



Arlington Public Schools

New Elementary School at Reed-Westover
FINAL DESIGN REPORT 09.19.2019

VMDO

VMDO believes that our best projects are the result of deep collaborations with all project stakeholders. We wish to thank the APS School Board, the Building Level Planning Committee, Public Facilities Review Committee, and the school based and central office staff that participated in this process.

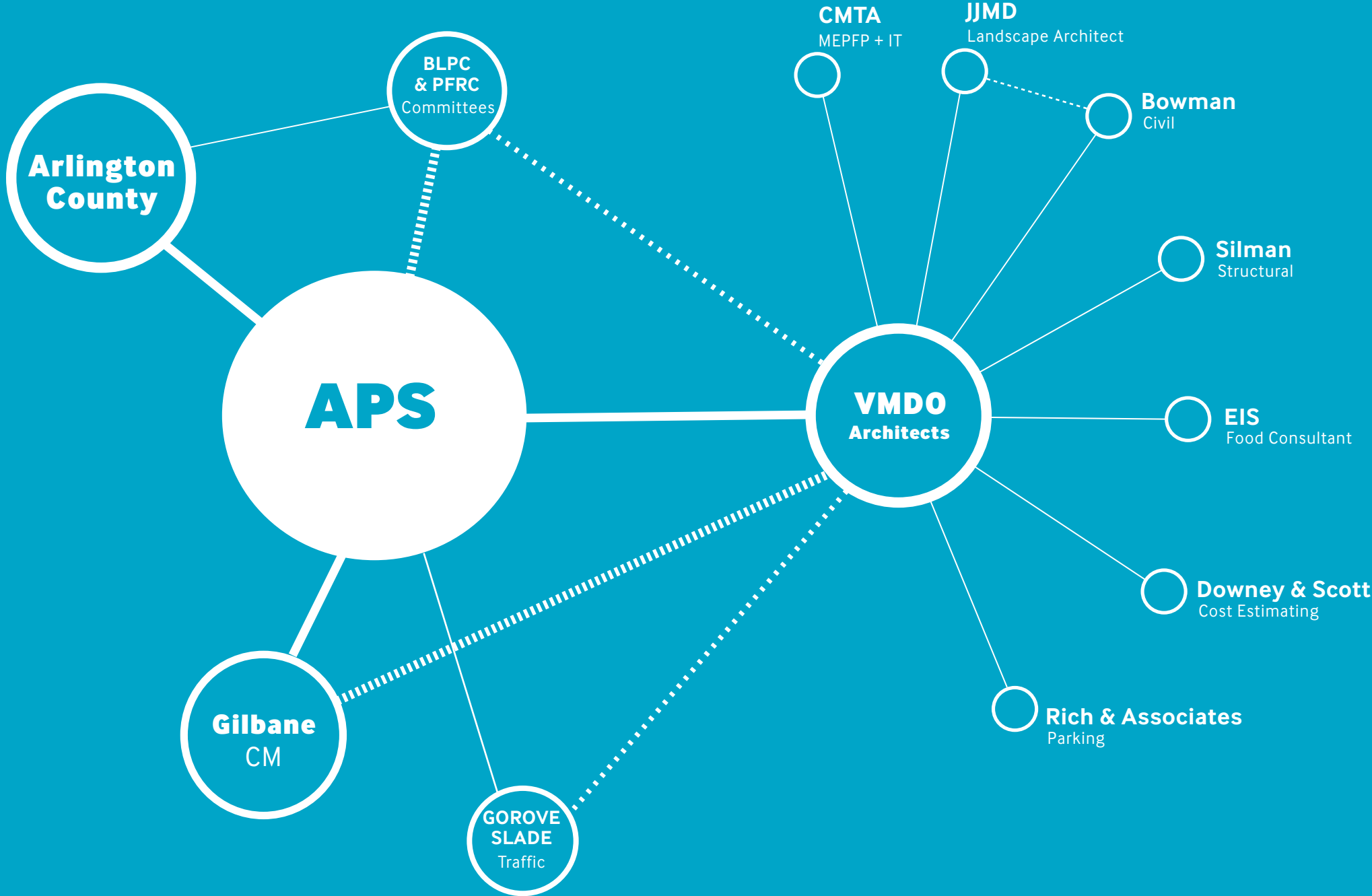
We appreciate their collective vision and the trust that they have placed in us as designers.

We also recognize that countless hours of time have been invested in our shared goal of creating a better school and we thank each of them for their contributions. We believe they will pay great dividends for the children of Arlington for many years to come.

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Introduction

Executive Summary

Project Team

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Executive Summary

This Final Design Report reflects the capital project that was presented to the Arlington Public Schools School Board as an information item on September 5th, 2019 and approved as an action item on September 19th, 2019. The New Elementary School at Reed-Westover will have a capacity of 732 students in a 111,516 gross square foot building. It is scheduled to open in September of 2021 and has a not-to-exceed total project cost of \$55 million. Project funding was approved by the voters of Arlington in the November 2018 bond referendum.

The report provides expanded detail on summary information from the two School Board presentations. This includes, but is not limited to:

- existing site documentation
- comprehensive list of spaces in the building
- a fully annotated site plan
- a fully detailed tree plan indicating anticipated trees to be removed
- truck turning analysis at the loading dock off North Madison Street.
- exterior and interior renderings of the final design

A recommendation letter from the Chair of the Building Level Planning Committee (BLPC) along with the final motion for School Board approval, can be found at the end of the Report.

The building and site design documented in this Report is the result of fifteen (15) meetings with the BLPC and PFRC, beginning in late October 2017. Over that time, six (6) different designs were considered, with the final design receiving near unanimous support from both Committees. The building follows the precedent of a four (4) story elementary established by Alice West Fleet Elementary and is a direct reflection of the often-repeated desire among Arlington residents to “build up and not out”. Many steps have been taken to ensure that the height and massing of the building appropriately blend in with the neighborhood context. The compact building footprint and appropriately sized parking, sidewalks, and play courts result in an only 20,082 square foot increase in impervious area to the site as a whole -- a major reason for the widespread popular support for the scheme.

Building permitting is anticipated to be completed by September 2019 with construction starting by October 2019.

Project Team

ARLINGTON PUBLIC SCHOOL BOARD

Cintia **Johnson**, Interim Superintendent
 Tannia **Talento**, Chair
 Monique **O'Grady**, Vice Chair
 Reid **Goldstein**, Member
 Barbara **Kanninen**, Member
 Nancy **Van Doren**, Member

BUILDING LEVEL PLANNING COMMITTEE (BLPC)

Chair
 Hans **Bauman**, Chair

PTA/Parents
 Lauren **Reardon**, Discovery ES
 David **Goodman**, Glebe ES
 Fraser **Kadera**, McKinley ES
 Stacy **Rosenthal**, Nottingham ES
 Julie **Pandya**, Tuckahoe ES

Civic Associations
 Michael **O'Malley**, Highland Park Overlee Knolls
 Dianne **Hasselmann**, Highland Park Overlee Knolls
 Molly **Ketcham**, Westover Village
 Michelle **Hejl**, Tara - Leeway Heights
 Vanessa **Guest**, Leeway Overlee Civic Association
 Stephanie **Talton**, Dominion Hills
 Sheila **Leonard**, Madison Manor

Other
 Miles **Mason**, Facility Advisory Council (FAC)
 Hamna **Shariq**, Student Advisory Board (SAB)
 James **Schroll**, Public Facilities Review Committee (PFRC)
 Bill **Braswell**, Immediate Neighbor / Previous BLPC
 Monique **O'Grady**, School Board Liaison
 Dena **Little**, Branch Services, Westover Library

APS Instruction
 Dr. Eileen **Gardner**, Principal, Nottingham Elementary School
 Tani **Vaughn**, Teacher, McKinley
 Kristen **Bartholomew**, Teacher, McKinley
 Allison **Andrews**, Teacher, Barcroft
 Wendy **Pilch**, Director of Elementary Education
 Heather **Hurley**, Supervisor of Personalized Learning

ARLINGTON PUBLIC SCHOOLS FACILITIES

John **Chadwick**, Assistant Superintendent for Facilities and Operations
 Jeff **Chambers**, Director of Design and Construction
 Benjamin **Burgin**, Assistant Director of Design & Construction
 Ajibola **Robinson**, Project Manager
 James **Meikle**, Director of Maintenance Services

PUBLIC FACILITIES REVIEW COMMITTEE (PFRC)

