# **Downcounty Consortium Elementary School Capacity Study**

Prepared for Montgomery County Board of Education

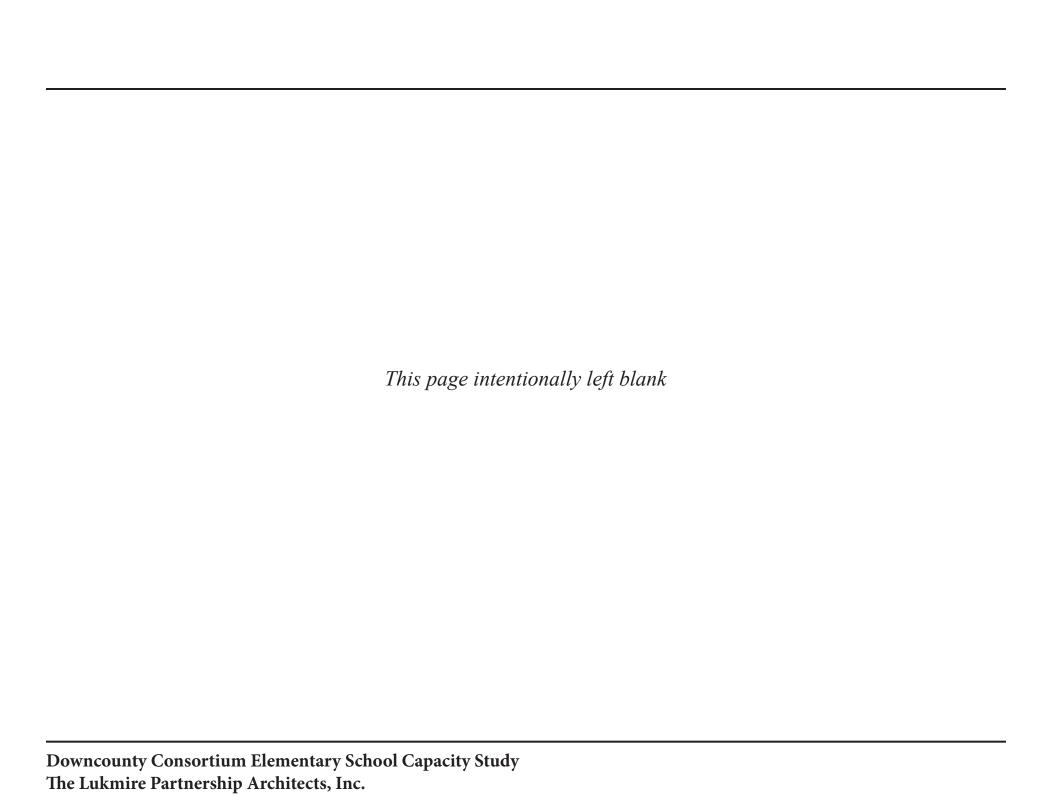
June 2015

# DOWNCOUNTY CONSORTIUM ELEMENTARY SCHOOL CAPACITY STUDY

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Downcounty Consortium Elementary School Capacity Study The Lukmire Partnership Architects, Inc.



#### **Downcounty Consortium Elementary School Capacity Study**

#### Schools to be Studied for Additions

Schools Included in the Study—No Addition Possible

East Silver Spring ES Forest Knolls ES

Highland View ES Montgomery Knolls ES

New Hampshire Estates ES

Oak View ES

Pine Crest ES

Rolling Terrace ES

Sligo Creek ES

Woodlin ES

Piney Branch ES Takoma Park ES

#### **Montgomery County Board of Education**

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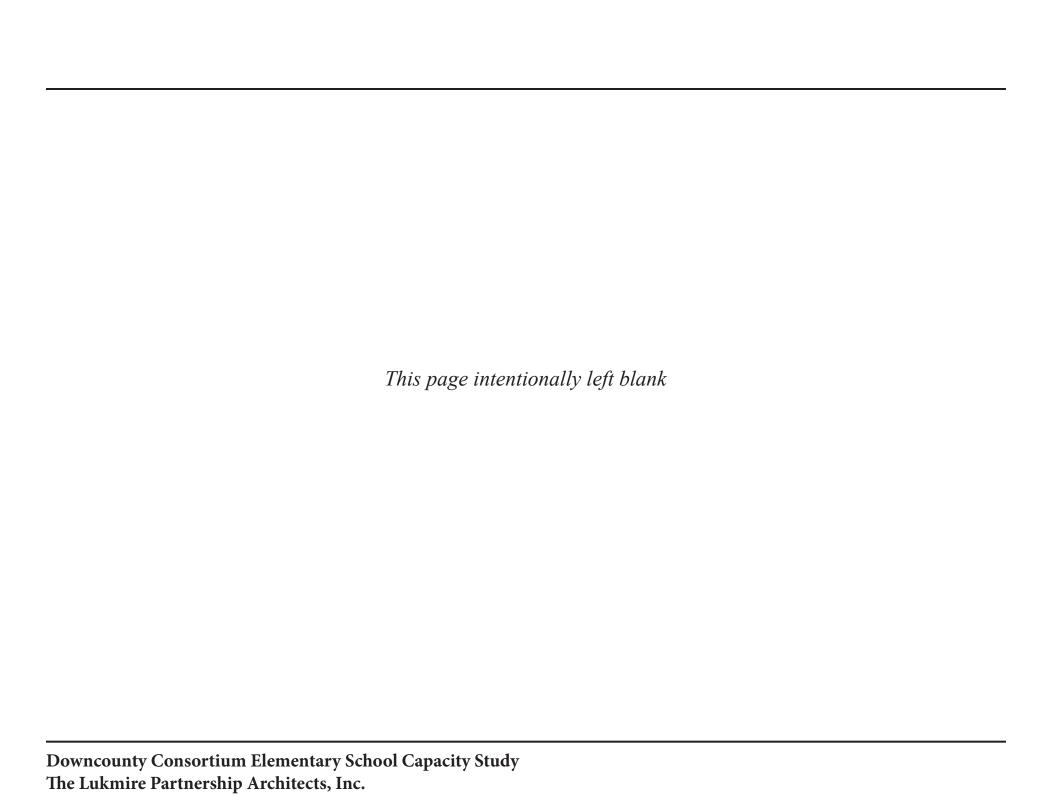
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#### I. Capacity Study Participants

This capacity study was conducted for Montgomery County Public Schools (MCPS) by The Lukmire Partnership Architects, Inc. The capacity study was performed under the direction of the MCPS Department of Facilities Management, Division of Construction. Through a series of public meetings, design alternatives to construct additions to five elementary schools were developed and evaluated to relieve overcrowding in the Downcounty Consortium. The proposed plans presented herein were reviewed and subsequently modified in accordance with recommendations and suggestions received during the public meetings.

#### **Capacity Study Participants**

Jill Ortman-Fouse	Member	Board of Education, MCPS
Evan Bernstein	Principal	Forest Knolls ES
Zoraida Brown	Acting Principal	New Hampshire Estates ES
Anne Dardarian	Principal	Highland View ES
Bob Geiger	Incoming Principal	New Hampshire Estates ES
Bertram Generlette	Principal	Montgomery Knolls ES
Cynthia Houston	Principal	Pine Crest ES
Shoua Moua	Principal	Woodlin ES
Peggy Salazar	Principal	Oak View ES
Diantha Swift	Principal	Sligo Creek ES
Silvia y Angaez	Parent	Oak View ES
Jen Andelman	Parent	Pine Crest ES
Michael Bass	Teacher	Oak View ES
Jess Bain	Teacher	Pine Crest ES
Miya Belle	Teacher	Montgomery Knolls ES
Evan Bernstein	Teacher	Forest Knolls ES
Sarah Bittle	Parent	Oak View ES
Debbie Boger	Parent	Sligo Creek ES
Brenda Bonazelli	Parent	New Hampshire Estates ES and Oak View ES
Cheryl Booker	Assistant Principal	Montgomery Knolls ES
Amy Brooks	Teacher	Montgomery Knolls ES

#### **Capacity Study Participants (continued)**

Marlo BrownParentPine Crest ESRachel BurroughsParentPine Crest ESErin ByrnesParentPine Crest ES

Verzinia Bumblis Paraeducator New Hampshire Estates ES
Laurie Burney Counselor Montgomery Knolls ES

Carolyn Burns Community Member Oak View ES
Yadira Cerdas Paraeducator Oak View ES
Meg Clabault Parent Sligo Creek ES

Nancy Clusen Parent Montgomery Knolls ES

Pat Coleman Parent Woodlin ES

Tracy Cramer Teacher Montgomery Knolls ES

Daria Daniel Parent Forest Knolls ES

Emily David Teacher Montgomery Knolls ES

Tigwa Davis Community Member Forest Knolls ES

Jana Delfino Parent Montgomery Knolls ES and Pine Crest ES

Rebecca Diaz Teacher Montgomery Knolls ES

Rosemary DiPietro Community Member Pine Crest ES

Maureen M. Dollard Teacher Montgomery Knolls ES

Liz Dooley Parent New Hampshire Estates ES and Oak View ES
Karen Durland Parent Montgomery Knolls ES and Pine Crest ES

Joe Eckert Parent Pine Crest ES

Amy ErroaTeacherMontgomery Knolls ESOlivia FinkeTeacherMontgomery Knolls ES

Steve Fisher Parent Woodlin ES
Ashley Franzel Parent Highland View ES

Janel Frazier Teacher New Hampshire Estates ES

Randi Field Community Member Oak View ES
Mary Gable Parent Sligo Creek ES

Danielle Gaines Student Teacher Montgomery Knolls ES

E. Marina Garcia Parent Oak View ES
Jenna Gibson Parent Rolling Terrace ES

#### **Capacity Study Participants (continued)**

Renee Gomez Parent New Hampshire Estates ES and Oak View ES

Susan Marziglia Gray Parent Pine Crest ES

Christine Greaney Teacher Montgomery Knolls ES

Andy Greenleaf Parent Montgomery Knolls ES and Pine Crest ES
Andrea Greenleaf Parent Montgomery Knolls ES and Pine Crest ES

David Greenleaf Parent Pine Crest ES

Julie Grimes MCCPTA Northwood Cluster Coordinator; AVP; Arcola ES

Nickie Haine PTA President Montgomery Knolls and Pine Crest ES

Malia HaleParentSligo Creek ESMarilyn HallCommunity MemberPine Crest ESSarah HansonParentRolling Terrace ES

Michele Harmon Parent Montgomery Knolls ES and Pine Crest ES

Scott Harper

Karen Hatwell

Liz Heaney

Parent

Parent

Parent

Poest ES

Priscilla Holberton

Parent

Parent

Forest Knolls ES

R. Hook

Community Member

Oak View ES

Karen Horvath-Wulf Community Member New Hampshire Estates ES and Oak View ES

Kim Hutchins Parent/Teacher Pine Crest ES

Grace Iwunna Paraeducator Montgomery Knolls ES Diane Johnson Teacher Montgomery Knolls ES **Ephraim Johnson** Rolling Terrace ES Student Rolling Terrace ES Maia Johnson Student Michaela Johnson Rolling Terrace ES Parent Vernon Jones **Assistant Principal** Oak View ES

Elisabeth Karlsson-Mitchell

Mindy Kassaraba

Parent

Dona Keach

Teacher

Parent

Cafeteria Manager

Montgomery Knolls ES

Rolling Terrace ES

Pine Crest ES

Diane Kelleher Parent Sligo Creek ES and Rolling Terrace ES

Audra Kelly Parent Pine Crest ES
Amy Kennedy PTA President Sligo Creek ES

### **Capacity Study Participants (continued)**

Anne Kennedy Parent Woodlin ES

Sarah Mears Kio Teacher Montgomery Knolls ES

Emily KirbyParentWoodlin ESErin KnightCommunity MemberOak View ES

Karen Konrad Parent Rolling Terrace ES

Linda Krimm Parent Oak View ES and New Hampshire Estates ES

Katie Lague Teacher Pine Crest ES

Sarah Layton Teacher Montgomery Knolls ES

Antonia G. LeFieura

Marilyn LeporeTeacherOak View ESChristopher LewisParentPine Crest ESEdward LorenzenParentWoodlin ES

Kelly Luck Parent Montgomery Knolls ES and Pine Crest ES

Veronica Mattewson Assistant Principal New Hampshire Estates ES Kayla Mayberry Teacher Montgomery Knolls ES

Matt McGrath Community Member Oak View ES

Denise Medley Teacher Montgomery Knolls ES

Karen Miller Parent Woodlin ES

Erlin Moreno Parent Montgomery Knolls ES

Susanne Mount Parent New Hampshire Estates ES and Oak View ES

Kathleen Murphy Student Teacher Montgomery Knolls ES

Kristen Murray Parent Forest Knolls ES
Anne Noel Occhialino Parent Pine Crest ES
Kate O'Connor Parent Pine Crest ES
Sergio Palacios Parent Sligo Creek ES

Philippa Palmer Student Teacher Montgomery Knolls ES

Robin Palmes Parent Pine Crest ES
Emil Parker Parent Rolling Terrace ES
Mara Parker Parent Rolling Terrace ES
Scott Paul Parent Sligo Creek ES
Lisa Pfeifer Parent Pine Crest ES

### **Capacity Study Participants (continued)**

Rachael Phillips Teacher New Hampshire Estates ES

Marilyn PietyCommunity MemberOak View ESCarol Ann PisciottaTeacherOak View ESHolly PlankParentHighland View ES

Melissa Polito Parent Woodlin ES

Harriet Quinn Community Member Montgomery Knolls ES and Pine Crest ES

Kelly RansierTeacherPine Crest ESVictoria RaskinTeacherOak View ES

Montgomery Knolls ES May Reinhard Teacher Highland View ES Stacey Ricci Parent Allison Risso Rolling Terrace ES Parent Dana Roffe Montgomery Knolls ES Teacher Julie Rollenhagen Montgomery Knolls ES Parent Dreama Rosenkrans Teacher New Hampshire Estates ES

Brett Rouillier Community Member Oak View ES

Madelaine Santiago Parent Montgomery Knolls ES

Corinne Sauri Parent Pine Crest ES

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Lisa Seigel Parent Rolling Terrace ES

Paula Bailey Smith Teacher New Hampshire Estates ES

Michaela SpehnParentPine Crest ESLaura StephenParentSligo Creek ESLaura StewartPTA PresidentWoodlin ES

Tara Strain Assistant Principal East Silver Spring ES

Miriam Struck Community Member Oak View ES

Bernadette Sweeney Parent Sligo Creek ES and Woodlin ES

Amanda Szekely Parent Woodlin ES Erin Taylor Community Member Oak View ES

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Darian Unger Parent Sligo Creek ES

Cori Vanchieri MCCPTA Blair Cluster Coordinator; Sligo Creek ES

#### **Capacity Study Participants (continued)**

Holly VanPuymbroeck Teacher Montgomery Knolls ES
Desysi Velasquez Parent Montgomery Knolls ES

Lesley Wagner Teacher Pine Crest ES

Elaine Weiss MCCPTA Blair Cluster Coordinator; Rolling Terrace ES

Debbie White Teacher New Hampshire Estates ES Katharine Williams Student Teacher Montgomery Knolls ES

Kevin Wilson Parent Montgomery Knolls ES and Pine Crest ES

Martha Wolf PTA President Forest Knolls ES
Aaron Zajic Parent Oak View ES

Seth Adams Assistant Director Division of Construction, MCPS

Zach Larnard Facility Planner Division of Long-range Planning, MCPS

Michael Shpur Architect Division of Construction, MCPS

Debbie Szyfer Facility Planner Division of Long-range Planning, MCPS

James Tokar Project Manager Division of Construction, MCPS

#### II. Purpose of the Capacity Study

This study includes 12 elementary schools in the lower section of the Downcounty Consortium. Several of these schools have significant capacity shortages. The schools included in this study are:

pre-K/K-5 Schools

- East Silver Spring
- Forest Knolls
- Highland View
- Rolling Terrace
- Sligo Creek
- Woodlin

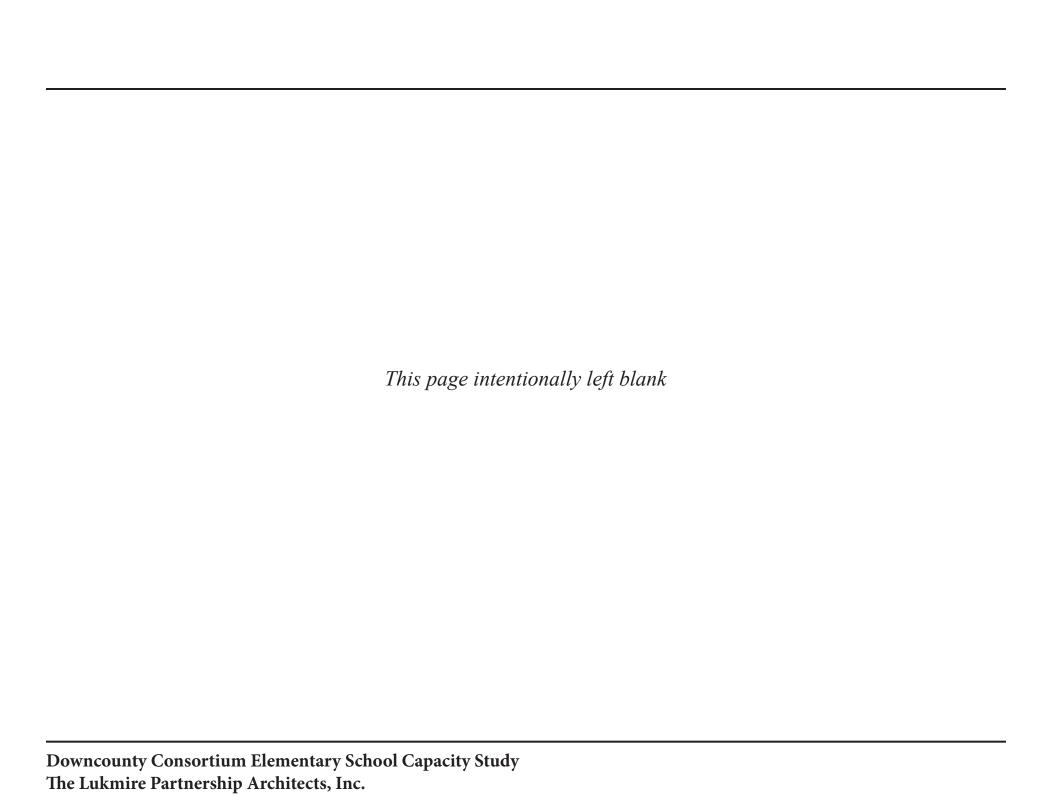
Paired Schools

- New Hampshire Estates
- Oak View
- Montgomery Knolls
- Pine Crest
- Takoma Park
- Piney Branch

This area of the County has experienced a large increase in in the school age population over the past few years. As a result, the elementary schools in the Downcounty Consortium are experiencing significant overcrowding. The student enrollment is projected to remain high during the six-year planning period. Therefore, this study has been prepared to explore ways to accommodate the projected student population. The Board of Education approved this study to investigate a number of options to increase the capacity of these schools to address the projected student enrollment for the 2020-2021 school year. Options to be explored include:

- Construction of additions on existing elementary schools
- Construction of a new elementary school
- Combination of the above

This study investigates the feasibility of constructing additions to the schools in the lower section of the Downcounty Consortium and illustrates site plans and floor plans for each school.



