachman  
Mr. James E. Baker, Jr.  
Mr. Frederick Black  
Mr. W. Earl Bruck  
Ms. Helen M. Cini  
Ms. Patricia Koszarek  
Ms. Constance Moore

### DISTRICT ADMINISTRATION

Mr. Samuel Lee, Ed.D, Superintendent  
Ms. Maryann Wagner, Board Secretary  
Mrs. Melanie Gehrens, Supervisor of Curriculum & Instruction, Secondary Schools  
Mrs. Karen Snedeker, Supervisor, Curriculum & Instruction, Elementary Schools  
Mr. John Steffy, Business Manager  
Mrs. Mary Ann Mysliwiec, Director of Special Education and Pupil Services  
Mr. Frank Koziol, Technology Coordinator  
Mr. Tim Trzaska, Operations Manager

Bristol Township School District  
6401 Mill Creek Road  
Levittown, PA 19057  
(215) 943 3200



## **ARCHITECTS/ENGINEERS**

Schrader Group Architecture, LLC  
161 Leverington Avenue, Suite 105  
Philadelphia, PA 19127

Brinjac Engineering  
Structural/Mechanical/Plumbing/Electrical/Fire Protection/Data  
Telecommunications/Security Engineering  
Philadelphia, PA

Renew Design Group, Inc.  
Civil Engineering  
Souderton, PA

McFarland Kistler & Associates, Inc.  
Food Service  
Pittsburgh, PA

## **INDEPENDENT BOND UNDERWRITER**

Mr. Edward R. Murray  
Boenning & Scattergood  
4 Tower Bridge  
200 Barr Harbor Drive, Suite 300  
West Conshohocken, PA 19428-2979

## **SOLICITOR**

Mr. David J. Truelove and Mr. Vincent J. Magyar, Jr.  
Hill Wallack LLP  
777 Township Line Road  
Yardley, PA 19067



# ACT 34 HEARING AGENDA

BRISTOL TOWNSHIP SCHOOL DISTRICT  
LEVITTOWN, PA

Location:  
BENJAMIN FRANKLIN SCHOOL AUDITORIUM  
6401 MILL CREEK ROAD  
LEVITTOWN, PA 19057

October 10, 2013  
7:30 PM

- I. Opening Remarks.....Angela M. Nober, President  
Board of School Directors  
Bristol Township School District
- II. Hearing Duly Constituted.....David J. Truelove  
Solicitor  
Hill Wallack LLP
- III. Project History and Need for Construction..... Samuel Lee, Ed.D  
Superintendent  
Bristol Township School District
- IV. Project Options Considered ..... David L. Schrader, AIA  
Schrader Group Architecture, LLC
- V. Project Description ..... David L. Schrader, AIA  
Schrader Group Architecture, LLC

## Ralph Waldo Emerson Elementary School – New Construction

- a. Project Description
- b. Site Plan
- c. Floor Plan
- d. Building Rendering
- e. Room Schedules and Adjustments
- f. Plancon D Cost Estimating

- VI. Analysis of Financial Alternatives .....Edward Murray  
Bond Underwriter  
Boenning & Scattergood
- VII. Public Comments.....David J. Truelove  
Solicitor  
Hill Wallack LLP
- VIII. Adjournment .....Angela M. Nober, President  
Board of School Directors  
Bristol Township School District



## PART II

Hearing Duly Constituted



## PURPOSE OF AN ACT 34 HEARING

### THE PURPOSES FOR THIS HEARING ARE AS FOLLOWS:

1. To establish the need for the projects by reviewing historical events leading to the Board's decision to proceed with a building program.
2. To review the various options considered by the Board prior to their decision to proceed with the project.
3. To describe the construction to occur at Ralph Waldo Emerson Elementary School and the educational program that serves as a basis for what is being proposed.
4. To present the estimated construction cost, the total project cost, the financial needs and an estimate of the local tax impact of the project.
5. To give citizens and residents the opportunity to comment and to pose questions. Act 34 of 1973 applies to all new construction in educational buildings:

Act 34 of 1973 applies only to costs for new construction and does not address the cost for alterations to existing structures. In addition, there are other excludable costs which are not factored into the Act 34 calculations including; site development costs, test borings and architectural/engineering fees on these items.

**PLEASE NOTE:** This is an opportunity for the administration and the professionals who are accountable to your Board of Education to describe and discuss the proposed project. It is not a debate, but a stenographer is present to receive and record comments and observations. Official record of the hearing is being documented in order that the Board can consider and study constructive comments or questions.

Any and all interested persons may appear at and attend the public hearing and will be granted a reasonable opportunity to be heard at this public hearing.

Please feel welcome to participate during the comment period at the appropriate part of tonight's presentation. Thank you.

### PUBLIC COMMENTS:

Any resident who has submitted a written request for agenda time on or before 12:00 P.M., 10 October 2013, shall be entitled to speak for three minutes each during this portion of the agenda. Subsequently, any member of the audience not having requested agenda time on or before 12:00 P.M., 10 October 2013, shall also be entitled to speak during this period. Public comments are to be conducted in accordance with Act 34 requirements.

#### Guidelines

- a. When recognized, please approach the microphone and first state your name and address.
- b. Ask only one question or make only one statement at a time to allow all persons an opportunity to speak.
- c. Further questions or statements by individuals who have already spoken will be allowed after all interested persons have had an opportunity to speak.
- d. Please do not intentionally repeat previous questions or statements.

**THE PUBLIC HAS THIRTY (30) DAYS FOLLOWING THIS HEARING UP TO AND INCLUDING NOVEMBER 11, 2013 TO MAKE WRITTEN COMMENTS ABOUT THE PROJECT.**



**RESOLUTION  
BOARD OF SCHOOL DIRECTORS  
BRISTOL TOWNSHIP SCHOOL DISTRICT**

ADOPTING A MAXIMUM PROJECT COST AND MAXIMUM BUILDING CONSTRUCTION COST FOR THE NEW CONSTRUCTION TO RALPH WALDO EMERSON ELEMENTARY SCHOOL, AND AUTHORIZING OTHER ACTION IN CONNECTION THEREWITH.

WHEREAS, Bristol Township School District (the "School District") proposes to undertake as a project New Construction to Ralph Waldo Emerson Elementary School (the "Project"); and

WHEREAS, the School District's Board of School Directors proposes to adopt maximum project costs and maximum building construction costs for the Project; and

WHEREAS, the School District's Board of School Directors intends to conduct a public hearing to inform the residents of the School District with respect to the Project;

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Board of School Directors of the School District hereby adopts a maximum project cost of \$41,343,185, and a maximum building construction cost of \$31,129,199 for the New Construction of the Ralph Waldo Emerson Elementary School. The Board of School Directors of the School District hereby authorizes and directs a public hearing to be held in accordance with the requirements of Act 34 of 1973 (the "Act") thereunder, on 10 October 2013, to provide information to the residents of the School District with respect to the Project.
2. The Secretary of the Board of School Directors of the School District is hereby authorized and directed to cause a notice of such public hearing to be published once in the Bucks County Courier Times, such publication to appear not later than 20 September 2013, and not less than 20 days prior to the date of the public hearing stated above. A copy of such notice is attached hereto as Exhibit "A" and made part hereof.
3. The Board of School Directors of the School District hereby approves the description of the Project and related material attached thereto, prepared in accordance with the requirements of the Act, and further authorizes the use and distribution thereof as required by the Act, including the availability thereof to the public not later than 20 September 2013 and the mailing thereof to the news media for release not later than 20 September 2013. Written comments will be accepted after the Hearing until 3:00 P.M. 11 November 2013, at the District Administration Office, 6401 Mill Creek Road, Levittown, PA 19057.
4. The Board of School Directors of the School District hereby authorizes and directs the proper officers of the School District to submit to the Pennsylvania Department of Education (the "Department") a certified copy of this resolution, together with a copy of the minutes or transcript of the aforementioned public hearing, a proof of publication of the notice thereof and a complete description of the Project, all as required by the Act, as well as any other documents required by the Department in connection therewith.

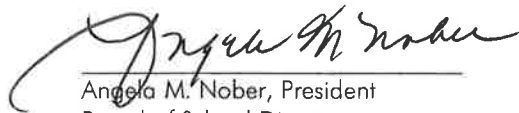


5. The Board of School Directors of the School District hereby approves the preliminary cost estimate for the Project presented at this meeting.
6. The Board of School Directors of the School District hereby authorizes and directs its (i) Administrative Staff; (ii) Solicitor – David J. Truelove and Vincent J. Magyar, Jr, Hill Wallack LLP.; (iii) Bond Underwriter – Edward R. Murray, Boenning & Scattergood; (v) Architect – Schrader Group Architecture, LLC.; to do and perform or cause to be done and performed on behalf of the School District any and all acts and things as may be necessary in connection with the Project in order to carry out the purposes of the Act and of this Resolution.
7. The proper officers of the School District are hereby authorized and directed to execute any and all documents, and to do and cause to be done any and all acts and things necessary or proper for the execution or carrying out of this Resolution.
8. All resolutions or parts of resolutions inconsistent herewith are and the same are hereby rescinded, canceled and annulled.

I, the undersigned Secretary of the Board of School Directors of the Bristol Township School District, DO HEREBY CERTIFY that the foregoing is a true and correct copy of a Resolution duly adopted by the affirmative vote of a majority of the members of the Board of School Directors of the School District at a public meeting held on 16 September 2013, that proper notice of such meeting was duly given as required by law; and the said Resolution has been duly entered upon the Minutes of said Board, showing how each member voted thereon.

IN WITNESS WHEREOF, we have hereunto set our signatures and affixed the seal of the Bristol Township School District the 16th day of September 2013.

(SEAL)

  
Angela M. Nober, President  
Board of School Directors

16 September 2013

  
~~Maryann Wagner, Secretary~~  
~~Board of School Directors~~  
Acting Secretary

16 September 2013



EXHIBIT "A"

**ACT 34 HEARING NOTICE**  
BRISTOL TOWNSHIP SCHOOL DISTRICT

NEW CONSTRUCTION OF  
RALPH WALDO EMERSON ELEMENTARY SCHOOL

The Act of June 27, 1973, P.L. 76, No. 34, provides that before a School District can construct a new school building or a substantial addition to an existing school building, it is required to hold a public hearing to explain to the public the project to be constructed.

The project consists of new construction of Ralph Waldo Emerson Elementary School. Pursuant to the Act, the Board of School Directors has approved a maximum project cost of \$41,343,185 including a maximum building construction cost of \$31,129,199. If bids for the work covered by the "maximum building construction cost" exceed by eight percent (8%) or more of the aforementioned amount, another hearing will be required.

The new 148,000 square foot elementary school will be constructed on the existing Ralph Waldo Emerson Elementary School site.

Accordingly, a Public Hearing will be held at **7:30 P.M.** on Thursday, **10 October 2013**, in Bristol Township School District at the Benjamin Franklin School Auditorium, 6401 Mill Creek Road, Levittown, PA 19057. Copies of the description of the project are available for review prior to the Hearing, beginning 20 September 2013, in the Office of the Secretary of the Board of School Directors of the Bristol Township School District, 6401 Mill Creek Road, Levittown, PA 19057 between the hours of 8:00 A.M. and 3:00 P.M. Monday through Friday.

Any resident may gain agenda time, or submit written testimony, or both by submitting a written request showing the name and address of the resident to the Secretary of the Board of School Directors by 12:00 P.M. on 10 October 2013. Other residents attending the Hearing who have not requested agenda time shall also be entitled to speak during the designated public commentary portion of the agenda. There will be a time limit of three minutes per speaker. No participant may speak more than once on the same topic unless all others who wish to speak on that topic have been heard. If an individual speaks more than once, there will be a time limit of three minutes. Written comments will be accepted after the Hearing until 3:00 P.M., 11 November 2013, at the office of the Secretary.

~~Maryann Wagner, Secretary~~  
~~Board of School Directors~~

*Margaret L. Crozier*  
*Acting Secretary*



## PART III

Project History & Needs for  
Construction



## NEED FOR THE PROJECT

Bristol Township School District (BTSD) administers nine elementary schools, two middle schools and a high school serving 6,200 students and their families.

BTSD's school population is challenged in many ways. More than 60 percent are eligible for free or reduced lunch. Some one percent are registered as homeless, but we know that there are many more living with shirt-tail relatives, friends or in other precarious arrangements. Many of these children take two meals a day at our schools and for some that may be the only food they have that day. Nearly 21 percent qualify for special education. Four percent are enrolled in English as a second language classes.

BTSD's students attend school in buildings that were built for the most part during the 1950s with the construction of Levittown. Maple Shade Elementary School was built in 1929 and holds the dubious distinction of being the oldest school building in continuous use in Bucks County.

Given what has taken place in the past sixty years: The development of the internet and other amazing strides in electronics; new security systems; HVAC equipment that can reduce the amount of energy used in heating and cooling buildings to a fraction of what it was before, BTSD's buildings do not reflect these changes.

BTSD's HVAC boilers and terminal equipment range from 30-80 years old. Electrical systems are aged and inadequate for today's educational environment. Windows and roof systems are beyond their serviceable life. Several of the BTSD buildings are at maximum capacity so the district must bus children out of their neighborhoods to buildings with more room. For the past two years, BTSD has had to turn down kindergarten applicants because of lack of space.

The educational programs remain a priority, however. Through a committed Board, a caring community and a dedicated teaching staff, BTSD has been able to move forward. This year BTSD's high school was named one of the best in the country by US News and World Report, meriting its Bronze Medal award. Advanced Placement programs made the College Board's Honor Roll. Special needs programs are very highly regarded. Theater and debate programs are nationally ranked. Think what BTSD could do if the District could marry these programs to a first-class building infrastructure.

Right now, BTSD's building infrastructure is the number one looming problem.

To study potential infrastructure solutions, BTSD commissioned a study on *Enrollment Projections*, a *Facilities Assessment* and a *District-Wide Facilities Management Plan*.  
(<http://www.btsd.us/subsite/disUpage/newbuildings-plan-8622>)

The results were very disturbing. It showed that by 2017 BTSD's elementary schools would be maxed out due to population growth. Meanwhile, it would cost \$175 million to bring all buildings up to current standards.

There was, however, an alternative. The team showed BTSD that three new state-of-the-art elementary schools can be built to replace the nine aging buildings and actually save money on the project.

BTSD is able to do this for three reasons:



Number one: BTSD is cycling out of an old debt and that debt maintenance will disappear next year.

Number two: Interest rates are at a level now that will allow BTSD to save money on any new borrowing. Plus, construction costs are more reasonable now than they were during the boom times of the mid-2000s.

Number three: BTSD will realize \$3.4 million annually in savings on energy, building maintenance and staff when it moves from nine old buildings to three new ones.

It has been interesting to experience the greater Bristol Township community's acceptance of our building program. Over the past 18 months, there have been numerous public meetings and planning sessions to discuss the matter.

According to the major building trade unions, approximately 1,000 residents of Bristol Township work in construction. These men and women would have jobs. More young families would move in, filling the homes that have been emptied by the recession. Property values would move up as the stigma of aging infrastructure faded away. New businesses locate in Bristol Township attracted by growing population and the new schools.

When we talk about three new elementary school buildings, we are also talking about the hope and future of the Bristol Township community. BTSD wants to see their children get the education they require, in a safe and accommodating space, to support future sustainable employment. BTSD is recommending the construction of three new elementary schools to replace the nine aging facilities.

### **Summary**

Following a thorough analysis and cost benefit review of the current building stock the District is selecting a solution that reduces the overall number of buildings that the district will need to staff and maintain in the future. That decision results in the reduction of the elementary facilities from nine to three. It also considers eliminating one middle school and renovations of two others. Ultimately this realignment of the district results in the modification from a K-6 district-wide elementary structure to a K-5 Elementary structure. The concept calls for construction of three new 1,300 student elementary schools on three existing elementary school sites.

The information provided in this section will conclude that the rising enrollment projections throughout the district and the existing conditions of the existing elementary facilities support the need for three new elementary schools to replace the nine aging elementary facilities.



## SUMMARY OF OWNED BUILDINGS AND LAND

The following "Summary of Owned Buildings and Land" presents information about each facility in terms of projects completed, grade configurations, capacities and enrollments. The year of the major projects conducted on existing facilities are indicated in the last column. The proposed Ralph Waldo Emerson and James Buchanan Elementary School projects are included, shown in italics.

| School Facility                                | Grades Housed | FTE Capacity | Site (acres) | Year Built  | Additions (A) Renov.(R) |
|------------------------------------------------|---------------|--------------|--------------|-------------|-------------------------|
| Clara Barton ES                                | K-6           | 500          | 20           | 1958        | 1965 (A)                |
| <i>James Buchanan ES</i>                       | <i>K-6</i>    | <i>500</i>   | <i>16</i>    | <i>1957</i> |                         |
| Mary C. Devine ES                              | K-6           | 350          | 22           | 1954        | 1957 (A)                |
| <i>Ralph W. Emerson ES</i>                     | <i>K-6</i>    | <i>350</i>   | <i>15</i>    | <i>1954</i> |                         |
| John Fitch ES                                  | K-6           | 350          | 18           | 1953        |                         |
| Lafayette ES                                   | K-6           | 350          | 20           | 1955        | 1965 (A)                |
| Abraham Lincoln ES                             | K-6           | 275          | 9            | 1957        |                         |
| Maple Shade ES                                 | K-6           | 350          | 7            | 1930        | 1949 (A), 57 (A)        |
| George Washington ES                           | K-6           | 325          | 14           | 1959        |                         |
| Armstrong MS                                   | 7-8           | 980          | 38           | 1971        |                         |
| Roosevelt MS                                   | 7-8           | 881          | 32           | 1958        |                         |
| Truman                                         | 9-12          | 2,111        | 40           | 1959        | 1962 (A), 92 (R)        |
| Ben Franklin School/<br>District Admin Offices |               |              | 32           | 1956        | 1991 (R)                |

*It should be noted here that the "FTE" Capacity refers to "full-time equivalent" capacity per PDE. This term refers to the method of establishing building capacity within this school district as compared to others across the Commonwealth. The Department of Education's Planning and Construction workbook (PlanCon) includes forms which calculate the buildings FTE utilizing certain state-wide standards. This is not intended to replace the district's local policies on class sizes or room assignments. These are local decisions and must be considered in establishing the number, types, and sizes of education spaces within a facility.*



## ENROLLMENT PROJECTIONS

Enrollment Projections are published annually by the Pennsylvania Department of Education (PDE). The department also encourages school districts to consider local circumstances in long-range facility needs planning. The demographic changes in any particular school district may or may not follow the method or model of enrollment projections utilized by the state. This should be taken into consideration in any analysis of the ability of the district facilities to serve well into the future. A variety of potential scenarios are possible.

