Gaithersburg Capacity Study

MOSELEYARCHITECTS DESIGNING SOLUTIONS - BUILDING TRUST - ENRICHING LIVES

Rakesh Bagai, Project Manager
MCPS Div. of Construction
Julie Morris, Facilities Planner
MCPS Div. of Long range Planning

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Why a Capacity Study?

- Address significant space shortages at Gaithersburg Cluster elementary schools
- Compare cost of construction of additions to the cost of constructing a new elementary school
- Allow superintendent to make recommendations to address the space shortages as part of the FY 2017–2022 Capital Improvements Program (CIP) in October 2015

Need to know the following:

- Which schools can we add classrooms to?
- How large can the classroom additions be?
- How much would the classroom additions cost?

The Superintendent will be able to make recommendations to address the space shortages as part of the FY 2017–2022 Capital Improvements Program (CIP) in October 2015.

What will the study explore?

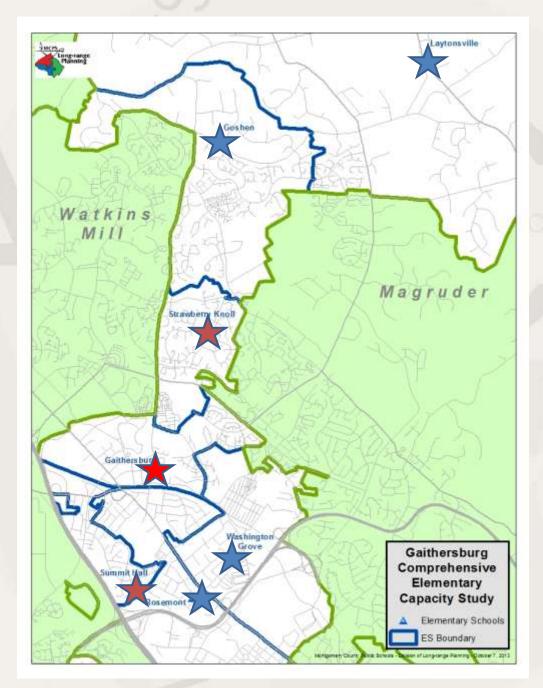
- Possible classroom additions at four of the schools in the study area
- Ability to build classroom additions at the schools that are over capacity
- Ability to build classroom additions at schools that are not over capacity but could relieve those schools that are over capacity through future boundary changes



Capacity Study Process

- The architect prepared one or more plans for each of the four schools
- Community meetings were held at each of the four schools
- MCPS staff and architects presented the plan(s) for a classroom addition and received feedback on the plan(s)





Study Area



School in this study



School with previous Study



Gaithersburg Elementary **Gaithersburg Capacity Study Findings**

Gaithersburg Capacity Study Findings										
	Actual							Capacity with		
	Enrollmen							Addition or		
Schools	t 2014-15	Enrollment						Rev/Ex	Notes	
		2015-16	2016-17	2017-18	2018-19	2019-20	2020-21			
Laytonsville ES	448	448	448	448	448	448	448	640 or 740	12 classroom would	
	428	416	408	404	396	389	383		add 292 capacity	
space available	20	32	40	44	52	59	65		,	
Gaithersburg ES	771	771	771	771	771	771	771	740 (no change)		
	795	871	915	925	918	907	868			
space deficit	-24	-100	-144	-154	-147	-136	-97			
Goshen ES	533	533	533	533	533	533	533	740	10 classroom would	
	577	602	600	608	607	594	592		add 207 capacity	
space deficit	-44	-69	-67	-75	-74	-61	-59		dad 207 capacity	
Rosemont ES	590	590	590	590	590	590	590	640	4 classroom would add	
	569	634	682	730	787	821	855		50 capacity	
space deficit	21	-44	-92	-140	-197	-231	-265		so capacity	
Strawberry Knoll ES	453	453	453	453	453	453	453	640	9 classroom would add	
	599	633	640	627	630	625	626		187 capacity	
space deficit	-146	-180	-187	-174	-177	-172	-173		207 capacity	
									Rev/Ex will add 297	
Summit Hall ES	443	443	443	443	443	443	443	640 or 740	capacity	
	634	669	663	666	669	653	650		8 classroom addition	
									would add 197	
space deficit	-191	-226	-220	-223	-226	-210	-207		capacity	
Washington Grove ES	603	603	603	603	603	603	603	740	6 classroom would add	
	414	447	439	463	497	529	575		137 capacity	
space available	189	156	164	140	106	74	28		an capacity	

Schools studied for Classroom Additions

- Goshen ES (10 rooms)
- Laytonsville ES (8 to 12 rooms)
- Rosemont ES (4 rooms)
- Washington Grove ES (6 rooms)
- Previously Studied:
- Strawberry Knoll ES (9 rooms)
- Summit Hall ES (8 rooms)



What the study will not explore?

- No sites for future schools will be explored in this study
- No boundary changes will be explored as part of this study





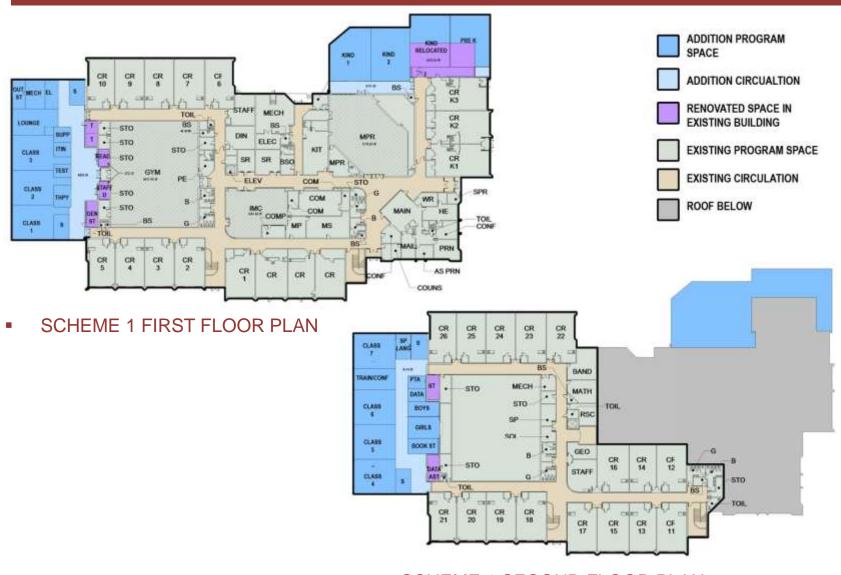
- Current Core Capacity 740
- Current Program Capacity 533
- Projected Program Capacity with Addition – 740
- Current Enrollment 578
- Projected Enrollment for 2015/2016 – 602
- Currently above Capacity
- Currently has 5 relocatables.
- Site size 10.5 acres
- Prefab Classroom Addition 1986
- Parking Spaces 91 approx.
- Setbacks Front 50', Rear 35', Side 17'