#### **III. Downcounty Consortium Elementary Schools**

#### A. 2014–2015 Enrollments and Capacity

The Downcounty Consortium includes the following elementary schools:

- Arcola
- Bel Pre
- Bookhaven
- East Silver Spring
- Flora Singer
- Forest Knolls
- Georgian Forest
- Glen Haven
- Glenallan
- Harmony Hills
- Highland
- Kemp Mill
- Montgomery Knolls
- New Hampshire Estates

- Oak View
- Oakland Terrace
- Pine Crest
- Piney Branch
- Rock View
- Rolling Terrace
- Sargent Shriver
- Sligo Creek
- Strathmore
- Takoma Park
- Viers Mill
- Weller Road
- Wheaton Woods
- Woodlin

#### A. 2014-2015 Enrollments and Capacity (continued)

Currently there are space shortages throughout the lower section of the Downcounty Consortium. Although there is a 'net' capacity shortage, some of the schools have excess capacity and some have a significant deficit. The elementary schools identified to be studied are:

#### pre-K/K-5 Schools

- East Silver Spring
- Forest Knolls
- Highland View
- Rolling Terrace
- Sligo Creek
- Woodlin

#### Paired Schools

- New Hampshire Estates
- Oak View
- Montgomery Knolls
- Pine Crest
- Takoma Park
- Piney Branch

Schools with the greatest space shortage are:

- Forest Knolls
  - -Current capacity of 560 seats
  - -An addition was proposed in the 2013 Downcounty Capacity Study which would increase the capacity to 663 seats
  - -Projected enrollment by the 2020–2021school year is expected to be 750 which exceeds the capacity by 87 seats
- Highland View
  - -Current capacity of 298 seats
  - -Projected enrollment by the 2020–2021 school year is expected to be 408 which exceeds the capacity by 110 seats
- Rolling Terrace
  - -Current capacity of 724 seats
  - -Projected enrollment by the 2020–2021 school year is expected to be 888 which exceeds the capacity by 164 seats
- Woodlin
  - -Current capacity of 462 seats
  - -Projected enrollment by the 2020–2021 school year is expected to be 635 which exceeds the capacity by 173 seats

Smaller space shortages are projected at Sligo Creek (-8), New Hampshire Estates (-22), Oak View (-88), and Pine Crest (-60) by 2020-2021.

#### A. 2014–2015 Enrollments and Capacity (continued)

DCC Study Lower Area: Enrollments and Space

pre-K/K-5 Schools

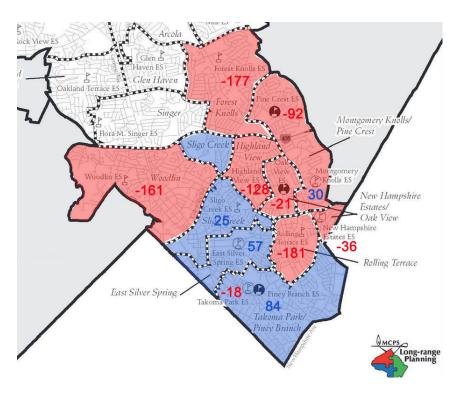
pre-r/r-5 Schools							
	Enrollment				Enrollmen		
School	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21
East Silver Spring							
Capacity	582	582	582	582	582	582	582
Enrollment	525	560	572	578	576	567	556
space available/deficit	57	22	10	4	6	15	26
Forest Knolls							
Capacity	560	560	560	560	560	560	560
Enrollment	737	785	790	783	794	784	750
space available/deficit	-177	-225	-230	-223	-234	-224	-190
Highland View							
Capacity	298	298	298	298	298	298	298
Enrollment	426	420	425	426	423	410	408
space available/deficit	-128	-122	-127	-128	-125	-112	-110
Rolling Terrace							
Capacity	724	724	724	724	724	724	724
Enrollment	905	915	942	929	919	895	888
space available/deficit	-181	-191	-218	-205	-195	-171	-164
Sligo Creek					,,,,		
Capacity	664	664	664	664	664	664	664
Enrollment	639	672	676	666	676	678	672
space available/deficit	25	-8	-12	-2	-12	-14	-8
Woodlin							
Capacity	462	462	462	462	462	462	462
Enrollment	623	629	634	618	637	633	635
space available/deficit	-161	-167	-172	-156	-175	-171	-173

DCC Study Lower Area: Enrollments and Space

**Paired Schools** 

School	Enrollment 2014–15	2015_16	2016–17	rojected I	enrollmen 2018–19		2020_21
New Hampshire Estates	2014-13	2013-10	2010-17	2017-10	2010-13	2013-20	2020-21
Capacity	480	480	480	480	480	480	480
Enrollment	516	535	533	517	504	503	502
space available/deficit	-36	-55	-53	-37	-24	-23	-22
Oak View							
Capacity	358	358	358	358	358	358	358
Enrollment	379	422	443	467	465	462	446
space available/deficit	-21	-64	-85	-109	-107	-104	-88
Montgomery Knolls							
Capacity	540	540	540	540	540	540	540
Enrollment	510	514	506	489	480	479	479
space available/deficit	30	26	34	51	60	61	61
Pine Crest							
Capacity	381	381	381	381	381	381	381
Enrollment	473	465	465	463	468	459	441
space available/deficit	-92	-84	-84	-82	-87	-78	-60
Takoma Park							
Capacity	636	636	636	636	636	636	636
Enrollment	654	665	628	611	599	603	602
space available/deficit	-18	-29	8	25	37	33	34
Din av Duanah							
Piney Branch	044	044	044	044	044	044	044
Capacity	611	611	611	611	611	611	611
Enrollment	527	559	608	626	618	607	591
space available/deficit	84	52	6 206	-15	-7	6 206	20
Total Capacity	6,296	6,296	6,296	6,296	6,296	6,296	6,296
Total Enrollment	6,914 <i>-618</i>	7,141 -845	7,222 -926	7,173 -877	7,159 -863	7,080 <i>-784</i>	6,970 -674
space available/deficit	-018	-845	-926	-6//	-803	-764	-074

# A. 2014–2015 Enrollments and Capacity (continued)



	2014 - 2015	2014 - 2015	2014 - 2015
Pre-K/K-5 Schools	Enrollment	Capacity	Space Available / Deficit
East Silver Spring	525	582	57
orest Knolls	737	560	-177
Highland View	426	298	-128
Rolling Terrace	905	724	-181
Sligo Creek	639	664	25
Voodlin	623	462	-161
Subtotal			-565
	2014 - 2015	2014 - 2015	2014 - 2015
Paired Schools	Enrollment	Capacity	Space Available / Defici
New Hampshire Estates	516	480	-36
Dak View	379	358	-21
Montgomery Knolls	510	540	30
Pine Crest	473	381	-92
Takoma Park	654	636	-18
Piney Branch	527	611	84
Subtotal			-53

The above chart illustrates the 2014 - 2015 condition. It illustrates that the deficit was 618 in October 2014.

#### **B.** Schools Included in the Study

Of the twelve (12) schools in the study, ten (10) have been identified as candidates for additions. The remaining two (2) schools, Takoma Park and Piney Branch, cannot receive additions because they do not have any site area remaining for an addition. The ten (10) schools to be studied for additions are:

PreK/K-5 Schools

- East Silver Spring
- Forest Knolls
- Highland View
- Rolling Terrace
- Sligo Creek
- Woodlin

Paired Schools

- New Hampshire Estates
- Oak View
- Montgomery Knolls
- Pine Crest

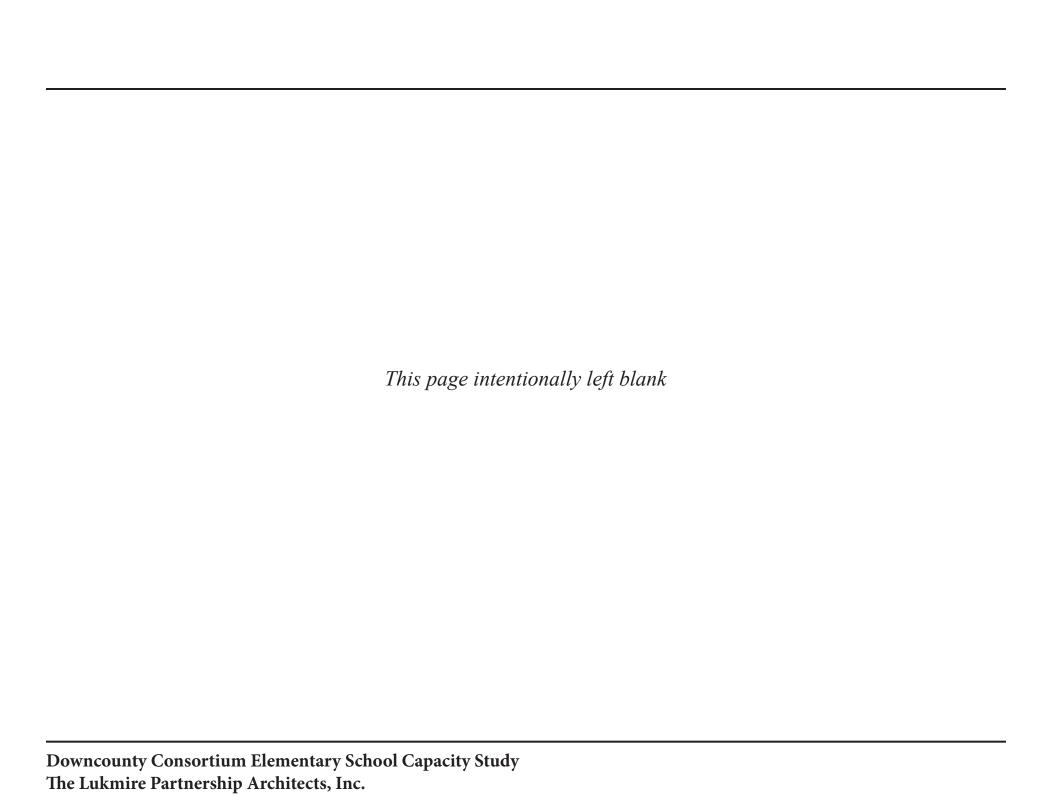
In addition, the Board of Education requested that the four (4) paired schools listed above be considered for additions in two ways. The first option would include keeping the schools paired. The second option would be to consider the addition if the schools were to become unpaired.

Each of the schools have been investigated to determine if they can be enlarged to their maximum core/ program capacity. While not all of the schools in the study are overcrowded, the study will enable the Board of Education to investigate the possibility of balancing enrollments between the twelve schools.

Five (5) of the above schools have been previously studied and/or have a master-planned addition:

•	East Silver Spring	4 classroom master-planned addition	Interior Fit-out of the Lower Basement Level
•	Forest Knolls	6 classroom addition	Downcounty Capacity Study 2013
•	Highland View	19 classroom addition	Feasibility Study 2011
•	Rolling Terrace	2 classroom addition	Feasibility Study 2006
•	Woodlin	11 classroom addition	Feasibility Study 2013

These proposed projects are included in the study and the proposed increased capacity is included in the total Program Capacity of the Downcounty

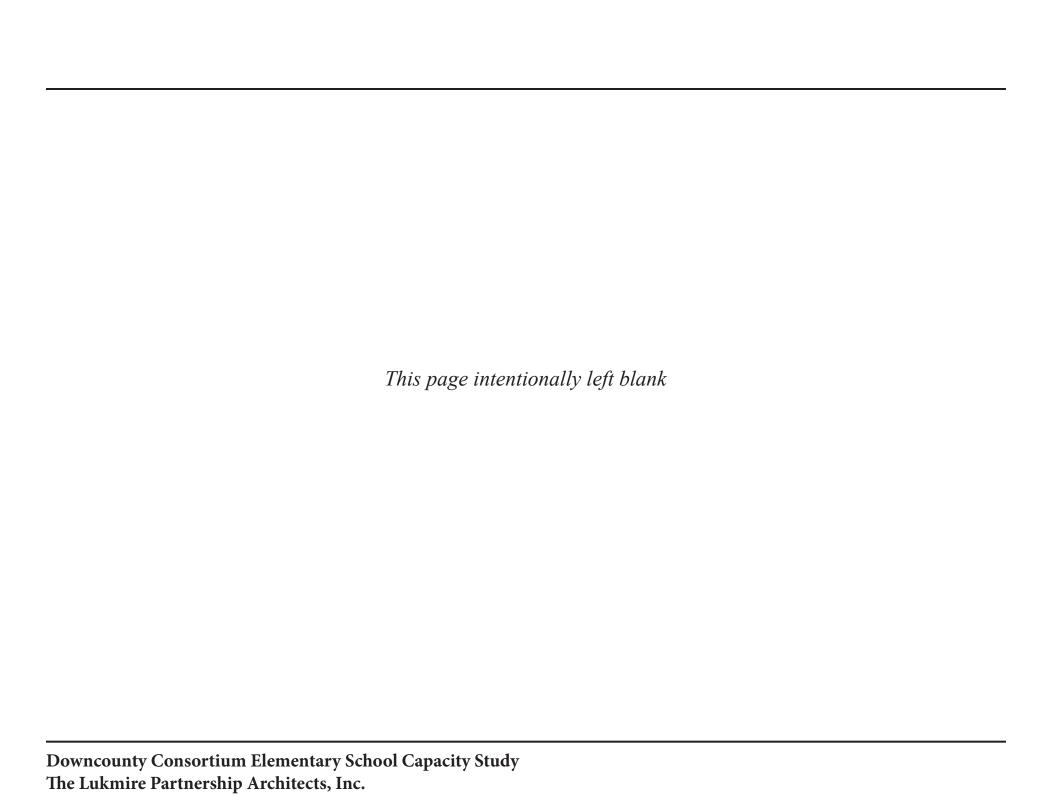


#### **IV. Study Process**

The capacity study was conducted over a three month period and included the preparation of base drawings of the existing site and floor plans, touring each school with representatives of that school, and conducting meetings to gather input.

Initially, the Division of Long-range Planning prepared a Space Needs document that illustrated the number and sizes of rooms required for each elementary school to be brought up to it's core capacity and to recognize any special programs. That Space Needs document was presented to the principal and participants of the meeting as the list of spaces that would be added to the school if an addition is constructed. Needless to say, a different list of spaces was generated for each school.

Two public meetings were held at each of the five (5) schools that have not had feasibility studies or master-planned addition designs. The meetings introduced the study, explained that the Board of Education was investigating options to solve overcrowding in the lower section of the Donwcounty Consortium, presented the space needs program and a conceptual design solution, or solutions at the paired schools, illustrating both a proposed floor plan and site plan of the addition. While site implications were discussed, the focus was on the floor and site plans. Based on the feedback received at the two meetings, revisions to the proposed plan or plans were made and then presented at the final community meeting. In all cases the conceptual design approach to the addition was endorsed as an acceptable concept to both the school and the community. Those plans, as well as the plans of the five (5) other schools that have had feasibility studies or master-planned addition designs, are included in Appendix A.



#### V. Findings

#### A. Summary

It was determined that there is an acceptable design approach for possible additions to all of the schools studied. In several cases the size of the addition was not large enough to accommodate the projected enrollment, and in some cases the addition would create surplus space in the school.

An analysis illustrates that if additions at all ten (10) schools were constructed, there would be a surplus of seats. Because the Board of Education included the paired schools in the study, including the possibility of unpairing the schools, the data is presented in two formats for each of those schools. A chart, illustrating the information below for each school, follows:

- Projected enrollments
- Current Capacity
- Capacity with the proposed addition; both remaining paired and if becoming unpaired, if applicable
- Surplus or deficit of space throughout the six-year planning period

#### B. PreK/K - 5 Schools

ast Silver Spring Program Capacity Enrollment Space available/deficit	<b>2014-2015</b> 582	2015-16	2016-17			ent			1
Program Capacity Enrollment	582		2010-17	2017-18	2018-19	2019-20	2020-21	Capacity w/ Addition*	Notes
Enrollment	582								<u>Proposed Addition</u>
	302	582	582	582	582	582	582	674	3 classroom addition
Space available/deficit	525	560	572	578	576	567	556	556	would add 92 capacity
Space aranazie, acrieit	57	22	10	4	6	15	26	118	AVAILABLE
orest Knolls									Proposed Addition
Program Capacity	560	560	560	560	560	560	560	663	6 classroom addition
Enrollment	737	785	790	783	794	784	750	750	would add <b>103</b> capacity
Space available/deficit	-177	-225	-230	-223	-234	-224	-190	-87	DEFICIT
ighland View **									Proposed Addition
Program Capacity	298	298	298	298	298	298	298	686	19 classroom addition**
Enrollment	426	420	425	426	423	410	408	408	<b>388</b> capacity**
Space available/deficit	-128	-122	-127	-128	-125	-112	-110	278	AVAILABLE
olling Terrace									Proposed Addition
Program Capacity	724	724	724	724	724	724	724	765	2 classroom addition
Enrollment	905	915	942	929	919	895	888	888	would add <b>41</b> capacity
Space available/deficit	-181	-191	-218	-205	-195	-171	-164	-123	DEFICIT
ligo Creek									Proposed Addition
Program Capacity	664	664	664	664	664	664	664	765	5 classroom addition
Enrollment	639	672	676	666	676	678	672	672	would add <b>101</b> capacity
Space available/deficit	25	-8	-12	-2	-12	-14	-8	93	AVAILABLE
/oodlin									Proposed Addition
Program Capacity	462	462	462	462	462	462	462	635	11 classroom addition
Enrollment	623	629	634	618	637	633	635	635	would add <b>173</b> capacity
Space available/deficit	-161	-167	-172	-156	-175	-171	-173	0	BALANCE
ummary PreK / K -5 Schools									
Total Program Capacity	3290	3290	3290	3290	3290	3290	3290	4188	
Total Enrollment Space available/deficit	3855 <b>-565</b>	3981 -691	4039 -749	4000 -710	4025 -735	3967 -677	3909 - <b>619</b>	3909 <b>279</b>	With All Additions AVAILABLE

Downcounty Consortium Elementary School Capacity Study The Lukmire Partnership Architects, Inc.

