ACTION

HOWARD COUNTY
PUBLIC SCHOOL SYSTEM

BOARD OF EDUCATION OF HOWARD COUNTY
MEETING AGENDA ITEM

TITLE: Running Brook Elementary School Addition
Design Development/Construction Document

DATE: March 12, 2013

PRESENTER(S): Bruce Gist, Director, School Construction
Tony Machowski, Vice President, SMG Architects

OVERVIEW:
The attached design development/construction document brochure describes the planned additions to Running Brook Elementary School. Running Brook Elementary School opened in 1970 with an open classroom design for Grades K-5; in 2006 a major renovation enclosed the open space classrooms. The school is a single-story building with masonry exterior wall construction.

Running Brook Elementary School specifically serves the Town Center of Columbia so it is important that Running Brook Elementary School prepare to meet the demands of higher student population as Columbia continues to grow. With this in mind, the design and planning committee agreed on a two-story classroom addition to the school with a cafetorium expansion that will increase the classroom capacity by 100 seats and will also improve the utility of the existing academic support spaces.

The following updates have taken place since the schematic design report. The design team enlarged the cafetorium space to include an expansion to the music room; reconfigured the entrance vestibule and modified the size of the new windows to add security measures; enlarged rear stairwell on the new addition and added an exterior fire hydrant for code compliance; added skylights and solar tubes in the classroom addition to increase day lighting; and relocated and reconfigured the new playground for school use during construction.

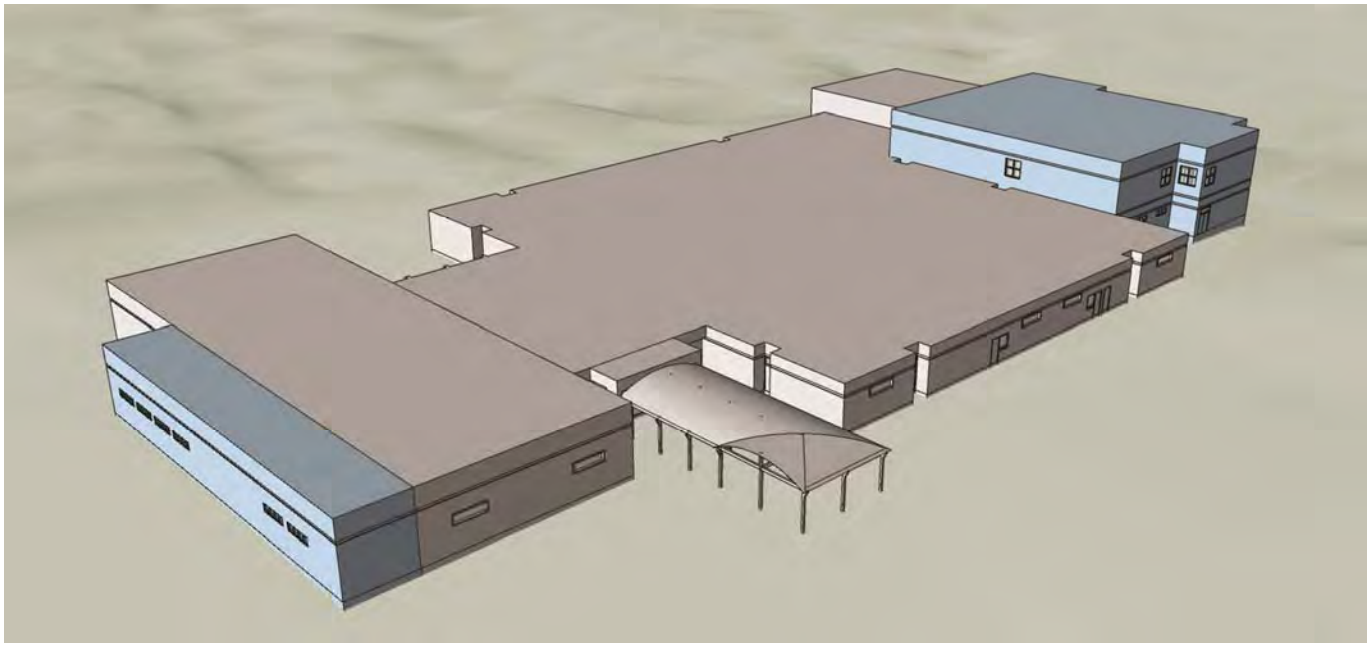
This brochure also includes a significant masonry remedial work plan for the existing building.

The renovated security entrance vestibule will be bid as an add alternate to potentially qualify for future state FY 2014 CIP Security Initiative funding.

RECOMMENDATION/FUTURE DIRECTION:
It is recommended that the DD/CD report for Running Brook Elementary School be approved as submitted.

Submitted by:	Bruce Gist Director, School Construction	**Approval/ Concurrence:**	Ken Roey, Acting COO/CFO

SCHAMU MACHOWSKI GRECO



Additions to

Running Brook Elementary School

Howard County Public School System

Design Development / Construction Document Report – March 12, 2013

SMG
ARCHITECTS

Design Development / Construction Document Report

Additions to
Running Brook Elementary School

FOR THE BOARD OF EDUCATION OF HOWARD COUNTY:

Chairman	Frank J. Aquino, Esq.
Vice Chairman	Brian J. Meshkin
Members	Ann De Lacy
	Sandra H. French
	Ellen Flynn Giles
	Janet Siddiqui, M.D.
	Cynthia L. Vaillancourt
	Cole T Rosenberg (Student)
Superintendent of Schools	Renee A. Foose, Ed.D.
Acting Chief Operating Officer/ Chief Financial Officer	Ken Roey
Director School Construction	Bruce Gist

Table of Contents

Schematic Planning Advisory Committee

Planning Committee

Gloria Mikolajczyk	MSDE, School Facilities, Architect Supervisor
Troy Todd	Running Brook Elementary School, Principal
Ken Roey	HCPSS, Acting Chief Operating Officer / Chief Financial Officer
Bruce Gist	HCPSS, Director, School Construction
Dan Keiser	HCPSS, Program Manager, School Construction
Scott Washington	HCPSS, Manager of Design and Preconstruction Services, School Construction
Ron Miller	HCPSS, Manager of Safety, Environment, and Risk Management
Betsy Zentz	HCPSS, Interagency Specialist
Heather Dyer	Running Brook Elementary School, Math Support Teacher
Elizabeth Factor	Running Brook Elementary School, Fifth Grade Para-Educator
Carol Gallay	Running Brook Elementary School, Alternative Education Teacher
Kathleen Harkness	Running Brook Elementary School, Kindergarten Team Leader
Roslyn Jackson	Running Brook Elementary School, Custodial Staff
Kristina John-Gabriel	Running Brook Elementary School, STEM/Technology Teacher
Lynn Miskovic	Running Brook Elementary School, Fifth Grade Teacher
Bradley Scobie	Running Brook Elementary School, Fifth Grade Team Leader

Architects

Anthony Machowski, AIA	Principal in Charge
Mark Sawyer, AIA	Project Architect, Leed AP
Zachary Secor, Assoc. AIA	Assistant Project Manager

Construction Manager

Jan Sadowski	Vice President	Dustin Construction, Inc.
Kelly Cummings	Chief Estimator	Dustin Construction, Inc.