Facility	#	Net SF	Gross SF
Classrooms			
Prekindergarten	1	1300	1300
Kindergarten	2	1300	2600
Standard	7	900	6300
Support Rooms			
Speech/Language Room	1	250	250
Therapy/Support Room	1	250	250
Testing Room	1	150	150
Instructional Data Assistant Office	1	150	150
Support Staff Office	1	150	150
Counseling Area			
Itinerant Staff Office	1	150	150
Staff Development Area			
Staff Development Office	1	100	100
Reading Specialist Office	1	100	100
Training/Conference Room	1	450	450
Staff Facilities			
Staff Lounge	1	700	700
Telephone Room	1	50	50
Building Service Facilities			
General Storage	1	250	250
Book Storage	1	300	300
PTA Storage	1	150	150
Total	10		13400

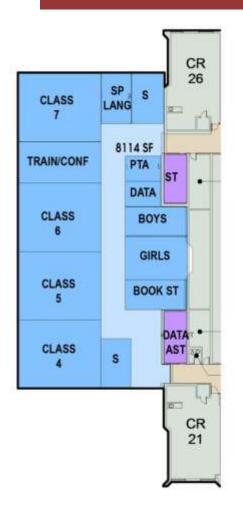


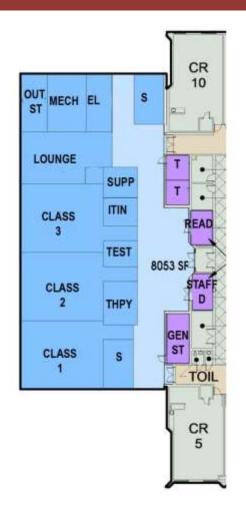
SCHEME 1 SITE PLAN





SCHEME 1 SECOND FLOOR PLAN







 FIRST FLOOR KIND/PRE K ADDITION

- SECOND FLOOR
- FIRST FLOOR

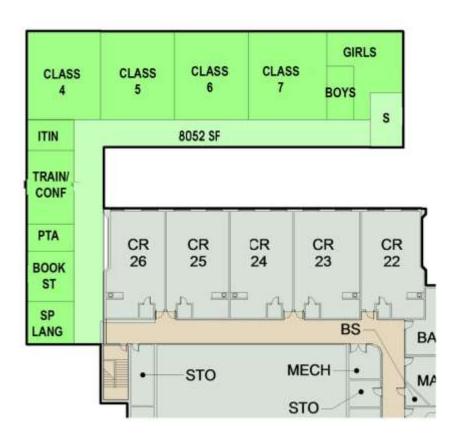


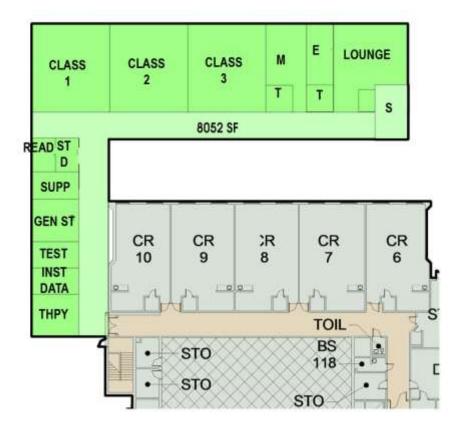
SCHEME 2 SITE PLAN





SCHEME 2 SECOND FLOOR PLAN





SCHEME 2 SECOND FLOOR PLAN

SCHEME 2 FIRST FLOOR PLAN

Scheme 1



Scheme 1 Pros

- Looping circulation paths on both first and second floors
- Compact footprint
- Good access and connections to existing two story building
- New K and Pre-K rooms adjacent to existing Kindergarten classrooms
- Natural daylight to most classrooms
- Addition is away from fields

Scheme 1 Cons

- Requires relocation of play areas
- Currentrelocatables will have to be moved before construction.

Scheme 2



Scheme 2 Pros

- Less disturbance to play areas
- Current relocatable classrooms do not need to move during construction
- Connects to existing two story for ADA access and only one stair
- Preserves natural daylight to existing classrooms
- Kindergarten and Pre-K adjacent to existing K classrooms

Scheme 2 Cons

- Small courtyard allows windows only to the classroom side.
- Circulation does not create a loop
- Small u shaped courtyard
- Remote location for classrooms and access from the school







- Current Core Capacity 640
- Current Program Capacity 448
- Projected Program Capacity with Addition – 640 or 740
- Current Enrollment 433
- Projected Enrollment for 2015/2016 – 416
- Currently below Capacity
- Currently has 1 relocatable
- Site size 9.9 acres
- Parking Spaces 135 approx.
- Set Backs (per Laytonsville zoning) - Front 35', Rear 15', Side 15'

