ACTION

HOWARD COUNTY
PUBLIC SCHOOL SYSTEM

BOARD OF EDUCATION OF HOWARD COUNTY
MEETING AGENDA ITEM

TITLE: New Elementary School #42 Schematic Design Report **DATE:** October 22, 2015

PRESENTER(S): Scott W. Washington, Director, School Construction

Robyn Toth, Associate Principal, TCA Architects

VISION 2018 GOAL: ☒ Students ☐ Staff ☐ Families and Community ☐ Organization

OVERVIEW:
The New Elementary School #42, which will be located adjacent to Thomas Viaduct Middle School, will be an adaptation of the 788 seat prototype elementary school design. This prototype elementary school plan, based on the General Elementary Educational Specifications for New Schools, dated August 2003 will be the fourth iteration of this model. The design team worked collaboratively with the planning committee and Howard County Public School System staff, as well as completing detailed comparisons between both the 2003 and 2010 General Elementary Educational Specifications for New Schools to ensure appropriately updated documents that capture both programmatic and systemic changes which will serve the current needs of the elementary school.

The following are some of the updates that have taken place since the schematic design brochure. Reconfiguration of the administrative suite providing a larger workroom; increased visibility in the health suite for better supervision; enlarged kindergarten classrooms; and inclusion of an outdoor classroom for staff and community use.

A continuing emphasis on energy efficient systems and sustainability is being incorporated into the design. It is the intent that the design and construction of the building achieve another LEED (Leadership in Energy and Environmental Design) 'Gold' designation.

RECOMMENDATION/FUTURE DIRECTION:
It is recommended that the design development report for Elementary School #42 be approved as submitted.

SUBMITTED BY:
Scott W. Washington, Director
School Construction

APPROVAL/CONCURRENCE:
Renee A. Foose, Ed.D.
Superintendent

Camille B. Jones
Chief Operating Officer

Bruce Gist
Executive Director
Facilities, Planning and Mgmt.

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Design Development Report

NEW ELEMENTARY SCHOOL #42

Howard County Public School System

22 October 2015

Annapolis, Maryland

Specializing in the design of educational facilities

Design Development Report
New Elementary School #42

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22 October 2015

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Legend of Symbols and Abbreviations
A - Administrative Areas (1st Floor)
B - Administrative Areas (2nd Floor) and Health Suite
C - Custodial Areas and Guidance & Psychologist Offices
D - Gifted & Talented and Reading Resource
E - Typical Classroom
F - Extended Learning Area & Resource Room
G - Kindergarten Classrooms
H - Early Childhood & RECC Classroom
I - ESOL and Early Childhood Support Spaces
J - Alternative Education / Observation and Special Education (1st Floor)
K - Special Education (2nd Floor)
L - Media Center
M - Cafetorium (Dining) and Kitchen
N - Physical Education / Gymnasium
O - Visual Arts Suite
P - Music Suite
Q - Cafetorium and Platform
R - Mini Auditorium
S - Recreation and Parks Areas

Schematic Planning Advisory Committee

Planning Committee

Heide Balter	HCPSS, Ducketts Lane Elementary School, Principal
Elizabeth Bradbury	HCPSS, Elkridge Elementary School, Teacher
Robert Bruce	HCPSS, Veterans Elementary School, Principal
Stacey Dunn	Parent of HCPSS student
Heather Dyer	HCPSS, Elementary Math Resource Teacher
Lisa Goldberg	HCPSS, Elkridge Elementary School, Teacher
Dan Hagan	J. Vinton Schafer & Sons, Inc., Sr. Project Manager
Carol Hahn	HCPSS, Bellows Spring Elementary School, Principal
Anne Hickey	HCPSS, Early Intervention Services, Instructional Facilitator
Dan Keiser	HCPSS, Construction Program Manager
Dan Lubeley	HCPSS, Manager of Design and Preconstruction
Courtney Madden	HCPSS, Instructional Team Leader, Math/Science/Health
Laurel Marsh	HCPSS, Longfellow Elementary School, Principal
Dennis McDonald	HCPSS, Bellows Spring ES, 4th Grade Team Leader/Teacher
Kristin Mentz	Parent of HCPSS student
Gloria Mikolajczyk	MSDE, School Facilities Architect
Debbie Misiag	HCPSS, Special Education Services, Elementary School
Dr. Barbara Moore	Howard County Government, Recreational Licensed Child Care Division, Superintendent
Ron Morris	HCPSS, Administrative Director, Elementary
Douglas Pindell	HCPSS, Purchasing, Director
Sophia Quirk	HCPSS, Bellows Spring ES, Technology, Team Leader
Brian Ralph	HCPSS, Food and Nutrition Services, Director
David Ramsay	HCPSS, Pupil Transportation Director
Kristie Sachs	HCPSS, Bellows Spring Elementary School, Teacher
Angela Shiplet	Parent of HCPSS student
John Skrynecki	HCPSS, Bellows Spring Elementary School, Teacher
Bill Stolis	HCPSS, Bus Area Manager
Terry Street	HCPSS, Safety, Environment and Risk Management, Manager
Reny Toledo	HCPSS, Technology, AV and Network Support
Tonya VanDerlinde	HCPSS, Deep Run Elementary School, Teacher
Caroline Walker	HCPSS, Title 1 Program, Curriculum Director
Scott Washington	HCPSS, Director of School Construction
Laura Wetherald	Howard County Government, Bureau of Recreation and Administrative Services, Chief

Architects

Robyn Toth, AIA	Principal, Project Manager, LEED AP
Mike Lahowin, AIA	Principal, LEED AP

Design Team

ARCHITECT	TCA Architects	Annapolis, MD
CIVIL ENGINEER	Fisher, Collins & Carter	Ellicott City, MD
STRUCTURAL ENGINEER	Morabito Consultants	Sparks, MD
M/E/P ENGINEER	James Posey Associates	Baltimore, MD
IT CONSULTANT	Educational Systems Planning	Annapolis, MD
DAYLIGHTING ENGINEER	EMO Energy Solutions	Falls Church, VA
ROOFING CONSULTANT	Restoration Engineering	Fairfax, VA
ACOUSTICAL ENGINEER	Miller, Beam & Paganelli	Reston, VA
FOODSERVICE DESIGN	Nyikos Associates	Gaithersburg, MD
CONSTRUCTION MANAGER	J.Vinton Schafer & Sons	Abingdon, MD

Design Development Phase Participants

HCPSS

Erica Aument	Reading Support Team, Talbott Springs ES
Maha Abdelkader	Coordinator, ESOL Program
Katie Barbagallo	Resource Teacher, G/T Education
Richard Bilenki	Leadman, Plumbing
Debbie Blum	Coordinator, G/T Education
Lisa Boarman	Coordinator, School Counseling & Related Services
Laurie Buckland	Special Education Team Leader, Longfellow ES
Ivan Croft	Resource Psychologist, Psychological Services
Sarah Croushler	Alternative Education
John Duvall	Leadman, Electronics
Heather Dyer	Resource Teacher, Elementary Mathematics
Rosalie Edwards	Area Field Representative, Food & Nutrition Services
Kim Eggborn	Coordinator, Social Studies
Dave Elder	Electronics Technician
Nancy Ennis	Resource Teacher, Instructional Technology
Bruce Fisher	Master Carpenter
Penny Freer	Reading Support Team, Talbott Springs ES
Rob Geelhaar	Leadman, HVAC
Joe Goins	Master Electrician
Melissa Grabill	Instructional Facilitator, Media
Megan Hartten	Music Teacher
Julie Haynes	Special Education, Ducketts Lane ES
Anne Hickey	Instructional Facilitator, Early Intervention Services
Tim Heinrich	Specialist, HVAC Controls
Laurel Johnson	Area Field Representative, Food & Nutrition Services
Hummy Khan	Assistant Manager, Building Services
Sam Knight	Leadman, HVAC
Dan Lubeley	Manager, Design and Preconstruction
Ted Ludicke	Specialist, Technology
Susan McHale	Health Services
Maureen Mehrtens	Specialist, Health Services
Pete Merson	Master Carpenter
Ron Morris	Administrative Director, Elementary
Jonathan Naill	Leadman, Painting and Flooring
Kym Nwosu	Resource Teacher, Early Childhood Programs
Dalton Onorato	Resource Teacher, Elementary ESOL
Joanna Pauley	Teacher/Team Atholton ES,
Kathy Perry	Teacher, Bushy Park ES
Chad Porter	Project Manager
Brian Ralph	Director, Food and Nutrition Services
Linda Rangos	Coordinator, Health Education
Amy Reese	Coordinator, Science
Cindy Rinaldi	Music Teacher
Shannon Roberts	Resource Teacher, EIS
Mike Senisi	Instructional Facilitator, Physical Education
Kerrie Wagaman	Coordinator, Health Services
Laura Wetherald	Bureau of Recreation and Administrative Services, Chief

COMMISSIONING AGENT

Jim Hottell	Facilities Dynamics Engineering

DESIGN TEAM

Darrell Barricklow	Construction Administrator
Chuck Crovo	Civil Engineer
Mike Gerding	Project Architect
Bryan Jones	IT Consultant
Dale Medairy	Civil Engineer
Patrick Marquez	Electrical Engineer
Jay Garcia	Kitchen Consultant
Victor Popien	Electrical Engineer
Mike Sherren	Mechanical Engineer
Robyn Toth, AIA	TCA Architects, Principal

CONSTRUCTION MANAGEMENT

Dan Hagan	Senior Project Manager
Tom Kraft	Director of Field Operations

Project Description

New Elementary School #42 will be constructed adjacent to the newly constructed Thomas Viaduct Middle School. New Elementary School #42 will be an adaptation of the original two-story prototype elementary school design, which is designed to accommodate a population of 788 students in kindergarten through fifth grade.

The 'Space Analysis' section of this report contains a complete listing of elementary school spaces including all program spaces found in the original 788 student prototype design and compares the size of each space in the original prototype to the size of each space in the New Elementary School #42 design. (See pages 23-25 for Space Analysis.)

It is the intent that the design and construction of this new elementary school achieve a Leadership in Energy and Environmental Design (LEED)'Gold' designation making this facility yet another 'Green' school for HCPSS. The 2009 version of 'LEED for Schools' released by the U.S. Green Building Council (USGBC) will provide the necessary goals and requirements to obtain LEED Certification. (See page 7 for Sustainable 'Green' Design Goals.)

Project Facts

Total size of site	8.019 acres
On site car parking provided	110 cars
On site bus parking provided	18 busses
Building Square Footage	116,633 gsf
Student Capacity	788 Students

Project Schedule

Planning Meetings Completed	May 19, 2015
Schematic Design presented to Board of Education for Review and Approval	July 9, 2015
Design Development presented to Board of Education for Review and Approval	Oct 22, 2015
Construction Documents presented to Board of Education for Review and Approval	April 2016
Project out for Bids: (1 1/2 months)	June 2016
Bids Received	July 2016
Construction Starts	Sept 2016
Construction Completed (20 months)	May 2018
School Opens	August 2018

Continuation of the School Design Process

This design development report is intended to explain and illustrate those aspects of the New Elementary School #42 design which have changed since the schematic design report. Included are updates on all aspects of the project and detailed interior room layouts which have been developed since the schematic report.

The planning process for the New Elementary School #42, was described in detail in the schematic design report submitted to the Board and approved on July 9, 2015. Following approval of the schematic design, a formal schematic design submittal was sent to the Maryland State Department of Education (MSDE) and later approved by them for continuation of the design process.

Noteworthy refinements to the project since the schematic design approval are noted below:

- A listing of all design development phase participants can be found on page 4.
- The site plan on pages 10 and 12 has been revised to improve the pedestrian connections to the surrounding community, to respond to the context of the surrounding architecture, and to create an outdoor classroom which can be an inviting space for teachers to gather the students.
- Design development phase floor plan refinements are identified on page 16.
- Exterior building elevations have been added to this report on pages 20 and 21.
- The 'Space Analysis' on pages 23, 24 and 25 includes both schematic and design development phase square footages.
- The 'Cost Estimate' on page 26 has been updated by the construction manager for the design development phase.
- Design development phase illustrations for interior room layouts are found in the 'Design Development Furniture and Equipment Plans' section of this report beginning on page 27.

<u>Noteworthy project development and coordination efforts:</u>

TCA met with thirty-three staffers from Howard County Public School System (HCPSS) over a period of four days to discuss the architectural, mechanical, plumbing, electrical, telecommunication and acoustical needs of nineteen different educational areas needed to support the elementary school curriculum. The result of these meetings can be found at the end of this report, see the furniture and equipment plans.

Since the schematic phase, a number of other coordination meetings have also taken place involving the Design Team, the Construction Manager, Baltimore Gas and Electric, the Department of Planning and Zoning, the Department of Licenses and Permits, the Department of Fire and Rescue Services for Howard County, the office of Preston Scheffenacker Properties, the Design Advisory Panel of Howard County and HCPSS staff. These meetings discussed aspects of the project that include, but are not limited to, the latest fire department site access requirements, the changes in the newly adopted building codes, the development of proposed mechanical, electrical, and IT systems, the architectural compatibility of the prototype facade within the context of the planned community, and methods of reducing energy consumption.

Sustainable 'Green' Design Goals

It is the intent that the design and construction of this new school achieve a LEED 'Gold' certification, making this facility a 'Green' school. Simply stated, a 'Green' school is a building designed to conserve energy, water, and materials, thus reducing negative impacts on human health and the environment. A 'Green' learning environment provides natural daylight, enhanced classroom acoustics, improved indoor air quality, thermal comfort, and opportunities to integrate green features into the school's curriculum.

In order to measure and compare how 'Green' a building is, the USGBC, founded in 1993, has developed industry standards with design and construction rating systems and guidelines for many different building types.

One such rating system is the USGBC 2009 Edition of "LEED for SCHOOLS" to which the design will closely adhere. Final LEED certification levels are based on the number of credit points obtained in the "LEED for SCHOOLS" rating system. The four levels of certification from lowest to highest are: Certified, Silver, Gold, and Platinum.

We have included an 'in progress' LEED scorecard below which summarizes the credits most likely obtainable at this time. As the project continues to evolve, new credits may be possible while others may become increasingly difficult to engineer or too costly to provide. At this time we have identified 60 likely credits (with an additional '12 possible credits') allowing for the loss of some and still complying with the goal of a LEED 'Gold' Building.

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LEED for SCHOOLS 2009

LEED Scorecard
New Elementary School #42
Howard County Public School System
October 2015

SS Sustainable Sites

R		Prereq 1	**Construction Activity Pollution Prevention**
R		Prereq 2	**Environmental Site Assessment**
1		Credit 1	**Site Selection**
	4	Credit 2	**Development Density & Community Connectivity** (4 credits)
	X	Credit 3	Brownfield Redevelopment
4		Credit 4.1	**Alternative Transportation,** Public Transportation Access (4 credits)
1		Credit 4.2	**Alternative Transportation**, Bicycle Use
2		Credit 4.3	**Alternative Transportation**, Low Emitting & Fuel Efficient Vehicles (2 credits)
2		Credit 4.4	**Alternative Transportation**, Parking Capacity (2 credits)
	X	Credit 5.1	Site Development, Protect or Restore Habitat
1		Credit 5.2	**Site Development**, Maximize Open Space
1		Credit 6.1	**Stormwater Design**, Quantity Control
1		Credit 6.2	**Stormwater Design,** Quality Control
	X	Credit 7.1	Heat Island Effect, Non-Roof
1		Credit 7.2	**Heat Island Effect**, Roof
	1	Credit 8	**Light Pollution Reduction**
	X	Credit 9	Site Master Plan
1		Credit 10	**Joint Use of Facilities**
15	5		**Total Sustainable Sites Credits**

WE Water Efficiency

R		Prereq 1	**Water Use Reduction,** 20% Reduction
4		Credit 1	**Water Efficient Landscaping**, Reduce by 50% (4 credits)
	X	Credit 2	Innovative Wastewater Technologies (2 credits)
2	1	Credit 3	**Water Use Reduction,** 30%, 40% Reduction (4 credits)
1		Credit 4	**Process Water Use Reduction**
7	1		**Total Water Efficiency Credits**

EA Energy and Atmosphere

R		Prereq 1	**Fundamental Commissioning of the Building Energy Systems**
R		Prereq 2	**Minimum Energy Performance**
R		Prereq 3	**Fundamental Refrigerant Management**
7	3	Credit 1	**Optimize Energy Performance**, 12-48% New / 8-44% Exist. (19 credits)
	X	Credit 2	On-Site Renewable Energy, 1-13% (7 credits)
2		Credit 3	**Enhanced Commissioning** (2 credits)
	1	Credit 4	**Enhanced Refrigerant Management**
2		Credit 5	**Measurement & Verification** (2 credits)
	X	Credit 6	Green Power (2 credits)
11	4		**Total Energy and Atmosphere Credits**

MR Materials and Resources

R		Prereq 1	**Storage & Collection of Recyclables**
	X	Credit 1.1	Building Reuse, Maintain 75%, 95% of Existing Walls, Floors & Roof (2 credits)
	X	Credit 1.2	Building Reuse, Maintain 50% of Interior Non-Structural Elements
2		Credit 2	**Construction Waste Management**, Divert 50, 75% from Disposal (2 credits)
	X	Credit 3	Materials Reuse, 5%,10% (2 credits)
2		Credit 4	**Recycled Content**, 10%, 20% (post-consumer + 1/2 pre-consumer) (2 credits)
2		Credit 5	**Regional Materials**, 10%, 20% Extracted, Processed & Manufactured Regionally(2 credits)
	X	Credit 6	Rapidly Renewable Materials
1		Credit 7	**Certified Wood**
7	0		**Total Materials and Resources Credits**

EQ Indoor Environment Quality

R		Prereq 1	**Minimum IAQ Performance**
R		Prereq 2	**Environmental Tobacco Smoke (ETS) Control**
R		Prereq 3	**Minimum Acoustical Performance**
1		Credit 1	**Outdoor Air Delivery Monitoring**
	X	Credit 2	Increased Ventilation
1		Credit 3.1	**Construction IAQ Management Plan,** During Construction
1		Credit 3.2	**Construction IAQ Management Plan**, Before Occupancy
1		Credit 4.1	**Low-Emitting Materials**, Adhesives & Sealants
1		Credit 4.2	**Low-Emitting Materials**, Paints & Coatings
1		Credit 4.3	**Low-Emitting Materials**, Flooring Systems
1		Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products
1		Credit 5	**Indoor Chemical & Pollutant Source Control**
1		Credit 6.1	**Controllability of System,** Lighting
1		Credit 6.2	**Controllability of System,** Thermal Comfort
1		Credit 7.1	**Thermal Comfort,** Design
1		Credit 7.2	**Thermal Comfort,** Verification
1	1	Credit 8.1	**Daylight & Views**, Daylight 75%, 90% of Classrooms, 75% all other spaces (3 credits)
	X	Credit 8.2	Daylight & Views, Views for 90% of Spaces
	X	Credit 9	Enhanced Acoustical Performance
	X	Credit 10	Mold Prevention
13	1		**Total Indoor Environment Quality Credits**

ID Innovation and Design Process

1		Credit 1.1	**Innovation in Design,** Maximize Open Space
1		Credit 1.2	**Innovation in Design,** Green Cleaning Program
1		Credit 1.3	**Innovation in Design,** Low Mercury Lighting
	1	Credit 1.4	**Innovation in Design,** Process Energy Savings: Energy Efficient Elevator
1		Credit 2	**LEED Accredited Professional**
1		Credit 3	**School as a Teaching Tool**
5	1		**Total Innovation and Design Process Credits**

RP Regional Priority

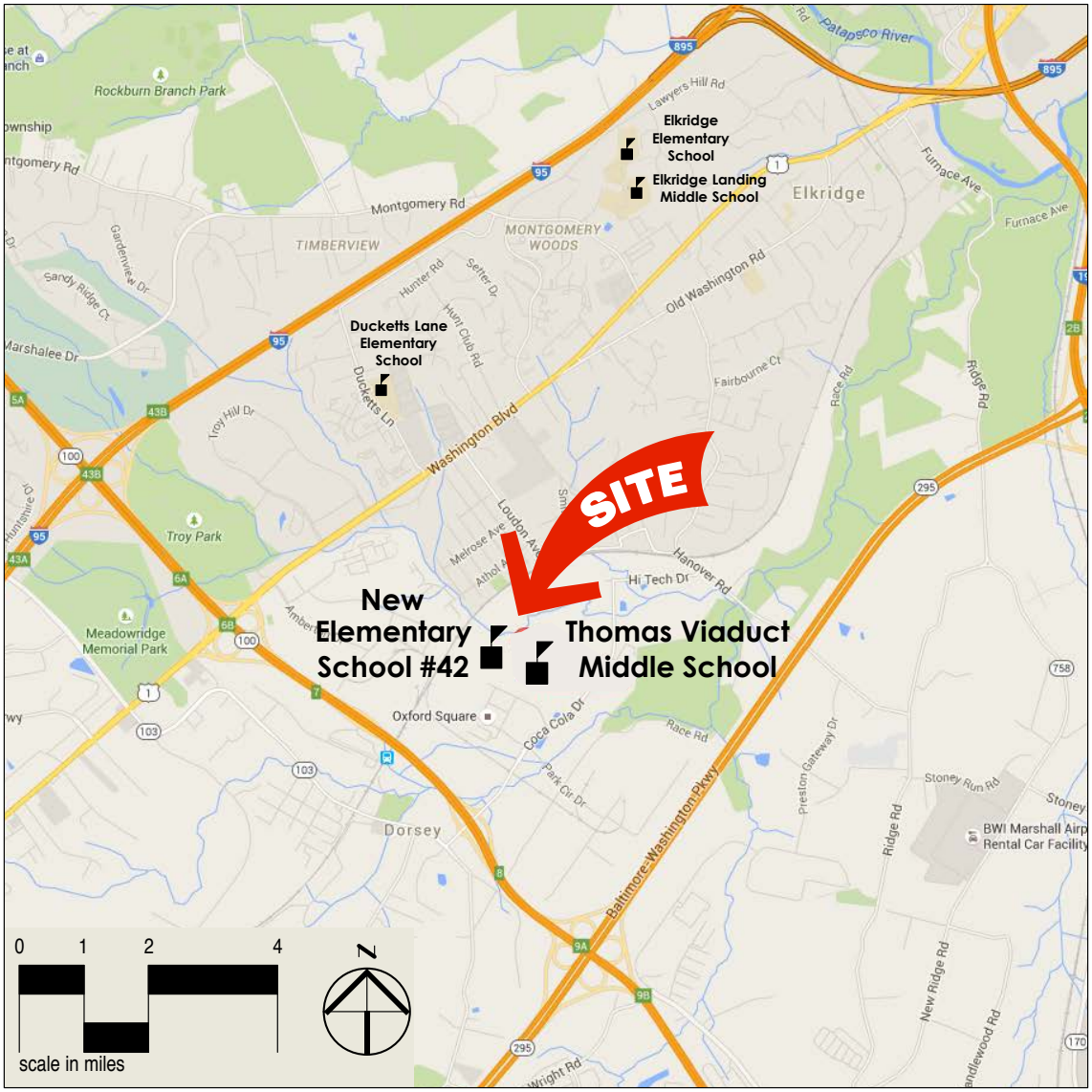
1		Credit 1	**Regional Priority,** Alternative Transportation / Public Transportation Access
1		Credit 2	**Regional Priority,** Storm Water Design / Quality Control
	X	Credit 3	Regional Priority
	X	Credit 4	Regional Priority
	X	Credit 5	Regional Priority
	X	Credit 6	Regional Priority
2	0		**Total Regional Priority Credits**