The following is a description of the enrollment projection model as provided by PDE:

*"The enrollment projection model used by the Pennsylvania Department of Education (PDE) is patterned after projection models variously called educational progression or school retention. Projection models of this nature are based on the concept that students progress routinely from one grade to another and that any internal policies and external factors that influenced grade progression in the past will continue to influence the progression of students from grade to grade in the future."*

*"The PDE model uses enrollment data reported annually by all local education agencies to the Division of Data Services on the Public School Enrollment Report (ESPE). Resident live birth data is provided by the Pennsylvania Department of Health. Grade progression is determined by calculating retention rates for grades 2 to 12 using the most recent five years of enrollment data. Retention rates for kindergarten are determined by births five years earlier and for first grade from births six years earlier. These rates are evaluated to determine if a pattern is discernable, or if any retention rates are unusual. If a pattern is found, the pattern is continued in making the projections. Unusual retention rates are discarded and the average of the remaining rates is used in making the projections. Nongraded elementary and secondary students are prorated across grades before retention rates are calculated. Because of that proration, the number of students shown in various grades will differ from the number of students reported. The total number of students may also differ slightly."*

### Basic Limitations of the Model

1. Internal policy changes that affect the accuracy of projections
  - a. policy on how old a child must be before being admitted into kindergarten and first grade
  - b. policy on when and how a student is evaluated for special education services
  - c. policy on how many students the area vocational-technical school is to receive
  - d. policy on who provides full-time special education programs
  - e. policy on scholastic retention and acceleration
2. External factors that affect the accuracy of projections
  - a. the opening or closing of a nonpublic school
  - b. a significant increase or decrease in new home building
  - c. a shift in migration patterns
3. Other considerations
  - a. Enrollment projections for school districts with less than 1,000 students tend to be less reliable.



- b. Actual live birth data for the most recent year are added annually. However, enrollment projections beyond five years are subject to errors in the lower grades resulting from inconsistencies between actual and projected live births and should be reviewed closely.

The following is a summary of the latest projections for BTSD issued by PDE, grouped by current grade configuration:

| School Year | K-6   | 7-8   | 9-12  | K-12  |
|-------------|-------|-------|-------|-------|
| 2011-2012   | 3,583 | 1,021 | 1,604 | 6,208 |
| 2012-2013   | 3,631 | 1,014 | 1,579 | 6,224 |
| 2013-2014   | 3,680 | 1,016 | 1,584 | 6,280 |
| 2014-2015   | 3,780 | 991   | 1,601 | 6,372 |
| 2015-2016   | 3,851 | 1,012 | 1,589 | 6,452 |
| 2016-2017   | 3,919 | 1,069 | 1,563 | 6,551 |
| 2017-2018   | 4,042 | 1,043 | 1,583 | 6,668 |
| 2018-2019   | 4,115 | 1,063 | 1,615 | 6,793 |
| 2019-2020   | 4,203 | 1,123 | 1,609 | 6,935 |
| 2020-2021   | 4,306 | 1,117 | 1,665 | 7,088 |

It can be concluded from this information that from PDE's standpoint, the District enrollment will continue to grow through the school year 2021 .



### **LOCALLY GENERATED ENROLLMENT PROJECTIONS**

In addition to the information provided by PDE, Bristol Township School District hired Decision Insite (DI) to prepare an Enrollment Projection which was presented in August of 2012. The document provides a second and more locally adjusted analysis of the expected future enrollments.

The balance of this section describes the methodology used by DI to generate their projections and then provides those projections. All of the following is excerpted from the study titled "Analysis of Enrollment Projections Fall 2012, Prepare for Bristol Township School District" and submitted on August 27, 2012. It should be noted that DI's study develops the Enrollment Projections using the K-5, 6-8 and 9-12 District configuration based upon the selection of Option 8 of this study. Other configurations can be analyzed if the District desires.

### **Assumptions and Methodology**

Three major factors drive district-wide student enrollment projections. These include:

1. recent kindergarten enrollment trends, modified by live birth data, if applicable,
2. changes in the grade level cohorts of students served as they age through, and
3. changes in the number of residential units within the district

District-wide projections are disaggregated to school projections based on the historical patterns of:

1. the rates at which each school draws enrollment from various sections of the district, and
2. the pattern of transfers within the district at a given level from one school to another.

### ***On Projections***

Enrollment projections are based upon two critical factors: the student and school data from the school district and the mathematical formulas that are applied to those data. Projections fundamentally look at recent history as reflected in the student data and assume that past patterns and trends will continue into the future. The calculations assume that the historical data provided is at one year intervals based on enrollment at the beginning of each school year.

DecisionInsite takes great care in preparing a district's projections. A range of unpredicted anomalies, however, can cause reality to vary from the historical patterns. These include, but are not limited to, rapid changes in the economy, mortgage interest rates, the housing market, the job market, residential development plans, rental rates, etc. Anomalous changes that occur between the last set of student data and the first projection are not reflected in the projections unless the district works with DecisionInsite to amend the projections.

In the projections, calculations are mathematically precise. Each result is rounded to a whole number for ease of reading. This rounding sometimes results in the displayed whole numbers in a column not adding exactly to the displayed total of the column. This phenomenon, which is a result of rounding and not of any inaccuracy in the calculations, occurs both in the enrollment projections and in the community demographics.

### ***On Student Data***

DecisionInsite obtains historical student data files from the district. To the extent that the student data files are internally inconsistent from year to year, or the count of students in the files does not reflect the count of actual enrollees, errors are introduced to the projection calculations. For optimum results, the student data files must also consistently capture the same categories of students annually.



The calculations assume that the historical data provided is at one year intervals based on enrollment at the beginning of each school year. It is important that the student files obtained from the district are close to a common date each year, typically near the beginning of the school year. The snapshot of historical data near the beginning of the school year is best suited to our goal of projecting enrollment for the beginning of subsequent school years. To the extent the historical student data provided is not at one year intervals, or is not at a common date near the beginning of the school year, projections may reflect monthly fluctuations in enrollment that will diminish the accuracy of the projections.

## **ENROLLMENT PROJECTIONS - FALL 2012**

Both a Moderate and a Conservative projection have been generated for the district. Conservative projections are more suitable for budget planning purposes; the Moderate projections more suitable for facilities planning purposes.

### ***Kindergarten Enrollment***

In general, Kindergarten enrollment over the past three years has been increasing. The data also show that the difference between the graduating cohort and the incoming cohort has been relatively stable.

Note that both studies project a relatively stable trend at the Kindergarten level in the ten year future.

### ***Cohort Patterns***

A typical student cohort ages from grade to grade relatively unchanged from the previous year. Historically, 2 cohorts show more than a 5% annual change.

### ***District-wide Enrollment Projection***

Both projections forecast an increase across the 10 year period based upon the historical enrollment trends.

### **Recent Changes in Enrollment**

Familiarity with recent historical enrollment patterns and trends establishes the foundation for understanding projected enrollment.

## **Key Variables in Projecting District Enrollment**

Both a Moderate and a Conservative projection have been generated for the district. The Conservative projections are more suitable for budget planning purposes; the Moderate projections more suitable for facilities planning purposes.

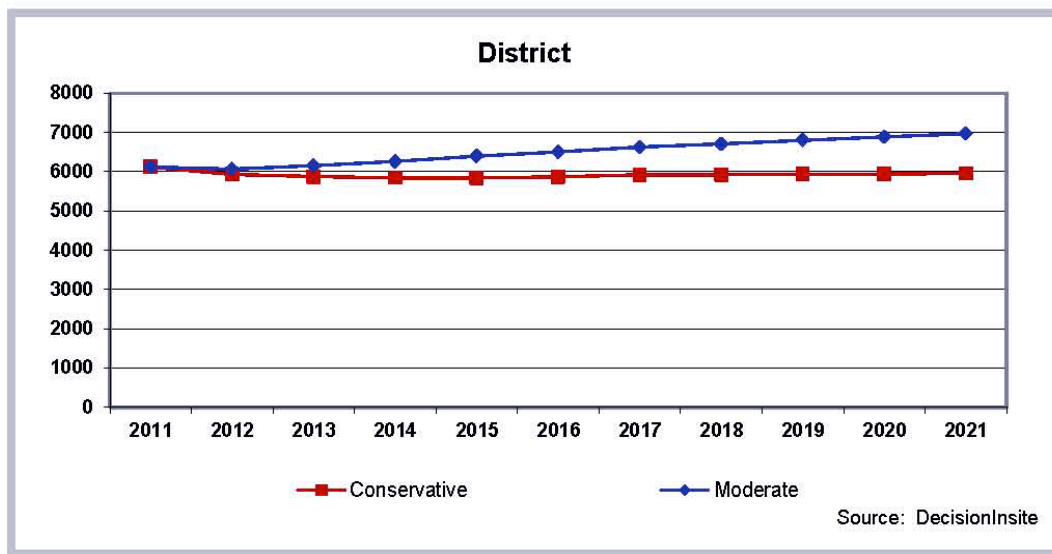
As a matter of standard practice, DecisionInsite does not typically include in the Enrollment Projections specialized schools or programs such as Home and Hospital Programs, Community Day Schools or Independent Study Programs. Our work is focused on projecting grade level enrollment for typical schools that are reported to the state.



The variables that distinguish the Conservative projection from the Moderate are described in the table below.

| Variable                           | Conservative Study                    | Moderate Study                        |
|------------------------------------|---------------------------------------|---------------------------------------|
| Kindergarten Enrollment Change     | 3 Year History                        | 4 Year History                        |
| Cohort Change                      | 3 Year History                        | 4 Year History                        |
| K Enrollment Change Cap            | Constrains upward Kindergarten trends | Constrains upward Kindergarten trends |
| K Enrollment Change Floor          | Allows downward Kindergarten trends   | Limits downward Kindergarten trends   |
| Dwelling Units                     | NA                                    | NA                                    |
| Student Generation Rates           | NA                                    | NA                                    |
| Incoming Out-of-District Transfers | Assumes relatively stable rate        | Assumes relatively stable rate        |

As the following graph illustrates, both local projections (conservative and moderate) forecast an increase across the 10 year period based upon the historical enrollment trends.





### 10 Year Enrollment Trends: Moderate and Conservative Compared

The chart below provides a simplified analysis of the increases anticipated across each of the planned grade structures for both the Conservative and Moderate projections.

| Change by Level          | Conservative | Moderate |
|--------------------------|--------------|----------|
| <b>Kindergarten Only</b> | 514          | 582      |
| Change                   | 90%          | 102%     |
| <b>Gr K-5</b>            | 3037         | 3542     |
| Change                   | 99%          | 115%     |
| <b>Gr 6-8</b>            | 1477         | 1771     |
| Change                   | 98%          | 117%     |
| <b>Gr 9-12</b>           | 1442         | 1657     |
| Change                   | 94%          | 108%     |
| <b>District</b>          | 5956         | 6970     |
| Change                   | 97%          | 114%     |

### Summary of District Projections by Year

The tables provided on the following pages present a more detailed annual view of projected changes by grade level clusters for both the Moderate and Conservative Projections.

The "Pct Previous Year" row represents the percent of the previous year's enrollment in each grade cluster that is projected in the subsequent year.

The "Five Year Change" row represents the percent change projected over the enrollment five years prior.



## Conservative Projection

| Change by Level   | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|
| Kindergarten Only | 571  | 548  | 546  | 545  | 545  | 540  | 534  | 529  | 524  | 519  | 514  |
| Pct Previous Year | 107% | 96%  | 100% | 100% | 100% | 99%  | 99%  | 99%  | 99%  | 99%  | 99%  |
| Five Year Change  |      |      |      |      |      | 95%  |      |      |      |      | 95%  |
| Gr K-5            | 3079 | 3066 | 3061 | 3072 | 3063 | 3106 | 3098 | 3105 | 3092 | 3067 | 3037 |
| Pct Previous Year | 100% | 100% | 100% | 100% | 100% | 101% | 100% | 100% | 100% | 99%  | 99%  |
| Five Year Change  |      |      |      |      |      | 101% |      |      |      |      | 98%  |
| Gr 6-8            | 1509 | 1478 | 1458 | 1399 | 1382 | 1365 | 1408 | 1416 | 1451 | 1457 | 1477 |
| Pct Previous Year | 99%  | 98%  | 99%  | 96%  | 99%  | 99%  | 103% | 101% | 102% | 100% | 101% |
| Five Year Change  |      |      |      |      |      | 90%  |      |      |      |      | 108% |
| Gr 9-12           | 1533 | 1390 | 1356 | 1375 | 1397 | 1402 | 1417 | 1405 | 1392 | 1419 | 1442 |
| Pct Previous Year | 95%  | 91%  | 98%  | 101% | 102% | 100% | 101% | 99%  | 99%  | 102% | 102% |
| Five Year Change  |      |      |      |      |      | 91%  |      |      |      |      | 103% |
| District          | 6121 | 5934 | 5875 | 5846 | 5842 | 5873 | 5923 | 5926 | 5935 | 5943 | 5956 |
| Pct Previous Year | 99%  | 97%  | 99%  | 100% | 100% | 101% | 101% | 100% | 100% | 100% | 100% |
| Five Year Change  |      |      |      |      |      | 96%  |      |      |      |      | 101% |

NOTE: Gray column most recent history year.



### Moderate Projection

| Change by Level   | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|
| Kindergarten Only | 571  | 570  | 584  | 594  | 599  | 596  | 593  | 591  | 588  | 585  | 582  |
| Pct Previous Year | 107% | 100% | 102% | 102% | 101% | 99%  | 99%  | 100% | 99%  | 99%  | 99%  |
| Five Year Change  |      |      |      |      |      | 104% |      |      |      |      | 98%  |
| Gr K-5            | 3079 | 3146 | 3229 | 3331 | 3407 | 3498 | 3530 | 3563 | 3570 | 3560 | 3542 |
| Pct Previous Year | 100% | 102% | 103% | 103% | 102% | 103% | 101% | 101% | 100% | 100% | 99%  |
| Five Year Change  |      |      |      |      |      | 114% |      |      |      |      | 101% |
| Gr 6-8            | 1509 | 1504 | 1512 | 1476 | 1487 | 1501 | 1578 | 1623 | 1697 | 1730 | 1771 |
| Pct Previous Year | 99%  | 100% | 101% | 98%  | 101% | 101% | 105% | 103% | 105% | 102% | 102% |
| Five Year Change  |      |      |      |      |      | 99%  |      |      |      |      | 118% |
| Gr 9-12           | 1533 | 1416 | 1411 | 1452 | 1507 | 1505 | 1519 | 1522 | 1536 | 1597 | 1657 |
| Pct Previous Year | 95%  | 92%  | 100% | 103% | 104% | 100% | 101% | 100% | 101% | 104% | 104% |
| Five Year Change  |      |      |      |      |      | 98%  |      |      |      |      | 110% |
| District          | 6121 | 6066 | 6152 | 6259 | 6401 | 6504 | 6627 | 6708 | 6803 | 6887 | 6970 |
| Pct Previous Year | 99%  | 99%  | 101% | 102% | 102% | 102% | 102% | 101% | 101% | 101% | 101% |
| Five Year Change  |      |      |      |      |      | 106% |      |      |      |      | 107% |

NOTE: Gray column most recent history year.

### ELEMENTARY SCHOOL EXISTING CONDITIONS:

A complete evaluation of all elementary school conditions are provided in the Facilities Assessment and District-Wide Facilities Master Plan developed by SchraderGroup Architecture and printed on September 27, 2012. The conditions of the facilities are referenced in the beginning of this section. The conclusion described in these documents notes substantial renovations required to bring the facilities up to current standards.

### CONCLUSION – DECISION TO CONSTRUCT NEW ELEMENTARY SCHOOLS AT RALPH WALDO EMERSON AND JAMES BUCHANAN SITES

Enrollment projections are increasing for BTSD. The conditions of the existing facility and the need for the District to reduce costs by consolidating facilities suggest that the construction of three new elementary schools to replace the nine aging facilities is the most cost effective solution. Further, the reconfiguration of the district from a K-6 to a K-5 structure allows the district to better utilize the available capacities at the existing Middle Schools. As a result, Bristol Township School District has elected to construct three new elementary schools in order to satisfy the needs of the district for the future. Further documentation of the process by which the District elected to begin this project is provided in Section IV.



## PART IV

Project Options Considered



## PROJECT OPTIONS CONSIDERED

### District-Wide Facilities Master Plan Options

In the August and September 2012 presentation of the Bristol Township School Facilities Assessment and District-Wide Facilities Master Plan by Schrader Group Architecture, LLC (SGA), a summary of options considered was included. These options were described as the product of a cooperative and coordinated effort between Bristol Township School District and SGA.

The planning team worked with District Administration, the Optimization Committee and educators to develop options under which the District might proceed in order to house the growing population. The team initiated that process using the Facilities Assessment information developed in Section 7 of the Facilities Assessment and District-Wide Facilities Master Plan. That provided the support information to develop the options and costs.

The District Goals and Objectives were listed as follows:

- Upgrade facilities to support twenty-first century learning environments
- Accommodate projected student enrollments
- Minimize disruption to students
- Minimize impact of construction activities on instructional programs
- Minimize combined cost of capital and operations
- Modernize facilities to serve a changing education system

The Options considered in the district-wide study were:

- **Warm, Safe, and Dry** (minimum issues to be addressed, such as high priority repairs and correcting code and security deficiencies). These are noted in the Volume 2 of the Facilities Assessment
- **Renovations Only** (no additions or improvements related to educational program support)
- **Additions and Alterations** (all recommended improvements plus additions to replace modular classroom units)
- **New Construction** (replacement of existing facilities with fewer new facilities)

As part of this process the team generated eight options for handling the growing enrollment. These were created with the input generated by the Optimization Committee, Administration as well as Primary and Secondary Grade Committees in an attempt to satisfy some of the concepts developed by their group.