Design Team

ARCHITECT	SMG Architects	Baltimore, MD
CIVIL ENGINEER	Fisher, Collins & Carter, Inc.	Ellicott City, MD
STRUCTURAL ENGINEER	Columbia Engineering, Inc.	Columbia, MD
MECHANICAL/ELECTRICAL ENGINEER	Gipe Associates, Inc.	Towson, MD
FIRE PROTECTION ENGINEER	EBL Engineers, LLC	Baltimore, MD

Design Development & Construction Document Phase Participants

Troy Todd	Running Brook Elementary School, Principal
Ken Roey	HCPSS, Acting Chief Operating Officer / Chief Financial Officer
Bruce Gist	HCPSS, Director, School Construction
Dan Keiser	HCPSS, Program Manager, School Construction
Scott Washington	HCPSS, Manager of Design and Preconstruction Services, School Construction
Ron Miller	HCPSS, Manager of Safety, Environment, and Risk Management
Betsy Zentz	HCPSS, Interagency Specialist
Greg Conner	HCPSS, Buildings & Grounds
Ted Ludicke	HCPSS, Technology
Larry O'Neill	HCPSS, Life Safety
Hummy Khan	HCPSS, Building Services
Tim Heinrich	HCPSS, HVAC
Frank Mendez	HCPSS, Buildings & Grounds
Carl Hairfield	HCPSS, Plumbing
Jim Kramer	HCPSS, Electrical
Jonathan Naill	HCPSS, Finishes
Al Mullinix	HCPSS, Hardware
Todd McMahon	HCPSS, Building Envelope
Amy Churilla	Running Brook Elementary School, PTA Representative
Heather Dyer	Running Brook Elementary School, Math Support Teacher
Elizabeth Factor	Running Brook Elementary School, Fifth Grade Para-Educator
Carol Gallay	Running Brook Elementary School, Alternative Education Teacher
Kathleen Harkness	Running Brook Elementary School, Kindergarten Team Leader
Roslyn Jackson	Running Brook Elementary School, Custodial Staff
Kristina John-Gabriel	Running Brook Elementary School, STEM/Technology Teacher
Lynn Miskovic	Running Brook Elementary School, Fifth Grade Teacher
Bradley Scobie	Running Brook Elementary School, Fifth Grade Team Leader

Design team

Anthony Machowski, AIA	Principal in Charge, SMG Architects
Mark Sawyer, AIA	Project Architect, Leed AP, SMG Architects
Zachary Secor, Assoc. AIA	Assistant Project Manager, SMG Architects
Chuck Crovo	Civil Engineer, Fisher Collins & Carter, Inc.
Dale Medairy	Civil Engineer, Fisher Collins & Carter, Inc.
Rod Chacon	Structural Engineer, Columbia Engineering, Inc.
Cheryl Zaron	Structural Engineer, Columbia Engineering, Inc.
Rob Weaver	Mechanical Engineer, Gipe Associates, Inc.
Dina Dixon	Electrical Engineer, Gipe Associates, Inc.
Steve Cramer	Electrical Engineer, Gipe Associates, Inc.
Jan Sadowski	Vice President, Dustin Construction, Inc.
Kelly Cummings	Chief Estimator, Dustin Construction, Inc.

Continuation of the Design Process

This design development/construction document report intends to show the aspects of the additions to Running Brook Elementary School which have changed since the schematic design report.

Following approval of the schematic design, the design team proceeded with the design development and the construction document phases of the project. Additional meetings were held with the school staff, Howard County Public School System Facilities, Howard County Permits Department and within the design team to evolve the schematic design and to identify and resolve key technical and detail aspects of the final design.

Noteworthy refinements to the project schematic design include:

- The cafetorium expansion was extended to the south to allow for the inclusion of a 1,500 sf general music suite.
- The addition of two sets of double doors with remote locking in the main lobby near the main entrance and the addition of remote locking capability and visual monitoring to the main entrance inner vestibule doors. This is to allow for the remote visual screening of visitors with the possibility of lock-down of the new doors to prevent passage from the lobby into the school.
- All first floor windows have been reduced to two feet in height with sills at seven feet above floor elevation. This allows for natural light into the rooms (classrooms, cafetorium and music suite) but keeps these rooms secure from direct exterior visual contact. This addressed concerns from the HCPSS risk management department and school officials. Windows on the upper level remain one window at six feet by six feet in each class room.
- The prekindergarten/kindergarten playground has been relocated closer to the school and will be provided with new play surface and play equipment.

Changes to the design since the schematic design report:

- The ‘Project Facts’ on page 10 have been updated to reflect the most up to date square footage totals.
- The ‘Project Schedule’ on page 10 has been updated to reflect completed progress.
- The ‘Proposed Site Plan Notes’ on page 14 and the ‘Proposed Site Plan’ on page 15 have been updated to highlight design changes.
- The ‘Proposed Floor Plan Notes’ on pages 18 to 19 and the ‘Proposed Floor Plan’ on page 20 have been updated to highlight design changes.
- The ‘Construction Cost Estimate’ on page 23 has been updated to reflect the Construction Manager’s most recent estimate.
- Illustrations of major individual spaces, showing furniture and equipment layouts, have been added to this report beginning on page 24.

(Continuation of the Design Process continued)

Masonry repair scope of work is defined:

The original Running Brook Elementary School was opened in 1970 and featured exterior bearing walls consisting of 4" of brick, a 2" air space and 4" of concrete block. The structural value of this combination was derived from the brick and block working together to provide bearing for the roof structure. A recent investigation of the school's exterior walls revealed that the structural performance has been negatively impacted by deterioration of mortar joints and subsequent deterioration of the metal reinforcement that binds the brick and block together. Our structural consultant has advised that remedial work is required to address the current deterioration as well as to provide a plan for prevention of similar issues in the future.

The added work primarily consists of:

- Placing new stainless steel anchors in the exterior walls to restore the brick and block structural combination.
- Re-pointing all deteriorated mortar joints.
- Repair to existing parapet walls with supplemental steel bracing (above the kitchen).
- Re-flashing existing steel window lintels as required.
- Initiating a program of inspection and prevention going forward.

Project Description

Running Brook ES opened in 1970 with an open classroom design for Grades K-5. The school is a single story building with 4-2-4 masonry exterior wall construction. The building is Type IIB construction (Noncombustible/Unprotected) and is primarily classified as an Educational Facility (E). It also has secondary classifications of Assembly A-2 and A-3 due to the dual function of the cafetorium as a dining area (with a stage) and the gymnasium. An assembly classification of A-2 is used for spaces which are designed for an assembly for the purposes of food and drink consumption which do not contain fixed seating. The assembly classification of A-3 is used for spaces which are designed for an assembly for the purposes of recreation or amusement and events other than dining which also do not contain fixed seating. The assembly classification A-3 would also include the gymnasium which does not contain spectator seating. The assembly classification is used to determine the occupant load of the space and the amount of required exit doors for the space.