60	**Total Credits (12 'Maybe' Credits)**

Key to Possibility of Earning Credit: R = Required # = Yes # = Maybe X = No

Project Credit Totals: Certified 40–49 Silver 50–59 Gold 60–79 Platinum 80–112

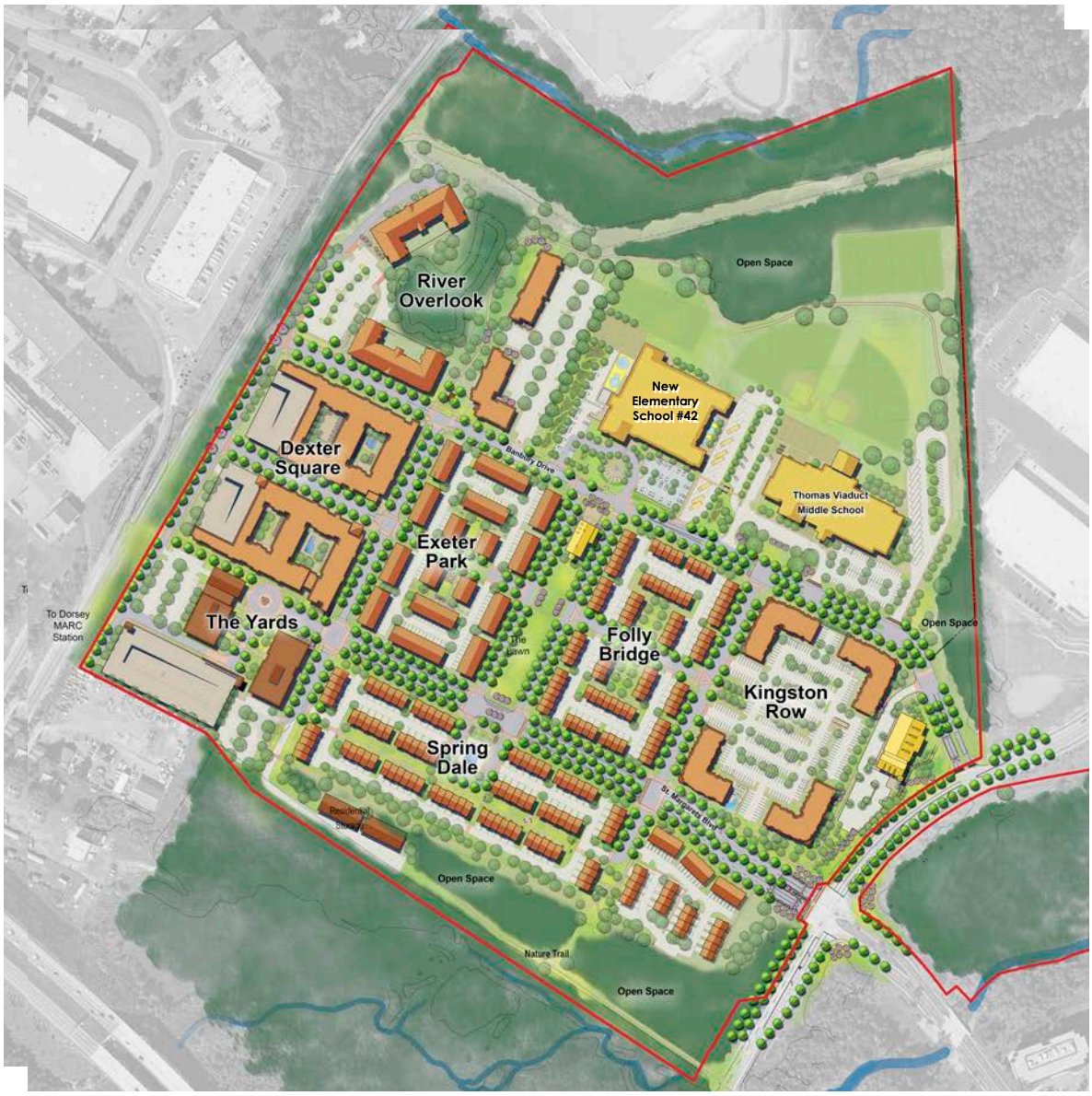
Vicinity Map



The new 8.019 acre elementary school site is located within the newly planned community of Oxford Square in Hanover, Maryland adjacent to the newly constructed Thomas Viaduct Middle School on Banbury Drive. The combined elementary and middle school site will be 28.219 acres.

Public water, sewer and natural gas serve the site.

Site Context

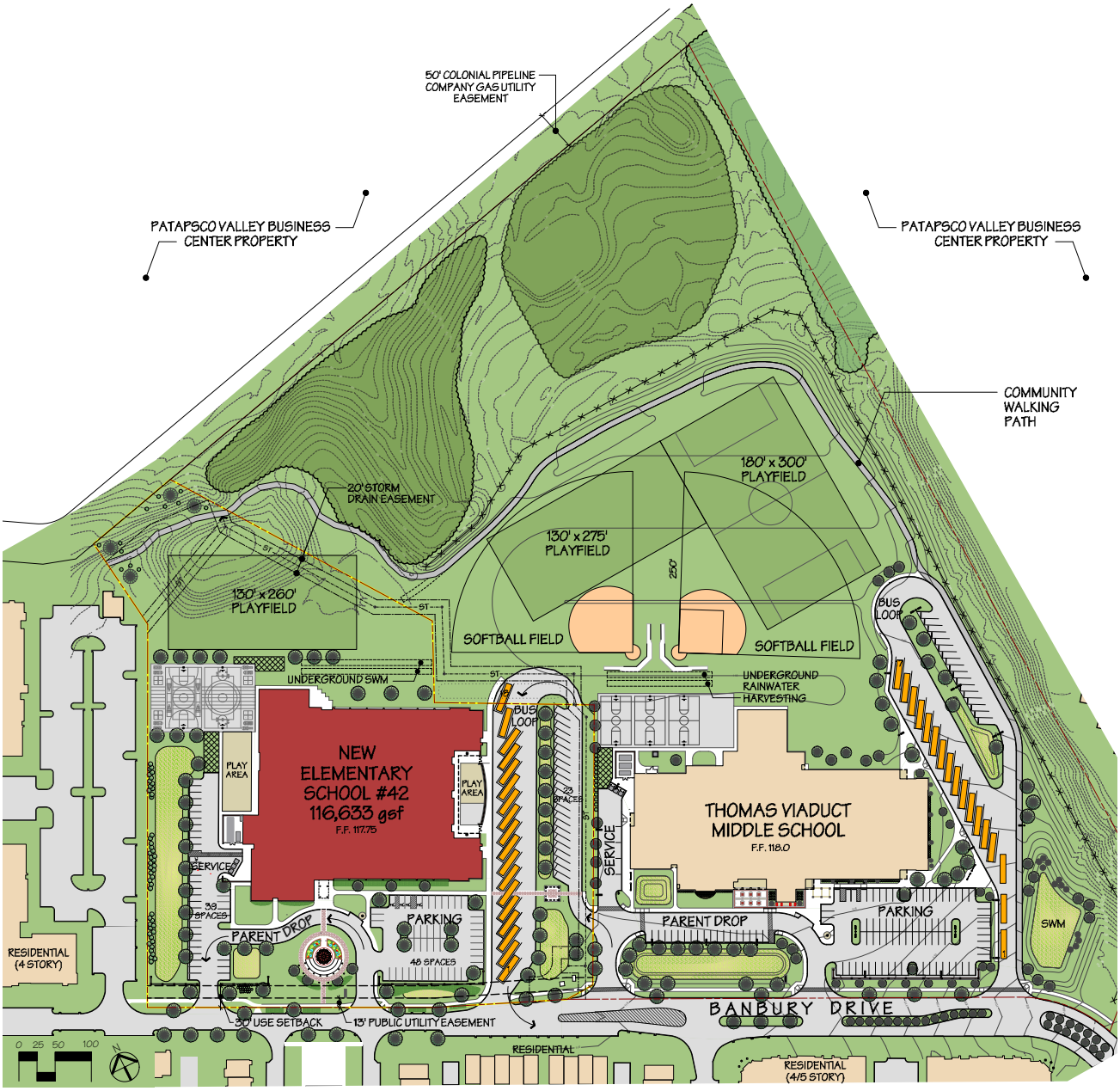


The elementary school site is located in the planned community of Oxford Square. Oxford Square is comprised of 111 acres: 33 acres of which are set aside for open space; approximately 20 acres were used for the development of Thomas Viaduct Middle School; 8 acres will be developed for the elementary school and the remaining 50 acres will be developed for the community. There are two separate entrance roads into Oxford Square from Coca Cola Drive, as indicated on the lower right corner of the graphic above. Oxford Square will consist of high-density residential housing, office buildings containing first floor retail and dining establishments, a community center and town meeting hall. Construction of the development began with 'Phase 1' in 2012.

The entire community, including the school site, is zoned TOD [Transit Oriented Development] and is being designed to meet the requirements for the Howard County's Green Neighborhood certification.

Refer to page 11 for a more detailed description of the elementary school site.

Overall View of Elementary and Middle School Site



Parking Tabulations

Thomas Viaduct Middle School	=	119 car spaces
New Elementary School #42	=	110 car spaces
Total Parking Spaces on site	=	229 car spaces

Site Plan Features

Key features of the proposed site plan are listed below and identified by circled letters on the following enlarged site plan.

A. School bus parking for 18 busses. The bus driveway is separate from the parent drop-off driveway to reduce vehicular congestion on site.

B. To provide as much car parking on site as possible, 110 parking spaces have been provided among three areas on the site.

C. Parent drop-off and pickup area adjacent to the main entrance with an ample queuing area to eliminate interference with the main parking lot.

D. Service drive with emergency vehicle access to the paved play area.

E. Paved play area adjacent to gymnasium and cafetorium.

F. Potential locations for stormwater management bio-retention facilities in addition to the underground stormwater management facility.

G. Playfields have been located adjacent to the gymnasium, cafetorium, and locker rooms, such that students will not have to cross vehicular roads or driveways to access.

H. Potential location for outdoor classroom area.

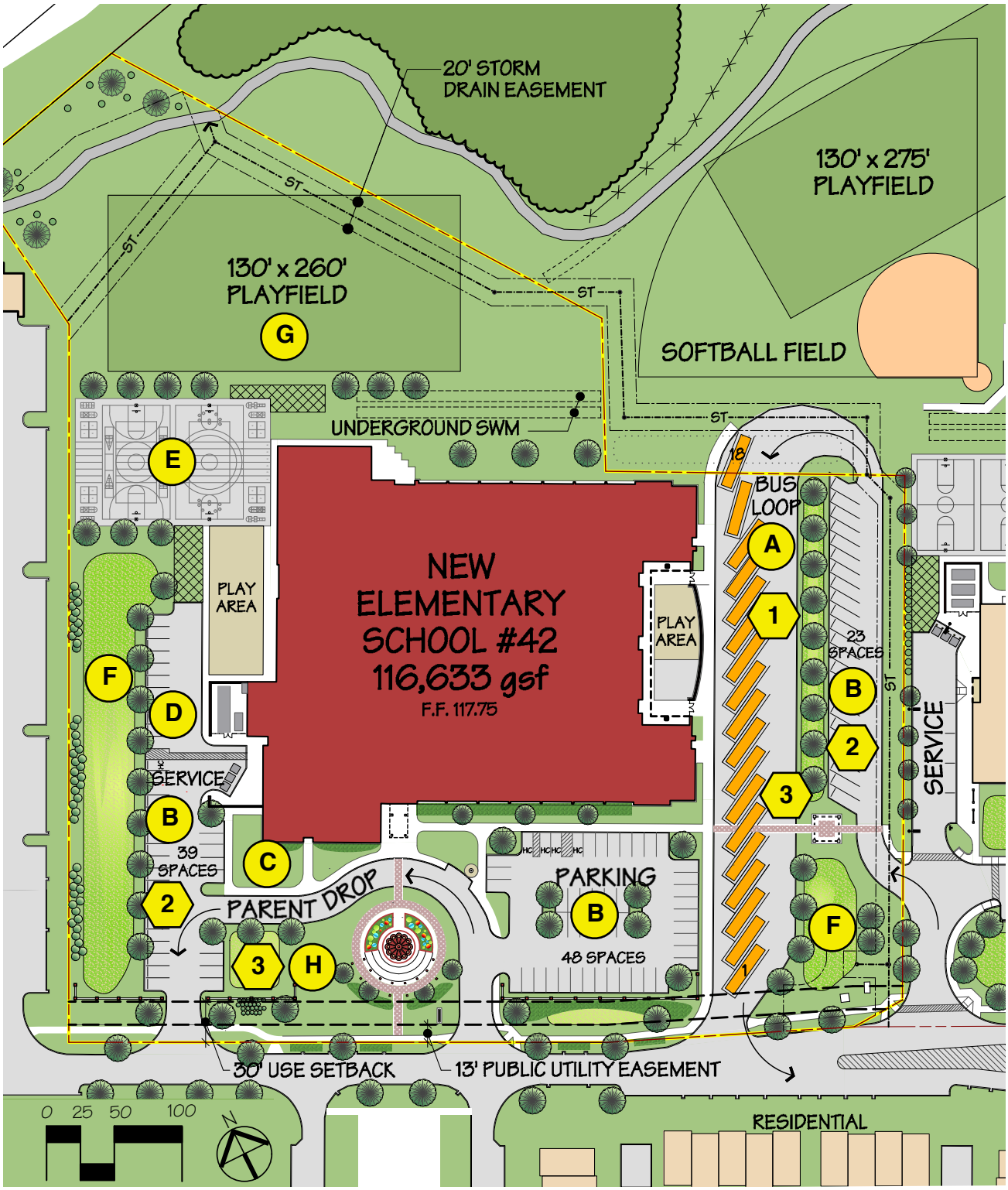
Changes made to the proposed site plan during the design development phase are listed below and identified by numbers in hexagons on the following enlarged site plan.

1. School bus parking has been moved closer to the school to provide staff parking.

2. Parking areas have been relocated to the sides of the building to provide more open space at the main entrance of the school, in response to the requirements of the Howard County Route 1 Design Manual.

3. Outdoor instructional areas have been added to the site. An outdoor amphitheater is located in a central location, at the main entrance to provide an inviting place for teachers to gather students, while creating an architectural connection to the surrounding community. In addition, a gazebo has been added along the pathway that connects the two schools. This instructional area provides the opportunity for the students to observe the bioretention areas, which use planting to improve the quality of the stormwater before the water leaves the site.

Enlarged Elementary School Site Plan



A # Refer to notes on page 11.

Floor Plan Features

In addition to minor code revisions, the floor plans maintain the following spatial relationships developed for the original prototype design:

Access and Circulation

Main Entrance
The main entrance is more prominent architecturally than the other secondary entrances around the building making it easy to locate and, given that there is only one main entrance, easier to monitor visitors to the school. The main office reception area is located immediately inside this entrance.

Corridor Arrangement
A conscious effort was made to develop a corridor pattern that young children would find easy to understand, staff would find easy to supervise, and travel distances between all portions of the school would be as minimal as possible. The main corridor provides easy access to the cafetorium, gymnasium, media center, and public restrooms for after-hours use. This corridor also provides access to two stairs, an elevator, and secondary corridors leading to the classroom wings, all of which can easily be locked during after-hours use.

The **administrative suite** is located adjacent to the main entrance with a view of the bus loop and parent drop-off areas and is convenient to areas of the school used by the youngest children. This suite is directly adjacent to the **health suite** which has its own entrance from the corridor, and is in close proximity to the **staff dining** and **parent volunteer** rooms. Proximity to the kitchen and cafetorium was also a consideration in the location of the staff dining room. The **staff lounge** is located on the second floor just steps from the stair closest to the administrative suite. The intentional separation of the staff lounge and dining areas helps distribute staff spaces which are convenient to teachers on each floor.

The **guidance** and **psychologist** offices are located in an easy-to-reach first floor location, convenient to the main office, yet with a distinct identity, as desired.

Classrooms are located in the two-story portion of the school and arranged so that each grade level could have its own distinct area. All classrooms are located on exterior walls with windows and are all self-contained. **Storage rooms** and **resource rooms or extended learning area/staff workroom** are located at corridor intersections to provide easy movement of students and staff to these areas from as many classrooms as possible.

Early childhood, kindergarten, and first and second grade classrooms are each provided with their own toilet room and are located on the first floor so they are easily reached from the main entrance. Two pairs of classrooms on the second floor have been provided with toilets allowing the flexibility of locating a few primary grade classrooms upstairs if necessitated by a larger primary enrollment. The early childhood/kindergarten area can also be reached from a convenient secondary entrance which adjoins the parent drop-off area and has direct access to its own outdoor play area.

Third, fourth, and fifth grade classrooms are all located on the second floor, easily reached by four stairs and two elevators located at each corner of the two-story wing.

The **mini-auditorium** has been centrally located on the second floor to provide an area for large group instruction and presentations. This location is also equidistant from all four stairs for easy access from the first floor classrooms.

Floor Plan Features continued...

The **special education classrooms** have been integrated on each floor convenient to all grade levels.

The **media center** is the symbolic, as well as actual, center of the school. It is located on the first floor, is fully enclosed, and is visible from the second floor art studios and the 'fine arts' corridor above. Natural daylight from above brightens this two-story high space and the rooms surrounding it on both floors, which otherwise, would be windowless interior spaces. The media center is surrounded by its support spaces: the **technology resource room, media production, media storage rooms,** and the **media office** can be fully secured from the corridor with lockable doors during after-hours school use.

The **computer lab** and **reading resource room** have been located on the first floor off a quiet classroom corridor and near a stair for ease of access by students of all grades.

The **art studios** and **music classrooms** have been grouped together on the second floor opposite each other in a location labelled as the 'Fine Arts Corridor'. The corridor of related arts spaces is easily reached from the two centrally located stairs on the main corridor below. These interior spaces share the natural daylight being provided over the media center and are acoustically separated from each other and the surrounding classrooms by the careful placement of storage rooms which serve as acoustical buffers. The committee also felt a second floor music location would be more convenient, on a day-to-day basis, for instrumental music students who are third, fourth, and fifth graders whose classrooms are on the same floor.

The **alternative education classroom/observation room** is located on the second floor since students who participate in these programs are more often found in third through fifth grades. Like the staff lounge, the alternative education classroom is located just steps from the stair closest to the administrative suite and guidance office for easy administrative access.

The **gifted and talented resource rooms** and the **ESOL rooms** have been located on both floors for ease of access by students of all grades.

The **gymnasium** has been located so that it is entered from the main corridor which is centrally located and provides easy access for after-hours use. Direct access has been provided from the gym to the outdoor paved play area.

The **cafetorium** has been located for easy access by after-hours users and in close proximity to the elevator and stairs serving the music rooms for use of the platform. For after-lunch recess there is direct access to the outdoor paved play area and playground as well as convenient access to the gymnasium and restrooms. The **platform ramp** and **chair storage room** will be accessed directly from the cafetorium.

The **kitchen** will have two serving lines which are accessed from inside the cafetorium. The kitchen's location is also convenient to the service area for the efficient reception of supplies and for the removal of trash.

The **custodial areas** are placed on a corridor near the service entrance and adjacent to the **mechanical and electrical rooms.** **Custodial closets and storage rooms** have been distributed throughout the school and placed next to restrooms for plumbing economy.

The **recreation and parks activity room** and related spaces are located near the main entrance at the front of the school with access directly from the exterior as well as from the adjacent corridor.

Schematic Phase Modifications to Prototype Floor Plans

Specific revisions requested by the Schematic Planning Committee are listed below and are identified by the circled numbers on the proposed floor plans on pages 17 and 18.

1. Enlarged **administrative suite** to accommodate the addition of a **testing room**, a **records room** and a larger **conference room** in response to the 2010 Educational Specifications. Also enlarged **health suite** to provide shower and additional square footage as required for the regional early childhood center (RECC) program.
2. Removed student cubby alcove from each **classroom** which provided each student with a 8" wide x 12" deep opening. Added 12" wide x 24" deep double-tiered student cubbies along back wall of each classroom which will accommodate 32 students per classroom.
3. Added a second **ESOL room** for the primary grades in response to the 2010 Educational Specifications.
4. Enlarged the **guidance office** in response to the 2010 Educational Specifications.
5. Reconfigured spaces to provide two **resource rooms** and multiple **storage rooms** in response to the 2010 Educational Specifications. Added an operable wall between the resource rooms to provide the flexibility for these spaces to function as a regular classroom-sized space when needed. Relocated **staff toilet** rooms and **custodial closet** for direct access from corridors.
6. Added a sixth **kindergarten** classroom by eliminating the early childhood (EC) OT/PT therapy spaces (see note 8) and relocating the **EC speech room** (see note 10). As a result, the early beginnings (EB) office has been reconfigured to accommodate eight staffers.
7. Designated two of the four early childhood classrooms as **RECC classrooms**. Increased the size of the toilet rooms to provide floor space for a hydraulic cot in response to the 2010 Educational Specifications.
8. Relabelled large **OT/PT therapy room** as a shared space between two programs: early childhood and special education in response to the 2010 Educational Specifications. Added a **storage room** with direct access from the therapy room.
9. Enlarged each student cubby in the **kindergarten** and **early childhood classrooms** to an 8" wide x 24" deep opening. These cubbies will not be stacked.
10. Reduced size of one **kindergarten classroom** to match size of all the other kindergarten classrooms.
11. Removed built-in countertops to provide the flexibility for this room to function as either a computer lab with laptops or as a second **gifted and talented (G/T) space**.
12. Enlarged the **tech resource room** in response to the 2010 Educational Specifications.
13. Relocated entrance to **toilet room** with shower to fulfill the requirements of LEED credit 4.2 Alternative Transportation - Bicycle Storage and Changing Rooms.
14. At the request of Recreation and Parks (R&P) the following changes have been made: provided four forward-folding basketball backboards to the gymnasium in lieu of the six wall mounted backboards from the prototype design; removed operable wall from the **R&P activity room**; relocated door to create an exterior **R&P storage room**, and moved the R&P spaces in the cafetorium closer to the gymnasium.
15. Enlarged the **alternative education office** so that it could also function as a reading room with a one-way mirror along wall of adjacent space. The mirror will allow staffers in the **observation room/alternative education classroom** to view instruction in the reading room.
16. Assigned **storage room** to the special education department.
17. Enclosed the **extended learning area** in response to the 2010 Educational Specifications. In addition, reconfigured the extended learning area and **staff workroom** to provide direct access to the **custodial closet** from the corridor.
18. Eliminated ESOL office and seminar room to provide space for a **special education extended learning room** in response to the 2010 Educational Specifications.
19. Enlarged the **ensemble rooms** in response to the 2010 Educational Specifications by reducing the size of the **music rooms** and the oversized G/T classroom.