The options that follow provide for a number of means of satisfying capacity needs within all of the current district facilities.



## Proposed Options

The eight options for development of the District Facilities are included below. Option 8 is the recommendation that the District is proceeding with.

## OPTIONS SUMMARY

|                         | Building/ Site          | New Grade Structure | Disposition                                 | Proposed Building Capacity | Design Dates | Construction Dates |
|-------------------------|-------------------------|---------------------|---------------------------------------------|----------------------------|--------------|--------------------|
| Current                 | Clara Barton            | K-6                 | Renovate                                    | 561                        | -            | -                  |
|                         | Buchanan                | K-6                 | Renovate                                    | 558                        | -            | -                  |
|                         | Ralph Waldo Emerson     | K-6                 | Renovate                                    | 392                        | -            | -                  |
|                         | John Fitch              | K-6                 | Renovate                                    | 392                        | -            | -                  |
|                         | Lafayette               | K-6                 | Renovate                                    | 392                        | -            | -                  |
|                         | Abraham Lincoln         | K-6                 | Renovate                                    | 335                        | -            | -                  |
|                         | Maple Shade             | K-6                 | Renovate                                    | 387                        | -            | -                  |
|                         | Mary Devine             | K-6                 | Renovate                                    | 392                        | -            | -                  |
|                         | George Washington       | K-6                 | Renovate                                    | 362                        | -            | -                  |
|                         | Armstrong Middle School | 7-8                 | Renovate                                    | 980                        | -            | -                  |
|                         | Roosevelt Middle School | 7-8                 | Renovate                                    | 881                        | -            | -                  |
|                         | Ben Franklin School     | Admin only          | -                                           | 0                          | -            | -                  |
|                         | Truman High School      | 9-12                | Renovate                                    | 2111                       | -            | -                  |
| TOTAL DISTRICT CAPACITY |                         |                     |                                             | 7743                       |              |                    |
| Option 1                | Clara Barton            | K-6                 | Renovate                                    | 561                        | 2014-2015    | 2015-2016          |
|                         | Buchanan                | K-6                 | Renovate/Add                                | 600                        | 2013-2014    | 2014-2015          |
|                         | Ralph Waldo Emerson     | K-6                 | Renovate/Add                                | 600                        | 2013-2014    | 2014-2015          |
|                         | John Fitch              | K-6                 | Renovate                                    | 392                        | 2015-2016    | 2016-2017          |
|                         | Lafayette               | K-6                 | Renovate                                    | 392                        | 2014-2015    | 2015-2016          |
|                         | Abraham Lincoln         | K-6                 | Renovate                                    | 335                        | 2015-2016    | 2016-2017          |
|                         | Maple Shade             | K-6                 | Renovate                                    | 387                        | 2015-2016    | 2016-2017          |
|                         | Mary Devine             | K-6                 | Renovate/Add                                | 600                        | 2013-2014    | 2014-2015          |
|                         | George Washington       | K-6                 | Renovate                                    | 362                        | 2014-2015    | 2015-2016          |
|                         | Armstrong Middle School | 7-8                 | Renovate                                    | 980                        | 2017-2018    | 2018-2019          |
|                         | Roosevelt Middle School | 7-8                 | Renovate                                    | 881                        | 2018-2019    | 2019-2020          |
|                         | Ben Franklin School     | -                   | District Admin - Operations and Maintenance | -                          | -            | -                  |
|                         | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
| TOTAL DISTRICT CAPACITY |                         |                     |                                             | 8201                       |              |                    |
| Option 2                | Clara Barton            | -                   | Operations and Maintenance                  | -                          | -            | -                  |
|                         | Buchanan                | K-6                 | Renovate/Add                                | 675                        | 2013-2014    | 2014-2015          |
|                         | Ralph Waldo Emerson     | K-6                 | Renovate/Add                                | 675                        | 2013-2014    | 2014-2015          |
|                         | John Fitch              | K-6                 | Renovate                                    | 392                        | 2015-2016    | 2016-2017          |
|                         | Lafayette               | K-6                 | Renovate/Add                                | 675                        | 2014-2015    | 2015-2016          |
|                         | Abraham Lincoln         | K-6                 | Renovate                                    | 335                        | 2015-2016    | 2016-2017          |
|                         | Maple Shade             | K-6                 | Renovate                                    | 387                        | 2015-2016    | 2016-2017          |
|                         | Mary Devine             | K-6                 | Renovate/Add                                | 675                        | 2014-2015    | 2015-2016          |
|                         | George Washington       | K-6                 | Renovate                                    | 362                        | 2015-2016    | 2016-2017          |
|                         | Armstrong Middle School | 7-8                 | Renovate                                    | 980                        | 2018-2019    | 2019-2020          |
|                         | Roosevelt Middle School | -                   | Close                                       | 0                          | -            | -                  |
|                         | Ben Franklin School     | 7-8/District Admin  | Renovate                                    | 581                        | 2017-2018    | 2018-2019          |
|                         | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
| TOTAL DISTRICT CAPACITY |                         |                     |                                             | 7848                       |              |                    |



## OPTIONS SUMMARY (continued)

|                         | Building/ Site          | New Grade Structure | Disposition                                 | Proposed Building Capacity | Design Dates | Construction Dates |
|-------------------------|-------------------------|---------------------|---------------------------------------------|----------------------------|--------------|--------------------|
| Option 3                | Clara Barton            | -                   | Operations and Maintenance                  | -                          | -            | -                  |
|                         | Buchanan                | K-6                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|                         | Ralph Waldo Emerson     | K-6                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|                         | John Fitch              | -                   | Close                                       | -                          | -            | -                  |
|                         | Lafayette               | -                   | Close                                       | -                          | -            | -                  |
|                         | Abraham Lincoln         | -                   | Close                                       | -                          | -            | -                  |
|                         | Maple Shade             | -                   | Close                                       | -                          | -            | -                  |
|                         | Mary Devine             | K-6                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|                         | George Washington       | -                   | Close                                       | -                          | -            | -                  |
|                         | Armstrong Middle School | 7-8                 | Renovate                                    | 980                        | 2017-2018    | 2018-2019          |
|                         | Roosevelt Middle School | 7-8                 | Renovate                                    | 881                        | 2018-2019    | 2019-2020          |
|                         | Ben Franklin School     | K-6/District Admin  | Renovate                                    | 581                        | 2015-2016    | 2016-2017          |
|                         | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
| TOTAL DISTRICT CAPACITY |                         |                     |                                             | 8153                       |              |                    |
| Option 4                | Clara Barton            | K-6                 | Renovate                                    | 561                        | 2014-2015    | 2015-2016          |
|                         | Buchanan                | K-6                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|                         | Ralph Waldo Emerson     | K-6                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|                         | John Fitch              | -                   | Close                                       | -                          | -            | -                  |
|                         | Lafayette               | -                   | Operations and Maintenance                  | -                          | -            | -                  |
|                         | Abraham Lincoln         | -                   | Close                                       | -                          | -            | -                  |
|                         | Maple Shade             | -                   | Close                                       | -                          | -            | -                  |
|                         | Mary Devine             | K-6                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|                         | George Washington       | -                   | Close                                       | -                          | -            | -                  |
|                         | Armstrong Middle School | 7-8                 | Renovate                                    | 980                        | 2016-2017    | 2017-2018          |
|                         | Roosevelt Middle School | -                   | Close                                       | -                          | -            | -                  |
|                         | Ben Franklin School     | 7-8/ District Admin | Renovate                                    | 581                        | 2015-2016    | 2016-2017          |
|                         | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
| TOTAL DISTRICT CAPACITY |                         |                     |                                             | 7833                       |              |                    |
| Option 5                | Clara Barton            | K-3                 | Renovate/Add                                | 675                        | 2013-2014    | 2014-2015          |
|                         | Buchanan                | K-3                 | Renovate/Add                                | 675                        | 2013-2014    | 2014-2015          |
|                         | Ralph Waldo Emerson     | K-3                 | Renovate                                    | 392                        | 2015-2016    | 2016-2017          |
|                         | John Fitch              | 4-6                 | Renovate/Add                                | 675                        | 2014-2015    | 2015-2016          |
|                         | Lafayette               | K-3                 | Renovate                                    | 392                        | 2015-2016    | 2016-2017          |
|                         | Abraham Lincoln         | 4-6                 | Renovate                                    | 335                        | 2016-2017    | 2017-2018          |
|                         | Maple Shade             | 4-6                 | Renovate                                    | 387                        | 2016-2017    | 2017-2018          |
|                         | Mary Devine             | -                   | Close                                       | 0                          | -            | -                  |
|                         | George Washington       | 4-6                 | Renovate/Add                                | 675                        | 2014-2015    | 2015-2016          |
|                         | Armstrong Middle School | 7-8                 | Renovate                                    | 980                        | 2017-2018    | 2018-2019          |
|                         | Roosevelt Middle School | 7-8                 | Renovate                                    | 881                        | 2018-2019    | 2019-2020          |
|                         | Ben Franklin School     | -                   | District Admin - Operations and Maintenance | -                          | -            | -                  |
|                         | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
| TOTAL DISTRICT CAPACITY |                         |                     |                                             | 8178                       |              |                    |
| Option 6                | Clara Barton            | -                   | Operations and Maintenance                  | -                          | -            | -                  |
|                         | Buchanan                | K-5                 | Renovate/ Add                               | 600                        | 2013-2014    | 2014-2015          |
|                         | Ralph Waldo Emerson     | K-5                 | Renovate/Add                                | 600                        | 2014-2015    | 2015-2016          |
|                         | John Fitch              | K-5                 | Renovate                                    | 392                        | 2014-2015    | 2015-2016          |
|                         | Lafayette               | K-5                 | Renovate/Add                                | 600                        | 2013-2014    | 2014-2015          |
|                         | Abraham Lincoln         | K-5                 | Renovate                                    | 335                        | 2014-2015    | 2015-2016          |
|                         | Maple Shade             | K-5                 | Renovate                                    | 387                        | 2016-2017    | 2017-2018          |
|                         | Mary Devine             | K-5                 | Renovate                                    | 392                        | 2016-2017    | 2017-2018          |
|                         | George Washington       | K-5                 | Renovate                                    | 362                        | 2013-2014    | 2014-2015          |
|                         | Armstrong Middle School | 6-8                 | Renovate                                    | 980                        | 2017-2018    | 2018-2019          |
|                         | Roosevelt Middle School | 6-8                 | Renovate                                    | 881                        | 2018-2019    | 2019-2020          |
|                         | Ben Franklin School     | -                   | District Admin                              | -                          | -            | -                  |
|                         | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
| TOTAL DISTRICT CAPACITY |                         |                     |                                             | 7640                       |              |                    |



## OPTIONS SUMMARY (continued)

|          | Building/ Site          | New Grade Structure | Disposition                                 | Proposed Building Capacity | Design Dates | Construction Dates |
|----------|-------------------------|---------------------|---------------------------------------------|----------------------------|--------------|--------------------|
| Option 7 | Clara Barton            | 3-5                 | Renovate                                    | 561                        | 2013-2014    | 2014-2015          |
|          | Buchanan                | 3-5                 | Renovate                                    | 558                        | 2014-2015    | 2015-2016          |
|          | Ralph Waldo Emerson     | 3-5                 | Renovate                                    | 392                        | 2016-2017    | 2017-2018          |
|          | John Fitch              | K-2                 | Renovate                                    | 392                        | 2014-2015    | 2015-2016          |
|          | Lafayette               | -                   | Operations and Maintenance                  | -                          | 2016-2017    | 2017-2018          |
|          | Abraham Lincoln         | K-2                 | Renovate                                    | 335                        | 2013-2014    | 2014-2015          |
|          | Maple Shade             | K-2                 | Renovate                                    | 387                        | 2016-2017    | 2017-2018          |
|          | Mary Devine             | 3-5                 | Renovate                                    | 392                        | 2014-2015    | 2015-2016          |
|          | George Washington       | K-2                 | Renovate/Add                                | 600                        | 2013-2014    | 2014-2015          |
|          | Armstrong Middle School | 6-8                 | Renovate                                    | 980                        | 2017-2018    | 2018-2019          |
|          | Roosevelt Middle School | 6-8                 | Renovate                                    | 881                        | 2018-2019    | 2019-2020          |
|          | Ben Franklin School     | -                   | District Admin                              | -                          | -            | -                  |
|          | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
|          | TOTAL DISTRICT CAPACITY |                     |                                             | 7589                       |              |                    |
| Option 8 | Clara Barton            | -                   | District Admin - Operations and Maintenance | -                          | -            | -                  |
|          | Buchanan                | K-5                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|          | Ralph Waldo Emerson     | K-5                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|          | John Fitch              | -                   | Close                                       | -                          | -            | -                  |
|          | Lafayette               | -                   | Close                                       | -                          | -            | -                  |
|          | Abraham Lincoln         | -                   | Close                                       | -                          | -            | -                  |
|          | Maple Shade             | -                   | Close                                       | -                          | -            | -                  |
|          | Mary Devine             | K-5                 | New                                         | 1200                       | 2013-2014    | 2014-2015          |
|          | George Washington       | -                   | Close                                       | -                          | -            | -                  |
|          | Armstrong Middle School | 6-8                 | Renovate                                    | 980                        | 2016-2017    | 2017-2018          |
|          | Roosevelt Middle School | -                   | Close                                       | -                          | -            | -                  |
|          | Ben Franklin School     | 6-8                 | Renovate/2nd fl                             | 900                        | 2015-2016    | 2016-2017          |
|          | Truman High School      | 9-12                | Renovate                                    | 2111                       | 2019-2020    | 2020-2021          |
|          | TOTAL DISTRICT CAPACITY |                     |                                             | 7591                       |              |                    |

### Buchanan Elementary Schematic Option

Concepts were developed for the potential design of new facilities at the Emerson, Buchanan and one other site in the District. These design concepts were reviewed with the various committees and narrowed down to one prototype concept which was adapted to the various sites.

The schematic option selected for further development incorporates a new 1,300 student elementary school on the existing Ralph Waldo Emerson Elementary School site. Note that Option 8 calls for 1,200 student schools. The District believed it wise to provide for some additional capacity at each school given the enrollment projection variations described in Section III of this document.

The refinement of Option 8 resulted in the Schematic Design drawings in the next section.



# PART V

Project Description



## PROJECT DESCRIPTION

### Introduction

This portion of the booklet identifies the work being completed for the proposed project. It also includes the Act 34 cost estimate for the project.

Information provided in this section is as follows:

- Project Design Description
- Site Plan
- Floor Plan
- Building Rendering
- Room Schedules and Adjustments
- Plancon D Cost Estimating

## PROJECT DESIGN – RALPH WALDO EMERSON ELEMENTARY SCHOOL

### Overview

### EDUCATIONAL SPECIFICATIONS

Ralph Waldo Emerson, James Buchanan and Mary Devine Elementary Schools will initially serve the local neighborhoods as K-6 buildings. Once the construction projects are complete students will be consolidated from all nine existing elementary schools into these three new elementary schools which, once the middle school projects are complete, will become K-5 elementary schools. If enrollments increase beyond what is expected, options include; adding new classrooms to one or more of the new buildings.

What follows is a generalized Educational Specification around which each of the three prototype buildings is designed.

Each building will be totally air-conditioned, sprinklered, and designed for handicap accessibility. Energy efficient lighting, HVAC and plumbing equipment will be installed as well.

Educational Specifications for the facility spaces are as follows:

### Kindergarten

The kindergarten will be housed in 9 full-day kindergarten rooms of approximately 1000 s.f. each. All classrooms will be located in the Primary grade portion of the building with access to the Kindergarten Large Group Instruction area and within short walking distance of the cafeteria and gymnasium. Each room will have a minimum of 26 open closet spaces with hooks and cubbies below. The cubbies will



have storage cabinets above. Markerboards and tack boards will be provided, mounted at heights appropriate to kindergarten students.

A shared bathroom for each set of classrooms will be provided at the Primary grade level.

Each classroom will feature a sink with both hot and cold water as well as a bubbler. Casework will include two lockable letter files, lockable storage cabinets, mapfiles, new bookshelves, Markerboards with tack boards will be included. Classroom tack strips above the markerboards will accommodate 18" high alphabet.

A computer work station will be provided at the teacher's desk area. New furniture for the teachers will be included as well as new student desks. Each room will be prepared for installation of "smartboards" or projectors and whiteboards, which will be installed into classrooms as the District purchases them. Accommodation for a portable amplification system will be provided for the hearing impaired.

Classrooms will be a wireless environment and overhead wall mounts for LED projectors. Dual level lighting and occupancy sensor lighting controls will also be included.

Roll-up shades will be provided at the exterior windows and privacy blinds will be provided on the sidelights at the corridor doors.

### **First and Second Grade Classrooms**

The first and second grade structure will be housed in classrooms of approximately 850 s.f. each. All classrooms will be located in the Primary Grade portion of the building with access to the Primary Large Group Instruction area and within short walking distance of the cafeteria and gymnasium. Each room will have a minimum of 29 open closet spaces with hooks and cubbies below. The cubbies will have storage cabinets above. Markerboards and tack boards will be provided, mounted at heights appropriate to kindergarten students.

A bathroom for each set of the classrooms at the primary level will be provided.

Each classroom will feature a sink with both hot and cold water as well as a bubbler. Casework will include two lockable letter files, lockable storage cabinets, mapfiles, new bookshelves, Markerboards with tack boards will be included. Classroom tack strips above the markerboards will accommodate 18" high alphabet.

A computer work station will be provided at the teacher's desk area. New furniture for the teachers will be included as well as new student desks. Each room will be prepared for installation of "smartboards" or projectors and whiteboards, which will be installed into classrooms as the District purchases them. Accommodation for a portable amplification system will be provided for the hearing impaired.

Classrooms will be a wireless environment and overhead wall mounts for LED projectors. Dual level lighting and occupancy sensor lighting controls will also be included.

Roll-up shades will be provided at the exterior windows and privacy blinds will be provided on the sidelights at the corridor doors.



### **Intermediate Third through Fifth Grade Classrooms**

Classrooms for grades three through five will be consistent for flexibility in assignment, based on fluctuating needs year to year. The Classrooms are essentially set up in clusters or groupings to allow grade groupings around a large group instruction area.

All rooms will have resilient tile or rolled product flooring.

