

**DESIGN OPTIONS**

## SECTION FIVE DESIGN OPTIONS

Four conceptual options were explored for fulfillment of the **educational program, schedule and phasing, and costs.**

### General Comments and Assumptions

- Phasing Options, Time Frames and Costs can vary significantly based on the degree of renovation and the size of each renovation phase. The design team and the City need to discuss the findings to date in order to chart a path for further study.
- For any classroom wing renovation, replacement classrooms are needed as swing space in which to conduct teaching. This may take the form of “portable classrooms”; open classrooms set up within the field house; off site classroom spaces or some combination of these options
- Generally, it is more economical to lease portables when their use will be for less than four to five years, whereas purchase of portables is less expensive when their use is for a longer period. The appropriate option can be explored further along with the possible need for portables as specialty classrooms.

### Option 1 – Full Renovation with Minor Additions

Renovate one school wing in each phase using replacement classrooms as swing space.

- Phases:
1. Alt Wing (A)
  2. Brown Wing (B)
  3. Buckley Wing (C)
  4. Patten Wing
  5. G – Corridor
  6. Field House, Auditorium, Cafeteria Wing

Phases 1, 2, 3 & 5 would each need approximately twenty (20) replacement classrooms plus support space and toilet facilities. Further discussion is needed as to how specialty classrooms, i.e. science, computer, art etc. would be accommodated during each replacement classroom phase.

We believe it will take 10 – 12 months to construct each phase therefore this alternative is estimated to take six (6) years to complete.

**Option 2 – Full Renovation with Minor Additions**

Renovate two school wings in each phase using replacement classrooms as swing space.

- Phases:
1. Alt Wing (A) & Brown Wing (B)
  2. Buckley Wing (C) & Patten Wing
  3. G – Corridor
  4. Field House, Auditorium, Cafeteria Wing

Phases 1 & 2 would each need approximately forty (40) replacement classrooms plus support space and toilet facilities. Further discussion is needed as to how specialty classrooms, i.e. science, computer, art etc. will be accommodated during each replacement classroom phase.

We believe it will take 10 – 12 months to construct each phase, therefore this alternative is estimated to take four (4) years to complete.

**Option 3 – New Construction**

If a replacement building were undertaken, the size (gross square feet) will be less than the existing building; approximately 247,000 gross square feet (see the Educational Program) versus the existing 274,295 gross square feet.

This alternative is estimated to take two (2) years to complete.

**Option 4 - Combination of New Construction and Renovation**

As a blend of new construction and renovations this option should be evaluated. The construction of all new classrooms will solve most of the option issues of construction phasing.

**Costs and Cost Standards**

**Note: the following costs are “orders of magnitude”. They do not represent a bonafide cost estimate.**

- Costs are represented in 2001 / 2002 dollars and need to be adjusted for inflation depending on when the project is undertaken.
- Figures presented do not include finance costs



### Swing Space

Portable classrooms:

#### Purchase

For discussion purposes, assume a portable classroom will cost approximately \$120,000 to purchase, install and remove following project completion.

20 classrooms x \$120 K = \$2,400,000

40 classrooms x \$120 K = \$4,800,000

#### Lease

20 classrooms x \$ 350,000 per year

40 classrooms x \$ 700,000 per year

An alternative to portable classrooms might be to use some or the entire Patten wing as swing space. This area is currently being used for a number of programs including academic classrooms, the cable TV studio and other activities. The school and other programs will have to be cut back in order for this to be a viable option. Further discussion will be necessary.

Comparative costs for discussion:

The SBA FY2002 Project Cost Standards for high schools is \$195 per square foot including Furnishings and Equipment.

#### Renovations

Historically, comprehensive renovations cost in the range of 75 – 90% of new construction costs. For discussion purposes, assume a rate of 85%.

$\$195 \times .85 = \$166 / \text{s.f.}$

- $\$166 / \text{s.f.} \times 274,295 \text{ s.f.} = \$45,532,970$  say \$45 - \$46 M.
- This assumes no new construction, though some new construction will likely be required.

Other costs

- Cost of portables and other phased construction costs
- Construction cost inflation for a project extending over a number of years
- Phased moving costs conducted on multiple occasions.

#### New Construction

Using an anticipated building size of 247,000 GSF

- $247,000 \text{ SF} \times \$195 / \text{sf} = \$48,165,000$  Say \$48M.
- This assumes all new construction is on City- owned land.



Other costs associated with new construction:

- Hazardous materials abatement of the existing high school building.
- Demolition of the existing high school building.