Running Brook ES underwent renovations in 1984 to reconfigure parts of the open classroom design by creating some individual classrooms, reconfigure the administrative area, and provide a single-story addition which included a gym and two classrooms. A systemic modernization of the interior spaces of Running Brook ES was completed in 2006.

Running Brook ES has also significantly grown in population since the school opened in 1970. The total student population for Grades Pre-K through 5 for the 2012 school year is 489. Below is the breakdown of student population for each class.

Grade	Pre-K	K	1	2	3	4	5	
Female:	18	39	40	32	30	31	27	
Male:	14	39	46	40	39	39	55	
Total:	32	78	86	72	69	70	82	489 Total Students

The student population is predicted to increase each year for the foreseeable future. Running Brook ES specifically serves the Town Center of Columbia so it is important that the school is prepared to meet the demands of higher student population as Columbia continues to grow. With this in mind, the design and planning committee agreed on a two-story classroom addition to the school.

A seven (net) classroom addition is proposed for the eastern end of the school. Seven additional classrooms increase capacity by 175 students. This accommodates the current student growth projection of 100 students as well as the reassignment of the smallest existing classrooms with less than the 660 sf recommended by the HCPSS 2009 renovation guidelines. For example, currently one general classroom (5th grade), one gifted and talented classroom, general music, and occupational therapy are housed in portable trailers on the site. The proposed addition will allow for the housing of these programs inside the school building, along with the reassignment of other programs, such as english for speakers of other languages (ESOL) in more size appropriate locations.

The proposed addition will include four general classrooms on the first floor with storage, and boys and girls toilets; and five general classrooms on the second floor with storage, and boys and girls toilets. The existing one-story classroom addition is to be demolished for a net addition of seven classrooms. The two-story addition will add approximately 15,216 sf to the existing floor plan and contain an elevator for accessibility to each floor and to the playfields. One existing portable classroom for music and the existing playground will need to be relocated to construct the proposed addition. One existing oak tree will need to be removed. New appropriate landscaping will be provided.

(Project Description continued)

With the increase in classrooms, the design team and the planning committee also recommended the following addition to the core space:

Cafetorium and music suite expansion - Increased school capacity requires increased luncheon seating. A cafetorium expansion of 1,100 sf will allocate an additional 700 sf for seating, or four 14-student tables for an additional 56 students per seating. Another 324 sf will be allocated to general storage. With the existing music room located in a remote classroom, an expansion along the entire west wall of the school also allows the music suite to be relocated to a more appropriate space. Both the general music and ensemble rooms will be located adjacent to the cafetorium/stage, with access provided by a dedicated corridor. Both rooms are also located on exterior walls to reduce sound interference with other rooms.

The two additions are located as shown on the included site plan and floor plan. Each addition will be designed to be structurally independent to satisfy building code seismic requirements. Existing building walls and structural elements will be reused where possible. As previously mentioned, the existing building walls will be demolished at the existing two-classroom addition and the small storage areas adjacent to the existing gymnasium.

New partitions will be concrete block. Finishes include: vinyl tile flooring in corridors, wet areas, and utilitarian spaces with vinyl tile in teaching spaces and carpet in offices. Ceilings will be metal grid and acoustical panels. Hollow metal doorframes and hollow metal doors with an embossed wood finish will be provided. New plastic laminate casework with plastic laminate countertops will be provided in all spaces.

The new HVAC and plumbing systems will be independent of the existing systems. New rooftop air handling units will be located at each addition and tied into the building energy management system. The existing plumbing systems and fire sprinkler system will be extended. Similar to the mechanical systems, all electrical systems will be extensions of the existing systems.

Project Facts

	SD Phase	DD/CD Phase
Existing Building Square Footage	47,044 GSF	47,044 GSF
Demolition of Existing Building for Addition	- 2,247 GSF	- 2,247 GSF
Area of New Additions	+16,382 GSF	+17,492 GSF
New Total Building Square Footage	61,179 GSF	62,289 GSF

Project Schedule

DESIGN PERIOD

Planning Committee Meetings Completed	November 9, 2012 (Completed)
Board of Education SD Presentation for review & approval	December 3, 2012 (Completed)
Board of Education DD/CD Presentation for review & approval	March 12, 2013

BID PERIOD

Project out for Bids	April 25, 2013
Bids Received	May 16, 2013

CONSTRUCTION PERIOD

Construction start	August 9, 2013
Construction completion (1 year)	August 15, 2014

