

**Present:** Matthew Wells, Sr. Business Analyst; John Flaherty, Deputy Superintendent of Finance and Operations; Brian Schlegel, Facilities Manager; Wally Johnston, School Committee; Chris Popov, Volunteer; Eve Isenberg, Volunteer; Drew Rosenshine, CMS; Heather Bout, School Committee; Chris Whelan, Town Manager; Maria McDermott, CMS Teacher; Karin Baker, CMS Teacher; Lauryn Gorli, Volunteer; Matthew Root, Volunteer; Pat Morss, Finegold Alexander; Regan Shields Ives, Finegold Alexander; Matt Andersen-Miller, Volunteer

I. Call to Order

Heather Bout called the meeting to order at 6:00 p.m. and noted that the meeting is being recorded.

There were no public comments.

II. Vote to Approve Minutes

A motion was made to approve the October 25, 2016 and the edited February 7, 2017 meeting minutes by John Flaherty and seconded by Brian Schlegel. The motion passed unanimously.

III. Presentation by Finegold Alexander Architects

The presentation included:

- Brief review of 10-Year Maintenance Plan presented at the 2/07/17 meeting; cost of roof replacement at the Sanborn and Peabody buildings added to the "Recommended Action" column.
- Introduction of the 50-Year Long Term Plan.
- Meetings with parents, faculty and support staff for input on design.
- Tours of the Willard Elementary School and Concord-Carlisle Regional High School.
- Considerations for retaining and updating both buildings, expanding Sanborn, or designing a new school on the Sanborn site.
- Explanation of the MSBA space program standards for 700 students, and how they compare to existing Sanborn square footages (400 students). MSBA standard for 700 students is 115,000 GSF.
- Presentation of alternative diagrammatic plans:
  - Expansion Option 1A – MSBA program [*major additions are classroom wing to the SW and enlarged cafeteria; retain existing oversize program spaces, and the auditorium which is not allowed by MSBA*]
  - Expansion Option 1B – MSBA with addition of Concord desired elements [*new classroom wing to the NE and enlarged cafeteria; retain enlarged auditorium and further enlarge music; add CASE and fitness center*]
  - New School Option 2A – MSBA program [*compact plan meeting MSBA square footages; no auditorium*]
  - New School Option 2B – MSBA with addition of Concord desired elements [*similar plan with addition of auditorium, CASE, fitness center, and other enlarged areas*]
  - New School Option C – MSBA program [*alternate scheme to 2A with 3 classroom levels terracing down the existing steep slope*]
- During discussion, FAA presented two additional sketches not in the presentation. They depict hybrid solutions involving partial demolition of Sanborn with a greater amount of new construction to respond to a changing teaching environment.

- Partial Demolition #1 – MSBA with addition of Concord desired elements [*retain and renovate auditorium/gym section; new classroom wings at opposite ends of retained core; new cafeteria*]
- Partial Demolition #2 – MSBA with addition of Concord desired elements [*retain and renovate auditorium/gym section; new media center surrounded by 3 classroom pods at one end; new cafeteria at opposite end*]

1. Discussion of the concept schemes:

- Positive reaction to the partial demolition options. They allow for retaining auditorium at the same time as transforming the educational environment with new classrooms.
- Partial demolition schemes have added cost of relocating students into modular classrooms during construction.
- Need to be compact; verticality adds to efficiency of maintenance and operations. For instance, stack classrooms above cafeteria. Make Partial Demo #2 classroom pods more compact.
- Check whether inclusion of the existing Sanborn balcony, used for storage, is the reason the present gym is larger than the MSBA standard.

2. General discussion:

- This CMS Facility Study will assist advocating for the CMS project to the Town of Concord and while working with MSBA. A Statement of Interest (SOI) will be submitted to MSBA in early April.
- The study should show we understand the two existing buildings and have explored multiple options for an improved CMS.
- Demonstrate why it is impractical to continue operating Sanborn and Peabody, in terms of maintenance and operations, as well as staffing. Be clear about both physical building and teaching environment deficiencies. Teachers waste time and compromise their programs traveling between buildings (any statistics?).
- Comparative budget costs, being developed for the selected options in the study, are one factor in guiding a recommendation for Sanborn additions, partial demolition and expansion, or a new school.
- The 10-Year Maintenance Plan suggests costs over that period to maintain and upgrade the two buildings will be about \$29M. This is exclusive of annual staff and maintenance budgets, and does not account for costs to transform the educational environment in keeping with new trends and technology (such as flexible, redesigned classrooms).
- Include hazardous materials costs in the analysis. Universal Environmental Consultants provided broad estimates in the Existing Conditions section of this study.

3. Next Steps:

- After discussion, the consensus was to advance several designs with probable cost options over the next 50 years:
  - A) Retain, maintain and improve 2 buildings
  - B) Retain, improve, and add to Sanborn; based on Option 1A; but with MSBA + Desired
  - C) Partial demolition retaining auditorium/gym, and more extensive additions; based on Partial Demo #2; MSBA + Desired
  - D) New School; based on Option 2C; two versions – MSBA without and with Desired
- For D), provide a separate cost for a stand-alone auditorium and 2<sup>nd</sup> practice gym, should MSBA have the same requirement as for the 2<sup>nd</sup> gym at CCHS.
- Include all the other options in the study as less-developed vignettes to show due diligence in exploring all avenues. Will help sell the preferred option to the Town and MSBA. Develop comparative square footage costs for the selected schemes.

IV. Additional Items

The next meeting will be at 6:00 p.m. on Wednesday, April 12, 2017 at Sanborn.

V. Public Questions/Answers

Karle Packard from the Finance Committee asked why there are two middle schools. Having two buildings helps with the transition from elementary school to middle school. Keeping separate buildings may have value.

VI. Public Comments

None

VII. Adjourn

A motion was made to adjourn by Chris Popov and seconded by Brian Schlegel at 7:46 p.m. The motion was unanimously approved.