#### C. Paired Schools

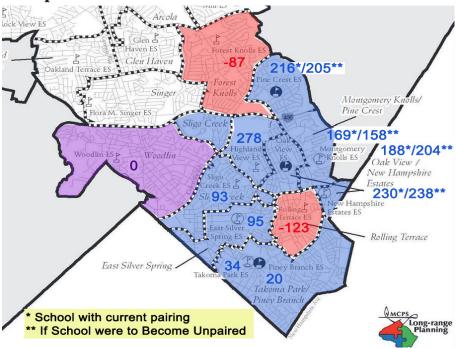
Paired Schools	Actual Enrollment			Projecte	d Enrollme	ent		Capacity w/ Addition *	Capacity w/ Addition *	
	2014-2015	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	(With Current Pairing)	(If Schools were to become Unpaired)	Notes
New Hampshire Estates								Ç.	•	Proposed Addition
Program Capacity	480	480	480	480	480	480	480	732	740	12/9 classroom addition**
Enrollment	516	535	533	517	504	503	502	502	502	would add <b>252/260</b> capacity *
Space available/deficit	-36	-55	-53	-37	-24	-23	-22	230	238	AVAILABLE
Oak View										Proposed Addition
Program Capacity	358	358	358	358	358	358	358	634	650	13/18 classroom addition **
Enrollment	379	422	443	467	465	462	446	446	446	would add <b>276/292</b> capacity *
Space available/deficit	-21	-64	-85	-109	-107	-104	-88	188	204	AVAILABLE
Montgomery Knolls										Proposed Addition
Program Capacity	540	540	540	540	540	540	540	648	637	6 / 0 classroom addition**
Enrollment	510	514	506	489	480	479	479	479	479	would add 108/97 capacity**
Space available/deficit	30	26	34	51	60	61	61	169	158	AVAILABLE
Pine Crest										Proposed Addition
Program Capacity	381	381	381	381	381	381	381	657	646	12/15 classroom additon **
Enrollment	473	465	465	463	468	459	441	441	441	would add <b>276/265</b> capacity *
Space available/deficit	-92	-84	-84	-82	-87	-78	-60	216	205	AVAILABLE
Takoma Park										Proposed Addition
Program Capacity	636	636	636	636	636	636	636	636	636	no addition, no added capacity
Enrollment	654	665	628	611	599	603	602	602	602	cannot become unpaired
Space available/deficit	-18	-29	8	25	37	33	34	34	34	AVAILABLE
Piney Branch										Proposed Addition
Program Capacity	611	611	611	611	611	611	611	611	611	no addition, no added capacity
Enrollment	527	559	608	626	618	607	591	591	591	cannot become unpaired
Space available/deficit	84	52	3	-15	-7	4	20	20	20	AVAILABLE
Summary Paired Schools										
Total Program Capacity	3006	3006	3006	3006	3006	3006	3006	3918	3920	
Total Enrollment	3059	3160	3183	3173	3134	3113	3061	3061	3061	With All Additions

Downcounty Consortium Elementary School Capacity Study The Lukmire Partnership Architects, Inc.

# **D. Summary Chart**

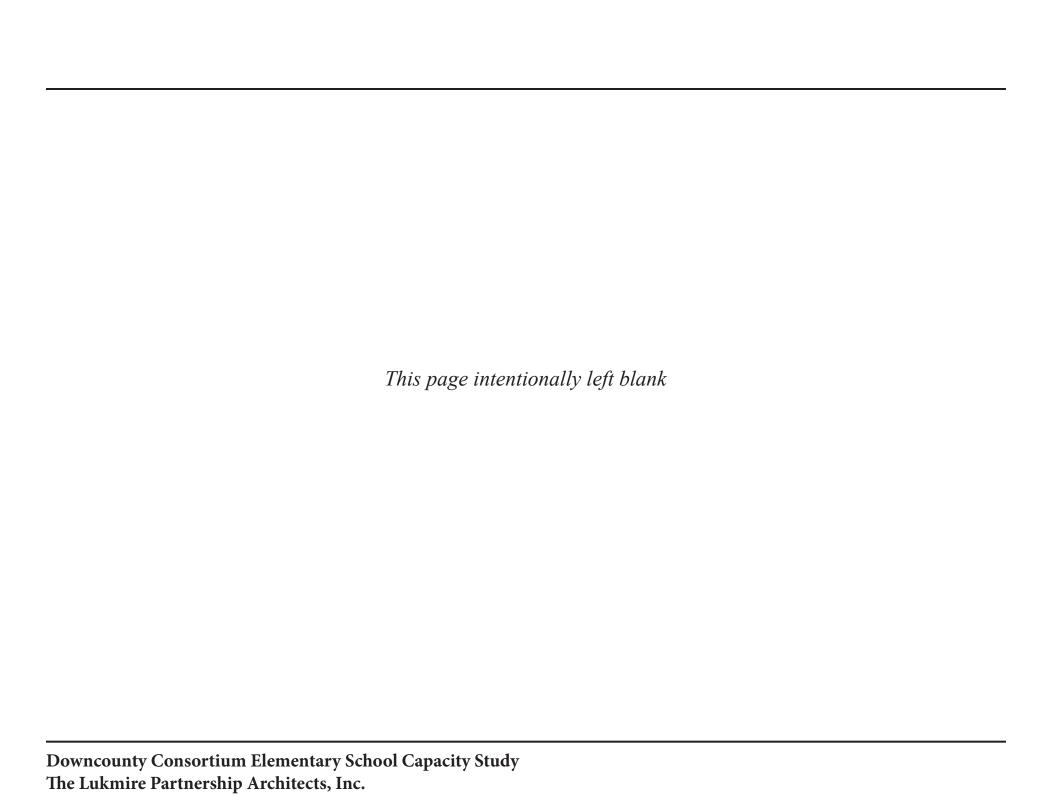
Downcounty Element	Downcounty Elementary Schools - Capacity Study (continued)												
SUMMARY	SUMMARY												
All 12 Schools in the Study	Actual Enrollment			Projecte	d Enrollme	ent		Capacity w/ Addition *	Capacity w/ Addition *				
								(With Current	(If Schools were to				
	2014-2015	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Pairing)	become Unpaired)	Notes			
Total Program Capacity	6296	6296	6296	6296	6296	6296	6296	8106	8108				
Total Enrollment	6914	7141	7222	7173	7159	7080	6970	6970	6970				
Space available/deficit w/ all													
Additions in this Study	-618	-845	-926	-877	-863	-784	-674	1136	1138	AVAILABLE			
				* Ba	sed on Proj	ected 2020	- 2021 Enro	llment and with all 10	O school additions const	tructed by 2020, pending funding			

#### E. Space Available/Deficit



Pre-K/K-5 Schools	Projected 2020 - 2021 Enrollment	Capacity with Additions	2020 - 2021 Space Available / Deficit		
East Silver Spring	556	674	118		
Forest Knolls	750	663	-87		
Highland View	408	686	278		
Rolling Terrace	888	765	-123		
Sligo Creek	672	765	93		
Woodlin	635	635	0		
Subtotal			279		
Paired Schools	Projected 2020 - 2021 Enrollment	Capacity with All 4 Study Additions With Current Pairings	2020 - 2021 Space Available / Deficit With Current Pairings	Capacity with All 4 Study Additions If Schools were to Become Unpaired	2020 - 2021 Space Available / Deficit If Schools were to Become Unpaired
New Hampshire Estates (PreK-2)	502	732	230	740	238
Oak View (3-5)	446	634	188	650	204
Montgomery Knolls (PreK-2)	479	648	169	637	158
Pine Crest (3-5)	441	657	216	646	205
Takoma Park (PreK-2)*	602	636	34	cannot become unpaired	34
	591	611	20	cannot become unpaired	20
Piney Branch (3-5)*			0.57		859
Piney Branch (3-5)* Subtotal			857		
			1136		1138

The above chart illustrates the capacity in the lower section of the Downcounty Consortium if all ten of the additions in this study were constructed. It illustrates that the current total deficit of 674 seats has been eliminated and there would be a surplus of 1113/1102 seats if all ten of the additions were constructed.



#### VI. Conclusions and Recommendations

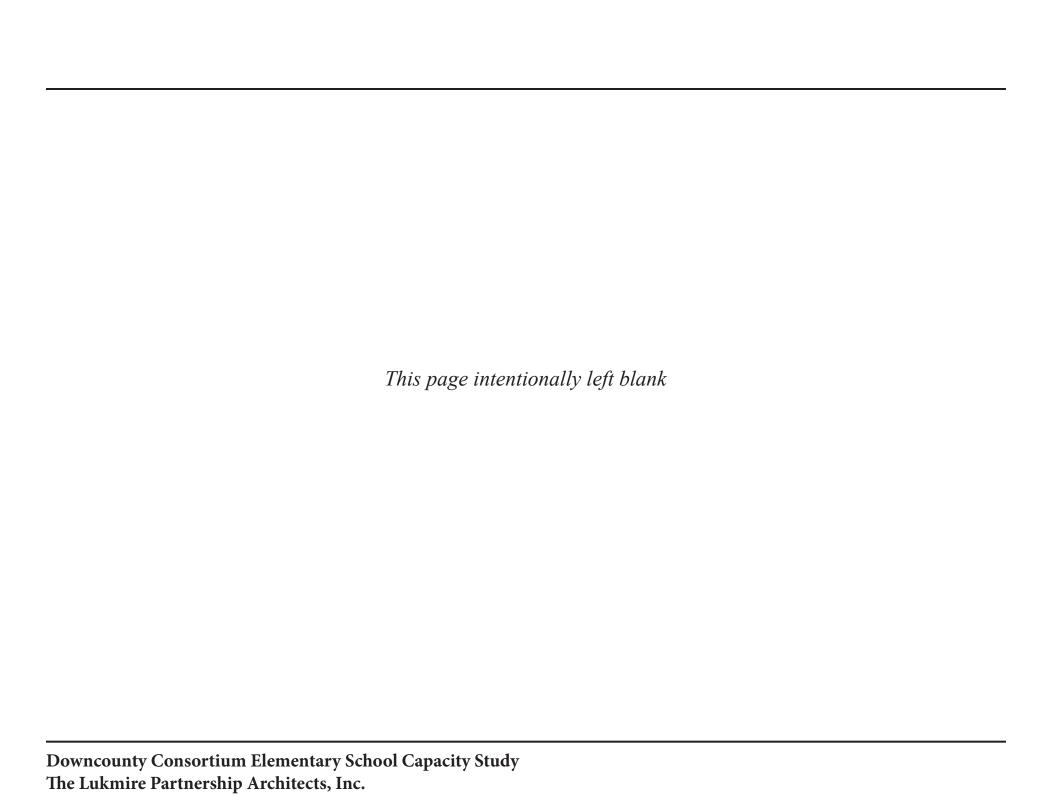
The purpose of this study is to assist the Board of Education in deciding how best to alleviate the overcrowding in the lower section of the Downcounty Consortium elementary schools. As stated earlier, three approaches were considered:

- Construction of additions at seven existing elementary schools
- Construction of a new elementary school
- Combination of the above

This study illustrated that the construction of additions at all ten schools in the study would provide sufficient program capacity to accommodate the projected enrollment in the 2020-2021 school year.

The construction cost of the additions including site work is:

\$ 3,514,000
\$ 4,831,000
\$ 8,950,000
\$ 6,605,000
\$ 15,083,000
-
\$ 9,380,000
-
\$ 8,623,000
-
\$ 5,051,000
\$ 9,616,000
\$ 15,297,000



APPENDIX A: Background Information, Floor Plans, Site Plans and Analysis

- 1. East Silver Spring ES
- 2. Forest Knolls ES
- 3. Highland View ES
- 4. Montgomery Knolls ES
- 5. New Hampshire Estates ES
- 6. Oak View ES
- 7. Pine Crest ES
- 8. Piney Branch ES
- 9. Rolling Terrace ES
- 10. Sligo Creek ES
- 11. Takoma Park ES
- 12. Woodlin ES

# A. East Silver Spring ES i. Background Information

• Current Core Capacity: 640

• Current Program Capacity: 582

• Current Enrollment: 525

• Proposed Core Capacity: 640

Projected Program Capacity w/Addition: 674

• Projected Enrollment 2020–21: 556

Projected Excess Capacity after Addition: 118

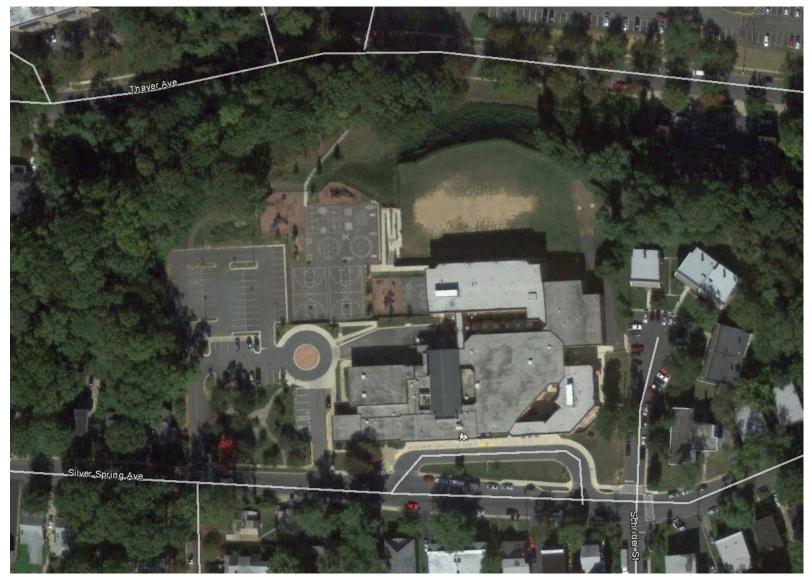


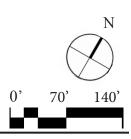


- Currently has Excess Capacity 57
- Currently no Relocatables
- Two Story School
- Small Site (3.8 Acres)
- Original School Built in 1936
- Additions in 1963, 1964, 1975, 1989 and 2008
- Design Issue /Constraints
  - Cold/Dark Shell in Lower Level Basement

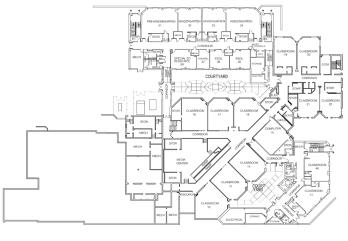
# A. East Silver Spring ES (continued)

ii. Existing Site Plan (No Site Work Required)

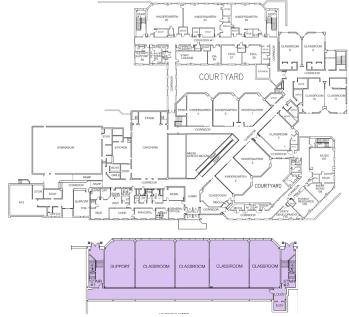




# A. East Silver Spring ES (continued) iii. Proposed Floor Plans



Main Level Floor Plan



# East Silver Spring Elementary School Addition Square Foot Summary

When this project is complete, the following spaces are to be provided: The capacity will be 687 with a core of 640.

Updated 8-4-2015

			Net	Total Net
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Standard	3	Includes 150 s.f. storage	900	2700
Dual purpose Room	1		1000	1000
Support Rooms				
Home School Model Support Room	1		300	300
Staff Development Area				
Staff Development Office	1		100	100
Reading Specialist Office	1		100	100
Training/Conference Room	1		450	450
Total	4			4650

Renovation - 5,600 GSF

**Lower Level Floor Plan** 

Lower Level Basement Floor Plan Graphics by Delmar Architects

0' 60' 120'

Downcounty Consortium Elementary School Capacity Study The Lukmire Partnership Architects, Inc.

# A. East Silver Spring ES (continued) iv. Analysis

**PROS** 

- Minimal impact on school during construction
- Minimal impact on neighborhood
- Construction can be done during the summer
- Minimal contractor staging space required

#### **CONS**

- Does not address the lack of covered exterior area for dismissal
- Does not address the kindergarten classrooms, which are currently different sizes and are on two different levels
- Limited flexibility of classrooms on lower basement level

Existing Gross Square Footage Total New Gross Square Footage Total New and Existing Gross Square Footage	88,895 GSF 5,600 GSF 94,495GSF	Existing Program Capacity Proposed Program Capacity with Addition	651 students
Estimate Total Construction Cost	\$3,514,000	Proposed Increase in Program Capacity	69 students

#### **B. Forest Knolls ES**

#### i. Background Information

• Current Core Capacity: 520

• Current Program Capacity: 560

• Current Enrollment: 737

• Proposed Core Capacity: 640

Projected Program Capacity w/Addition: 663

Projected Enrollment 2020-21: 750

Projected Capacity Deficit after Addition: -87



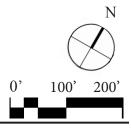


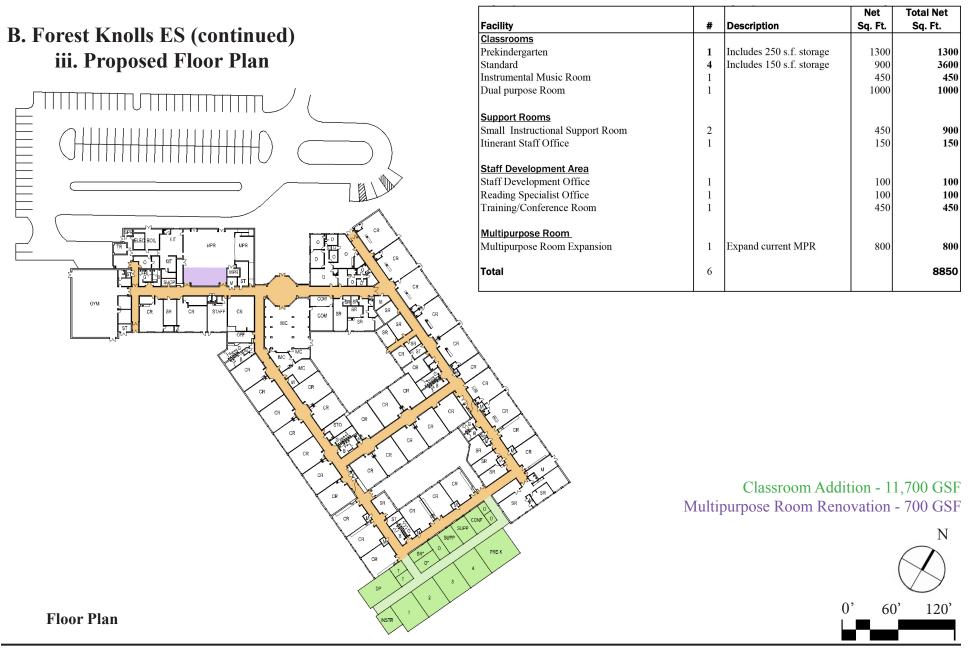
- Currently has Capacity Deficit -177
- Currently 4 Relocatables
- Single Story School
- Small Site (7.7 Acres)
- Original School Built in 1993
- Classroom Addition in 2006
- Design Issues/Constraints
  - School should remain one story due to the physically disabled special education program
  - Existing play fields do not meet MCPS Standards

# **B.** Forest Knolls ES (continued)

#### ii. Proposed Site Plan







# B. Forest Knolls ES (continued) iv. Analysis

**PROS** 

- Easily accessible pre-K classroom from parking
- Pre-K classroom adjacent to kindergarten classrooms
- Single story addition is easily accessible by disabled population
- Minimal impact on neighborhood
- Minimal impact on school during construction
- Easy access to contractor staging area
- Provides additional flexibility for grade levels
- Minimal site work required