Facility # Net SF Gross SF

The architect should also explore the feasibility of a 1300 s.f. expansion of the Multipurpose room and 4 additional class rooms (for a total of 12) to bring the capacity to 740 with a 740 core capacity

classrooms (for a total of 12) to bring the capacity to 740 with a	740 core capacity.		
<u>Classrooms</u>			
Standard	5	900	4500
Special Education School Community Based	2	900	1800
SCB shared Grooming Room	1	100	100
Dual purpose Room	1	1000	1000
Instrumental Music Room	1	450	450
Support Rooms			
Large Instructional Support Room	1	600	600
Small Instructional Support Room	1	450	450
Testing Room	1	150	150
Staff Office	1	150	150
Itinerant Staff Office	1	150	150
Staff Development Area			
Staff Development Office	1	100	100
Reading Specialist Office	1	100	100
Training/Conference Room	1	450	450
Building Service Facilities			
General Storage	1	250	250
Total	8		10250



EXISTING SITE PLAN- WITH SEPTIC



EXISTING SITE PLAN – WITH PROPOSED ADDITION LOCATION

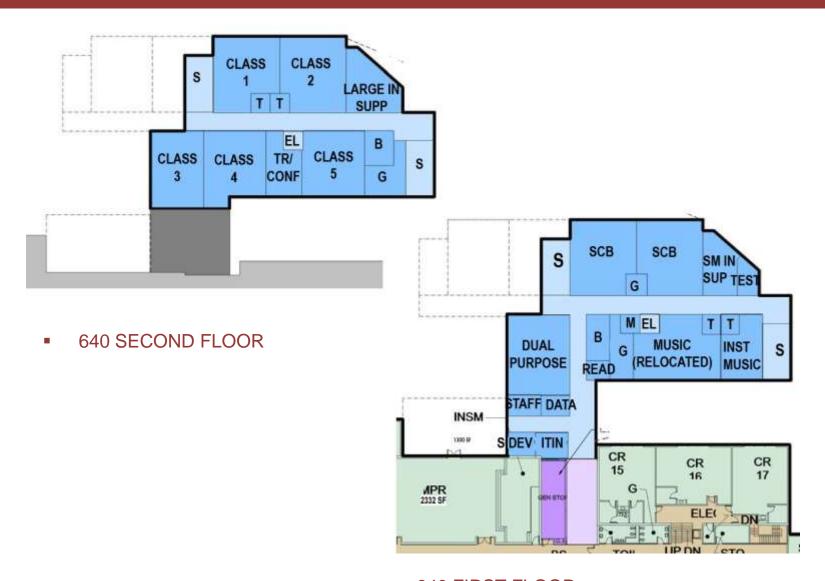




640 PROGRAM SITE PLAN





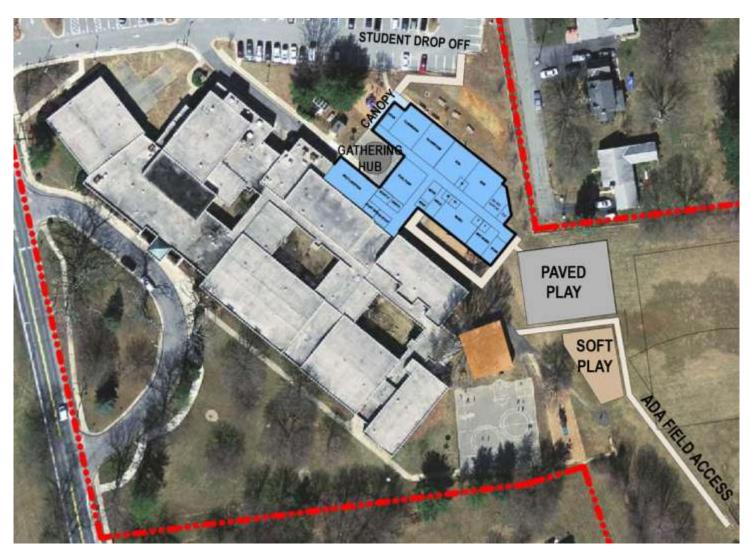


640 FIRST FLOOR

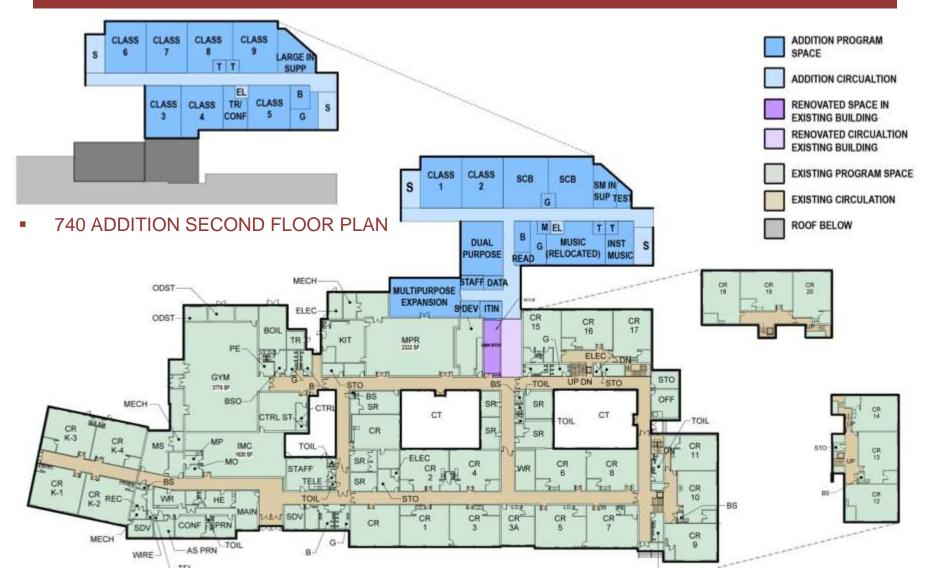


740 PROGRAM SITE PLAN



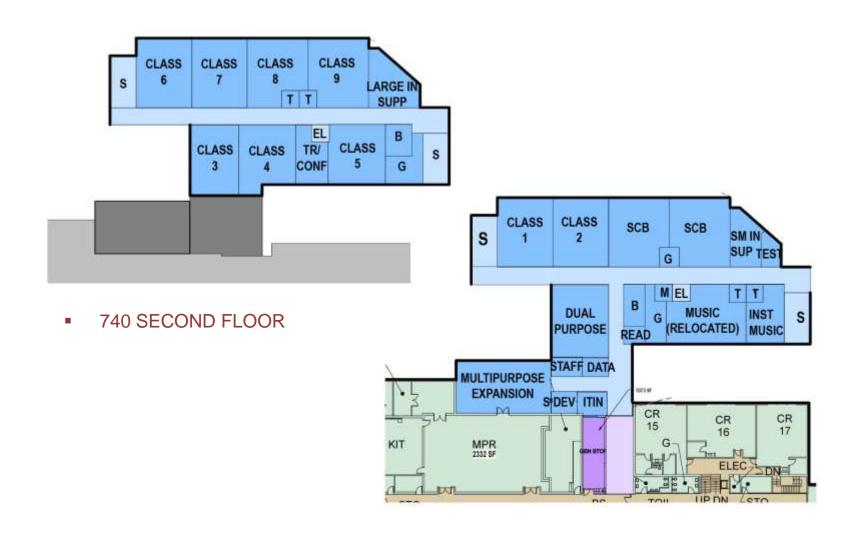


740 PROGRAM SITE PLAN



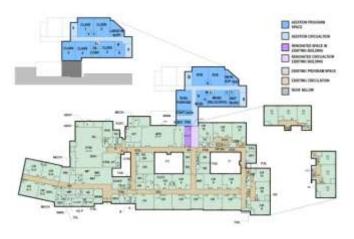
740 ADDITION FIRST FLOOR PLAN

EX. LOWER LEVELS



740 FIRST FLOOR

640 Program Scheme



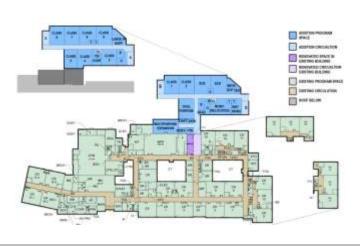
640 Program Pros

- Compact footprint two stories
- Central location and good access to existing building
- Existing relocatable could stay during construction
- Natural daylight to all new and existing teaching spaces
- Addition is away from fields
- Stays away from existing septic fields
- Keeps some of the existing paved play near multipurpose and gym