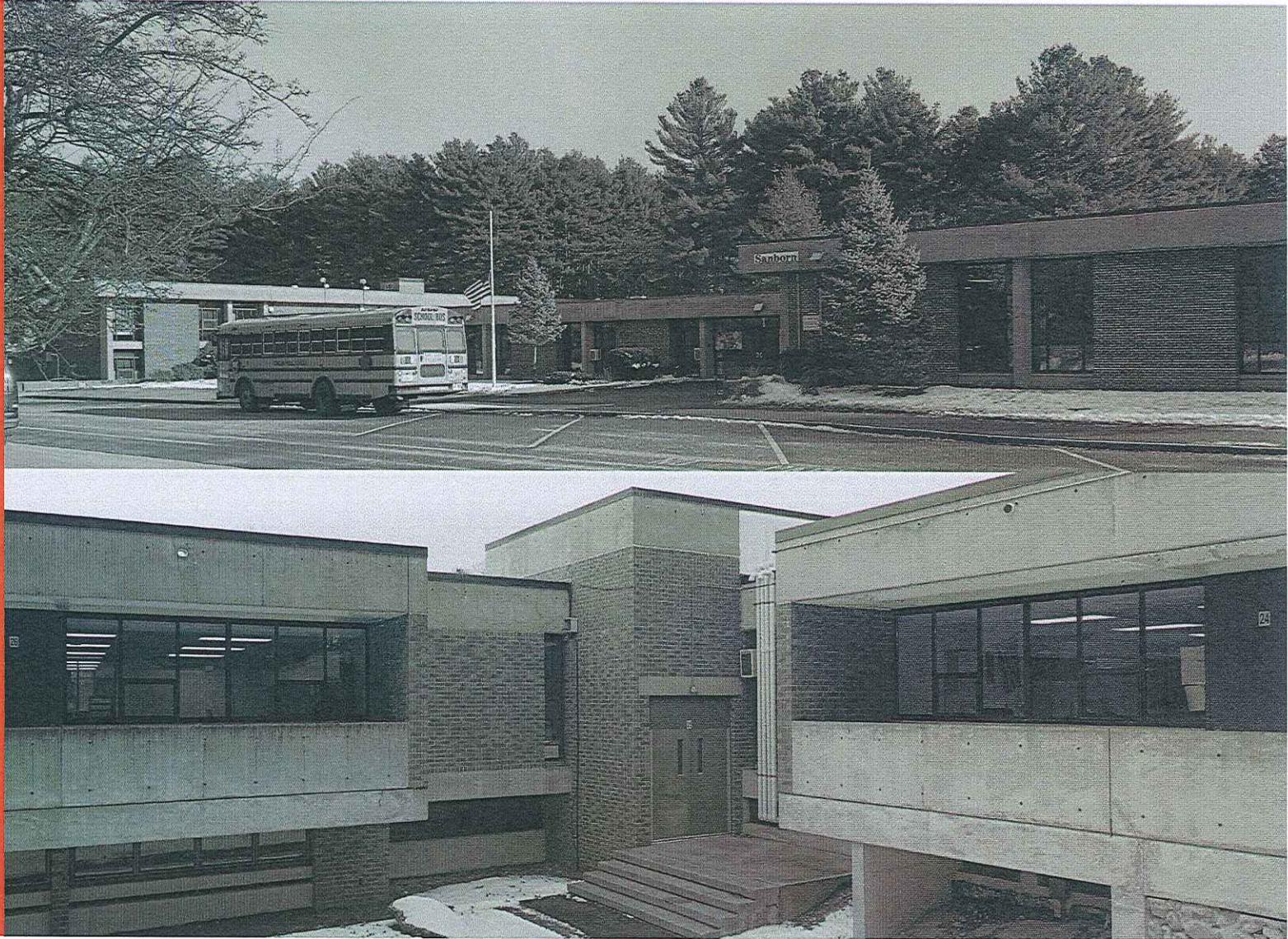
Respectfully submitted,  
Matthew Wells

Approved: 4/12/2017

# CONCORD MIDDLE SCHOOL FACILITY STUDY

March 23, 2017

Finegold Alexander Architects

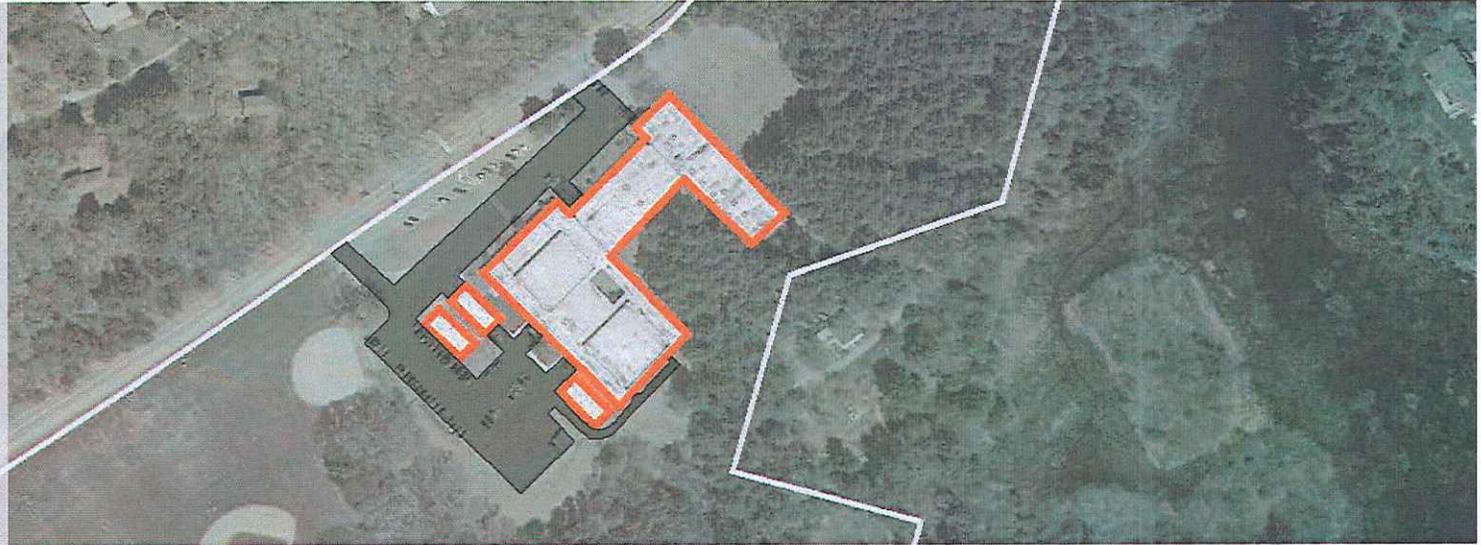


**1. Overview of 10-Year Plan**

**2. 50-Year Long Term Plan**

**3. Design Options**

**4. Next Steps**



**CONCORD MIDDLE SCHOOL**

Study Committee Meeting  
March 23, 2017

Finegold Alexander Architects



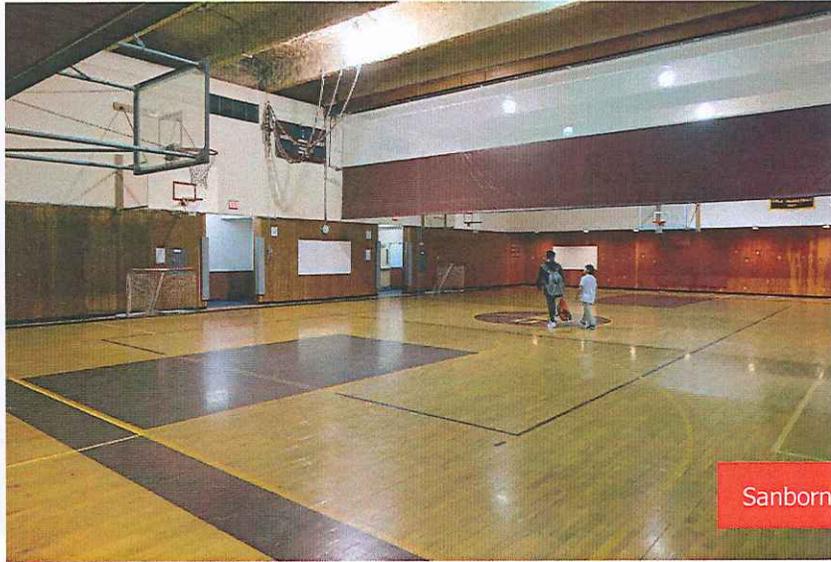
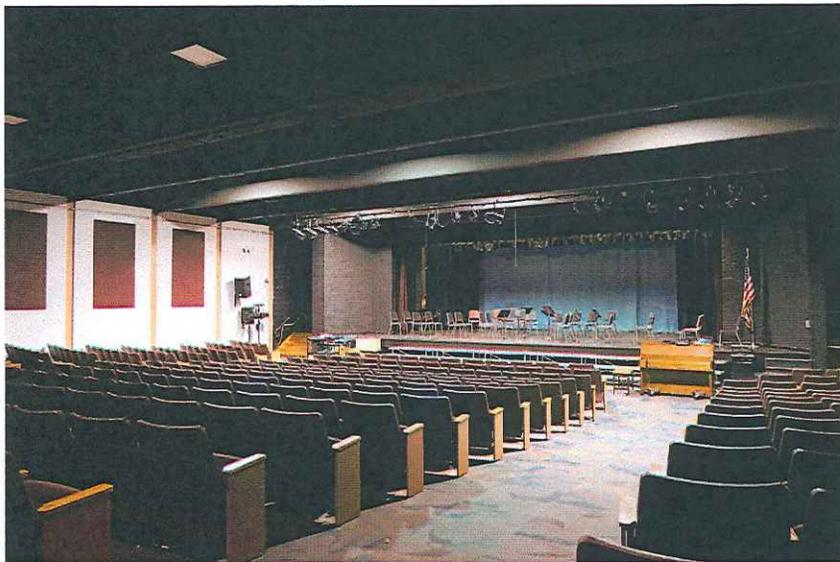
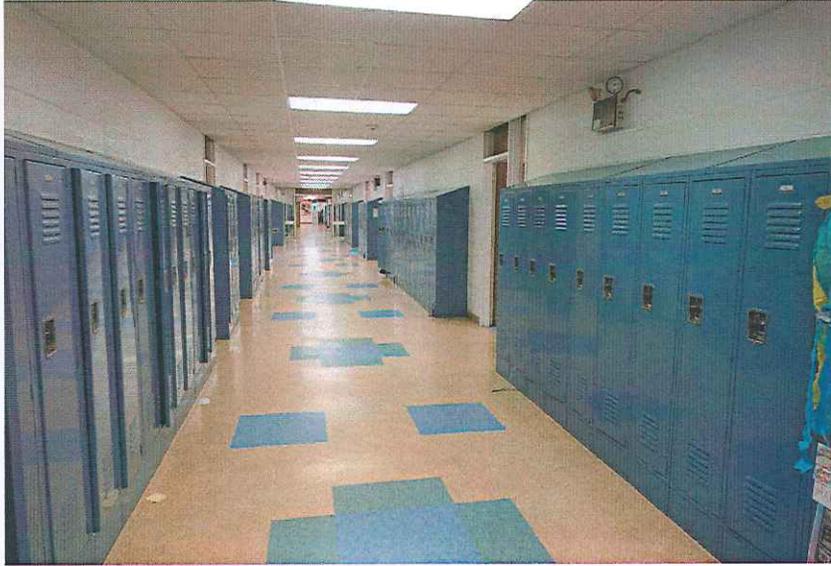
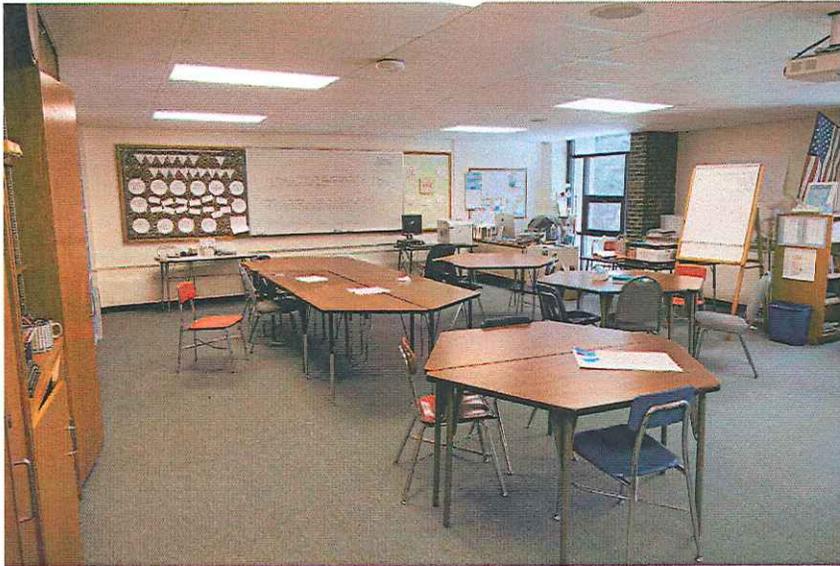
# Overview of 10-Year Plan



Sanborn Building | 10-Year Plan



Sanborn Building | 10-Year Plan



Sanborn Building | 10-Year Plan

# SANBORN BUILDING

| No | Categories                   | Required Action  |           | Recommended Action  |             | Optional   |           | Other Action Items (Not Budgeted)                       |
|----|------------------------------|--|-----------|---|-------------|--|-----------|---|
|    |                              | Priority: 0-2 Years                                      | Cost      | Priority: 0-10 Years  | Cost        | Priority: 0-10 Years                                   | Cost      |   |
| 1  | Architectural/Interior       | 1.1 Provide rated doors at two classroom egress stairs   | \$25,050  | 1.2 Steam clean entire exterior                             | \$88,725    |  |           |   |
| 2  | Stormwater Management        | 2.1 Re-grade paving and landscape to direct runoff       | \$49,454  | 1.3 Replace roof; improve insulation, drainage, parapet     | \$2,345,267 |  |           | 2.4 Prepare detailed assessment of drainage system      |
| 3  | Sewer                        |  |           | 2.2 Clean all drainage structures and pipe network          | \$5,000     |  |           | 2.5 Prepare Maintenance Plan for drainage system        |
| 4  | Water                        |  |           | 2.3 Repair landscape at minor erosion scars                 | \$2,000     |  |           | 3.2 Prepare Maintenance Plan for sewage disposal system |
| 5  | Parking                      | 5.1 Stripe 21 additional required parking spaces         | \$2,100   | 3.1 Assess condition of existing building sewer system      | \$1,000     |  |           | 4.1 Flow test all domestic and fire protection lines    |
| 6  | Structure                    | 6.1 Repair several brick veneer cracks                   | \$10,000  |   |             | 6.8 Repoint brick veneer in limited areas              | \$409,500 | 4.2 Prepare Maintenance Plan for water supply system    |
|    |                              | 6.2 Repair concrete exterior steps, NW corner classrooms | \$4,462   | 6.3 Evaluate roof drainage and add scuppers                 | \$58,400    | 6.9 Evaluate floor-to-wall seismic connections         | \$295,250 | 6.11 Evaluate roof fire resistance rating               |
|    |                              |  |           | 6.4 Regrade concrete paving and lawn at cafeteria courtyard | \$23,904    |  |           |   |
|    |                              |  |           | 6.5 Evaluate condition and clean courtyard retaining wall   | \$3,580     |  |           |   |
|    |                              |  |           | 6.6 Repair concrete at 10% of exterior column bases         | \$2,400     |  |           |   |
|    |                              |  |           | 6.7 Repair crack at classroom interior CMU wall             | \$1,000     |  |           |   |
| 7  | HVAC                         | 7.1 Complete modification of boiler room ventilation     | \$2,500   |   |             | 7.2 Replace aging hot water piping distribution system | \$752,981 | 7.5 Correct control of boiler room outside air louver   |
|    |                              |  |           |   |             | 7.3 Review efficiency of hot water pump system         | \$68,750  |   |
|    |                              |  |           |   |             | 7.4 Replace dated pneumatic control system             | \$376,491 |   |
| 8  | Fire Protection and Plumbing | 8.1 Make Kitchen gas header code compliant               | \$2,500   | 8.2 Protect building with automatic sprinklers              | \$805,274   |  |           |   |
|    |                              |  |           | 8.3 Selectively replace piping insulation.                  | \$2,000     |  |           |   |
|    |                              |  |           | 8.4 Provide ADA compliant Staff Toilet Rooms                | \$91,058    |  |           |   |
|    |                              |  |           | 8.5 Provide ADA compliant casework fixtures                 | \$80,000    |  |           |   |
| 9  | Electrical                   | 9.1 Expand and upgrade fire alarm system (code)          | \$310,051 |   |             | 9.3 Provide emergency generator.                       | \$150,000 |   |
|    |                              | 9.2 Upgrade exit signage (code)                          | \$14,000  |   |             |  |           |   |
| 10 | Technology                   | 10.1 Upgrade telecommunications infrastructure (code)    | \$224,788 | 10.3 Expand and upgrade intrusion detection system          | \$7,150     |  |           | 10.9 Verify viability of access control intercom system |
|    |                              | 10.2 Upgrade telephone to new system provider            | \$7,500   | 10.4 Upgrade and expand video surveillance system           | \$75,000    |  |           |   |
|    |                              |  |           | 10.5 Upgrade data communications/Wi-Fi system               | \$221,465   |  |           |   |
|    |                              |  |           | 10.6 Upgrade front door intercom                            | \$6,000     |  |           |   |
|    |                              |  |           | 10.7 Upgrade PA system and integrate with telephone         | \$66,440    |  |           |   |
|    |                              |  |           | 10.8 Provide new wired or wireless clock system             | \$26,576    |  |           |   |
|    |                              |  |           | 10.9 Upgrade audio visual system                            | \$250,000   |  |           |   |
| 11 | Code                         |  |           |   |             | 11.1 Perform complete building survey if major project | \$15,000  |   |
| 12 | Hazardous Materials          |  |           |   |             |  |           | 12.1 Continue monitoring; no action required            |

Trade Costs: \$652,405

General Conditions & Project Requirements (17%):  
 \$112,866  
 Overhead & Profit (7%) \$53,569  
 Design Contingency (15%) \$122,826

**SUBTOTAL: \$941,666**

Escalation (1 year/4 %) \$37,667  
**Total Construction: \$979,333**

Trade Costs: \$4,162,239

General Conditions & Project Req. (17%):  
 \$720,068  
 Overhead & Profit (7%) \$341,761  
 Design Contingency (15%) \$783,610

**SUBTOTAL: \$6,007,678**

Escalation (6 years/26.5 %) \$174,223  
**Total Construction: \$6,181,901**

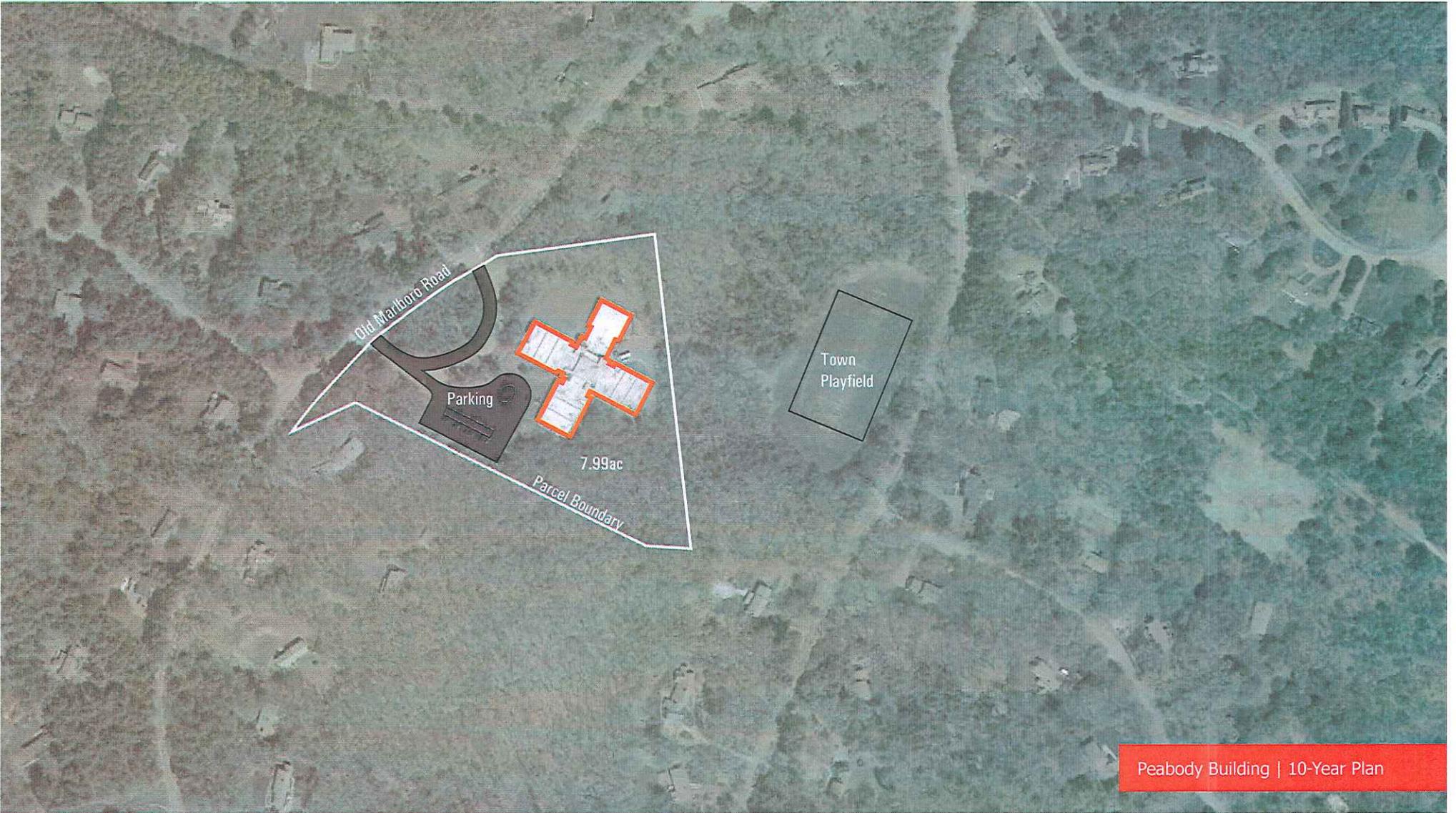
Trade Costs: \$2,067,972

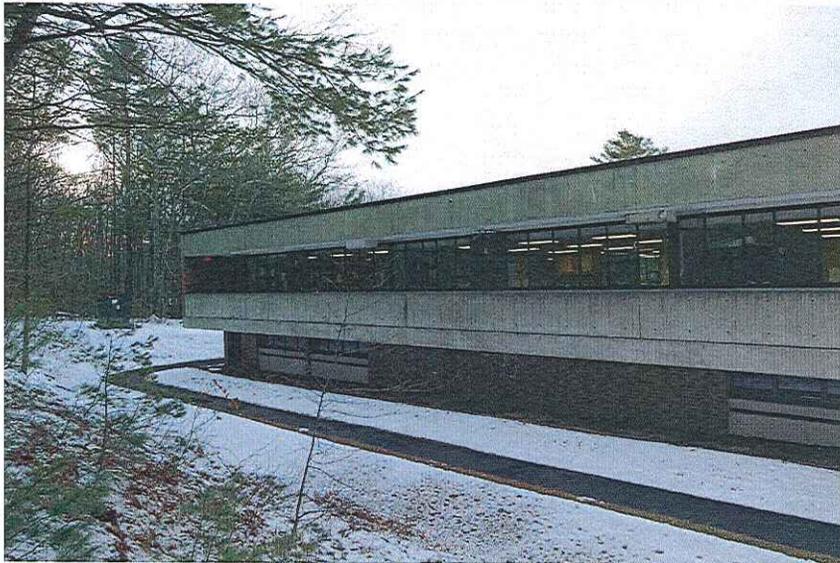
General Conditions & Project Req. (17%):  
 \$357,759  
 Overhead & Profit (7%) \$169,801  
 Design Contingency (15%) \$389,330