#### CONS

- Existing site is small, currently does not meet MCPS standards and any addition will take away from this already small site area
- Multipurpose room renovation involves the removal of a bearing wall
- Multirurpose room renovation must be completed over the summer
- Contractor staging will take most of play space during construction
- Addition size is small and is less cost effective than a larger addition

Existing Gross Square Footage Total New Gross Square Footage Total New and Existing Gross Square Footage	89,564 GSF 11,700 GSF 101,264 GSF	Existing Program Capacity Proposed Program Capacity with Addition	560 students 663 students
Estimate Total Construction Cost	\$ 4,831,000	Proposed Increase in Program Capacity	103 students

# C. Highland View ES i. Background Information

• Current Core Capacity: 500

• Current Program Capacity: 298

• Current Enrollment: 426

• Proposed Core Capacity: 640

Projected Program Capacity w/Addition: 686

• Projected Enrollment 2020-21: 408

Projected Excess Capacity after Addition: 278

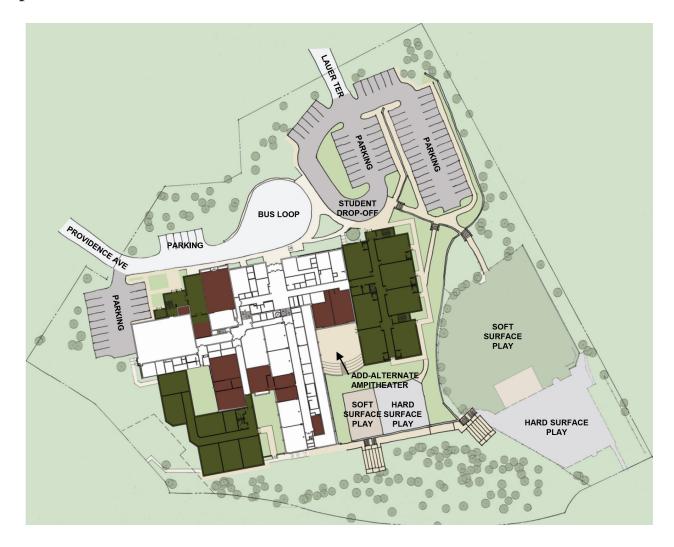


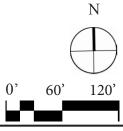


- Currently has Slight Capacity Deficit -177
- Currently 6 Relocatables
- Two Story School
- Small Site (6.6 Acres)
- Original School Built in 1953
- Additions in 1969, 1974, and 1994
- Design Issues/Constraints
  - Two Story/Split Level Structure
  - Current Small Enrollment

# C. Highland View ES (continued)

#### ii. Proposed Site Plan





# C. Highland View ES (continued) iii. Proposed Floor Plans







capacity area accurate that our control areas					
			Net	Total Net	
Facility	#	Description	Sq. Ft.	Sq. Ft.	
Classrooms					
Kindergarten	4	Includes 250 s.f. storage	1300	5200	
Grades 1-5	6	Includes 150 s.f. storage	900	5400	
Special Education					
Therapy/Support Room	1		250	250	
Home School Model Pull-Out Room	1		300	300	
Home School Model Office	1		200	200	
Instructional Support Rooms					
Itinerant Staff Office	2	Locate near Counselor	150	300	
Small Instructional Support Room	1		450	450	
Art	Î	Repurpose exising as CR	1100	1100	
Music	1	Repurpose exising as CR	1050	1050	
Instrumental Music Room	1	Locate next to storage	450	450	
Dual purpose Room	1	Locate next to art and music	1000	1000	
PTA Storage	1		150	150	
Total	13			15850	
Design as add alternate:	·				
Grades 1-5	6	Includes 150 s.f. storage	900	5400	
Total including Alternate	19			21250	

First Floor Addition – 23,077 GSF Second Floor Addition – 7,272 GSF Third Floor Addition – 6,905 GSF Total Addition – 37,254 GSF

First Floor Renovation – 8,497 GSF

These areas include the add alternate

0' 70' 140'

Graphics by Proffitt & Associates Architects

#### C. Highland View ES (continued)

#### iv. Analysis

**PROS** 

- Allows existing relocatable classrooms, with the exception of one, to remain in place until the addition is complete
- Keeps the existing usable flat area and kindergarten play in the south west corner of the site
- Allows for additional parking and creates a better student drop off
- Kindergarteners are closer to the administrative areas.
- The proposed new kindergarten play area is close to the rest of the playground, making it easier for one person to supervise all play areas
- Increases flexibility for grade levels on first and second floors
- Addition size is relatively large and is more cost effective than a smaller addition

#### CONS

- Significant impact on school during construction
- Significant amount of site work required
- Significant amount of renovation work required; will have to be phased throughout the schools year
- Contractor staging area will take a significant amount of remaining play space
- Limited construction access to the rear of the site
- A significant amount of trees will have to be removed
- Significant impact on neighborhood
- Multiple construction locations throughout the school
- Limited flexibility for classrooms on the third floor
- One of the kindergarten rooms will receive less daylight than the others due to limited exterior wall space
- The kindergarten classrooms are farther from the all-purpose room and gymnasium
- Kindergarteners will have a further walk to the gymnasium where they line up for the buses

Existing Gross Square Footage Total New Gross Square Footage Total New and Existing Gross Square Footage	59,213 GSF 37,254 GSF 96,467 GSF	Existing Program Capacity Proposed Program Capacity with Addition	298 students 686 students
Estimate Total Construction Cost	\$ 8,950,000	Proposed Increase in Program Capacity	388 students

#### D. Montgomery Knolls ES

# i. Background Information

• Current Core Capacity: 520

• Current Program Capacity: 540

• Current Enrollment: 510

• Proposed Core Capacity: 640

Projected Program Capacity w/Addition: 648/637\*

• Projected Enrollment 2020-21: 479

Projected Excess Capacity after Addition: 169/158

<sup>\*</sup> Capacities provided for PreK-2 and PreK-5 Options respectively; no addition required for PreK-5



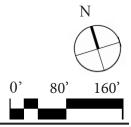


- Currently has Excess Capacity 30
- Currently no Relocatables
- Two Story School
- Small site (7.5 Acres)
- Paired with Pine Crest ES
- Grades pre-K–2
- Original School Built in 1957
- Additions 1969, 1972, 1989 and 2011
- Design Issues / Constraints
  - Multiple Interior Levels, Ramps
  - On Site Forest

# **D.** Montgomery Knolls ES (continued)

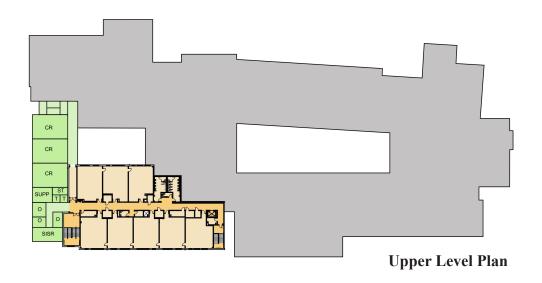
ii. Proposed Site Plan—If School Remains Paired (pre-K-2 Option)



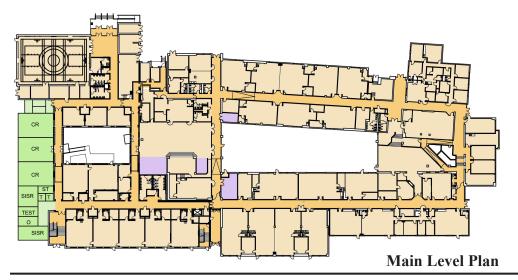


#### **D. Montgomery Knolls ES (continued)**

# iii. Proposed Floor Plans—If School Remains Paired (pre-K-2 Option)

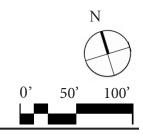


			Net	<b>Total Net</b>
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Standard	6		900	5400
Support Rooms				
Small Instructional Support Room	3		450	1350
Testing Room	1		150	150
Support Staff Offices	2		150	300
Counseling Area				
Counselor's Office	1		250	250
Itinerant Staff Office	1		150	150
Multipurpose Room				
Multipurpose Room (increase existing)	1		800	800
Building Service Facilities				
General Storage	1		250	250
PTA Storage	1		150	150
Total	6			8800



Main Level Addition – 5,100 GSF <u>Upper Level Addition – 5,800 GSF</u> **Total Addition – 10,900 GSF** 

Main Level Renovation – 1,200 GSF



#### D. Montgomery Knolls ES (continued)

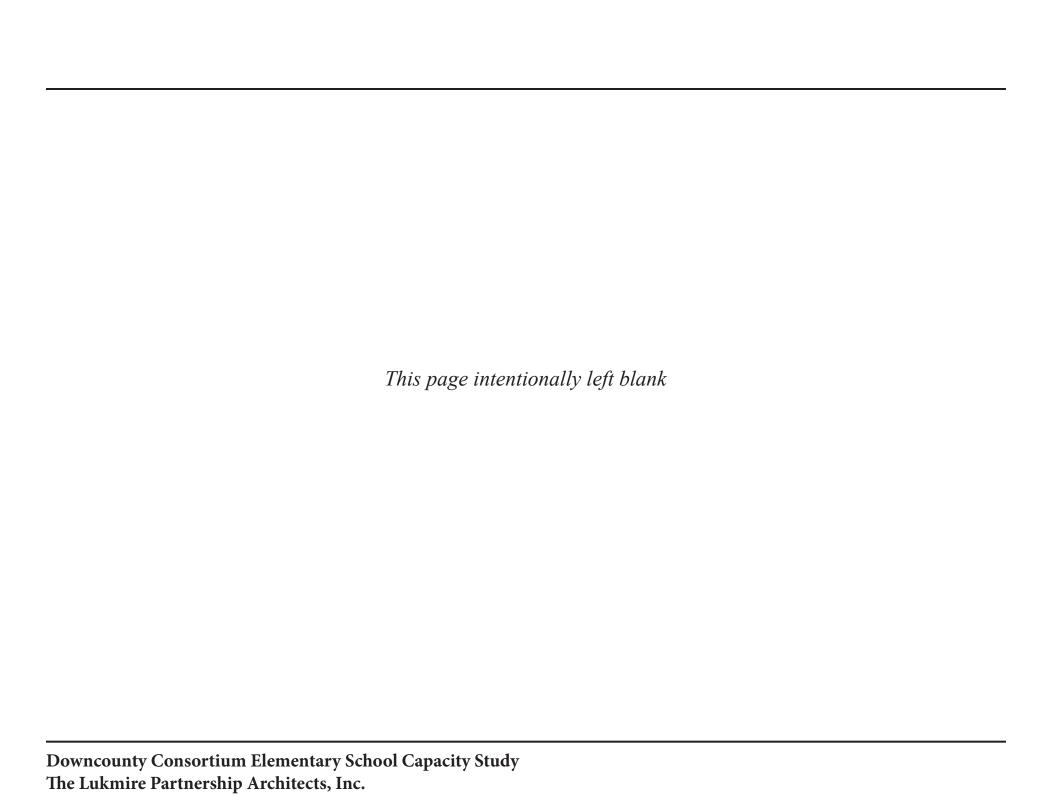
# iv. Analysis—If School Remains Paired (pre-K-2 Option)

PROS CONS

- Minimal impact on school during construction
- Efficient 2 story design
- Minimal site work required
- Minimal impact on neighborhood
- Provides additional flexibility for grade levels
- Easy access to construction staging area
- Support areas are well distributed
- The multi-purpose room expansion scope can be completed during the summer

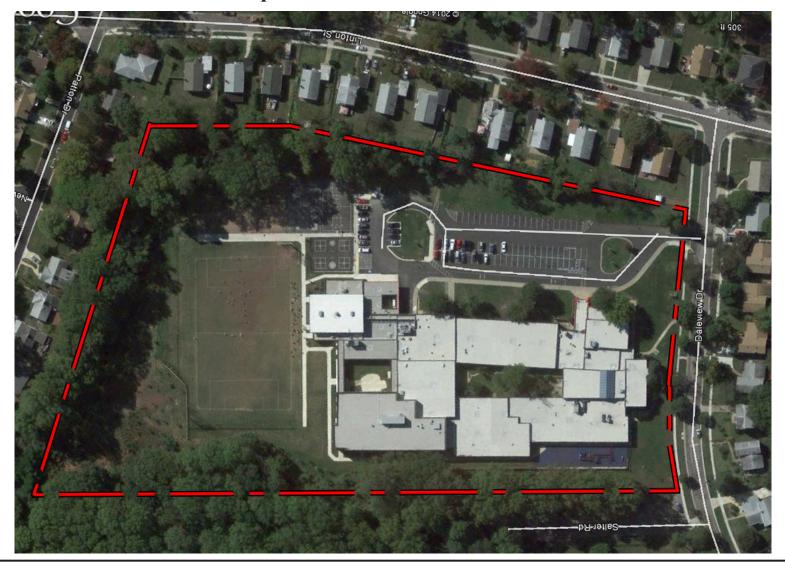
- Construction access would share existing school access
- Construction staging will take either the hard play area or a portion of the field area
- The addition size is small and is less cost effective than a larger addition would be

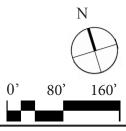
Existing Gross Square Footage Total New Gross Square Footage Total New and Existing Gross Square Footage	97,213 GSF 10,900 GSF 108,113 GSF	Existing Program Capacity Proposed Program Capacity with Addition	540 students 648 students
Estimate Total Construction Cost	\$ 6,605,000	Proposed Increase in Program Capacity	108 students



# **D.** Montgomery Knolls ES (continued)

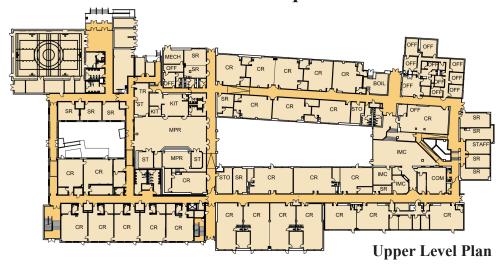
- v. Proposed Site Plan—If School were to become Unpaired (pre-K-5 Option)
  - a. No Site Work Required

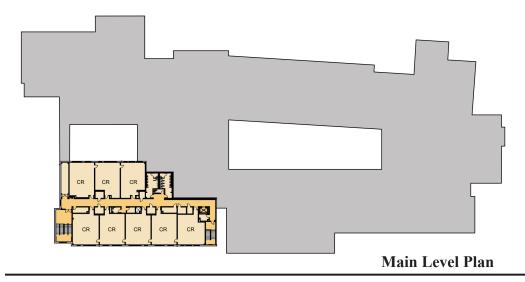




#### **D. Montgomery Knolls ES (continued)**

- vi. Proposed Floor Plans—If School were to become Unpaired (pre-K-5 Option)
  - a. No Addition Required





No Addition Required

N

#### **D.** Montgomery Knolls ES (continued)

# vii. Analysis—If School were to become Unpaired (pre-K-5 Option)

PROS CONS

• Increases capacity with no addition required

• No impact on school or neighborhood

Implications to consider with unpairing

Existing Gross Square Footage Total New Gross Square Footage Total New and Existing Gross Square Footage	97,213 GSF 0 GSF 97,213 GSF	Existing Program Capacity Proposed Program Capacity with Addition	540 students 637 students
Estimate Total Construction Cost	\$ 0	Proposed Increase in Program Capacity	97 students

# E. New Hampshire Estates ES i. Background Information

Current Core Capacity: 460Current Program Capacity: 480

Current Enrollment: 516Proposed Core Capacity: 740

Projected Program Capacity w/Addition: 732/740\*

• Projected Enrollment 2020-21: 502

Projected Excess Capacity after Addition: 230/238\*

<sup>\*</sup> Capacities provided for PreK-2 and PreK-5 Options respectively



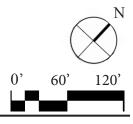


- Currently has Capacity Deficit -36
- Currently no Relocatables
- Three Story School
- Very Small Site (3.3 Acres)
- Paired with Oak View ES
- Grades PreK-2
- Original School Built in 1973
- Additions in 1988 and 2009
- Design Issues/Constraints
  - Sloping site provides daylighting to lower level
  - Access Options could require coordination with adjacent property owners
  - Adjacent Forest (Piney Branch Rd)

# E. New Hampshire Estates ES (continued)

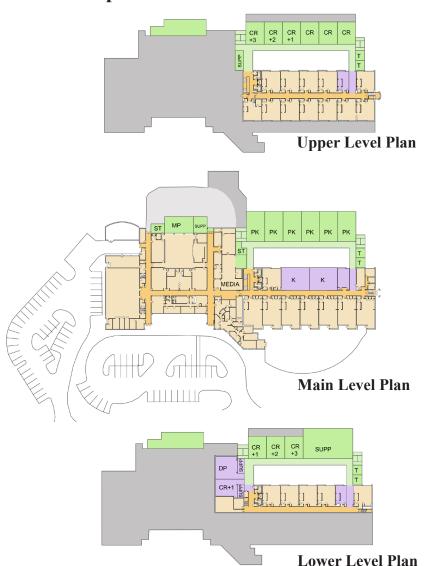
ii. Proposed Site Plan—If School Remains Paired (pre-K-2 Option)





## E. New Hampshire Estates ES (continued)

iii. Proposed Floor Plans—If School Remains Paired (pre-K-2 Option)



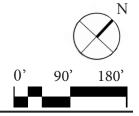
			Net	<b>Total Net</b>
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Prekindergarten	6		1300	7800
Kindergarten	2		1300	2600
Standard	3			
Dual purpose Room	1		1000	1000
Support Rooms				
Large Instructional Support Room	1		600	600
Small Instructional Support Room	2		450	900
Speech/Language Room	1		250	250
Therapy/Support Room	1		250	250
Title 1 Parent Resource Room (if required)	1		500	500
Staff Development Area				
Staff Development Office	1		100	100
Reading Specialist Office	1		100	100
Training/Conference Room	1		450	450
Counseling Area				
Counselor's Office	1		250	250
Itinerant Staff Office	1		150	150
Multipurpose Room				
Multipurpose Room (increase existing)	1		1100	1100
Chair Storage	1		200	200
Building Service Facilities				
General Storage	1		250	250
PTA Storage	1		150	150
Total	12			16650

Lower Level Addition - 10,200 GSF Main Level Addition - 13,750 GSF

<u>Upper Level Addition – 9,750 GSF</u>

**Total Addition – 33,700 GSF** 

Lower Level Renovation - 3,500 GSF Main Level Renovation - 3,500 GSF <u>Upper Level Renovation - 850 GSF</u> **Total Renovation - 7,850 GSF** 