640 Program Cons

- Requires relocation of paved play areas
- SCB classrooms far from main entry
- Circulation does not loop
- Requires new elevator and two stairs

740 Program Scheme



740 Program Pros

- Compact footprint two stories
- Central location and good access to existing building
- Existing relocatable could stay during construction
- Natural daylight to all new and existing teaching spaces
- Addition is away from fields
- Stays away from existing septic fields.
- Enlarged multipurpose with natural light and gathering hub opportunity.
- Potential for easier dismissal with car pick-up/drop off.

740 Program Cons

- Requires relocation of paved play areas
- SCB classrooms far from main entry
- Circulation does not loop
- Requires new elevator and two stairs
- All play areas near multipurpose would need to be relocated.

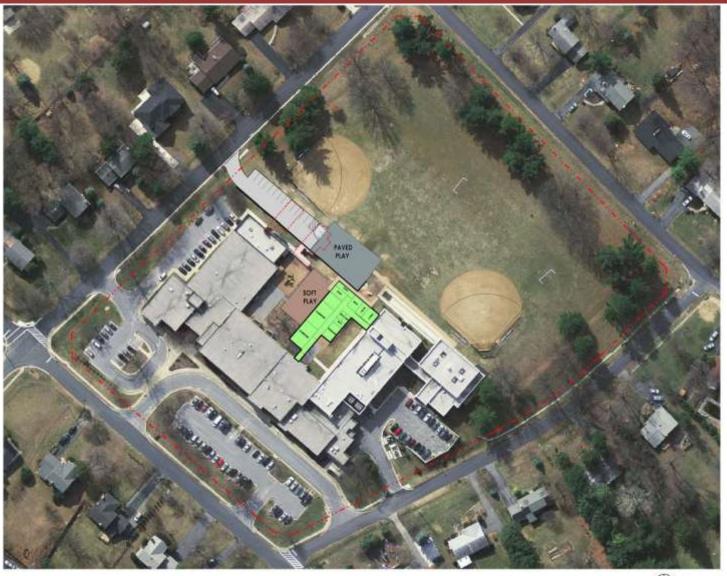






- Current Core Capacity 640
- Current Program Capacity 590
- Projected Program Capacity with Addition – 640
- Current Enrollment 564
- Projected Enrollment for 2015/2016 – 634
- Currently above Capacity
- Currently has 2 program spaces in relocatables.
- Site size 8.9 acres
- Previous Classroom Addition
- Parking Spaces 85 approx
- Setbacks Front 30', Rear 30', Side 15'

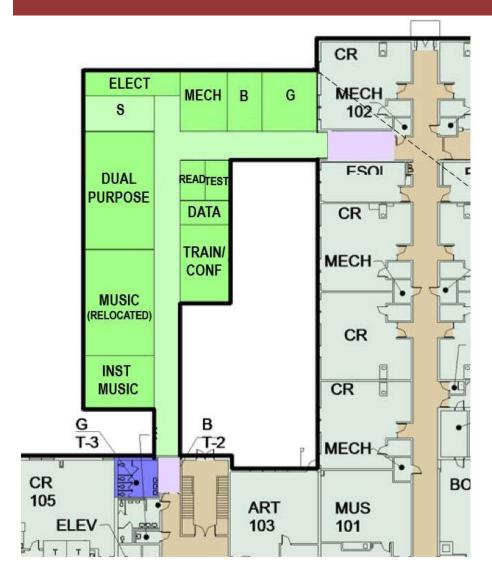
Facility	#	Net SF	Gross SF
Standard	3	900	2700
Dual purpose Room	1	1000	1000
Instrumental Music Room	1	450	450
Support Rooms			
Large Instructional Support Room	1	600	600
Testing Room	1	150	150
Staff Office	1	150	150
Itinerant Staff Office	1	150	150
Staff Development Area			
Staff Development Office	1	100	100
Reading Specialist Office	1	100	100
Training/Conference Room	1	450	450
Building Service Facilities			
General Storage	1	250	250
PTA Storage	1	150	150
Total	4		6250

