



# Buildings for Our Future: 2016 Update



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ASSOCIATES

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engineering  
planning

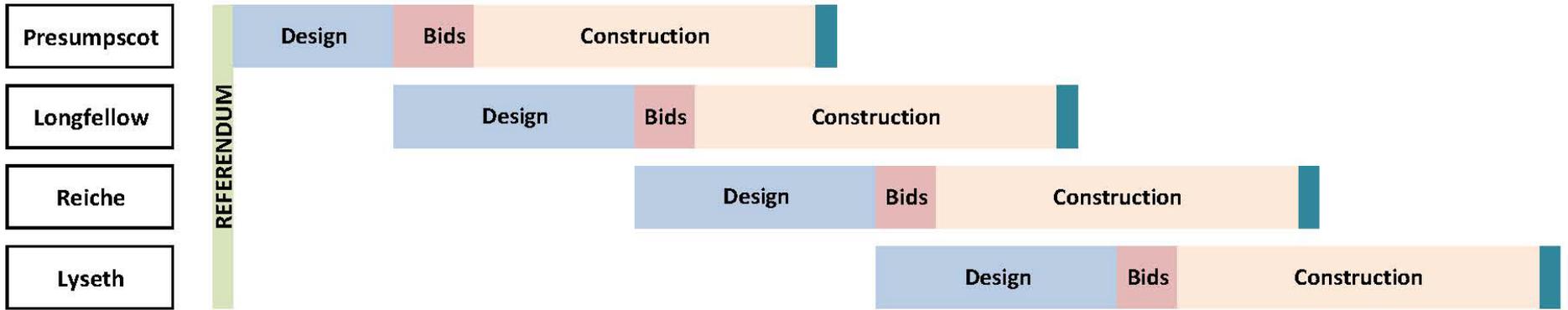
October 6, 2016

## Buildings for Our Future Projects-Currently Envisioned

	Longfellow	Lyseth	Presumpscot	Reiche	Total
<b>A CONSTRUCTION</b>					
1 Construction Estimate					
Renovation/Reconfiguration					
Structural/Architectural	\$2,347,330	\$1,684,560	\$1,194,543	\$3,357,532	\$8,583,964
Mechanical/Plumbing/Sprinkler	\$2,162,112	\$1,605,899	\$883,160	\$3,469,776	\$8,120,946
Electrical	\$1,342,928	\$963,067	\$599,972	\$2,417,651	\$5,323,618
Renovation non-equity model	\$1,639,264	\$683,502	\$424,113	\$2,691,906	\$5,438,785
New Construction/Addition	\$3,232,078	\$7,733,316	\$7,500,983	\$1,235,621	\$19,701,998
Demolition	\$0	\$60,744	\$0	\$0	\$60,744
Built-in Equipment	\$699,444	\$644,007	\$570,878	\$481,236	\$2,395,565
Site Development	\$1,135,151	\$2,356,216	\$1,319,436	\$804,796	\$5,615,600
Elevator (CIP Project)	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>-\$800,000</u>	<u>-\$800,000</u>
<b>Subtotal</b>	<b>\$12,558,306</b>	<b>\$15,731,312</b>	<b>\$12,493,085</b>	<b>\$13,658,517</b>	<b>\$54,441,221</b>
<b>B ADMINISTRATIVE COSTS &amp; RESERVES</b>					
2 Land Purchase and Related Costs	\$0	\$0	\$0	\$0	\$0
3 Moveable Equipment	\$1,028,084	\$1,198,292	\$1,005,628	\$1,180,835	\$4,412,839
4 Advertising and Legal	\$55,000	\$55,000	\$55,000	\$55,000	\$220,000
5 Percent for Art	\$0	\$0	\$0	\$0	\$0
6 Project Reserves	\$35,000	\$35,000	\$35,000	\$35,000	\$140,000
7 Project Contingency	<u>\$1,255,831</u>	<u>\$1,573,131</u>	<u>\$1,249,309</u>	<u>\$1,365,852</u>	<u>\$5,444,123</u>
<b>Subtotal</b>	<b>\$2,373,915</b>	<b>\$2,861,423</b>	<b>\$2,344,937</b>	<b>\$2,636,687</b>	<b>\$10,216,962</b>
<b>C FEES AND SERVICES</b>					
8 Architect / Engineer Basic Services	\$1,112,237	\$1,285,410	\$999,319	\$1,286,669	\$4,683,635
9 Architect / Engineer Additional Services	\$10,000	\$0	\$10,000	\$10,000	\$30,000
10 Architect / Engineer Reimbursables	\$39,400	\$39,400	\$39,400	\$39,400	\$157,600
11 Site Selection	\$0	\$0	\$0	\$0	\$0
12 Permitting & Approvals	\$18,760	\$27,532	\$18,760	\$18,760	\$83,812
13 Survey and Soils	\$39,500	\$45,500	\$39,500	\$39,500	\$164,000
14 Construction Testing	\$15,000	\$15,000	\$15,000	\$15,000	\$60,000
15 Project Coordination	\$45,000	\$45,000	\$45,000	\$0	\$135,000
16 Clerk of the Works	\$84,000	\$84,000	\$84,000	\$84,000	\$336,000
17 Commissioning	\$65,000	\$80,000	\$60,000	\$80,000	\$285,000
18 Other Professional Services	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Subtotal</b>	<b>\$1,428,897</b>	<b>\$1,621,842</b>	<b>\$1,310,979</b>	<b>\$1,573,329</b>	<b>\$5,935,047</b>
<b>D TOTAL PROJECT COST</b>	<b>\$16,361,119</b>	<b>\$20,214,577</b>	<b>\$16,149,001</b>	<b>\$17,868,533</b>	<b>\$70,593,229</b>