For a complete description of the plans refer to the 'Floor Plan Features' on pages 13 and 14.

Design Development Floor Plan Phase Refinements

Specific revisions requested by the participants in the Design Development Phase meetings are listed below and are identified by the letters in hexagons on the proposed floor plans on pages 17 and 18.

A. Reconfigured **administrative suite** to provide a larger workroom and a separate storage room for office supplies.

B. Rearranged **health suite** to provide visibility of all cots from both the health room assistant's desk and the health room office.

C. Switched the **recreation and parks storage** room and the **recreation and parks office** so that there is more room to store supplies.

D. Moved doors in the **gymnasium** such that students heading to the playfields for instruction will not interrupt recess activities.

E. Increased the size of all six of the **kindergarten classrooms**, adding 143 square feet to the kindergarten instructional areas.

F. Relocated **staff toilet room** to share plumbing chase with custodial closet and create larger storage rooms.

G. Added small **therapy room** adjacent to the OT/PT therapy room and reduced size of S.E. resource room 1 to allow for adequate clearances around required equipment in the OT/PT therapy room.

H. Flipped **stair** plan at both end stairs to allow for more natural daylight in these circulation spaces.

I. Reconfigured **toilet rooms** to allow for more flexibility when arranging furniture and equipment in these rooms.

J. Redesigned the wall at the **main entrance** and the canopy to match the architectural character of the Oxford Square community.

K. Relocated door to the **S.E. toilet room** so that it is accessible from the corridor for all the S.E. students on the second floor.

For a complete description of the plans refer to the 'Floor Plan Features' on pages 13 and 14.

Proposed First Floor Plan

Floor Area

First Floor	=	73,099 GSF
Second Floor	=	43,534 GSF
Total Building	=	116,633 GSF

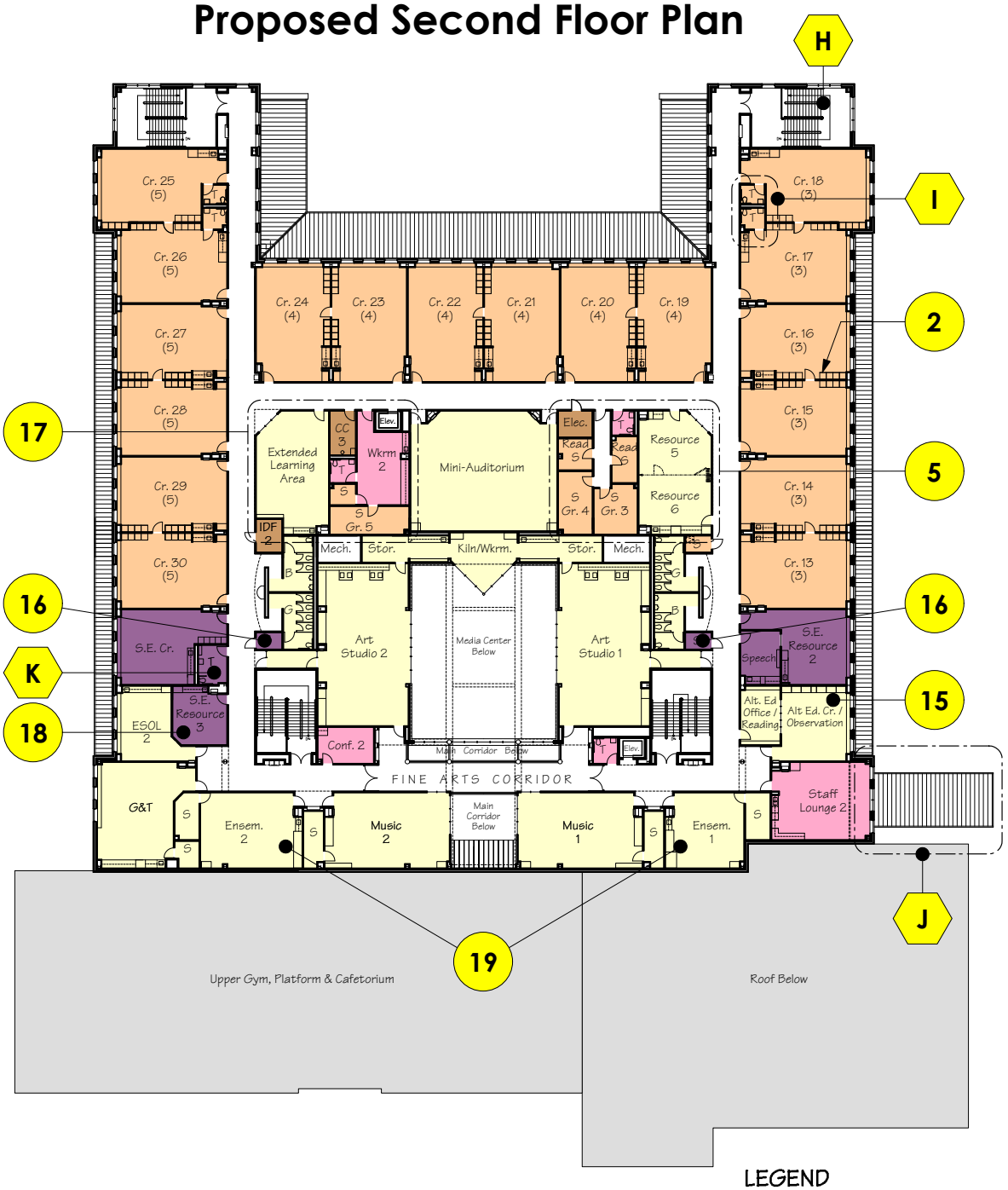
(#) Refers to notes on page 15.

(A) Refers to notes on page 16.

LEGEND

- Kindergarten / Early Childhood
- Grades 1-5
- Special Education
- Central Support Spaces
- Administrative Spaces
- Building Services
- Rec. and Parks

Proposed Second Floor Plan



0 8 16 32

N

Floor Area

First Floor	=	73,099 GSF
Second Floor	=	43,534 GSF
Total Building	=	116,633 GSF

Refers to notes on page 15.

A Refers to notes on page 16.

LEGEND

- Kindergarten / Early Childhood
- Grades 1-5
- Special Education
- Central Support Spaces
- Administrative Spaces
- Building Services
- Rec. and Parks

Architectural Character

View as one walks westward on Banbury Drive

The community of Oxford Square will include residential housing with a traditional design aesthetic. That being said, and after working through several iterations of the exterior design of Thomas Viaduct Middle School with the developer, traditional building materials and design elements will be incorporated into the exterior facade of the new elementary school for compatibility with the surrounding community and the adjacent Thomas Viaduct Middle School.

The exterior walls will be comprised of several colors of modular face brick (2-1/4"H. x 8"L.) in running bond pattern where the original prototype design utilized closure sized face brick (4"H. x 8"L.). Steep slope roof surfaces will be covered with pre-finished standing seam metal roofing to match Thomas Viaduct Middle School. The parapet walls at the flat roof areas will be capped with an exterior insulation finish system to provide the appearance of a precast concrete cornice, similar to the adjacent middle school. Finally, the exterior windows will be pre-finished aluminum (double-hung) with mullion subdivisions similar in scale to the adjacent middle school and the exterior entrance frames will be a pre-finished aluminum storefront product.

The roofline of the elementary school has been modified to provide a gabled roof at the main entrance to relate to the surrounding architecture, a more traditional canopy design and a raised parapet.

The rendering above shows the new elementary school in the distance as one approaches Thomas Viaduct Middle School, which is shown in the foreground.

Exterior Elevations

Administrative Suite | Main Entrance | Two-Story Academic Wing | Stair

Front Elevation (South - Facing)

Stair | Early Childhood / Kindergarten Play Area Two-Story Academic Wing Beyond | Stair

Side Elevation (East - Facing)

Exterior Elevations

Stair | Two-Story Academic Wing | Gymnasium

Rear Elevation (North - Facing)

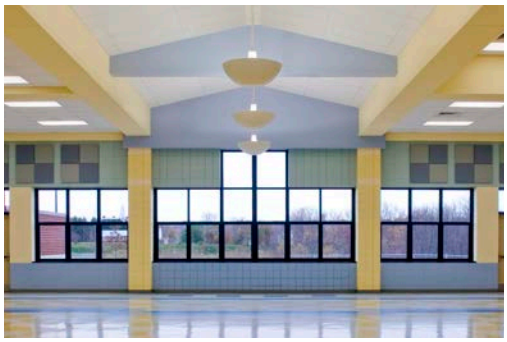
Gymnasium | Cafetorium | Service Area | Rec / Parks

Side Elevation (West - Facing)

Interior Views from the Original Prototype Design

Media Center

Gymnasium



Cafetorium

Main Corridor

Fine Arts Corridor

Space Analysis

Note: The 788 Capacity Prototype design was based on the Elementary Educational Specifications adopted in 2003.

	788 Capacity Prototype			SD ES #42	DD ES #42
	Area(s)	SF	Total Net	Total Net	Total Net
Administration			**3,149**	**3,626**	**3,648**
Secretarial/Reception (incl. closet)	1	632	632	602	606
Principal's Office (incl. closet)	1	192	192	197	190
Principal's Lavatory	-	-	-	48	47
Asst. Principal's Office (incl. closet)	2	142	283	291	296
Conference Rm. (1st and 2nd Floor)	2	199	397	540	548
Parent Volunteer Room (incl. storage)	1	168	168	169	167
Work Preparation Room	1	228	228	336	315
Staff Lounge (first and second floor)	2	528	1,056	1,040	1,006
Adult Lavatory (first and second floor)	3	49	147	211	211
Records Room	-	-	-	106	97
Testing Room	-	-	-	86	105
Storage Room	1	46	46	-	60
Alternative Education			**697**	**716**	**700**
Classroom (Observation)	1	547	547	503	487
Office (Reading)	1	150	150	213	213
Cafetorium / Kitchen			**6,887**	**6,904**	**6,884**
Student Dining	1	3,821	3,821	3,821	3,805
Platform	1	1,143	1,143	1,172	1,174
Chair Storage	1	261	261	263	257
Kitchen and Serving	1	1,177	1,177	1,168	1,167
Dishwashing Area	1	216	216	214	214
Dry Storage	1	113	113	112	111
Locker/Lavatory	1	38	38	45	48
Kitchen Office	1	66	66	66	63
Laundry Room	1	52	52	43	45
Classrooms Grades 1-5			**30,022**	**29,291**	**29,424**
Classroom Grades 1-2 (with lavatory)	12	820	9,840	9,787	9,860
Classroom Grades 3-5	18	777	13,986	13,992	14,093
Adult Lavatory	4	50	200	209	209
Staff Workroom	4	355	1,420	447	377
Extended Learning Area	4	834	3,336	736	750
Storage	9	138	1,240	1,678	1,783
Resource Room	-	-	-	2,442	2,352
Computer Lab			**875**	**875**	**865**
Computer Lab (G&T 2)	1	875	875	875	865
Custodial			**537**	**539**	**522**
Office	1	100	100	100	99
Custodial Closets	5	61	307	318	300
Exterior Storage	1	130	130	121	123
Early Childhood CR's			**4,522**	**4,511**	**4,391**
Classrooms (incl. RECC)	4	981	3,924	3,907	3,744
Shared Storage (for each pair of CR's)	2	105	210	191	272
Student Lavatory	4	56	224	251	252
Early Childhood Exterior Storage	1	164	164	162	123

Space Analysis (continued)

Note: The 788 Capacity Prototype design was based on the Elementary Educational Specifications adopted in 2003.

	788 Capacity Prototype			SD ES #42	DD ES #42
	Area(s)	SF	Total Net	Total Net	Total Net
Early Childhood Early Beginnings			**224**	**233**	**230**
Office	1	224	224	233	230
Early Childhood Speech/Language			**153**	**233**	**228**
Speech Therapy Room	1	153	153	233	228
Early Childhood OT/PT Rooms			**687**	**0**	**0**
Large Therapy Room	1	513	513	-	-
Small Therapy Room	1	111	111	-	-
Storage	1	63	63	-	-
ESOL			**684**	**843**	**832**
Classroom (incl. storage)	1	407	407	843	832
Seminar Room	1	158	158	-	-
Office	1	119	119	-	-
Gifted & Talented			**987**	**837**	**846**
Classroom	1	876	876	776	790
Storage	1	111	111	61	56
Guidance			**165**	**246**	**244**
Guidance Office	1	165	165	246	244
Health Suite			**655**	**754**	**776**
Waiting / Treatment Area	1	140	140	202	269
Rest Area	1	189	189	189	179
Office	1	94	94	89	101
Examination	1	98	98	126	100
Lavatory	1	84	84	98	99
Storage	1	50	50	50	28
Kindergarten			**4,669**	**5,475**	**5,592**
Kindergarten (with lavatory)	5	901	4,505	5,121	5,264
Storage	-	-	-	192	205
Kindergarten Exterior Storage	1	164	164	162	123
Library / Media Center			**5,854**	**5,991**	**5,993**
Main Reading Room	1	3,755	3,755	3,755	3,755
Technology Resource Room (incl. storage)	1	575	575	639	640
Office	1	207	207	207	207
Media Production	1	479	479	470	462
Storage	2	193	385	455	464
MDF & IDF	3	151	453	465	465
Mini Auditorium			**1,573**	**1,573**	**1,581**
Mini Auditorium	1	1,573	1,573	1,573	1,581
Music			**3,202**	**3,376**	**3,327**
General Music Rooms	2	921	1,842	1,714	1,700
Ensemble Rooms	2	469	938	1,259	1,220
Storage	4	106	422	403	407

Space Analysis (continued)

Note: The 788 Capacity Prototype design was based on the Elementary Educational Specifications adopted in 2003.

	788 Capacity Prototype Area(s)	SF	Total Net	SD ES #42 Total Net	DD ES #42 Total Net
Physical Education			**6,302**	**6,205**	**6,186**
Gymnasium	1	5,493	5,493	5,493	5,505
Storage	2	270	540	494	478
Office	1	113	113	118	115
Staff Lavatory	1	67	67	-	-
Lavatories (exterior access)	2	44	89	100	88
Psychological Services			**164**	**164**	**165**
Psychologist's Office	1	164	164	164	165
Reading Resource			**413**	**413**	**407**
Reading Resource Area	1	341	341	341	333
Storage	1	72	72	72	74
Special Education K-5			**2,622**	**2,239**	**2,230**
Classrooms (large)	1	987	987	631	628
Classrooms (small / ELR)	3	457	1,371	1,136	1,133
Lavatory (with changing table)	2	103	206	206	196
Storage	1	58	58	266	273
S.E. Occupational/Physical Therapy			**663**	**737**	**706**
Classroom (RECC & S.E.)	1	663	663	737	622
Therapy Room	-	-	-	-	84
S.E. Speech/Language Therapy			**192**	**180**	**192**
Speech Language Therapy Room	1	192	192	180	192
Visual Art			**3,446**	**3,446**	**3,408**
Studios	2	1,371	2,742	2,742	2,720
Storage & Kiln Room	1	704	704	704	688
Recreation & Parks			**2,487**	**1,829**	**1,802**
Activity Room (w/ kitchen area)	1	1,869	1,869	1,317	1,309
Children's Lavatory (in activity room)	1	49	49	59	60
Office	1	152	152	157	104
Storage	3	95	285	205	249
Storage (Exterior Access)	1	132	132	91	80

Gross Area Grand Total Summary

	788 Capacity Prototype	SD ES #42	DD ES #42
Total Net Sq. Ft.	**81,831**	**81,236**	**81,179**
Gross Area Factor (Walls, Circulation, Toilets, Mech/Elec, Structure, Shafts, etc.)	**34,987**	**35,986**	**35,454**
Gross Area Grand Total	**116,818**	**117,222**	**116,633**

Construction Cost Estimate

New Elementary School #42	Schematic Phase	Design Development Phase
Site Work	$ 3,148,434	$ 3,098,376
Building	$ 30,188,115	$ 30,154,159
Base Bid Construction Cost	$ 33,336,549	$ 33,252,535

Notes

- Construction cost was prepared by the construction manager, J. Vinton Schafer & Sons and assumes that bids will be received in July 2016.
- Construction cost includes cost of food service equipment.
- Estimate includes a design development phase cost estimate contingency of 5% percent.
- Estimate assumes wage-rate pricing.
- Estimate does not include a project contingency.
- Estimate includes a cost contingency for constructing a LEED 'Gold' design.
- Two alternates are being proposed for the school:
  Pergola at Outdoor Classroom at Main Entrance = $ 159,485
  Gazebo at Outdoor Instructional Area in Bus Loop = $ 49,484

Design Development
Furniture and Equipment Plans

The layouts on the following pages are the result of numerous meetings between the architect and the HCPSS staff. These layouts, which include furniture and equipment arrangements, will be used as the construction documents are prepared to properly locate electrical outlets, plumbing fixtures, and fixed accessories such as cabinetry, projection boards, tackboards, and markerboards in each room.

List of Furniture & Equipment Plans

Legend of Symbols and Abbreviations

A - Administrative Areas (1st Floor)
B - Administrative Areas (2nd Floor) and Health Suite
C - Custodial Areas and Guidance & Psychologist Offices
D - Gifted & Talented and Reading Resource
E - Typical Classroom
F - Extended Learning Area & Resource Room
G - Kindergarten Classrooms
H - Early Childhood & RECC Classroom
I - ESOL and Early Childhood Support Spaces
J - Alternative Education / Observation and Special Education (1st Floor)
K - Special Education (2nd Floor)
L - Media Center
M - Cafetorium (Dining) and Kitchen
N - Physical Education / Gymnasium
O - Visual Arts Suite
P - Music Suite
Q - Cafetorium and Platform
R - Mini Auditorium
S - Recreation and Parks Areas

Furniture and Equipment Legend: (ALL ITEMS LISTED BELOW ARE NOT IN CONTRACT (NIC) UNLESS OTHERWISE NOTED)

1. 30"D. x 48"W. TEACHER DESK W/ CHAIR
2. STUDENT DESK & CHAIR
3. 30"D. x 60" W. TABLE W/ CHAIRS WHERE INDICATED
4. 36" DIAMETER TABLE W/ CHAIRS
5. 60"W. x 30"D. DESK W/ RETURN AND CHAIR
6. UPHOLSTERED WAITING CHAIRS
7. 36"W. x 28"H. x 19"D LATERAL FILE CABINET
8. 42" DIAMETER TABLE W/ CHAIRS
9. 36" x 36" TABLE W/ CHAIRS
10. 36"W. x 24"D. x 7'-3"H. STEEL STORAGE SHELVING
11. 96"W. x 42"D. CONFERENCE TABLE W/ CHAIRS
12. CONFERENCE ROOM CHAIRS
13. COUNTER HEIGHT STOOL
14. 36"W. x 19-1/2"D. TALL LATERAL FILING CABINET
15. 36"W. x 12"D. x 7'-3"H. STEEL STORAGE SHELVING
16. STUDENT CHAIR
17. 18"W. x 27"D. x 28"H. TWO-DRAWER FILE CABINET
18. VISITOR CHECK-IN STATION
19. RECYCLING BIN
20. LARGE SAFE
21. 48" DIAMETER TABLE W/ CHAIRS
22. NOT USED
23. 72"W. x 36"D. PRINCIPAL'S DESK W/ RETURN AND CHAIR
24. MUSIC CHAIRS & STANDS
25. 42" WALL-MTD. FLATSCREEN TV MONITOR
26. PODIUM (CONDUCTOR)
27. PIANO
28. MOBILE PERCUSSION STORAGE CABINET
29. 60"W. x 42"D. ART TABLES W/ STOOLS
30. 48"W. x 30"D. WORK TABLE
31. DRAFTING TABLE
32. 48" DIAMETER TABLE W/ CHAIRS (MEDIA CENTER)
33. 48"W. x 18"D. MOVABLE STORAGE SHELVING (EC / RECC CR'S.)
34. FLAMMABLE STORAGE CABINET
35. FLAT FILE
36. CELLO RACK
37. 36"W. x 18"D. x 7'-3" STEEL STORAGE SHELVING
38. NOT USED
39. TRASH CAN W/ LID
40. 30"W. x 12"L. FOLDING TABLES W/ SEATING FOR 12
41. COFFEE TABLE
42. 12" D. x 36" W. x 72" H. WOOD BOOKSHELVING (MEDIA CENTER)
43. END TABLE W/ LAMP
44. NOT USED
45. 12"D. x 36"W. x 42"H. WOOD BOOKSHELVING (MEDIA CENTER)
46. BACKPACK VACUUM CLEANER
47. 19" HAND SCRUBBER
48. 19" HAND BURNISHER
49. 24" x 48" CUSTODIAL CART
50. WALL-MTD. SOAP DISPENSER W/ CLEANING PRODUCT BUCKETS
51. BATTERY OPERATED SPEED SCRUBBER
52. BATTERY OPERATED SPEED BURNISHER
53. KIDNEY-SHAPED TABLE W/ CHAIRS
54. 72"L. x 30"W. PATIENT COTS
55. SCALE
56. LOUNGE CHAIR
57. SOFA
58. 48"W. x 24"D. WORK TABLE
59. 42"W. x 12"D. BOOK SHELVING UNIT
60. NOT USED
61. BASS RACK
62. PODIUM (PRESENTATION)
63. NOT USED
64. PORTABLE CHORAL RISER
65. 96"W. x 42"D. BOAT-SHAPED CONFERENCE TABLE
66. 8'-0" x 12'-0" AREA RUG
67. NOT USED
68. CIRCULATION DESK (MEDIA CENTER)
69. DEPRESSIBLE BOOK CART (MEDIA CENTER)
70. STUDY CARRELL (MEDIA CENTER)
71. ROCKING CHAIR
72. 53"x 53" THERAPY BALL PIT
73. CHAIR STORAGE CART (48 CHAIR CAPACITY)
74.
75.
76.
77.
78.
79.
80.