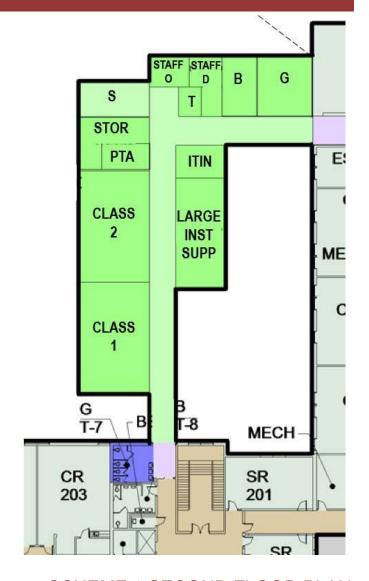


SCHEME 1 SITE PLAN









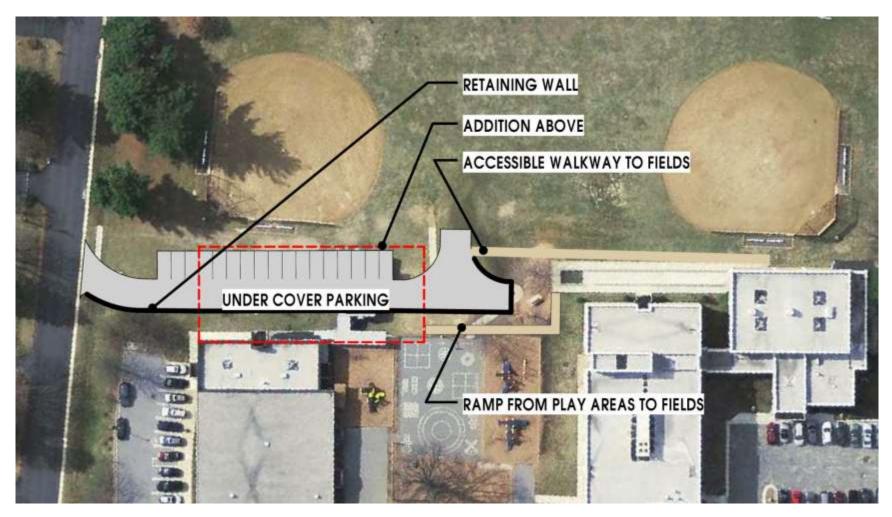
SCHEME 1 FIRST FLOOR PLAN

SCHEME 1 SECOND FLOOR PLAN

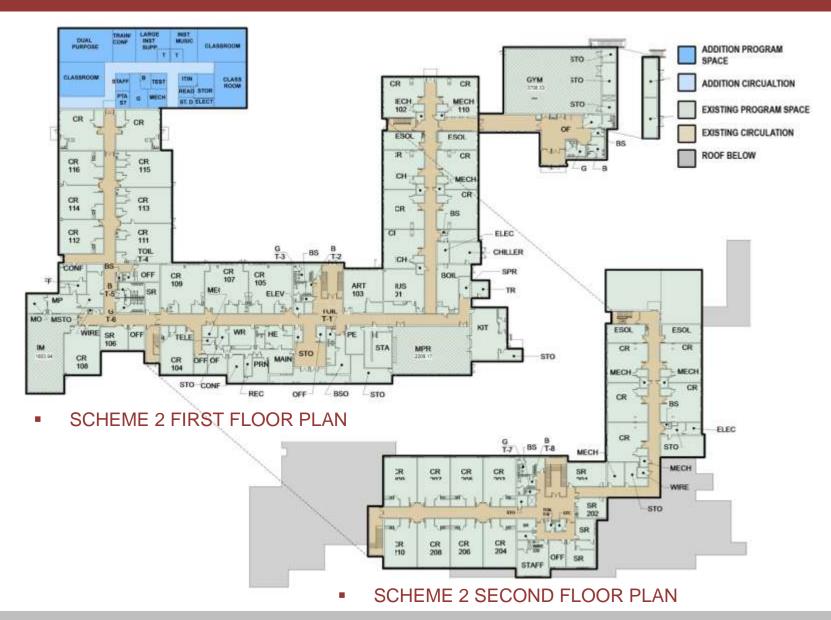


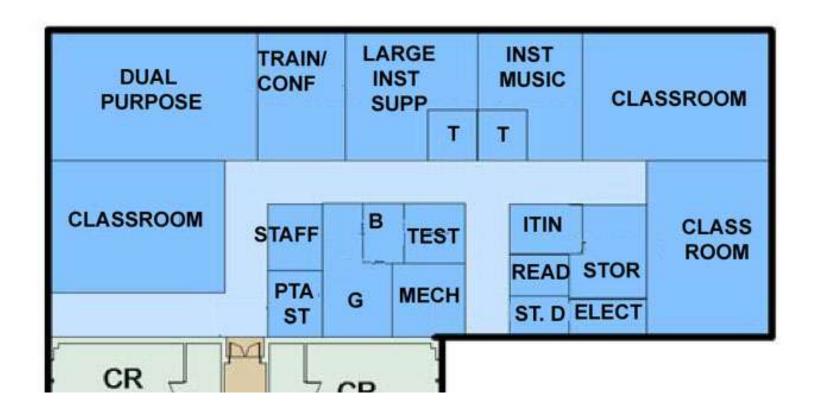
SCHEME 2 SITE PLAN





SCHEME 2 LOWER LEVEL PARKING





SCHEME 2 FIRST FLOOR ADDITION

Scheme 1



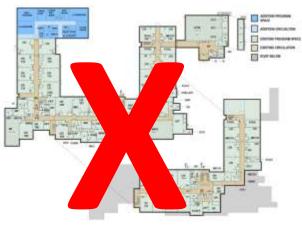
Scheme 1 Pros

- Compact footprint two stories
- Central location and good access to existing building
- Creates a looped circulation path on both stories
- No new elevator required only one stair
- No loss of program space in the existing building
- Maximum natural light preserved with courtyard
- Additional parking and field access improved