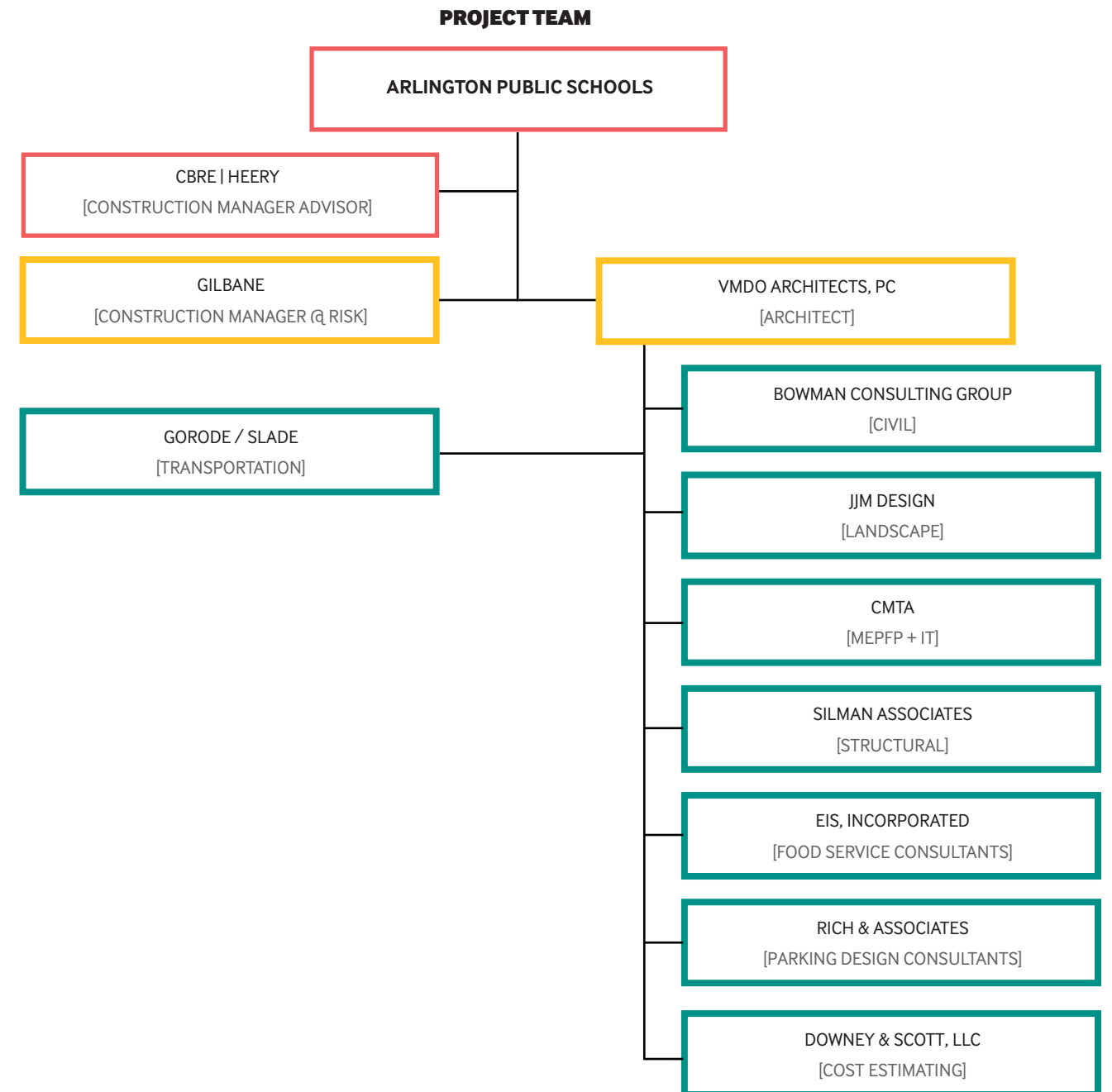
Core Members
 James **Schroll***, PC Rep (PFRC Chair)
 Hans **Bauman***, Seat 10 - APS Rep (BLPC Chair)
 Doris **Ray**, Seat 2 - DAC Rep
 Stephen **Hughes**, Seat 3 - PC Rep
 Jessica **Skerritt**, Seat 4 - E2C2 Rep
 Jim **Lantelme**, Seat 5 - PC Rep
 Stephen **Baker**, Seat 6 - FAAC Rep
 Todd **McCracken**, Seat 7 - APS Rep
 Jeffrey **Certosimo**, Seat 8 - Housing Commission Rep
 Chris **Forinash**, Seat 9 - At Large
 Terri Hume **Prell**, Seat 11 - At Large
 Michael J. **Grace**, Seat 12 - PRC Rep
 Kevin **Rachlin**, Seat 12 Alternate - PRC Rep
 Michael **Perkins**, Chair, Seat 13 - TC Rep
 Nora **Palmatier**, Seat 14 - At Large

Reed Project Specific Members
 Mike **O'Malley***, Highland Park - Overlee Knolls
 Michelle **Hejl***, Tara-Leeway Heights
 Molly **Ketcham***, Westover Village

Other
 Rob **Swennes**, Highland Park, Westover Farmers Market
 Kristy **Peterkin**, Westover Retail

VMDO ARCHITECTS PROJECT TEAM

Wyck A. **Knox**, AIA, LEED AP, Principal in Charge, Project Manager
 Bryce **Powell**, AIA, LEED AP BD+C, Project Manager
 Robert **Winstead**, AIA, LEED AP BD+C, Project Architect (Planning)
 Ken **Thacker**, AIA, LEED AP BD+C, Project Architect (Structure)
 Kelly **Callahan**, AIA, Project Architect (Exterior)
 Tyler **Jenkins**, Job Captain
 Maria L. **Bninski**, AIA, LEED AP BD+C
 Jon **Shealy**, AIA, LEED AP BD+C
 James **Atkins**
 Sarah **Lutze**



Community Roles & Charges

Building Level Planning Committee (BLPC)

1. Primary Role:

The primary role of the BLPC is to serve as the principal communication liaison with community stakeholders. The BLPC is expected to ensure effective community input during the design and construction of the project, and to collaborate with various community stakeholders to create plans that are broadly supported. Facilities and Operations Department staff shall facilitate the work of the BLPC in carrying out this critical communication function. BLPC members shall establish regular lines of communication, including email lists, web sites and attendance at community meetings, to ensure appropriate community engagement in the process.

2. Communications:

Communication with stakeholders interested in school construction projects is critical. The following key roles have been identified to ensure effective communication and community engagement in the BLPC process.

- PTA members of the BLPC shall keep parents informed of Concept Design, Schematic Design and other progress of the project.
- Civic association members of the BLPC and the Chair of the BLPC shall ensure notification and provide information to neighbors of the school regarding the Concept Design, Schematic Design and other progress of the project. Comments should be solicited by and shared with the BLPC for consideration.
- The BLPC, in conjunction with its civic association members, or through direct contact with the civic associations, shall ensure notification and coordination of the Concept Design and Schematic Design and progress of the project through outreach to the broader community through the civic associations. Comments should be solicited by and shared with the BLPC for consideration.
- The BLPC shall provide information on the Concept Design, Schematic Design and other progress of the project to the greater Arlington community. Comments, and/or directions, received from the School Board, or comments received directly from community members, shall be considered by the BLPC.
- The BLPC shall assist the staff of the Department of Facilities and Operations and the project architect with a public meeting prior to completion of Schematic Design. The BLPC shall receive comments from the public, the School Board, the County Board, PFRC, and relevant County Commissions.
- Facilities and Operations staff shall inform BLPC mem-

bers of any School Board meeting agenda items concerning the project.

3. School Board Direction:

The BLPC will assist the School Board to achieve Goal 4 of the APS 2011-17 Strategic Plan 4 to Provide Optimal Learning Environments that are adaptable to future changes of use, energy efficient, environmentally sustainable, and provide adequate outdoor space for physical education, recess and community use.

The BLPC shall remain mindful throughout its participation that the project must be completed on time and within or for less than \$49 million, and that it must accommodate the minimum number of students approved by the School Board.

Link to BLPC Charge:

<https://www.apsva.us/wp-content/uploads/2017/09/NES-at-Reed-BLPC-charge-SB-approved.pdf>

Public Facilities Review Committee (PFRC)

1. Mission:

The Public Facilities Review Committee's (PFRC) mission is to ensure that the highest quality of land use planning, design, transportation planning, and other important community aspects are incorporated into civic projects as assigned to the Committee by the Arlington County Board.

2. Scope of Duty:

PFRC is being formed as a mechanism for advisory commissions and committees to have timely input on the development of significant County and School projects prior to the formal submittal of the project for public hearings held by the Planning Commission and County Board. The major responsibilities of the PFRC are the following:

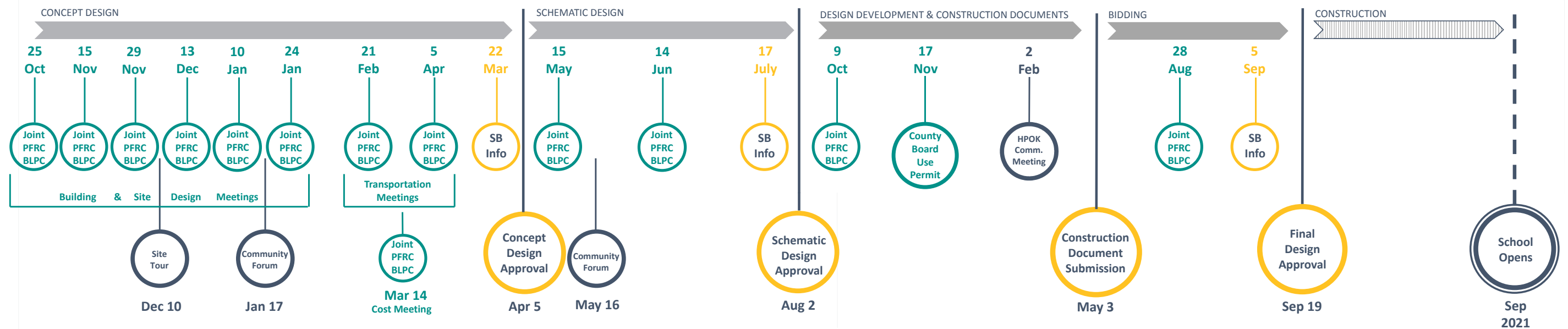
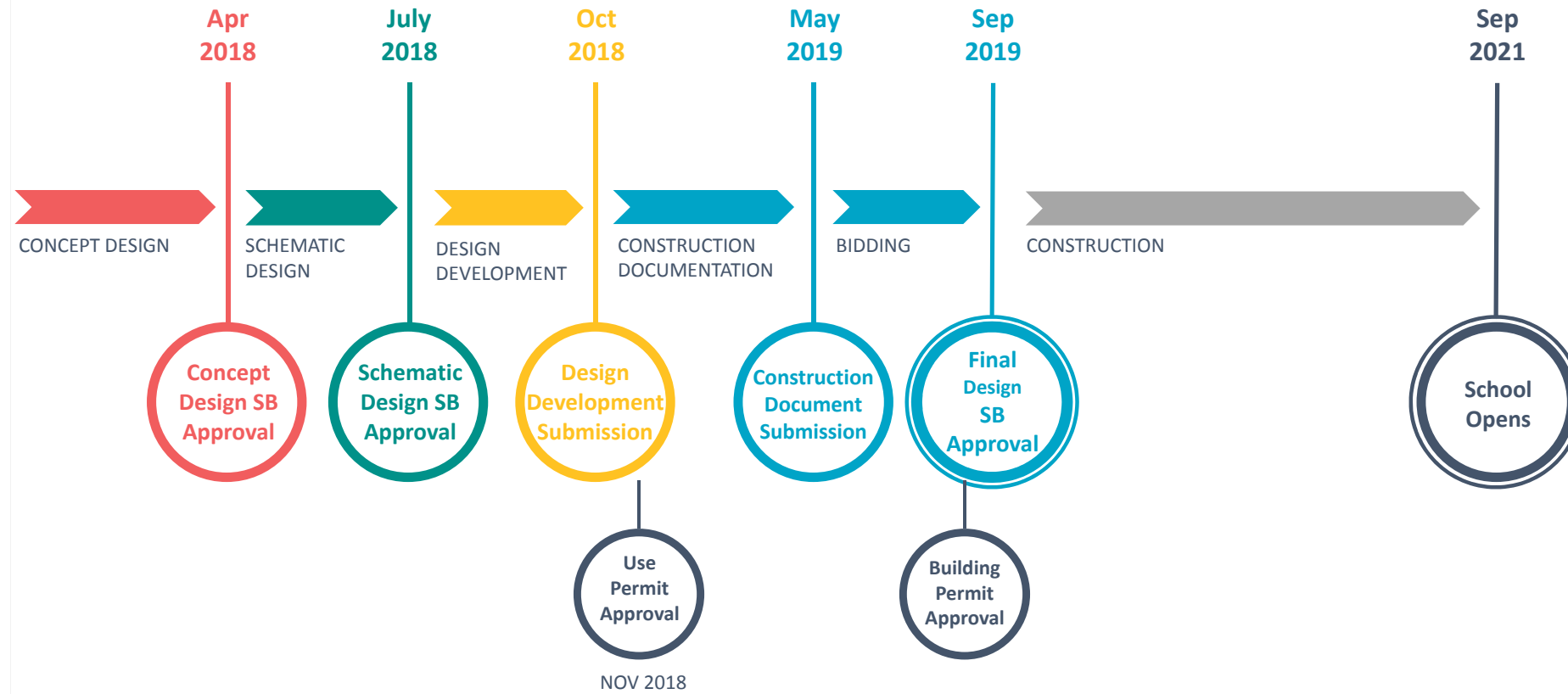
- Provide a forum in which the Planning Commission, citizens' community groups, advisory commissions and committees can have a dialogue with the project lead and other staff to review, discuss, and comment on any important public facility project.
- Ensure that the highest quality of land use planning and design is incorporated into development projects; Promote compliance with the County's Comprehensive Plan, other planning documents and County policies; Address community concerns and goals.
- Help inform commissions and the County Board on the outstanding issues with regard to a specific plan and any conditions which it might determine to be necessary or appropriate to address those issues.
- Provide an efficient means for broad-based public participation, precluding the necessity of multiple presentations to and reviews by each individual commission during the development phase. The PFRC provides the forum for everyone to be heard during the development of the public facility.
- Provide advice to the County Board and County Manager in the development of the Capital Improvement Program.