**SUBTOTAL: \$2,984,862**

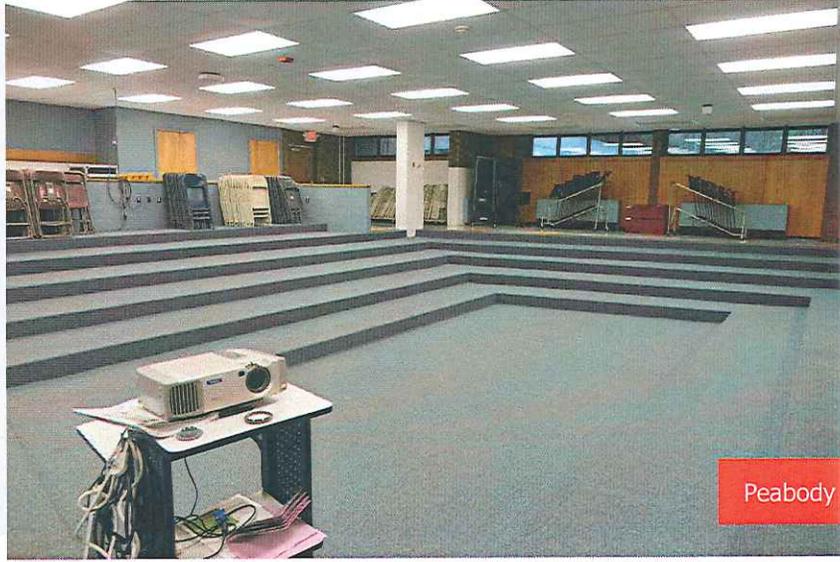
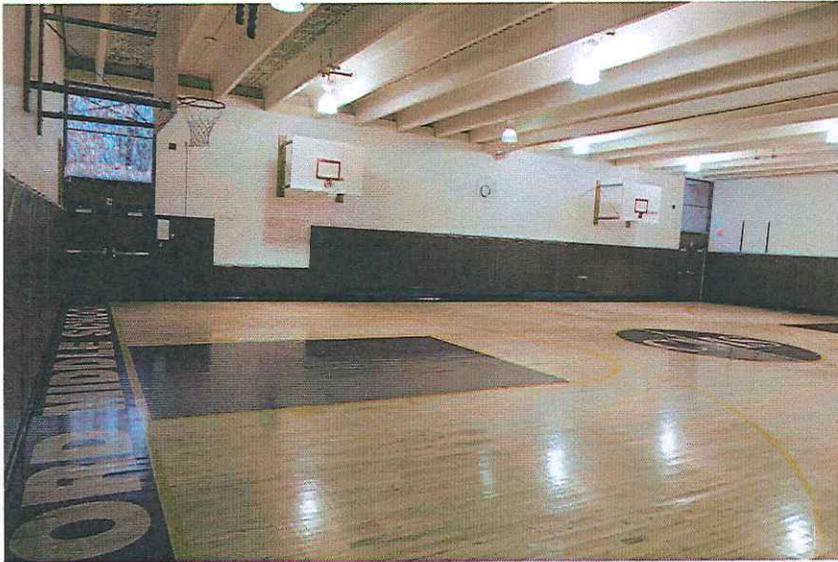
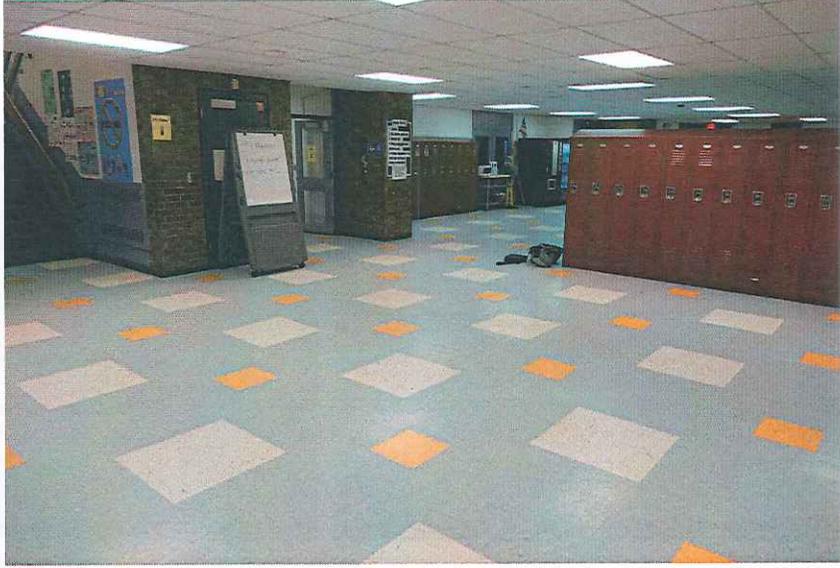
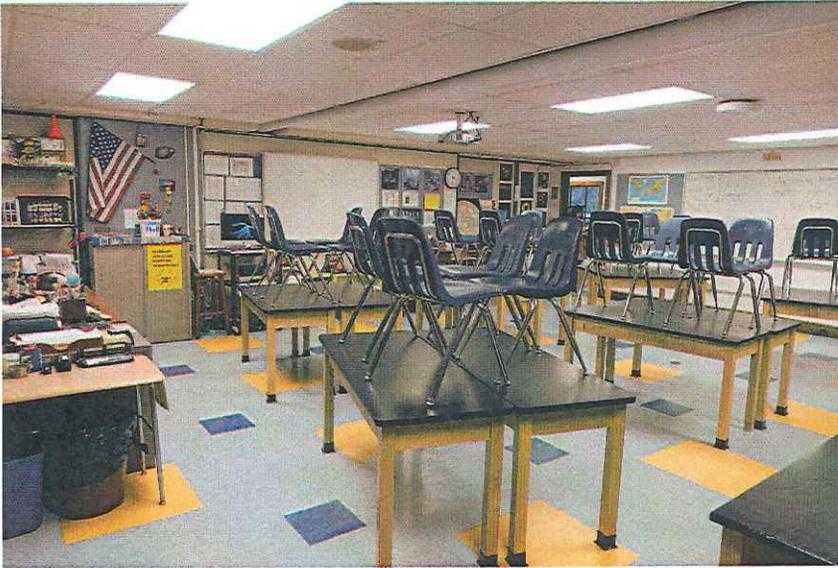
Escalation (6 years/26.5 %) \$790,988  
**Total Construction: \$3,775,850**

**SANBORN GRAND TOTAL: \$10,937,084**





Peabody Building | 10-Year Plan



## PEABODY BUILDING

| No | Categories                   | Required Action<br>Priority: 0-2 Years                | Cost  | Recommended Action<br>Priority: 0-10 Years                 | Cost        | Optional<br>Priority: 0-10 Years                       | Cost   | Other Action Items (Not Budgeted)                            |  |
|----|------------------------------|---|---|--|-------------|--|--|--|--|
| 1  | Architectural/Interior       | 1.1 Repaint underside of balcony and roof overhangs   | \$38,169  | 1.2 Steam clean the entire exterior                        | \$88,010    | 1.4 Build gymnasium addition to middle school needs    | \$2,800,000  |  |  |
| 2  | Stormwater Management        |   |   | 1.3 Replace roof; improve insulation, drainage, parapet    | \$1,192,550 | 1.5 Build auditorium addition to middle school needs   | \$3,150,000  | 2.3 Prepare detailed assessment of drainage system           |  |
| 3  | Sewer                        |   |   | 2.1 Clean all drainage structures and pipe network         | \$5,000     |  |  | 2.4 Prepare Maintenance Plan for drainage system             |  |
| 4  | Water                        |   |   | 2.2 Repair landscape at minor erosion scars                | \$2,000     |  |  | 3.3 Prepare Maintenance Plan for sewage disposal system      |  |
| 5  | Parking                      | 5.1 Pave and provide 22 additional parking spaces     | \$71,264  | 3.1 Assess condition of existing building sewer system     | \$1,000     | 3.2 Find alternative to leaching field siphon dosing   | \$40,000   | 4.1 Flow test all domestic and fire protection lines         |  |
|    |                              | 5.2 Provide 1 additional ADA parking space            | \$5,825   |  |             |  |  | 4.2 Prepare Maintenance Plan for water supply system         |  |
| 6  | Structure                    | 6.1 Repair several brick veneer cracks                | \$7,500   | 6.3 Evaluate roof drainage and add scuppers                | \$39,200    | 6.6 Brick veneer requires repointing in limited areas. | \$60,930   | 6.9 Evaluate roof fire resistance rating                     |  |
|    |                              | 6.2 Repair balcony decks and correct drainage         | \$49,681  | 6.4 Repair parapet shrinkage cracks and spalling           | \$15,000    | 6.7 Evaluate floor-to-wall seismic connections         | \$188,750  |  |  |
|    |                              |   |   | 6.5 Repair exterior concrete and brick in select locations | \$24,840    |  |  |  |  |
| 7  | HVAC                         |   |   | 7.1 Provide ventilation and AC at main office              | \$28,000    | 7.2 Replace aging hot water piping distribution system | \$481,058  | 7.3 Find alternative to boiler room exhaust under classrooms |  |
|    |                              |   |   |  |             | 7.3 Review efficiency of hot water pump system         | \$68,750   |  |  |
|    |                              |   |   |  |             | 7.4 Replace dated pneumatic control system             | \$240,529  |  |  |
| 8  | Fire Protection and Plumbing | 8.1 Make Kitchen gas header code compliant            | \$2,500   | 8.2 Protect building with automatic sprinklers             | \$515,355   |  |  |  |  |
|    |                              |   |   | 8.3 Selectively replace piping insulation.                 | \$1,500     |  |  |  |  |
|    |                              |   |   | 8.4 Check cast iron piping for repairs                     | \$15,000    |  |  |  |  |
|    |                              |   |   | 8.5 Provide ADA compliant Staff Toilet Rooms               | \$91,058    |  |  |  |  |
|    |                              |   |   | 8.6 Provide ADA compliant casework fixtures                | \$65,000    |  |  |  |  |
| 9  | Electrical                   | 9.1 Expand and upgrade fire alarm system (code)       | \$198,083   |  |             | 9.3 Provide emergency generator.                       | \$150,000  |  |  |
|    |                              | 9.2 Upgrade exit signage (code)                       | \$12,000  |  |             |  |  |  |  |
| 10 | Technology                   | 10.1 Upgrade telecommunications infrastructure (code) | \$144,934   | 10.3 Expand and upgrade intrusion detection system         | \$19,500    |  |  | 10.9 Verify viability of access control intercom system      |  |
|    |                              | 10.2 Upgrade telephone to new system provider         | \$7,500   | 10.4 Upgrade and expand video surveillance system          | \$98,000    |  |  |  |  |
|    |                              |   |   | 10.5 Upgrade data communications/Wi-Fi system              | \$141,488   |  |  |  |  |
|    |                              |   |   | 10.6 Upgrade front door intercom                           |             |  |  |  |  |
|    |                              |   |   | 10.6 Upgrade PA system and integrate with telephone        | \$42,446    |  |  |  |  |
|    |                              |   |   | 10.7 Provide new wired or wireless clock system            | \$16,979    |  |  |  |  |
|    |                              |   |   | 10.8 Upgrade audio visual system                           | \$200,000   |  |  |  |  |
| 11 | Code                         |   |   |  |             | 11.1 Perform complete building survey if major project | \$15,000   |  |  |
| 12 | Hazardous Materials          |   |   |  |             |  |  | 12.1 Continue monitoring; no action required                 |  |
|    |                              |   | Trade Costs: \$537,456                                    |  |             |  | Trade Costs: \$2,601,926                             |  |  |
|    |                              |   | General Conditions & Project Requirements (17%): \$92,927 |  |             |  | General Conditions & Project Req. (17%): \$1,244,738 |  |  |
|    |                              |   | Overhead & Profit (7%) \$44,130                           |  |             |  | Overhead & Profit (7%) \$590,783                     |  |  |
|    |                              |   | Design Contingency (15%) \$101,185                        |  |             |  | Design Contingency (15%) \$1,354,581                 |  |  |
|    |                              |   | <b>SUBTOTAL: \$775,698</b>                                |  |             |  | <b>SUBTOTAL: \$10,385,119</b>                        |  |  |
|    |                              |   | Escalation (1 year/4 %) \$31,028                          |  |             |  | Escalation (6 years/26.5 %) \$2,752,057              |  |  |
|    |                              |   | <b>Total Construction: \$806,726</b>                      |  |             |  | <b>Total Construction: \$13,137,176</b>              |  |  |