# E. New Hampshire Estates ES (continued) iv. Analysis—If School Remains Paired (pre-K-2 Option)

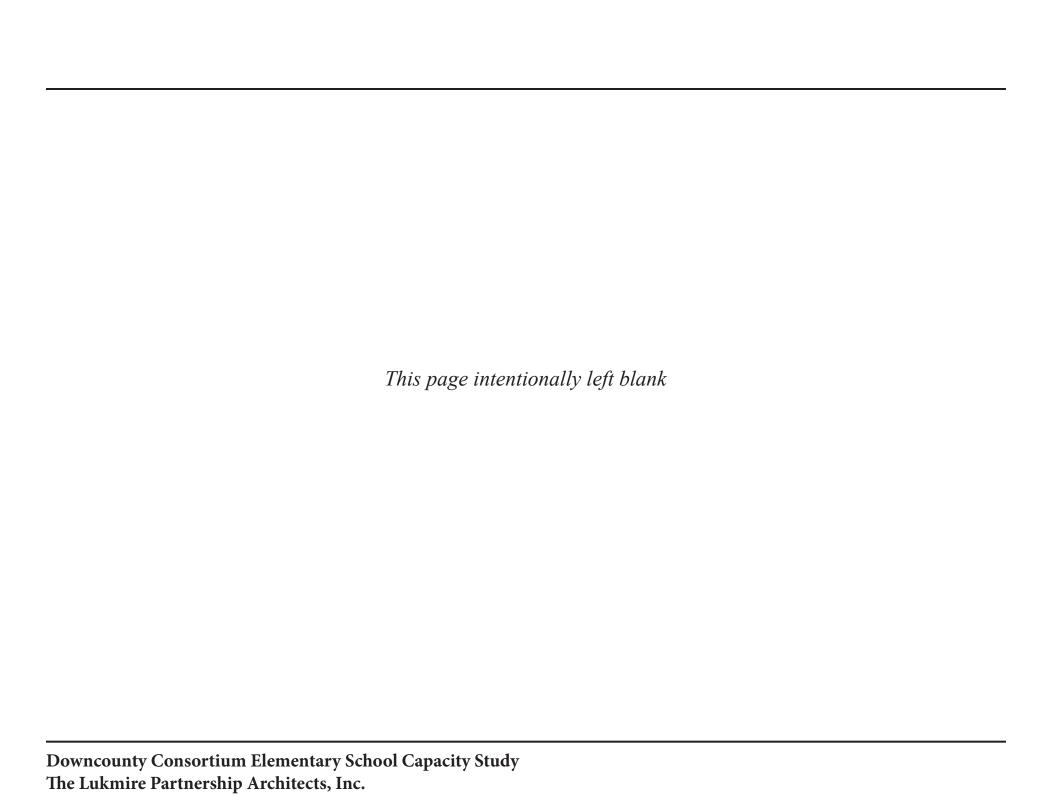
#### **PROS**

- Efficient 3-story design
- Minor interior renovation work required
- Pre-K classes together and on grade level
- Minimal impact on the neighborhood
- Provides additional flexibility for grade levels
- Minimal impact on school during construction
- Addition size is large and is more cost effective than a smaller addition

#### CONS

- Construction access could require coordination with adjacent property owners
- Three new classrooms on lower level do not have direct access to daylight; daylight is borrowed from the hallway
- Contractor staging area will be on the hard play area
- The first phase of construction would include providing access to the construction staging area
- Significant amount of site work required

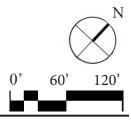
Total New Gross Square Footage Total New and Existing Gross Square Footage	33,700 GSF 107,006 GSF	Proposed Program Capacity with Addition	480 students 732 students
Estimate Total Construction Cost	\$ 15,083,000	Proposed Increase in Program Capacity	252 students



#### E. New Hampshire Estates ES (continued)

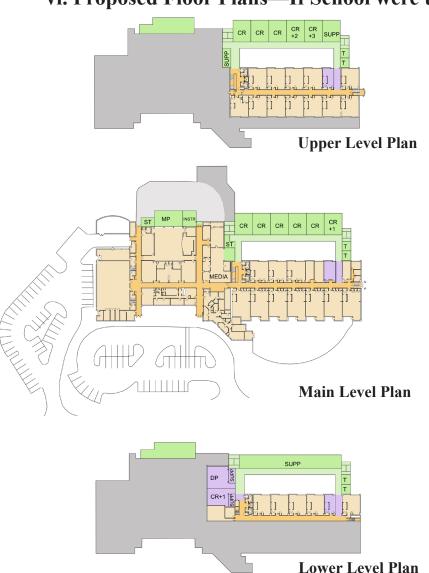
v. Proposed Site Plan—If School were to become Unpaired (pre-K-5 Option)





#### E. New Hampshire Estates ES (continued)

vi. Proposed Floor Plans—If School were to become Unpaired (pre-K-5 Option)



# New Hampshire Estates Elementary School (Grades pre-K-5) Square Foot Summary

When this project is complete, the following spaces are to be provided: Updated 2-18-2015 The capacity will be 740 with a core of 740.

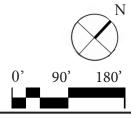
			Net	Total Net
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Standard	8		900	7200
Instrumental Music Room	1		450	450
Dual purpose Room	1		1000	1000
Support Rooms				
Large Instructional Support Room	1		600	600
Small Instructional Support Room	2		450	900
Speech/Language Room	1		250	250
Therapy/Support Room	1		250	250
Title 1 Parent Resource Room	1		500	500
Staff Development Area				
Staff Development Office	1		100	100
Reading Specialist Office	1		100	100
Training/Conference Room	1		450	450
Counseling Area				
Counselor's Office	1		250	250
Itinerant Staff Office	1		150	150
Multipurpose Room				
Multipurpose Room (increase existing)	1		1100	1100
Chair Storage	1		200	200
Building Service Facilities				
General Storage	1		250	250
PTA Storage	1		150	150
Total	9			13900

Lower Level Addition - 6,800 GSF Main Level Addition - 11,750 GSF

<u>Upper Level Addition – 9,750 GSF</u>

**Total Addition – 28,300 GSF** 

Lower Level Renovation - 3,500 GSF Main Level Renovation - 850 GSF Upper Level Renovation - 850 GSF Total Renovation - 4,350 GSF



# E. New Hampshire Estates ES (continued) vii. Analysis—If School were to become Unpaired (pre-K-5 Option)

#### **PROS**

- Efficient 3-story design
- Minor interior renovation work required
- Minimal impact on the neighborhood
- Provides additional flexibility for grade levels
- Minimal impact on school during construction
- Addition size is large and is more cost effective than a smaller addition

#### **CONS**

- Construction access could require coordination with adjacent property owners
- Contractor staging area will be on the hard play area
- The first phase of construction would include providing access to the construction staging area
- Significant amount of site work required

Existing Gross Square Footage
Total New Gross Square Footage
Total New and Existing Gross Square Footage

73,306 GSF 28,300 GSF 101,606 GSF Existing Program Capacity
Proposed Program Capacity with Addition

480 students 740 students

Proposed Increase in Program Capacity

260 students

#### F. Oak View ES

#### i. Background Information

• Current Core Capacity: 600

• Current Program Capacity: 358

• Current Enrollment: 379

• Proposed Core Capacity: 640

Projected Program Capacity w/Addition: 634/650\*

Projected Enrollment 2020—21: 446

Projected Excess Capacity after Addition: 188/209\*

<sup>\*</sup> Capacities provided for 3-5 and PreK-5 Options respectively





- Currently has Capacity Deficit -21
- Currently 1 Relocatable
- · Two story school
- Large Site (11.2 Acres)
- Paired with New Hampshire Estates ES
- Grades 3-5
- Original School Built in 1949
- Additions in 1953, 1983, and 2005
- Design Issues/Constraints
  - Sloping site
  - On site forest

# F. Oak View ES (continued)

ii. Proposed Site Plan—If School Remains Paired (3-5 Option)



#### F. Oak View ES (continued)

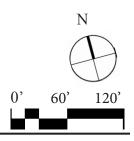
iii. Proposed Floor Plans—If School Remains Paired (3–5 Option)



			Net	<b>Total Net</b>
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Standard	12		900	10800
Instrumental Music Room	1		450	450
Dual purpose Room	1		1000	1000
Support Rooms				
Title 1 Parent Resource Room	1		500	500
Staff Development Area				
Staff Development Office	1		100	100
Reading Specialist Office	1		100	100
Training/Conference Room	1		450	450
Counseling Area				
Counselor's Office	1		250	250
Itinerant Staff Office	1		150	150
Multipurpose Room				
Multipurpose Room (increase existing)	1		500	500
Building Service Facilities				
General Storage	1		250	250
PTA Storage	1		150	150
Total	13			14700

Lower Level Addition - 9,900 GSF <u>Main Level Addition - 10,430 GSF</u> <u>Total Addition - 20,330 GSF</u>

Stair Renovation - 300 GSF



#### F. Oak View ES (continued)

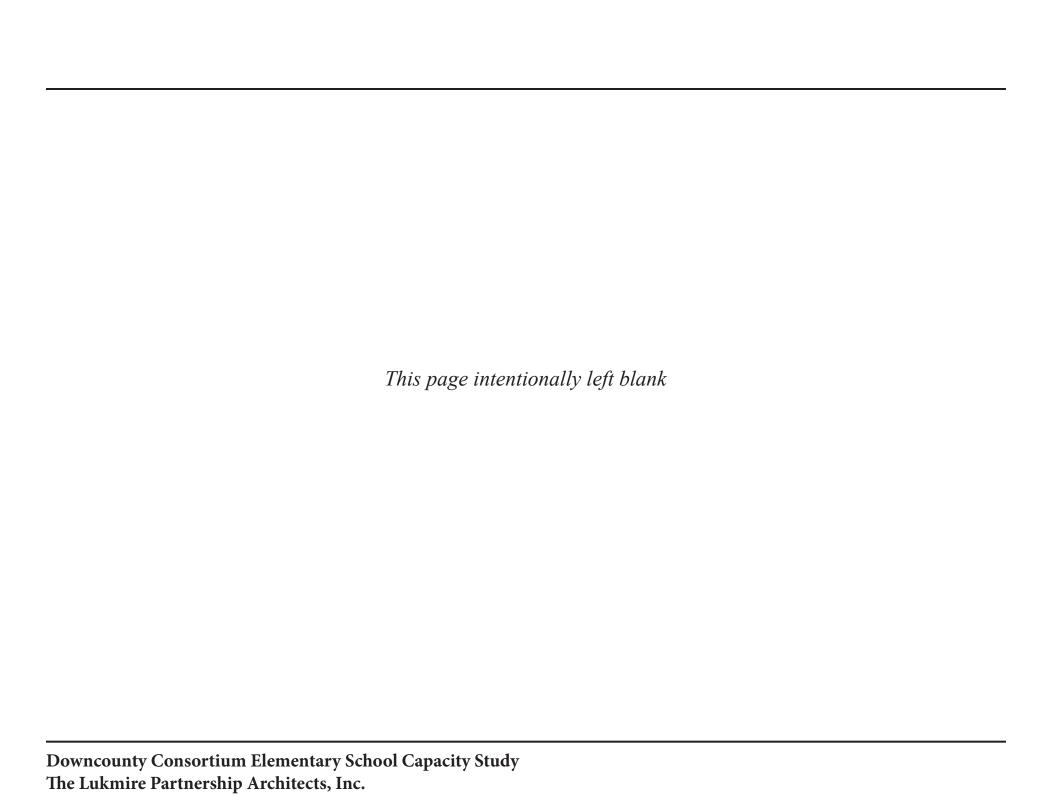
#### iv. Analysis—If School Remains Paired (3–5 Option)

PROS CONS

- Efficient 2-story design
- Completes the "loop" circulation for the school
- Provides additional flexibility for grade levels
- Minimal impact on school during construction
- Minor renovation work; can be completed during the summer
- Minimal impact on the neighborhood
- Addition size is large and is more cost effective than a smaller addition

- Eliminates one mature tree on the site
- First phase would include new access to construction staging area if the staging area were to be on the unused portion of the field area

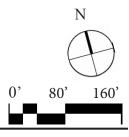
Existing Gross Square Footage	57,560 GSF	Existing Program Capacity	358 students
Total New Gross Square Footage	20,330 GSF	Proposed Program Capacity with Addition	634 students
Total New and Existing Gross Square Footage	77,890 GSF		
Estimate Total Construction Cost	\$ 9,380,000	Proposed Increase in Program Capacity	276 students



# F. Oak View ES (continued)

v. Proposed Site Plan—If School were to become Unpaired (pre-K-5 Option)





#### F. Oak View ES (continued)

vi. Proposed Floor Plans—If School were to become Unpaired (pre-K-5 Option)



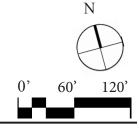
#### Oak View Elementary School (Grades preK-5) **Space Summary**

When this project is complete, the following spaces are to be provided: The capacity will be 650 with a core of 640. Updated 10-7-2015

The capacity will be 656 with a co			Net	Total Net
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Prekindergarten	3		1300	3900
Kindergarten	6		1300	7800
Standard	8		900	7200
Dual purpose Room	1		1000	1000
Instrumental Music Room	1		450	450
Support Rooms				
Title 1 Parent Resource Room	1		500	500
Staff Development Area				
Staff Development Office	1		100	100
Reading Specialist Office	1		100	100
Training/Conference Room	1		450	450
Counseling Area				
Counselor's Office	1		250	250
Itinerant Staff Office	1		150	150
Multipurpose Room				
Multipurpose Room (increase exis	1		500	500
Building Service Facilities				
General Storage	1		250	250
PTA Storage	1		150	150
Total	18			22800

Lower Level Addition - 17,250 GSF Main Level Addition – 15,950 GSF **Total Addition – 33,200 GSF** 

Stair Renovation - 300 GSF



#### F. Oak View ES (continued)

#### vii. Analysis—If School were to become Unpaired (pre-K-5 Option)

**PROS** 

**CONS** 

- Efficient 2-story design
- Completes the "loop" circulation for the school
- Provides additional flexibility for grade levels
- Minimal impact on school during construction
- Minor renovation work; can be completed during the summer
- Minimal impact on the neighborhood
- Addition size is large and is more cost effective than a smaller addition

- Eliminates one mature tree on the site
- First phase would include new access to construction staging area if the staging area were to be on the unused portion of the field area

Existing Gross Square Footage
Total New Gross Square Footage
Total New and Existing Gross Square Footage

57,560 GSF 33,200 GSF 90,760 GSF Existing Program Capacity
Proposed Program Capacity with Addition

358 students 637 students

Proposed Increase in Program Capacity

279 students

#### **G. Pine Crest ES**

#### i. Background Information

Current Core Capacity: 520

• Current Program Capacity: 381

• Current Enrollment: 473

• Proposed Core Capacity: 640

Projected Program Capacity w/Addition: 657/646\*

Projected Enrollment 20201–21: 441

Projected Excess Capacity after Addition: 216/205\*





- Currently has Capacity Deficit -92
- Currently 5 Relocatables
- Two story school
- Small Site (7.0 Acres)
- Paired with Montgomery Knolls ES
- Grades 3-5
- Original School Built in 1975 (only the gym remains)
- Additions in 1992 (the rest of the school)
- Design Issues/Constraints
  - Adjacent parks
  - School on the property line

<sup>\*</sup> Capacities provided for 3-5 and PreK-5 Options respectively

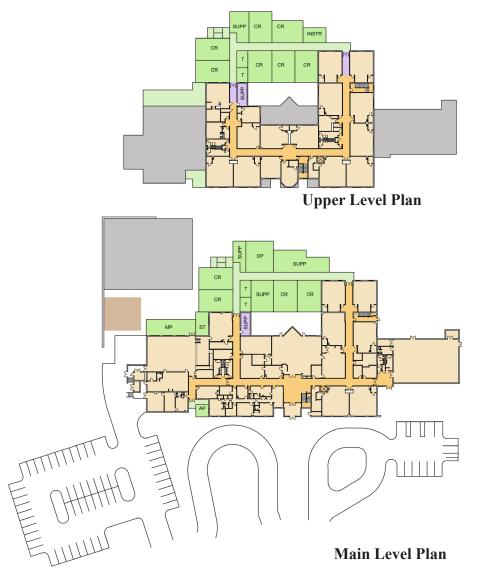
# **G. Pine Crest ES (continued)**

ii. Proposed Site Plan—If School Remains Paired (3-5 Option)



#### **G. Pine Crest ES (continued)**

## iii. Proposed Floor Plans—If School Remains Paired (3–5 Option)



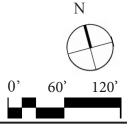
			Net	Total Net
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Grades 1-5	11	Includes 150 s.f. storage	900	990
Instrumental Music Room	1	flicitudes 150 s.f. storage	450	45
Dual purpose Room	1		1000	100
Buai purpose Room	1		1000	100
Special Education				
Home School Model Support Room	1		300	30
Speech/Language Room	1		250	25
Therapy/Support Room	1		250	25
Instructional Support Rooms				
Small Instructional Support Room	2		450	90
Testing/Conference Room	1		150	15
Support Staff Offices	2		150	30
•				
Multipurpose Room				
Multipurpose Room (enlarge existing)	1		1000	100
Chair Storage	1		200	20
Administration				
Assistant Principal's Office	1		150	15
Counseling Suite				
Counselor's Office	1		250	25
Itinerant Staff Office	1		150	15
Chaff Davidson and Assa				
Staff Development Area			100	10
Staff Development Office Reading Specialist Office	1		100	1 1
Training/Conference Room	1		450	4:
Training/Comerence Room	'		430	ļ <b>*</b>
Building Service Facilities				
General Storage	1		250	2:
PTA Storage	1		150	1:
Total	12			1630

Main Level Addition - 11,800 GSF <u>Upper Level Addition - 10,000 GSF</u>

**Total Addition – 21,800 GSF** 

Main Level Renovation - 300 GSF Upper Level Renivation - 1,000 GSF

**Total Renovation - 1,300 GSF** 



#### **G. Pine Crest ES (continued)**

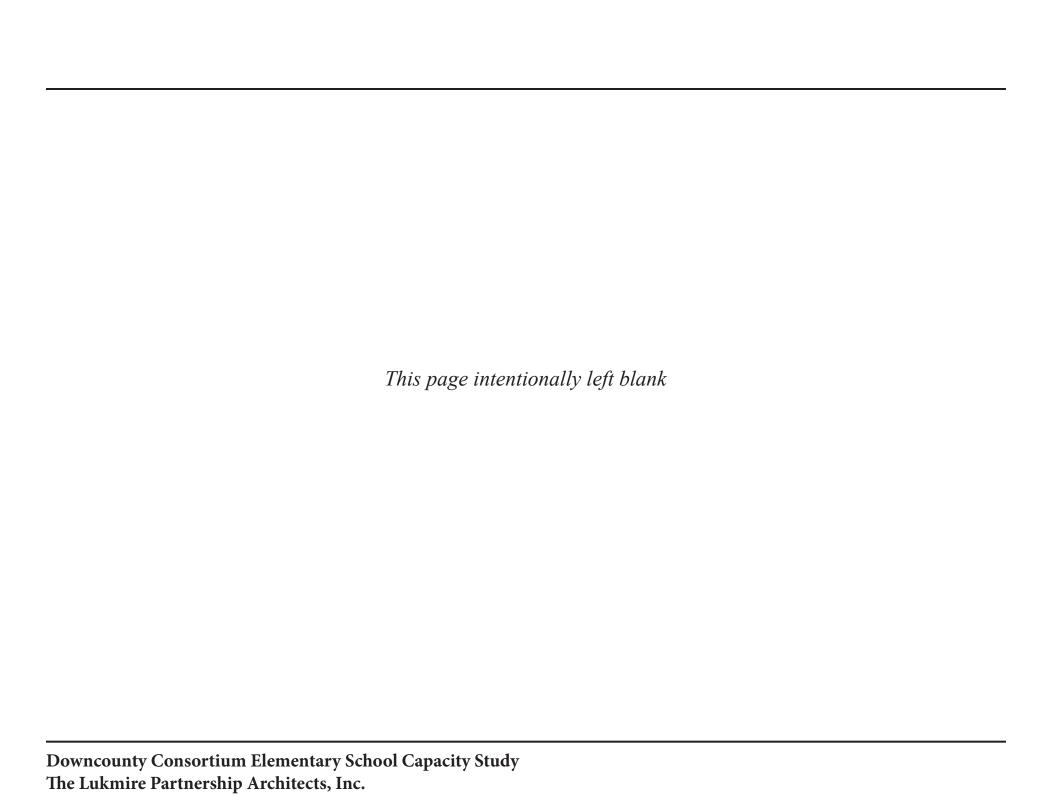
#### iv. Analysis—If School Remains Paired (3–5 Option)