It is not the purpose of the PFRC to address programmatic needs and interior design; however it may be necessary to discuss the interior/layout as it may impact the exterior, placement, or massing of the building.

Link to PFRC Charge:

https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/5/2014/06/PFRC_Charge_June2014.pdf

Project Chronology



Site Photos

- 1 Westover Library at Washington Blvd & N McKinley Rd
- 2 Westover Library & Children's School along N McKinley Rd
- 3 Children's School Entry at N McKinley Rd
- 4 Children's School along N McKinley Rd
- 5 Children's School at N McKinley Rd and 18th St N
- 6 North West Facade of Westover Library and Reed School
- 7 Baseball Diamond along 18th St N
- 8 Sledding Hill looking toward Reed School
- 9 N McKinley Rd at Washington Blvd looking North East
- 10 North West Wooded Playground

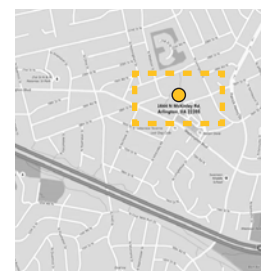
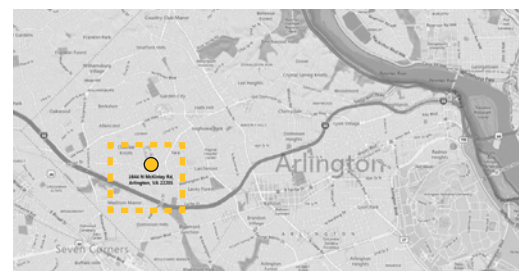
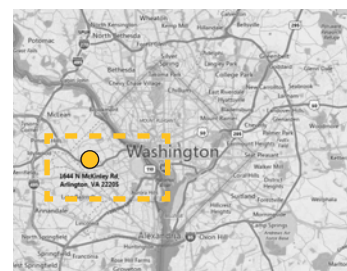


Site Overview



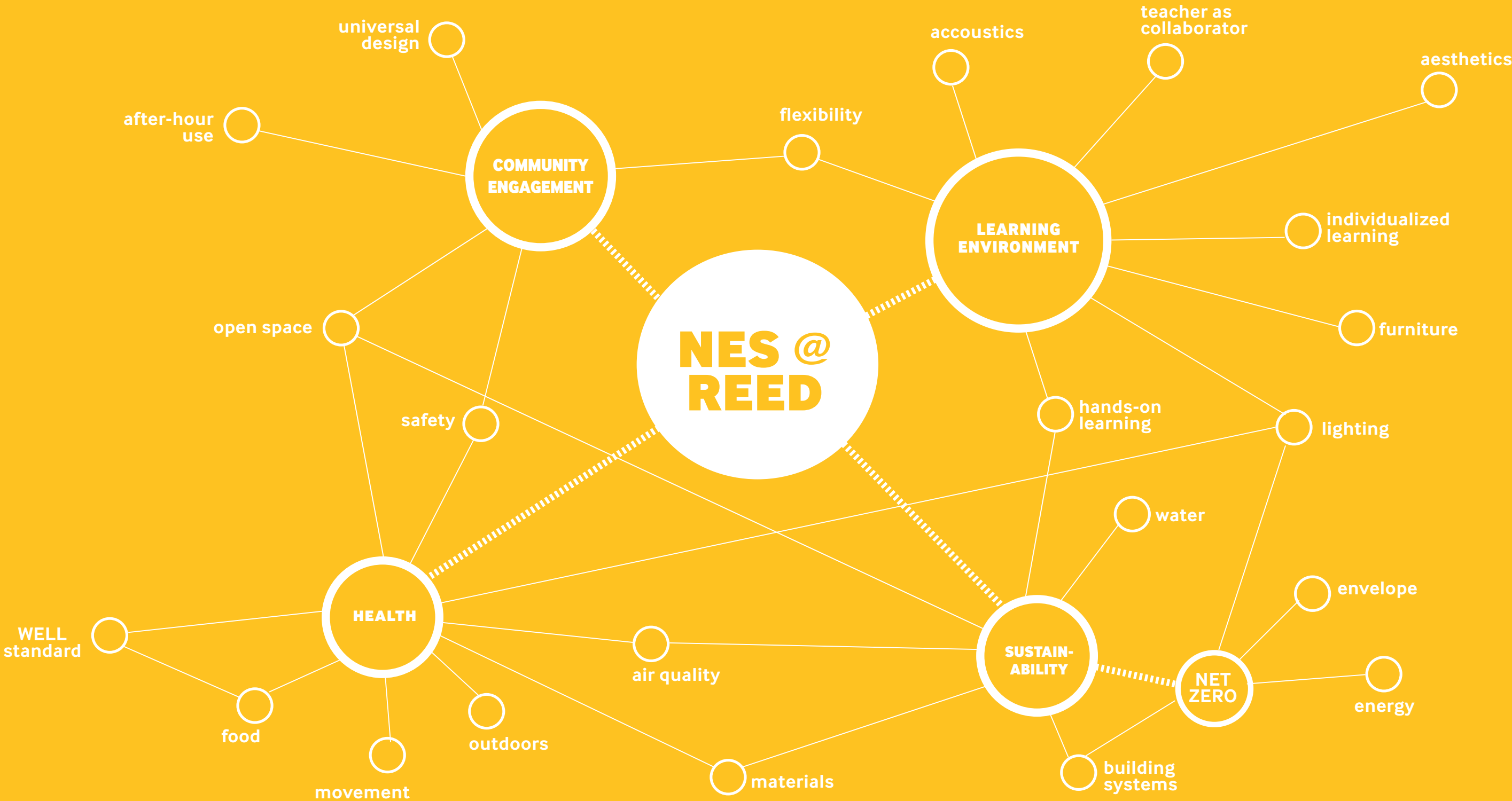
The Reed site is located within the Overlee Knolls' Civic Association, and is adjacent to the Westover precinct. It is bounded by N Lexington St to the North, 18th St N to the East, Washington Blvd to the South, 18th St N / 19th St N to the West. Existing uses at the Reed site include the Westover Branch Library, The Children's School and Integration Station, a community park located at the intersection of N Lexington St and 18th St N, a "pee-wee" size softball field used primarily by youth baseball, playfields, sledding hill, paved basketball courts and two playgrounds. The site also includes passive open spaces and two surface parking lots.

The Walter Reed Elementary School was originally built in 1938 and underwent expansions and renovations in 1950, 1966, and 2009. A portion of the building currently serves as the Westover Branch of the Arlington Public Library. The Children's School and Integration Center for Arlington Public Schools have been relocated in anticipation of the upcoming renovation and building addition.



- A. ARLINGTON PUBLIC LIBRARY - WESTOVER BRANCH
- B. THE CHILDREN'S SCHOOL & INTEGRATION CENTER
- C. SOFTBALL FIELD
- D. PLAY FIELD
- E. BASKETBALL COURT
- F. EXISTING NORTH WEST PARKING LOT
- G. EXISTING 18TH ST PARKING LOT
- H. SLEDDING HILL
- I. WESTOVER VILLAGE

Project Goal Relationships



02

Project Goals + Parameters

Goals & Organization

Flexible Learning Environments

Educational Opportunities

Space Program Summary

List of Spaces

Goals & Organization

Lens for Learning

The space program on the following pages seeks to provide a diverse menu of spaces for optimal learning to serve a minimum of 725 students.

The program is sub-divided into core program areas – grade levels, teaching and learning support, administration and teacher support, arts, music, library, food service, physical education, and extended day.

The educational specifications/schedule of functional spaces will be based on those of functional spaces approved by the School Board for Alice West Fleet Elementary, modified as necessary to reflect any specific requirements of the Department of Instruction. The final design shall be as adaptable as possible in order to accommodate future increases in enrollment and changes of instructional program. The School Board approved with the Schematic Design the educational specifications/program of functional spaces for the project.

The connection between spaces inside, and outside, the building will occur in a variety of ways to involve and activate sensory responses. Universal design and sustainability will be hallmarks of the new school. Taken as a whole, the goal is to create a school that students can't wait to get to in the morning and don't want to leave in the afternoon.

A properly designed new elementary school and grounds, one that truly engages the imagination, will be one of the strongest tools available to help APS reach all five of its strategic goals:

- Student Success: Multiple Pathways To Student Success
- Student Well-Being: Healthy, Safe, and Supported Students
- Engaged Workforce
- Operational Excellence
- Partnerships: Strong And Mutually Supportive Partnerships



Flexible Learning Environments



Anytime, Anywhere Learning

The design will include a variety of furniture & learning spaces, both in characteristic and in size, to articulate the positive relationships between new pedagogic methods, community engagement, modern architecture and educational landscape strategies that promote health, well-being and collaboration. Specialized learning classrooms and extended learning areas are interwoven throughout the academic core to promote long-term programmatic flexibility, a sense of community and belonging amongst learners, and to ease transition-related sensitivities.

