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:
     o A) Retain, maintain and improve 2 buildings
     o B) Retain, improve, and add to Sanborn; based on Option 1A; but with MSBA + Desired
     o C) Partial demolition retaining auditorium/gym, and more extensive additions; based on Partial Demo #2; MSBA + Desired
     o 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 2nd practice gym, should MSBA have the same requirement as for the 2nd 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
Overview of 10-Year Plan
<table>
<thead>
<tr>
<th>No</th>
<th>Categories</th>
<th>Required Action</th>
<th>Recommended Action</th>
<th>Cost</th>
<th>Priority: 0-10 Years</th>
<th>Optional Priority: 0-10 Years</th>
<th>Cost</th>
<th>Other Action Items (Not Budgeted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Architectural/Interior</td>
<td>1. Provide radiant heat in new classrooms with glass doors</td>
<td>2. Steam clean entire exterior</td>
<td>$125,000</td>
<td>$48,725</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Stormwater Management</td>
<td>1. Redo grading to ensure proper drainage</td>
<td>2. Clean all existing structures and pipe network</td>
<td>$39,054</td>
<td>$8,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sewer</td>
<td>1. Repair/replace wear and tear in sewers</td>
<td>2. Replace or repair existing sewer system</td>
<td>$11,000</td>
<td>$1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Water</td>
<td>1. Access condition of existing building sewer system</td>
<td>2. Prepare Maintenance Plan for sewer system</td>
<td>$15,000</td>
<td>$1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Parking</td>
<td>1. Strip all additional required parking spaces</td>
<td>2. Install new parking spaces</td>
<td>$12,000</td>
<td>$4,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Structure</td>
<td>1. Repair exterior steps, new corner classrooms</td>
<td>2. Complete modification of boiler room ventilation</td>
<td>$10,000</td>
<td>$1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>HVAC</td>
<td>1. Replace new boiler room equipment</td>
<td>2. Complete modification of boiler room ventilation</td>
<td>$2,500</td>
<td>$1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Fire Protection and</td>
<td>1. Make parking area meet code requirements</td>
<td>2. Replace all new high output lighting</td>
<td>$1,500</td>
<td>$1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Plumbing</td>
<td>1. Replace all new high output lighting</td>
<td>2. Complete modification of boiler room ventilation</td>
<td>$1,500</td>
<td>$1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Electrical</td>
<td>1. Expand and upgrade fire alarm system</td>
<td>2. Provide emergency generator</td>
<td>$50,000</td>
<td>$50,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Code</td>
<td>1. Expand and upgrade fire alarm system</td>
<td>2. Upgrade data communications infrastructure</td>
<td>$31,000</td>
<td>$31,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Hazardous Materials</td>
<td>1. Platinum system</td>
<td>2. Complete modification of boiler room ventilation</td>
<td>$224,798</td>
<td>$224,798</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SANBORN BUILDING**

**Total Costs:**

- **Trade Costs:** $552,405
- **General Conditions & Project Requirements (17%):** $112,866
- **Overhead & Profit (7%):** $33,569
- **Design Contingency (15%):** $122,826
- **SUBTOTAL:** $941,666
- **Escalation (1 year/4%):** $17,697
- **Total Construction:** $979,333

**Trade Costs:** $4,162,239
- **General Conditions & Project Req. (17%):** $720,086
- **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:** $2,946,862
- **Escalation (6 years/26.5%):** $790,988
- **Total Construction:** $3,775,850