Appliances: (ALL ITEMS LISTED BELOW ARE NOT IN CONTRACT (NIC) UNLESS OTHERWISE NOTED)

1. UNDERCOUNTER REFRIGERATOR
2. LARGE COPIER
3. HYDRAULIC COT
4. REFRIGERATOR
5. RANGE
6. STACKABLE WASHER & DRYER
7. NOT USED
8. DISHWASHER
9. MICROWAVE W/ VENT
10. VENDING MACHINE
11. SPRAY BOOTH
12. KILN
13. MOBILE COMPUTER CART
14. SMALL COPIER
15. TABLE TOP COPIER
16. MICROWAVE ON COUNTERTOP

ABBREVIATIONS

FD=	FLOOR DRAIN
MH=	MOUNTING HEIGHT
AFF=	ABOVE FINISHED FLOOR
NIC=	NOT IN CONTRACT
PT=	PORCELAIN TILE
VCT=	VINYL COMPOSITION TILE
CT=	CERAMIC TILE
PS=	PROJECTION SCREEN
FCU=	FAN COIL UNIT

TACKBOARDS

- TB-1= 6'L. x 4'H.
- TB-2= 8'L. x 8"H.
- TB-3= 6'L. x 2'-8"H.
- TB-4= 4'L. x 4'H.
- TB-5= 8'L. x 4'H.
- TB-6= 8'L. x 2'H.
- TB-7= 8'L. x 8"H.
- TB-8= 6'L. x 3'-4"H.
- TB-9= 6'L. x 3'-4"H.
- TB-10= 2'L. x 4'H.
- TB-11= 6'L. x 4'H.
- TB-12= 12'L x 8"H.
- TB-13= 12'L x 8"H.
- TB-14= 24'L x 8"H.
- TB-15= 3'-4"L. x 5'H.
- TB-16= 3'-4"L. x 7'H.
- TB-17= 3'-4"L. x 4'H.
- TB-18= 6'L. x 2'H.
- TB-19= 4'L. x 8"H.
- TB-20= 10'L. x 8"H.

MARKERBOARDS

- MB-1= 8'L. x 4'H.
- MB-2= 18'L. x 4'H.
- MB-3= 4'L. x 4'H.
- MB-4= 6'L. x 4'H.
- MB-5= 2'L. x 4'H.
- MB-6= 4'L x 4'H. (MUSIC)

TACKSTRIPS

- TS-1= 10'L.
- TS-2= 6'L.
- TS-3= 24'L.
- TS-4= 18'L.

PROJECTION BOARD

- PB-1= 6'-5"L. x 4'H.

CHALKBOARDS

- CB-1= 16'L. x 4'H.
- CB-2= 6'L. x 4'H.
- CB-3= 8'L. x 4'H.
- CB-4= 12'L. x 4'H.
- CB-5= 16'L. x 4'H (MUSIC)

SYMBOLS LEGEND

NOTE: ALL ELECTRICAL OUTLETS SHALL BE TAMPER RESISTANT.

- 2D▷= DATA DROP FOR COMPUTER CONNECTION (2 DATA JACKS & QUAD ELEC. OUTLET)
- W▷= WARDROBE DATA DROP FOR CONNECTION TO LCD PROJECTOR AND VOICE ENHANCEMENT SYSTEM - DROP TO BE 66" A.F.F. (1 DATA JACK, TWO 3.5MM AUDIO JACKS, 1 HDMI JACK, PLATE TO SPEAKERS & QUAD ELEC. OUTLET)
- L▷= LOW DATA DROP FOR CONNECTION TO LCD PROJECTOR (1 DATA JACK, 1 VOIP/DATA (VOICE) JACK, ONE 3.5MM AUDIO JACK, 1 HDMI JACK, 1 USB JACK & QUAD ELEC OUTLET)
- L2▷= LOW DATA DROP FOR CONNECTION TO LCD PROJECTOR IN CAFETERIA (SAME AS TYPE 'L' ABV. EXCEPT NO VOIP/DATA (VOICE)
- A▷= ADMINISTRATIVE DATA DROP (2 DATA JACKS, 1 VOIP/DATA (VOICE) JACK & QUAD ELEC OUTLET)
- ◆H = VIDEO DROP (1 DATA JACK & DUPLEX ELEC. OUTLET)
- AUX H = AUXILLARY DROP FOR CONNECTION TO LOCAL SOUND SYSTEM (ONE 3.5MM AUDIO JACK)
- (M) = MICROPHONE OUTLET
- △ WIFI = WIRELESS ACCESS POINT (CEILING MOUNTED)
- C P = COMPUTER / PRINTER (NIC)
- = PAPER TOWEL DISPENSER
- = LOW RETURN AIR LOUVER FOR MECHANICAL SYSTEM
- (T) = TELEPHONE OUTLET IN FLOOR

(ALL ITEMS LISTED BELOW ARE IN CONTRACT UNLESS OTHERWISE NOTED)

- = DUPLEX ELECTRICAL OUTLET
- = DUPLEX ELECTRICAL OUTLET MOUNTED IN TOE KICK OF CABINET
- = QUAD ELECTRICAL OUTLET
- (2D) = DATA DROP IN FLOOR (SEE DESCRIPTIONS TO LEFT)
- = QUAD ELECTRICAL OULET IN FLOOR
- = RETRACTABLE CEILING OUTLET W/ DROP CORD
- = SPECIAL PURPOSE GROUNDING TYPE RECEPTACLE
- $ = LIGHT SWITCH LOCATION
- (P) = WALL MOUNTED LCD PROJECTOR (U.O.N.)
- C = CALL STATION STAFF TELEPHONE
- V = VOLUME CONTROL SWITCH
- = ANALOG CLOCK LOCATION (HARDWIRED)
- K = SECURITY KEY PAD
- CR = CARD READER
- = BUZZER / AI PHONE DROP
- CATV = RCA COMPOSITE AUDIO & VIDEO JACKS TO CATV SYSTEM
- = EMERGENCY CUT-OFF SWITCH
- S = WALL MOUNTED SPEAKER
- (S) = SPEAKER IN CEILING
- CCTV = CCTV MONITOR LOCATION (SECURITY CAMERA MONITOR)

Legend of Symbols and Abbreviations

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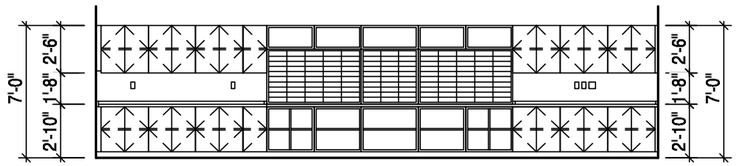
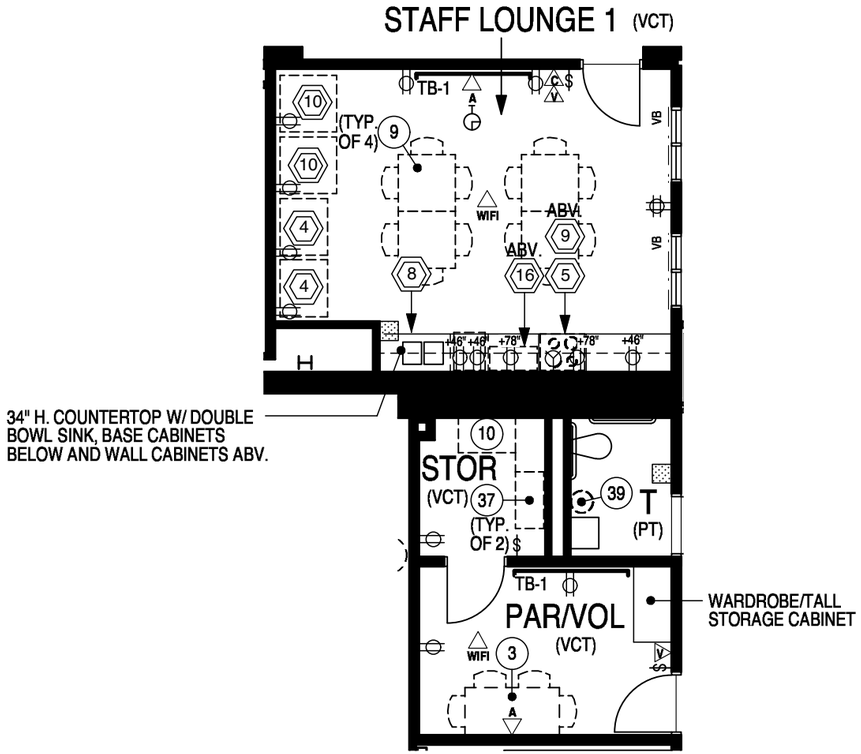
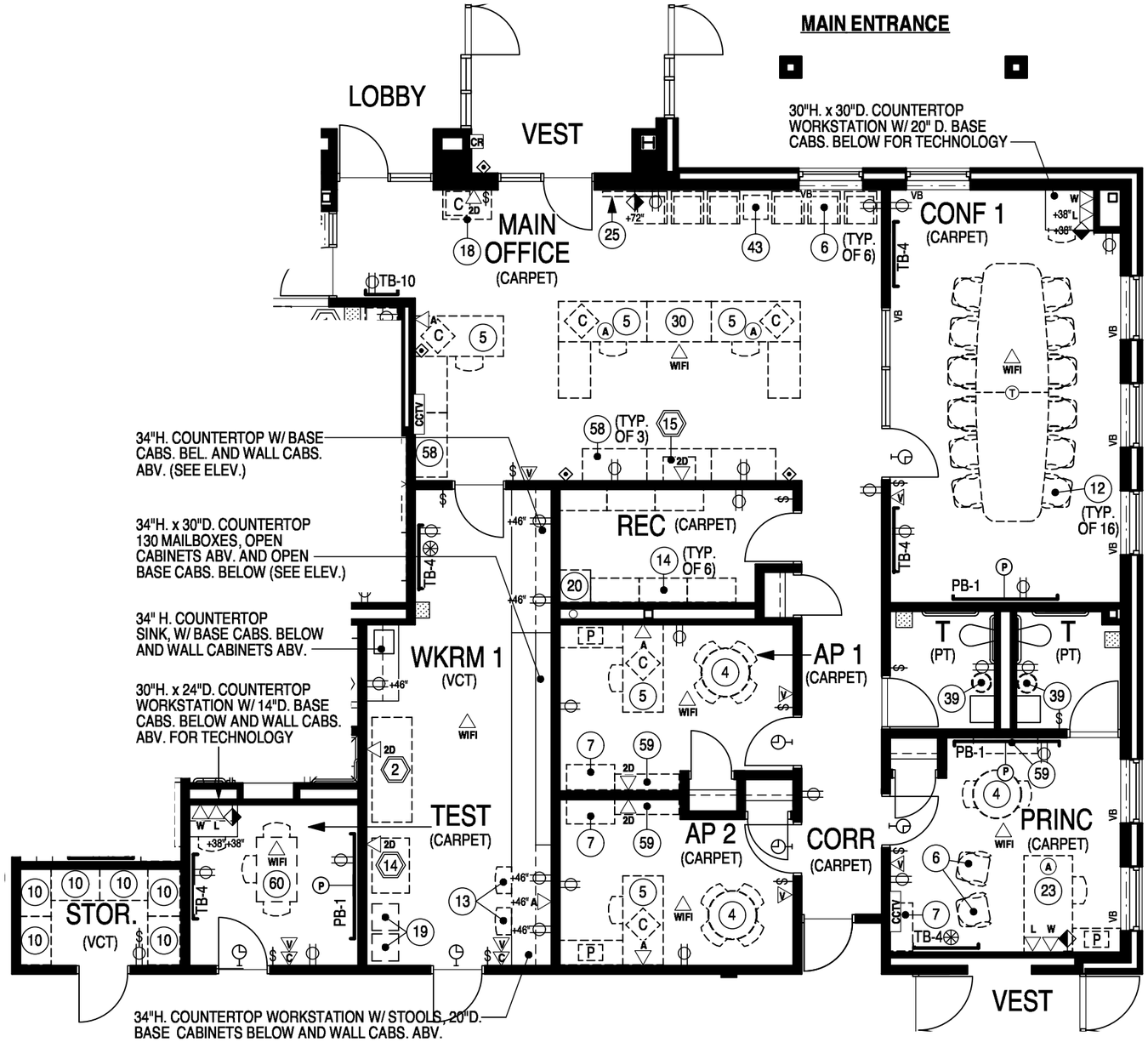


WORKROOM CASEWORK ELEVATION

SCALE: 1/8" = 1'-0"





TELECOMMUNICATION NOTE:
DOOR BUZZER / AI PHONE TO BE CONNECTED TO ALL DESK LOCATIONS IN MAIN OFFICE

ARCHITECTURAL NOTES FOR TESTING RM, AP AND PRINCIPAL OFFICES:
PROVIDE SOUND SEALS AND INSULATING DOUBLE GLAZING IN DOORS FILL ALL CORES OF CMU SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED SOLID WITH MORTAR

MECHANICAL NOTE FOR TESTING RM, AP AND PRINCIPAL OFFICES:
MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES

PLUMBING NOTE FOR STAFF LOUNGE:
PROVIDE ICE MAKER CONNECTION AT EACH REFRIGERATOR

GENERAL NOTE:
⊛ FURNISH THESE TACKBOARDS LOOSE FOR MOUNTING LOCATION AS DIRECTED BY PRINICIPAL

Administrative Areas (1st Floor)
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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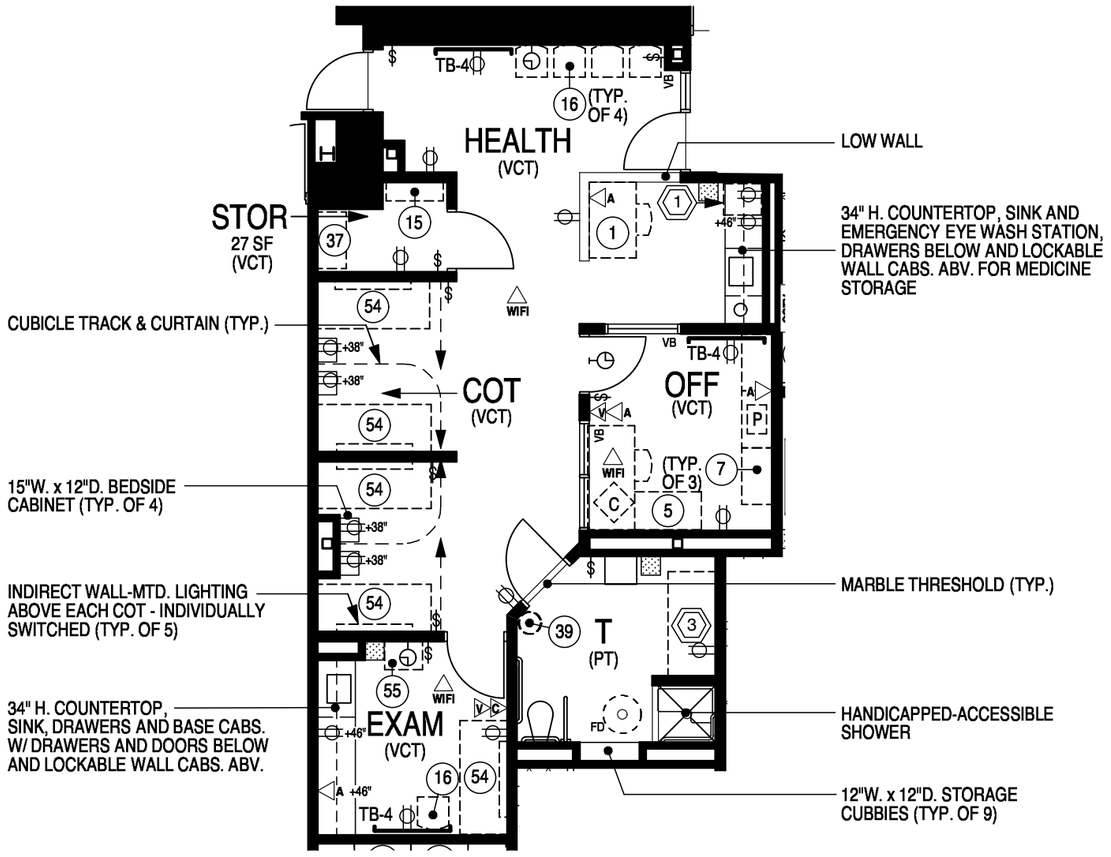
A



ARCHITECTURAL NOTES:

PROVIDE SOUND SEALS AND INSULATING DOUBLE GLAZING IN DOORS

FILL ALL CORES OF CMU SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED SOLID WITH MORTAR

PROVIDE SOUND ATTENUATION IN CEILING

MECHANICAL NOTE:

MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN THESE SPACES

ELECTRICAL NOTES:

PROVIDE INDIVIDUALLY-SWITCHED INDIRECT WALL-MOUNTED LIGHT FIXTURE ABOVE EACH COT (TYP. OF 5)

PROVIDE UNDER COUNTER LIGHT FIXTURES CONTROLLED BY WALL SWITCH (TYPICAL AT WALL CABINETS)

Health Suite
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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Howard County Public School System

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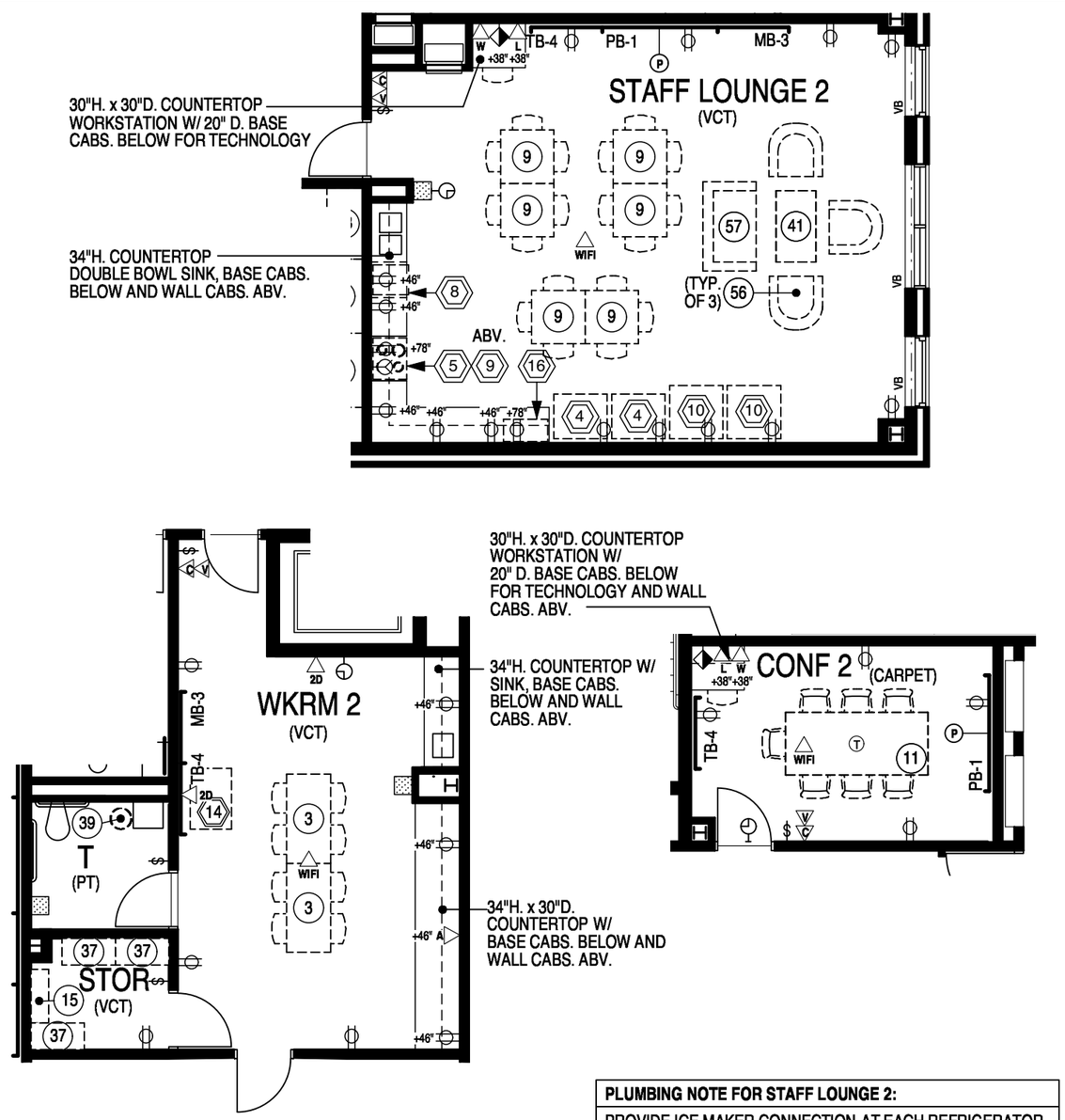

PLUMBING NOTE FOR STAFF LOUNGE 2:

PROVIDE ICE MAKER CONNECTION AT EACH REFRIGERATOR

Administrative Areas (2nd Floor)
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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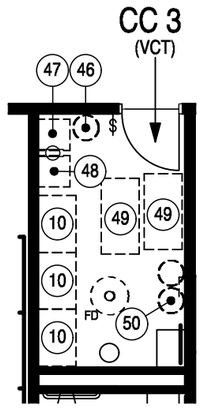
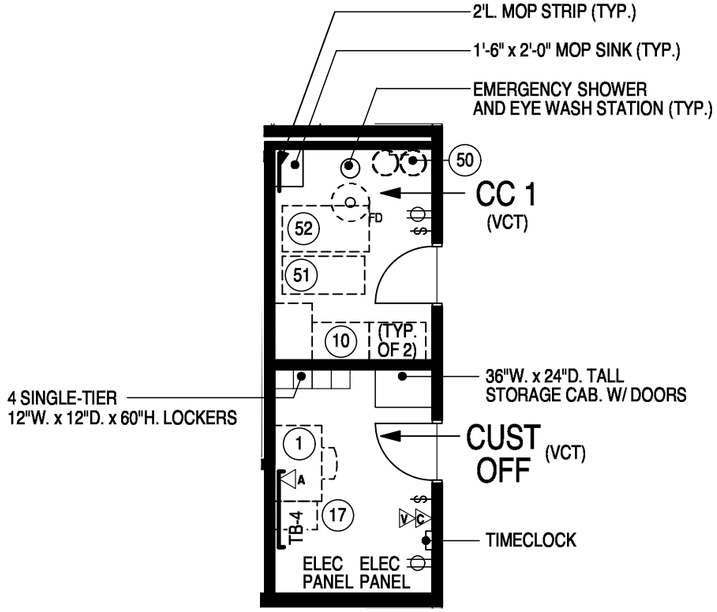
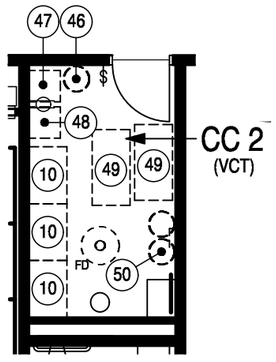
B



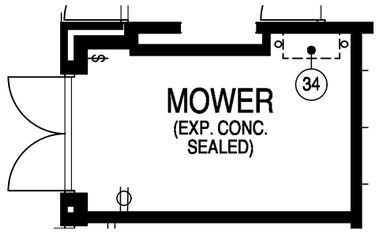
SECOND FLOOR



FIRST FLOOR



FIRST FLOOR



FIRST FLOOR

MECHANICAL NOTE FOR ALL CUSTODIAL CLOSETS:
CUSTODIAL CLOSETS TO BE MECHANICALLY VENTILATED BY EXHAUSTING AIR TO THE OUTDOORS.