Every Space is a Learning Place

The layout will accommodate the need for flexibility as teaching and learning methods and practices evolve - while also strengthening, through design, the belief that every child learns in unique ways and teachers value opportunities to provide personalized, meaningful curriculum experiences for individuals and groups of all sizes.

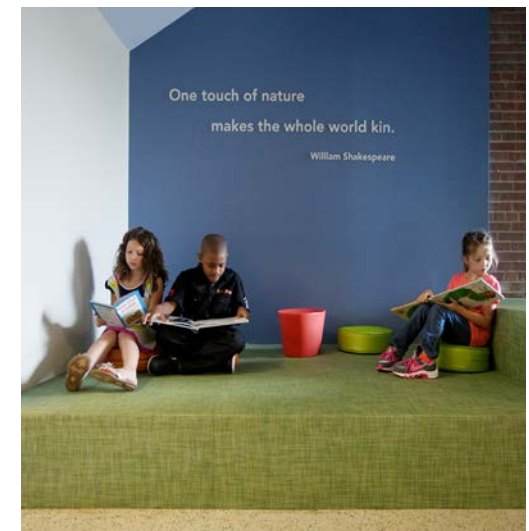
A variety of space types; classrooms, hubs, innovation commons, team rooms, conference rooms, nooks and crannies, and outdoor classrooms will foster collaboration, interaction, innovation and invention in both formal and informal settings. The project will also be designed as a living lab for sustainable practices. An over arching goal for the design is the encouragement of creativity, curiosity and joy within an actively engaged community.



Educational Opportunities

Child-Focused Spatial Synergies

Planning and designing a new elementary school for the next generation and beyond brings architecture and landscape design into direct discourse with contemporary educational practice and inspires conversations about how architecture can serve to meet the needs of the whole child. Designs that promote collaboration (spaces that inspire), community (spaces that encourage a sense of belonging and safety), and connection (spaces that foster sharing and empathy) are next generation learning environments. A holistic, whole child approach to design emphasizes health and well being as a precursor for better learning. Learning in and from nature, access to the outdoors, human-centered lighting strategies, indoor air quality, ergonomic and flexible settings, energy conscious systems, transparency, acoustics, and comfortable, beautiful places that translate a sense of calm and well being are hallmark qualities of child-centric, teacher optimized designs for the 21st century.



Space Program Summary

Program	Sqft	Capacity Generating Classrooms
Pre K & Kindergarten (Early Childhood) :	6,170 nsf	7 classrooms = 148.65
First & Second Grades:	8,975 nsf	10 classrooms = 233.3
Third, Fourth & Fifth Grades:	12,230 nsf	15 classrooms = 349.95
Extended Learning & SGI:	6,834 nsf	
Guidance + Administration + Teacher Support:	7,283 nsf	
Art + Music:	5,750 nsf	
Library:	3,595 nsf	
Food Services:	6,679 nsf	
Physical Education + Extended Day:	8,504 nsf	
Net Square Footage:	65,778 nsf	
Support, Structure & Circulation:	45,738 sf	
Gross Square Footage:	111,516 gsf	Total Capacity = 732
Gross SF per student:	152 gsf	

List of Spaces

New Elementary School at Reed Space Program											
Construction Documents, August 2019											
1.1	EARLY CHILDHOOD	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	PreK plus Toilet & Changing Table	1,040	1,060	1,019	1,060	680	2	2,120	1,360	16.00	32.00
B	Kindergarten plus Toilet	1,045	1,060	1,019	1,060	962	5	5,300	4,810	23.33	116.65
								7,420	6,170		148.65
1.2	PRIMARY GRADES 1-2	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	1st Grade Classroom plus Toilet	870	1,060	1,006	1,060	963	5	5,300	4,815	23.33	116.65
B	2nd Grade Classroom	825	825	816	825	832	5	4,125	4,160	23.33	116.65
								9,425	8,975		233.30
1.3	INTERMEDIATE GRADES 3-5	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	3rd Grade Classroom	825	825	835	825	806	5	4,125	4,030	23.33	116.65
(A)	4th Grade Classroom	825	825	816	825	834	5	4,125	4,170	23.33	116.65
(A)	5th Grade Classroom	825	825	829	825	806	5	4,125	4,030	23.33	116.65
								12,375	12,230		349.95
2.1	EXTENDED LEARNING AREA	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Early Childhood Extended Learning Area		700	625	350	268	2	700	536	0.00	0.00
(A)	Primary Grade Extended Learning Area		900	868	450	229	2	900	458	0.00	0.00
(A)	Intermediate Grade Extended Learning Area		1,200	1,070	400	270	3	1,200	810	0.00	0.00
								2,800	1,804		0.00
2.2	SGI	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Small Group Instruction	400-600	500	472	500	503	10	5,000	5,030	0.00	0.00
								5,000	5,030		0.00
										Building Capacity	731.90

List of Spaces

3.1 ADMINISTRATIVE SUITE		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Reception / Clerical Area	500	600	731	600	778	1	600	778	0.00	0.00
B	Principal's Office	200	200	201	200	216	1	200	216	0.00	0.00
C	Principal's Administrative Ass't Office (Admin Hub)	100	115	77	115	125	1	115	125	0.00	0.00
D	Assistant Principal's Office	120	120	147	120	108	1	120	108	0.00	0.00
E	Conference Room	250	250	188	250	363	1	250	363	0.00	0.00
F	Record Storage	300	90	94	90	148	1	90	148	0.00	0.00
G	Head End (+PA Nook)		200	194	200	149	1	200	149	0.00	0.00
H	Teacher Workroom	250	300	286	300	244	1	300	244	0.00	0.00
I	Staff Toilet	65	55	78	55	55	1	55	55	0.00	0.00
J	Clinic	600	600	561	350	496	1	350	496	0.00	0.00
K	Clinic - Exam Room				130	127	1	130	127	0.00	0.00
L	Clinic - Toilet				75	51	1	75	51	0.00	0.00
M	SRO Office/Camera Station				90	133	1	90	133	0.00	0.00
N	PTA Storage				150	85	1	150	85	0.00	0.00
								2,725	3,078		0.00

3.2 STUDENT SERVICES		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Office + Table w/ 4 Chairs		130	120	150	155	9	1,350	1,395	0.00	0.00
B	Occupational Therapy/Physical Therapy	420	420	554	500	351	1	500	351	0.00	0.00
C	OT/PT Storage				150	59	1	150	59	0.00	0.00
D	Restroom w/ Changing Table					112	2	0	224	0.00	0.00
								2,000	2,029		0.00

3.3 TEACHER SUPPORT (DISTRIBUTED)		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Teacher Conference Room		245	217	245	308	3	735	924	0.00	0.00
B	Teacher Professional / Itinerant Teacher Space		350	244	350	139	4	1,400	556	0.00	0.00
C	Teacher Work Room with Copier		180	0	180	174	4	720	696	0.00	0.00
D	Book Storage	300	200	158	250	194	1	250	194	0.00	0.00
								2,855	2,176		0.00

List of Spaces

4.1 ART CLASSROOMS		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Art Classroom	1 @ 1,730	1,350	1,317	1,350	1,398	2	2,700	2,796	0.00	0.00
B	Art Storage		150	294	150	inside classroom	2	300	0	0.00	0.00
C	Kiln Room		80	83	80	71	2	160	142	0.00	0.00
								3,160	2,938		0.00
4.2 MUSIC CLASSROOMS		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	General Music	950	950	967	950	908	2	1,900	1,816	0.00	0.00
B	General Music Storage	200	150	inside classroom	150	inside classroom	2	300	0	0.00	0.00
C	Instrumental Music	825	825	990	825	861	1	825	861	0.00	0.00
D	Instrumental Storage	200	200	194	200	135	1	200	135	0.00	0.00
								3,225	2,812		0.00
5.1 LIBRARY		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Library (9,000 - 12,000 volumes per APS.. to be confirmed)	2,800	2,800	3,193	2,800	2,579	1	2,800	2,579	0.00	0.00
B	Library/Teacher Conference Room	150	250	0	250	349	1	250	349	0.00	0.00
C	Video Production	100	120	337	120	130	1	120	130	0.00	0.00
D	Office / Workroom	300	150	137	150	177	1	150	177	0.00	0.00
E	IT / AV Storage	200	250	243	250	252	1	250	252	0.00	0.00
F	ITC Coordinator Office	120	120	90	120	108	1	120	108	0.00	0.00
								3,690	3,595		0.00
5.2 FOOD SERVICES		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Dining Commons	3500 (Multipurpose)	3,200	3,191	3,500	4,083	1	3,500	4,083	0.00	0.00
B	Kitchen + Servery	1200-1600 (Off-site Prep)	1,790	1,921	1,790	2,596	1	1,790	2,596	0.00	0.00
	Kitchen Office		90	84	Part of Kitchen			Part of Kitchen		0.00	0.00
	Refrigerator / Freezer				Part of Kitchen			Part of Kitchen		0.00	0.00
	Dry Storage				Part of Kitchen			Part of Kitchen		0.00	0.00
	Dish Room				Part of Kitchen			Part of Kitchen		0.00	0.00
	Receiving Room				Part of Kitchen			Part of Kitchen		0.00	0.00
	Trash Room				Part of Kitchen			Part of Kitchen		0.00	0.00
C	Chair Storage						1	0		0.00	0.00
								5,290	6,679		0.00
5.3 EXTENDED DAY		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Extended Day Office	wihin storage	200	226	200	287	1	200	287	0.00	0.00
B	Extended Day Storage	420	200	188	200	74	2	400	148	0.00	0.00
								600	435	0.00	0.00

List of Spaces

6.0 PHYSICAL EDUCATION*		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Gymnasium	4100-5100	7,000	6,418	7,000	5,813	1	7,000	5,813	0.00	0.00
B	Stage	450	900	915	900	655	1	900	655	0.00	0.00
C	PE Teachers' Shared Office	100	150	149	150	183	1	150	183	0.00	0.00
D	Chair Storage	200	200	215	200	171	1	200	171	0.00	0.00
E	PE Storage	150	200	207	200	222	1	200	222	0.00	0.00
								8,450	7,044		0.00
6.1 CLASS ONE		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Class I Bike Storage		260	567	200	203	1	200	203	0.00	0.00
B	Class I Bike Toilet & Shower		90	461	90	93	4	360	372	0.00	0.00
								560	575		0.00
6.2 PARKS & RECREATION		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Parks & Rec Storage		200	0	200	208	1	200	208	0.00	0.00
								200	208		0.00
TOTALS								NES at REED - Program	NES at REED - Actual	Calculated Capacity	
Net square footage (NSF)								69,775	65,778	731.90	
Gross multiplier								1.57	1.57		
Support, Structure and Circulation (SF)								39,772	45,738		
GROSS TOTAL (GSF)								109,547	111,516		
Capacity								732	732		
Gross square foot per student								150	152		