PROS CONS

- Efficient 2-story design
- Completes the "loop" circulation for the school
- Provides additional flexibility for grade levels
- Support spaces are well distributed
- Minor renovation work; can be completed during the summer
- Minimal impact on the neighborhood
- Addition size is large and is more cost effective than a smaller addition

- Requires significant site work to gain access to rear of building
- First phase would include new access to construction staging area
- Irregular footprint due to adjacent property line

Existing Gross Square Footage Total New Gross Square Footage Total New and Existing Gross Square Footage	53,778 GSF 21,800 GSF 75,578 GSF	Existing Program Capacity Proposed Program Capacity with Addition	381 students 657 students
Estimate Total Construction Cost	\$ 8,623,000	Proposed Increase in Program Capacity	276 students



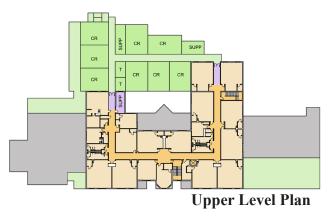
# **G. Pine Crest ES (continued)**

v. Proposed Site Plan—If School were to become Unpaired (preK-5 Option)



### **G. Pine Crest ES (continued)**

vi. Proposed Floor Plans—If School were to become Unpaired (preK-5 Option)





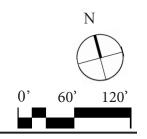
Facility	#	Description	Net Sq. Ft.	Total Net Sq. Ft.
•				
Classrooms				
Kindergarten	6	Includes 250 s.f. storage	1,300	7,800
Grades 1-5	8	Includes 150 s.f. storage	900	7200
Instrumental Music Room	1		450	450
Dual purpose Room	1		1000	1000
Special Education				
Home School Model Support Room	1		300	300
Speech/Language Room	1		250	250
Therapy/Support Room	1		250	250
Instructional Support Rooms				
Small Instructional Support Room	2		450	900
Testing/Conference Room	1		150	150
Support Staff Offices	2		150	300
Multipurpose Room				
Multipurpose Room (enlarge existing)	1		1000	1000
Chair Storage	1		200	200
Administration				
Assistant Principal's Office	1		150	150
Counseling Suite				
Counselor's Office	1		250	250
Itinerant Staff Office	1		150	150
Staff Development Area				
Staff Development Office	1		100	100
Reading Specialist Office	li		100	100
Training/Conference Room	1		450	450
Building Service Facilities				
General Storage	1		250	250
PTA Storage	1		150	150
				A4 4
Total	15			21,400

Main Level Addition - 17,500 GSF Upper Level Addition - 11,100 GSF

**Total Addition – 28,600 GSF** 

Main Level Renovation - 300 GSF Upper Level Renovation - 1,000 GSF

**Total Renovation - 1,300 GSF** 



### **G. Pine Crest ES (continued)**

### vii. Analysis—If School were to become Unpaired (preK-5 Option)

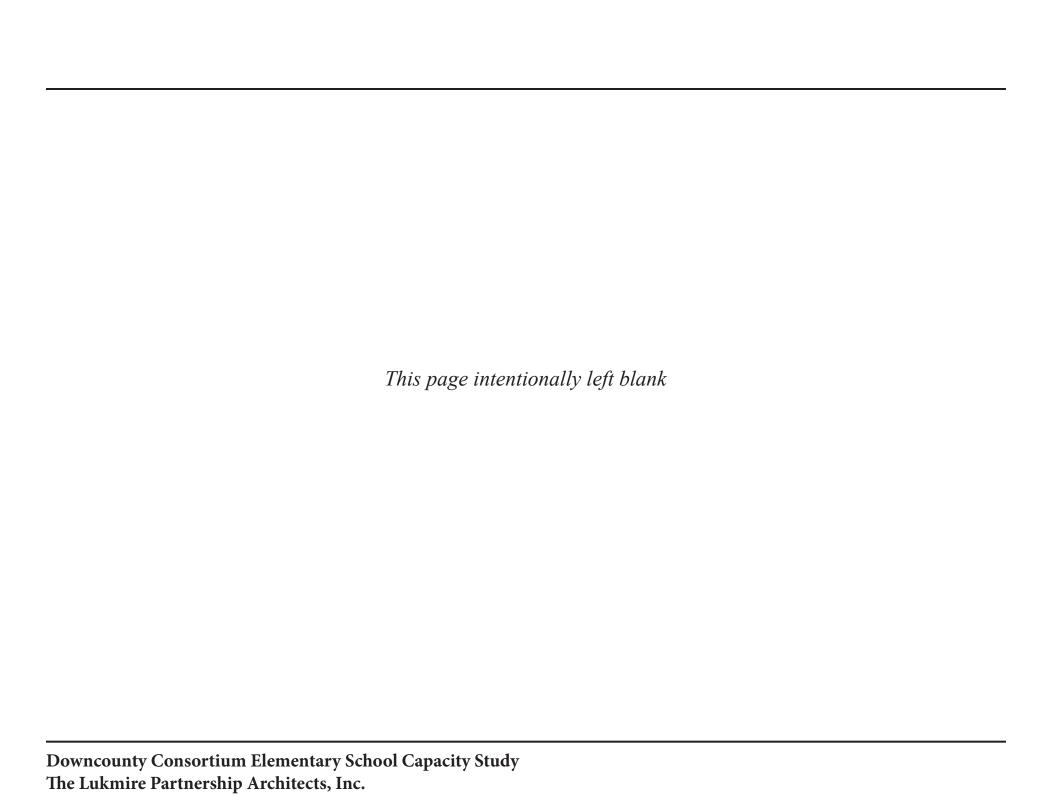
**PROS** 

CONS

- Efficient-2 story design
- Completes the "loop" circulation for the school
- Provides additional flexibility for grade levels
- Support spaces are well distributed
- Minor renovation work; can be completed during the summer
- Addition size is large and is more cost effective than a smaller addition
- Requires significant site work to gain access to rear of building
- First phase would include new access to construction staging area
- Irregular footprint due to adjacent property line
- Requires 2 phases of construction due to shortage of contractor staging area
- Significant impact to the school during construction
- More of an impact on the neighborhood due to the addition located on the front of the school

Existing Gross Square Footage	53,778 GSF	Existing Program Capacity	381 students
Total New Gross Square Footage	28,600 GSF	Proposed Program Capacity with Addition	646 students
Total New and Existing Gross Square Footage	82,378 GSF		

Proposed Increase in Program Capacity 265 students



### H. Piney Branch ES

### i. Background Information

• Current Core Capacity: 740

• Current Program Capacity: 611

• Current Enrollment: 527

• Proposed Core Capacity: 740

 Projected Program Capacity w/Addition: No proposed Addition

Projected Enrollment 2020–21: 591

Projected Excess Capacity after Addition: 20\*

\* Capacity provided for 3-5 only







- Currently has Excess Capacity 84
- Currently 0 Relocatables
- · Three Story School
- Very Small Site (2.6 Acres)
- Paired with Takoma Park ES
- Grades 3-5
- Original Building Built in 1973
- Design Issues/Constraints
  - No Grade Level Access
  - PreK & K Classrooms are Not Possible
  - No Area on Site for Addition

# I. Rolling Terrace ES

# i. Background Information

• Current Core Capacity: 640

• Current Program Capacity: 724

• Current Enrollment: 905

Proposed Core Capacity: 740

Projected Program Capacity w/Addition: 765

• Projected Enrollment 2020–21: 888

• Projected Capacity Deficit after Addition: -123

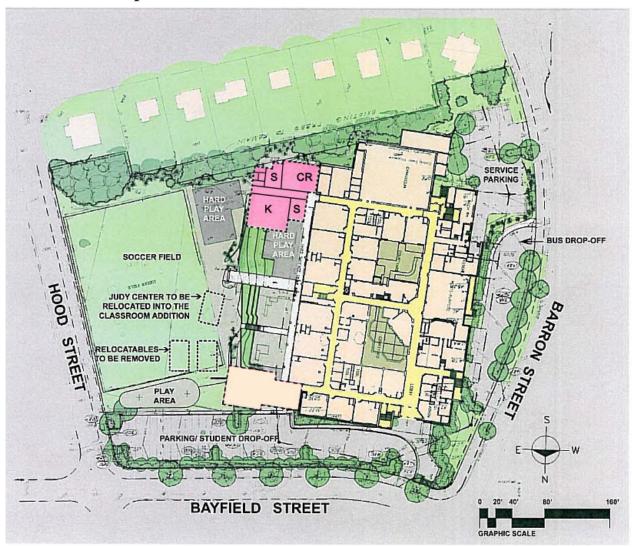




- Currently has Capacity Deficit -181
- Currently 8 Relocatables
- Two Story School
- Very Small Site (4.3 Acres)
- Original School Built in 1989
- Addition in 2012
- Design Issues/Constraints
  - Currently has County Daycare, PreK and HS PreK
  - Separate play areas
  - Topography challenges

# **I. Rolling Terrace ES (continued)**

ii. Proposed Site Plan and First Floor Plan



LEGEND

EXISTING FACILITY

PROPOSED ADDITION

*Graphics by Smolen Emr + Associates* 

# I. Rolling Terrace ES (continued) iii. Proposed Second Floor Plan



#### LEGEND

**EXISTING FACILITY** 



PROPOSED ADDITION

# Rolling Terrace Elementary School Square Foot Summary

When this project is complete, the following spaces are to be provided: The capacity will be 765 with a core of 740.

Updated 5-7-2015

			Net	Total Net
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Kindergarten	1	Includes 250 s.f. storage	1300	1300
Standard Classrooms	1	Includes 250 s.f. storage	900	900
ESOL	4		450	1800
Support Rooms				
Therapy/Support Room	1		250	250
Small Instructional Room	1		450	450
Instructional Data Assistant Office	1		150	150
Reading Recovery Room	3		100	300
Instrumental Music Room	1	locate next to storage	400	400
Counseling Suite				
Counselor's Office	1		250	250
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
Total	2			6600

Main Level Addition - 5,000 GSF <u>Upper Level Addition - 5,000 GSF</u> <u>Total Addition - 10,000 GSF</u>

Main Level Renovation - 300 GSF <u>Upper Level Renovation - 300 GSF</u> <u>Total Renovation - 600 GSF</u>

Graphics by Smolen Emr + Associates

### I. Rolling Terrace ES (continued)

### iv. Analysis

**PROS** 

CONS

- Minimal impact on neighborhood
- Efficient 2-story design
- Minor renovation work; can be completed during the summer
- Site access for construction is challenging
- Significant retaining walls are required; trees will have to be removed
- Construction staging will have an impact on the school function
- Addition size is small and is less cost effective than a larger addition

Existing Gross Square Footage Total New Gross Square Footage Total New and Existing Gross Square Footage	88,835 GSF 10,000 GSF 98,835 GSF	Existing Program Capacity Proposed Program Capacity with Addition	724 students 765 students
Estimate Total Construction Cost	\$ 5,051,000	Proposed Increase in Program Capacity	41 students

### J. Sligo Creek ES

### i. Background Information

• Current Core Capacity: 640

• Current Program Capacity: 664

• Current Enrollment: 652

• Proposed Core Capacity: 740

Projected Program Capacity w/ Addition: 765

• Projected Enrollment 2020–21: 672

Projected Excess Capacity after Addition: 93

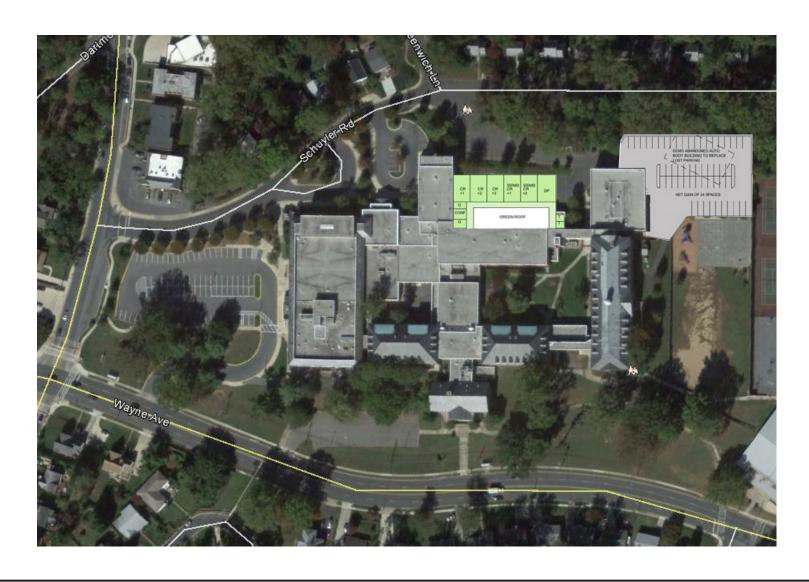


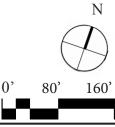


- Currently has Excess Capacity Deficit 12
- Currently 0 Relocatables
- Three Story School
- Shared Site with SSIMS (14.7 Acres)
- Original School Built in 1934
- 10 Additions, most recent 1999
- Design Issues/Constraints
  - Not enough parking, about 60 spaces
  - Shared building with SSIMS
  - Challenging topography
  - Abandoned auto body building on site

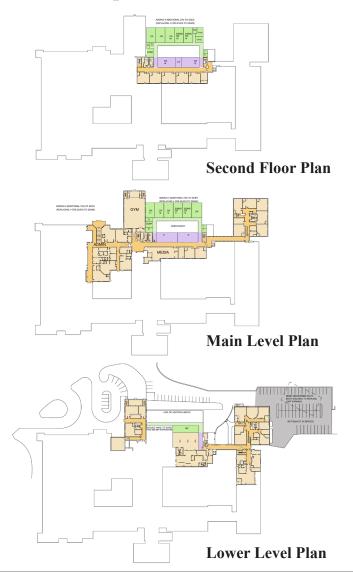
# J. Sligo Creek ES (continued)

ii. Proposed Site Plan





# J. Sligo Creek ES (continued) iii. Proposed Floor Plans

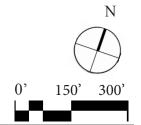


			Net	Total Net
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms				
Kindergarten	2	1	1300	2600
Standard	2		900	1800
Dual purpose Room	1		1000	1000
Support Rooms				
Therapy/Support Room	1		250	250
Testing Room	1		150	150
Sensory Room	1		300	300
Multipurpose Room				
Multipurpose Room (increase existing)	1		800	800
Chair Storage	1		200	200
Table Storage	1		200	200
<u>Administration</u>				
Conference	1		300	300
Counseling Area				
Counselor's Office	1		250	250
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
Building Services Outdoor Storage	1		175	175
Total	5			0077
Iotal	13			9075

Lower Level Addition - 2,000 GSF Main Level Addition - 8,200 GSF Second Floor Addition - 8,200 GSF

**Total Addition – 18,400 GSF** 

Lower Level Renovation - 500 GSF Main Level Renovation - 3,300 GSF Second Floor Renovation - 3,300 GSF Total Renovation - 7,100 GSF



### J. Sligo Creek ES (continued)

### iv. Analysis

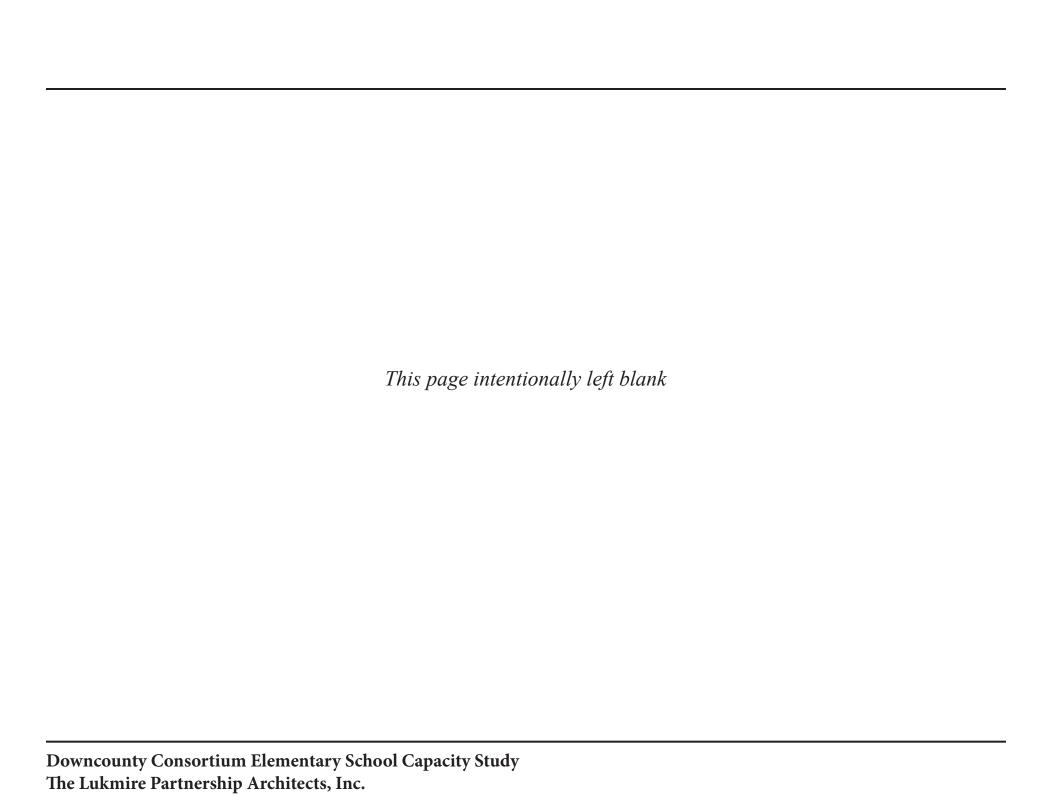
#### **PROS**

- Efficient 3-story design
- Replaces and adds additional parking that is lost due to the addition
- Creates a "loop" circulation pattern
- Eliminates the requirement for SCES to share a corridor with SSIMS
- Minimal impact on school during construction
- Provides additional flexibility for grade levels
- Renovation work can be completed during the summer