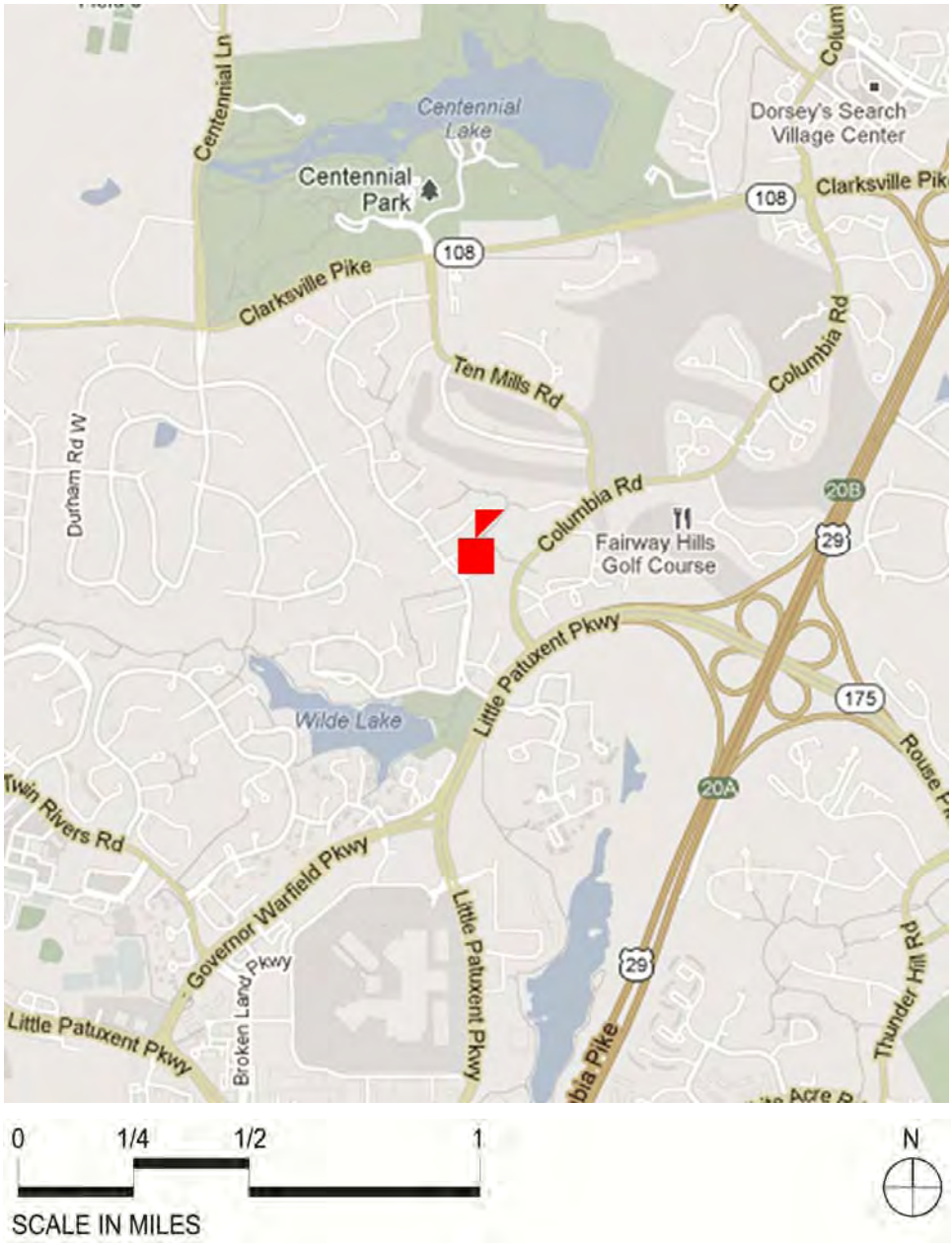
The Planning Process

The schematic design of the additions was developed through several inspections with Scott Washington of the HCPSS and Troy Todd, Principal of Running Brook ES as well as meetings with the planning committee on November 2 and 9, 2012. Committee members included representatives from the Maryland State Department of Education, HCPSS, Running Brook ES, Dustin Construction and SMG Architects. The meetings were well attended and the committee efficiently evaluated several options and arrived at consensus.

The following agenda items were discussed during these meetings:

- Project overview – An addition to add a minimum of 100 seats to keep pace with enrollment growth to be ready to occupy for the 2014/2015 school year.
- A 2006 systemic renovation at Running Brook ES upgraded existing school MEP infrastructure which continues to function as designed and will not be addressed by this project. New systems will be added for the addition.
- Summary of the decision process for determining the addition location in the southeast corner of the existing school as well as the rationale for selecting a two-story format.
- Building code seismic requirements for additions which suggested the most efficient addition configuration could be realized by demolishing two one-story classrooms and the one-story storage/office space contiguous to the existing gym.
- Key features of the addition to include classrooms, dedicated storage areas, group toilets, a staff toilet and custodial space on each floor. Circulation is accommodated by two stairs and an elevator.
- The value of 'commons' space was compared to larger classrooms. Classrooms were set at 800 sf and a modest common space was provided at the classroom entrance area on each floor.
- The need for an expanded cafeteria and associated storage space to accommodate increased capacity for both dining and assembly.
- Preliminary discussion of logistic planning requirements for the school during the construction phase such as playfield access, exiting, auxiliary classroom space, etc.
- Review of an alternative scheme which would relocate kindergarten and Pre-K to the addition. This scheme was not selected.
- Security and safety issues which must be addressed in the design of the addition.
- Design and construction schedule parameters were established along with an appreciation of the necessary aggressive nature of the schedule.

The design of the additions illustrated in this report reflects the input resolved from a thorough process of committee review, input, discussion and resolution. While the committee was responsive to the demands of schedule and budget, the safety, welfare and educational experience of the students remained the paramount influence. To assist in determining a well-planned approach to cost efficiency in this early planning stage, Dustin Construction was an enthusiastic participant.

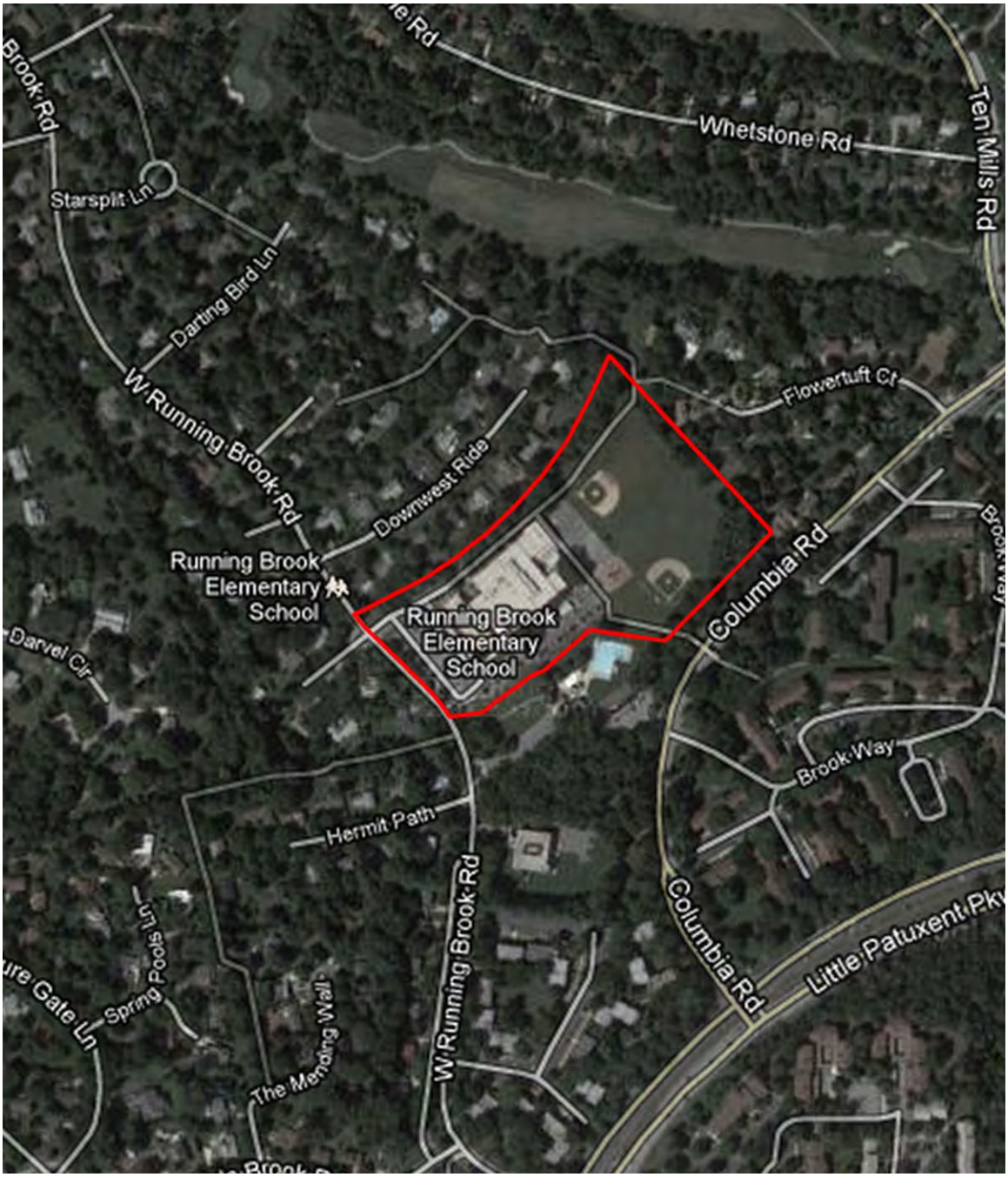


Vicinity Map

The existing Running Brook Elementary School is located on West Running Brook Road in Columbia, Maryland approximately one quarter mile north west of Little Patuxent Parkway.