**PEABODY GRAND TOTAL: \$17,808,371**

Peabody Building | 10-Year Plan

**SANBORN BUILDING**

| No. Categories   | Required Action<br>Priority: 0-2 Years | Cost  | Recommended Action<br>Priority: 0-10 Years              | Cost        | Optional<br>Priority: 0-10 Years | Cost   | Other Action Items (Not Budgeted)                      |
|--|--|---|---|-------------|----------------------------------|--|--|
| 1  | Architectural/Interior                 | 1.1 Provide paint repairs of base cabinets against chairs | 1.1.1 Paint base cabinet exterior                       | \$96,723    |                                  |  |  |
| 2  | Stormwater Management                  | 2.1 Upgrade paving and landscaping to divert runoff       | 2.1.1 Replace and improve drainage, discharge, drainage | \$1,343,842 |                                  |  | 2.2 Prepare detailed assessment of drainage system     |
| 3  | Water                                  | 3.1   | 3.1.1   |             |                                  |  | 3.2 Prepare Maintenance Plan for sewer disposal system |
| 4  | Parking                                | 4.1   | 4.1.1   |             |                                  |  | 4.2 Prepare Maintenance Plan for water supply system   |
| 5  | Structure                              | 5.1   | 5.1.1   |             |                                  |  |  |
| 6  | HVAC                                   | 6.1   | 6.1.1   |             |                                  |  |  |
| 7  | Fire Protection and Plumbing           | 7.1   | 7.1.1   |             |                                  |  |  |
| 8  | Electrical                             | 8.1   | 8.1.1   |             |                                  |  |  |
| 9  | Technology                             | 9.1   | 9.1.1   |             |                                  |  |  |
| 10   | Code                                   | 10.1  | 10.1.1  |             |                                  |  |  |
| 11   | Hazardous Materials                    | 11.1  | 11.1.1  |             |                                  |  |  |
| Trade Costs: \$632,405                                     |  |   | Trade Costs: \$4,162,239                                |             |                                  | Trade Costs: \$2,067,972                           |  |
| General Conditions & Project Requirements (17%): \$112,866 |  |   | General Conditions & Project Req. (17%): \$720,068      |             |                                  | General Conditions & Project Req. (17%): \$357,759 |  |
| Overhead & Profit (7%): \$53,589                           |  |   | Overhead & Profit (7%): \$341,761                       |             |                                  | Overhead & Profit (7%): \$169,801                  |  |
| Design Contingency (15%): \$122,826                        |  |   | Design Contingency (15%): \$783,610                     |             |                                  | Design Contingency (15%): \$389,330                |  |
| SUBTOTAL: \$941,666  |  |   | SUBTOTAL: \$6,007,678                                   |             |                                  | SUBTOTAL: \$2,988,862                              |  |
| Escalation (1 year/4 %): \$37,667                          |  |   | Escalation (6 years/26.5 %): \$174,223                  |             |                                  | Escalation (6 years/26.5 %): \$790,888             |  |
| Total Construction: \$979,333                              |  |   | Total Construction: \$6,181,901                         |             |                                  | Total Construction: \$3,779,750                    |  |

**SANBORN GRAND TOTAL: \$10,937,084**

**PEABODY BUILDING**

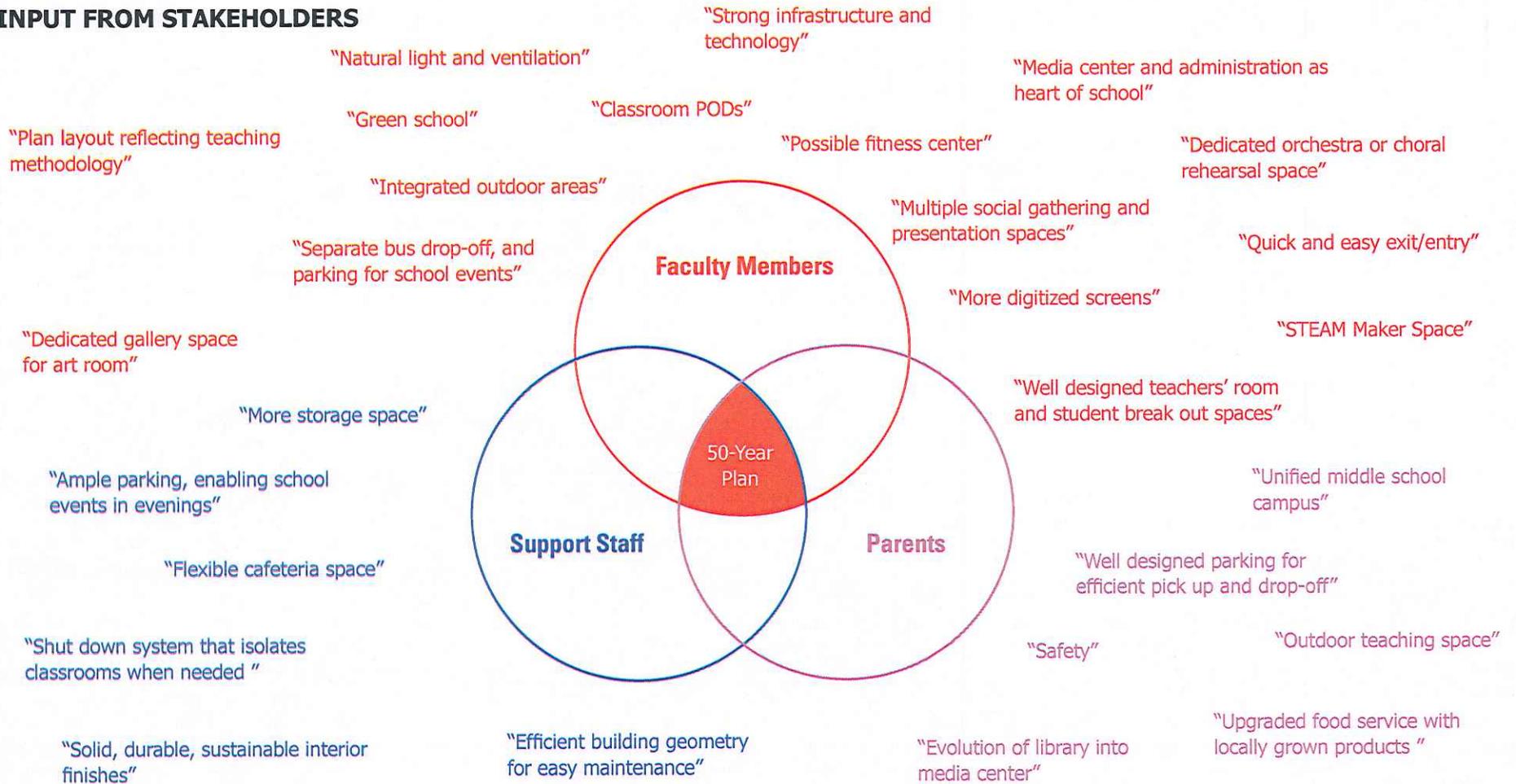
| No. Categories  | Required Action<br>Priority: 0-2 Years | Cost | Recommended Action<br>Priority: 0-10 Years         | Cost | Optional<br>Priority: 0-10 Years | Cost   | Other Action Items (Not Budgeted)                      |
|---|--|------|--|------|----------------------------------|--|--|
| 1   | Architectural/Interior                 | 1.1  | 1.1.1  |      |                                  |  |  |
| 2   | Stormwater Management                  | 2.1  | 2.1.1  |      |                                  |  | 2.2 Prepare detailed assessment of drainage system     |
| 3   | Water                                  | 3.1  | 3.1.1  |      |                                  |  | 3.2 Prepare Maintenance Plan for sewer disposal system |
| 4   | Parking                                | 4.1  | 4.1.1  |      |                                  |  | 4.2 Prepare Maintenance Plan for water supply system   |
| 5   | Structure                              | 5.1  | 5.1.1  |      |                                  |  |  |
| 6   | HVAC                                   | 6.1  | 6.1.1  |      |                                  |  |  |
| 7   | Fire Protection and Plumbing           | 7.1  | 7.1.1  |      |                                  |  |  |
| 8   | Electrical                             | 8.1  | 8.1.1  |      |                                  |  |  |
| 9   | Technology                             | 9.1  | 9.1.1  |      |                                  |  |  |
| 10  | Code                                   | 10.1 | 10.1.1   |      |                                  |  |  |
| 11  | Hazardous Materials                    | 11.1 | 11.1.1   |      |                                  |  |  |
| Trade Costs: \$537,456                                    |  |      | Trade Costs: \$2,601,826                           |      |                                  | Trade Costs: \$7,185,017                             |  |
| General Conditions & Project Requirements (17%): \$92,927 |  |      | General Conditions & Project Req. (17%): \$450,133 |      |                                  | General Conditions & Project Req. (17%): \$1,244,738 |  |
| Overhead & Profit (7%): \$44,130                          |  |      | Overhead & Profit (7%): \$233,644                  |      |                                  | Overhead & Profit (7%): \$590,783                    |  |
| Design Contingency (15%): \$101,185                       |  |      | Design Contingency (15%): \$489,855                |      |                                  | Design Contingency (15%): \$1,354,581                |  |
| SUBTOTAL: \$775,698                                       |  |      | SUBTOTAL: \$3,755,558                              |      |                                  | SUBTOTAL: \$10,385,119                               |  |
| Escalation (1 year/4 %): \$31,028                         |  |      | Escalation (6 years/26.5 %): \$108,911             |      |                                  | Escalation (6 years/26.5 %): \$2,752,057             |  |
| Total Construction: \$806,726                             |  |      | Total Construction: \$3,864,469                    |      |                                  | Total Construction: \$13,137,176                     |  |

**PEABODY GRAND TOTAL: \$17,808,371**

**SANBORN AND PEABODY GRAND TOTAL FOR 10-YEAR MAINTENANCE: \$28,745,455**

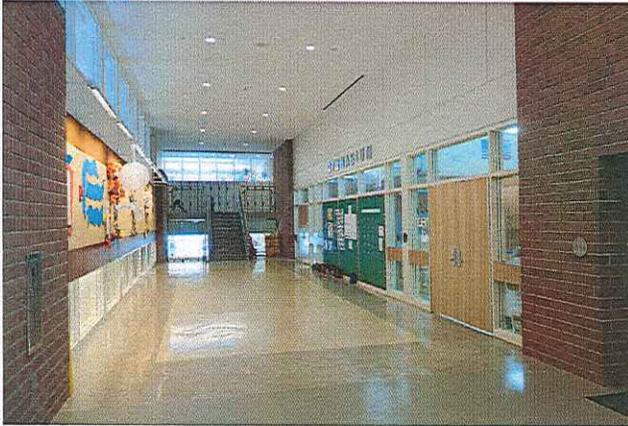
# **50-Year Long Term Plan**

## INPUT FROM STAKEHOLDERS

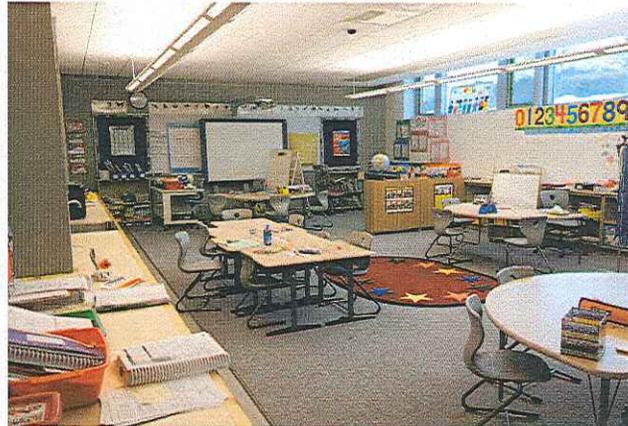


Meetings

## WILLARD ELEMENTARY SCHOOL and CONCORD-CARLISLE REGIONAL HIGH SCHOOL VISITS



Willard Elementary School



Concord-Carlisle Regional High School



## Considerations

- **Retain and Update Sanborn and Peabody**
  - Inefficient, impractical and costly to continue operating two campuses
- **Expand (Option 1)**
  - Expand one of the buildings
- **Build New Middle School (Option 2)**
  - Build new middle school on one of the sites



## Considerations

### The Sanborn site as chosen site

- Sanborn site is 31,29 acres whereas Peabody site is 7,99 acres
- Sanborn building is more suitable for expansion with its bigger gym and auditorium space
- Peabody becomes an asset to Town for reuse or sale