2017					2018					2019					2020					2021					2022																																		
J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D



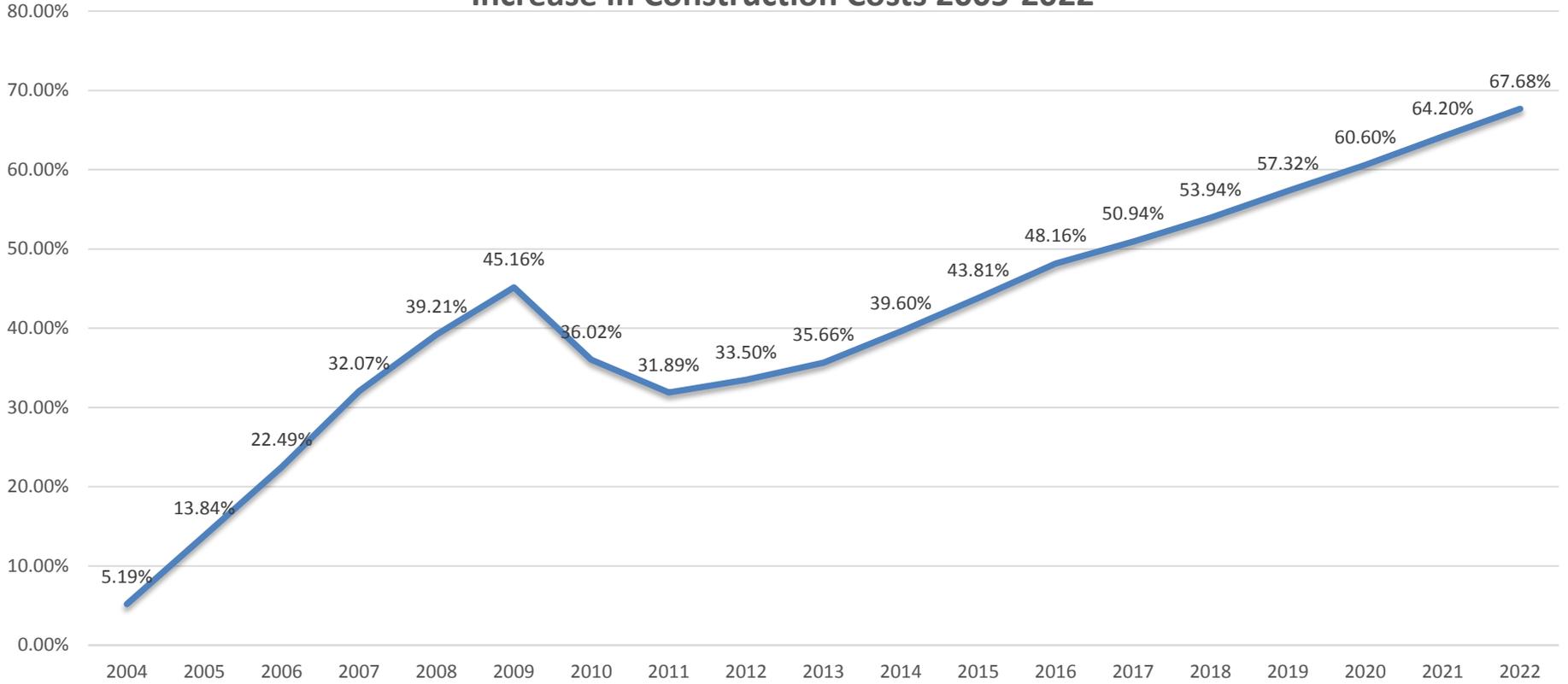
The schedule above assumes a March 2017 referendum date. A referendum that occurs after this date has the potential to delay the construction of each school by a year and thereby increase the overall project cost.