03

Final Design

Existing vs Proposed Site Plan
Site Plan
Plans
Perspectives

Existing vs Proposed Site Plan



Overall Existing Site Plan

Overall Proposed Site Plan

Site Plan



Impervious Areas (sf)

	Existing:	Proposed Design:
Building:	52,744 sf	58,303 sf
Play Courts:	16,272 sf	8,788 sf
Other Paving:	46,741 sf	51,596 sf
Parking:	26,476 sf	44,645 sf
Total:	142,233 sf	163,332 sf
% of Site	39%	45%

KEYNOTES

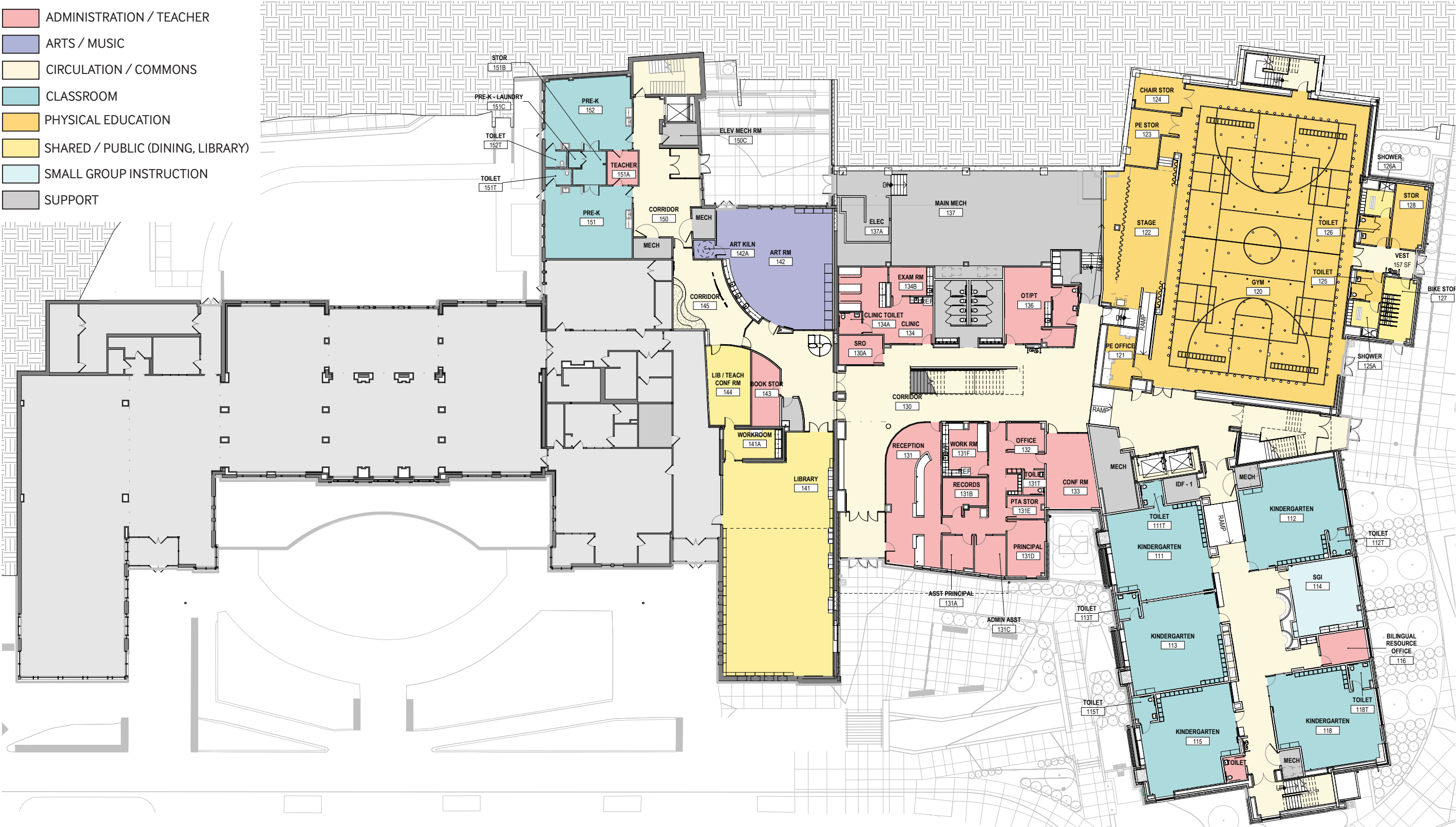
- | | | | |
|--|--|---|---|
| 01 SITE PAVING: CONCRETE W/ SAW CUT CONTROL JOINTS (STRUCTURAL SLAB PATHS AT ARTIFICIAL TURF AREA (27/3.06)) | 19 ACCESSIBLE CURB CUT, TYP. | 54 EXISTING CY SHARE BICYCLES | 71 EXISTING STAIRS TO REMAIN |
| 02 SITE PAVING: CONCRETE RAMP W/ HANDRAILS, ADA COMPLIANT | 20 SITE GUARDRAIL, TYPE 1 | 55 BASEBALL FIELD WITH ALL DIRT INFIELD (BY OTHERS) | 72 HANDRAIL, TYPE 2 |
| 03 SITE PAVING: CONCRETE W/ EXPOSED AGGREGATE FINISH | 21 SITE WALL: EXISTING BRICK RETAINING WALL | 56 SITE FENCE: BACK STOP TO BASEBALL FIELD (BY OTHERS) | 73 GUARDRAIL, TYPE 2 |
| 04 SITE PAVING: POURED RUBBER PLAY SURFACE | 22 SITE WALL: BRICK VENEER FINISH TO MATCH EXISTING, ADJACENT WALL WITH CONC. STAIRS AND HANDRAILS, TYPE 1 | 57 TREE: EVERGREEN SCREENING | 74 CONCRETE SEAT WALL |
| 05 SITE PAVING: ASPHALT W/ CURB | 23 SITE WALL: CONCRETE WITH SIGNAGE, 6.5' HT. | 58 DRY SWALE (SEE CIV. DWGS) | 75 TRENCH DRAIN |
| 06 SITE PAVING: PLAY COURT, PAINTED ASPHALT; THICKNESS FOR EMERGENCY VEHICULAR TRAFFIC | 24 SITE WALL: RETAINING WALL CONCRETE, MAX 2.5' HT. | 59 PROPOSED SITE LIGHTING FIXTURES (SEE ELEC. DWGS.) | 76 POTENTIAL LOCATION FOR FUTURE CONC. SHED |
| 07 SITE PAVING: PERMEABLE PAVERS | 25 SITE WALL: CONCRETE WEIR WALL WITH BLUESTONE CAP @ NOTCH | 60 EXISTING LIGHT POLES | 77 MOUNTABLE CURB FOR FIRE ACCESS |
| 08 SITE PAVING: CONCRETE SIDEWALK WITH HANDRAIL | 26 SITE WALL: CONCRETE @ ENTRY RAMP | 61 SITE BOLLARDS | |
| 09 SITE WALL: RETAINING, CONCRETE | 27 STEPPED OUTDOOR CLASSROOM CONCRETE RETAINING WALL WITH SOD (1'-0" HT) | 62 EXISTING CURB TO REMAIN | |
| 10 HANDRAIL, TYPE 1 | 28 SITE WALL: RETAINING WALL, SEGMENTED BLOCK MAX 2.5' HT. | 63 EXISTING WALL TO REMAIN | |
| 11 CLIMBING APPARATUS SET WITH ARTIFICIAL TURF | 29 SITE STAIRS: CONCRETE W/ CONCRETE CHEEK WALL AND HANDRAILS | 64 EXISTING TREE TO REMAIN | |
| 12 SLIDE EMBEDDED IN TOPOGRAPHY OF SLOPE (POURED RUBBER SURFACE) FIRE LANE ACCESS | 30 WOOD ENGINEERED FIBER AS PLAY MULCH | 65 EXISTING PLANTED AREA TO REMAIN | |
| 13 CONCRETE PAVING FIRE LANE ACCESS | 31 PLAY STRUCTURES | 66 RELOCATED CONC. SHED | |
| 14 LANDFORM - W/ ARTIFICIAL TURF | 32 FLAG POLE | 67 DEMOLISHED EXISTING WALL AREA TO BE FILLED IN AND SEEDED | |
| 15 RAISED CURB EDGE | 33 ARTIFICIAL TURF | 68 ROUNDED RIVER STONE 3'-5" FOR BRUSHWOOD CURBING | |
| 16 ACCESSIBLE CONCRETE COMMUNITY PATH | 34 PLANTED AREA | 69 TRANSFORMER & GENERATOR AREA | |
| 17 SITE WALL: RET., SEGMENTED BLOCK, GREATER THAN 1.5' HT. | 35 TRASH AREA | 70 STORMWATER MANAGEMENT AREA | |
| | | 71 PLAY FIELD | |
| | | 72 BENCHES OF WOOD AND METAL, TYP | |
| | | 73 BICYCLE RACKS | |
| | | 74 EXISTING BICYCLE RACKS TO REMAIN | |
| | | 75 BASKETBALL GOALS: 10' HT (2) | |
| | | 76 PLAY FIELD | |
| | | 77 BASKETBALL GOALS: 8' HT (1) | |
| | | 78 TRENCH DRAIN | |
| | | 79 FOUR SQUARE | |
| | | 80 TRASH CAN | |