The site was originally developed for the school in 1969 and is 9 acres.

Public water, sewer, and natural gas serve the site.



Aerial Site Photo

Proposed Site Plan

Key features of the proposed site changes are listed below and identified by circled numbers on the following page.

1. Expansion of the existing cafetorium and storage. This expansion has been carefully sized to accommodate the growth from the addition to the school, while minimizing site impact.

2. New two-story, nine classroom addition. The addition has been carefully sized and located to provide additional instructional space, provide additional storage space, and provide additional toilet facilities while minimizing site impact.

3. New fenced playground located adjacent to the existing mulch play area to replace the fenced play area removed by the classroom addition.
   Note: This number has been replaced by note "C".

4. New concrete sidewalk to connect addition exit to existing macadam walk.

5. Expansion of macadam surface to reach addition exit.

Proposed Site Plan Updates

The most noticeable updates to the proposed site plan are listed below and identified by letters in triangles on the following page.

A. Extension of the proposed cafetorium expansion to include a new music suite. This extension is being proposed to help reduce the need for portable classrooms and provide more space for the existing music programs at the school, both at minimal cost increase.

B. A new water main will be extended across the parking lot to serve a new fire hydrant, which has been located as requested by the County Fire Marshal.

C. The new fenced playground has been relocated due to distance and access concerns with the first location.

PROPOSED SITE PLAN

0 250 500 1000

SCALE IS IN FEET

A - NUMBERS & LETTERS REFER TO NOTES ON PREVIOUS PAGE

PROJ. N N

SMG ARCHITECTS

Existing Floor Plan

Key features of the existing floor plan changes are listed below and identified by circled numbers on the following page.

1. Demolition of two existing classrooms to make room for the classroom addition. The classrooms were later additions to the school, and can be demolished without disrupting the adjacent school spaces.

2. Existing portable music classroom will be relocated on the site.

3. Demolition of the one-story space adjacent to the gym to make room for the classroom addition.

4. Demolition of the fenced playground to make room for the classroom addition.

EXISTING FLOOR PLAN

0 12.5 25 50

SCALE IS IN FEET

(#) - NUMBERS REFER TO NOTES ON PREVIOUS PAGE

N

SMG ARCHITECTS

Proposed Floor Plan

Key features of the proposed floor plan are listed below and identified by circled numbers on the following page.

1. The first floor of the two-story classroom addition to the east end of the school will be tied into the existing school corridor circulation and complete an interior continuous circulation loop. This allows for reduced travel distances between all portions of the school and provides maximum flexibility in assigning specific classrooms to the appropriate grade level.

2. The cafetorium expansion will include new doors to the exterior as well as windows to the front of the school.

3. As part of the cafetorium expansion, 700 sf will be allocated to additional seating and 324 sf of area will be allocated for general storage.

4. New student restrooms on each floor will incorporate the most recent HCPSS Educational Specification Guidelines and will be fully ADA accessible.

5. Staff restrooms are to be provided on each floor and will be fully ADA accessible.

Each classroom is approximately 800 sf (one classroom is 755 sf) and are provided with the following:

6. Wood and plastic laminate cabinetwork including six linear feet of wall base and sink cabinets, two tall cabinets including a lockable wardrobe cabinet for the teacher.

7. Standard cubbie units.

8. Storage areas of approximately 115 sf are provided for each classroom.

9. One interior window unit is included in each classroom between the room and the corridor at the entry door.

10. Window placement has been updated. See note D.

11. An elevator is provided to each floor for ADA accessibility to each classroom as well as to the playfields to the rear of the school.

12. Required fire stairs are to be provided for egress and exiting requirements as well as convenience to each floor and the playfields.

13. Increased storage and office area is provided for the physical education and gymnasium component.

Proposed Floor Plan Updates

The most noticeable updates to the proposed floor plan are listed below and identified by letters in triangles on the following page.

A. Extension of the proposed cafetorium expansion to include a new music suite. Both a general music classroom and an ensemble room are included in this area. These classrooms will have sound deadening materials applied to walls which border adjacent rooms.

B. New cross-corridor doors and a buzzer/camera access system will be installed at the front entrance to the school which will allow office personnel to create a secure front vestibule via remote controls in the main office. This will be bid as an add alternate to the project.

C. The width of the exit stairs was slightly increased to comply with code regulations.

D. For security purposes, all first floor windows have been updated to be 2'-0" x 6'-0" (Except in the cafetorium & music suite which are 2'-0" x 8'-0"). Each classroom has two of these windows set high to maximize board space. All second floor windows remain 6'-0" x 6'-0". Each classroom has one of these windows. See the proposed elevations on page 20.

E. A 7'-0" x 7'-0" skylight will be installed in the upper commons area, a 4'-0" x 8'-0" skylight will be installed at the student toilet sink lobby.