Each classroom will feature a sink with both hot and cold water as well as a bubbler. Casework will include two lockable letter files, lockable storage cabinets, new bookshelves, and "mailbox" cubbies for twenty five students. Markerboards with tack boards will be included and will be mounted at age appropriate heights. Classroom tack strips above the markerboards will accommodate 18" high alphabet.

Provide unobstructed open backpack storage hanger area. Provide doors in front of the storage area.

A computer work station will be provided at the teacher's desk area. New furniture for the teachers will be included as well as new student desks. Each room will be prepared for installation of "smartboards", which will be installed into classrooms as the District purchases them. Accommodation for a portable amplification system will be provided for the hearing impaired.

Classrooms will be wireless. Dual level lighting and occupancy sensor lighting controls will also be included.

Roll-up shades will be provided at the exterior windows and privacy blinds will be provided on the sidelights at the corridor doors.

The Intermediate Grade structure will use community use bathrooms that are clustered with grouping of classrooms.

### **Special Education and Support Classrooms:**

Centers will be developed at all three buildings. The Centers will be use specific and will be specifically located by the District. One building will provide a Center for Life Skills, one for Emotional Support and one for Autistic Support. 100-140 students will utilize these centers per building.

#### **Full time Special Ed – broken up between the three proposed buildings**

##### **Building 1**

Autistic Support – provide 5 full size (scattered throughout the building by grade) Autistic Support rooms, all with a bathroom.

Sensory Room – provide 1 full size (attached between two Autistic rooms in lower grades) sensory room with a bathroom.

##### **Building 2**

Life Skills – provide 3 full size Life Skills rooms (include bathrooms, kitchen and laundry etc – provide a suite for these)

Language Learning – provide 3 full size Language Learning Rooms in the same building as Life Skills



### Building 3

Emotional Support – full size Emotional Support Rooms will be provided (for paired grades). Couple these classrooms with another room in order to allow for two way window for observation.

These rooms will be fitted out exactly as the traditional classrooms described above except where it is noted that these rooms must be specially adapted above.

### Learning Support Programs

Full size Learning Support classrooms will be provided at each of the buildings – The rooms shall support Reading 180/System 44 programs.

Small Group Instruction Classrooms (SGIs will be provided) – The shall be considered half classrooms and several of these can be fitted out with folding partitions. At each building provide – ELL SGI (quantity 2 - one in each level), Gifted SGI for K-2 grade structure, Gifted SGI for 3-5 grade structure, Title 1 SGI (quantity 2), Special Ed Resource SGI (quantity of 6 (one per grade), Speech SGI (quantity - 2 ), 1 SGI additional.

Each Special Education room will include the same type of casework and equipment items as the regular classrooms. In addition, there will be a second desk for an aide. Student furniture will include half-circle tables or similar, and accommodate seating students in groups by grade level.

Wireless technology shall be provided in all rooms described above..

### Large Group Instruction Spaces:

Several Large Group Instruction Spaces will be located strategically throughout the building to provide for gathering of larger groups of students. Each will be provided with hot and cold water, a bubbler and cabinetry for storage. The LGIs will receive carpet for sitting comfort and will have durable finishes on the walls. Marker Boards and tack boards will be provided throughout and capability will be provided for smart board technology.

### Art Classroom:

The Art Classrooms will be located in the core area. The two classrooms will be gathered around one set of art storage kiln space etc. (2 kilns). This will allow equal access by both primary as well as the intermediate programs without the students having to interfere with the programs of one or the other. Built-in casework will be provided including wall mounted storage cabinets. In each art classroom; a kiln will be included and located to provide exhaust ventilation, safety, and security. Shelving will be provided in the art storage area and additional storage will be provided for three-dimensional project storage, flat files, and clay cart storage. Additional material storage will be located in an adjacent storage room. Drying racks will be provided. Tack surface on the closet doors.

Tall storage cabinets will have doors equipped for tack display space, accessible by students.

New countertop sinks with both hot and cold water will be provided. Two sets of sinks, separate drains with clay traps.



Additional power and data outlets will be provided at multiple locations. Wireless technology will also be provided.

36" deep student tables are preferred. An ADA accessible table needs to be provided.

A number of display cases and tack display boards for display of student work need to be provided in the corridors.

Daylighting is important.

New flooring will be resilient tile. Stain resistance and ease of maintenance will be special considerations in this area.

#### **Music Instruction Rooms:**

The music rooms will serve the purpose of supporting the music programs for both the K-2 and the 3-5 programs specifically.

Carpet and acoustical wall panels will be utilized in the spaces.

Marker boards and tack boards will be installed as well as a local sound system.

Instrumental music may start in the third grade. Storage for classrooms implements is important. Shelving and storage cabinetry must be provided. Include an area for piano.

Provide acoustic doors.

Computer and wireless for the classrooms.

#### **Physical Education:**

Provide separate community access for the Phys Ed and cafeteria areas so these spaces can be closed off during the day for use by community. The space should also be accessible at night.

A gymnasium will be provided for physical education. It will be centrally located in the building and will be provided with a folding partition or curtain so that it can be used either by the two separate educational programs or can be combined to provide a full size middle school sized play area. The gymnasium will be separated from educational areas by door systems to allow the facility to be used by the district and community at night. Toilet rooms are adjacent to the gymnasium for nighttime functions. The room will not be sized for limited spectator events. There are no locker rooms nor shower facilities.

The gymnasium flooring will be wood.

Basketball backstops, and wall-mounted crash pads will be included as will volleyball equipment.

Provide an instructor office.

Provide gymnasium storage.



The Stage will be between the Gymnasium and the Cafeteria with folding partitions between.

The room will be designed to take advantage of diffused natural daylight where possible.

#### **Media Center:**

The school media center will be located on the ground floor at the core of the building. This space will be equally accessible to the K-2 as well as to the 3-5 building so as to allow use by either group or both. Two separate instruction stations will be provided to allow for use by two groups at one time. Library equipment and furnishings will be provided. Additional storage casework will be provided to match this equipment. The library shelving will be considerate of the range of age groups of the students.

The library will include additional power and data outlets, and handicap accessible furnishings. A section of the library will be established as a separate computer instruction area (with glass between) in class to support the digital curriculum

The media center shall be carpeted.

Provide a tiered story time area.

The library office and work room will be located adjacent to both the library and the computer room for access and supervision.

Provide whiteboards and projectors.

The Computer Room will be carpeted and will also receive energy efficient lighting, additional power and data outlets, and accessible furnishings.

#### **Administration and Pupil Services:**

A unified main office will be provided capable of serving the administrations for K-2 and 3-5. Provide for two administrators. Guidance office, IST, Social Worker Space, Psychologist office for testing, Conference space (15 person space), two secretaries, file rooms, copy work room, bathroom. The main entrance will be designed to provide a security vestibule.

A security vestibule will be provided that controls visitor access to the school through the office. This provides supervised access to be controlled by office personnel.

The work area will include file storage, supply storage, work counter, copier, fax, and teachers' mailboxes.

#### **Nurse:**

The nurse's office will be adjacent to the main office. This location will be convenient to the classrooms, the cafeteria, the gymnasium, and the main office, and is located at the main entrance for student pick-up or ambulance service.



The nurse's office will include a handicap accessible privacy toilet within the space. Storage for a wheelchair, vision/hearing testing equipment, and secure records must be provided. An enclosed office will be provided for the nurse. Medical cabinets with metal countertops should be provided. Rest area for 5 beds. An exam room shall also be provided.

#### **Faculty Work Rooms:**

Faculty work rooms will be located on two floors. Each will serve as copy center for the respective floor that it is located adjacent to. Multiple copiers shall be provided throughout.

Provide bathrooms in each faculty work room.

#### **Faculty Lunch Room:**

One Faculty Lunch rooms will be provided adjacent to the cafeteria. The Faculty Lunch Room will be provided with sink and space for several refrigerators as well as a power outlet for several microwaves. The facility will be located in close proximity to the cafeteria and kitchen.

Provide faculty bathrooms in the Faculty Lunch Room.

#### **Kitchen:**

The kitchen will meet current standards and requirements. New equipment as well as refrigerated and dry storage will be provided as well as two sets of single line service, feeding into two separate cafeterias. This will be a full prep kitchen. The district Breakfast program is very large. Up to 60% of students currently take advantage of this program.

#### **Cafeteria and Stage:**

The cafeteria will receive rubber flooring. A folding partition must be provided between the cafeteria areas in order to allow for the gathering of a large portion of the student body. This folding partition will be provided to break down the size of the cafeteria in order to allow it to accommodate the K-2 and 3-5 program as two different groups. Two central cafeteria services lines will be provided with one access to each of the two cafeterias. Groupings of round tables will be provided of various sizes to allow different size student groups to sit together.

#### **Stage:**

The elevated platform stage will be equipped with classroom lighting and will be treated acoustically. Stage curtains, side valences, proscenium curtain, back curtain and several tracks of stage rigging will be provided. The stage will also be provided with an amplified sound system for mini productions. Provide Projectors and screen on both sides.



### **Toilet Rooms:**

The community toilet rooms will be designed to accommodate the handicapped. Durable finishes, lighting and ventilation will be included. One of the sets of community toilets will also serve the nighttime functions in the cafeteria and gym.

### **Corridors:**

The corridors are designed with resilient tile flooring. An upgrade to be provided through add/alternate will be for terrazzo tile. Display cases and tack boards will be added throughout the facility.

### **Book Storage Room:**

Provide a resource storage area. Also provide an overall building supply closet.

### **Exterior**

Provide trees and landscaping outside.

Primary and secondary playgrounds shall be separate. If possible, provide awnings on the recess area for shade. Hard play areas shall be provided. Playing field area and bases for kickball shall be provided. No softball or baseball backstops are required at this level.

Covered walkways from bus drop off shall be provided. Separate bus and parent drop off will be accommodated so the two traffic patterns don't cross.

Parking will be accommodated in a large parking lot landscaped per local ordinance.

The project site plans, floor plans and elevations are as follows:





- ADMIN
- ART
- CIRCULATION
- CLASSROOMS
- COMPUTER CLASSROOM
- DINING
- GYMNASIUM
- MEDIA CENTER
- MUSIC
- NURSE
- SMALL GROUP INSTRUCTION
- SPECIAL EDUCATION
- SUPPORT





Rendered View of the Proposed Main Entry during the day



Rendered View of the Proposed Main Entry in the evening



Rendered View of the Proposed Student Entry during the day



Rendered View of the Proposed Student Entry in the evening



## ROOM SCHEDULE AND ADJUSTMENTS

The following pages are from the Pennsylvania Department of Education's Planning and Construction Workbook for reimbursable projects. They indicate the "schedule" or list of rooms planned as a result of this project and the corresponding "full-time equivalent" (FTE) capacity. The total FTE is then adjusted for Special Education Classrooms and Resource Rooms, and the project Enrollment-to-Capacity Ratios.

The Plancon A Elementary Room Schedule is provided on the following pages. The Plancon A pages generate the PDE FTE Capacity as well as the PDE generated square footage comparisons. These numbers are used in the Plancon D pages that follow.



| ELEMENTARY ROOM SCHEDULE FOR PROJECT BUILDING (1 OF 2) |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
|--------------------------------------------------------|--------------------|----------------------------------------------|-----------------------|------------------------|---------------------------------------|-----------------------|-----------------------|------------------------|---------------------|-------------------------------------|---------------------|
| District/CTC:<br>Bristol Township School District      |                    |                                              |                       |                        | Ralph Waldo Emerson Elementary School |                       |                       |                        |                     | Grades: <u>  K  </u> - <u>  5  </u> |                     |
|                                                        |                    | PROJECT PLANNED SPACES - SCHEDULED AREA ONLY |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
|                                                        |                    | EXISTING                                     |                       |                        |                                       | NEW                   |                       |                        |                     | TOTAL                               |                     |
| #1                                                     | #2                 | #3                                           | #4                    | #5                     | #6                                    | #7                    | #8                    | #9                     | #10                 | #11                                 | #12                 |
| NAME OF SPACE                                          | UNIT<br>FTE<br>CAP | UNIT<br>AREA<br>SQ FT                        | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP                   | UNIT<br>AREA<br>SQ FT | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP | TOTAL<br>AREA<br>SQ FT              | TOTAL<br>FTE<br>CAP |
| LIBRARY                                                | XXX                |                                              |                       |                        | XXXX                                  | 3,000                 | 1.0                   | 3,000                  | XXXX                | 3,000                               | XXXXX               |
| HALF-TIME KINDRGRTN                                    | 50                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| HALF-TIME KINDRGRTN                                    | 50                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| HALF-TIME KINDRGRTN                                    | 50                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| FULL-TIME KINDRGRTN                                    | 25                 |                                              |                       |                        |                                       | 1,000                 | 9.0                   | 9,000                  | 225                 | 9,000                               | 225                 |
| FULL-TIME KINDRGRTN                                    | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| FULL-TIME KINDRGRTN                                    | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       | 850                   | 41.0                  | 34,850                 | 1,025               | 34,850                              | 1,025               |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| REG CLSRM 660+ SQ FT                                   | 25                 |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| SPECIAL ED ROOMS                                       | XXX                | SEE PAGE A18                                 |                       |                        |                                       | SEE PAGE A18          |                       |                        |                     | XXXXXX                              | XXXXX               |
| SMALL GROUP <850 SQ FT                                 | XXX                |                                              |                       |                        | XXXX                                  | 425                   | 11.0                  | 4,675                  | XXXX                | 4,675                               | XXXXX               |
| SMALL GROUP <850 SQ FT                                 | XXX                |                                              |                       |                        | XXXX                                  |                       |                       |                        | XXXX                |                                     | XXXXX               |
| LARGE GROUP INS 850+ SQ FT                             | XXX                |                                              |                       |                        | XXXX                                  | 1,200                 | 2.0                   | 2,400                  | XXXX                | 2,400                               | XXXXXX              |
| LARGE GROUP INS 850+ SQ FT                             | XXX                |                                              |                       |                        | XXXX                                  |                       |                       |                        | XXXX                |                                     | XXXXXX              |
| ALTERNATIVE ED ROOM 660+ SQ FT                         | XXX                |                                              |                       |                        | XXXX                                  |                       |                       |                        | XXXX                |                                     | XXXXXX              |
| OTHER: SGI                                             |                    |                                              |                       |                        |                                       | 780                   | 1.0                   | 780                    |                     | 780                                 |                     |
| OTHER:                                                 |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| OTHER:                                                 |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| OTHER:                                                 |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| OTHER:                                                 |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| OTHER:                                                 |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| OTHER:                                                 |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| OTHER:                                                 |                    |                                              |                       |                        |                                       |                       |                       |                        |                     |                                     |                     |
| PAGE A11 SUBTOTAL                                      | XXX                | XXXXX                                        | XXXXXX                |                        |                                       | XXXXX                 | XXXXXX                | 54,705                 | 1,250               | 54,705                              | 1,250               |

REVISED JULY 1, 2010

FORM EXPIRES 6-30-12

PLANCON-A11



| ELEMENTARY ROOM SCHEDULE FOR PROJECT BUILDING (2 OF 2) |                    |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
|--------------------------------------------------------|--------------------|----------------------------------------------|-----------------------|------------------------|---------------------|---------------------------------------|-----------------------|------------------------|---------------------|-------------------------|---------------------|
| District/CTC:<br>Bristol Township School District      |                    |                                              |                       |                        |                     | Ralph Waldo Emerson Elementary School |                       |                        |                     | Grades:<br><u>K - 5</u> |                     |
|                                                        |                    | PROJECT PLANNED SPACES - SCHEDULED AREA ONLY |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
|                                                        |                    | EXISTING                                     |                       |                        |                     | NEW                                   |                       |                        |                     | TOTAL                   |                     |
| #1                                                     | #2                 | #3                                           | #4                    | #5                     | #6                  | #7                                    | #8                    | #9                     | #10                 | #11                     | #12                 |
| NAME OF SPACE                                          | UNIT<br>FTE<br>CAP | UNIT<br>AREA<br>SQ FT                        | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP | UNIT<br>AREA<br>SQ FT                 | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP | TOTAL<br>AREA<br>SQ FT  | TOTAL<br>FTE<br>CAP |
| COMPUTER ROOM                                          | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| COMPUTER ROOM                                          | XXX                |                                              |                       |                        | XXXX                | 660                                   | 1.0                   | 660                    | XXXX                | 660                     | XXXXX               |
| COMPUTER ROOM                                          | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| ART ROOM                                               | XXX                |                                              |                       |                        | XXXX                | 1,000                                 | 2.0                   | 2,000                  | XXXX                | 2,000                   | XXXXX               |
| ART ROOM                                               | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| ART ROOM                                               | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| MUSIC ROOM                                             | XXX                |                                              |                       |                        | XXXX                | 1,000                                 | 2.0                   | 2,000                  | XXXX                | 2,000                   | XXXXX               |
| MUSIC ROOM                                             | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| MUSIC ROOM                                             | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| OTHER: _____                                           | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| OTHER: _____                                           | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| MULTI-PURPOSE RM                                       | XXX                |                                              |                       |                        | XXXX                | 6,800                                 | 1.0                   | 6,800                  | XXXX                | 6,800                   | XXXXX               |
| STAGE/PLATFORM                                         | XXX                |                                              |                       |                        | XXXX                | 1,200                                 | 1.0                   | 1,200                  | XXXX                | 1,200                   | XXXXX               |
| LOCKER ROOM, DRYING<br>& SHOWER RM - BOYS              | XXX<br>XXX         |                                              |                       |                        | XXXX<br>XXXX        |                                       |                       |                        | XXXX<br>XXXX        |                         | XXXXX<br>XXXXX      |
| LOCKER ROOM, DRYING<br>& SHOWER RM - GIRLS             | XXX<br>XXX         |                                              |                       |                        | XXXX<br>XXXX        |                                       |                       |                        | XXXX<br>XXXX        |                         | XXXXX<br>XXXXX      |
| NATATORIUM                                             | XXX                | SEE PAGE A19                                 |                       |                        |                     | SEE PAGE A19                          |                       |                        |                     |                         | XXXXX<br>XXXXX      |
| KITCHEN & STORAGE<br># OF SERVINGS: <u>3</u>           | XXX<br>XXX         |                                              |                       |                        | XXXX<br>XXXX        |                                       |                       |                        | XXXX<br>XXXX        |                         | XXXXX<br>XXXXX      |
| MEALS PREPARED PER<br>SERVING: <u>450</u>              | XXX<br>XXX         |                                              |                       |                        | XXXX<br>XXXX        | 4,900                                 | 1.0                   | 4,900                  | XXXX<br>XXXX        | 4,900                   | XXXXX<br>XXXXX      |
| CAFETERIA<br>TO SEAT: <u>450</u>                       | XXX<br>XXX         |                                              |                       |                        | XXXX<br>XXXX        | 8,100                                 | 1.0                   | 8,100                  | XXXX<br>XXXX        | 8,100                   | XXXXX<br>XXXXX      |
| FACULTY DINING ROOM                                    | XXX                |                                              |                       |                        | XXXX                | 850                                   | 1.0                   | 850                    | XXXX                | 850                     | XXXXX               |
| FACULTY ROOM                                           | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| HEALTH SUITE(NURSE)                                    | XXX                |                                              |                       |                        | XXXX                | 850                                   | 1.0                   | 850                    | XXXX                | 850                     | XXXXX               |
| BLDG ADMIN/GUIDANCE<br>TOTAL STAFF: <u>6</u>           | XXX<br>XXX         |                                              |                       |                        | XXXX<br>XXXX        | 1,500                                 | 1.0                   | 1,500                  | XXXX<br>XXXX        | 1,500                   | XXXXX<br>XXXXX      |
| OTHER: <u>Teacher Work room</u>                        | XXX                |                                              |                       |                        | XXXX                | 425                                   | 5.0                   | 2,125                  | XXXX                | 2,125                   | XXXXX               |
| OTHER: _____                                           | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| OTHER: _____                                           | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| OTHER: _____                                           | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| OTHER: _____                                           | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXX               |
| PAGE A12 SUBTOTAL                                      | XXX                | XXXXX                                        | XXXXX                 |                        | XXXX                | XXXXX                                 | XXXXX                 | 30,985                 | XXXX                | 30,985                  | XXXXX               |
| PAGE A11 SUBTOTAL                                      | XXX                | XXXXX                                        | XXXXX                 |                        |                     | XXXXX                                 | XXXXX                 | 54,705                 | 1,250               | 54,705                  | 1,250               |
| BUILDING TOTAL                                         | XXX                | XXXXX                                        | XXXXX                 |                        |                     | XXXXX                                 | XXXXX                 | 85,690                 | 1,250               | 85,690                  | 1,250               |