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

Sanborn Building | 10-Year Plan
# PEABODY BUILDING

<table>
<thead>
<tr>
<th>No.</th>
<th>Categories</th>
<th>Required Action</th>
<th>Priority: 0-2 Years</th>
<th>Cost</th>
<th>Recommended Action</th>
<th>Priority: 0-10 Years</th>
<th>Cost</th>
<th>Optional Action</th>
<th>Priority: 0-10 Years</th>
<th>Cost</th>
<th>Other Action Items (Not Budgeted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Architectural/Interior</td>
<td>1.1</td>
<td>Repair underside of balcony and roof overhang</td>
<td>$49,110</td>
<td>1.3</td>
<td>Steam clean fire-entire exterior</td>
<td></td>
<td>$84,010</td>
<td>1.5</td>
<td>Build gymnasium addition to middle school needs</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Stormwater Management</td>
<td>2.1</td>
<td>Clean all drainage structures and pipe network</td>
<td>$6,250</td>
<td>2.3</td>
<td>Repair landscape of minor erosion areas</td>
<td></td>
<td>$2,000</td>
<td>2.5</td>
<td>Prepare detailed assessment of drainage system</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sewer</td>
<td>3.1</td>
<td>Assess condition of existing building sewer system</td>
<td>$1,300</td>
<td>3.3</td>
<td>Find alternative to leaking field siphon drain</td>
<td></td>
<td>$40,000</td>
<td>3.5</td>
<td>Prepare Maintenance Plan for sewage disposal system</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Water</td>
<td>4.1</td>
<td>Fix leak at domestic and fire protection lines</td>
<td>$73,764</td>
<td>4.3</td>
<td>Prepare Maintenance Plan for water supply systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Parking</td>
<td>5.1</td>
<td>Provide 2 additional ADA parking spaces</td>
<td>$73,764</td>
<td>5.3</td>
<td>Evaluate roof-drainage and add sumpers</td>
<td></td>
<td>$35,100</td>
<td>5.5</td>
<td>Brick veneer requires repainting in limited areas</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Structure</td>
<td>6.1</td>
<td>Repair balcony decks and correct drainage</td>
<td>$45,664</td>
<td>6.3</td>
<td>Repair parapet drainag ecracks and spalling</td>
<td></td>
<td>$15,000</td>
<td>6.5</td>
<td>Evaluate roof fire-resistance rating</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>HVAC</td>
<td>7.1</td>
<td>Provide ventilation and AC at main office</td>
<td>$1,808,083</td>
<td>7.3</td>
<td>Provide ventilation and AC at main office</td>
<td></td>
<td>$25,000</td>
<td>7.5</td>
<td>Replace aging hot water piping distribution system</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Fire Protection and Plumbing</td>
<td>8.1</td>
<td>Make kitchen gas header code compliant</td>
<td>$2,500</td>
<td>8.3</td>
<td>Inspect and replace piping insulation</td>
<td></td>
<td>$1,500</td>
<td>8.5</td>
<td>Provide ADA-compliant Staff Toilet Rooms</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Electrical</td>
<td>9.1</td>
<td>Expand and upgrade fire alarm system (code)</td>
<td>$1,808,083</td>
<td>9.3</td>
<td>Provide emergency generator</td>
<td></td>
<td>$1,808,083</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Technology</td>
<td>10.1</td>
<td>Upgrade telecommunications infrastructure (code)</td>
<td>$7,150</td>
<td>10.3</td>
<td>Expand and upgrade intrusion detection system</td>
<td></td>
<td>$15,000</td>
<td>10.5</td>
<td>Verify viability of access control intercom system</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.2</td>
<td>Upgrade and expand access control systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.3</td>
<td>Upgrade data communications/Wi-Fi system</td>
<td>$21,144</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.4</td>
<td>Upgrade front door Intercom</td>
<td>$20,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.5</td>
<td>Upgrade PA system and integrate with telephone</td>
<td>$52,446</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.6</td>
<td>Provide new voice or wireless door system</td>
<td>$18,978</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.7</td>
<td>Upgrade audio-visual systems</td>
<td>$20,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Code</td>
<td>11.1</td>
<td>Perform complete building survey of project</td>
<td>$15,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Hazardous Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Continue monitoring: no action required</td>
</tr>
</tbody>
</table>

**Trade Costs:** $53,456
**General Conditions & Project Requirements (17%):** $9,327
**Overhead & Profit (7%):** $44,130
**Design Contingency (15%):** $101,185

**SUBTOTAL:** $775,698

**Escalation (1 year/4%):** $31,028
**Total Construction:** $806,726

**Trade Costs:** $2,601,926
**General Conditions & Project Req. (17%):** $450,113
**Overhead & Profit (7%):** $213,644
**Design Contingency (15%):** $489,855