MECHANICAL NOTE FOR CUSTODIAL OFFICE:
ALL CONTROLS FOR THE ENERGY MANAGEMENT PROGRAM WILL BE INSTALLED IN CUSTODIAL OFFICE

ARCHITECTURAL NOTE FOR MOWER RM.:
NO CENTER MULLION BETWEEN DOORS

Custodial Areas
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42
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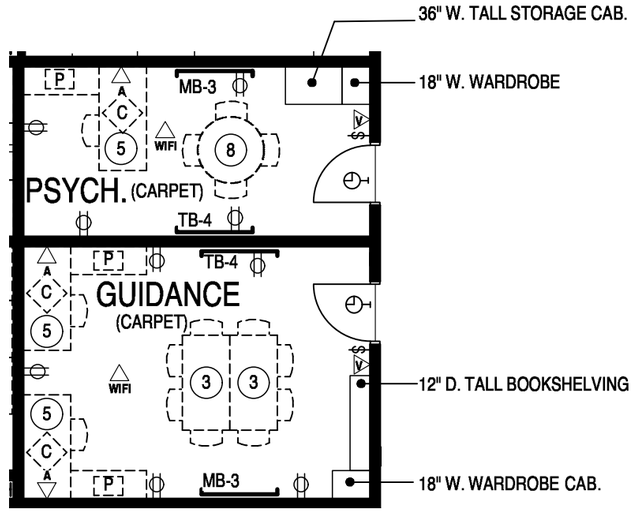

MECHANICAL NOTE:
DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES.

ARCHITECTURAL NOTES:
PROVIDE SOUND SEALS AND INSULATING DOUBLE GLAZING IN DOORS. FILL ALL CORES OF CMU SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED SOLID WITH MORTAR.

Guidance and Psychologist Offices
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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Howard County Public School System

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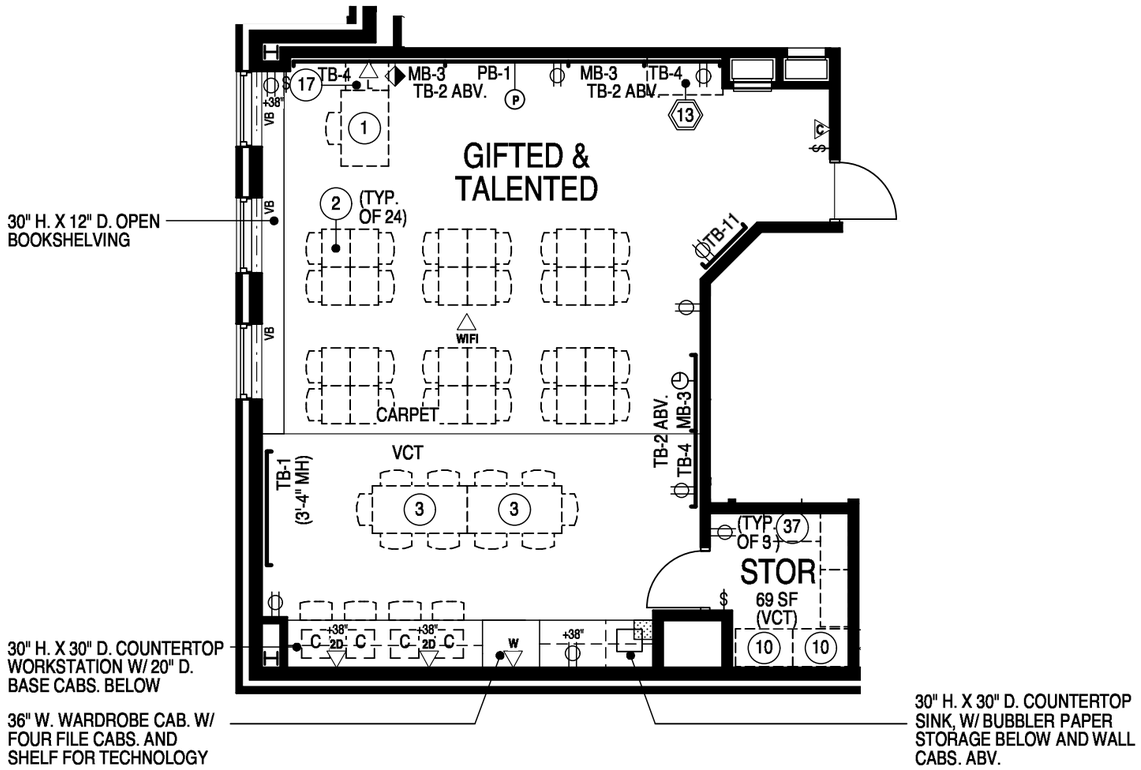
C



PLUMBING NOTE:
PROVIDE SINK WITH HOT & COLD WATER, PLASTER TRAP, AND BUBBLER.

SEE COMPUTER LAB EQUIPMENT PLAN FOR FIRST FLOOR GIFTED AND TALENTED INSTRUCTION AREA.

Gifted and Talented
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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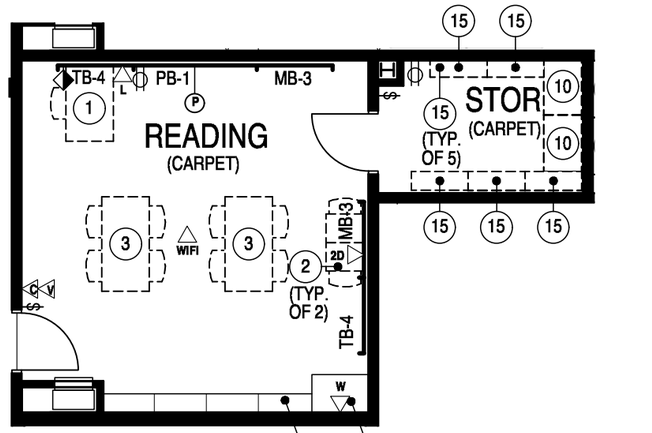

ARCHITECTURAL NOTES:
PROVIDE SOUND SEALS AND INSULATING DOUBLE GLAZING IN DOORS FILL ALL CORES OF CMU SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED SOLID WITH MORTAR.

MECHANICAL NOTE:
MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES

Reading Resource
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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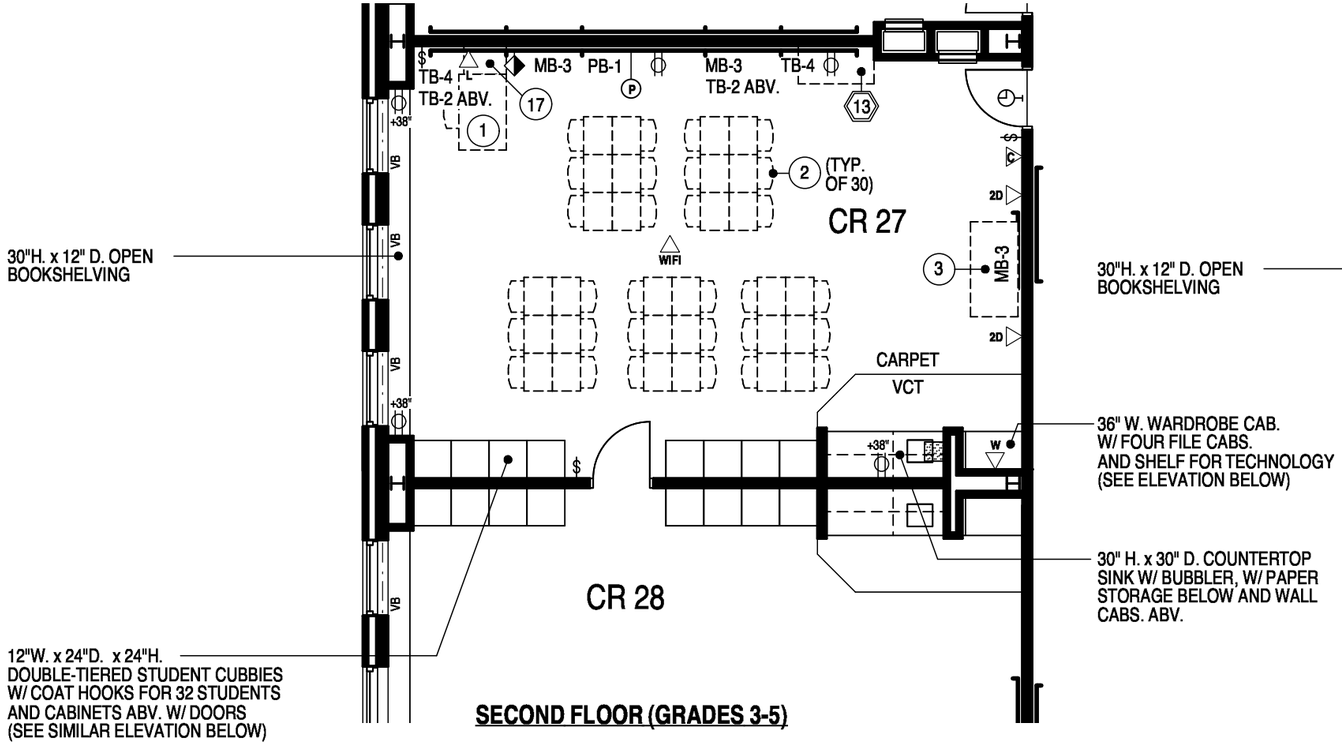
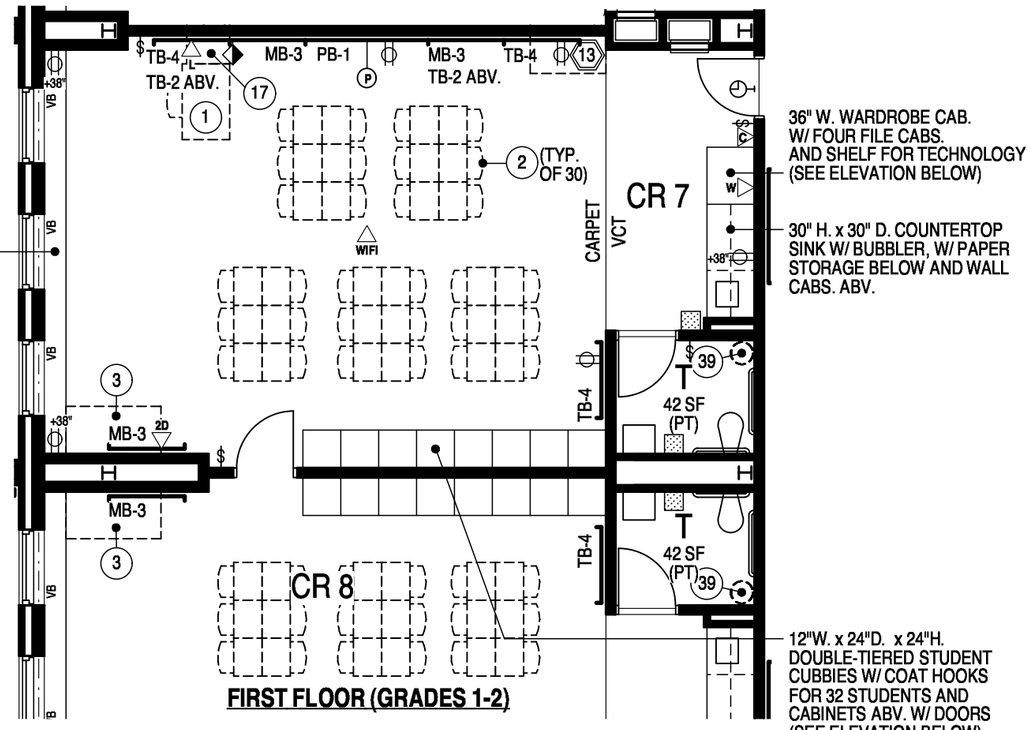
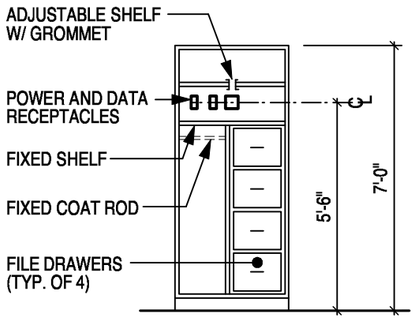
D



SECOND FLOOR (GRADES 3-5)

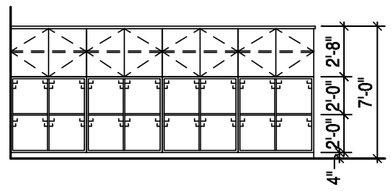


FIRST FLOOR (GRADES 1-2)



TEACHER'S WARDROBE CABINET (TYPICAL INTERIOR VIEW)

SCALE: 1/4" = 1'-0"



TYPICAL STUDENT CUBBY ELEVATION

SCALE: 1/8" = 1'-0"

ARCHITECTURAL NOTE:
PROVIDE 8'-0" LONG MAP RAIL ABOVE MB FURTHEST FROM TEACHER'S DESK.

PLUMBING NOTE FOR ALL CLASSROOMS:
PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLER

Typical Classroom
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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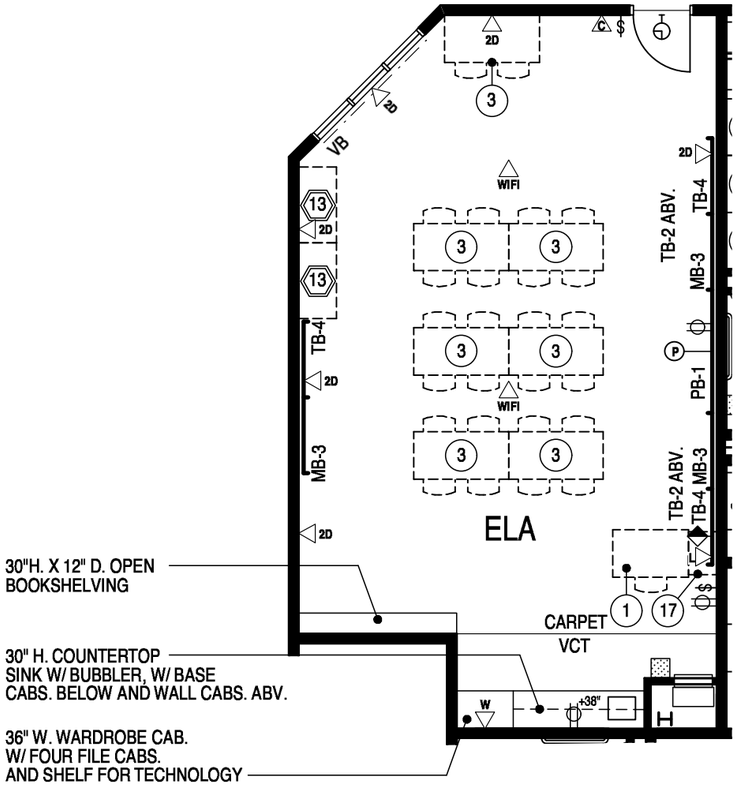
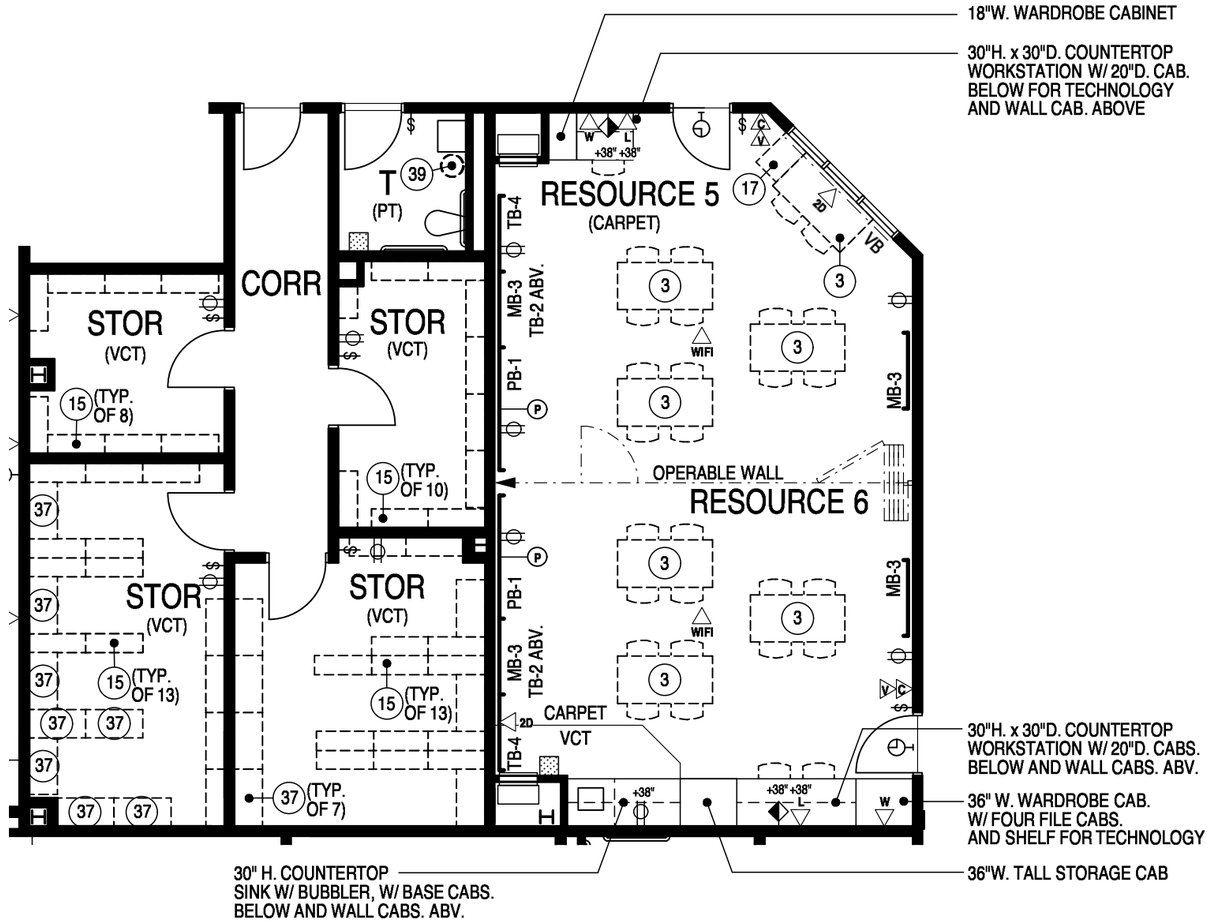
E





ARCHITECTURAL NOTE:
PROVIDE 8'-0" LONG MAP RAIL ABOVE MB FURTHEST FROM TEACHER'S DESK IN THE ELA AND RESOURCE ROOMS.

PLUMBING NOTE FOR ELA AND ALL RESOURCE RMS:
PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLER. PROVIDE PLASTER TRAP AT ELA SINK.

TELECOMMUNCATIONS NOTE FOR RESOURCE RMS.:
PROVIDE SOUND ENHANCEMENT SPEAKERS IN RESOURCE 5 AND 6 FOR WHEN OPERABLE WALL IS OPEN AND THE ROOMS ARE USED AS ONE CLASSROOM. (SIM. FOR RESOURCE RMS. 1,2 & 3,4.

Extended Learning Area & Resource Room

Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42

Howard County Public School System

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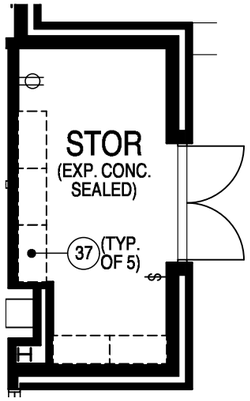
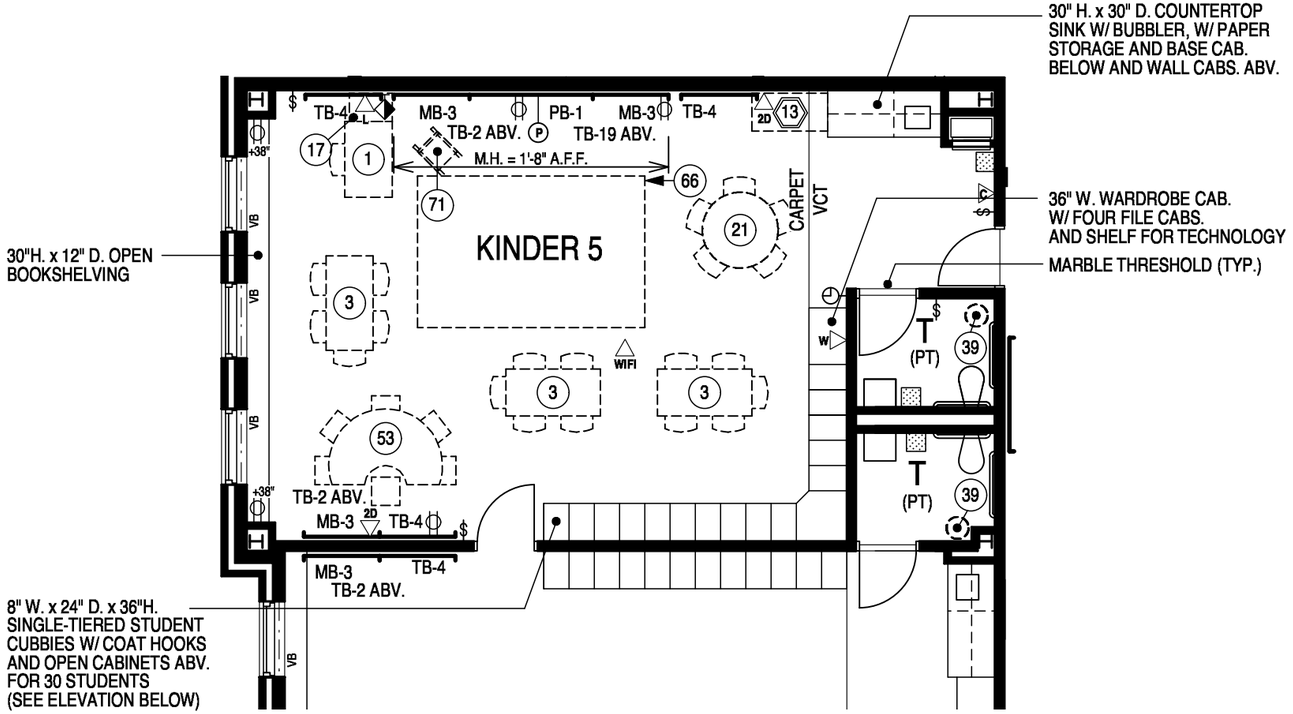
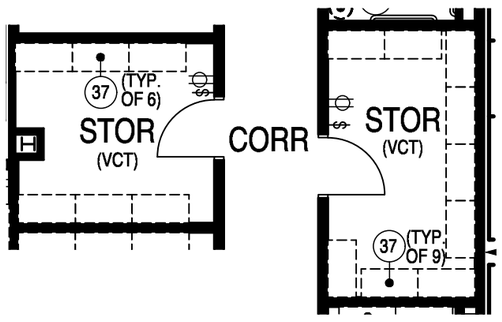
F

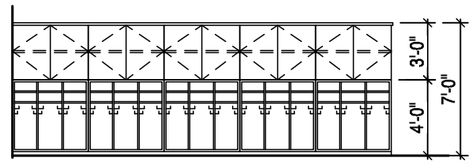


OUTDOOR STORAGE FOR KINDERGARTEN





KINDERGARTEN STORAGE



TYPICAL STUDENT CUBBY ELEVATION

SCALE: 1/8" = 1'-0"

ARCHITECTURAL NOTE:
PROVIDE 8'-0" LONG MAP RAIL ABOVE MB FURTHEST FROM TEACHER'S DESK.