Scheme 1 Cons

- Requires relocation of play areas
- Small impact to the size of one field

Scheme 2



Scheme 2 Pros

- Compact footprint
 - Takes advantage of the slope on site for a lower story parking
- Preserves play areas
- Opportunity to fix erosion problem on site
- No loss of program space in the existing building.
- Additional parking possible (requires further study to confirm)

Scheme 2 Cons

- Circulation does not create a loop
- Lower parking isolated from rest of school expensive to build
- Need ADA access from Lower Level
- Need to move relocatable classrooms
- Instrumental Music and Dual Purpose far from Art and Music





- Current Core Capacity 740
- Current Program Capacity 603
- Projected Program Capacity with Addition – 740
- Current Enrollment 408
- Projected Enrollment for 2015/2016 – 447
- Currently below Capacity
- Currently has 0 relocatables
- Site size 8.5 acres
- Parking Spaces 80 approx.
- Setbacks Front 40', Rear 30', Side 15'

	Net	Total Net	
#	Sq. Ft.	Sq. Ft.	
6	900	5400	
1	150	150	
1	100	100	
1	100	100	
1	450	450	
1	250	250	
	6 1 1 1 1 1	# Sq. Ft. 6 900 1 150 1 100 1 100 1 450	

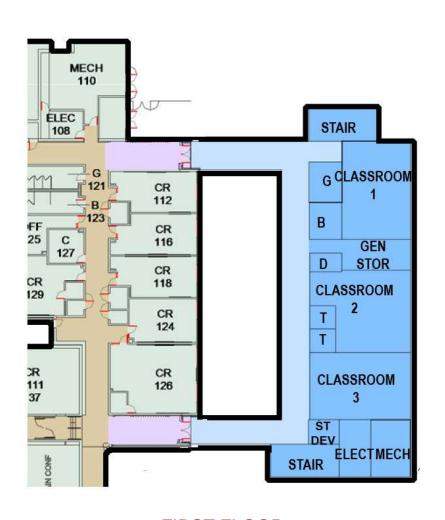


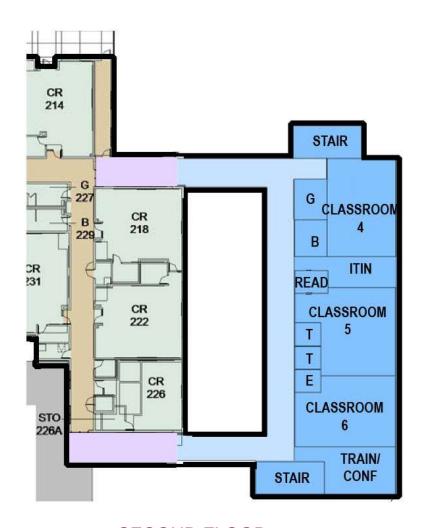
SCHEME 1 SITE PLAN





SCHEME 1 FIRST FLOOR PLAN





FIRST FLOOR

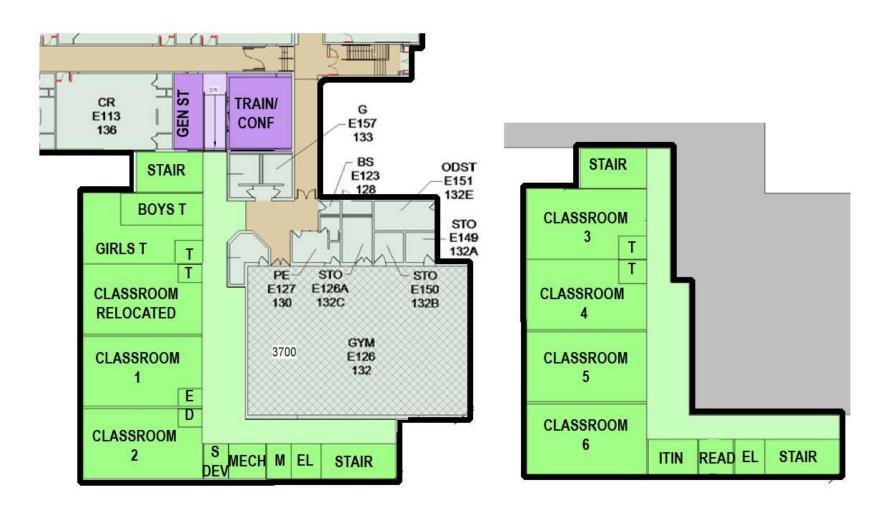
SECOND FLOOR



SCHEME 2 SITE PLAN



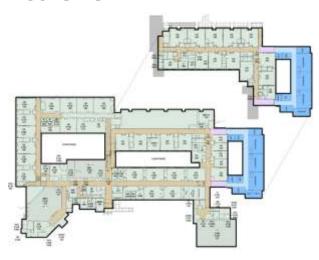




FIRST FLOOR PLAN

SECOND FLOOR PLAN

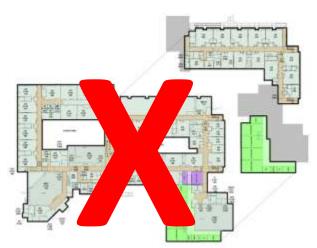
Scheme 1



Scheme 1 Pros

- Compact footprint two stories
- Central location and good access to existing building
- Creates a looped circulation path on both stories
- No new elevator required only two stairs
- No loss of program space in the existing building
- Maintains natural light to all existing classrooms
- Minimal impact on field
- Connection to building at existing stairwells no other alteration to existing building

Scheme 2



Scheme 2 Pros

- No loss of play area.
- Compact footprint two stories
- Addition is away from fields and playgrounds
- Addition does not require revisions to the fire access road
- Addition maintains natural light to all classrooms