#### CONS

- Site access for construction is challenging
- New retaining wall required for replacement parking; will require the removal of several trees
- New retaining wall will impact the neighborhood
- Construction staging area is not directly adjacent to construction area

Estimate Total Construction Cost	\$ 9,616,000	Proposed Increase in Program Capacity	101 students
Total New Gross Square Footage Total New and Existing Gross Square Footage	18,400 GSF 117,199 GSF	Proposed Program Capacity with Addition	765 students
Existing Gross Square Footage	98,799 GSF	Existing Program Capacity	664 students



### K. Takoma Park ES

### i. Background Information

• Current Core Capacity: 640

• Current Program Capacity: 636

• Current Enrollment: 654

• Proposed Core Capacity: 640

• Projected Program Capacity w/Addition:

No proposed Addition

• Projected Enrollment 2020-21: 602

Projected Excess Capacity after Addition: 34\*

<sup>\*</sup> Capacity provided for K-2 only





- Currently has Capacity Deficit -18
- Currently 0 Relocatables
- · Three Story School
- Small Site (5.9 Acres)
- Paired with Piney Branch ES
- Grades K-2
- Original Building Built in 1979
- Addition in 2010
- Design Issues/Constraints
  - No Area on Site for Addition



### L. Woodlin ES

### i. Background Information

• Current Core Capacity: 520

• Current Program Capacity: 462

• Current Enrollment: 623

• Proposed Core Capacity: 640

Projected Program Capacity w/Addition: 635

• Projected Enrollment 2020–21: 635

Projected Excess Capacity after Addition: 0





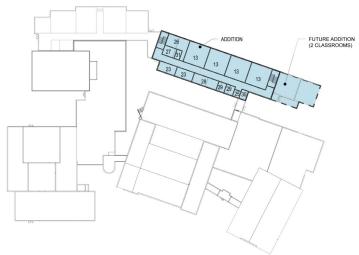
- Currently has Capacity Deficit -161
- Currently 9 Relocatables
- · One Story School
- Large Site (10.9 Acres)
- Original School Built in 1944
- Additions in 1954, 1960, 1983, and 1988
- Design Issues/Constraints
  - Master-planned as a campus of separate structures; connected in the 1980s
  - Shares the site with Woodlin Development Center

### L. Woodlin ES (continued)

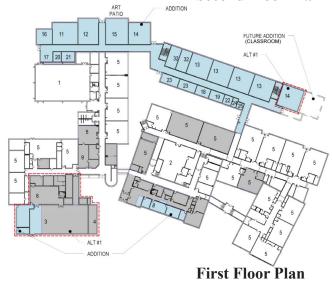
ii. Proposed Site Plan



# L. Woodlin ES (continued) iii. Proposed Floor Plans



**Second Floor Plan** 



Graphics by Moseley Architects

at the entrance.		1	Net	Total Net
Facility	#	Description	Sq. Ft.	Sq. Ft.
Classrooms			-4	
Kindergarten	2	Includes 250 s.f. storage	1300	2600
Standard Grades 1-5	5	Includes 150 s.f. storage	900	4500
LFI Classroom (Special Education)	1	Includes 150 s.f. storage	900	900
Art	lî	Includes 250 s.f. storage	1100	1100
Music				1050
	1	Includes 250 s.f. storage	1050	
Instrumental Music Room	1		450	450
Dual purpose Room	1	Locate near art and music	1000	1000
Support Rooms				
Large Instructional Support Room	1		600	600
Small Instructional Support Rooms	2		450	90
Special Education Conference Room	1		250	250
		Repurpose room 31 for		
Therapy/Support Room	1	storage	250	250
Testing/Conference Room	1		150	150
Instructional Data Assistant Office	Ιî		250	250
	1 ^			
Support Staff Office	1		150	150
Itinerant Staff Office	1		150	150
0. 115				
Staff Development Area				
Staff Development Office	1		100	100
Reading Specialist Office	1		100	100
Training/Conference Room	1		450	450
Administration				
General Office	1		375	
Workroom	lî		300	
Principal's Office	1		250	
	l i		150	
Assistant Principal's Office	1		300	
Conference	1 ^			(
Record Room	1		100	(
Telephone Booth	1		50	0
Storage	1		100	0
Testing Room	1		150	0
Toilet Room	1		50	(
2nd floor Workroom	1		75	75
Building Service Facilities				
General Storage	1		250	250
DTA CI	1		150	150
PTA Storage Total	8		150	150 15425
Design as Add Alternate:				
books as Add Altorrate.				
Multipurpose Room				
		Consider expansion by		
Multipurpose Room	1	900 s.f.	3200	3200
Chair Storage	1		150	150
Table Storage	1		150	150
Platform	1		450	450
Before/After Care Kitchenette	1		30	30
Before/After Care Storage	1		100	100
		Consider renovation and		
Kitchen		expansion		
Serving Area	1		300	300
Walk-in Cooler/Freezer	1 1		155	155
Dry Storage	1		192	192
Office	1		100	100
Toilet Room	1		70	70
Preparation Area	1		555	555
Compactor/Trash Room	1		150	150
General Storage and Receiving  Add-Alternate Total	1		550	550 6152
Autranemate Iotal				6152
Total including Add Alternate				21577

**Total Addition – 32,977 GSF** Total Renovation – 12,269 GSF

These areas include Alternate #1



60'

120'

### L. Woodlin ES (continued)

### iv. Analysis

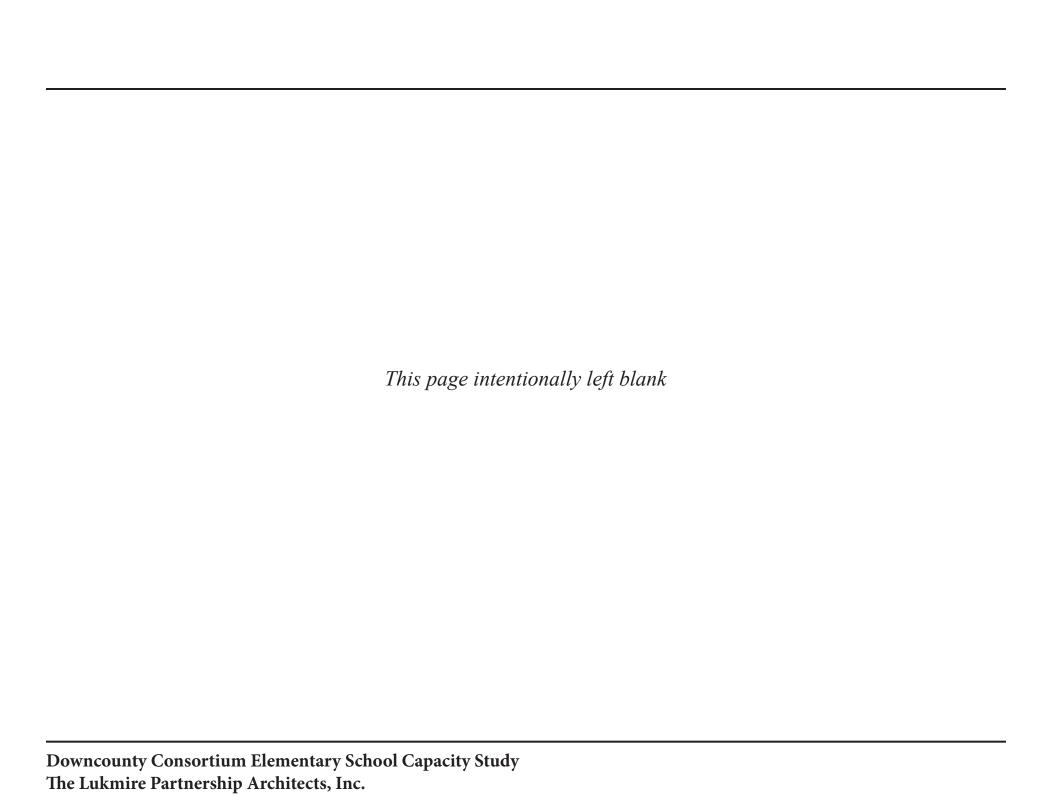
**PROS** 

- Maintains line of sight at play areas
- Creates "loop" circulation
- Noisy areas (music rooms) are remote
- Support Spaces are well distributed
- Addition is large and is more cost effective than a smaller addition

#### **CONS**

- Significant impact on school during construction
- Significant amount of site work
- Requires shifting of play areas
- Requires relocatables on the play fields during construction
- Significant amount of utility relocation
- Close proximity of Child Development Center creates a bottleneck for relocated utility paths
- One access to site to be used by all stakeholders
- A significant amount of addition is only one story
- Limited flexibility for grade levels on second floor
- Significant amount of renovation work; would have to be phased during the school year

Existing Gross Square Footage	60,725 GSF	Existing Program Capacity	462 students
Total New Gross Square Footage	32,977 GSF	Proposed Program Capacity with Addition	635 students
Total New and Existing Gross Square Footage	93,702 GSF		
Estimate Total Construction Cost	\$15,297,000	Proposed Increase in Program Capacity	173 students



# **Appendix B-Feasibility Studies (Executive Summaries Only)**

### A. Highland View ES Feasibility Study Executive Summary (The complete feasibility study can be found online.)

Feasibility Study for Addition

#### II. EXECUTIVE SUMMARY

#### **OVERVIEW**

The Highland View Elementary School facility is situated on a 6.61 acre parcel (569) at 9010 Providence Avenue, Silver Spring, Maryland. The site is bounded on the north and east by detached single family residential properties and two access points, one known as Providence Avenue, and the other called Lauer Terrace. On the southeastern corner of the property the site borders another right-of-way called Saffron Lane. Along the southern and western property lines the site borders apartment complexes and a homeowners association.

Vehicular access to the site is provided at two locations, both along the north edge of the property. At the northwestern corner, bus loop access is provided via extension of Providence Avenue. The bus loop also accommodates a small amount of reserved staff parking. At the northeastern corner, Lauer Terrace terminates into the main parking area, which also serves as the student drop-off loop. The vehicular access points provide access to the site approximately level with the main entry first floor on the north side of the building. The main entry first floor is actually below grade at the east side of the building, and beyond the building the site continues to slope steeply upward toward the east and southeast. The site slopes downward away from the building toward the west and southwest.

Highland View Elementary School is a two story, split level structure. The building is divided into two masses, with the northern mass sited one half story above the southern portion. An open stair and elevator are provided at the transition in floor elevations. The existing structure is non-combustible construction. The exterior walls are a mix of masonry and light gauge metal stud infill with a face brick veneer. Interior walls are painted concrete masonry units or painted gypsum board with some glazed masonry accent bands and base at the corridors.

Three addition options were designed with input from the Feasibility Study Participants. All three options meet the programmatic requirements for the building and site.

Costs estimates were established for each option and are presented later in this section of the report.

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# A. Highland View ES Feasibility Study Executive Summary (continued)

High	nland View Elementary School					
II.	EXECUTIVE SUMMARY					
	COMMON SITE DESIGN ELEMENTS FOR EACH OPTION					
	The existing hilltop play areas at the southeast of the site are preserved and will have ADA access provided.  The existing parking lot will be reconfigured and expanded to the northeast to provide additional parking capacity as well as a dedicated student drop-off loop. Some re-grading will be required to ensure that ADA compliant slopes are maintained from the drop-off to the main entrance.  A new parking lot will be located off of the existing bus drive, to the north and west of the gymnasium.  Retaining walls will be provided to make way for new site development and building additions.  All site features will be ADA accessible. All of the existing sidewalks around the south and east sides of the building will need to be demolished to make way for the additions, and new ADA compliant sidewalks and ramps will be provided.  The amount of significant and/or specimen trees that need to be cut down as a result of the additions will be limited.  An outdoor amphitheater space will be designed as an add-alternate to provide an outdoor teaching space.  Space has been reserved on the site for placement of relocatable classrooms if required in the future.  All necessary quantity and quality control of storm water will be provided for all options per code requirements. Environmental Site Design measures will be implemented to the maximum extent practicable, and then structural measures will be used to supplement as required.					
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# A. Highland View ES Feasibility Study Executive Summary (continued)

Feasibility Study for Addition

#### II. EXECUTIVE SUMMARY

 -	ALGOTTVL GOWNWART
C	OMMON BUILDING DESIGN ELEMENTS FOR EACH OPTION
П	All three options include three-story additions to the east of the existing school.
П	A new elevator in each three-story addition will extend travel to the third floor and a covered bridge extending from the third floor to the southeast hilltop will provide an accessible route to the hilltop playgrounds.
П	As an add alternate, the existing all-purpose room will be expanded out to the wall of the existing gymnasium to allow for additional capacity and a new shared entry lobby will provide after-hours access to both the gym and all-purpose room without the need to access other portions of the facility. A new interior platform lift and half a flight of stairs will be required to provide access from the bus loop and all-purpose room level
П	down to the gymnasium elevation.  New art and music classrooms are being provided to replace the existing rooms. The existing art and music classrooms will be renovated to serve as typical classrooms.
П	A new storage room will be created at the access door from the corridor into the existing crawl space at the lower level of the rear east classroom wing. The remainder of the crawl space will be provided with a vapor barrier, concrete slab, and ventilation and will be reached from a new access door provided in the new storage room.
П	The four relocatable classrooms to the northwest of the gymnasium can remain in place while the addition is being constructed.
П	Natural light will be provided in almost every classroom space.
П	The new addition, with the exception of the all-purpose expansion alternate, will receive a tray style vegetated roofing system.
П	All newly constructed and renovated areas of the facility will be ADA accessible.
П	New ADA student restrooms will be provided in the addition.
П	The existing emergency generator will be replaced in order to provide emergency power for all items currently on the generator plus all new emergency loads.
П	The new addition will be fully sprinkled and will extend the existing code compliant fire alarm system. The fire alarm annunciator panel will modified to reflect the new addition configuration.
П	All addition and renovation areas will receive a new security system designed per MCPS standards.
П	New sanitary sewer and storm sewer receivers and duplex pumps will be provided in the existing basement mechanical room in order to
	separate the underground spring discharge from the sanitary discharge and remediate the existing drainage problem.
П	Any hazardous materials will be abated from the existing building during the demolition and/or renovation process.
П	All new and renovated areas will be designed to comply with the Leadership in Energy and Environmental Design (LEED) checklist to the greatest extent possible.

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### A. Highland View ES Feasibility Study Executive Summary (continued)

Highland View Elementary School

#### II. EXECUTIVE SUMMARY (CONTINUED)

#### **OPTION 1**

Option 1 creates additional teaching space by constructing a large three story addition to the east of the existing office, art, and music areas. Expansion of the existing all-purpose room is included as an add alternate. All of the site and building elements from the Educational Specifications are included in this option.

All new infrastructure and systems will be designed to meet MCPS standards. These include the HVAC, life safety, fire protection, electrical, lighting, data and communication systems. The renovated and newly constructed portions of the facility will comply with accessibility codes.

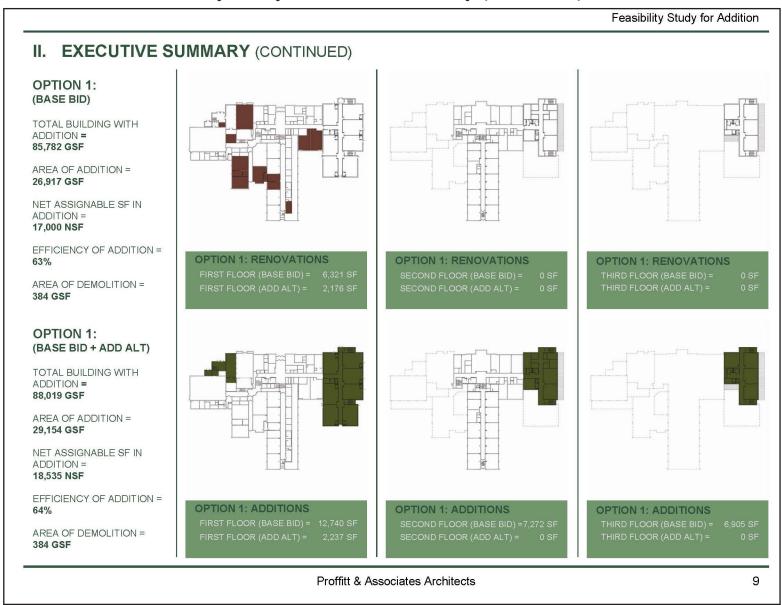
#### Option 1 – Site Cost \$1,136,000 + Building Cost \$7,814,000 = Total Cost \$8,950,000



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### A. Highland View ES Feasibility Study Executive Summary (continued)



# A. Highland View ES Feasibility Study Executive Summary (continued)

Highland View Elementary School

#### II. EXECUTIVE SUMMARY (CONTINUED)

#### **OPTION 2**

Option 2 creates additional teaching space by constructing a three story general classroom addition located to the east of the existing office, art, and music areas and a single story kindergarten addition to the south of the existing kindergarten wing. Expansion of the existing all-purpose room is included as an add alternate. All of the site and building elements from the Educational Specifications are included in this option.

All new infrastructure and systems will be designed to meet MCPS standards. These include the HVAC, life safety, fire protection, electrical, lighting, data and communication systems. The renovated and newly constructed portions of the facility will comply with accessibility codes.

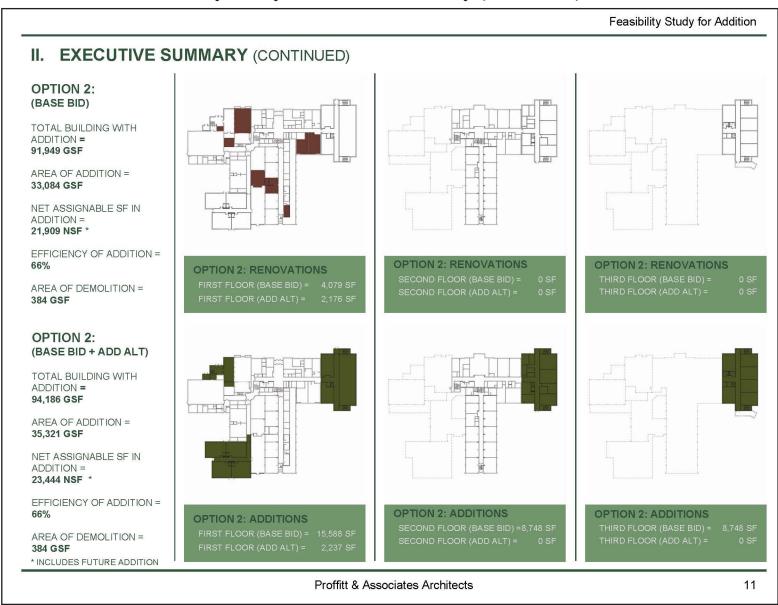
Option 2 - Site Cost \$1,396,000 + Building Cost \$8,739,000 = Total Cost \$10,135,000



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### A. Highland View ES Feasibility Study Executive Summary (continued)



### A. Highland View ES Feasibility Study Executive Summary (continued)

Highland View Elementary School

#### II. EXECUTIVE SUMMARY (CONTINUED)

#### **OPTION 3**

Option 3 creates additional teaching space by constructing a large three story addition with looped corridor connecting to the east of the existing office, art, and music areas and the south of the rear east classroom wing. Expansion of the existing all-purpose room is included as an add alternate. All of the site and building elements from the Educational Specifications are included in this option.