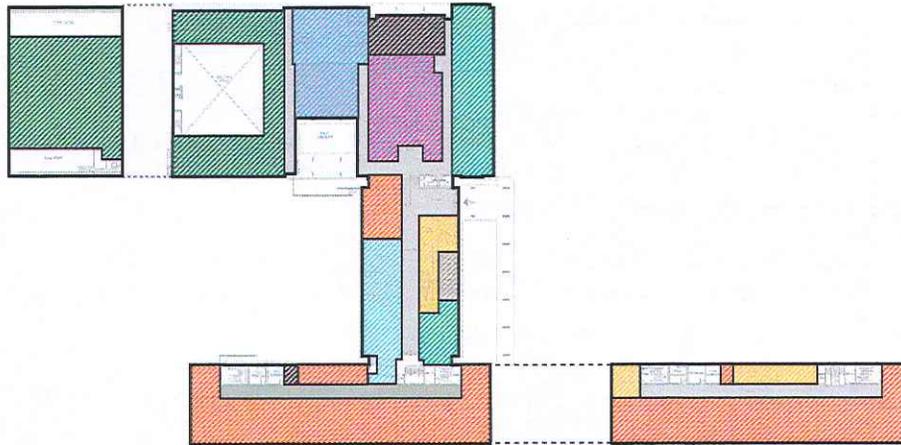
|                               | <b>OPTION 1 - Expansion</b>   | <b>OPTION 2 - New Middle School</b>  |
|-------------------------------|---|--|
| Construction on existing site | (-) Impact on school operations, site circulation, parking, playing fields  | (-) Impact on school operations, site circulation, parking, playing fields   |
| Construction Costs            | (+) Cost advantages of working with an existing building  | (+/-) Initial cost could be high for new construction, but it could be cost-effective in the long term.  |
| Maintenance                   | (-) High annual maintenance costs and upgrades as the existing building ages  | (+) With new building, the maintenance budget will be reduced  |
| Operating Costs               | (-) Sanborn's systems vary from half-century old piping to new boilers. No air conditioning, and ventilation and temperature control are sub-standard | (+) New technology available with the new building. Design, efficiency, reduced size, and lower fuel costs including renewable energy              |
| Code Compliance Requirements  | (-) The scale of the expansion would trigger code compliance requirements when retrofitting the existing building                                     | (+) New building would comply with current codes   |
| Program and Future Needs      | (-) Less flexibility to meet new curriculum needs<br>(+) Cost effective to keep large facility spaces (such as auditorium) that MSBA does not fund    | (+) More flexibility to meet new curriculum needs<br>(-) Expensive to construct large facility spaces (such as auditorium) that MSBA does not fund |
| Logistics                     | (-) Possible vacating of building during construction   | (+) School operation to continue in existing buildings   |

Considerations

# **DESIGN OPTIONS**

## **OPTION 1: EXPANSION**

## ANALYZING EXISTING SANBORN BUILDING



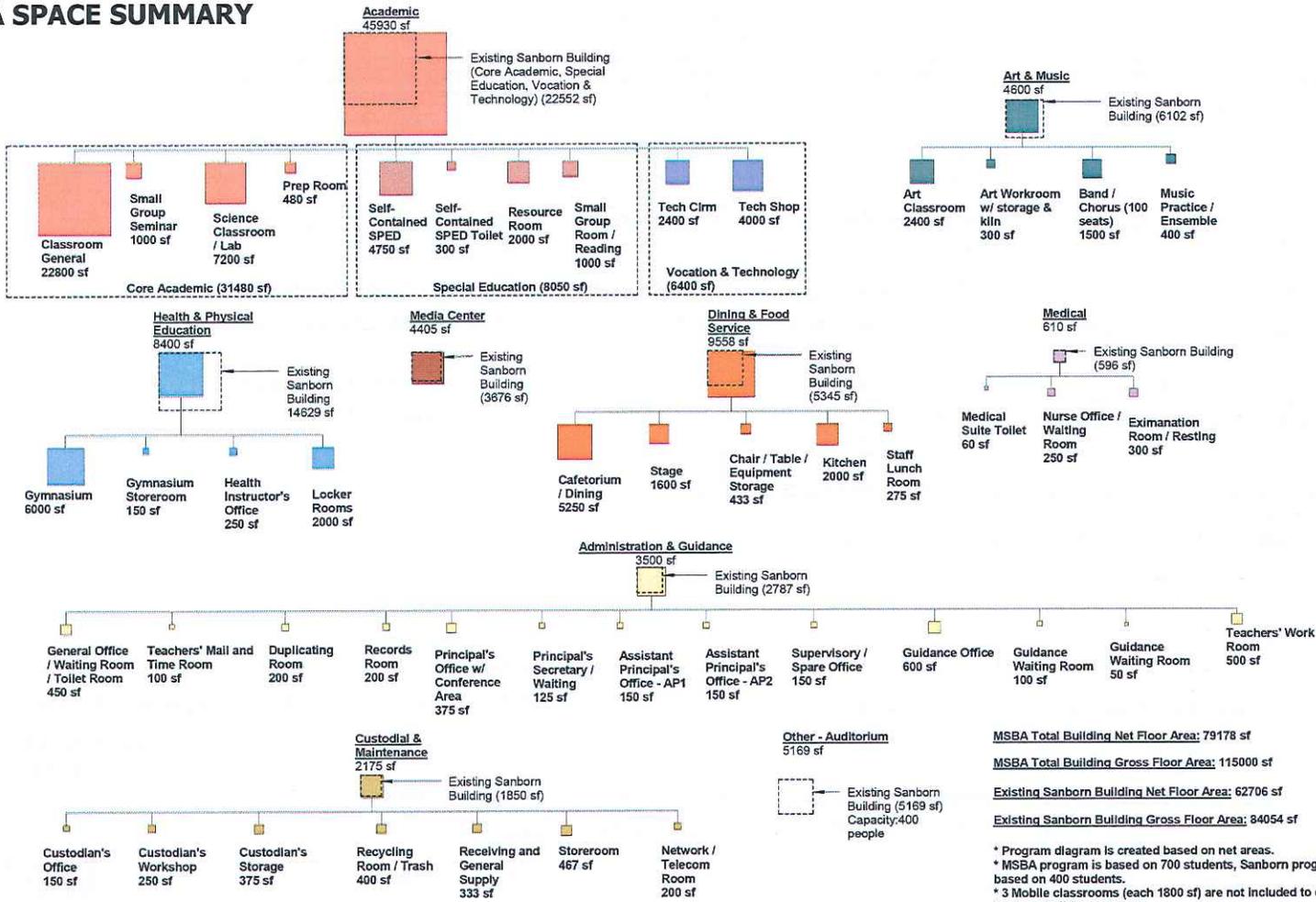
- Academic Net Area: 22,552 nsf
- Auditorium Net Area: 5,169 nsf
- Gym Net Area: 14,629 nsf
- Cafeteria Net Area: 2,345 nsf
- Arts & Music Net Area: 6,102 nsf
- Library Net Area: 3,676 nsf
- Medical Net Area: 596 nsf
- Administration & Guidance Net Area: 2,787 nsf
- Custodial / Maintenance Net Area: 1,850 nsf