PLUMBING NOTE:
PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLER.

Kindergarten Classrooms
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42
Howard County Public School System

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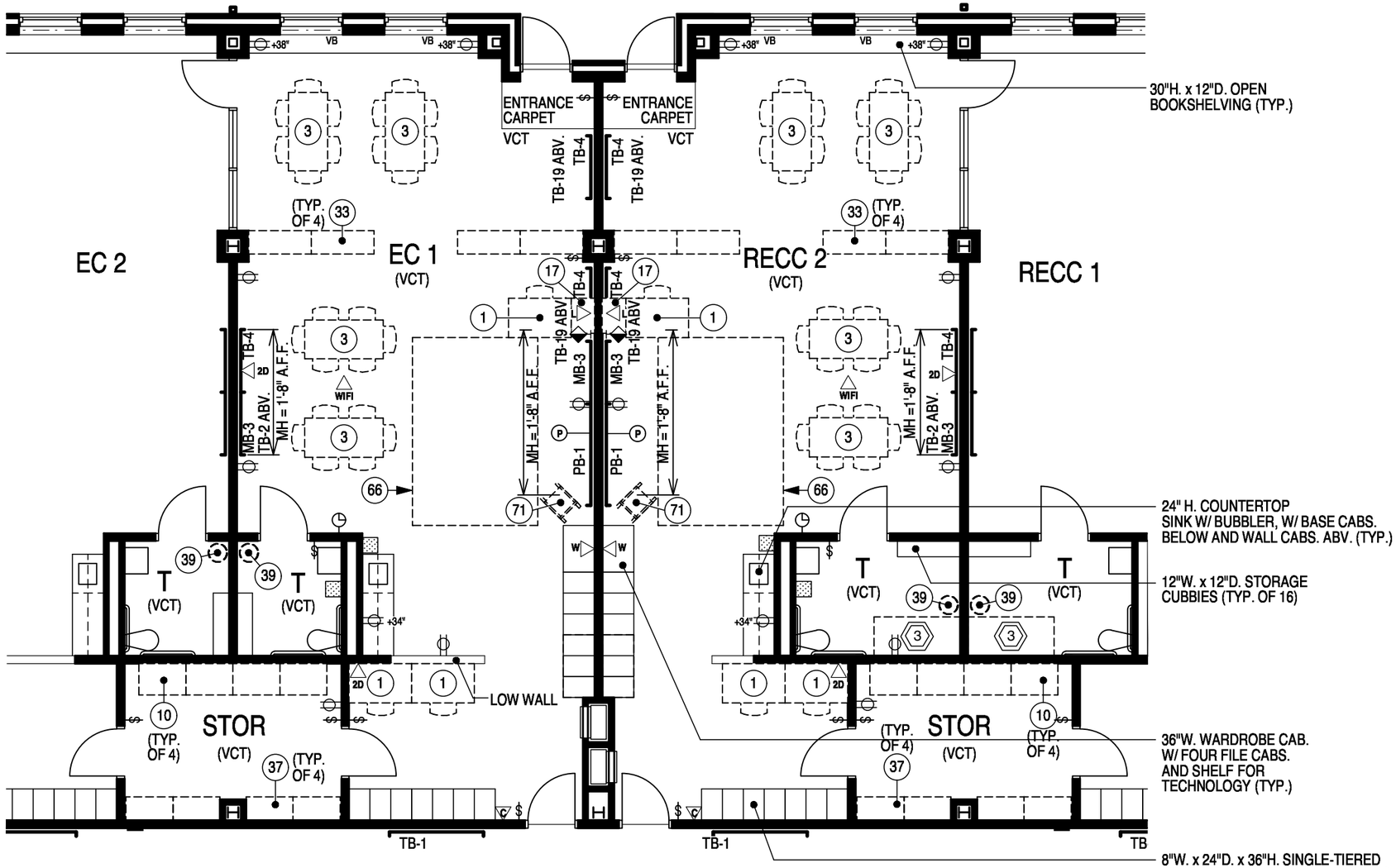
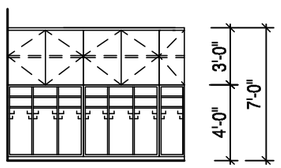
G





TYPICAL STUDENT CUBBY ELEVATION

SCALE: 1/8" = 1'-0"

PLUMBING NOTE:
PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLERS. PROVIDE CHILD HEIGHT (10") TOILETS IN EARLY CHILDHOOD AND RECC CLASSROOMS.

TELECOMMUNICATIONS NOTE:
PROVIDE 'MUTE' BUTTON FOR FOR PUBLIC ADDRESS SPEAKERS PROVIDE BELL CHIME AT EXTERIOR DOORS AND CORRIDOR DOORS IN EARLY CHILDHOOD AND RECC CLASSROOMS, WHICH WILL CHIME WHEN DOORS OPEN.

ARCHITECTURAL NOTE:
PROVIDE RUBBERIZED PLAY AREA OUTSIDE RECC CLASSROOM

LIGHTING NOTE:
PROVIDE DIMMABLE LIGHT FIXTURES AND DIMMER SWITCH

Early Childhood & RECC Classroom
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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Howard County Public School System

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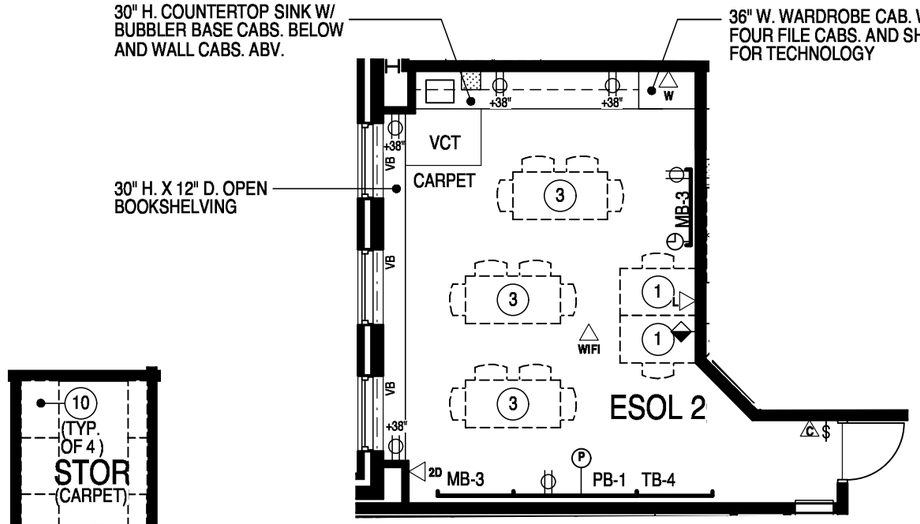
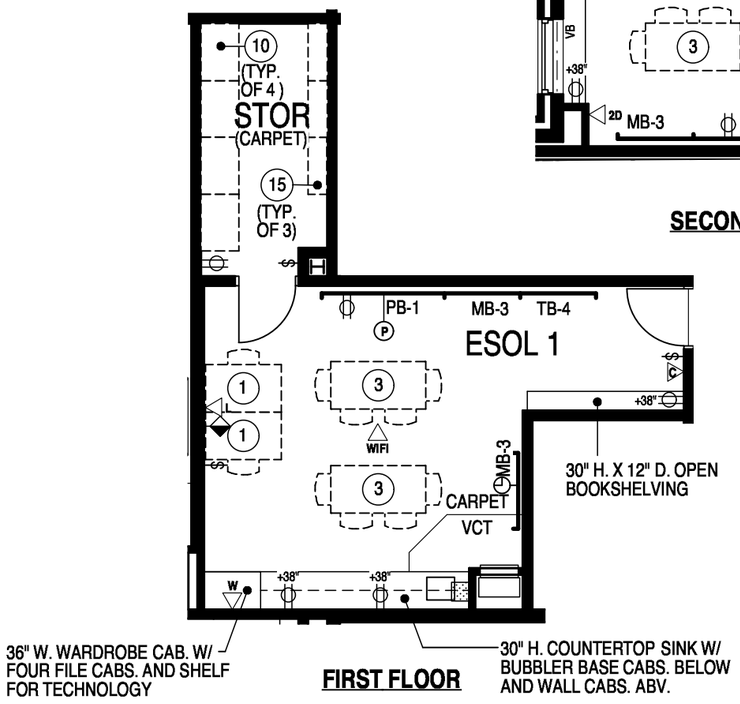
H



SECOND FLOOR



FIRST FLOOR

PLUMBING NOTE:
PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLERS.

ESOL
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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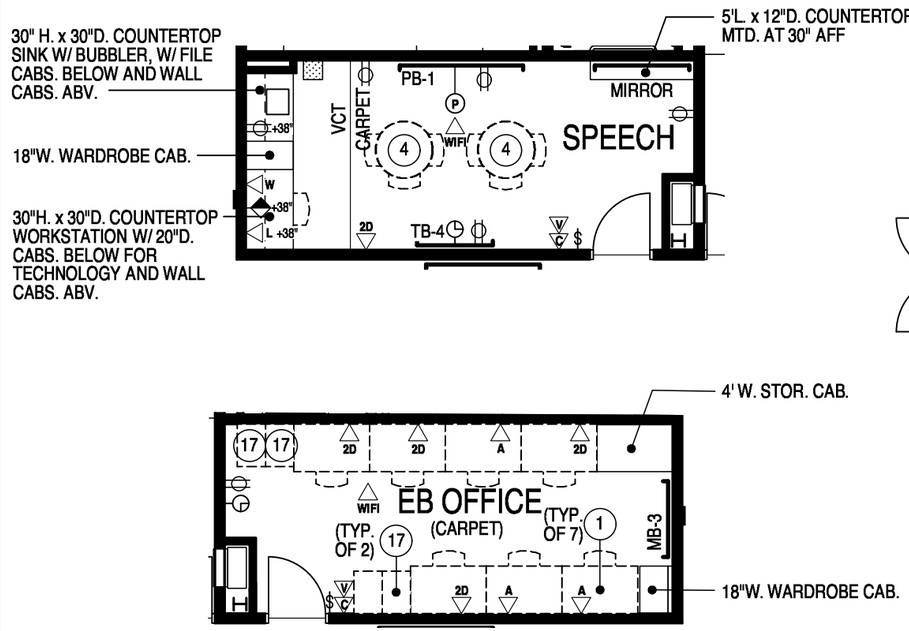

OUTDOOR STORAGE FOR EC & RECC

MECHANICAL NOTE FOR SPEECH:
MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES.

LIGHTING NOTE FOR SPEECH:
PROVIDE DIMMABLE LIGHT FIXTURES AND DIMMER SWITCH

ARCHITECTURAL NOTES FOR SPEECH:
PROVIDE SOUND SEALS AND INSULATING DOUBLE GLAZING IN DOORS FILL ALL CORES OF CMU SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED SOLID WITH MORTAR

PLUMBING NOTE FOR SPEECH:
PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLERS.

Early Childhood Support Spaces
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42
Howard County Public School System

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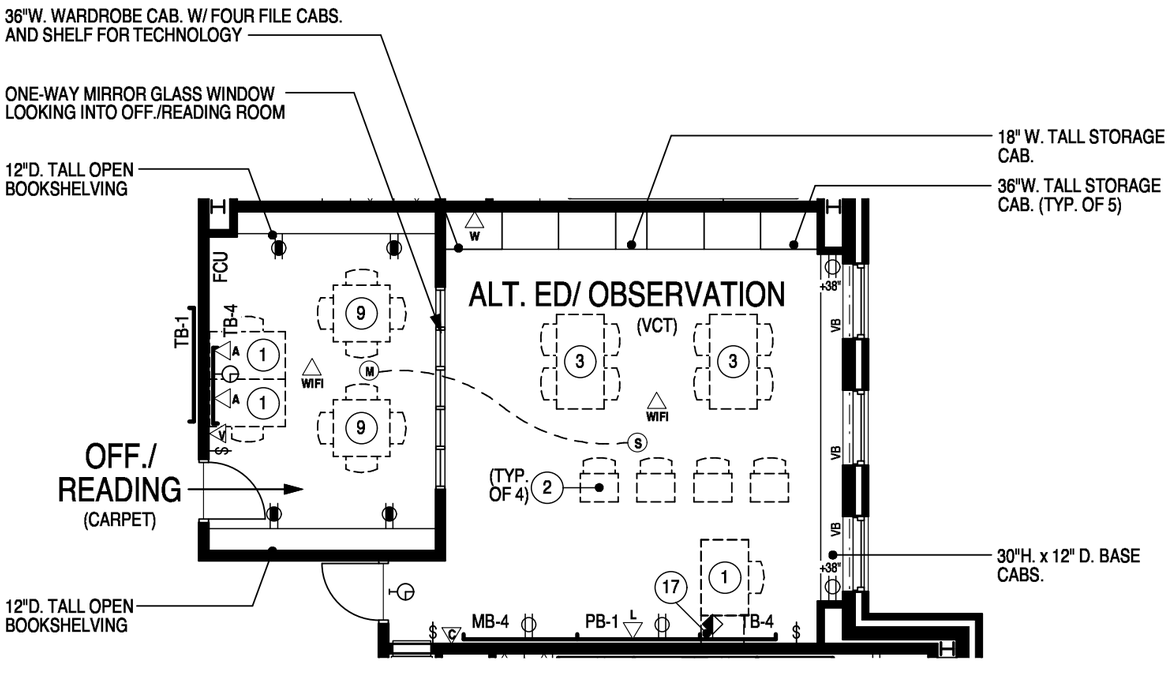
I



ARCHITECTURAL NOTE:
FILL ALL CORES OF CMU SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED SOLID WITH MORTAR

ELECTRICAL NOTE:
NO PENETRATIONS OR ELECTRICAL DEVICES (BOXES) WILL BE LOCATED ON WALLS SEPARATING ALT. ED/OBSERVATION ROOM AND OFF./READING ROOM TO REDUCE SOUND TRANSMISSION BETWEEN THESE SPACES

MECHANICAL NOTE:
MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES

TELECOMMUNICATIONS NOTE:
PROVIDE LOW CONNECTION UNDER PROJECTION BOARD FOR PROJECTOR TO BE ROLLED IN ON A CART.

Alternative Education / Observation
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42
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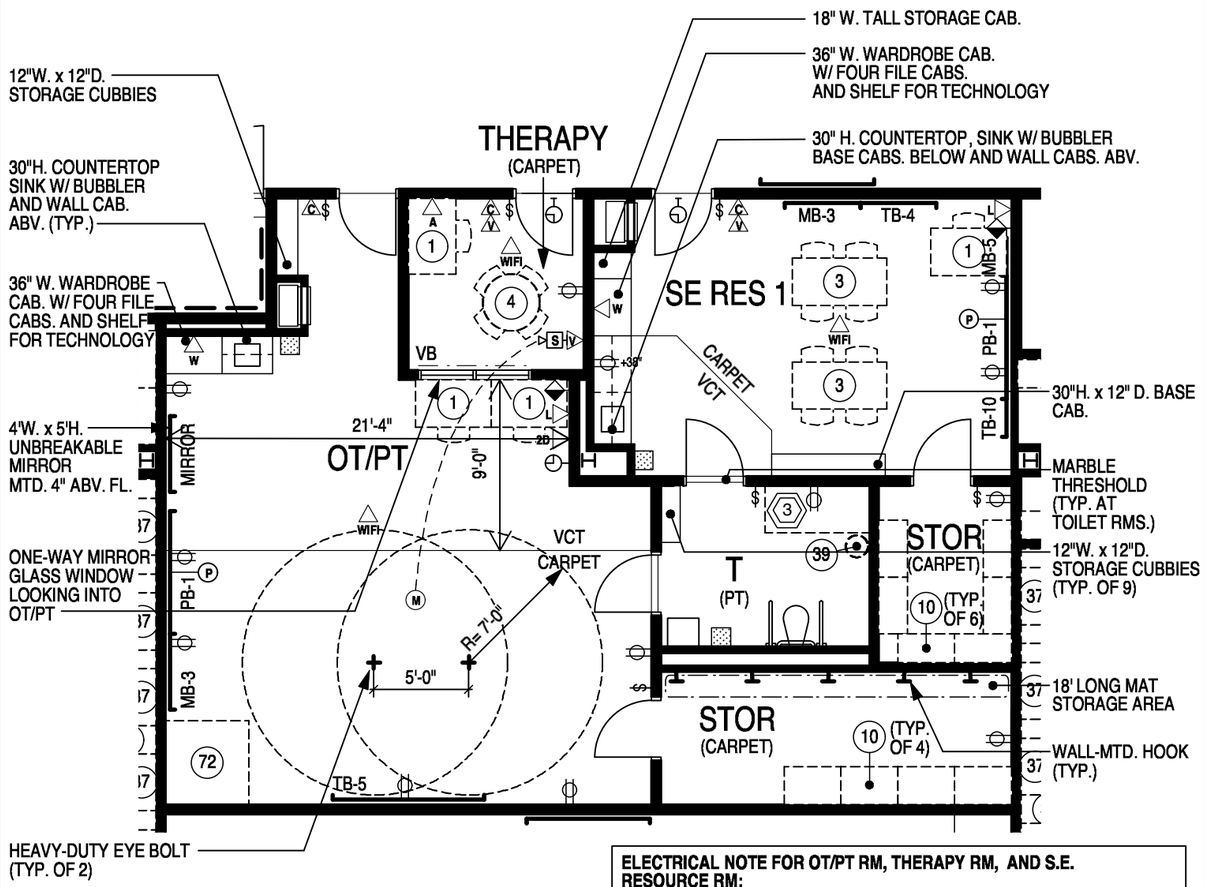

ELECTRICAL NOTE FOR OT/PT RM, THERAPY RM, AND S.E. RESOURCE RM:
NO PENETRATIONS OR ELECTRICAL DEVICES (BOXES) WILL BE LOCATED ON WALLS SEPARATING OT/PT RM, THERAPY RM, AND S.E. RESOURCE RM TO REDUCE SOUND TRANSMISSION BETWEEN THESE SPACES.

TELECOMMUNICATIONS NOTE FOR OT/PT RM AND THERAPY RM:
PROVIDE MICROPHONE AND SPEAKER W/ VOLUME CONTROL FOR AUDIO OBSERVATION

TELECOMMUNICATIONS NOTE FOR OT/PT RM, THERAPY RM, AND S.E. RESOURCE RM:
PROVIDE VOLUME CONTROL IN EACH ROOM FOR PUBLIC ADDRESS SPEAKERS

PLUMBING NOTE FOR OT/PT RM AND RESOURCE RM:
PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLER.

LIGHTING NOTE FOR OT/PT RM, THERAPY RM, AND RESOURCE RM:
PROVIDE DIMMABLE LIGHT FIXTURES AND DIMMER SWITCH

Special Education (1st Floor)
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42
Howard County Public School System

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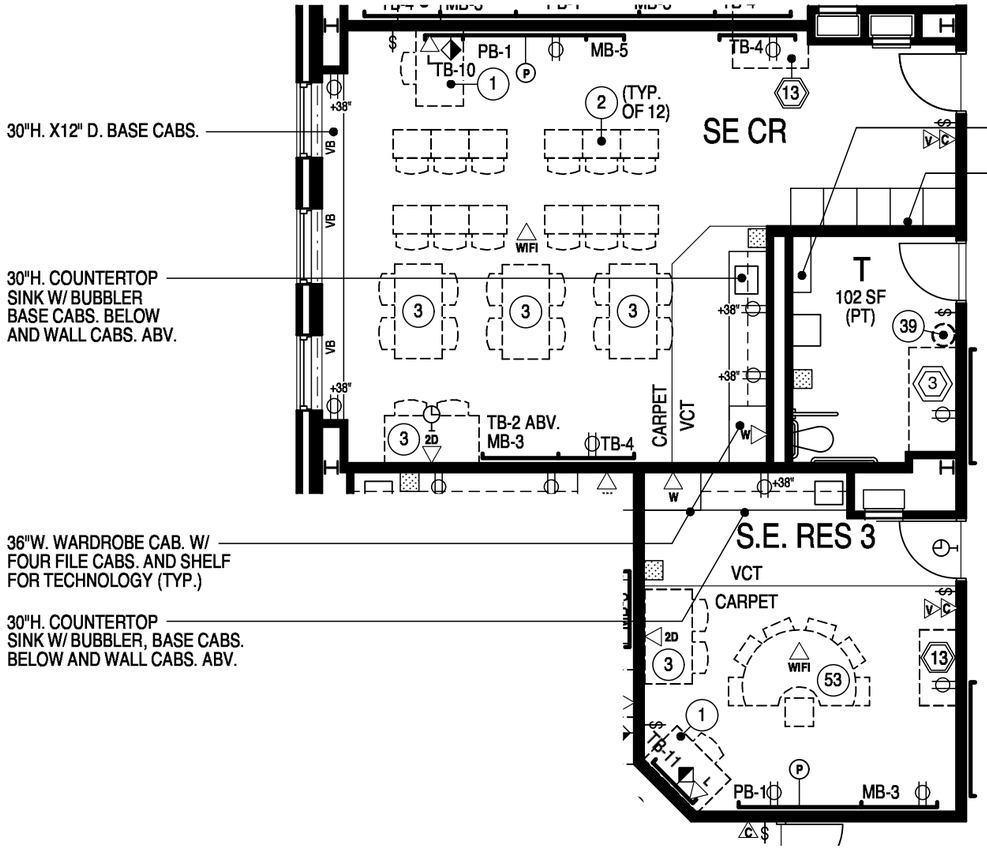
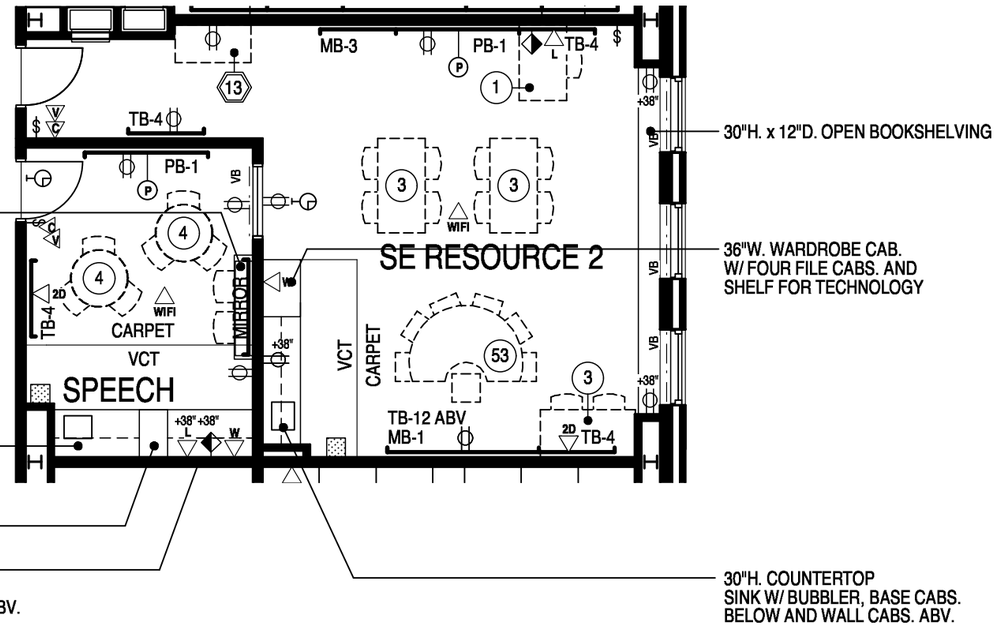
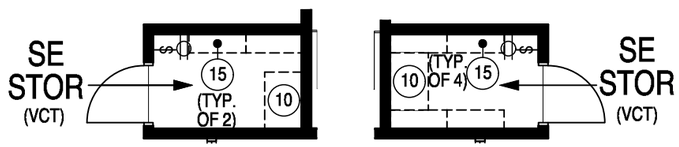
J







LIGHTING NOTE FOR S.E. CLASSROOM, S.E. RESOURCE RMS AND SPEECH:

PROVIDE DIMMABLE LIGHT FIXTURES AND DIMMER SWITCH

ARCHITECTURAL NOTES FOR SPEECH:

PROVIDE SOUND SEALS AND INSULATING DOUBLE GLAZING IN DOORS

FILL ALL CORES OF CMU SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED SOLID WITH MORTAR.