Year	Historic Construction Index	Escalation	Source	Adjusted City Cost Index, Portland, ME Means Weighted Average: 96.3%
2004	655	5.19%	Turner Construction cost index (national)	5.00%
2005	717	8.65%	Turner Construction cost index (national)	8.33%
2006	793	9.58%	Turner Construction cost index (national)	9.23%
2007	854	7.14%	Turner Construction cost index (national)	6.88%
2008	908	5.95%	Turner Construction cost index (national)	5.73%
2009	832	-9.13%	Turner Construction cost index (national)	-8.80%
2010	799	-4.13%	Turner Construction cost index (national)	-3.98%
2011	812	1.60%	Turner Construction cost index (national)	1.54%
2012	830	2.17%	Turner Construction cost index (national)	2.09%
2013	864	3.94%	Turner Construction cost index (national)	3.79%
2014	902	4.21%	Turner Construction cost index (national)	4.06%
2015	943	4.35%	Turner Construction cost index (national)	4.19%
2016	970	2.78%	Projected	2.68%
2017	1000	3.00%	Projected	2.89%
2018	1035	3.38%	Projected	3.26%
2019	1070	3.27%	Projected	3.15%
2020	1110	3.60%	Projected	3.47%
2021	1150	3.48%	Projected	3.35%
2022	1185	2.95%	Projected	2.84%

*Note: Base year 1967, index 100*

Data sources: Turner Construction cost index, R.S. Means

## Increase in Construction Costs 2005-2022



Buildings for Our Future



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	Years of Escalation	Escalation-November Referendum
School 1	2015-2018	13.01%
School 2	2015-2019	16.16%
School 3	2015-2020	19.63%
School 4	2015-2021	22.98%

- Final project order has not been determined
- Budgets were run through escalation factors using “least expensive first / most expensive last” and “most expensive first / least expensive last” scenarios and the total cost difference (due to escalation) was approximately \$500,000
- A “schedule mid-point” escalation factor of 18% has been used in the following budgets in order to provide an average escalation factor for scheduling flexibility



**A CONSTRUCTION**

1 Construction Estimate		
Renovation/Reconfiguration		
Structural/Architectural		\$1,194,543
Mechanical/Plumbing/Sprinkler		\$883,160
Electrical		\$599,972
Renovation non-equity model		\$424,113
New Construction/Addition		\$7,500,983
Demolition		\$0
Built-in Equipment		\$570,878
Site Development		\$1,319,436
	<b>Subtotal</b>	<b>\$12,493,085</b>

**B ADMINISTRATIVE COSTS & RESERVES**

2 Land Purchase and Related Costs		\$0
3 Moveable Equipment		\$1,005,628
4 Advertising and Legal		\$55,000
5 Percent for Art		\$0
6 Project Reserves		\$35,000
7 Project Contingency		<u>\$1,249,309</u>
	<b>Subtotal</b>	<b>\$2,344,937</b>

**C FEES AND SERVICES**

8 Architect / Engineer Basic Services		\$999,319
9 Architect / Engineer Additional Services		\$10,000
10 Architect / Engineer Reimbursables		\$39,400
11 Site Selection		\$0
12 Permitting & Approvals		\$18,760
13 Survey and Soils		\$39,500
14 Construction Testing		\$15,000
15 Project Coordination		\$45,000
16 Clerk of the Works		\$84,000
17 Commissioning		\$60,000
18 Other Professional Services		<u>\$0</u>
	<b>Subtotal</b>	<b>\$1,310,979</b>