01 DESIGN DEVELOPMENT - SITE PLAN
SCALE 1" = 40'-0"

First Floor

PROGRAM LEGEND

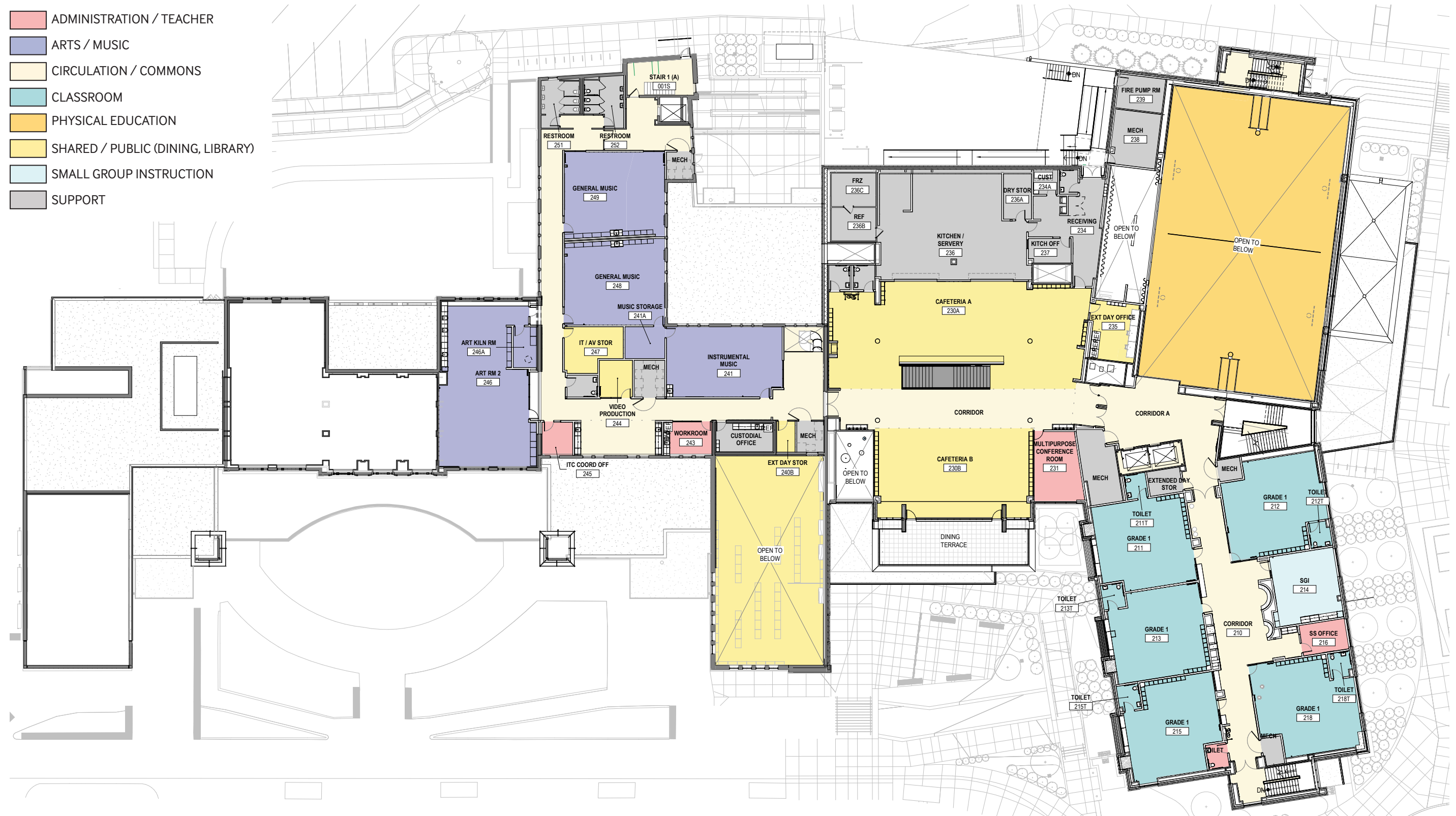
- ADMINISTRATION / TEACHER
- ARTS / MUSIC
- CIRCULATION / COMMONS
- CLASSROOM
- PHYSICAL EDUCATION
- SHARED / PUBLIC (DINING, LIBRARY)
- SMALL GROUP INSTRUCTION
- SUPPORT



Second Floor

PROGRAM LEGEND

- ADMINISTRATION / TEACHER
- ARTS / MUSIC
- CIRCULATION / COMMONS
- CLASSROOM
- PHYSICAL EDUCATION
- SHARED / PUBLIC (DINING, LIBRARY)
- SMALL GROUP INSTRUCTION
- SUPPORT

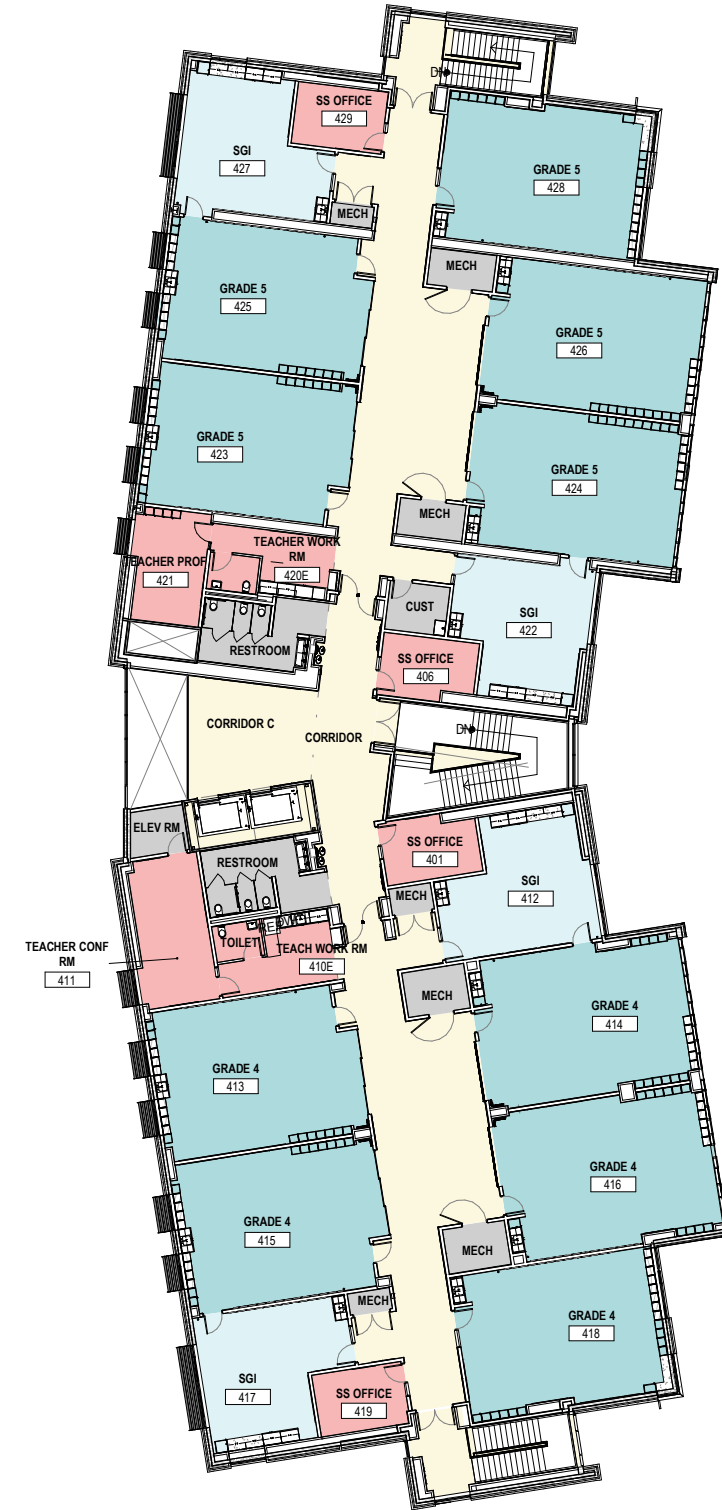


Third Floor

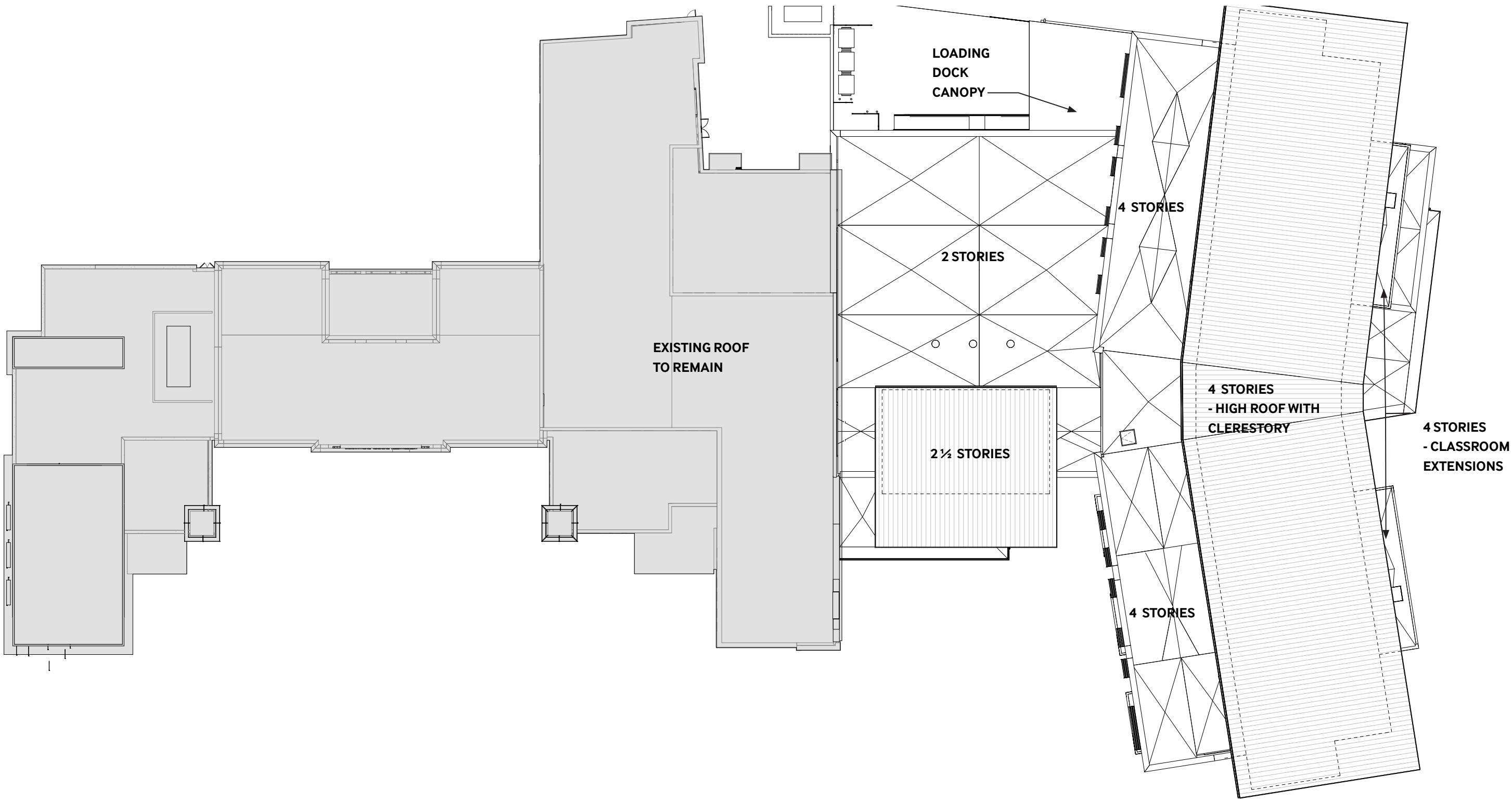
Fourth Floor

PROGRAM LEGEND

- ADMINISTRATION / TEACHER
- ARTS / MUSIC
- CIRCULATION / COMMONS
- CLASSROOM
- PHYSICAL EDUCATION
- SHARED / PUBLIC (DINING, LIBRARY)
- SMALL GROUP INSTRUCTION
- SUPPORT