TELECOMMUNICATIONS NOTE FOR S.E. CLASSROOM, S.E. RESOURCE RMS AND SPEECH:

PROVIDE 'MUTE' BUTTON IN EACH ROOM FOR PUBLIC ADDRESS SPEAKERS

PLUMBING NOTE FOR S.E. CLASSROOM, S.E. RESOURCE RMS AND SPEECH:

PROVIDE ALL SINKS WITH HOT & COLD WATER AND BUBBLER.

MECHANICAL NOTE FOR SPEECH:

MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES

Special Education (2nd Floor)
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42
Howard County Public School System

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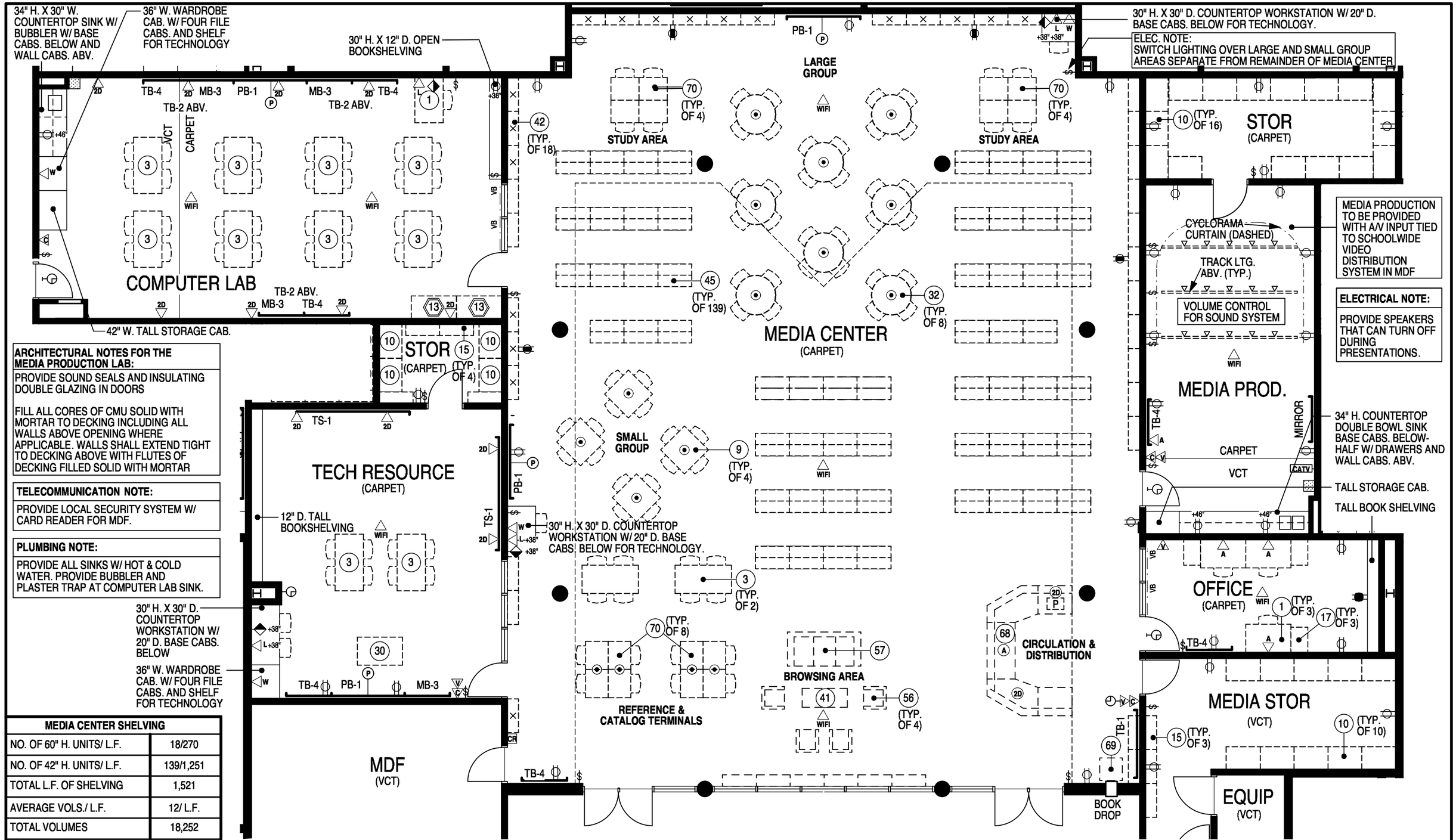
K



Media Center
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42
Howard County Public School System

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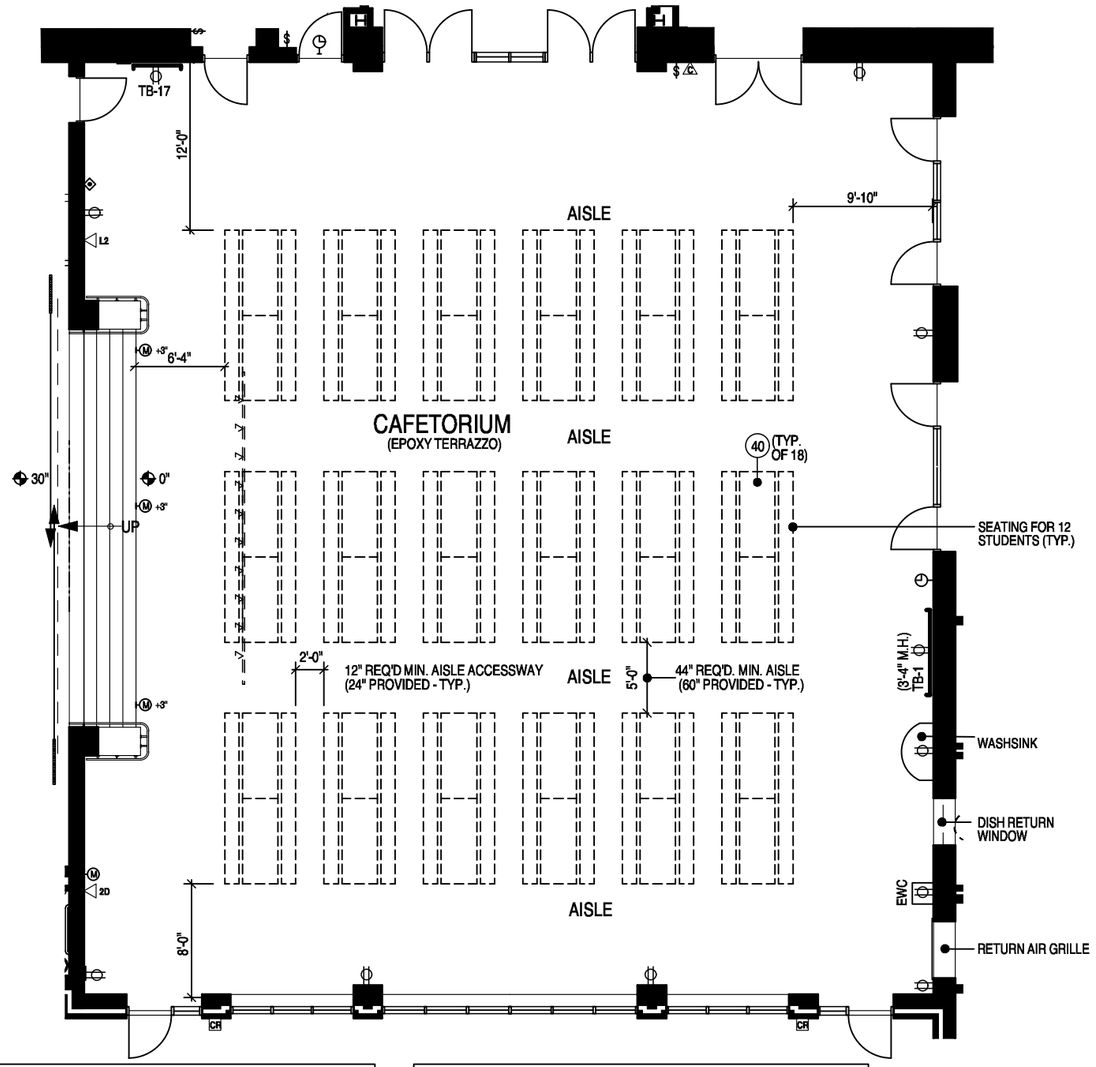
L



SEATING CAPACITY:
18 - 30"W. x 144"L. TABLES x 12 STUDENTS PER TABLE = 216 EDUCATIONAL GOAL = 1/6 OF 788 STUDENTS + 10% = 144

CODE REVIEW:
BASED ON LSC - 2015 CHPT. 12 "NEW ASSEMBLY."

AISLE WIDTH
MAX. TRAVEL DISTANCE TO AISLE: 36' MIN. AISLE WIDTHS: AISLE = 44" MIN. AISLE ACCESSWAY = 12" MIN. (INCREASED 1/2" FOR EACH ADDITIONAL 12" BEYOND 12' FROM FURTHEST SEAT TO AN AISLE)

Cafetorium (Dining)
Furniture and Equipment Plan

Scale: 3/32" = 1'-0"

New Elementary School #42
Howard County Public School System

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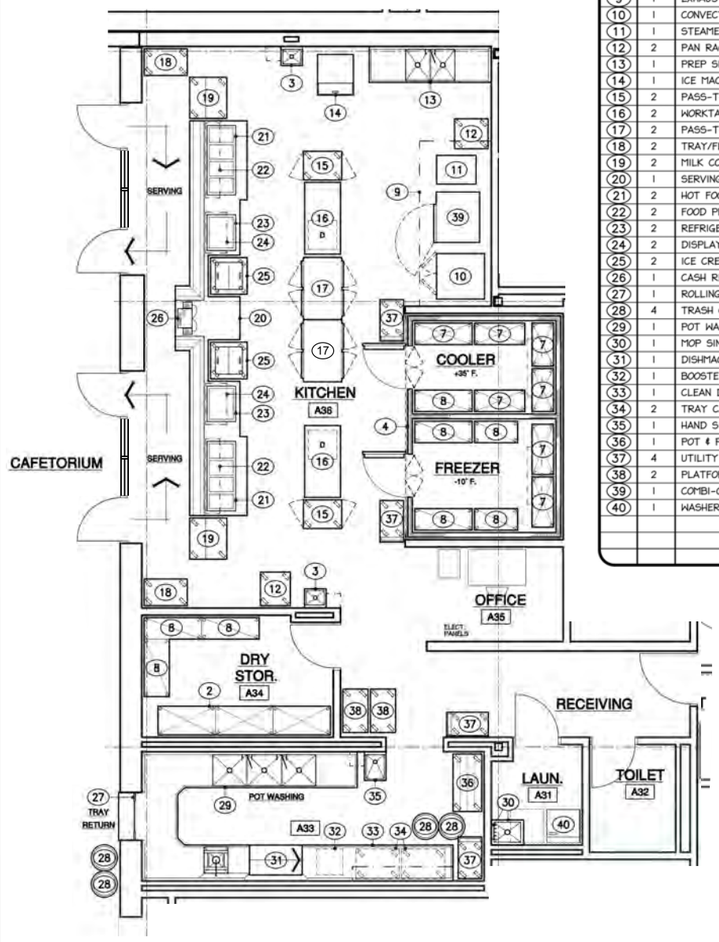

EQUIPMENT SCHEDULE

NO	QTY	DESCRIPTION	REMARKS
1	-	SPARE NUMBER	
2	3	SHELVING	
3	2	HAND SINK	
4	1	WALK-IN COOLER/FREEZER	
5	1	COOLER REFRIGERATION SYSTEM	MOUNTED OUTDOORS ON ROOF
6	1	FREEZER REFRIGERATION SYSTEM	MOUNTED OUTDOORS ON ROOF
7	7	SHELVING	
8	8	DUNNAGE RACK	
9	1	EXHAUST CANOPY	
10	1	CONVECTION OVEN	DOUBLE DECK
11	1	STEAMER	
12	2	PAN RACK CART, MOBILE	
13	1	PREP SINK	
14	1	ICE MACHINE/BIN	
15	2	PASS-THRU HEATED CABINET, MOBILE	
16	2	WORKTABLE	
17	2	PASS-THRU REFRIGERATOR	
18	2	TRAY/FLATWARE DISPENSER, MOBILE	
19	2	MILK COOLER, MOBILE	
20	1	SERVING COUNTER	
21	2	HOT FOOD WELLS	
22	2	FOOD PROTECTOR	W/HEAT LAMP
23	2	REFRIGERATED COLD PAN	
24	2	DISPLAY CASE	
25	2	ICE CREAM CABINET, MOBILE	
26	1	CASH REGISTER	(N.I.C.) - FURNISHED BY OWNER
27	1	ROLLING DOOR	SEE ARCHITECTURAL DRAWINGS
28	4	TRASH CONTAINER, MOBILE	
29	1	POT WASHING SINK/SOILED DISHTABLE	SEE PASS-THRU WINDOW DETAIL ON K-6
30	1	MOP SINK & RACK	(N.I.K.E.C.) - SPECIFIED BY PLUMBING DIVISION
31	1	DISHMACHINE	VENTLESS
32	1	BOOSTER HEATER	
33	1	CLEAN DISHTABLE	W/OVERSHELF
34	2	TRAY CADDY, MOBILE	
35	1	HAND SINK	SPECIAL-PURPOSE TYPE
36	1	POT & PAN SHELVING, MOBILE	
37	4	UTILITY CART, MOBILE	
38	2	PLATFORM TRUCK, MOBILE	
39	1	COMBI-OVEN	DOUBLE-STACKED
40	1	WASHER/DRYER, STACKED	(N.I.C.) - FURNISHED BY OWNER

(N.I.K.E.C.) - NOT IN KITCHEN EQUIPMENT CONTRACT

(N.I.C.) - NOT IN CONTRACT

Kitchen
Furniture and Equipment Plan

Scale: 3/32" = 1'-0"

New Elementary School #42
Howard County Public School System

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ARCHITECTURAL NOTES:

PROVIDE SCHOOL LOGO IN WOOD FLOORING AT CENTER OF GYMNASIUM.

PROVIDE CLEAR PLEXI-GLAS COVER ON ALL TACKBOARDS IN GYMNASIUM.

PROVIDE AED LOCATION IN MAIN CORRIDOR BETWEEN CAFETORIUM AND GYMNASIUM.

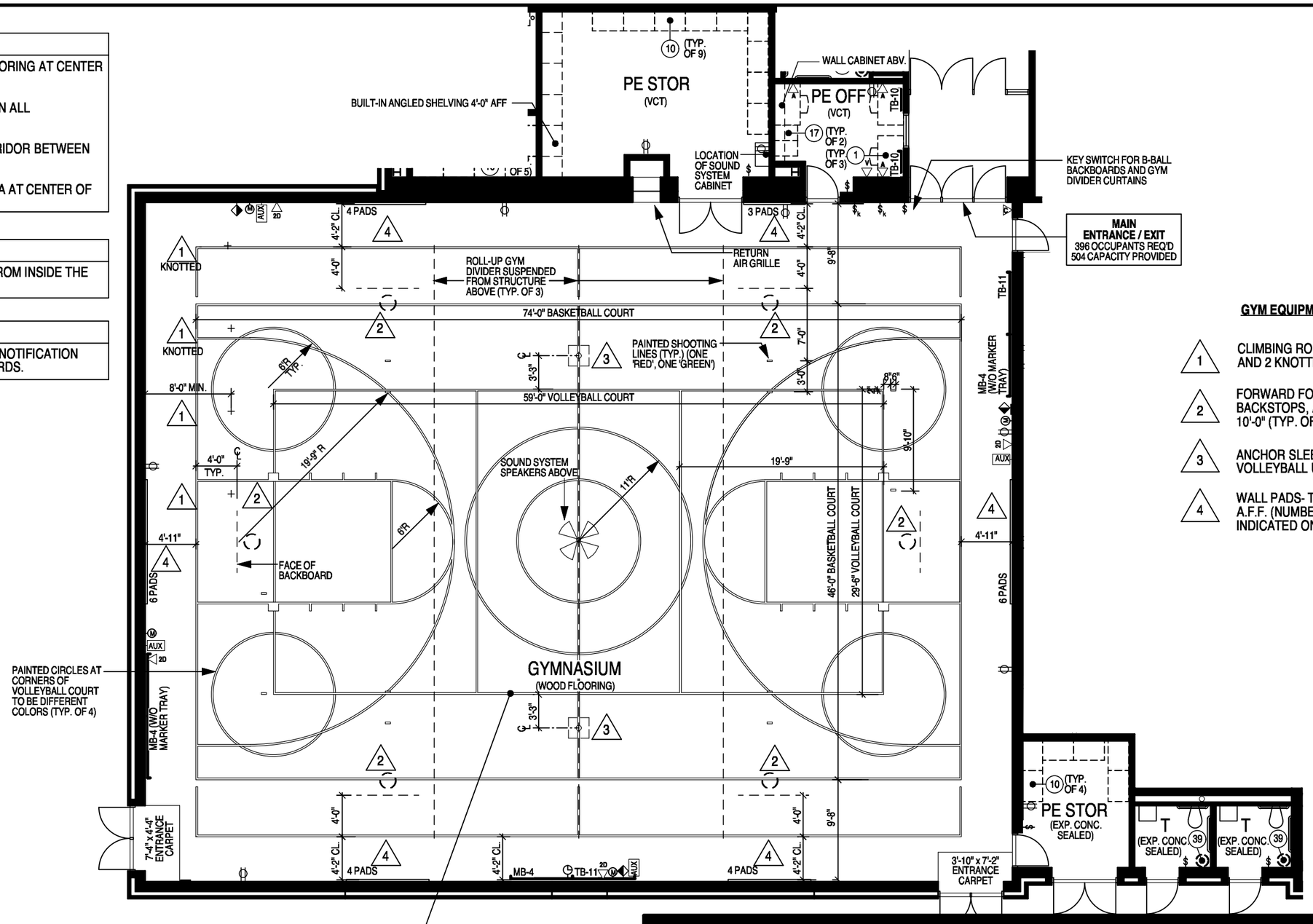
PROVIDE A PAINTED PROJECTION AREA AT CENTER OF GYMNASIUM.

TELECOMMUNICATION NOTE:

PROVIDE SOUND SYSTEM CONTROL FROM INSIDE THE GYMNASIUM.

ELECTRICAL NOTE:

ALL CLOCKS, EXIT SIGNS, FIRE ALARM NOTIFICATION DEVICES, ETC. SHALL HAVE WIRE GUARDS.