**D TOTAL PROJECT COST**

**\$16,149,001**



# Presumpscot Elementary School

EXISTING FACILITY					PROPOSED FACILITY				
Subject	# of Rooms	Area (sf)	# of Students per Room	Capacity	Subject	# of Rooms	Total Area (SF)	Area difference between existing	Capacity
Pre-K	1	865	15	15	Pre-K	1	1090	225	15
Kindergarten	3	2575	18	54	Kindergarten	3	3270	695	54
Grade Level Classrooms (1-5)	11	8660	20-23	238	Grade Level Classrooms (1-5)	15	12350	3690	327
Special Education K-2 & 3-5	2	1085			Special Education K-2 & 3-5	2	1260	175	
Literacy	1	495			Literacy	1	200	(295)	
OT/PT (combined with speech)					OT/PT	1	780	780	
Book Rooms					Book Rooms	2	335	335	
Speech, OT/PT	1	250			Speech	1	350	100	
ELL					ELL	2	1520	1520	
Art/Music Shared	1	880			Art	1	1360	480	
Music (See above)					Music	1	1300	1300	
Library, music, band (strings)	1	865			Library	1	2015	1150	
Cafeteria (combined with Gym)					Cafeteria & support spaces	1	2555	2555	
Kitchen	1	265			Kitchen	1	1245	980	
Stage					Stage	1	960	960	
Gym, Kitchen & support spaces	1	2835			Gym & support spaces	1	5710	2875	
Main Office, Principal and support	3	645			Main Office, Principal and support	5	1480	835	
Work Rooms	1	250			Work Rooms	1	780	530	
Social Workers	1	105			Social Workers	3	665	560	
Work Rooms					Work Rooms	1	780	780	
Nurse	1	250			Nurse	1	670	420	
<b>CAPACITY *</b>			307		<b>CAPACITY</b>			396	
<b>TOTAL NET AREA (SF) *</b>		20025			<b>TOTAL NET AREA (SF)</b>			40675	
<b>Structure/Circulation/Mech/Utility</b>		9677			<b>Structure/Circulation/Mech/Utility</b>			19684	
<b>TOTAL GROSS AREA (SF) *</b>		29702			<b>TOTAL GROSS AREA (SF)</b>			60359	
<b>GROSS SF PER STUDENT</b>			97		<b>GROSS SF PER STUDENT **</b>			152	

\* Capacity and total area include portable classrooms

\*\* Maine DOE guidelines call for 140 SF/Student with increases for special programs



# Budget description Section “A-Construction”

Renovation Reconfiguration	Area		\$/SF	Total
<b>Structural/Architectural</b>				
Renovation	10,587 sf	x	\$38	\$398,460
Reconfiguration	14,397 sf	x	\$55	\$796,082
<b>Mechanical/Plumbing/Sprinkler</b>				
	24,984 sf	x	\$35	\$883,160
<b>Electrical</b>				
	24,984 sf	x	\$24	\$599,972
<b>Subtotal Renovation</b>				<b>\$2,677,675</b>

The work included in the Renovation/Reconfiguration line item includes improvements to the existing building. The renovation line covers replacement of flooring, doors, ceilings and other finishes within the parts of the building not being reconfigured. In addition, it covers the upgrades to the plumbing and mechanical systems, installation of a sprinkler system and new electrical work in these spaces. The reconfiguration line carries additional cost for selective demolition and construction of new walls.

Renovation non-equity model				
New pavement				\$51,790
Field Underdrains				\$103,768
Misc site improvements				\$239,129
Outdoor Learning Spaces				\$29,426
<b>Subtotal Renovation non-equity model</b>				<b>\$424,113</b>

The renovation non-equity model includes deferred maintenance items and improvements not originally carried in the BFOF project budgets. These are items that were planned to be completed through other funding sources such as private fundraising or the City CIP program.

New Construction/Addition	Area		\$/SF	Total
Building additions	36,770		\$204	\$7,500,983

The new construction includes all costs associated with construction of the building addition including foundations, structure, interior and exterior finishes, mechanical, electrical and plumbing expenses.

Built In Equipment				
				<b>\$570,878</b>

Built in equipment covers the cost of fixed equipment and products installed by the general contractor. This work includes items such as millwork, whiteboards and tackboards, kitchen equipment and other fixed products.