REVISED JULY 1, 2010

FORM EXPIRES 6-30-12

PLANCON-A12



| ROOM SCHEDULE ADJUSTMENTS                         |                    |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
|---------------------------------------------------|--------------------|----------------------------------------------|-----------------------|------------------------|---------------------|---------------------------------------|-----------------------|------------------------|---------------------|-------------------------|---------------------|
| District/CTC:<br>Bristol Township School District |                    |                                              |                       |                        |                     | Ralph Waldo Emerson Elementary School |                       |                        |                     | Grades:<br><u>K - 5</u> |                     |
|                                                   |                    | PROJECT PLANNED SPACES - SCHEDULED AREA ONLY |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
|                                                   |                    | EXISTING                                     |                       |                        |                     | NEW                                   |                       |                        |                     | TOTAL                   |                     |
| #1                                                | #2                 | #3                                           | #4                    | #5                     | #6                  | #7                                    | #8                    | #9                     | #10                 | #11                     | #12                 |
| NAME OF SPACE                                     | UNIT<br>FTE<br>CAP | UNIT<br>AREA<br>SQ FT                        | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP | UNIT<br>AREA<br>SQ FT                 | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP | TOTAL<br>AREA<br>SQ FT  | TOTAL<br>FTE<br>CAP |
| <b>ELEMENTARY</b>                                 | XXX                | XXXXX                                        | XXXXX                 | XXXXX                  | XXXXX               | XXXXX                                 | XXXXX                 | XXXXX                  | XXXXX               | XXXXXX                  | XXXXXX              |
| PROJECT ELEM CAP                                  | XXX                | XXXXX                                        | XXXXX                 |                        |                     | XXXXX                                 | XXXXX                 | 85,690                 | 1,250               | 85,690                  | 1,250               |
| KINDERGARTEN DEDUCT<br>FOR HALF-TIME PRGM         | -25                | XXXXX                                        |                       | XXXXX                  |                     | XXXXX                                 |                       | XXXXX                  |                     | XXXXXXX                 |                     |
| ADJUSTED ELEM CAP                                 | XXX                | XXXXX                                        | XXXXX                 | XXXXX                  |                     | XXXXX                                 | XXXXX                 | XXXXX                  | 1,250               | XXXXXXX                 | 1,250               |
| ENR/CAP ADJ FACTOR                                | XXX                | XXXXX                                        | XXXXX                 | XXXXX                  | 0.9936              | XXXXX                                 | XXXXX                 | XXXXX                  | 0.9936              | XXXXXXX                 | 0.9936              |
| JUSTIFIED ELEM                                    | XXX                | XXXXX                                        | XXXXX                 | XXXXX                  |                     | XXXXX                                 | XXXXX                 | XXXXX                  | 1,242               | XXXXXXX                 | 1,242               |
| REG PRE-SCHOOL 660+*                              | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED PRE-SCHOOL 660+*                            | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     | 850                                   | 6.0                   | 5,100                  | 150                 | 5,100                   | 150                 |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED RESOURCE<br>ROOM > 400 SQ FT                | **                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         | (MAX=25)            |
| SP ED RESOURCE<br>ROOM > 400 SQ FT                | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXXX              |
| SP ED < 401 SQ FT                                 | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXXX              |
| SP ED < 401 SQ FT                                 | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXXX              |
| ADJUSTED ELEMENTARY                               | XXX                | XXXXX                                        | XXXXX                 |                        |                     | XXXXX                                 | XXXXX                 | 90,790                 | 1,392               | 90,790                  | 1,392               |
| <b>MIDDLE/SECONDARY</b>                           | XXX                | XXXXX                                        | XXXXX                 | XXXXX                  | XXXXX               | XXXXX                                 | XXXXX                 | XXXXX                  | XXXXX               | XXXXXX                  | XXXXXX              |
| PROJECT MS/SEC UTIL                               | XXX                | XXXXX                                        | XXXXX                 |                        |                     | XXXXX                                 | XXXXX                 |                        |                     |                         |                     |
| ENR/CAP ADJ FACTOR                                | XXX                | XXXXX                                        | XXXXX                 | XXXXX                  | 0.9936              | XXXXX                                 | XXXXX                 | XXXXX                  | 0.9936              | XXXXXX                  | 0.9936              |
| JUSTIFIED MS/SEC                                  | XXX                | XXXXX                                        | XXXXX                 | XXXXX                  |                     | XXXXX                                 | XXXXX                 | XXXXX                  |                     | XXXXXX                  |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED 660+ SQ FT                                  | 25                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         |                     |
| SP ED RESOURCE<br>ROOM > 400 SQ FT                | **                 |                                              |                       |                        |                     |                                       |                       |                        |                     |                         | (MAX=25)            |
| SP ED RESOURCE<br>ROOM > 400 SQ FT                | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXXX              |
| SP ED < 401 SQ FT                                 | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXXX              |
| SP ED < 401 SQ FT                                 | XXX                |                                              |                       |                        | XXXX                |                                       |                       |                        | XXXX                |                         | XXXXXX              |
| ADJUSTED MS/SEC                                   | XXX                | XXXXX                                        | XXXXX                 |                        |                     | XXXXX                                 | XXXXX                 |                        |                     |                         |                     |

\* Regular and Special Education Pre-School rooms must meet the requirements addressed in the Part A instructions. Verification that the requirements will be met must be submitted with Part A.

\*\* Justified Elementary or Middle/Secondary Capacity (Col. 12) divided by 25. The maximum capacity that may be reported in column #12 is 25. See Part A instructions for a more detailed explanation.

REVISED JULY 1, 2010

FORM EXPIRES 6-30-12

PLANCON-A18



| PROJECT FULL TIME EQUIVALENTS                     |                    |                                              |                       |                                       |                     |                       |                       |                        |                     |                        |                     |
|---------------------------------------------------|--------------------|----------------------------------------------|-----------------------|---------------------------------------|---------------------|-----------------------|-----------------------|------------------------|---------------------|------------------------|---------------------|
| District/CTC:<br>Bristol Township School District |                    |                                              |                       | Ralph Waldo Emerson Elementary School |                     |                       |                       |                        |                     | Grades:<br>K - 5       |                     |
|                                                   |                    | PROJECT PLANNED SPACES - SCHEDULED AREA ONLY |                       |                                       |                     |                       |                       |                        |                     |                        |                     |
|                                                   |                    | EXISTING                                     |                       |                                       |                     | NEW                   |                       |                        |                     | TOTAL                  |                     |
| #1                                                | #2                 | #3                                           | #4                    | #5                                    | #6                  | #7                    | #8                    | #9                     | #10                 | #11                    | #12                 |
| NAME OF SPACE                                     | UNIT<br>FTE<br>CAP | UNIT<br>AREA<br>SQ FT                        | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT                | TOTAL<br>FTE<br>CAP | UNIT<br>AREA<br>SQ FT | NUMBER<br>OF<br>UNITS | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP | TOTAL<br>AREA<br>SQ FT | TOTAL<br>FTE<br>CAP |
| ADJUSTED ELEMENTARY                               | XXX                | XXXXX                                        | XXXX                  |                                       |                     | XXXX                  | XXXX                  | 90,790                 | 1,392               | 90,790                 | 1,392               |
| ADJUSTED MS/SEC                                   | XXX                | XXXXX                                        | XXXX                  |                                       |                     | XXXXX                 | XXXX                  |                        |                     |                        |                     |
| NATATORIUM *                                      |                    | XXXXX                                        | XXXX                  |                                       |                     | XXXX                  | XXXX                  |                        |                     |                        |                     |
| NATATORIUM LOCKER                                 |                    |                                              |                       |                                       | XXXXX               |                       |                       |                        | XXXXX               |                        | XXXXXX              |
| ROOM, DRYING &<br>SHOWER RM - BOYS                | XXX                | XXXXX                                        | XXXX                  |                                       | XXXXX               | XXXX                  | XXXX                  |                        | XXXXX               |                        | XXXXXX              |
|                                                   | XXX                | XXXXX                                        | XXXX                  |                                       | XXXXX               | XXXX                  | XXXX                  |                        | XXXXX               |                        | XXXXXX              |
| NATATORIUM LOCKER                                 |                    |                                              |                       |                                       | XXXXX               |                       |                       |                        | XXXXX               |                        | XXXXXX              |
| ROOM, DRYING &<br>SHOWER RM - GIRLS               | XXX                | XXXXX                                        | XXXX                  |                                       | XXXXX               | XXXX                  | XXXX                  |                        | XXXXX               |                        | XXXXXX              |
|                                                   | XXX                | XXXXX                                        | XXXX                  |                                       | XXXXX               | XXXX                  | XXXX                  |                        | XXXXX               |                        | XXXXXX              |
| DIST ADMIN OFFICE                                 | XXX                | XXXXX                                        | XXXX                  |                                       |                     | XXXX                  | XXXX                  |                        |                     |                        |                     |
| VOCATIONAL                                        | XXX                | XXXXX                                        | XXXX                  |                                       |                     | XXXX                  | XXXX                  |                        |                     |                        |                     |
| PRJT BUILDING TOTAL                               | XXX                | XXXXX                                        | XXXX                  |                                       | XXXXX               | XXXX                  | XXXX                  | 90,790                 | XXXXX               | 90,790                 | XXXXXX              |

\* REFER TO THE PART A INSTRUCTIONS TO DETERMINE IF CAPACITY SHOULD BE ASSIGNED.



| PROJECT ACCOUNTING BASED ON ESTIMATES (1 of 2)                                                                                                                |             |                                                     |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------|------------|
| District/OTC:<br>Bristol Township School District                                                                                                             |             | Project #:<br>Ralph Waldo Emerson Elementary School |            |
| ROUND FIGURES TO NEAREST DOLLAR                                                                                                                               |             |                                                     |            |
| PROJECT COSTS                                                                                                                                                 | NEW         | EXISTING                                            | TOTAL      |
| <b>A. STRUCTURE COSTS</b> (include site development)                                                                                                          |             |                                                     |            |
| 1. General (Report costs for sanitary sewage disposal on line E-1.)                                                                                           | 19,539,964  |                                                     | 19,539,964 |
| 2. Heating and Ventilating                                                                                                                                    | 5,682,543   |                                                     | 5,682,543  |
| 3. Plumbing (Report costs for sanitary sewage disposal on line E-1.)                                                                                          | 1,986,331   |                                                     | 1,986,331  |
| 4. Electrical                                                                                                                                                 | 3,979,026   |                                                     | 3,979,026  |
| 5. Asbestos Abatement (D04, line C-3)                                                                                                                         | X X X X X X |                                                     |            |
| 6. Building Purchase Amount                                                                                                                                   | X X X X X X |                                                     |            |
| 7. Other * (Exclude test borings and site survey)                                                                                                             |             |                                                     |            |
| a. _____                                                                                                                                                      |             |                                                     |            |
| b. _____                                                                                                                                                      |             |                                                     |            |
| c. _____                                                                                                                                                      |             |                                                     |            |
| d. _____                                                                                                                                                      |             |                                                     |            |
| e. PlanCon-D-Add't Costs, Total                                                                                                                               |             |                                                     |            |
| A-1 to A-7 - Subtotal                                                                                                                                         | 31,187,864  |                                                     | 31,187,864 |
| 8. Construction Insurance                                                                                                                                     |             |                                                     |            |
| a. Owner Controlled Insurance Program on Structure Costs (Exclude asbestos abatement, building purchase and other structure costs not covered by the program) |             |                                                     |            |
| b. Builder's Risk Insurance (if not included in primes)                                                                                                       | 60,000      |                                                     | 60,000     |
| c. Construction Insurance - Total                                                                                                                             | 60,000      |                                                     | 60,000     |
| 9. TOTAL-Structure Costs (A-1 to A-7-Subtotal plus A-8-c)                                                                                                     | 31,247,864  |                                                     | 31,247,864 |
| <b>B. ARCHITECT'S FEE</b>                                                                                                                                     |             |                                                     |            |
| 1. Architect's/Engineer's Fee on Structure                                                                                                                    | 1,293,015   |                                                     | 1,293,015  |
| 2. EPA-Certified Project Designer's Fee on Asbestos Abatement                                                                                                 | X X X X X X |                                                     |            |
| 3. TOTAL - Architect's Fee                                                                                                                                    | 1,293,015   |                                                     | 1,293,015  |
| <b>C. MOVABLE FIXTURES AND EQUIPMENT</b>                                                                                                                      |             |                                                     |            |
| 1. Movable Fixtures and Equipment                                                                                                                             | 1,100,000   |                                                     | 1,100,000  |
| 2. Architect's Fee                                                                                                                                            |             |                                                     |            |
| 3. TOTAL - Movable Fixtures & Equipment                                                                                                                       | 1,100,000   |                                                     | 1,100,000  |
| <b>D. STRUCTURE COSTS, ARCHITECT'S FEE, MOVABLE FIXTURES &amp; EQUIPMENT - TOTAL (A-9 plus B-3 and C-3)</b>                                                   |             |                                                     |            |
|                                                                                                                                                               | 33,640,879  |                                                     | 33,640,879 |
| <b>E. SITE COSTS</b>                                                                                                                                          |             |                                                     |            |
| 1. Sanitary Sewage Disposal                                                                                                                                   |             |                                                     |            |
| 2. Sanitary Sewage Disposal Tap-In Fee and/or Capacity Charges                                                                                                | 50,000      |                                                     | 50,000     |
| 3. Owner Controlled Insurance Program/Builder's Risk Insurance on Sanitary Sewage Disposal                                                                    |             |                                                     |            |
| 4. Architect's/Engineer's Fee for Sanitary Sewage Disposal                                                                                                    |             |                                                     |            |
| 5. Site Acquisition Costs                                                                                                                                     |             | X X X X X X                                         |            |
| a. Gross Amount Due from Settlement Statement or Estimated Just Compensation                                                                                  |             | X X X X X X                                         |            |
| b. Real Estate Appraisal Fees                                                                                                                                 |             | X X X X X X                                         |            |
| c. Other Related Site Acquisition Costs                                                                                                                       |             | X X X X X X                                         |            |
| d. Site Acquisition Costs - Total                                                                                                                             |             | X X X X X X                                         |            |
| 6. TOTAL - Site Costs                                                                                                                                         | 50,000      |                                                     | 50,000     |
| <b>F. STRUCTURE COSTS, ARCHITECT'S FEE, MOVABLE FIXTURES &amp; EQUIPMENT, AND SITE COSTS - TOTAL (D plus E-6)</b>                                             |             |                                                     |            |
|                                                                                                                                                               | 33,690,879  |                                                     | 33,690,879 |
| * Type "No Fee" beside each item for which no design fee is charged.                                                                                          |             |                                                     |            |