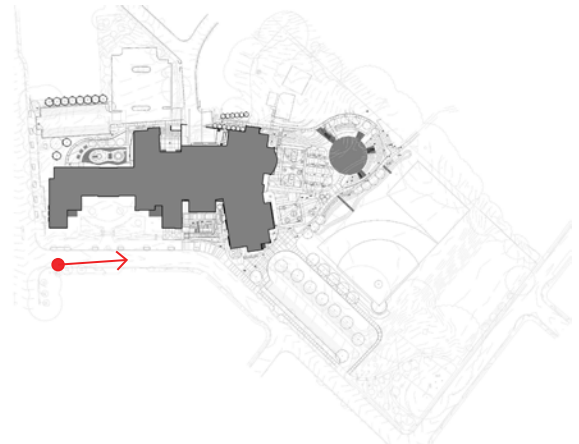
Roof Plan



Exterior Perspectives

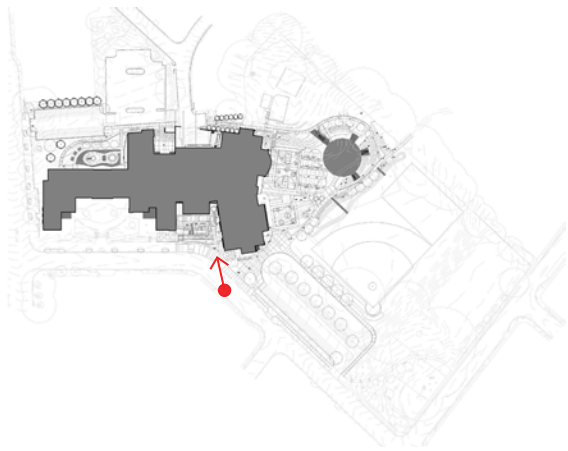


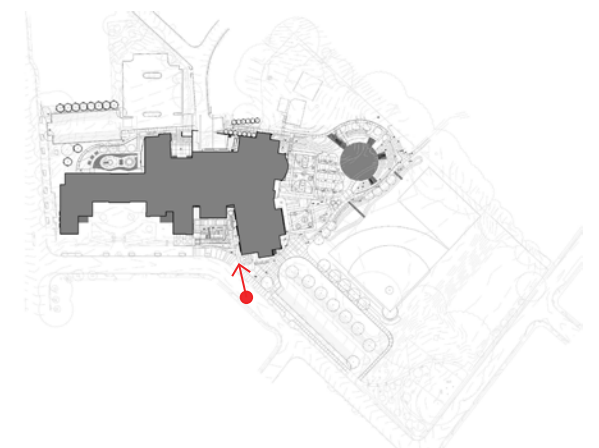
Rendering - View from intersection of Washington Blvd & N. McKinley Rd





Rendering - View of entry plaza at N McKinley Rd & 18th St N

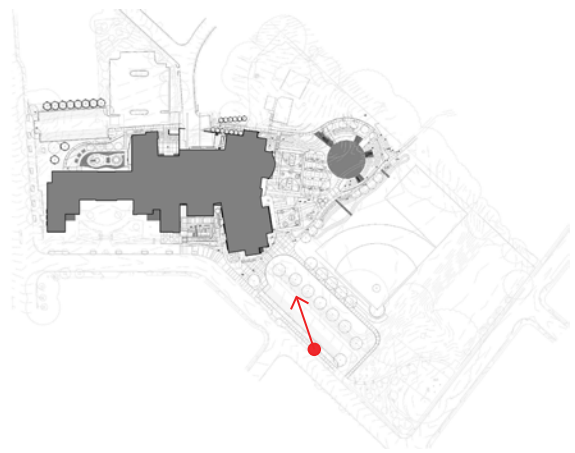


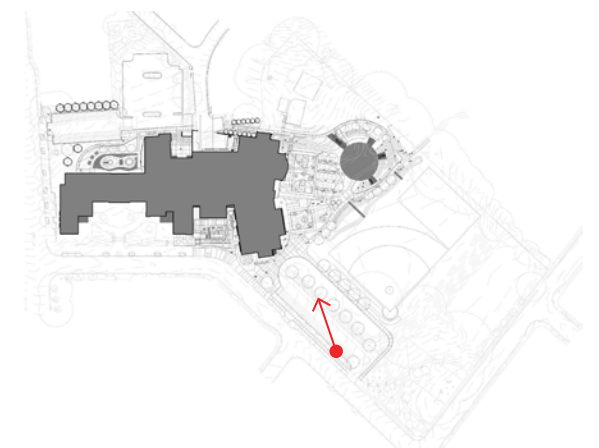


Rendering - Aerial view of entry courtyard at N McKinley Rd & 18th St N



Rendering - View from North approach on 18th St N

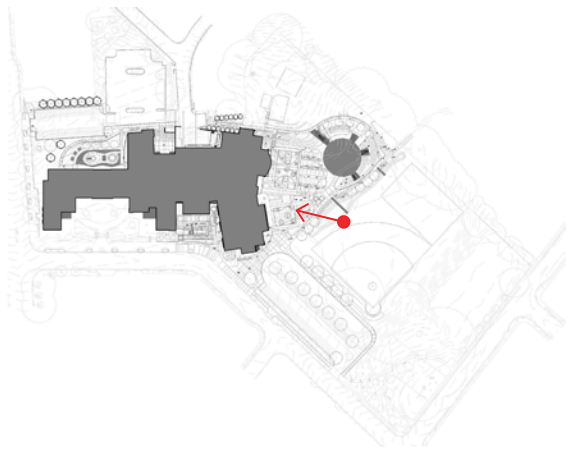




Rendering - Aerial view from North approach on 18th St N

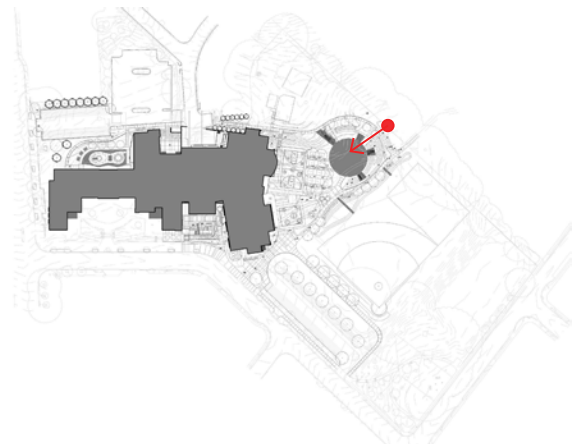


Rendering - View from softball outfield



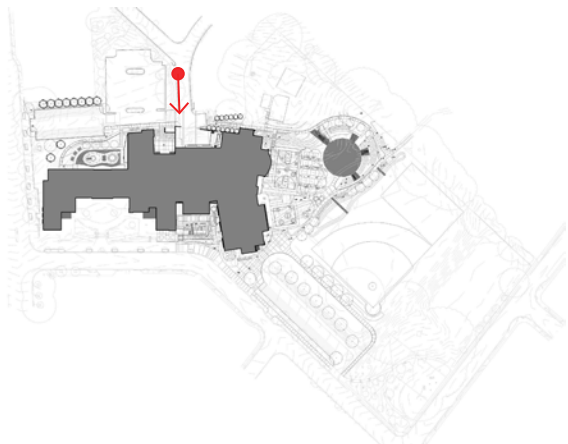


Rendering - Aerial view of play areas





Rendering - View from N Madison St & 18th St N



Interior Perspectives



Rendering - View of 1st Grade Break Out



Rendering - View of 4th Grade Break Out



Rendering - View of Gym



Rendering - View of Dining



Rendering - View of Solar System at Entry

04

Appendix

Site Plan - Existing Tree Loss

Traffic Study - Loading Dock Access

Committee Chair Letters

BLPC

School Board Approval

Site Plan - Existing Tree Loss

(To be replaced per Arlington County formula)

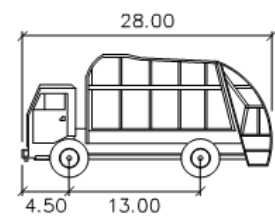


Project Area	Existing Tree Number	Tree Type	Tree Size (Inch)
East	1330	Quercus alba (White Oak)	8
	1337	Quercus alba (White Oak)	8
	1340	Fraxinus americana (White Ash)	8
	1341	Fraxinus americana (White Ash)	8
	1342	Fraxinus americana (White Ash)	8
Central	1352	Quercus rubra (Red Oak)	8
	1353	Quercus rubra (Red Oak)	8
	1354	Quercus rubra (Red Oak)	8
	1355	Quercus rubra (Red Oak)	8
	1356	Quercus rubra (Red Oak)	8
North - Building	1367	Quercus rubra (Red Oak)	8
	1368	Quercus rubra (Red Oak)	8
	1369	Quercus rubra (Red Oak)	8
	1370	Quercus rubra (Red Oak)	8
	1371	Quercus rubra (Red Oak)	8
North - Play Area	1372	Quercus rubra (Red Oak)	8
	1373	Quercus rubra (Red Oak)	8
	1374	Quercus rubra (Red Oak)	8
	1375	Quercus rubra (Red Oak)	8
	1376	Quercus rubra (Red Oak)	8
North - Property Line	1377	Quercus rubra (Red Oak)	8
	1378	Quercus rubra (Red Oak)	8
	1379	Quercus rubra (Red Oak)	8
	1380	Quercus rubra (Red Oak)	8
	1381	Quercus rubra (Red Oak)	8
Northwest Building	1382	Quercus rubra (Red Oak)	8
	1383	Quercus rubra (Red Oak)	8
	1384	Quercus rubra (Red Oak)	8
	1385	Quercus rubra (Red Oak)	8
	1386	Quercus rubra (Red Oak)	8
West	1387	Quercus rubra (Red Oak)	8
	1388	Quercus rubra (Red Oak)	8
	1389	Quercus rubra (Red Oak)	8
	1390	Quercus rubra (Red Oak)	8
	1391	Quercus rubra (Red Oak)	8
West Parking	1392	Quercus rubra (Red Oak)	8
	1393	Quercus rubra (Red Oak)	8
	1394	Quercus rubra (Red Oak)	8
	1395	Quercus rubra (Red Oak)	8
	1396	Quercus rubra (Red Oak)	8
Park Area	1397	Quercus rubra (Red Oak)	8
	1398	Quercus rubra (Red Oak)	8
	1399	Quercus rubra (Red Oak)	8
	1400	Quercus rubra (Red Oak)	8
	1401	Quercus rubra (Red Oak)	8