F. Classrooms which do not have exterior windows will have sola-tubes installed in the ceiling to provide natural light.

PROPOSED FLOOR PLAN

0 12.5 25 50

SCALE IS IN FEET

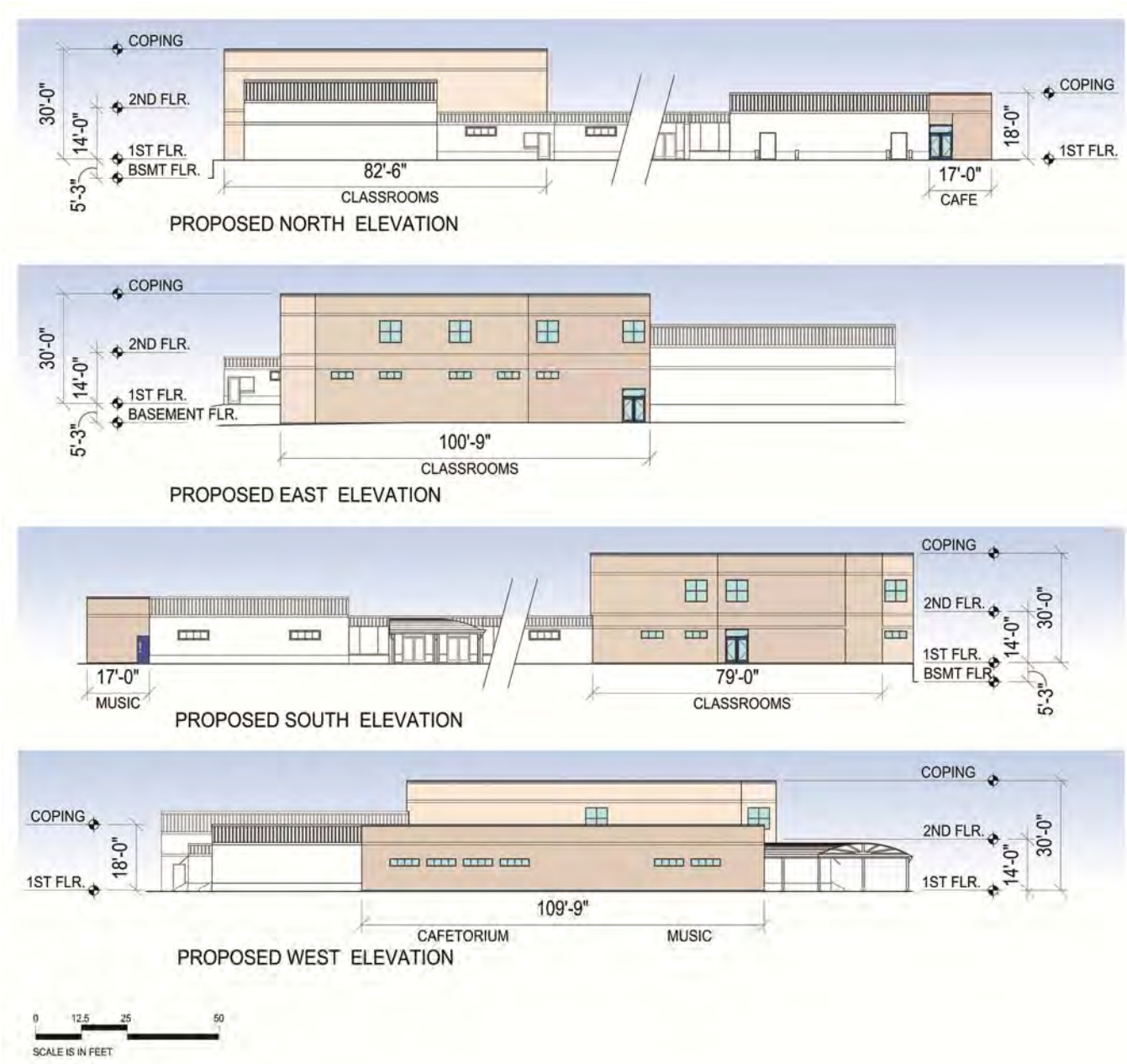
(#) (A) - NUMBERS & LETTERS REFER TO NOTES ON PREVIOUS PAGE

N

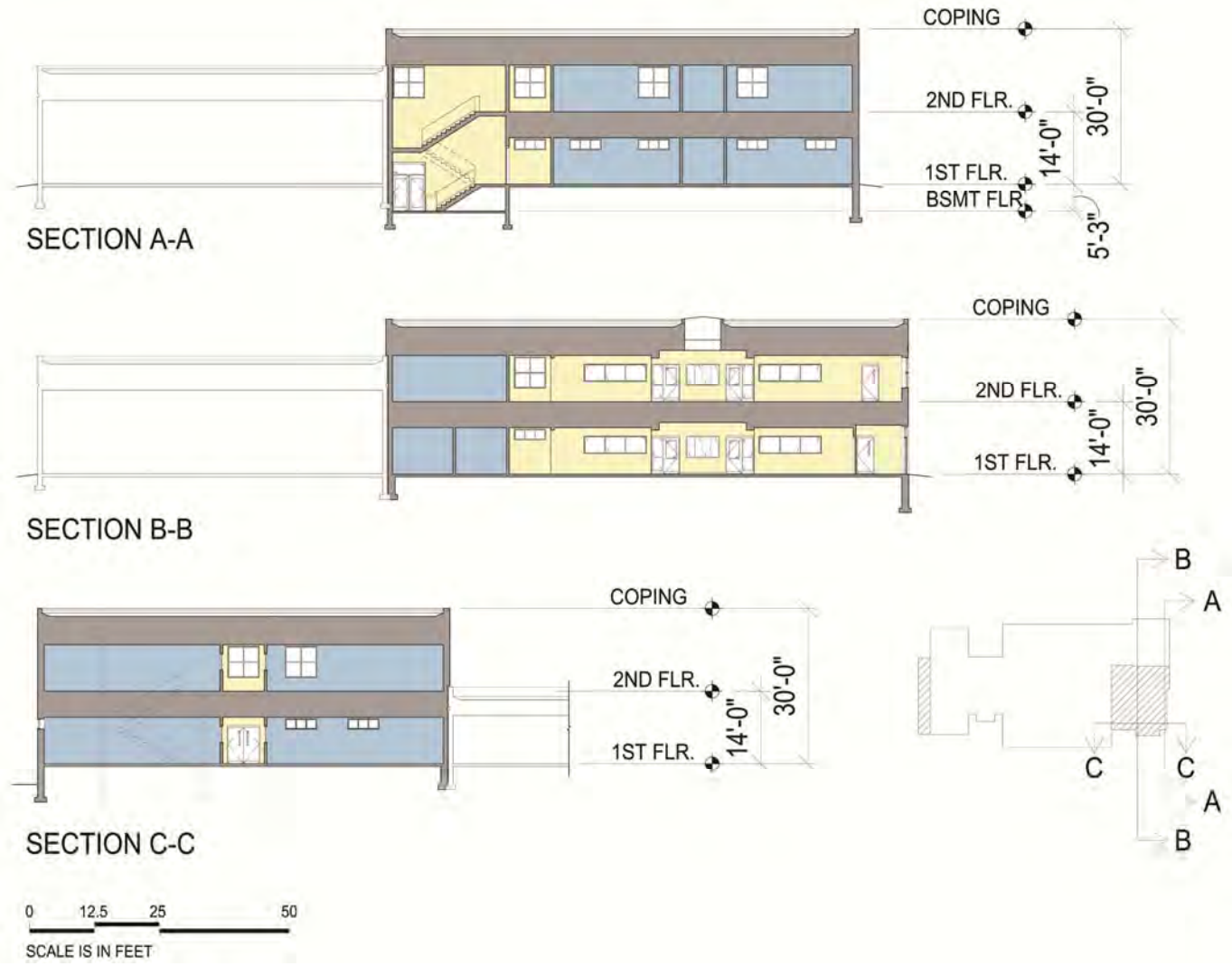
SMG ARCHITECTS

Proposed Elevations

The appearance of the additions will closely match the style of the existing school. The brick detailing found on the existing school will be emulated in the additions. Classrooms on exterior walls will have windows to provide natural daylight, while interior rooms will receive natural daylight from sola-tubes. Windows will also be located in the cafetorium/music suite expansion to provide natural daylight to the cafetorium and music suite and provide a pleasing road-front image to the school.