GYM GAMELINE LAYOUTS:

1 BASKETBALL COURT	46'-0" x 74'-0"
1 VOLLEYBALL COURT	29'-6" x 59'-0"

GYM EQUIPMENT LEGEND

1. CLIMBING ROPE (TYP. OF 4) (2 PLAIN AND 2 KNOTTED)
2. FORWARD FOLDING BASKETBALL BACKSTOPS, ADJUSTABLE 8'-0"-10'-0" (TYP. OF 6)
3. ANCHOR SLEEVES FOR VOLLEYBALL UPRIGHTS (TYP. OF 2)
4. WALL PADS- TOP OF PADS AT 6'-8" A.F.F. (NUMBER OF 2'-0" WIDE PADS INDICATED ON PLAN)

Physical Education / Gymnasium
Furniture and Equipment Plan

Scale: 3/32" = 1'-0"

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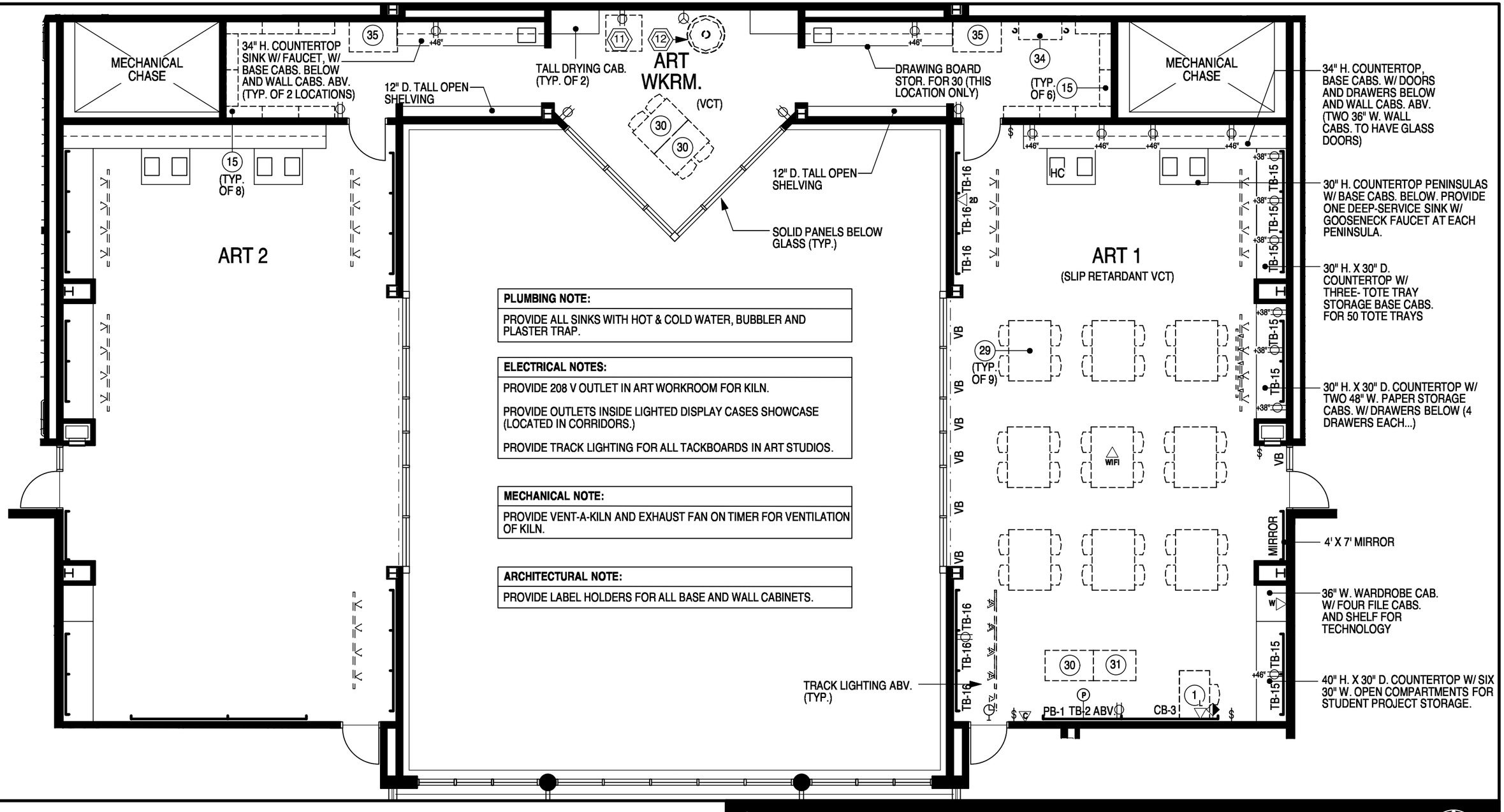

PLUMBING NOTE:

PROVIDE ALL SINKS WITH HOT & COLD WATER, BUBBLER AND PLASTER TRAP.

ELECTRICAL NOTES:

PROVIDE 208 V OUTLET IN ART WORKROOM FOR KILN.

PROVIDE OUTLETS INSIDE LIGHTED DISPLAY CASES SHOWCASE (LOCATED IN CORRIDORS.)

PROVIDE TRACK LIGHTING FOR ALL TACKBOARDS IN ART STUDIOS.

MECHANICAL NOTE:

PROVIDE VENT-A-KILN AND EXHAUST FAN ON TIMER FOR VENTILATION OF KILN.

ARCHITECTURAL NOTE:

PROVIDE LABEL HOLDERS FOR ALL BASE AND WALL CABINETS.

Visual Arts Suite
Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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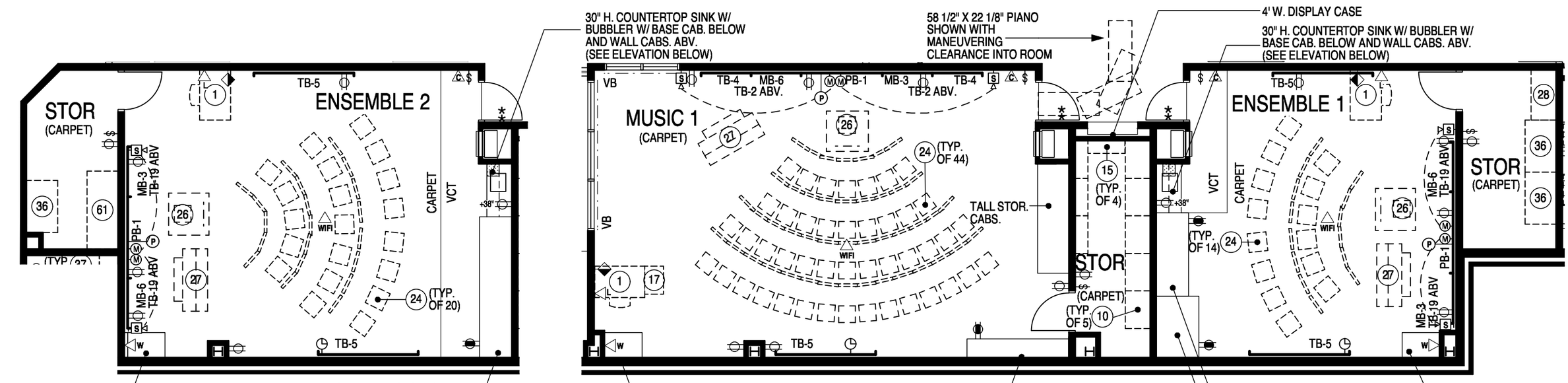
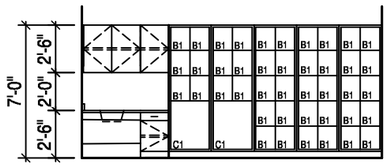
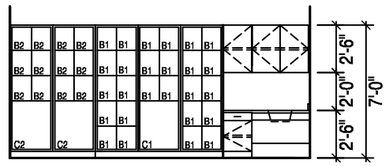




ENSEMBLE 2

SCALE: 1/8"= 1'-0"

INSTRUMENT STORAGE LEGEND		
B1	31" DEEP	TRUMPET ALTO SAXOPHONE
C1	31" DEEP	ALTO HORN SNARE DRUM
B2	41" DEEP	CLARINET (ONE PIECE) TENOR SAXOPHONE VIOLIN VIOLA
C2	41" DEEP	BARITONE



ENSEMBLE 1

SCALE: 1/8"= 1'-0"

ARCHITECTURAL NOTES:

FILL ALL CORES OF CMU WALLS SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENINGS WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECK FILLED SOLID WITH MORTAR.

PROVIDE ACOUSTICAL TREATMENT ON CEILING AND WALLS FOR APPROPRIATE ABSORPTION AND DIFFUSION WITH APPROPRIATE REVERBERATION TIME AND TO AVOID ANY FLUTTER ECHO.

PROVIDE ACOUSTICAL WALL PANELS AT WALLS.

DOORS SHALL HAVE INSULATED DOUBLE GLAZING WITH SOUND SEALS WHERE INDICATED BY ★ .

TELECOMMUNICATIONS NOTES:

PROVIDE TWO MICROPHONE JACKS ALONG THE TEACHING WALL FOR INPUT FROM MIXER BOARD, CD PLAYER, KEYBOARD, ETC. EACH JACK SHALL BE CONNECTED TO ONE OF THE WALL-MOUNTED SPEAKERS SHOWN ON THE PLAN.

PROVIDE A RELAY FOR THIS AUDIO SYSTEM SUCH THAT THE PA SYSTEM AND FIRE ALARM SYSTEM WILL OVERRIDE THE AUDIO INPUT FOR THESE SPEAKERS.

MECHANICAL NOTE:

MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES

Music Suite

Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

New Elementary School #42

Howard County Public School System

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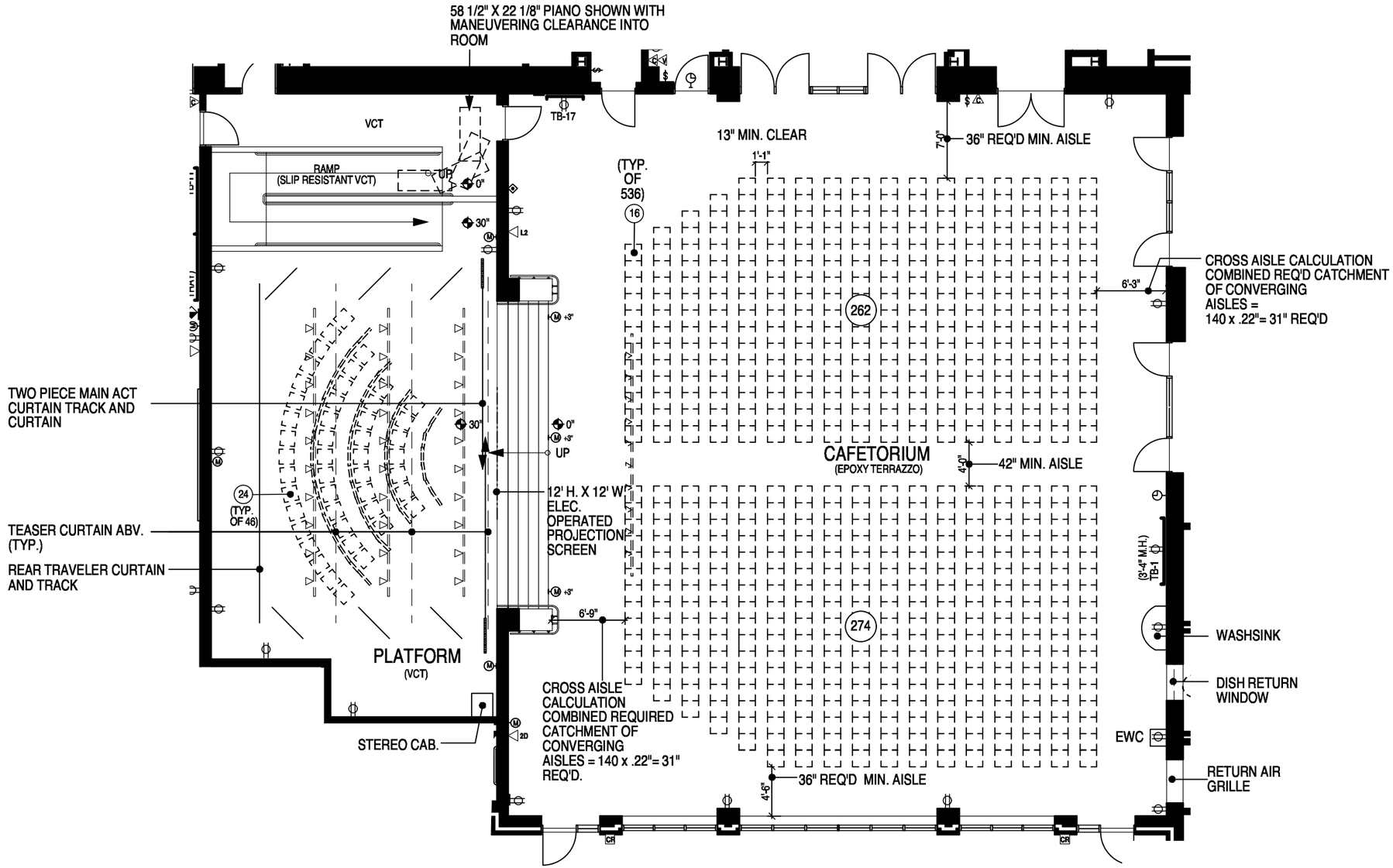

CODE REVIEW
BASED ON LSC- 2015 CHPT. 12 "NEW ASSEMBLY

OCCUPANT LOAD
3957 S.F./7 S.F. PER OCCUPANT [TABLE 7.3.1.2] = 566 OCCUPANT LOAD

SEATING CAPACITY
AS DETERMINED BY LAYOUT ABOVE WITH CODE RESTRICTIONS = **536 CHAIRS**

CHAIR SPACING AND AISLE WIDTH
CHAIR SHALL BE AN INTERLOCKING FOLDING CHAIR (18-1/2" W. x 18" D x 29-1/2" H.)

NUMBER OF EXITS
THREE SEPARATE MEANS OF EGRESS REMOTE FROM EACH OTHER AS POSSIBLE IF OCCUPANT LOAD EXCEEDS 500 BUT NOT MORE THAN 1000

Cafetorium and Platform
Furniture and Equipment Plan

Scale: 3/32" = 1'-0"

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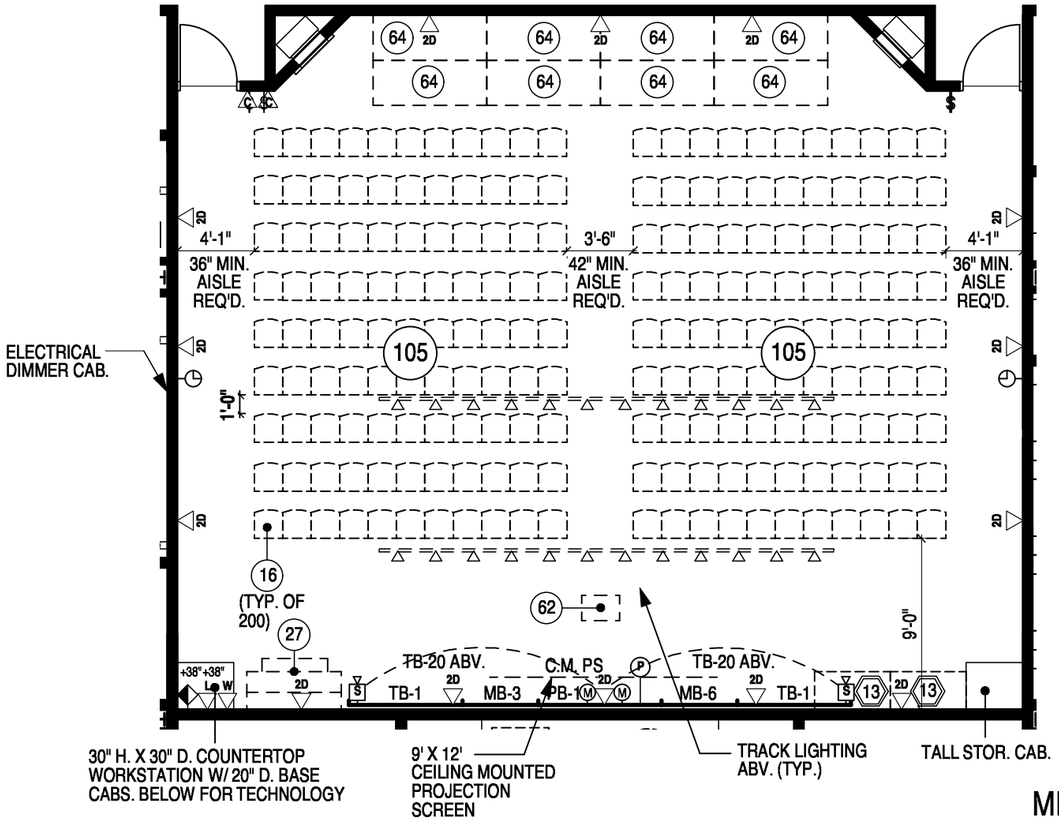
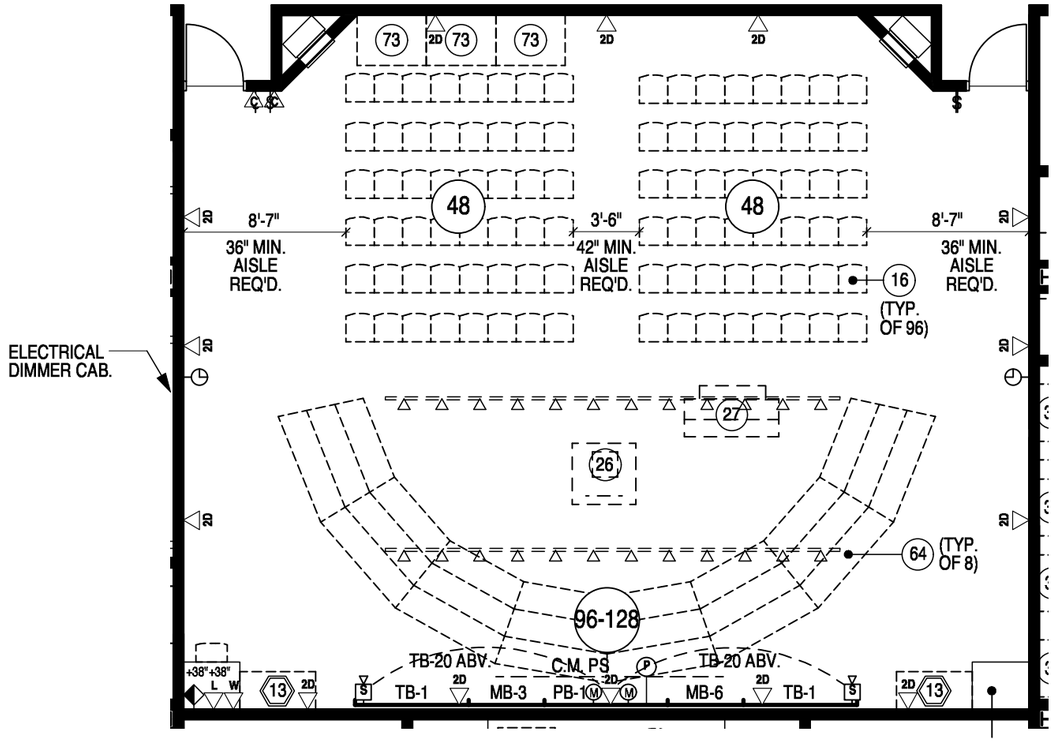
PRESENTATION ASSEMBLY
210 SEAT ARRANGEMENT



MUSICAL PERFORMANCE ASSEMBLY
96 SEAT ARRANGEMENT



MINI AUDITORIUM
(CARPET)
225 PERSON CAPACITY

ARCHITECTURAL NOTES:

FILL ALL CORES OF CMU WALLS SOLID WITH MORTAR TO DECKING INCLUDING ALL WALLS ABOVE OPENING WHERE APPLICABLE. WALLS SHALL EXTEND TIGHT TO DECKING ABOVE WITH FLUTES OF DECKING FILLED WITH MORTAR.

PROVIDE INSULATED DOUBLE GLAZING AND SOUND SEALS AT ALL DOORS.

TELECOMMUNICATIONS NOTES:

PROVIDE TWO MICROPHONE JACKS ALONG THE TEACHING WALL FOR INPUT FROM MIXER BOARD, CD PLAYER, KEYBOARD, ETC. EACH JACK SHALL BE CONNECTED TO ONE OF THE WALL-MOUNTED SPEAKERS SHOWN ON THE PLAN.

PROVIDE A RELAY FOR THIS AUDIO SYSTEM SUCH THAT THE PA SYSTEM AND FIRE ALARM SYSTEM WILL OVERRIDE THE AUDIO INPUT FOR THESE SPEAKERS.

MECHANICAL NOTE:

MECHANICAL DUCTWORK SHALL BE DESIGNED TO PREVENT SOUND TRANSMISSION BETWEEN SPACES

Mini Auditorium
Furniture and Equipment Plan

N

Scale: 1/8" = 1'-0"

New Elementary School #42
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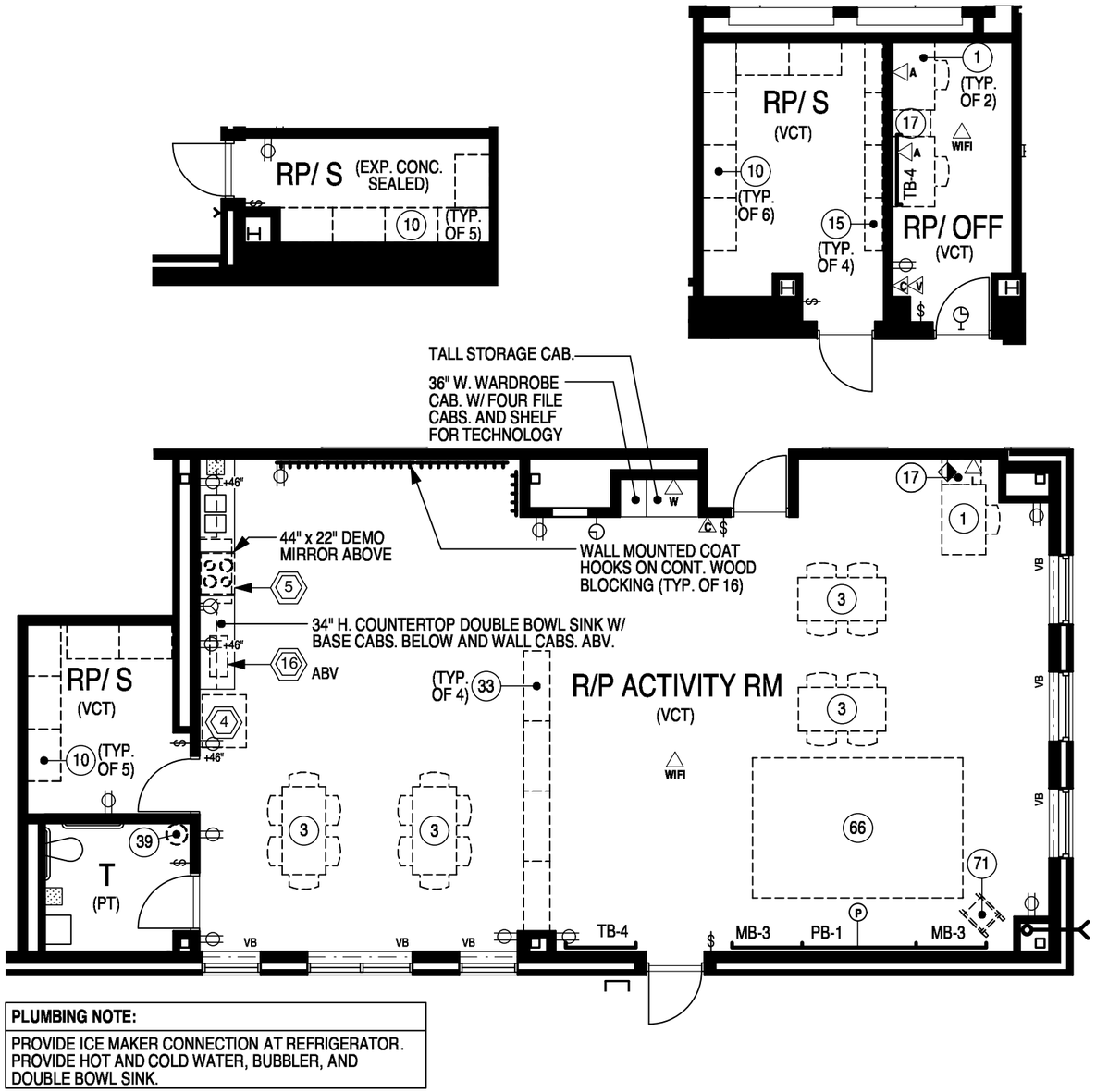

Recreation and Park Areas

Furniture and Equipment Plan

Scale: 1/8" = 1'-0"

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