| PROJECT ACCOUNTING BASED ON ESTIMATES (2 of 2)                                                                                                                                                                                                                                                   |                                                        |                                    |                                    |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------|------------------------------------|----------------------------|
| District/CTC:<br>Bristol Township School District                                                                                                                                                                                                                                                | Project Name:<br>Ralph Waldo Emerson Elementary School |                                    | Project #:                         |                            |
| ROUND FIGURES TO NEAREST DOLLAR                                                                                                                                                                                                                                                                  |                                                        |                                    |                                    |                            |
| <b>PROJECT COSTS (CONT.)</b>                                                                                                                                                                                                                                                                     |                                                        |                                    |                                    | <b>TOTAL</b>               |
| G. ADDITIONAL CONSTRUCTION-RELATED COSTS                                                                                                                                                                                                                                                         |                                                        |                                    |                                    |                            |
| 1. Project Supervision (inc. Asbestos Abatement Project Supervision)                                                                                                                                                                                                                             |                                                        |                                    |                                    | 14,000                     |
| 2. Construction Manager Fee and Related Costs                                                                                                                                                                                                                                                    |                                                        |                                    |                                    | 521,666                    |
| 3. Total Demolition of Entire Existing Structures and Related Asbestos Removal to Prepare Project Site for Construction of New School Building and Related AHERA Clearance Air Monitoring and EPA-Certified Project Designer's Fee on Asbestos Abatement (Exclude costs for partial demolition.) |                                                        |                                    |                                    | 357,400                    |
| 4. Architectural Printing                                                                                                                                                                                                                                                                        |                                                        |                                    |                                    | 20,000                     |
| 5. Test Borings                                                                                                                                                                                                                                                                                  |                                                        |                                    |                                    | 16,500                     |
| 6. Site Survey                                                                                                                                                                                                                                                                                   |                                                        |                                    |                                    | 20,000                     |
| 7. Other (attach schedule if needed)                                                                                                                                                                                                                                                             |                                                        |                                    |                                    |                            |
| a. _____                                                                                                                                                                                                                                                                                         |                                                        |                                    |                                    |                            |
| b. PlanCon-D-Add't Costs, Total                                                                                                                                                                                                                                                                  |                                                        |                                    |                                    | 596,500                    |
| 8. Contingency                                                                                                                                                                                                                                                                                   |                                                        |                                    |                                    | 1,617,681                  |
| 9. TOTAL - Additional Construction-Related Costs                                                                                                                                                                                                                                                 |                                                        |                                    |                                    | 3,163,747                  |
| H. FINANCING COSTS<br>FOR THIS PROJECT ONLY                                                                                                                                                                                                                                                      | BOND ISSUE/NOTE<br>SERIES OF _____                     | BOND ISSUE/NOTE<br>SERIES OF _____ | BOND ISSUE/NOTE<br>SERIES OF _____ | X X X X X X<br>X X X X X X |
| 1. Underwriter Fees                                                                                                                                                                                                                                                                              | 186,891                                                |                                    |                                    | 186,891                    |
| 2. Legal Fees                                                                                                                                                                                                                                                                                    | 35,000                                                 |                                    |                                    | 35,000                     |
| 3. Financial Advisor                                                                                                                                                                                                                                                                             | 13,372                                                 |                                    |                                    | 13,372                     |
| 4. Bond Insurance                                                                                                                                                                                                                                                                                | 203,983                                                |                                    |                                    | 203,983                    |
| 5. Paying Agent/Trustee<br>Fees and Expenses                                                                                                                                                                                                                                                     | 3,030                                                  |                                    |                                    | 3,030                      |
| 6. Capitalized Interest                                                                                                                                                                                                                                                                          | 4,003,764                                              |                                    |                                    | 4,003,764                  |
| 7. Printing                                                                                                                                                                                                                                                                                      | 2,500                                                  |                                    |                                    | 2,500                      |
| 8. CUSIP & Rating Fees                                                                                                                                                                                                                                                                           | 519                                                    |                                    |                                    | 519                        |
| 9. Other                                                                                                                                                                                                                                                                                         |                                                        |                                    |                                    |                            |
| a. Rating Agency                                                                                                                                                                                                                                                                                 | 35,000                                                 |                                    |                                    | 35,000                     |
| b. Misc                                                                                                                                                                                                                                                                                          | 4,500                                                  |                                    |                                    | 4,500                      |
| 10. TOTAL-Financing Costs                                                                                                                                                                                                                                                                        | 4,488,559                                              |                                    |                                    | 4,488,559                  |
| I. TOTAL PROJECT COSTS (F plus G-9 plus H-10)                                                                                                                                                                                                                                                    |                                                        |                                    |                                    | 41,343,185                 |
| REVENUE SOURCES                                                                                                                                                                                                                                                                                  | BOND ISSUE/NOTE<br>SERIES OF _____                     | BOND ISSUE/NOTE<br>SERIES OF _____ | BOND ISSUE/NOTE<br>SERIES OF _____ | <b>TOTAL</b>               |
| J. AMOUNT FINANCED<br>FOR THIS PROJECT ONLY                                                                                                                                                                                                                                                      | 41,075,000                                             |                                    |                                    | 41,075,000                 |
| K. ORIGINAL ISSUE DISCOUNT/<br>PREMIUM FOR THIS PROJECT ONLY                                                                                                                                                                                                                                     | 219,697                                                |                                    |                                    | 219,697                    |
| L. INTEREST EARNINGS<br>FOR THIS PROJECT ONLY                                                                                                                                                                                                                                                    | 48,488                                                 |                                    |                                    | 48,488                     |
| M. BUILDING INSURANCE RECEIVED                                                                                                                                                                                                                                                                   |                                                        |                                    |                                    |                            |
| N. PROCEEDS FROM SALE OF BUILDING OR LAND                                                                                                                                                                                                                                                        |                                                        |                                    |                                    |                            |
| O. LOCAL FUNDS - CASH (SEE INSTRUCTIONS)                                                                                                                                                                                                                                                         |                                                        |                                    |                                    |                            |
| P. OTHER FUNDS (ATTACH SCHEDULE)                                                                                                                                                                                                                                                                 |                                                        |                                    |                                    |                            |
| Q. TOTAL REVENUE SOURCES                                                                                                                                                                                                                                                                         |                                                        |                                    |                                    | 41,343,185                 |

REVISED JULY 1, 2010

FORM EXPIRES 6-30-12

PLANCON-D03





| DETAILED COSTS                                                                       |                                       |          |                 |
|--------------------------------------------------------------------------------------|---------------------------------------|----------|-----------------|
| District/CTC:                                                                        | Project Name:                         |          | Project #:      |
| Bristol Township School District                                                     | Ralph Waldo Emerson Elementary School |          |                 |
|                                                                                      | NEW                                   | EXISTING | TOTAL           |
| <b>A. SITE DEVELOPMENT COSTS</b>                                                     |                                       |          |                 |
| (exclude Sanitary Sewage Disposal)                                                   |                                       |          |                 |
| 1. General (include Rough Grading to Receive Building)                               | 2,367,000                             |          | 2,367,000       |
| 2. Heating and Ventilating                                                           |                                       |          |                 |
| 3. Plumbing                                                                          |                                       |          |                 |
| 4. Electrical                                                                        |                                       |          |                 |
| 5. Other: _____                                                                      |                                       |          |                 |
| 6. Other: _____                                                                      |                                       |          |                 |
| 7. A-1 thru A-6 - Subtotal                                                           | 2,367,000                             |          | 2,367,000       |
| 8. Construction Insurance                                                            |                                       |          |                 |
| a. Owner Controlled Insurance Program on Site Development Costs                      |                                       |          |                 |
| b. Builder's Risk Insurance (if not included in primes)                              |                                       |          |                 |
| c. Construction Insurance - Subtotal                                                 |                                       |          |                 |
| 9. Site Development Costs - Total                                                    | 2,367,000                             |          | 2,367,000       |
| B. ARCHITECT'S FEE ON SITE DEVELOPMENT                                               | 144,680                               |          | 144,680         |
|                                                                                      |                                       |          | <b>EXISTING</b> |
| <b>C. ASBESTOS ABATEMENT</b>                                                         |                                       |          |                 |
| 1. Asbestos Abatement                                                                |                                       |          |                 |
| 2. AHERA Clearance Air Monitoring                                                    |                                       |          |                 |
| 3. Asbestos Abatement - Total (D02, line A-5)                                        |                                       |          |                 |
| <b>D. EPA-CERTIFIED PROJECT DESIGNER'S FEE ON ASBESTOS ABATEMENT (D02, LINE B-2)</b> |                                       |          |                 |
| <b>E. ROOF REPLACEMENT/REPAIR</b>                                                    |                                       |          |                 |
| 1. Roof Replacement Repair                                                           |                                       |          |                 |
| 2. Owner Controlled Insurance Program on Roof Replacement/Repair                     |                                       |          |                 |
| 3. Builder's Risk Insurance (if not included in primes)                              |                                       |          |                 |
| 4. Roof Replacement/Repair - Total                                                   |                                       |          |                 |
| <b>F. ARCHITECT'S FEE ON ROOF REPLACEMENT/REPAIR</b>                                 |                                       |          |                 |



| <b>ACT 34 OF 1973: MAXIMUM BUILDING CONSTRUCTION COST<br/>FOR NEW BUILDING OR SUBSTANTIAL ADDITION ONLY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                        |            |                                               |    |           |                                                   |    |         |                                                                                |    |  |                                                  |    |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------|-----------------------------------------------|----|-----------|---------------------------------------------------|----|---------|--------------------------------------------------------------------------------|----|--|--------------------------------------------------|----|-----------|
| District/CTC:<br>Bristol Township School District                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Project Name:<br>Ralph Waldo Emerson Elementary School | Project #: |                                               |    |           |                                                   |    |         |                                                                                |    |  |                                                  |    |           |
| <p>Act 34 applies only to costs for new construction. The legal requirements do not address the costs for alterations to existing structures. For this reason, costs associated with the existing structure and other related costs should <u>not</u> be included in the following calculations.</p> <p>A. STRUCTURE COST, ARCHITECT'S FEE, MOVABLE FIXTURES AND EQUIPMENT (D02, line D-NEW) <span style="float: right;">\$ 33,640,879</span></p> <p>B. EXCLUDABLE COSTS FOR NEW CONSTRUCTION</p> <table style="width: 100%;"><tr><td style="width: 60%;">1. Site Development Costs (D04, line A-7-NEW)</td><td style="width: 10%; text-align: right;">\$</td><td style="width: 30%; text-align: right;">2,367,000</td></tr><tr><td>2. Architect's Fees on the above excludable costs</td><td style="text-align: right;">\$</td><td style="text-align: right;">144,680</td></tr><tr><td>3. Vocational Projects Only - Movable Fixtures &amp; Equipment (D02, line C-3-NEW)</td><td style="text-align: right;">\$</td><td style="text-align: right;"></td></tr><tr><td>4. Total Excludable Costs (B-1 plus B-2 and B-3)</td><td style="text-align: right;">\$</td><td style="text-align: right;">2,511,680</td></tr></table> <p>C. ACT 34 MAXIMUM BUILDING CONSTRUCTION COST (A minus B-4) <span style="float: right;">\$ 31,129,199</span></p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"><p><b>THE BOARD MUST ADOPT THE FIGURE ON LINE C BEFORE SCHEDULING THE FIRST ACT 34 HEARING.</b></p></div> <p style="text-align: center; padding: 10px;"><u>IF THE MAXIMUM BUILDING CONSTRUCTION COST BASED ON BIDS IS EQUAL TO OR GREATER THAN THE MAXIMUM BUILDING CONSTRUCTION COST BASED ON ESTIMATES PLUS EIGHT PERCENT (LINE D), A SECOND PUBLIC HEARING WILL BE REQUIRED BEFORE ENTERING INTO CONTRACTS AND STARTING CONSTRUCTION ON ANY PLANNED WORK.</u></p> <p>D. ACT 34 MAXIMUM BUILDING CONSTRUCTION COST TIMES 1.08 (C times 1.08) <span style="float: right;">\$ 33,619,535</span></p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"><p><b>THE FIGURE ON LINE D SHOULD NOT BE ADOPTED BY THE BOARD.</b></p></div> |                                                        |            | 1. Site Development Costs (D04, line A-7-NEW) | \$ | 2,367,000 | 2. Architect's Fees on the above excludable costs | \$ | 144,680 | 3. Vocational Projects Only - Movable Fixtures & Equipment (D02, line C-3-NEW) | \$ |  | 4. Total Excludable Costs (B-1 plus B-2 and B-3) | \$ | 2,511,680 |
| 1. Site Development Costs (D04, line A-7-NEW)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | \$                                                     | 2,367,000  |                                               |    |           |                                                   |    |         |                                                                                |    |  |                                                  |    |           |
| 2. Architect's Fees on the above excludable costs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$                                                     | 144,680    |                                               |    |           |                                                   |    |         |                                                                                |    |  |                                                  |    |           |
| 3. Vocational Projects Only - Movable Fixtures & Equipment (D02, line C-3-NEW)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | \$                                                     |            |                                               |    |           |                                                   |    |         |                                                                                |    |  |                                                  |    |           |
| 4. Total Excludable Costs (B-1 plus B-2 and B-3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$                                                     | 2,511,680  |                                               |    |           |                                                   |    |         |                                                                                |    |  |                                                  |    |           |



| ACT 34 OF 1973: AGGREGATE BUILDING EXPENDITURE STANDARD                                                                                                                   |                                                     |                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|
| District/CTC:<br>Bristol Township School District                                                                                                                         | Project #:<br>Ralph Waldo Emerson Elementary School |                     |
| A. GRADES K-6                                                                                                                                                             |                                                     |                     |
| 1. Act 34 Elementary Capacity (D21, line G)                                                                                                                               | 2502                                                |                     |
| 2. 2010-2011 Per Pupil Cost Limit                                                                                                                                         | <u>\$15,990</u>                                     |                     |
| 3. Building Expenditure Standard for Grades K-6<br>(A-1 times A-2)                                                                                                        |                                                     | \$ 40,006,980       |
| B. GRADES 7-9                                                                                                                                                             |                                                     |                     |
| 1. Grades 7-9 Capacity                                                                                                                                                    |                                                     |                     |
| a. Act 34 Secondary Capacity (D22, line R)                                                                                                                                |                                                     |                     |
| b. Proration Fraction (building housing<br>grades 7-9 - 1.00; grades 7-12 - .50;<br>grades 8-12 - 0.40; grades 9-12 - .25;<br>grades 10-12 - 0.00)                        |                                                     | (ROUND TO 2 DEC PL) |
| c. Grades 7-9 Capacity (1-a times 1-b;<br>rounded to nearest whole number)                                                                                                |                                                     |                     |
| 2. 2010-2011 Per Pupil Cost Limit                                                                                                                                         | <u>\$23,984</u>                                     |                     |
| 3. Building Expenditure Standard for Grades 7-9<br>(B-1-c times B-2)                                                                                                      |                                                     | \$ _____            |
| C. GRADES 10-12 / DAO                                                                                                                                                     |                                                     |                     |
| 1. Grades 10-12 Capacity                                                                                                                                                  |                                                     |                     |
| a. Act 34 Secondary Capacity (D22, line R)                                                                                                                                |                                                     |                     |
| b. Proration Fraction (building housing<br>grades 7-9 - 0.00; grades 7-12 - .50;<br>grades 8-12 - 0.60; grades 9-12 - .75;<br>grades 10-12 - 1.00)                        |                                                     | (ROUND TO 2 DEC PL) |
| c. Grades 10-12 Capacity (1-a times 1-b;<br>rounded to nearest whole number)                                                                                              |                                                     |                     |
| d. Act 34 District Administration Office<br>Capacity (D21, line I)                                                                                                        |                                                     |                     |
| e. Grades 10-12 / DAO Capacity (1-c plus 1-d)                                                                                                                             |                                                     |                     |
| 2. 2010-2011 Per Pupil Cost Limit                                                                                                                                         | <u>\$29,696</u>                                     |                     |
| 3. Building Expenditure Standard for<br>Grades 10-12 / DAO (C-1-e times C-2)                                                                                              |                                                     | \$ _____            |
| D. VOCATIONAL                                                                                                                                                             |                                                     |                     |
| 1. Act 34 Vocational Capacity (D21, line L)                                                                                                                               |                                                     |                     |
| 2. 2010-2011 Per Pupil Cost Limit                                                                                                                                         | <u>\$29,696</u>                                     |                     |
| 3. Building Expenditure Standard for Vocational<br>(D-1 times D-2)                                                                                                        |                                                     | \$ _____            |
| E. AGGREGATE BUILDING EXPENDITURE STANDARD<br>(A-3 plus B-3 plus C-3 plus D-3)                                                                                            |                                                     |                     |
|                                                                                                                                                                           |                                                     | \$ 40,006,980       |
| F. ACT 34 MAXIMUM BUILDING CONSTRUCTION COST (D20, line C)                                                                                                                |                                                     |                     |
|                                                                                                                                                                           |                                                     | \$ 31,129,199       |
| <b><u>IF THE ACT 34 MAXIMUM BUILDING CONSTRUCTION COST (Line F) EXCEEDS THE AGGREGATE BUILDING EXPENDITURE STANDARD (Line E), THIS PROJECT REQUIRES A REFERENDUM.</u></b> |                                                     |                     |
| REFERENDUM (if applicable)                                                                                                                                                |                                                     |                     |
| Date Advertised                                                                                                                                                           |                                                     |                     |
| Date Held                                                                                                                                                                 |                                                     |                     |



## PART VI

Analysis of Financial Alternatives



## **BRISTOL TOWNSHIP SCHOOL DISTRICT** **ANALYSIS OF FINANCING ALTERNATIVES AND BUDGET IMPACT**

We have analyzed five alternative methods of financing the proposed construction of a replacement of the Emerson Elementary School (the "Emerson Elementary School Building Project"). We have also estimated the annual direct and indirect costs of financing, all as required by the Department of Education regulations issued November 4, 1978.

### **ANALYSIS OF FINANCING ALTERNATIVES**

The five alternatives of financing which we examined are:

1. Cash
2. Short-term bank loan
3. General Obligation Bond issue
4. Local Authority issue
5. State Public School Building Authority (SPSBA)

Based on an analysis of the School District's financial statements for recent years, of the financing projections prepared in connection with this project and discussions with the School District, we have determined that a cash financing or short-term bank loan was not feasible. The School District does not have the funds necessary to pay cash for the Emerson Elementary School Building Project nor does it appear that the School District would be able to raise the required funds to meet the requirements of a short-term bank loan.

We also analyzed in detail the three alternatives which would require the School District to incur long-term debt: General Obligation, Local Authority and SPSBA bond issues. For each of these alternatives we estimated a total borrowing amount and annual debt service requirements based upon a wrap-around service structure with a borrowing term of 25 years. Financing costs and interest rates were higher for both the Local Authority and the SPSBA issue, which resulted in larger bond issues and higher average annual payments than a General Obligation bond issue. A Local Authority issue would also have annual administrative expenses, which raised the annual payments further. The General Obligation alternative also offers the School District the advantage of increased flexibility and control over the structure of the bond issue and the investment of bond proceeds. Based on these estimates and past experience, the least costly alternative for financing the Emerson Elementary School Building Project is the General Obligation Bond issue.