Proposed Sections



Construction Cost Estimate

Additions to Running Brook Elementary School

	Schematic Phase	DD/CD Phase
Site Work	$465,000	$ 551,219
Building	$4,214,000	$4,150,186
Total for Project	**$4,679,000**	**$4,701,405**
Add Alternate option		
1. Secure vestibule		$ 42,000
Total for Project (including Add Alternate)		**$4,743,405**

Notes

- The above total cost includes estimates for:

    1. Portable Classrooms: $200,000
    2. Repair of existing exterior masonry walls: $500,000

- Construction cost estimate was prepared by the construction manager, Dustin Construction, Inc., and assumes that bids will be received in May 2013.

- Estimate assumes non-wage rate pricing (Add +8% for wage rate.)

- Estimate does not include project contingency, A/E design fees, CM construction fees, and other related costs.

Design Development Furniture & Equipment Plans

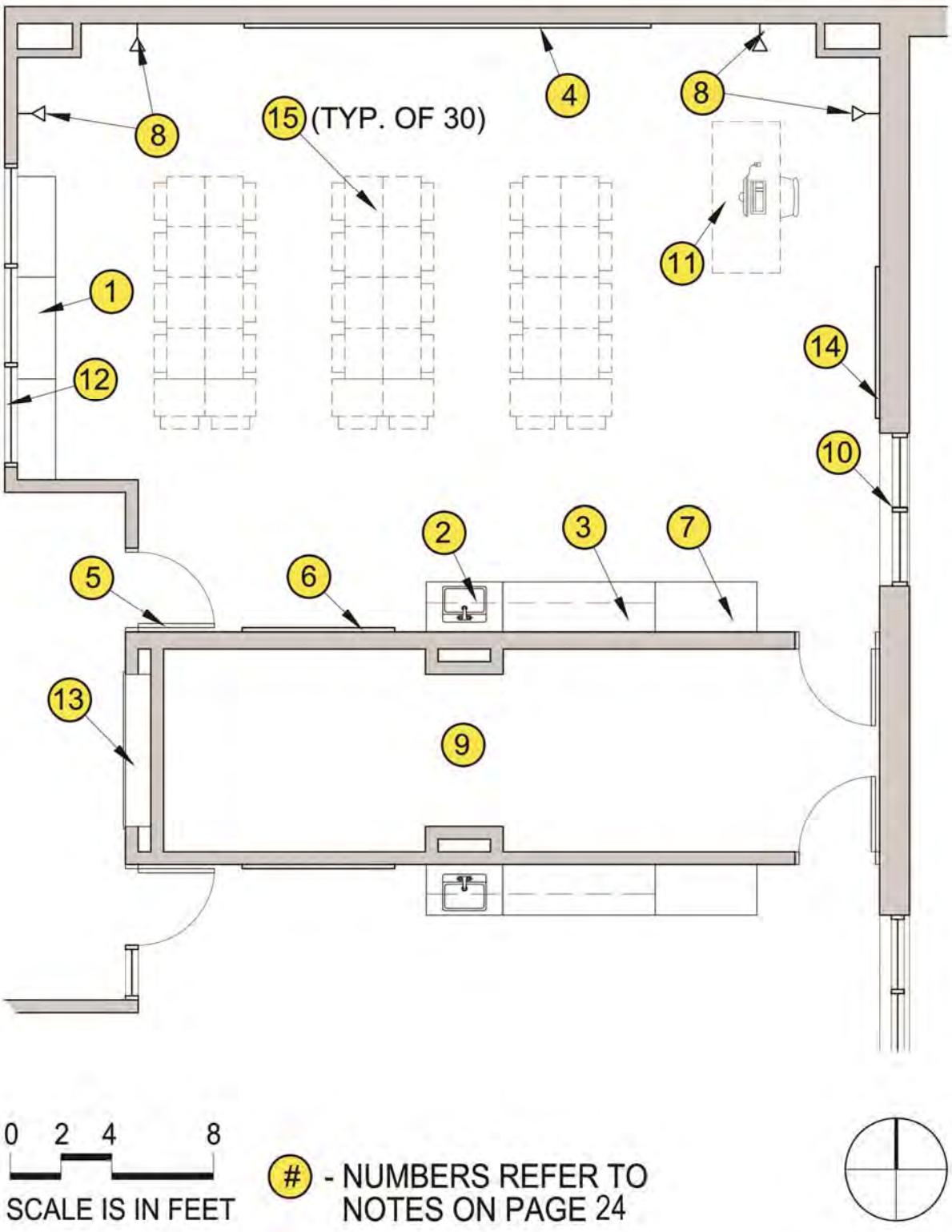
The enlarged plans on the following pages are the result of meetings between the architect and the HCPSS staff. These layouts depict the arrangement of furniture and equipment such as: data outlets, plumbing fixtures, and fixed accessories such as cabinetry, projection screens, tackboards, and markerboards in each room.

Legend:

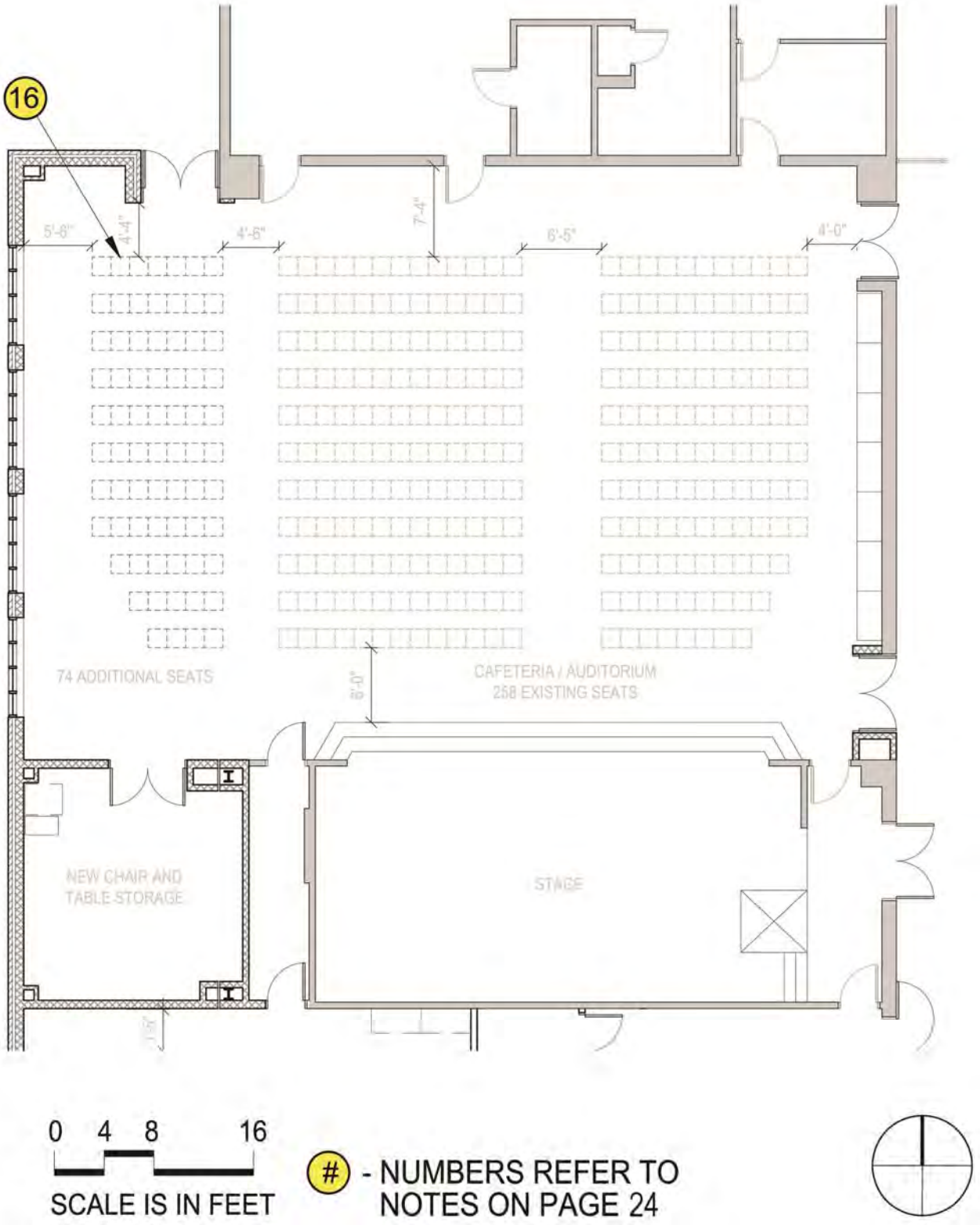
1. Cubbies
2. Sink
3. Cabinets & Shelving
4. 16’-0” Markerboard (Wall-mounted projector above)
5. Entry Door with half glass
6. 6’-0” Bulletin Board
7. Built-in, Lockable A/V Cabinet
8. Data Drop
9. Classroom Storage Closet
10. Exterior Window
11. Possible Teacher’s Desk Location
12. Interior Windows Above Cubbies
13. Student Work Display Cabinet
14. 8’-0” Tackboard
15. 24” x 18” Student Desk w/ Chair
16. Student Chair
17. Folding Dining Table w/ Seating for 12
18. Music Chair
19. Podium
20. Piano
21. Storage Cabinet
22. 12’-0” Markerboard (Lined for 8’-0”)

Note: All movable furniture is not in the contract.

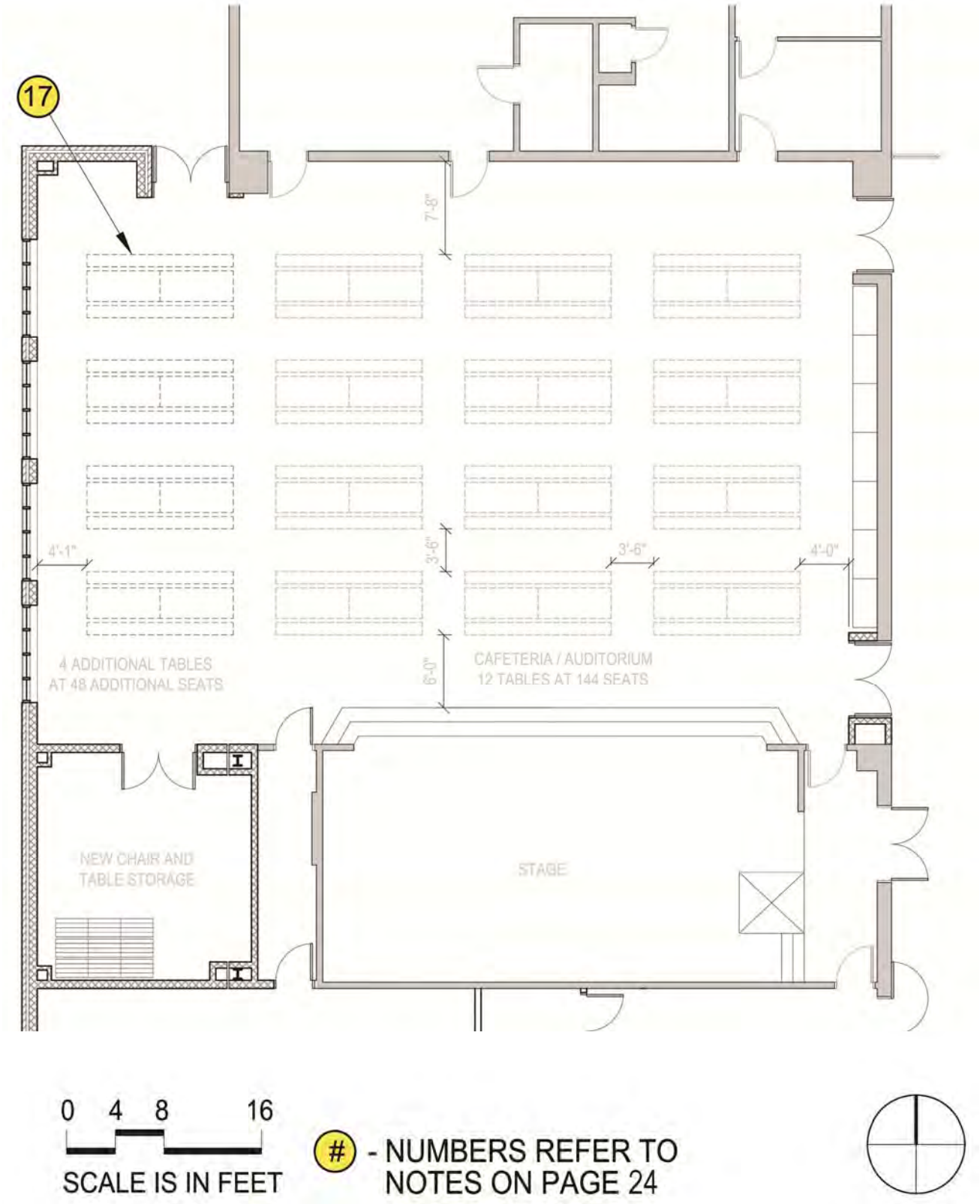
Typical Classroom Layout



Proposed Cafetorium (Event) Seating



Proposed Cafetorium (Dining) Seating



Proposed Music Suite Layout