Site Development				
				<b>\$1,319,436</b>

Site development includes all changes to the exterior site portions of the building including the parent drop off, bus loops, parking areas, changes to the playground and learning areas as well as improvements to the athletic fields.



# Budget description Section “B-Administrative Costs and Reserves”

Moveable Equipment	Construction Cost	Percentage	
Moveable Equipment	\$11,173,649	6%	\$670,419
Technology	\$11,173,649	3%	\$335,209
<b>Subtotal Moveable Equipment</b>			<b>\$1,005,628</b>

Moveable equipment money is used to purchase furniture and equipment for the school. Typical expenses include classroom furniture, office furniture, shelving for the library, trash cans and other support products. In some cases, schools have purchased items such as snow blowers or lawn maintenance equipment for use at the school. This reserve is used at the discretion of Portland Public Schools/City of Portland.

The technology portion of this reserve is used to purchase equipment to run the school's computer and data networks. This typically includes routers, switches, servers and wireless access points.

Advertising and Legal	
Bond sale expenses	\$55,000

The Advertising and Legal line is an administrative reserve line. Funds will be used for advertising project notices, review of contracts (if required) and for the sale of the bond. The total cost has been divided between the four projects.

Project Reserves	
LEED Certification	\$35,000

Funding for registering the project with USGBC, completing the application process as well as additional fees associated with the documentation process have been carried.

Project Reserves	Construction Cost	Percentage	
Bid Contingency	\$12,493,085	5%	\$624,654
Construction Contingency	\$12,493,085	5%	\$624,654.24
<b>Subtotal Project Contingency</b>			<b>\$1,249,308</b>

The bid contingency will be used in the event of higher than estimated contractor bids. With a multi-year planning process, it is important to reserve funds for increases in material and labor costs. Use of these funds is at the discretion of Portland Public Schools and the City of Portland.

Construction contingency is used to cover costs for unforeseen conditions as well as changes to the scope of work for the general contractor.

# Budget description Section “C-Fees and Services”

Architect/Engineer Basic Services	Construction Cost	Percentage	
Architect basic services fee	\$12,493,085	7%	\$874,516
Renovation premium	\$4,992,102	2.5%	\$124,803
<b>Subtotal Architect/Engineer Basic Services</b>			<b>\$999,318</b>

The Fee for Architectural services is calculated using the Bureau of General Services guidelines for Architectural Services. A fee of 7% is used as the base fee and an additional 2.5% is applied to the renovation portion of the project.

Architect/Engineer Additional services			
Architect basic services fee			\$10,000

The planned additional services include a life cycle cost analysis.

Architect/Engineer Reimbursables	Construction Cost	Percentage	
Reimbursable expenses			\$39,400

Reimbursable expenses include printing of drawing sets, preparation of permit applications, permit fees for the State Fire Marshal application as well as expenses occurring through the construction process.

Permitting and Approvals	Construction Cost	Percentage	
			\$18,760

Fees for submissions to the DEP and City of Portland along with submission preparation (excluding printing) are included in this line.

Survey and Soils	Construction Cost	Percentage	
			\$39,500

A site survey will be conducted to document the site boundary and topography. Geotechnical explorations will be conducted to determine the bearing capacity of the soil.

Construction testing	Construction Cost	Percentage	
			\$15,000

Throughout construction material testing will be conducted to verify the strength of concrete, compaction and inspection of structural steel as required by the building code.

Project Coordination	Construction Cost	Percentage	
			\$45,000

A project coordinator would be hired by the District/City to assist with the day to day management of the project. The project coordinator would be a part time person, likely 10-20 hours a week.

Clerk of the Works	Construction Cost	Percentage	
			\$84,000

The Clerk of the Works will be hired by the Architect and serve as the daily on site observer. This person will monitor the day to day construction activities and serve as a liason between the Contractor, Architect and Owner. They will provide daily reports documenting the progression of the construction.

Commissioning	Construction Cost	Percentage	
			\$60,000

The Commissioning Agent will provide a third party verification of the functionality of building mechanical and electrical systems. This subcontractor will be brought on prior to the completion of the construction documents and provide a review of the design.