Scheme 1 Cons

- Requires relocation of soft play area(s)
- Requires reconfiguration of fire access road
- Impacts the size of the field

Scheme 2 Cons

- No direct entry to Gym Lobby
- Does not connect to existing two story portion of building
- Requires two stairways and an elevator
- Classrooms are remote and isolated from rest of school
- Circulation does not loop
- Corridor is extra wide less efficient use of space
- Connecting to existing building through a classroom requires relocation of the classroom in the new addition and a new ramp.
- A classroom loses one window

ROSEMONT ELEMENTARY SCHOOL SCHEMES





SCHEME 1

SCHEME 2

GOSHEN ELEMENTARY SCHOOL SCHEMES





SCHEME 1

SCHEME 2

LAYTONSVILLE ELEMENTARY SCHOOL SCHEMES





SCHEME 1 - 640

SCHEME 2 - 740

WASHINGTON GROVE ELEMENTARY SCHOOL SCHEMES





SCHEME 1

SCHEME 2

ROSEMONT ELEMENTARY SCHOOL SCHEMES





SCHEME 1

SCHEME 2

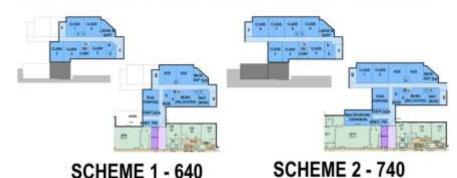
GOSHEN ELEMENTARY SCHOOL SCHEMES



SCHEME 1

SCHEME 2

LAYTONSVILLE ELEMENTARY SCHOOL SCHEMES



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WASHINGTON GROVE ELEMENTARY SCHOOL SCHEMES



ROSEMONT ELEMENTARY SCHOOL SCHEMES



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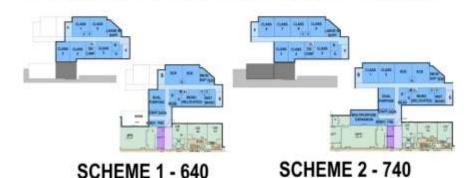
SCHEME 1

SCHEME 2

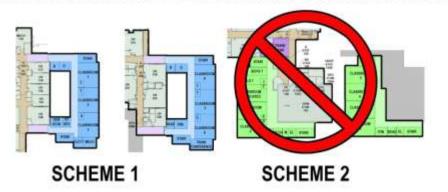
GOSHEN ELEMENTARY SCHOOL SCHEMES



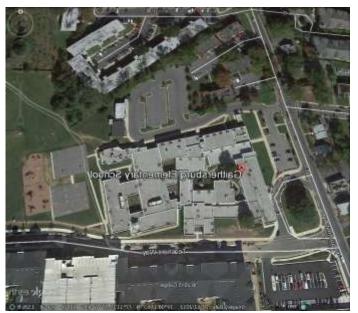
LAYTONSVILLE ELEMENTARY SCHOOL SCHEMES



WASHINGTON GROVE ELEMENTARY SCHOOL SCHEMES



Gaithersburg Elementary School



- Current Core Capacity- 740
- Current Program Capacity 771
- Current Enrollment- 812
- Projected Enrollment for 2015-2016 871
- Currently has 7 relocatables
- Site size- 9.2 acres
- Previous addition built out to 740

Strawberry Knoll Elementary School

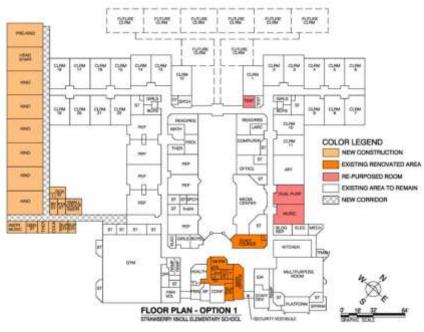


- Current Core Capacity- 640
- Current Program Capacity 427
- Current Enrollment- 595
- Projected Enrollment for 2015-2016 633
- Currently has 6 relocatables
- Site size- 10.8 acres
- Studied a 9 classroom addition in 2013.



Strawberry Knoll Elementary School





Scheme 1 Pros

- The addition is one-story and will not require stairs or elevator
- The Kindergartens are near the front of the building
- Circulation is improved

Scheme 1 Cons

The footprint is large



Scheme 2 Pros

- Does not require stairs and elevator
- Can be built without disrupting existing building

Scheme 2 Cons

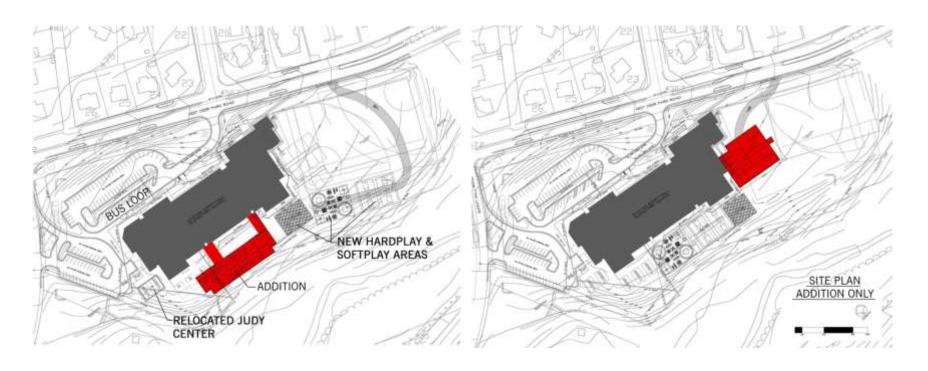
- Has a large footprint
- Kindergarten is at the back of the building
- Encroaches onto existing playfields