**SUBTOTAL:** $3,755,558

**Escalation (6 years/26.5%):** $108,911
**Total Construction:** $3,864,469

**Trade Costs:** $7,195,017
**General Conditions & Project Req. (17%):** $1,244,738
**Overhead & Profit (7%):** $590,783
**Design Contingency (15%):** $1,354,581

**SUBTOTAL:** $10,383,119

**Escalation (6 years/26.5%):** $2,752,057
**Total Construction:** $13,135,176

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

Peabody Building | 10-Year Plan
### SANBORN BUILDING

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Required Action</th>
<th>Estimated Cost</th>
<th>Optional Cost</th>
<th>Other Action Items (Not Subgranted)</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

---

### PEABODY BUILDING

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Required Action</th>
<th>Estimated Cost</th>
<th>Optional Cost</th>
<th>Other Action Items (Not Subgranted)</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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

- "Natural light and ventilation"
- "Green school"
- "Integrated outdoor areas"
- "Plan layout reflecting teaching methodology"
- "Separate bus drop-off, and parking for school events"
- "Dedicated gallery space for art room"
- "More storage space"
- "Ample parking, enabling school events in evenings"
- "Flexible cafeteria space"
- "Shut down system that isolates classrooms when needed"
- "Solid, durable, sustainable interior finishes"
- "Strong infrastructure and technology"
- "Classroom PODs"
- "Possible fitness center"
- "Multiple social gathering and presentation spaces"
- "More digitized screens"
- "Dedicated orchestra or choral rehearsal space"
- "Quick and easy exit/entry"
- "STEAM Maker Space"
- "Well designed teachers’ room and student break out spaces"
- "Unified middle school campus"
- "Well designed parking for efficient pick up and drop-off"
- "Outdoor teaching space"
- "Safety"
- "Efficient building geometry for easy maintenance"
- "Evolution of library into media center"
- "Upgraded food service with locally grown products"

50-Year Plan

Faculty Members

Support Staff

Parents

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
### OPTION 1 - Expansion

<table>
<thead>
<tr>
<th>Construction on existing site</th>
<th>(-) Impact on school operations, site circulation, parking, playing fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Costs</td>
<td>(+) Cost advantages of working with an existing building</td>
</tr>
<tr>
<td>Maintenance</td>
<td>(-) High annual maintenance costs and upgrades as the existing building ages</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>(-) Sanborn's systems vary from half-century old piping to new boilers. No air conditioning, and ventilation and temperature control are sub-standard</td>
</tr>
<tr>
<td>Code Compliance Requirements</td>
<td>(-) The scale of the expansion would trigger code compliance requirements when retrofiting the existing building</td>
</tr>
<tr>
<td>Program and Future Needs</td>
<td>(-) Less flexibility to meet new curriculum needs (+) Cost effective to keep large facility spaces (such as auditorium) that MSBA does not fund</td>
</tr>
<tr>
<td>Logistics</td>
<td>(-) Possible vacating of building during construction</td>
</tr>
</tbody>
</table>

### OPTION 2 - New Middle School

| (-) Impact on school operations, site circulation, parking, playing fields |
| (+/-) Initial cost could be high for new construction, but it could be cost-effective in the long term. |
| (+) With new building, the maintenance budget will be reduced |
| (+) New technology available with the new building. Design, efficiency, reduced size, and lower fuel costs including renewable energy |
| (+) New building would comply with current codes |
| (+) More flexibility to meet new curriculum needs (-) Expensive to construct large facility spaces (such as auditorium) that MSBA does not fund |
| (+) School operation to continue in existing buildings |
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
### Proposed Space Summary - Middle Schools

#### Concord Middle School

<table>
<thead>
<tr>
<th>Component</th>
<th>Existing Condition</th>
<th>Proposed Condition</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Classrooms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commons/Office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library/Computer Lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gymnasium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cafeteria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Administrative Offices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal's Office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Principal's Office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Administrative Offices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Auxiliary Programs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gifted Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Number of Students:** 700  
**Total Building Gross Floor Area:** 115,000 gsf

**Option 1: Expansion**
**MSBA SPACE SUMMARY**

**Academic**
- Existing Sanborn Building (Core Academic, Special Education, Vocational & Technical) (2530 sf)
- Classroom General 2280 sf
- Small Group Seminar 1000 sf
- Science Classroom / Lab 720 sf