## BUDGET IMPACT

### Direct Costs

The State will reimburse the School District for a portion of the principal and interest, which the School District pays each year on the bonds. The amount of the reimbursement is determined by two factors - the percentage of the Emerson Elementary School Building Project determined by the Department of Education to be reimbursable and the School District's market value aid ratio ("Aid Ratio"), or CARF, whichever is higher. It is estimated that 21.32% of the Emerson Elementary School Building Project is reimbursable. The School District's CARF is higher than its Aid Ratio at 50.11%. When this is combined with the Project Reimbursable Percentage, it results in an "effective" reimbursement percentage of 9.67% for the bond issue. Therefore, for each dollar paid by the School District toward principal and interest on the bond issue, the State will reimburse the School District 9.67 cents.

The following is a summary of the direct costs of the Emerson Elementary School Building Project in terms of the estimated annual debt service (net of reimbursement) and the millage equivalent of the same, assuming wrap-around debt service payment structure. The direct costs will be phased-in over fiscal years 2013-14 and 2014-15. One mill of real estate taxes is assumed to equal \$400,000.



|                                             | General<br>Obligation<br><u>Issue</u> | Local<br>Authority<br><u>Issue</u> | State<br>Authority<br><u>Issue</u> |
|---------------------------------------------|---------------------------------------|------------------------------------|------------------------------------|
| Construction and Related Costs <sup>1</sup> |                                       |                                    |                                    |
| Structure Costs                             | \$31,247,864                          | \$31,247,864                       | \$31,247,864                       |
| Architect's Fee                             | 1,293,015                             | 1,293,015                          | 1,293,015                          |
| Site Costs                                  | 1,150,000                             | 1,150,000                          | 1,150,000                          |
| Additional Related Construction Costs       | <u>3,163,747</u>                      | <u>3,163,747</u>                   | <u>3,163,747</u>                   |
| Total Construction and Construction Related | <u>\$36,854,626</u>                   | <u>\$36,854,626</u>                | <u>\$36,854,626</u>                |
| Financing Costs                             |                                       |                                    |                                    |
| Underwriters Discount                       | 186,891                               | 196,422                            | 196,422                            |
| Bond Insurance                              | 203,983                               | 214,386                            | 214,386                            |
| Capitalized Interest                        | 4,003,764                             | 4,003,764                          | 4,003,764                          |
| Legal Fees                                  | 35,000                                | 50,000                             | 50,000                             |
| Bond Rating Fees                            | 35,000                                | 45,000                             | 45,000                             |
| Financial Advisor                           | 13,372                                | 18,000                             | 18,000                             |
| Printing                                    | 2,500                                 | 2,500                              | 2,500                              |
| Paying Agent or Trustee Fees                | 3,030                                 | 3,000                              | 3,000                              |
| Others                                      | <u>5,019</u>                          | <u>5,019</u>                       | <u>5,019</u>                       |
| Subtotal                                    | <u>4,488,559</u>                      | <u>4,538,092</u>                   | <u>4,538,092</u>                   |
| Total Project Cost                          | \$41,343,185                          | \$41,392,718                       | \$41,392,718                       |
| Net Original Issue Discount/Premium         | (219,697)                             | (219,697)                          | (219,697)                          |
| Less: Interest Earnings <sup>2</sup>        | <u>(48,488)</u>                       | <u>(46,896)</u>                    | <u>(46,896)</u>                    |
| Total Bonds To Be Issued                    | <u>\$41,075,000</u>                   | <u>\$41,126,125</u>                | <u>\$41,126,125</u>                |
| Annual Debt Service for Series A of 2013    | \$2,545,144                           | \$2,685,127                        | \$2,685,127                        |
| Less: State's Share <sup>3</sup>            | 272,076                               | 286,772                            | 286,772                            |
| School District's Share                     | <u>\$2,273,068</u>                    | <u>\$2,398,356</u>                 | <u>\$2,398,356</u>                 |
| Incremental Mills Required <sup>4</sup>     | 5.6827                                | 5.9959                             | 5.9959                             |
| Total Net Debt Service                      | <u>\$70,242,667</u>                   | <u>\$74,106,014</u>                | <u>\$74,106,014</u>                |

Notes:

1. Source: PlanCon documents prepared by the School District's Architect.
2. Estimated interest income from investment of the Construction Fund moneys.
3. Estimated at an effective rate of approximately 9.67%.
4. One mill of Real Estate Tax has an assumed constant value of \$400,000.



### Indirect Costs

The School District does not expect to incur any additional annual indirect costs for the Emerson Elementary School Building Project. After the Project has been completed, the School District anticipates a decrease in utility and maintenance costs over the utility costs of the existing Emerson Elementary School due to the efficiency of the new building verses the old building. Additionally, there will be no additional staffing increases for either professional or non-professional staff. In fact, the School District will be consolidating from nine older elementary schools to three new buildings which will greatly improve administrative and professional personnel efficiency. Transportation will remain unaffected as well, since the location of the new Emerson Elementary School is on the site of the existing Buchanan School. There will be no millage increase estimated for indirect costs, based upon the value of one mill being equal to \$400,000.

### Total Annual Costs

The following is a summary of the annual direct and indirect costs of the Emerson Elementary School Building Project in dollars and millage.

|                                      |                     |
|--------------------------------------|---------------------|
| Annual Direct Cost                   | \$2,819,607         |
| Less: State's Share                  | (272,656)           |
| Plus: Annual Indirect Cost           | <u>0</u>            |
| Net Annual Direct and Indirect Costs | \$2,546,951         |
| Annual Direct Cost (Mills)           | 7.0490 Mills        |
| Less: State's Share                  | 0.6816 Mills        |
| Plus: Annual Indirect Cost (Mills)   | <u>0.0000 Mills</u> |
| Net Annual Direct and Indirect Costs | 6.3674 Mills        |

### Net Effect of the Project on Direct and Indirect Costs

The net effect for the Emerson Elementary School is calculated by totaling the school district's direct costs \$2,819,607 net of estimated state reimbursement \$272,656 plus the indirect costs \$0 in terms of both dollars and mills.

Total net effect is calculated by totaling the School District's direct costs, net of estimated state reimbursement and taking into account the structure of the proposed indebtedness for all three elementary schools plus the indirect costs \$0 in terms of both dollars and mills.

The School District is considering the construction of three new elementary schools and the closure of six of its current elementary school buildings as part of the overall Elementary School Project. The financing will be constructed in such a way that it will wrap-around the School District's current outstanding debt, 98% of which matures over the next two years. The School District's annual debt service will go from approximately \$4,033,000 in 2013/14 to approximately \$420,000 in 2015-16. We have proposed that the debt service associated with the entire Elementary School Project will not begin in earnest, until after the School District's current debt service matures. This will greatly reduce the net costs associated with the new net debt service on the larger project. We have estimated that the School District's net direct costs for the entire project will be \$4,417,766 before accounting for state reimbursement of approximately \$817,000.



When the School District consolidates its elementary school operations from its current nine buildings to three new buildings, operational cost savings will be very substantial. The Administration will undergo consolidation as will all professional and non-professional staff. Building maintenance, custodial needs, and transportation will all see greater efficiency once building operations have been consolidated. The School District conservatively estimates approximately \$3,600,000 in annual savings will occur once the consolidation has been completed.

We have included the chart below which details the School District's current outstanding debt in relation to the estimated in debt service for the entire Elementary School Project. In the chart, we have apportioned each of the three elementary school construction projects into specific debt service columns.



|              | Performance Contract  | 2003 Note           | Technical School      | Series of 2010        | Total Existing Debt Service | Series of 2013* (Buchanan Portion) | Series of 2013* (Emerson Portion) | Series of 2013* (Divine Portion) | Total Net Debt Service* |
|--------------|-----------------------|---------------------|-----------------------|-----------------------|-----------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------|
| 2012-13      | 403,512               | 72,720              | 347,506               | 3,210,075.00          | 4,033,813.00                | -                                  | -                                 | -                                | 4,033,813.00            |
| 2013-14      | 403,512               | 72,840              | 347,512               | 3,207,225.00          | 4,031,089.00                | -                                  | -                                 | -                                | 4,031,089.00            |
| 2014-15      |                       | 72,880              | 347,160               | 2,911,475.00          | 3,331,515.00                | -                                  | -                                 | -                                | 3,331,515.00            |
| 2015-16      |                       | 72,840              | 347,334               |                       | 420,174.00                  | 2,247,632.53                       | 2,247,632.53                      | 2,247,632.53                     | 7,163,071.59            |
| 2016-17      |                       | 72,720              | 347,088               |                       | 419,808.00                  | 2,677,257.00                       | 2,677,257.00                      | 2,677,257.00                     | 8,451,579.00            |
| 2017-18      |                       | 72,520              | 347,083               |                       | 419,603.00                  | 2,677,607.00                       | 2,677,607.00                      | 2,677,607.00                     | 8,452,424.00            |
| 2018-19      |                       | 72,240              | 344,056               |                       | 416,296.00                  | 2,675,607.00                       | 2,675,607.00                      | 2,675,607.00                     | 8,443,117.00            |
| 2019-20      |                       | 71,880              |                       |                       | 71,880.00                   | 2,792,607.00                       | 2,792,607.00                      | 2,792,607.00                     | 8,449,701.00            |
| 2020-21      |                       | 72,420              |                       |                       | 72,420.00                   | 2,790,357.00                       | 2,790,357.00                      | 2,790,357.00                     | 8,443,491.00            |
| 2021-22      |                       | 71,860              |                       |                       | 71,860.00                   | 2,791,107.00                       | 2,791,107.00                      | 2,791,107.00                     | 8,445,181.00            |
| 2022-23      |                       | 72,200              |                       |                       | 72,200.00                   | 2,794,607.00                       | 2,794,607.00                      | 2,794,607.00                     | 8,456,021.00            |
| 2023-24      |                       | 72,420              |                       |                       | 72,420.00                   | 2,790,607.00                       | 2,790,607.00                      | 2,790,607.00                     | 8,444,241.00            |
| 2024-25      |                       |                     |                       |                       | -                           | 2,819,357.00                       | 2,819,357.00                      | 2,819,357.00                     | 8,458,071.00            |
| 2025-26      |                       |                     |                       |                       | -                           | 2,819,107.00                       | 2,819,107.00                      | 2,819,107.00                     | 8,457,321.00            |
| 2026-27      |                       |                     |                       |                       | -                           | 2,816,107.00                       | 2,816,107.00                      | 2,816,107.00                     | 8,448,321.00            |
| 2027-28      |                       |                     |                       |                       | -                           | 2,815,357.00                       | 2,815,357.00                      | 2,815,357.00                     | 8,446,071.00            |
| 2028-29      |                       |                     |                       |                       | -                           | 2,816,607.00                       | 2,816,607.00                      | 2,816,607.00                     | 8,449,821.00            |
| 2029-30      |                       |                     |                       |                       | -                           | 2,819,607.00                       | 2,819,607.00                      | 2,819,607.00                     | 8,458,821.00            |
| 2030-31      |                       |                     |                       |                       | -                           | 2,819,107.00                       | 2,819,107.00                      | 2,819,107.00                     | 8,457,321.00            |
| 2031-32      |                       |                     |                       |                       | -                           | 2,815,107.00                       | 2,815,107.00                      | 2,815,107.00                     | 8,445,321.00            |
| 2032-33      |                       |                     |                       |                       | -                           | 2,817,607.00                       | 2,817,607.00                      | 2,817,607.00                     | 8,452,821.00            |
| 2033-34      |                       |                     |                       |                       | -                           | 2,816,107.00                       | 2,816,107.00                      | 2,816,107.00                     | 8,448,321.00            |
| 2034-35      |                       |                     |                       |                       | -                           | 2,815,607.00                       | 2,815,607.00                      | 2,815,607.00                     | 8,446,821.00            |
| 2035-36      |                       |                     |                       |                       | -                           | 2,815,857.00                       | 2,815,857.00                      | 2,815,857.00                     | 8,447,571.00            |
| 2036-37      |                       |                     |                       |                       | -                           | 2,816,607.00                       | 2,816,607.00                      | 2,816,607.00                     | 8,449,821.00            |
| 2037-38      |                       |                     |                       |                       | -                           | 2,817,607.00                       | 2,817,607.00                      | 2,817,607.00                     | 8,452,821.00            |
| 2038-39      |                       |                     |                       |                       | -                           | 2,814,863.00                       | 2,814,863.00                      | 2,814,863.00                     | 8,444,589.00            |
| 2039-40      |                       |                     |                       |                       | -                           | 2,816,680.00                       | 2,816,680.00                      | 2,816,680.00                     | 8,450,040.00            |
| 2040-41      |                       |                     |                       |                       | -                           | 2,817,540.00                       | 2,817,540.00                      | 2,817,540.00                     | 8,452,620.00            |
| 2041-42      |                       |                     |                       |                       | -                           | 2,816,700.00                       | 2,816,700.00                      | 2,816,700.00                     | 8,450,100.00            |
| 2042-43      |                       |                     |                       |                       | -                           | 2,819,360.00                       | 2,819,360.00                      | 2,819,360.00                     | 8,458,080.00            |
| 2043-44      |                       |                     |                       |                       | -                           |                                    |                                   |                                  | -                       |
| <b>Total</b> | <b>\$4,439,874.00</b> | <b>\$941,473.00</b> | <b>\$2,852,739.00</b> | <b>\$9,676,650.00</b> | <b>\$13,433,078.00</b>      | <b>\$77,762,279.53</b>             | <b>\$77,762,279.53</b>            | <b>\$77,762,279.53</b>           | <b>\$251,197,574.59</b> |