Existing Sanborn GFA (without 3 modular classrooms)  
(400 students): 84,054 gsf

Option 1: Expansion

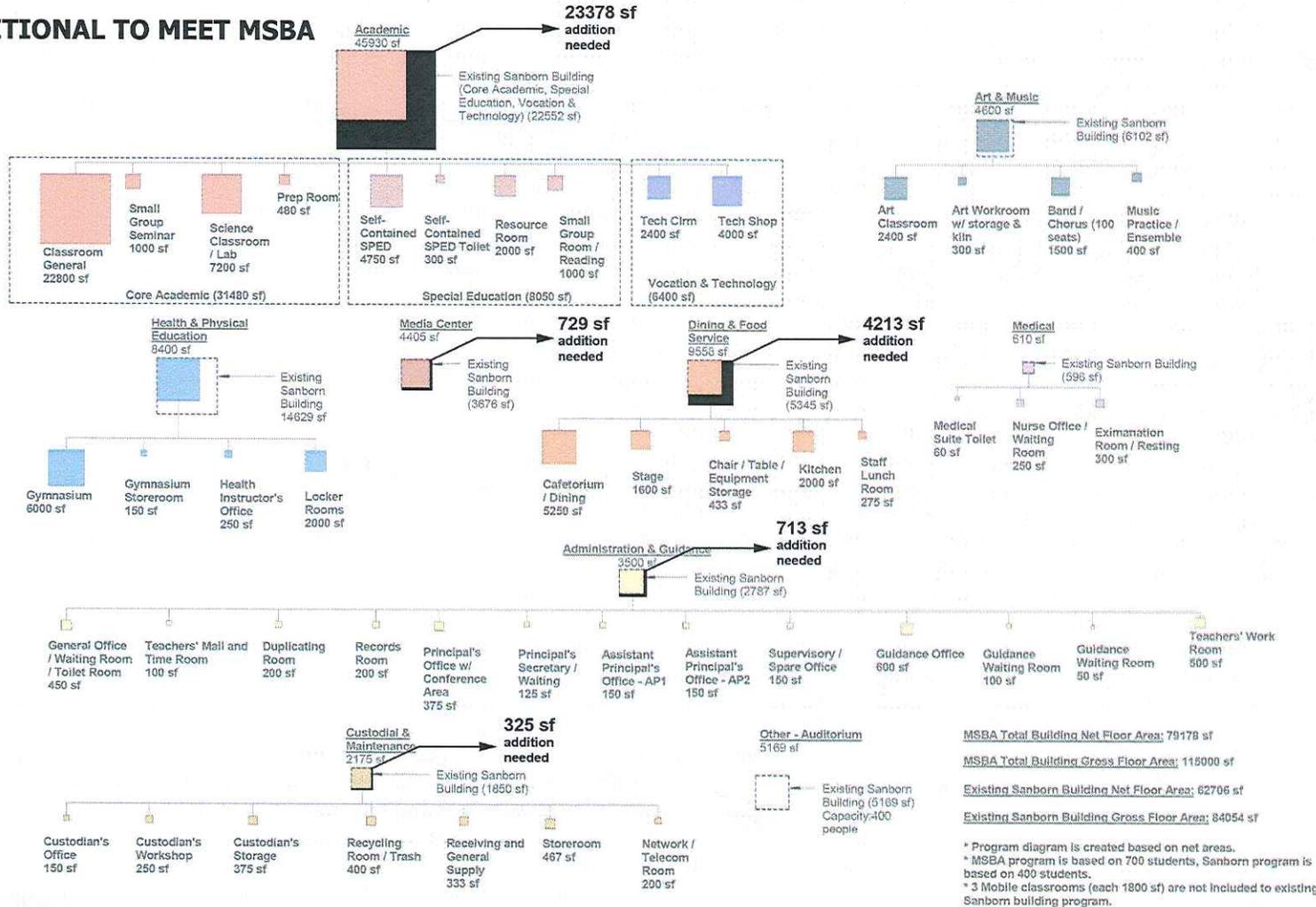


# MSBA SPACE SUMMARY



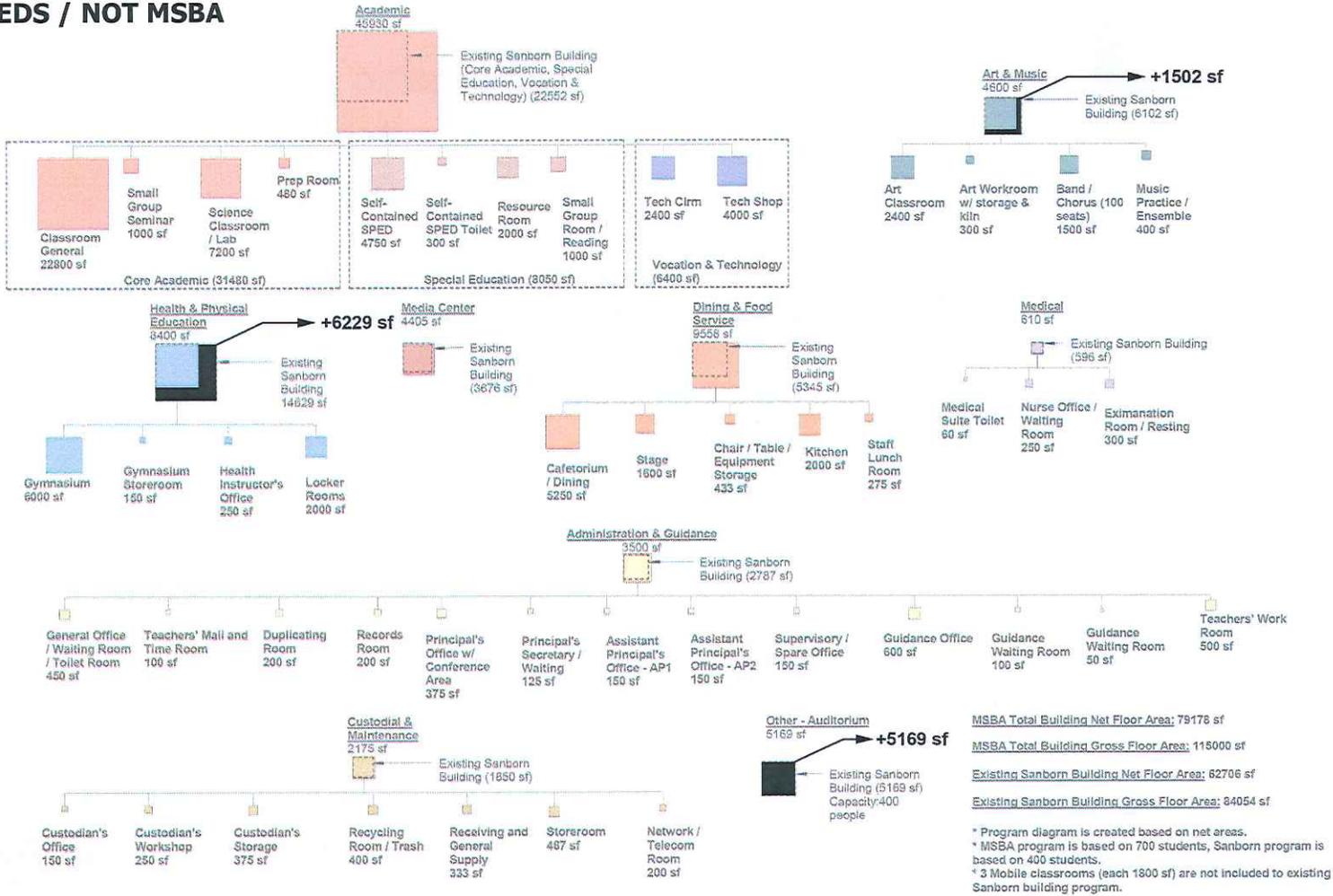
Option 1: Expansion

# ADDITIONAL TO MEET MSBA



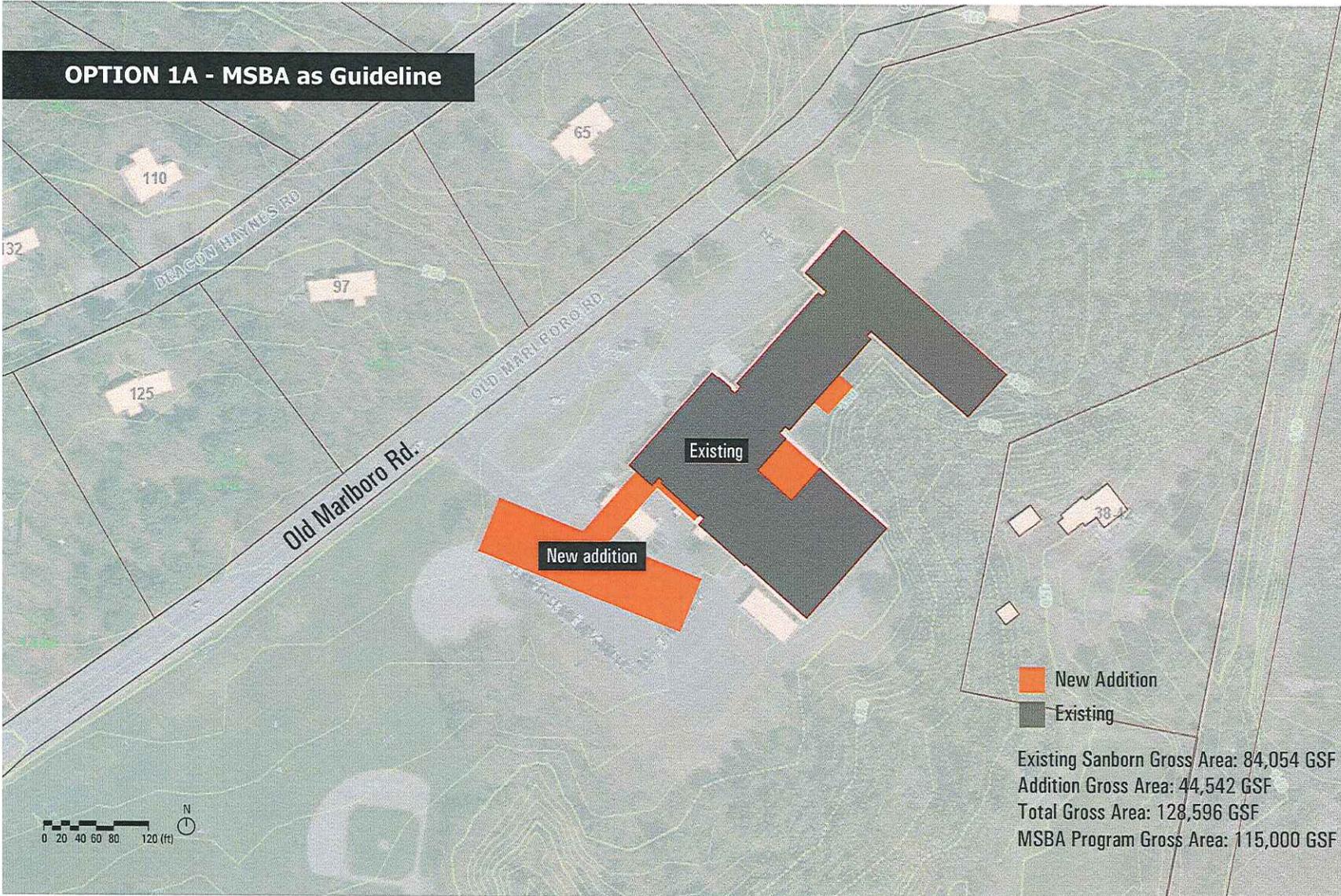
Option 1: Expansion

**EXCEEDS / NOT MSBA**



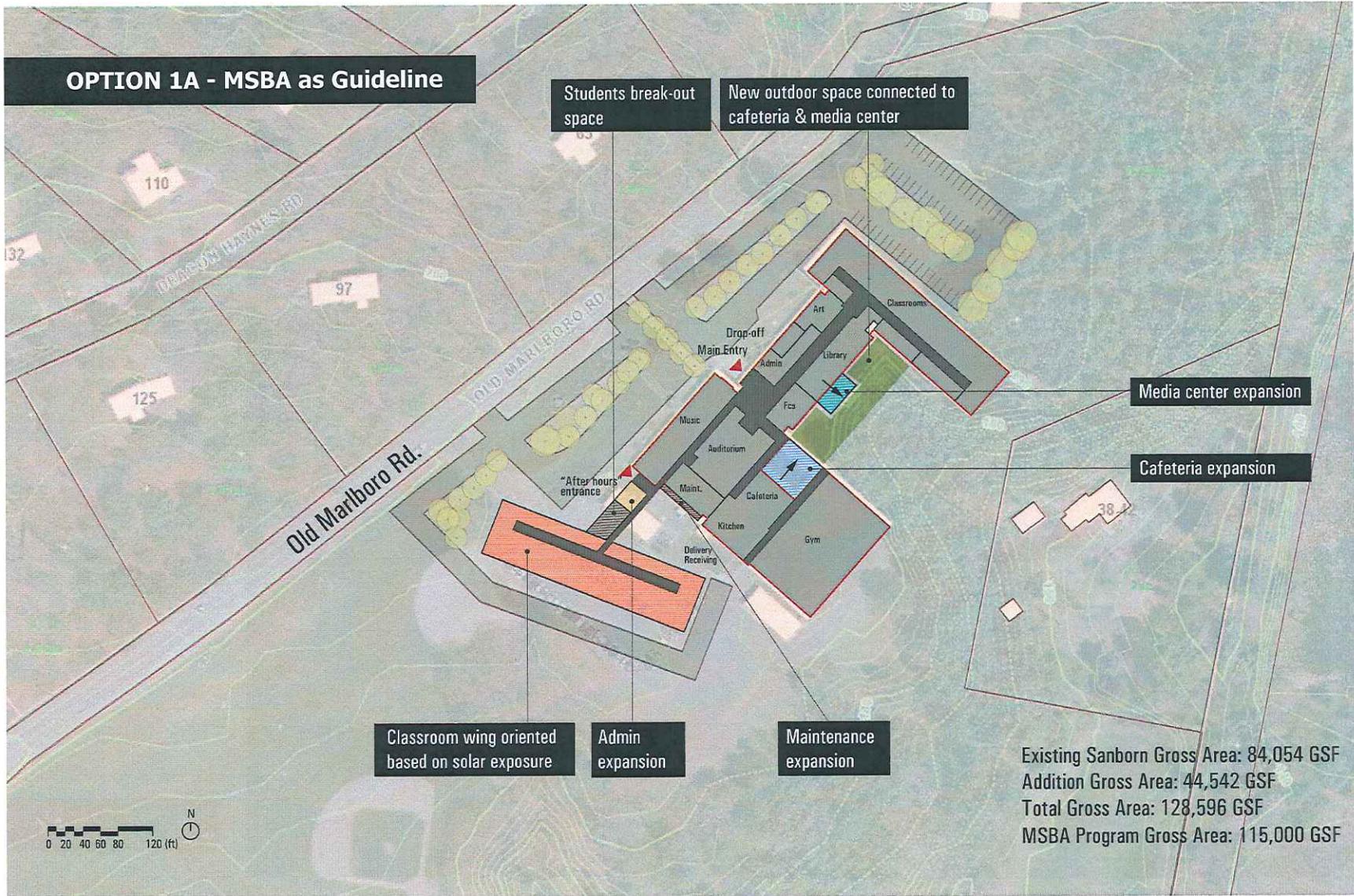
Option 1: Expansion

# OPTION 1A - MSBA as Guideline



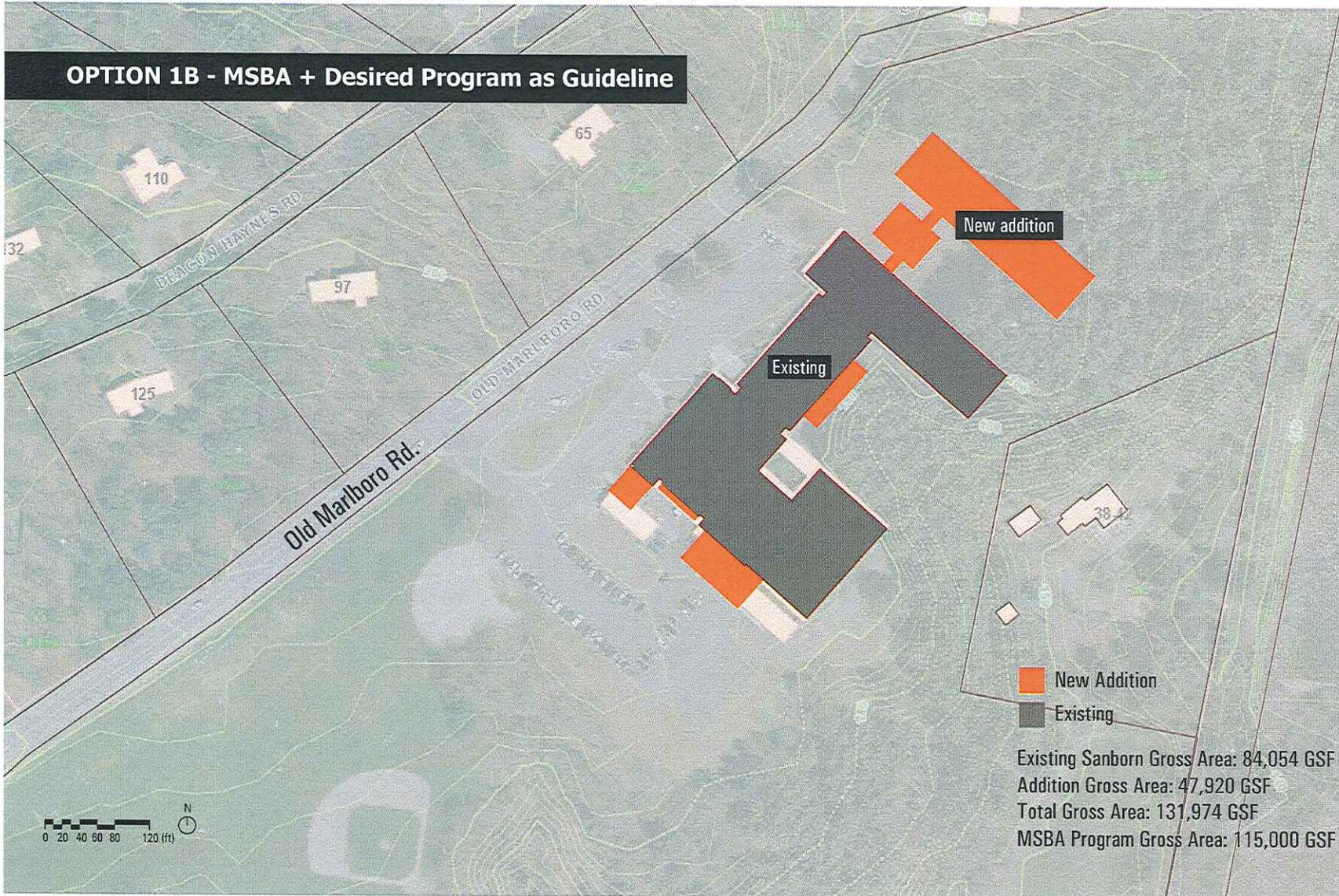
Option 1: Expansion

**OPTION 1A - MSBA as Guideline**



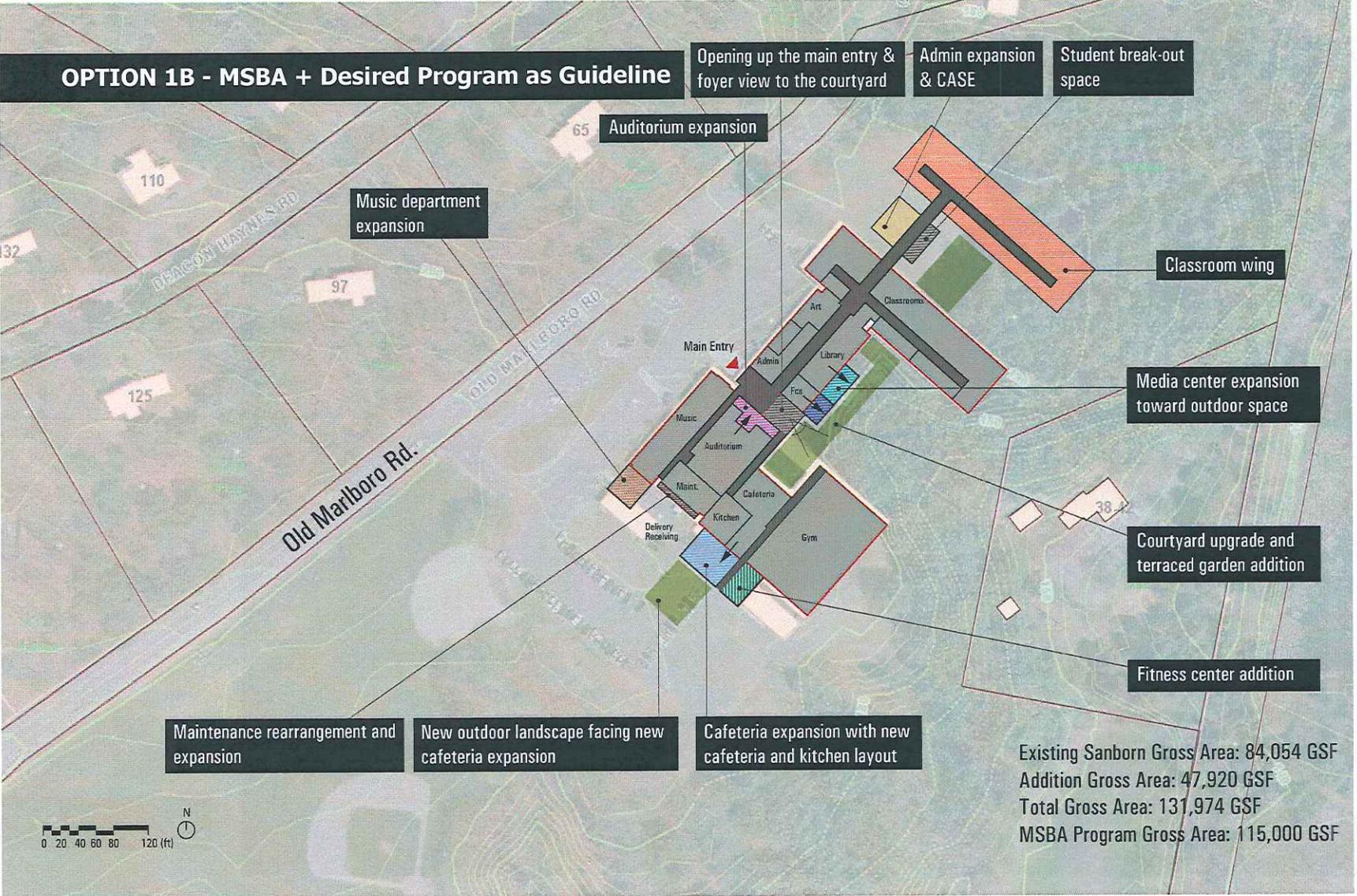
Option 1: Expansion

**OPTION 1B - MSBA + Desired Program as Guideline**



Option 1: Expansion

**OPTION 1B - MSBA + Desired Program as Guideline**



Opening up the main entry & foyer view to the courtyard

Admin expansion & CASE

Student break-out space

Auditorium expansion

Music department expansion

Classroom wing

Media center expansion toward outdoor space

Courtyard upgrade and terraced garden addition

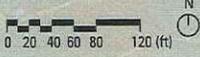
Fitness center addition

Maintenance rearrangement and expansion

New outdoor landscape facing new cafeteria expansion

Cafeteria expansion with new cafeteria and kitchen layout

Existing Sanborn Gross Area: 84,054 GSF  
 Addition Gross Area: 47,920 GSF  
 Total Gross Area: 131,974 GSF  
 MSBA Program Gross Area: 115,000 GSF