Summit Hall Elementary School



- Current Core Capacity- 640
- Current Program Capacity 413
- Current Enrollment- 628
- Projected Enrollment for 2015-2016 669
- Currently has 10 relocatables
- Site size- 10.2 acres
- Studied an 8 classroom addition in 2013 with 640 core capacity
- Summit Hall ES has a Revitalization/Expansion project in the pipeline, with an estimated completion date of 2022
- As part of this project, Summit Hall will be built larger to accommodate up to 740 students

Summit Hall Elementary School



Option 1 Option 2

Option 1



Pros

- •Allows space to reconfigure and add additional parking in future
- Existing corridors aligned
- Kindergarten and PreK rooms clustered
- Simple circulation

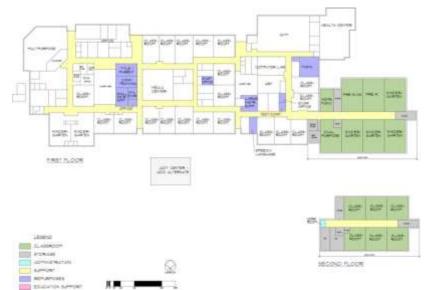
Option 1 after Revitalization/expansion



Cons

- ■The single main hallway will be congested
- Existing relocatable classrooms will need to be moved during construction
- Judy Center will need to be relocated
- Large building footprint (inefficient) initially
- Existing gym will remain and will be far from playfields

Option 2



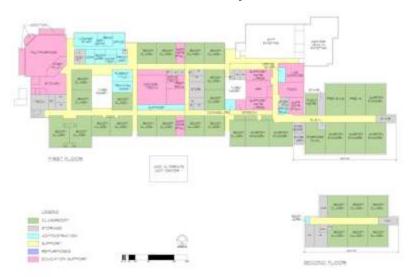
Pros

- Smaller building footprint
- Existing relocatable classrooms and Judy Center do not have to move
- Efficiency 68%

Cons

- Kindergarten far from entrance
- Large building footprint (inefficient) after future revitalization/expansion

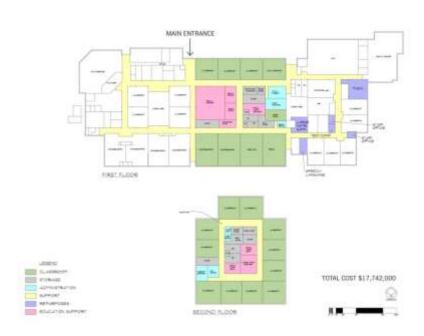
Option 2 After Revitalization/Expansion



Cons

- Does not lend itself well to reconfiguration of existing building in
- revitalization/expansion
- Media Center will be windowless
- Gym far from playfields
- Difficult to lock off portions of the building for after hours use
- Reduces the available number and size of playfields. A full size
- soccer field will no longer fit on the site.

Option 3



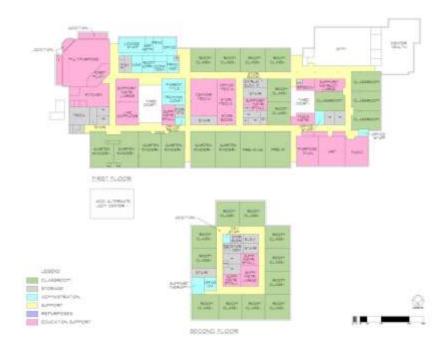
Pros

- Smaller building footprint
- Kindergarten and PreK rooms clustered
- More open space for play areas
- Judy Center does not have to move

Cons

 A large area of existing space will need to be renovated to support the second floor

Option 3 After revitalization/expansion



Cons

- Kindergarten classrooms are not near the front of the building
- Extremely difficult to construct the addition while the school is occupied
- Gym is not near playfields
- Media Center will be windowless
- This option is the most expensive
- Very low building efficiency 40%

There is a 708 seat deficit of space in the cluster elementary schools. Six addition projects could add up to 1070 capacity.

Gaithersburg Capacity Study Findings

Gaithersburg Capacity Study Findings											
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space available	20	32	40	44	52	59	65		and 252 capacity		
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Washington Grove ES	603	603	603	603	603	603	603	740	6 classroom would add		
	414	447	439	463	497	529	575				
space available	189	156	164	140	106	74	28		137 Capacity		

Additional Comments for Consideration

- The participants at the meetings expressed the desire to have the RevEx work proposed at Summit Hall ES completed as soon as possible.
- Gaithersburg ES is over capacity and has a large population of walkers enrolled in the school. The preference expressed by the participants was to keep the students as close to the base school as possible. There was concern about public transportation access to other schools in the cluster and long bus rides if some of these students are relocated through a boundary change.
- The MCPS process for Rev/Ex and capacity deficit project funding and the maximum size recommendations for elementary schools were questioned. It was requested that the maximum size for an elementary school of 740 capacity be re-evaluated if possible to keep students closer to their base school.
- Multiple schools expressed parking and traffic flow concerns with any addition and student capacity increase associated with the proposed additions.
- There was concern expressed by participants that looking for and acquiring a new school site or evaluating the existing sites would further delay the relief of overcrowding.

What Will Happen Next?

- In the fall the superintendent will review the capacity study brochure summarizing all findings and cost estimates
- The superintendent will make a recommendation on classroom additions, a new elementary school, or a combination of both
- The superintendent's recommendation will include a request for funds to design and construct whatever is recommended



What Will Happen Next?

- If the superintendent recommends a new elementary school be opened, then a site selection advisory committee would be formed to evaluate site options.
- Whether the solution to space shortages are classroom additions or a new school, it is likely that some school boundaries will change once the new capacity is built.
- Boundary changes would be timed to occur when the additional capacity becomes available.
- In the meantime, capacity will be handled with relocatable classrooms as needed.

What Will Happen Next?

- In November 2015, the Board of Education will hold a work session, followed by public hearings
- In January 2016 the County Executive will publish his recommendations
- In May 2016 the County Council will make a decision on the final budget

questions?



More information on the capacity study will be posted at the following web location as materials become available:

http://www.montgomeryschoolsmd.org/departments/construction/studies/gccstudy.shtm