LEGEND

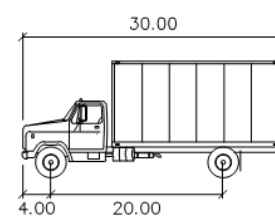
- EXISTING TREES / CANOPY EDGE
- EXISTING TREES IMPACTED
- APPROXIMATE EDGE OF IMPACTED CANOPY

Traffic Study - Loading Dock Access



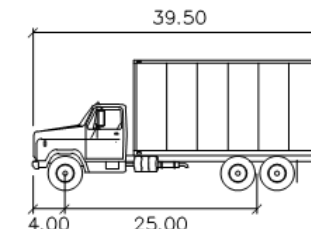
ARL GARBAGE

feet	
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 28.1



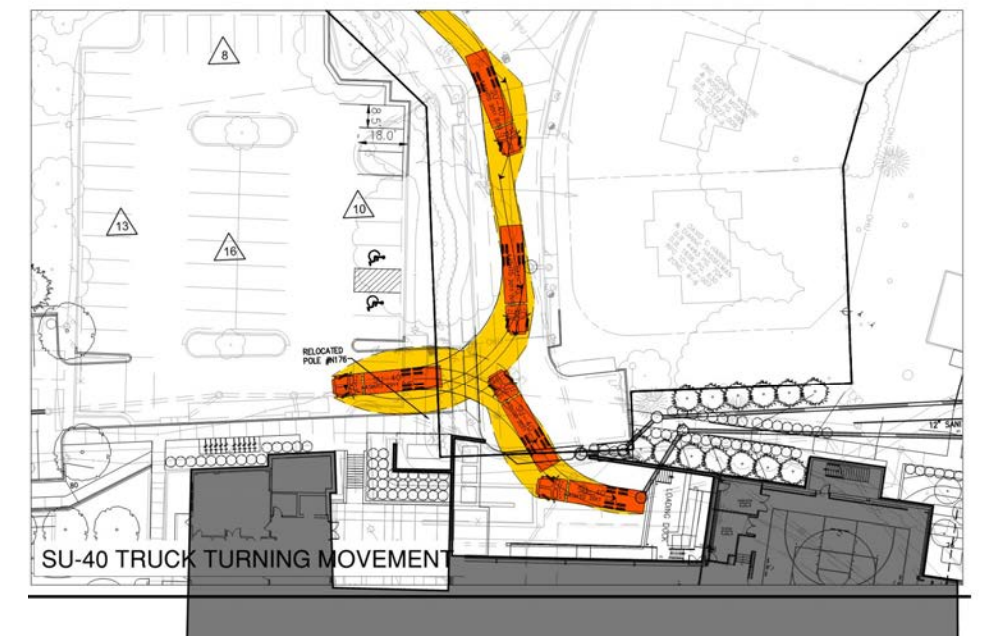
SU-30

feet	
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



SU-40

feet	
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



BLPC Recommendation Letter

Hans Bauman, Chair

Hans Bauman
Chair, Reed Expansion Project BLPC

September 3, 2019

Arlington County School Board
Dr. Cintia Johnson, Acting Superintendent

Cc: Arlington County Board

Dear Chair Talento and School Board Members,

On August 28th, the Reed BLPC met with the PRFC and members of the public to review the final design of the Reed Elementary School. **The BLPC supports the design as presented and looks forward to the School Board's approval and the on-time initiation of construction.**

The BLPC and the neighboring community have reluctantly accepted the closure of the entire APS property during the construction period. There was also some heated testimony during our meeting regarding the removal of certain mature trees in the northern part of the site. The removal and replacement of some trees on this hillside was an expected component of the Integrated Scheme which received unanimous, strong support from both the BLPC and the County Board-charged PFRC. **The BLPC continues to support the current design of the site, despite these tree impacts.**

It is important to remember that the BLPC went through an extensive design process with competing objectives. The decision to build into the northern hillside was made as part of the Concept Design phase, as intentional tradeoffs were made between competing interests, including educational goals, field space, traffic impacts, accessibility, cost, parking, and existing tree canopy. I believe this design represents the best of Arlington's inclusive processes, which gives representatives of all these interests (and more) a seat at the table, an understanding of the interplay and tradeoffs, and a voice in shaping the final outcome. Our process included vocal advocates of both green space and tree canopy. Specific trees were evaluated by County arborists, with consideration given to tree species and lifespan. In the end, we made compromises across all interest areas. Allowing any one set of voices to derail an inclusive process at this late stage threatens to invalidate the thoughtful work of both committees and would unfairly impact other design choices.

I'd also like to commend APS for the communication work done on the *Engage with APS!* portion of the website which allows any interested party to learn about all current major initiatives and find ways to engage and shape outcomes. The New Elementary School at Reed Project has been well advertised and detailed there throughout the design process.

Again, thank you for your support of open engagement processes like this one. I believe this combined BLPC and PFRC process allowed us to reach an optimal outcome that represents the best consensus of many diverse interests. We are pleased with the outcome of the design process, support the final design as presented, and look forward to supporting it staying on schedule for a fall 2021 opening date.

Sincerely,



Hans Bauman
Chair, Reed Expansion Project BLPC

September 19, 2019 - School Board Approval

NEW ELEMENTARY SCHOOL

REED SITE, ARLINGTON PUBLIC SCHOOLS SCHOOL BOARD ACTION ITEM FINAL DESIGN AND CONSTRUCTION CONTRACT SEPTEMBER 19, 2019









PROPOSED FINAL DESIGN

- Staff presented the proposed final design and construction contract as an information item at the September 5, 2019 School Board meeting.
- The content in Exhibits A through E are consistent with those shown in the information item.
- Updates:
 - September 10: Tara-Leeway Heights Civic Association meeting
 - September 16: on-site community meeting to discuss tree impacts
 - Received confirmation of Arlington County portion for jointly funded items



09.19.2019 BOARD ACTION 2 VMDO

SEPTEMBER 16 – COMMUNITY MEETING

- Civil engineer installed approximately 60 color-coded stakes to identify various site features.
- Meeting well attended by many community members.
- Team discussed how tree preservation was balanced with other project goals such as universal design, sustainable building performance, elementary school outdoor play area, and open field space preservation.
- Team confirmed that trees identified for removal would be impacted enough by construction to warrant removal.
- Team agreed to review/modify the geothermal well field layout to improve the likelihood that tree #1351 will be preserved.



09.19.2019 BOARD ACTION 3 VMDO

PROPOSED DESIGN

- On-site parking: 124 spaces
- Space for 7 buses to load/unload at suggested location
- Space for a total of 30 cars to queue on-site in two rows
- 16 interior bike storage spaces with 2 showers
- 74 exterior bike racks



09.19.2019 BOARD ACTION 4 VMDO Proposed Site Plan

Exhibit B



- CLASSROOM
- RESOURCE ROOM
- SHARED/PUBLIC (Dining, Library)
- PHYSICAL EDUCATION
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS

09.19.2019 BOARD ACTION 5 VMDO Floor Plans – Level 1

Exhibit C



- CLASSROOM
- RESOURCE ROOM
- SHARED/PUBLIC (Dining, Library)
- PHYSICAL EDUCATION
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS

09.19.2019 BOARD ACTION 6 VMDO Floor Plans – Level 2

September 19, 2019 - School Board Approval



Exhibit D

PROJECT FUNDING AND BUDGET

Project Funding ¹	
Major Construction Bonds	\$ 44,250,000
Capital Reserve ²	\$ 4,000,000
Other (Operating) ³	\$ 1,250,000
Subtotal	\$ 49,500,000
ACG/APS Jointly Funded Items	
APS Funding	\$ 2,750,000
ACG Funding	\$ 2,750,000
Subtotal	\$ 5,500,000
Grand Total	\$ 55,000,000

Notes:
 1. Matches FY 2019-2028 CIP, Adopted by the School Board on June 21, 2018.
 2. School Board approved transfer on October 5, 2017.
 3. Furniture and equipment that cannot be bond funded.

Exhibit E

Project Budget	
Construction Costs ¹	\$ 42,617,291
Owner (Soft) Costs and Contingency ²	\$ 12,382,709
Total	\$ 55,000,000

Notes:
 1. Based on final construction cost proposal from the Construction Manager at-Risk (CMR).
 2. Owner costs include design, project management, and other professional services fees, utility/permitting fees, furniture, equipment, and project contingencies.

SCHOOL BOARD MOTION

Background

The Arlington School Board's adopted FY 2017-2026 Capital Improvement Plan (CIP) addressed, in part, the continued increase in enrollment throughout Arlington County by including a project for a new elementary school at the Reed site. Continuation of the project was affirmed in the adopted FY 2019-2028 CIP. The project officially began with a joint County Board and School Board work session on October 17, 2017. Since the joint work session there have been over twenty (20) meetings with the Building Level Planning Committee (BLPC), Public Facilities Review Committee (PFRC), Arlington County Commissions, members of adjacent civic associations, and other project stakeholders. The School Board previously approved the concept design for the new school on April 5, 2018 and the schematic design on August 2, 2018. The project received a Use Permit through unanimous support from the County Board on November 17, 2018. Bond funding for the project was approved by Arlington County voters in the November 2018 bond referendum.

SCHOOL BOARD MOTION (CONTINUED)

School Board Approval

Having carefully reviewed the extensive input from the BLPC, PFRC, civic association leaders and other stakeholders, and the Superintendent's recommendation, I move that the School Board approve the final design as generally described in Exhibits A through E in the materials from the September 19, 2019 School Board meeting.

SCHOOL BOARD MOTION (CONTINUED)

By approving Exhibits A through E the School Board approves the following aspects of the project:

- Reaffirm basic project criteria to create a **new neighborhood elementary school** with an attendance zone for a minimum capacity of **725 seats**, to be completed in time for start of school **September 2021**;
- **Site plan and development conditions** of the approved Use Permit. The School Board authorizes the Chair to sign related legal instruments, such as easements, vacations, and dedications, as may be required to comply with conditions of the Use Permit, provided such instruments were first reviewed and approved as to form by APS legal counsel;
- **Final design** for the project as generally described in Exhibits A through D;
- **Total project budget and funding available** as described in Exhibit E;
- Construction contract award to Gilbane Building Company in the amount of **\$42,617,291**; and
- **Transfer of \$2.75 million** from the Capital Reserve to the project funding for APS' contribution for the ACG/APS jointly funded items.