**Small Group Room / Reading** (1000 sf)

**Self-Contained SPED** (775 sf)

**Self-Contained SPED Toilet** (200 sf)

**Recreation Room** (2000 sf)

**Special Education** (2050 sf)

**Tech Cine** (2400 sf)
- Tech Shop 4000 sf

**Media Center** (4400 sf)
- Existing Sanborn Building (3676 sf)
- Existing Sanborn Building (1420 sf)

- Media Suite Toilet 30 sf
- Nurse Office / Waiting Room 220 sf
- Examination Room / Resting 360 sf

**Existing Sanborn Building (610 sf)**
- Art Classroom 2400 sf
- Art Workshop w/ Storage & Kitchen 300 sf
- Band / Chorus 1500 sf
- Music Practice / Ensemble 400 sf

**Existing Sanborn Building (109 sf)**
- Medical Office / Waiting Room 100 sf

**Existing Sanborn Building (2767 sf)**
- Administration & Guidance

**Gymnasium** (6600 sf)
- Gymnasium Storage Room 100 sf
- Health Instructor's Office 250 sf
- Locker Rooms 2000 sf

- Cafeteria / Dining 5280 sf
- Stage 1600 sf
- Chair / Table / Equipment Storage 493 sf
- Staff Lunch Room 215 sf
- Kitchen 2600 sf

**Existing Sanborn Building (5545 sf)**
- Existing Sanborn Building (2450 sf)
- Existing Sanborn Building (5386 sf)

**Existing Sanborn Building (2787 sf)**
- General Office / Waiting Room / Toilet Room 450 sf
- Teachers' Mail and Time Room 100 sf
- Duplicating Room 200 sf
- Records Room 200 sf
- Principal's Office / Conference Area 375 sf
- Principal's Secretary / Waiting 125 sf
- Assistant Principal's Office / AP 250 sf
- Assistant Principal's Office / AP 150 sf
- Supervisory / Store Office 150 sf
- Guidance Office 600 sf
- Guidance Waiting Room 100 sf
- Guidance Waiting Room 100 sf
- Teachers' Work Room 500 sf
- Other - Auditorium 516 sf

**Custodian's Office** 150 sf
- Custodian's Workshop 250 sf
- Custodian's Storage 375 sf
- Recycling Room / Trash 400 sf
- Receiving and General Supply 333 sf
- Store Room 427 sf
- Network / Telecom Room 200 sf

**Existing Sanborn Building (1550 sf)**
- Existing Sanborn Building (5169 sf)
- Existing Sanborn Building (2786 sf)

**MSBA Total Building Gross Floor Area: 79178 sf**
MSBA Total Building Gross Floor Area: 79178 sf
Existing Sanborn Building Gross Floor Area: 4635 sf

* Program diagram is created based on net area.
* MSBA program is based on 700 students. Sanborn program is based on 400 students.
* 3 Mobile classrooms (each 1800 sf) are not included in existing Sanborn building program.

**Option 1: Expansion**
ADDITIONAL TO MEET MSBA

23378 sf addition needed

Existing Sanborn Building
(Care Academic: Special Education, Vocational 
& Technology) 22352 sf

270 sf addition needed

Prep Room 486 sf

Resource Room 2100 sf

Tech Shop 400 sf

Art & Music
4500 sf

Art Classroom 2400 sf

Art Workroom w/ Storage & Kit
300 sf

Band / Chorus (100 seats)
150 sf

Music Practice / Ensemble
480 sf

4213 sf addition needed

Existing Sanborn Building
(3045 sf)

Drama & Food Services
3150 sf

Chart / Table / Equipment Storage
435 sf

Kitchen 250 sf

Staff Lunch Room
275 sf

Medical Suite
560 sf

Nursing Office
Waiting Room
200 sf

Examination Room / Reception
300 sf

713 sf addition needed

Existing Sanborn Building (773 sf)

Administration & Guidance

Existing Sanborn Building
(1600 sf)

325 sf addition needed

Custodian's Office
150 sf

333 sf

Existing Sanborn Building
(109 sf)