\* The Debt Service detailed above is net of capitalized interest



| Date     | Principal           | Interest Rate | Interest Payable     | Total Debt Service     | Cap. Interest Fund      | Total Debt Service     | Fiscal Net Debt Service | Less: State Reimbursem. 9.67% | Net Annual Debt Service |
|----------|---------------------|---------------|----------------------|------------------------|-------------------------|------------------------|-------------------------|-------------------------------|-------------------------|
| 1-Dec-13 |                     |               | 340,217.83           | 340,217.83             | (340,217.83)            | 0.00                   |                         |                               |                         |
| 1-Jun-14 |                     |               | 1,020,653.50         | 1,020,653.50           | (1,020,653.50)          | 0.00                   | 0.00                    | 0.00                          | 0.00                    |
| 1-Dec-14 |                     |               | 1,020,653.50         | 1,020,653.50           | (1,020,653.50)          | 0.00                   |                         |                               |                         |
| 1-Jun-15 |                     |               | 1,020,653.50         | 1,020,653.50           | (1,020,653.50)          | 0.00                   | 0.00                    | 0.00                          | 0.00                    |
| 1-Dec-15 |                     | -             | 1,020,653.50         | 1,020,653.50           | (428,674.47)            | 591,979.03             |                         |                               |                         |
| 1-Jun-16 | 635,000             | 3.000%        | 1,020,653.50         | 1,655,653.50           |                         | 1,655,653.50           | 2,247,632.53            | 217,346.07                    | 2,030,286.46            |
| 1-Dec-16 |                     | -             | 1,011,128.50         | 1,011,128.50           |                         | 1,011,128.50           |                         |                               |                         |
| 1-Jun-17 | 655,000             | 3.000%        | 1,011,128.50         | 1,666,128.50           |                         | 1,666,128.50           | 2,677,257.00            | 258,890.75                    | 2,418,366.25            |
| 1-Dec-17 |                     | -             | 1,001,303.50         | 1,001,303.50           |                         | 1,001,303.50           |                         |                               |                         |
| 1-Jun-18 | 675,000             | 4.000%        | 1,001,303.50         | 1,676,303.50           |                         | 1,676,303.50           | 2,677,607.00            | 258,924.60                    | 2,418,682.40            |
| 1-Dec-18 |                     | -             | 987,803.50           | 987,803.50             |                         | 987,803.50             |                         |                               |                         |
| 1-Jun-19 | 700,000             | 4.000%        | 987,803.50           | 1,687,803.50           |                         | 1,687,803.50           | 2,675,607.00            | 258,731.20                    | 2,416,875.80            |
| 1-Dec-19 |                     | -             | 973,803.50           | 973,803.50             |                         | 973,803.50             |                         |                               |                         |
| 1-Jun-20 | 845,000             | 5.000%        | 973,803.50           | 1,818,803.50           |                         | 1,818,803.50           | 2,792,607.00            | 270,045.10                    | 2,522,561.90            |
| 1-Dec-20 |                     | -             | 952,678.50           | 952,678.50             |                         | 952,678.50             |                         |                               |                         |
| 1-Jun-21 | 885,000             | 5.000%        | 952,678.50           | 1,837,678.50           |                         | 1,837,678.50           | 2,790,357.00            | 269,827.52                    | 2,520,529.48            |
| 1-Dec-21 |                     | -             | 930,553.50           | 930,553.50             |                         | 930,553.50             |                         |                               |                         |
| 1-Jun-22 | 930,000             | 5.000%        | 930,553.50           | 1,860,553.50           |                         | 1,860,553.50           | 2,791,107.00            | 269,900.05                    | 2,521,206.95            |
| 1-Dec-22 |                     | -             | 907,303.50           | 907,303.50             |                         | 907,303.50             |                         |                               |                         |
| 1-Jun-23 | 980,000             | 5.000%        | 907,303.50           | 1,887,303.50           |                         | 1,887,303.50           | 2,794,607.00            | 270,238.50                    | 2,524,368.50            |
| 1-Dec-23 |                     | -             | 882,803.50           | 882,803.50             |                         | 882,803.50             |                         |                               |                         |
| 1-Jun-24 | 1,025,000           | 5.000%        | 882,803.50           | 1,907,803.50           |                         | 1,907,803.50           | 2,790,607.00            | 269,851.70                    | 2,520,755.30            |
| 1-Dec-24 |                     | -             | 857,178.50           | 857,178.50             |                         | 857,178.50             |                         |                               |                         |
| 1-Jun-25 | 1,105,000           | 5.000%        | 857,178.50           | 1,962,178.50           |                         | 1,962,178.50           | 2,819,357.00            | 272,631.82                    | 2,546,725.18            |
| 1-Dec-25 |                     | -             | 829,553.50           | 829,553.50             |                         | 829,553.50             |                         |                               |                         |
| 1-Jun-26 | 1,160,000           | 5.000%        | 829,553.50           | 1,989,553.50           |                         | 1,989,553.50           | 2,819,107.00            | 272,607.65                    | 2,546,499.35            |
| 1-Dec-26 |                     | -             | 800,553.50           | 800,553.50             |                         | 800,553.50             |                         |                               |                         |
| 1-Jun-27 | 1,215,000           | 5.000%        | 800,553.50           | 2,015,553.50           |                         | 2,015,553.50           | 2,816,107.00            | 272,317.55                    | 2,543,789.45            |
| 1-Dec-27 |                     | -             | 770,178.50           | 770,178.50             |                         | 770,178.50             |                         |                               |                         |
| 1-Jun-28 | 1,275,000           | 5.000%        | 770,178.50           | 2,045,178.50           |                         | 2,045,178.50           | 2,815,357.00            | 272,245.02                    | 2,543,111.98            |
| 1-Dec-28 |                     | -             | 738,303.50           | 738,303.50             |                         | 738,303.50             |                         |                               |                         |
| 1-Jun-29 | 1,340,000           | 5.000%        | 738,303.50           | 2,078,303.50           |                         | 2,078,303.50           | 2,816,607.00            | 272,365.90                    | 2,544,241.10            |
| 1-Dec-29 |                     | -             | 704,803.50           | 704,803.50             |                         | 704,803.50             |                         |                               |                         |
| 1-Jun-30 | 1,410,000           | 5.000%        | 704,803.50           | 2,114,803.50           |                         | 2,114,803.50           | 2,819,607.00            | 272,656.00                    | 2,546,951.00            |
| 1-Dec-30 |                     | -             | 669,553.50           | 669,553.50             |                         | 669,553.50             |                         |                               |                         |
| 1-Jun-31 | 1,480,000           | 5.000%        | 669,553.50           | 2,149,553.50           |                         | 2,149,553.50           | 2,819,107.00            | 272,607.65                    | 2,546,499.35            |
| 1-Dec-31 |                     | -             | 632,553.50           | 632,553.50             |                         | 632,553.50             |                         |                               |                         |
| 1-Jun-32 | 1,550,000           | 5.000%        | 632,553.50           | 2,182,553.50           |                         | 2,182,553.50           | 2,815,107.00            | 272,220.85                    | 2,542,886.15            |
| 1-Dec-32 |                     | -             | 593,803.50           | 593,803.50             |                         | 593,803.50             |                         |                               |                         |
| 1-Jun-33 | 1,630,000           | 5.000%        | 593,803.50           | 2,223,803.50           |                         | 2,223,803.50           | 2,817,607.00            | 272,462.60                    | 2,545,144.40            |
| 1-Dec-33 |                     | -             | 553,053.50           | 553,053.50             |                         | 553,053.50             |                         |                               |                         |
| 1-Jun-34 | 1,710,000           | 5.000%        | 553,053.50           | 2,263,053.50           |                         | 2,263,053.50           | 2,816,107.00            | 272,317.55                    | 2,543,789.45            |
| 1-Dec-34 |                     | -             | 510,303.50           | 510,303.50             |                         | 510,303.50             |                         |                               |                         |
| 1-Jun-35 | 1,795,000           | 5.000%        | 510,303.50           | 2,305,303.50           |                         | 2,305,303.50           | 2,815,607.00            | 272,269.20                    | 2,543,337.80            |
| 1-Dec-35 |                     | -             | 465,428.50           | 465,428.50             |                         | 465,428.50             |                         |                               |                         |
| 1-Jun-36 | 1,885,000           | 5.000%        | 465,428.50           | 2,350,428.50           |                         | 2,350,428.50           | 2,815,857.00            | 272,293.37                    | 2,543,563.63            |
| 1-Dec-36 |                     | -             | 418,303.50           | 418,303.50             |                         | 418,303.50             |                         |                               |                         |
| 1-Jun-37 | 1,980,000           | 5.000%        | 418,303.50           | 2,398,303.50           |                         | 2,398,303.50           | 2,816,607.00            | 272,365.90                    | 2,544,241.10            |
| 1-Dec-37 |                     | -             | 368,803.50           | 368,803.50             |                         | 368,803.50             |                         |                               |                         |
| 1-Jun-38 | 2,080,000           | 5.180%        | 368,803.50           | 2,448,803.50           |                         | 2,448,803.50           | 2,817,607.00            | 272,462.60                    | 2,545,144.40            |
| 1-Dec-38 |                     | -             | 314,931.50           | 314,931.50             |                         | 314,931.50             |                         |                               |                         |
| 1-Jun-39 | \$2,185,000         | 5.180%        | 314,931.50           | 2,499,931.50           |                         | 2,499,931.50           | 2,814,863.00            | 272,197.25                    | 2,542,665.75            |
| 1-Dec-39 |                     | -             | 258,340.00           | 258,340.00             |                         | 258,340.00             |                         |                               |                         |
| 1-Jun-40 | \$2,300,000         | 5.180%        | 258,340.00           | 2,558,340.00           |                         | 2,558,340.00           | 2,816,680.00            | 272,372.96                    | 2,544,307.04            |
| 1-Dec-40 |                     | -             | 198,770.00           | 198,770.00             |                         | 198,770.00             |                         |                               |                         |
| 1-Jun-41 | \$2,420,000         | 5.200%        | 198,770.00           | 2,618,770.00           |                         | 2,618,770.00           | 2,817,540.00            | 272,456.12                    | 2,545,083.88            |
| 1-Dec-41 |                     | -             | 135,850.00           | 135,850.00             |                         | 135,850.00             |                         |                               |                         |
| 1-Jun-42 | \$2,545,000         | 5.200%        | 135,850.00           | 2,680,850.00           |                         | 2,680,850.00           | 2,816,700.00            | 272,374.89                    | 2,544,325.11            |
| 1-Dec-42 |                     | -             | 69,680.00            | 69,680.00              |                         | 69,680.00              |                         |                               |                         |
| 1-Jun-43 | \$2,680,000         | 5.200%        | 69,680.00            | 2,749,680.00           |                         | 2,749,680.00           | 2,819,360.00            | 272,632.11                    | 2,546,727.89            |
|          | <u>\$41,075,000</u> |               | <u>40,518,132.33</u> | <u>\$81,593,132.33</u> | <u>(\$3,830,852.80)</u> | <u>\$77,762,279.53</u> | <u>\$77,762,279.53</u>  | <u>\$7,519,612.43</u>         | <u>\$70,242,667.10</u>  |

Reimbursement Calculation:

Project Reimbursement 19.29%  
CARF 50.11%

State Share **9.67%**



| Date                 | Principal   | Interest Rate | Interest Payable      | Total Debt Service      | Cap. Interest Fund       | Total Debt Service      | Fiscal Net Debt Service | Less: State Reimburssem. 9.67% | Net Annual Debt Service |
|----------------------|-------------|---------------|-----------------------|-------------------------|--------------------------|-------------------------|-------------------------|--------------------------------|-------------------------|
| 1-Dec-13             |             |               | 1,020,653.49          | 1,020,653.49            | (1,020,653.49)           | 0.00                    |                         |                                |                         |
| 1-Jun-14             |             |               | 3,061,960.50          | 3,061,960.50            | (3,061,960.50)           | 0.00                    | 0.00                    | 0.00                           | 0.00                    |
| 1-Dec-14             |             |               | 3,061,960.50          | 3,061,960.50            | (3,061,960.50)           | 0.00                    |                         |                                |                         |
| 1-Jun-15             |             |               | 3,061,960.50          | 3,061,960.50            | (3,061,960.50)           | 0.00                    | 0.00                    | 0.00                           | 0.00                    |
| 1-Dec-15             |             | -             | 3,061,960.50          | 3,061,960.50            | (1,286,023.41)           | 1,775,937.09            |                         |                                |                         |
| 1-Jun-16             | 1,905,000   | 3.000%        | 3,061,960.50          | 4,966,960.50            |                          | 4,966,960.50            | 6,742,897.59            | 652,038.20                     | 6,090,859.39            |
| 1-Dec-16             |             | -             | 3,033,385.50          | 3,033,385.50            |                          | 3,033,385.50            |                         |                                |                         |
| 1-Jun-17             | 1,965,000   | 3.000%        | 3,033,385.50          | 4,998,385.50            |                          | 4,998,385.50            | 8,031,771.00            | 776,672.26                     | 7,255,098.74            |
| 1-Dec-17             |             | -             | 3,003,910.50          | 3,003,910.50            |                          | 3,003,910.50            |                         |                                |                         |
| 1-Jun-18             | 2,025,000   | 4.000%        | 3,003,910.50          | 5,028,910.50            |                          | 5,028,910.50            | 8,032,821.00            | 776,773.79                     | 7,256,047.21            |
| 1-Dec-18             |             | -             | 2,963,410.50          | 2,963,410.50            |                          | 2,963,410.50            |                         |                                |                         |
| 1-Jun-19             | 2,100,000   | 4.000%        | 2,963,410.50          | 5,063,410.50            |                          | 5,063,410.50            | 8,026,821.00            | 776,193.59                     | 7,250,627.41            |
| 1-Dec-19             |             | -             | 2,921,410.50          | 2,921,410.50            |                          | 2,921,410.50            |                         |                                |                         |
| 1-Jun-20             | 2,535,000   | 5.000%        | 2,921,410.50          | 5,456,410.50            |                          | 5,456,410.50            | 8,377,821.00            | 810,135.29                     | 7,567,685.71            |
| 1-Dec-20             |             | -             | 2,858,035.50          | 2,858,035.50            |                          | 2,858,035.50            |                         |                                |                         |
| 1-Jun-21             | 2,655,000   | 5.000%        | 2,858,035.50          | 5,513,035.50            |                          | 5,513,035.50            | 8,371,071.00            | 809,482.57                     | 7,561,588.43            |
| 1-Dec-21             |             | -             | 2,791,660.50          | 2,791,660.50            |                          | 2,791,660.50            |                         |                                |                         |
| 1-Jun-22             | 2,790,000   | 5.000%        | 2,791,660.50          | 5,581,660.50            |                          | 5,581,660.50            | 8,373,321.00            | 809,700.14                     | 7,563,620.86            |
| 1-Dec-22             |             | -             | 2,721,910.50          | 2,721,910.50            |                          | 2,721,910.50            |                         |                                |                         |
| 1-Jun-23             | 2,940,000   | 5.000%        | 2,721,910.50          | 5,661,910.50            |                          | 5,661,910.50            | 8,383,821.00            | 810,715.49                     | 7,573,105.51            |
| 1-Dec-23             |             | -             | 2,648,410.50          | 2,648,410.50            |                          | 2,648,410.50            |                         |                                |                         |
| 1-Jun-24             | 3,075,000   | 5.000%        | 2,648,410.50          | 5,723,410.50            |                          | 5,723,410.50            | 8,371,821.00            | 809,555.09                     | 7,562,265.91            |
| 1-Dec-24             |             | -             | 2,571,535.50          | 2,571,535.50            |                          | 2,571,535.50            |                         |                                |                         |
| 1-Jun-25             | 3,315,000   | 5.000%        | 2,571,535.50          | 5,886,535.50            |                          | 5,886,535.50            | 8,458,071.00            | 817,895.47                     | 7,640,175.53            |
| 1-Dec-25             |             | -             | 2,488,660.50          | 2,488,660.50            |                          | 2,488,660.50            |                         |                                |                         |
| 1-Jun-26             | 3,480,000   | 5.000%        | 2,488,660.50          | 5,968,660.50            |                          | 5,968,660.50            | 8,457,321.00            | 817,822.94                     | 7,639,498.06            |
| 1-Dec-26             |             | -             | 2,401,660.50          | 2,401,660.50            |                          | 2,401,660.50            |                         |                                |                         |
| 1-Jun-27             | 3,645,000   | 5.000%        | 2,401,660.50          | 6,046,660.50            |                          | 6,046,660.50            | 8,448,321.00            | 816,952.64                     | 7,631,368.36            |
| 1-Dec-27             |             | -             | 2,310,535.50          | 2,310,535.50            |                          | 2,310,535.50            |                         |                                |                         |
| 1-Jun-28             | 3,825,000   | 5.000%        | 2,310,535.50          | 6,135,535.50            |                          | 6,135,535.50            | 8,446,071.00            | 816,735.07                     | 7,629,335.93            |
| 1-Dec-28             |             | -             | 2,214,910.50          | 2,214,910.50            |                          | 2,214,910.50            |                         |                                |                         |
| 1-Jun-29             | 4,020,000   | 5.000%        | 2,214,910.50          | 6,234,910.50            |                          | 6,234,910.50            | 8,449,821.00            | 817,097.69                     | 7,632,723.31            |
| 1-Dec-29             |             | -             | 2,114,410.50          | 2,114,410.50            |                          | 2,114,410.50            |                         |                                |                         |
| 1-Jun-30             | 4,230,000   | 5.000%        | 2,114,410.50          | 6,344,410.50            |                          | 6,344,410.50            | 8,458,821.00            | 817,967.99                     | 7,640,853.01            |
| 1-Dec-30             |             | -             | 2,008,660.50          | 2,008,660.50            |                          | 2,008,660.50            |                         |                                |                         |
| 1-Jun-31             | 4,440,000   | 5.000%        | 2,008,660.50          | 6,448,660.50            |                          | 6,448,660.50            | 8,457,321.00            | 817,822.94                     | 7,639,498.06            |
| 1-Dec-31             |             | -             | 1,897,660.50          | 1,897,660.50            |                          | 1,897,660.50            |                         |                                |                         |
| 1-Jun-32             | 4,650,000   | 5.000%        | 1,897,660.50          | 6,547,660.50            |                          | 6,547,660.50            | 8,445,321.00            | 816,662.54                     | 7,628,658.46            |
| 1-Dec-32             |             | -             | 1,781,410.50          | 1,781,410.50            |                          | 1,781,410.50            |                         |                                |                         |
| 1-Jun-33             | 4,890,000   | 5.000%        | 1,781,410.50          | 6,671,410.50            |                          | 6,671,410.50            | 8,452,821.00            | 817,387.79                     | 7,635,433.21            |
| 1-Dec-33             |             | -             | 1,659,160.50          | 1,659,160.50            |                          | 1,659,160.50            |                         |                                |                         |
| 1-Jun-34             | 5,130,000   | 5.000%        | 1,659,160.50          | 6,789,160.50            |                          | 6,789,160.50            | 8,448,321.00            | 816,952.64                     | 7,631,368.36            |
| 1-Dec-34             |             | -             | 1,530,910.50          | 1,530,910.50            |                          | 1,530,910.50            |                         |                                |                         |
| 1-Jun-35             | 5,385,000   | 5.000%        | 1,530,910.50          | 6,915,910.50            |                          | 6,915,910.50            | 8,446,821.00            | 816,807.59                     | 7,630,013.41            |
| 1-Dec-35             |             | -             | 1,396,285.50          | 1,396,285.50            |                          | 1,396,285.50            |                         |                                |                         |
| 1-Jun-36             | 5,655,000   | 5.000%        | 1,396,285.50          | 7,051,285.50            |                          | 7,051,285.50            | 8,447,571.00            | 816,880.12                     | 7,630,690.88            |
| 1-Dec-36             |             | -             | 1,254,910.50          | 1,254,910.50            |                          | 1,254,910.50            |                         |                                |                         |
| 1-Jun-37             | 5,940,000   | 5.000%        | 1,254,910.50          | 7,194,910.50            |                          | 7,194,910.50            | 8,449,821.00            | 817,097.69                     | 7,632,723.31            |
| 1-Dec-37             |             | -             | 1,106,410.50          | 1,106,410.50            |                          | 1,106,410.50            |                         |                                |                         |
| 1-Jun-38             | 6,240,000   | 5.180%        | 1,106,410.50          | 7,346,410.50            |                          | 7,346,410.50            | 8,452,821.00            | 817,387.79                     | 7,635,433.21            |
| 1-Dec-38             |             | -             | 944,794.50            | 944,794.50              |                          | 944,794.50              |                         |                                |                         |
| 1-Jun-39             | \$6,555,000 | 5.180%        | 944,794.50            | 7,499,794.50            |                          | 7,499,794.50            | 8,444,589.00            | 816,591.76                     | 7,627,997.24            |
| 1-Dec-39             |             | -             | 775,020.00            | 775,020.00              |                          | 775,020.00              |                         |                                |                         |
| 1-Jun-40             | \$6,900,000 | 5.180%        | 775,020.00            | 7,675,020.00            |                          | 7,675,020.00            | 8,450,040.00            | 817,118.87                     | 7,632,921.13            |
| 1-Dec-40             |             | -             | 596,310.00            | 596,310.00              |                          | 596,310.00              |                         |                                |                         |
| 1-Jun-41             | \$7,260,000 | 5.200%        | 596,310.00            | 7,856,310.00            |                          | 7,856,310.00            | 8,452,620.00            | 817,368.35                     | 7,635,251.65            |
| 1-Dec-41             |             | -             | 407,550.00            | 407,550.00              |                          | 407,550.00              |                         |                                |                         |
| 1-Jun-42             | \$7,635,000 | 5.200%        | 407,550.00            | 8,042,550.00            |                          | 8,042,550.00            | 8,450,100.00            | 817,124.67                     | 7,632,975.33            |
| 1-Dec-42             |             | -             | 209,040.00            | 209,040.00              |                          | 209,040.00              |                         |                                |                         |
| 1-Jun-43             | \$8,040,000 | 5.200%        | 209,040.00            | 8,249,040.00            |                          | 8,249,040.00            | 8,458,080.00            | 817,896.34                     | 7,640,183.66            |
| <b>\$123,225,000</b> |             |               | <b>121,554,396.99</b> | <b>\$244,779,396.99</b> | <b>(\$11,492,558.40)</b> | <b>\$233,286,838.59</b> | <b>\$233,286,838.59</b> | <b>\$22,558,837.29</b>         | <b>\$210,728,001.30</b> |

Reimbursement Calculation:

|                       |        |
|-----------------------|--------|
| Project Reimbursement | 19.29% |
| CARF                  | 50.11% |
| State Share           | 9.67%  |



## SCHRADERGROUP architecture LLC

---

### PHILADELPHIA

161 Leverington Avenue, Suite 105  
Philadelphia, PA 19127  
215.482.7440  
[www.sgarc.com](http://www.sgarc.com)

### LANCASTER

1860 Charter Lane, Suite 206  
Lancaster, PA 17601  
717.381.7762