All new infrastructure and systems will be designed to meet MCPS standards. These include the HVAC, life safety, fire protection, electrical, lighting, data and communication systems. The renovated and newly constructed portions of the facility will comply with accessibility codes.

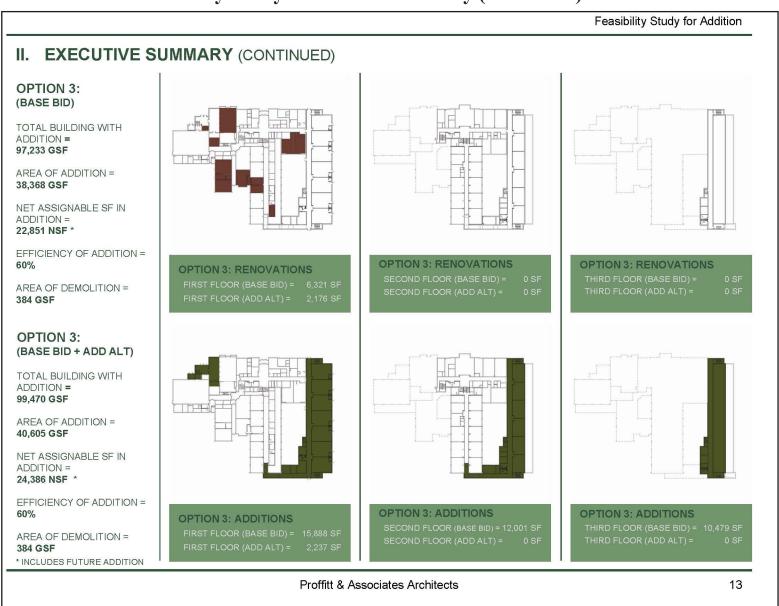
Option 3 – Site Cost \$1,619,000 + Building Cost \$10,231,000 = Total Cost \$11,850,000



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### A. Highland View ES Feasibility Study Executive Summary (continued)



### A. Highland View ES Feasibility Study Executive Summary (continued)

Highland View Elementary School

#### II. EXECUTIVE SUMMARY (CONTINUED)

#### **Summary Table and Cost Comparison**

#### Square Footage:

	Option 1 (Preferred)	Option 2	Option 3
Existing	59,213	59,213	59,213
New Construction (Base Bid)	26,917	33,084	38,368
Modernization	0	0	0
Renovation (Base Bid)	6,321	4,079	6,321
Demolition (Total)	348	348	348
Existing to Remain	58,865	58,865	58,865
Total Gross Square Feet (Base Bid)	85,782	91,949	97,233
al Construction Cost (Base Bid)	\$8,950,000	\$10,135,000	\$11,850,000

#### PDF Feasibility Study Cost Outline (000's)

TOTALS	\$10,550
Furniture and Equipment	\$275
Contingency and Related Costs	\$633
Planning Cost	\$692
Construction Cost Estimate	\$8,950

The cost estimate in this feasibility study is based on current construction market conditions for both building and site. The estimates will be revised to reflect market conditions and prevailing construction costs when the project is included in the Capital Improvements Program Request for architectural and construction funding.

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### A. Highland View ES Feasibility Study Executive Summary (continued)

Feasibility Study for Addition

#### II. EXECUTIVE SUMMARY (CONTINUED)

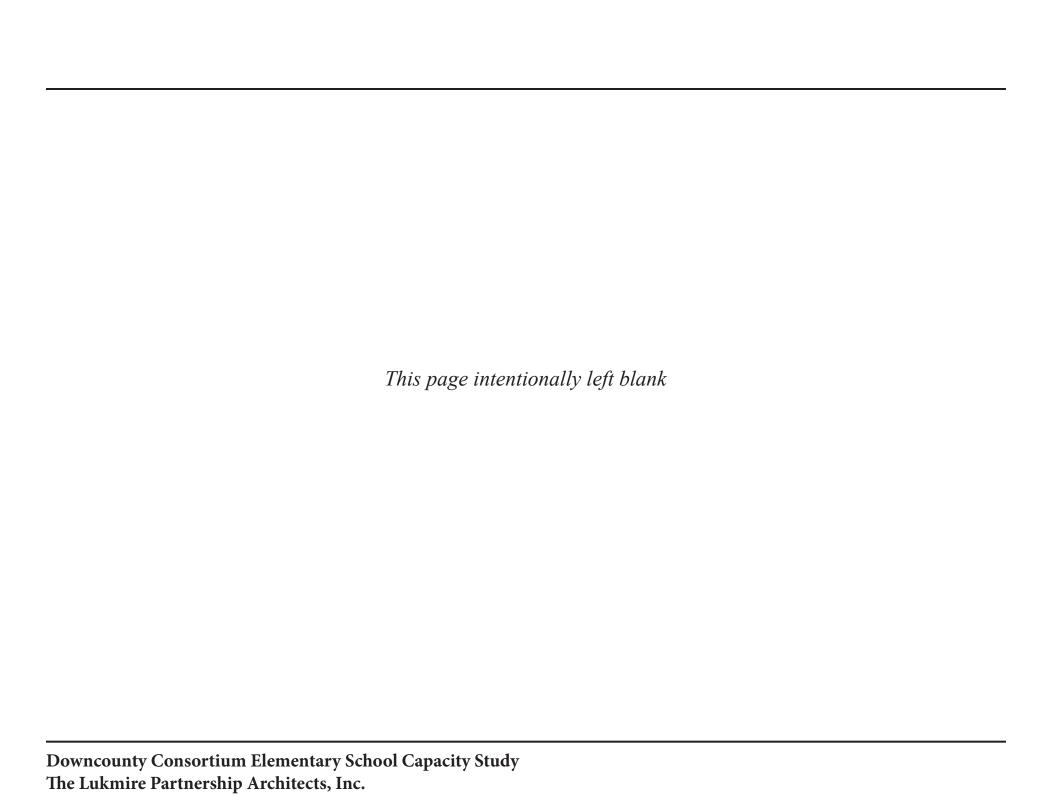
#### CONCLUSIONS AND RECOMMENDATIONS

Proffitt & Associates Architects recommends the following course of action to meet the program requirements for addition to Highland View Elementary School. The recommendations are consistent with MCPS standards, meet the program requirements, and address the interests and concerns of the Principal, school staff, the PTA, and the community as represented by the Feasibility Study Participants.

In accordance with the opinions of the Feasibility Study Participants and MCPS staff, it is recommended that Option 1, as described in Section V, and its associated site improvements be implemented.

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### B. Woodlin ES Feasibility Study Executive Summary (The complete feasibility study can be found online.)

Woodlin Elementary School Addition - Feasibility Study

### **II. Executive Summary**

#### **Purpose**

The purpose of this feasibility study is to explore alternatives and provide specific recommendations to Montgomery County Public Schools (MCPS) for the addition and minor alterations to the Woodlin Elementary School. The recommendations are to accommodate the educational needs of the school and comply with current Montgomery County Public Schools Educational Specifications.

#### <u>History</u>

Woodlin Elementary School is located in Silver Spring, Maryland. The original school was constructed in 1944. The first two classroom additions were built between 1954 and 1960. A gymnasium and additional classrooms were constructed in 1983. Another addition to the school was constructed in 1988 to accommodate increased enrollment. The existing building is approximately 60,278 gross square feet. Current capacity is 462 with current enrollment of 619. Capacity after the addition will be 635 with a 640 core capacity.

#### **Methodology**

A design team of architects and engineers has evaluated the school in order to develop alternative locations for the addition. The study is based on an analysis of the existing building and site conditions, meetings with the feasibility study participants, and review of the educational specifications prepared by the MCPS Staff for Woodlin Elementary School.

The study is based on the following;

- Consensus Workshops with the feasibility participants and MCPS Staff
  - o There were five meetings
- Analysis of the existing physical plant
- Review of the existing available construction documents provided by MCPS
- Review of the Educational Specifications and Summary of Space Requirements provided by MCPS
- Research conducted by the design team

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### B. Woodlin ES Feasibility Study Executive Summary (continued)

Woodlin Elementary School Addition - Feasibility Study

#### **II. Executive Summary (Continued)**

#### Overview

The Feasibility Study assesses the advantages, disadvantages and relative costs of various alternatives for developing the best means to meet the primary goals and objectives of the school staff, PTA, and MCPS Educational Specifications.

The goals and objectives include:

- Improve relationships of educational programs and administrative functions.
- Provide a two story facility with a condensed building footprint to maximize open space.
- Create an interior courtyard to provide daylighting to all teaching spaces and a safe outdoor learning space.
- The design team should be aware that the building will be modernized in the future.
- The architect should assess the feasibility of adding grooming rooms to existing LFI classrooms (rooms 5, 10, and 26). If the bathroom in room 10 is modified, it should be designed in such a way that it no longer connects to the computer lab next door.
- The current Art room (room 20) should be repurposed into a standard classroom at the completion of the addition.
- Depending on the location of the addition, new security gates to isolate the Gym and Multipurpose Room for after-hours use are desirable.
- It is desirable to provide a security vestibule at the main entrance and rework the main office so that the workroom and file room are contiguous with the rest of the Administration suite.
- No changes are proposed for the Woodlin Child Care building.
- The Instructional Data Assistant/interventions room 27 should be repurposed as a general storage closet at the completion of the addition.
- It is desirable to add a connecting door between the Principal's office and conference room.
- The current Staff Developer's office/pull-out room 28 should be repurposed as another general support staff office at the completion of the addition.
- The current Reading Specialist's room 21 should be repurposed as a third Small Instructional support room at the completion of the addition.
- The current Therapy/Support room 31 should be repurposed as storage at the completion of the addition.
- It is desirable to convert rooms 16, 17 and 18 into 2 Kindergarten classrooms and replace these standard classrooms in the addition.

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### B. Woodlin ES Feasibility Study Executive Summary (continued)

Woodlin Elementary School Addition - Feasibility Study

### II. Executive Summary (Continued)

Three options were developed by Moseley Architects to meet the programmatic requirements developed by the Montgomery County Public Schools. At the final meeting, Option 1 was selected by the participants as the preferred option based on how well it works with the site, existing conditions and the program requirements.

#### **Options Considered**

**Option 1:** One and two story scheme with the two-story portion massed around a central courtyard and the one story abutting the existing gymnasium and classroom wing. (**Preferred**)

- Line of sight at playfields is good.
- More open space for recess.
- There is space to locate portables during construction
- The symmetry of the addition works well with the existing building.
- A continuous doughnut circulation through the building is effective and affords good flow. There are 2 options of travel from one part of the school to another.
- Remoteness of noisy areas (music room and Instrumental music room)
- Support spaces well distributed in the addition

**Option 2:** Two story scheme with the two-story portion massed around the existing Gymnasium and the one story portion houses the programs for music, art and dual purpose.

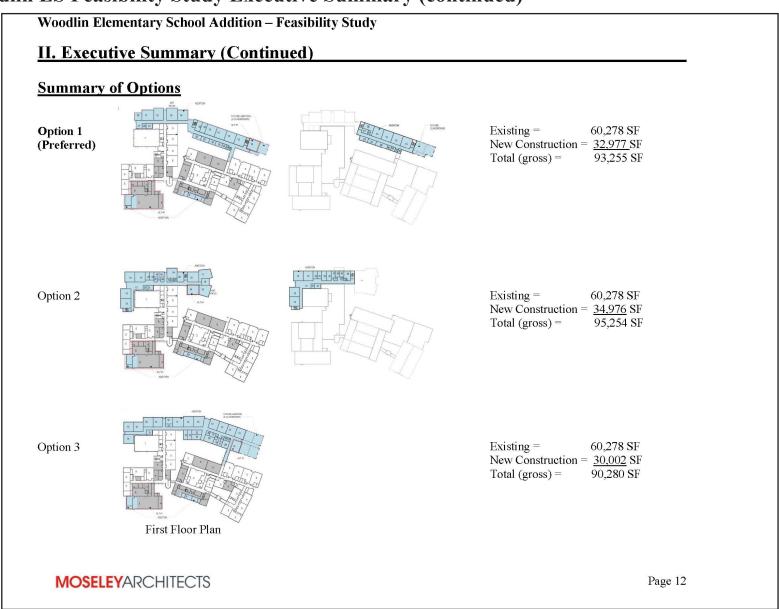
- The specialty spaces (Art, Music & Dual Purpose) are centralized
- There is space to locate portables during construction
- The line of sight to playfields is affected but supervision can make it work.
- This scheme does not intrude on the fields as much as option 3.

**Option 3:** One story addition and connects the existing building at 2 points providing a looping circulation path through the existing and new addition.

- Line of sight at playfields is good.
- Less open space in this option than in option A because this is a 1 story scheme.
- The symmetry of this addition works well with the existing building.
- Flow through the building is effective. There are two options of travel from one space to another.
- Centrally located specialty spaces with corridor buffers on all sides

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### **B.** Woodlin ES Feasibility Study Executive Summary (continued)



# **B.** Woodlin ES Feasibility Study Executive Summary (continued)

Woodlin Elementary School Addition - Feasibility Study

### II. Executive Summary (continued)

### Summary Table and Cost Comparison of Options 1, 2 & 3

#### **Square Footage Comparison**

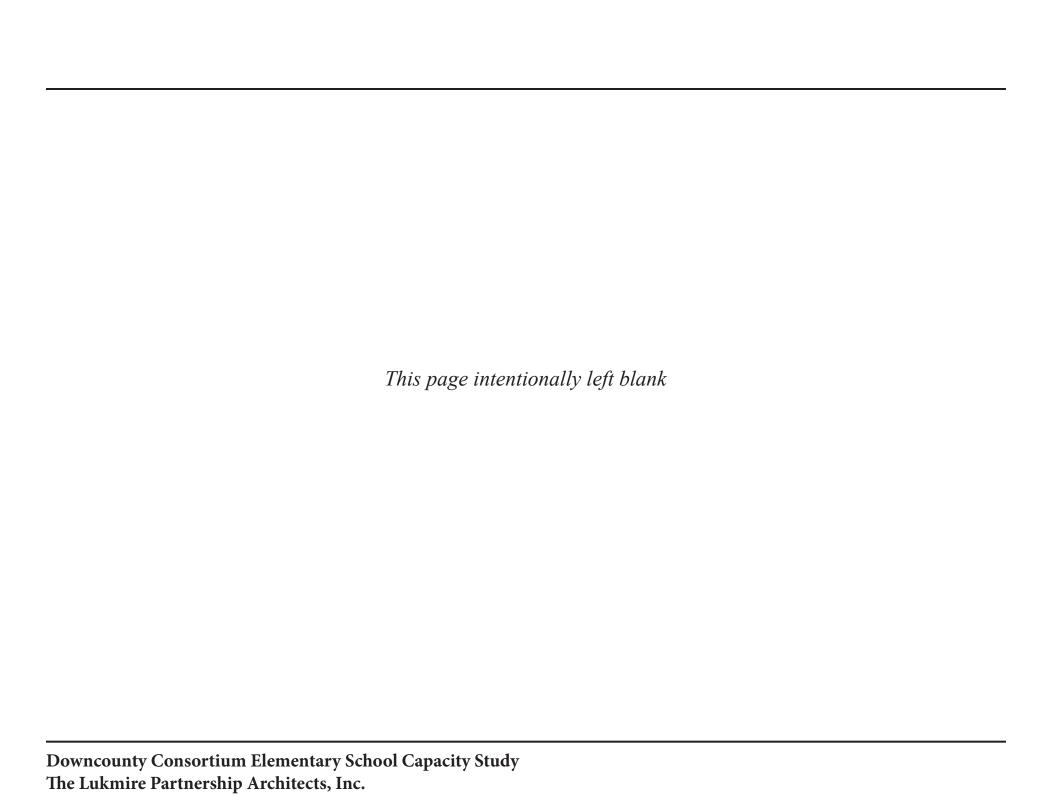
Square Footage	Option 1 (Preferred)	Option 2	Option 3
Existing (no renovations)	60,278	60,278	60,278
New Addition Construction	29,417	31,416	26,442
Add Alternate (Multi-	8,751	8,751	8,751
purpose/kitchen) includes			
3560 of new construction			
Renovation	12,269	12,269	12,269
Existing to Remain	42,818	42,818	42,818
Total Gross Square Feet	93,255	95,254	90,280
Cost Estimates	\$16,847,000	\$17,488,000	\$15,893,000

#### Feasibility Study Cost Outline (\$000's) Preferred Option 1

Construction Cost - Option 1(Preferred)	\$ 13,795
Planning Cost	\$ 1,601
Contingency and Related Costs	\$ 1,451
Totals	\$ 16,847

The cost estimate in this feasibility study is based on current construction market conditions for both building and site.

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# **Appendix C - Capacity and Cost Comparison Charts**

Schools	Existing Gross Square Footage	Total New Gross Square Footage	Total New and Existing Gross Square Footage	Estimate Total Building and Site Construction Cost	Cost Per Gross Square Foot Building and Site	Existing Program Capacity	Proposed Program Capacity with Addition	Proposed Increase in Program Capacity
PreK/K - 5 Schools								
East Silver Spring	88,895	5,600	94,495	\$3,514,000	\$627.50	582	651	69
Forest Knolls	89,564	11,700	101,264	\$4,831,000	\$413	560	663	103
Highland View	59,213	37,254	96,467	\$8,950,000	\$240	298	686	388
Rolling Terrace	88,835	10,000	98,835	\$5,051,000	\$505	724	765	41
Sligo Creek	98,799	18,400	117,199	\$9,616,000	\$523	664	765	101
Woodlin	60,725	32,977	93,702	\$15,297,000	\$464	462	635	173
Summary PreK/K-5 Schools								560
Paired Schools to Remain Paired								
New Hampshire Estates	73,306	33,700	107,006	\$15,083,000	\$448	480	732	252
Oak View	57,560	20,330	77,890	\$9,380,000	\$461	358	634	276
Montgomery Knolls	97,213	10,900	108,113	\$6,605,000	\$606	540	648	108
Pine Crest	53,778	21,800	75,578	\$8,623,000	\$396	381	657	276
Takoma Park	85,553	0	85,553	\$0	\$0	636	636	0
Piney Branch	99,706	0	99,706	\$0	\$0	611	611	0
Summary Paired Schools								660
TOTAL Added Capacity if all 10 Add	litions are Construc	ted						1220