Capacity: 400 people

Option 1: Expansion
EXCEEDS / NOT MSBA

**Academics Building**
- Existing Sarno Building (Core Academics, Special Education, Vocational & Technology) 20680 sf
- Classroom General 23800 sf
- Small Group Seminar 1000 sf
- Library 1200 sf
- Science Classroom 2050 sf
- Self-Contained SPED 4750 sf
- Resource Room 2050 sf
- Small Group Room / Reading 1060 sf
- Tech Clm 2400 sf
- Tech Shop 4500 sf
- Art & Music 4950 sf

**Health & Physical Education**
- Existing Sarno Building 1420 sf
- Gynasium 6000 sf
- Gynasian Shower 150 sf
- Health Instructor's Office 200 sf
- Locker Rooms 2000 sf

**Administration & Guidance**
- Existing Sarno Building 2707 sf
- General Office / Waiting Room 450 sf
- Teachers' Mail and Time Room 100 sf
- Duplating Room 200 sf
- Records Room 200 sf
- Principal's Office w/ Conference Area 375 sf
- Principal's Secretary / Wasting 125 sf
- Assistant Principal's Office / AP 150 sf
- Assistant Principal's Office / AP 150 sf
- Supervisory / Store Office 150 sf
- Guidance Office 500 sf
- Guidance Waiting Room 150 sf
- Guidance Waiting Room 50 sf
- Teachers' Work Room 500 sf

**Custodial & Maintenance**
- Existing Sarno Building (1650 sf)
- Custodian's Office 100 sf
- Custodian's Workshop 250 sf
- Custodian's Storage 375 sf
- Receiving Room / Trash 400 sf
- Receiving and General Supply 335 sf
- Store Room 400 sf
- Network / Telecom Room 300 sf

**Total Building Net Floor Area:**
- MSBA Total Building Net Floor Area: 79178 sf
- MSBA Total Building Gross Floor Area: 81640 sf
- Existing Sarno Building Net Floor Area: 47709 sf
- Existing Sarno Building Gross Floor Area: 4954 sf

Program diagram is created based on not more than 700 students. Sarno program is based on 400 students. 2 music classrooms (each 1850 sf) are not included in existing Sarno building program.
OPTION 1A - MSBA as Guideline

- Students break-out space
- New outdoor space connected to cafeteria & media center
- Classroom wing oriented based on solar exposure
- Admin expansion
- Maintenance expansion
- Media center expansion
- Cafeteria expansion

Existing Sanborn Gross Area: 84,054 GSF
Addition Gross Area: 44,542 GSF
Total Gross Area: 128,593 GSF
MSBA Program Gross Area: 115,000 GSF
OPTION 1B - MSBA + Desired Program as Guideline

Option 1: Expansion

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 1B - MSBA + Desired Program as Guideline

- Opening up the main entry & foyer view to the courtyard
- Music department expansion
- Auditorium expansion
- Admin expansion & CASE
- Student break out space
- Classroom wing
- Media center expansion toward outdoor space
- Courtyard upgrade and terraced garden addition
- Fitness center addition
- Cafeteria expansion with new cafeteria and kitchen layout
- New outdoor landscape facing new cafeteria expansion
- Maintenance rearrangement and expansion

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
DESIGN OPTIONS

OPTION 2: NEW SCHOOL
MSBA SPACE SUMMARY

Academic 45332 sf

- Classroom General 22600 sf
- Prep Room 480 sf
- Science Classroom/ Lab 7200 sf
- Small Group Seminar 1000 sf
- Core Academic (13540 sf)
- Self-Contained SPED 479 sf
- Self-Contained SPED Toilet 300 sf
- Resource Room 2000 sf
- Small Group/ Reading 1600 sf
- Special Education (8050 sf)

Health & Physical Education 4400 sf

- Gymnasium 6000 sf
- Health/ Instructor’s Office 300 sf
- Locker Rooms 2000 sf
- Physical Education 1580 sf

Media Center 4405 sf

- Auditorium/ Dining 5250 sf
- Stage 1600 sf
- Chair/ Table/ Equipment Storage 430 sf