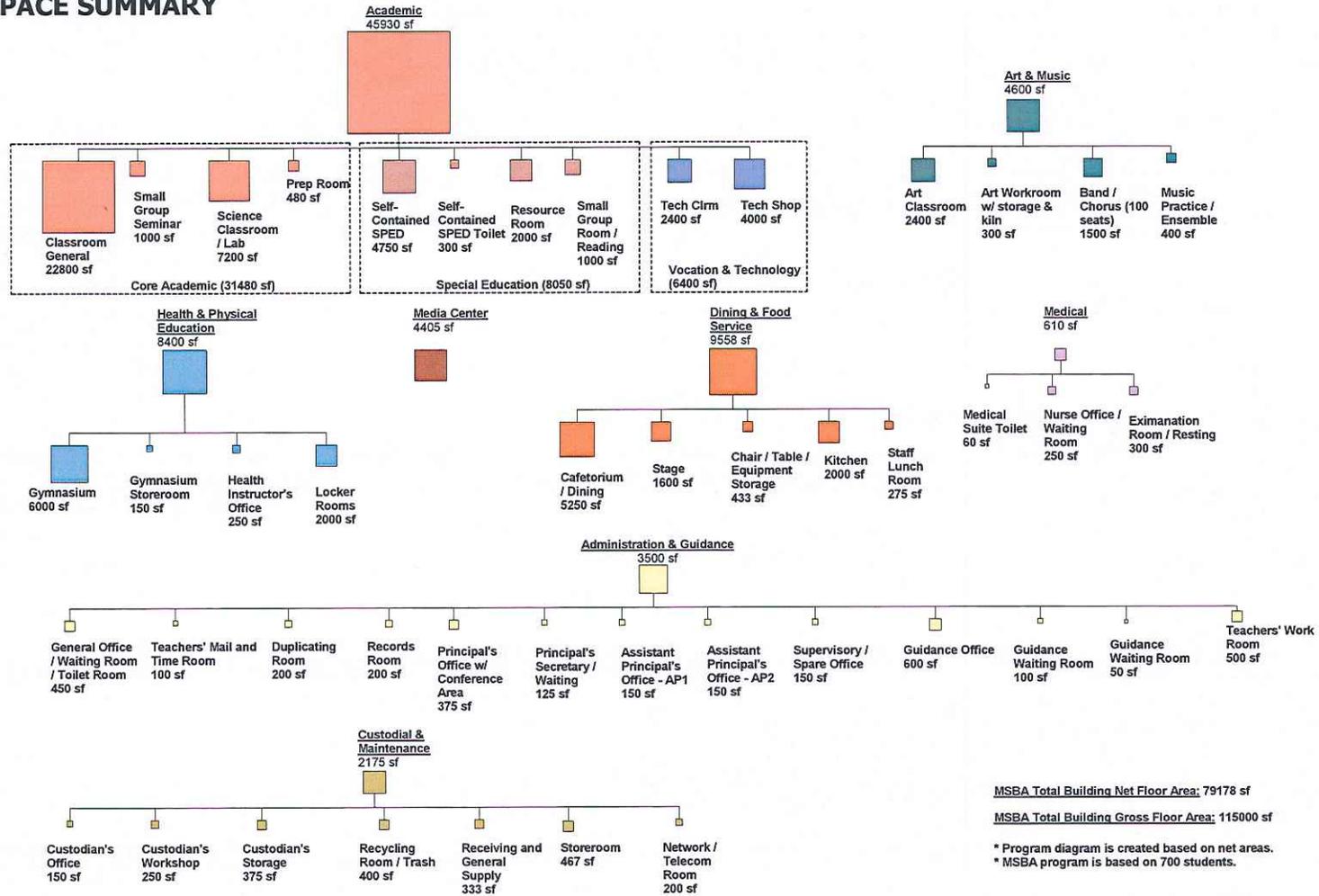


Option 1: Expansion

# **DESIGN OPTIONS**

## **OPTION 2: NEW SCHOOL**

# MSBA SPACE SUMMARY



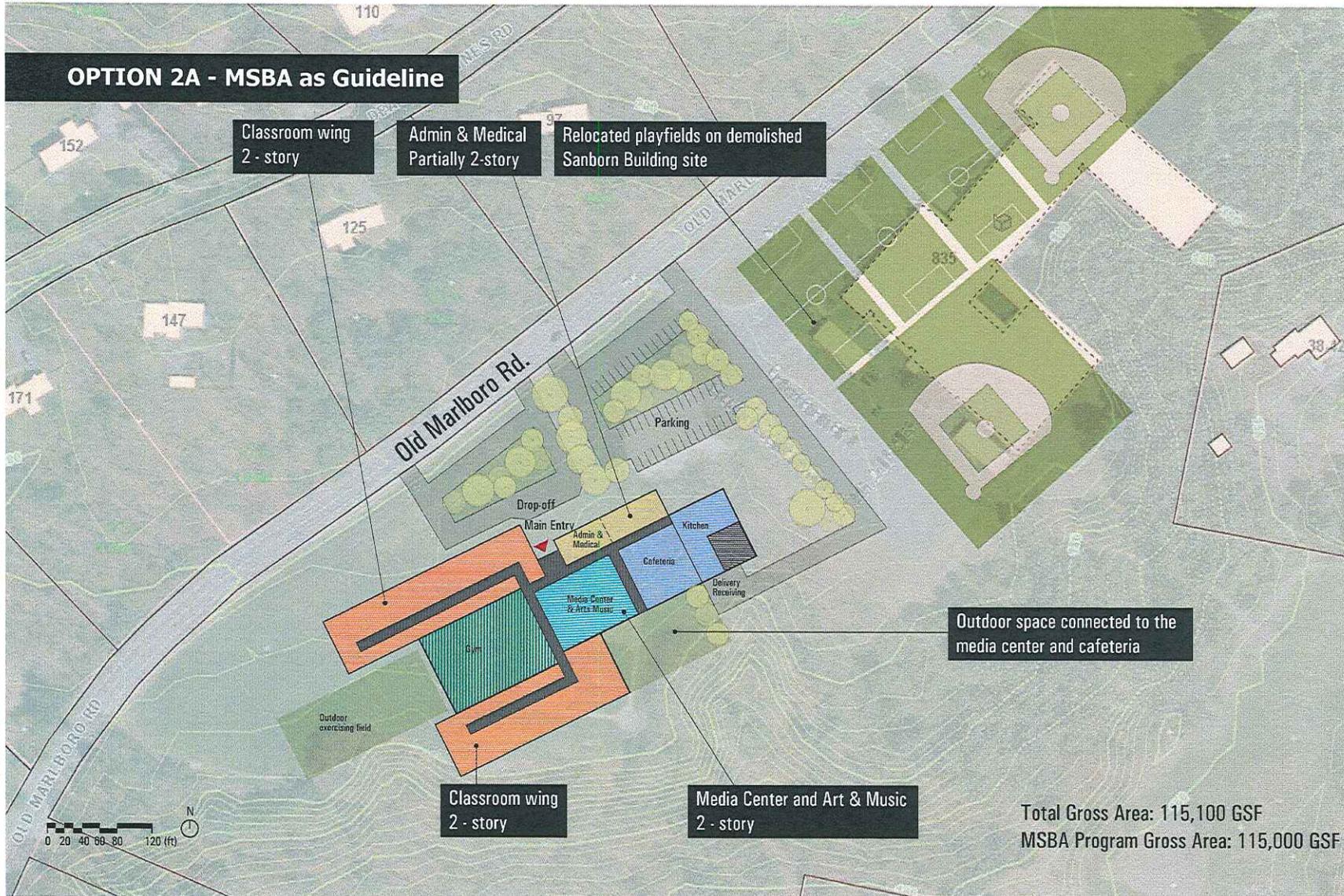
Option 2: New School

## OPTION 2A - MSBA as Guideline

Classroom wing  
2 - story

Admin & Medical  
Partially 2-story

Relocated playfields on demolished  
Sanborn Building site



Outdoor space connected to the  
media center and cafeteria

Classroom wing  
2 - story

Media Center and Art & Music  
2 - story

Total Gross Area: 115,100 GSF  
MSBA Program Gross Area: 115,000 GSF

Option 2: New School

## OPTION 2B - MSBA + Desired Program as Guideline

Classroom wing  
2 - story

Admin & Medical  
& CASE 2-story

Relocated playfields on demolished  
Sanborn Building site

Auditorium addition  
1 - story

Fitness Center Addition  
1-story

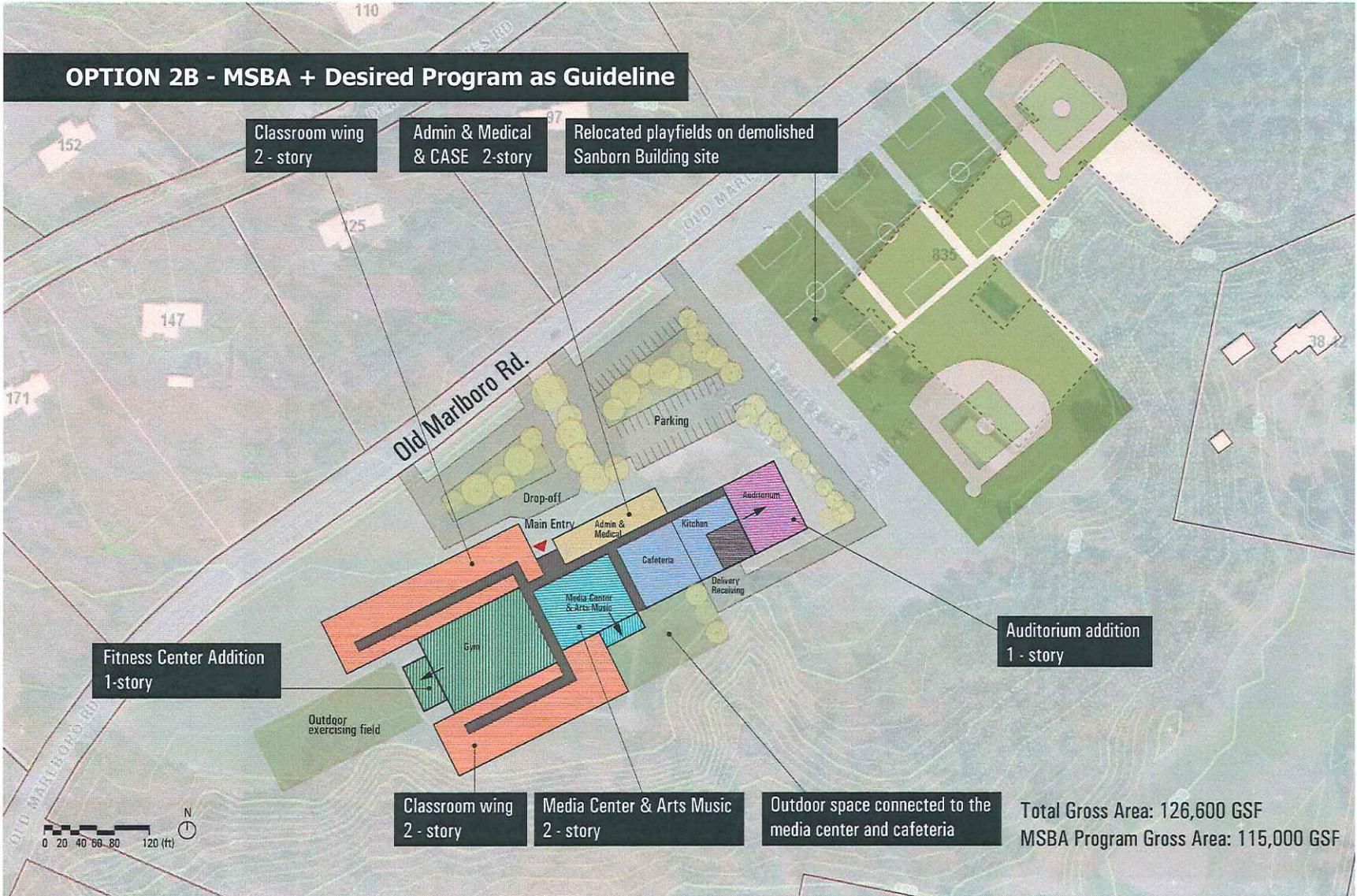
Classroom wing  
2 - story

Media Center & Arts Music  
2 - story

Outdoor space connected to the  
media center and cafeteria

Total Gross Area: 126,600 GSF  
MSBA Program Gross Area: 115,000 GSF

Option 2: New School

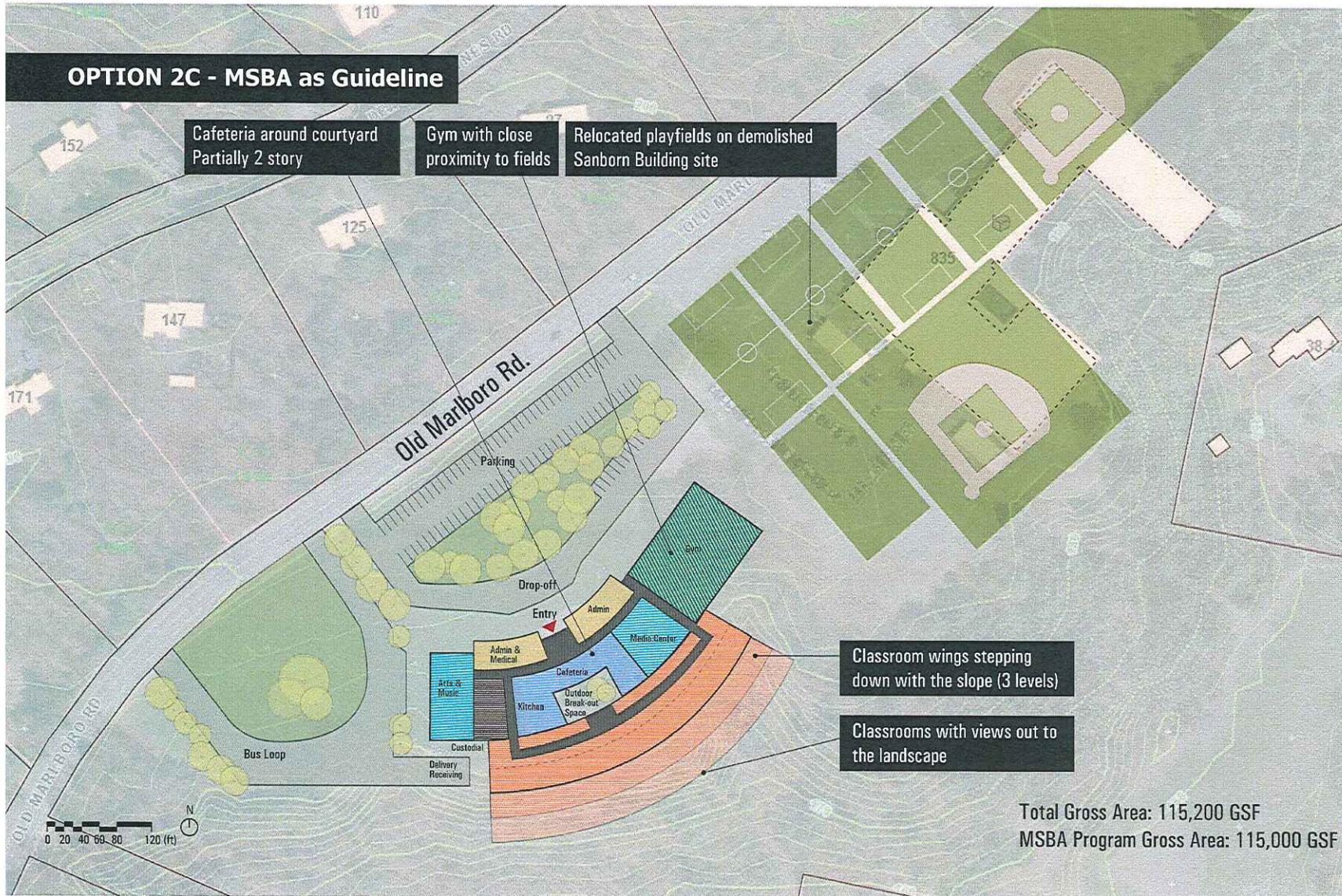


## OPTION 2C - MSBA as Guideline

Cafeteria around courtyard  
Partially 2 story

Gym with close  
proximity to fields

Relocated playfields on demolished  
Sanborn Building site



Classroom wings stepping  
down with the slope (3 levels)

Classrooms with views out to  
the landscape

Total Gross Area: 115,200 GSF  
MSBA Program Gross Area: 115,000 GSF

Option 2: New School

Dec 2016

Feb 2017

Mar 2017

Early Apr 2017

Late Apr 2017

TBD

**1**  
Begin CMS Facility  
Study

**2**  
Interim Presentation  
to Study Committee  
(10-Year  
Maintenance Plan)

**3**  
Interim  
Presentation to  
Study Committee  
(50-Year Long  
Term Plan)

**4**  
Statement of Interest  
to MSBA

**5**  
Complete Study

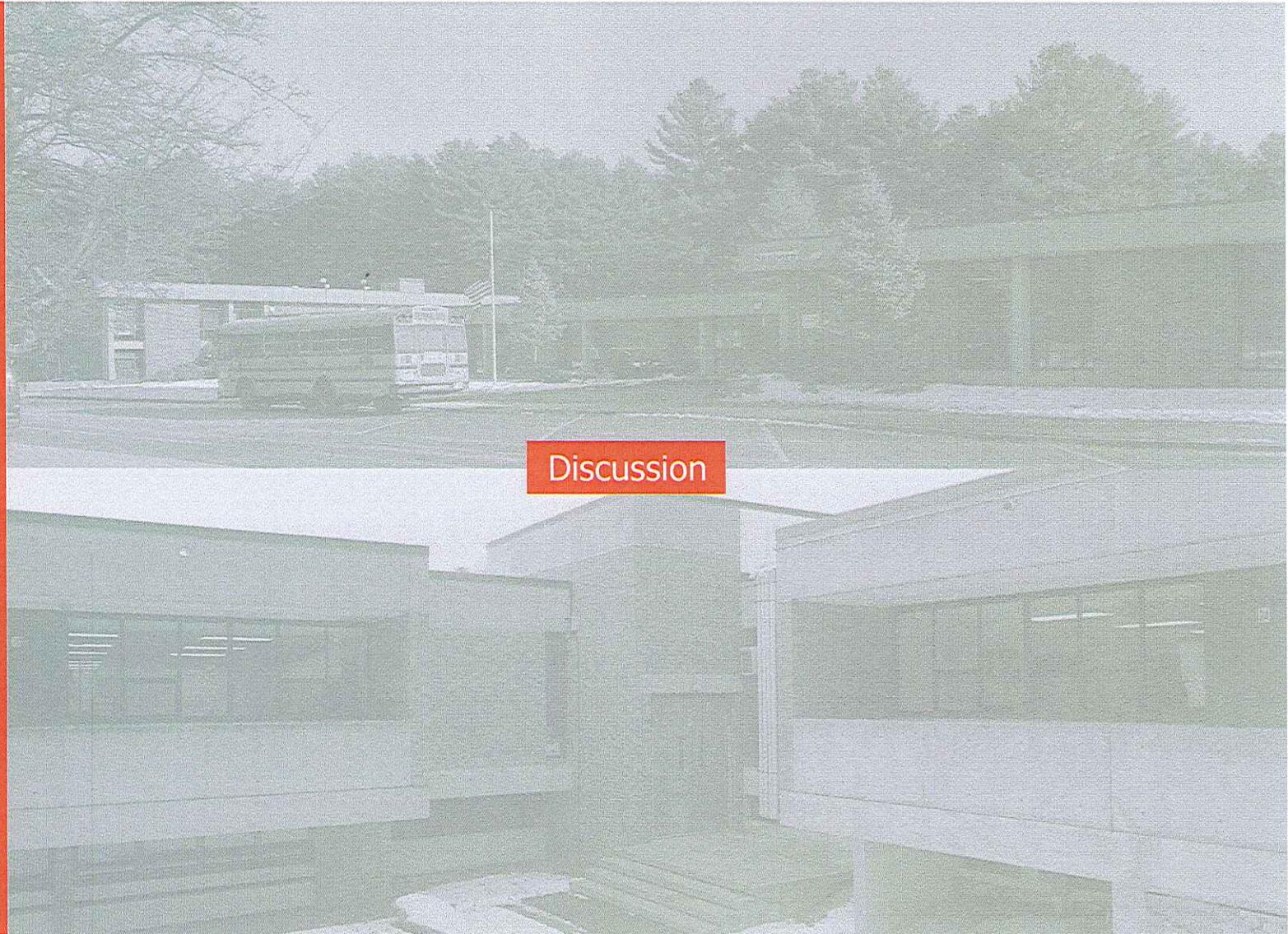
**6**  
Present Findings  
to School  
Committee

Next Steps

# CONCORD MIDDLE SCHOOL FACILITY STUDY

March 23, 2017

Finegold Alexander Architects



Discussion



## Memo

**Date:** March 24, 2017

**To:** John Flaherty, Heather Bout

**From:** Pat Morss

**Copies:** Diana Rigby, Drew Rosenshine, Brian Schlegel, Matt Wells, Regan Shields Ives, Ozge Diler-Himes

**Project Name:** **Concord Middle School (CMS) Facility Study**

**Project No.:** 44317.00

**Subject:** **CMS Study Committee meeting at Sanborn Building, 3/23/2017**

**Present:** **See sign-in sheet**

### Items:

1. The agenda was to update the committee on progress with the CMS Facility Study. Finegold Alexander Architects (FAA) distributed hard copies of the PowerPoint presentation, which was also posted to the public in advance of the meeting.
2. Heather explained the goals of the evening, particularly giving FAA guidance on long term design concepts to continue exploring.
3. The presentation included:
  - Brief review of 10-Year Maintenance Plan presented at the 2/07/17 meeting; cost of roof replacement at the Sanborn and Peabody buildings added to the "Recommended Action" column.
  - Introduction of the 50-Year Long Term Plan.
  - Meetings with parents, faculty and support staff for input on design.
  - Tours of the Willard Elementary School and Concord-Carlisle Regional High School.
  - Considerations for retaining and updating both buildings, expanding Sanborn, or designing a new school on the Sanborn site.
  - Explanation of the MSBA space program standards for 700 students, and how they compare to existing Sanborn square footages (400 students). MSBA standard for 700 students is 115,000 GSF.
  - Presentation of alternative diagrammatic plans:
    - Expansion Option 1A – MSBA program [*major additions are classroom wing to the SW and enlarged cafeteria; retain existing oversize program spaces, and the auditorium which is not allowed by MSBA*]
    - Expansion Option 1B – MSBA with addition of Concord desired elements [*new classroom wing to the NE and enlarged cafeteria; retain enlarged auditorium and further enlarge music; add CASE and fitness center*]
    - New School Option 2A – MSBA program [*compact plan meeting MSBA square footages; no auditorium*]