Dining & Food Service 1538 sf

- Staff Lunch Room 375 sf
- Kitchen 2000 sf

Vocation & Technology (4600 sf)

- Art Classroom 2400 sf
- Art Workroom w/ Storage & kiln 300 sf
- Band/ Chorus (100 seats) 1500 sf
- Music Practice/ Ensemble 400 sf

Medical 610 sf

- Nurse Office/ Waiting Room 255 sf
- Examination Room/ Resting 300 sf

Administration & Guidance 5000 sf

- General Office/ Waiting Room 400 sf
- Recorders Room 200 sf
- Duplicating Room 200 sf
- Teachers’ Mail/ Times Room 100 sf
- Principal’s Office w/ Conference Area 375 sf
- Principal’s Secretary/ Waiting 150 sf
- Assistant Principal’s Office w/ AP1 150 sf
- Assistant Principal’s Office w/ AP2 150 sf
- Supervisory/ Spare Office 150 sf
- Guidance Office 600 sf
- Guidance Waiting Room 100 sf
- Guidance Waiting Room 50 sf

Custodial & Maintenance 375 sf

- Custodian’s Office 150 sf
- Custodian’s Workshop 250 sf
- Custodian’s Storage 375 sf
- Recycling Room/ Trash 400 sf
- Receiving and General Supply 333 sf
- Storeroom 467 sf
- Network/ Telecom Room 200 sf

MSBA Total Building Net Floor Area: 71178 sf
MSBA Total Building Gross Floor Area: 115800 sf

* Program diagram is created based on net areas.
* MSBA program is based on 700 students.

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

Total Gross Area: 115,100 GSF
MSBA Program Gross Area: 115,000 GSF
OPTION 2B - MSBA + Desired Program as Guideline

Classroom wing
2-story

Admin & Medical
& CASE 2-story

Relocated playfields on demolished
Sanborn Building site

Fitness Center Addition
1-story

Outdoor exercising field

Drop-off

Main Entry

Art & Music

Auditorium

Classroom wing
2-story

Media Center & Arts Music
2-story

Outdoor space connected to the
media center and cafeteria

Auditorium addition
1-story

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
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
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:
     o 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]
     o 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]
     o New School Option 2A – MSBA program [compact plan meeting MSBA square footages; no auditorium]
     o 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.
  o 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]
  o 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:
  o A) Retain, maintain and improve 2 buildings
  o B) Retain, improve, and add to Sanborn; based on Option 1A; but with MSBA + Desired
  o C) Partial demolition retaining auditorium/gym, and more extensive additions; based on Partial Demo #2; MSBA + Desired
  o 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 2nd practice gym, should MSBA have the same requirement as for the 2nd 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.
<table>
<thead>
<tr>
<th>NAME</th>
<th>ORGANIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matthew Wells</td>
<td>CPS</td>
</tr>
<tr>
<td>John Flaherty</td>
<td>CPS</td>
</tr>
<tr>
<td>Brian Schlegel</td>
<td>CPS</td>
</tr>
<tr>
<td>Wally Johnson</td>
<td>CSC</td>
</tr>
<tr>
<td>Chris Papar</td>
<td>Volunteer</td>
</tr>
<tr>
<td>Eve Isenberg</td>
<td>Volunteer</td>
</tr>
<tr>
<td>Drew Rosenhouse</td>
<td>CMS</td>
</tr>
<tr>
<td>Heather Bart</td>
<td>CSC</td>
</tr>
<tr>
<td>Chris Wheen</td>
<td>Town Mgr</td>
</tr>
<tr>
<td>Maria McDermott</td>
<td>CMS Teacher</td>
</tr>
<tr>
<td>Karin Baker</td>
<td>CMS Teacher</td>
</tr>
<tr>
<td>Lawryngori</td>
<td>Vol.</td>
</tr>
<tr>
<td>Matt Root</td>
<td>Vol.</td>
</tr>
<tr>
<td>Pat Merss</td>
<td>Fergold Alexander</td>
</tr>
<tr>
<td>Regan Shields Inc</td>
<td>Architect</td>
</tr>
<tr>
<td>Matt Anderson Miller</td>
<td>Volunteer</td>
</tr>
</tbody>
</table>