    - New School Option 2B – MSBA with addition of Concord desired elements [*similar plan with addition of auditorium, CASE, fitness center, and other enlarged areas*]

- New School Option C – MSBA program [*alternate scheme to 2A with 3 classroom levels terracing down the existing steep slope*]
  - During discussion, FAA presented two additional sketches not in the presentation. They depict hybrid solutions involving partial demolition of Sanborn with a greater amount of new construction to respond to a changing teaching environment.
    - Partial Demolition #1 – MSBA with addition of Concord desired elements [*retain and renovate auditorium/gym section; new classroom wings at opposite ends of retained core; new cafeteria*]
    - Partial Demolition #2 – MSBA with addition of Concord desired elements [*retain and renovate auditorium/gym section; new media center surrounded by 3 classroom pods at one end; new cafeteria at opposite end*]
4. Discussion of the concept schemes:
- Positive reaction to the partial demolition options. They allow for retaining auditorium at the same time as transforming the educational environment with new classrooms.
  - Partial demolition schemes have added cost of relocating students into modular classrooms during construction.
  - Need to be compact; verticality adds to efficiency of maintenance and operations. For instance, stack classrooms above cafeteria. Make Partial Demo #@ classroom pods more compact.
  - Check whether inclusion of the existing Sanborn balcony, used for storage, is the reason the present gym is larger than the MSBA standard.
5. General discussion:
- This CMS Facility Study will assist advocating for the CMS project to the Town of Concord and while working with MSBA. A Statement of Interest (SOI) will be submitted to MSBA in early April.
  - The study should show we understand the two existing buildings and have explored multiple options for an improved CMS.
  - Demonstrate why it is impractical to continue operating Sanborn and Peabody, in terms of maintenance and operations, as well as staffing. Be clear about both physical building and teaching environment deficiencies. Teachers waste time and compromise their programs traveling between buildings (any statistics?).
  - Comparative budget costs, being developed for the selected options in the study, are one factor in guiding a recommendation for Sanborn additions, partial demolition and expansion, or a new school.
  - The 10-Year Maintenance Plan suggests costs over that period to maintain and upgrade the two buildings will be about \$29M. This is exclusive of annual staff and maintenance budgets, and does not account for costs to transform the educational environment in keeping with new trends and technology (such as flexible, redesigned classrooms).
  - Include hazardous materials costs in the analysis. Universal Environmental Consultants provided broad estimates in the Existing Conditions section of this study.
6. Next Steps:
- After discussion, the consensus was to advance several designs with probable cost options over the next 50 years:
    - A) Retain, maintain and improve 2 buildings
    - B) Retain, improve, and add to Sanborn; based on Option 1A; but with MSBA + Desired
    - C) Partial demolition retaining auditorium/gym, and more extensive additions; based on Partial Demo #2; MSBA + Desired
    - D) New School; based on Option 2C; two versions – MSBA without and with Desired

- For D), provide a separate cost for a stand-alone auditorium and 2<sup>nd</sup> practice gym, should MSBA have the same requirement as for the 2<sup>nd</sup> gym at CCHS.
- Include all the other options in the study as less-developed vignettes to show due diligence in exploring all avenues. Will help sell the preferred option to the Town and MSBA. Develop comparative square footage costs for the selected schemes.
- Next Study Committee meeting 6:00 pm Wednesday, April 12 at Sanborn.

*If there are errors, discrepancies and/or omissions, please notify Finegold Alexander Architects within 24 hours of receipt of this report. After 24 hours, this report will be deemed correct in every aspect and accepted by all concerned.*