Presumpscot	
Selected program costs	
Reduce size of gym to ES size	\$ 283,433
Outdoor Learning	\$ 34,428
Generator pad/conduit	\$ 7,297
Cost of 2nd Floor	\$ 2,797,200
Smaller admin	\$ 63,000

Potential program enhancements	
Locker Rooms	\$ 93,600
Operable Partitions	\$ 58,500
Cost for additional Pre-K	\$ 302,400
Addition of a Discover/Maker space	\$ 302,400



**BFOF Escalated-  
Currently  
Envisioned**

## A CONSTRUCTION

1 Construction Estimate	
Renovation/Reconfiguration	
Structural/Architectural	\$2,347,330
Mechanical/Plumbing/Sprinkler	\$2,162,112
Electrical	\$1,342,928
Renovation non-equity model	\$1,639,264
New Construction/Addition	\$3,232,078
Demolition	\$0
Built-in Equipment	\$699,444
Site Development	\$1,135,151
	<b>Subtotal</b>
	<b>\$12,558,306</b>

## B ADMINISTRATIVE COSTS & RESERVES

2 Land Purchase and Related Costs	\$0
3 Moveable Equipment	\$1,028,084
4 Advertising and Legal	\$55,000
5 Percent for Art	\$0
6 Project Reserves	\$35,000
7 Project Contingency	<u>\$1,255,831</u>
	<b>Subtotal</b>
	<b>\$2,373,915</b>

## C FEES AND SERVICES

8 Architect / Engineer Basic Services	\$1,112,237
9 Architect / Engineer Additional Services	\$10,000
10 Architect / Engineer Reimbursables	\$39,400
11 Site Selection	\$0
12 Permitting & Approvals	\$18,760
13 Survey and Soils	\$39,500
14 Construction Testing	\$15,000
15 Project Coordination	\$45,000
16 Clerk of the Works	\$84,000
17 Commissioning	\$65,000
18 Other Professional Services	<u>\$0</u>
	<b>Subtotal</b>
	<b>\$1,428,897</b>

## D TOTAL PROJECT COST

**\$16,361,119**

Longfellow Elementary School



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# Longfellow Elementary School

PROGRAM SPACE - EXISTING FACILITY				PROGRAM SPACE - PROPOSED FACILITY					
Subject	# of Rooms	Area (sf)	# of Students per Room	Capacity	Subject	# of Rooms	Area (sf)	Area difference between existing	Capacity
Pre-K	1	865	15	15	Pre-K	1	1000	135	15
Kindergarten	3	2960	18	54	Kindergarten	3	2620	(340)	54
Grades 1-5 Classrooms	15	12075	20-23	327	Grades 1-5 Classrooms	15	12035	(40)	327
K-2 Resource	1	450			K-2 Resource	1	460	10	
Special Education 3-5	1	800			Special Education 3-5	1	730	(70)	
Reading	1	380			Reading	1	575	195	
OT/PT/ELL/G&T	1	630			OT/PT	1	575	(55)	
ELL	0	0			ELL	1	755	755	
G&T/ Discovery	0	0			G&T/ Discovery	1	1525	1525	
Speech	1	200			Speech	1	165	(35)	
Art	1	845			Art	1	995	150	
Music	1	495			Music	1	1165	670	
Library	1	1660			Library	1	1980	320	
Gym/Cafeteria	1	2400			Gym & Support Spaces	1	6410	4010	
Cafeteria (Included in Gym)	0	0			Cafeteria	1	2680	2680	
Kitchen	0	0			Kitchen	1	1000	1000	
Stage/PE Office	1	410			Stage	1	680	270	
Rec Office/ Storage	1	70			Rec Office/ Storage	1	165	95	
Main Office, Principal and Support	1	980			Main Office, Principal and Support	1	1165	185	
Workroom	0	0			Workroom	1	460	460	
Social Worker	1	170			Social Worker	1	115	(55)	
Intervention Office	1	235			Intervention Office	1	125	(110)	
Nurse	1	275			Nurse	1	410	135	
Time Out	1	80							
Team Meeting/Tech Office	2	705			Teachers' Room	1	865	160	
Book Room	0	0			Book Room	1	200	200	
<b>CAPACITY</b>			396		<b>CAPACITY</b>			396	
<b>TOTAL NET AREA (SF)</b>		26685			<b>TOTAL NET AREA (SF)</b>		38855		
<b>Structure/Circulation/Mech/Utility</b>		16103			<b>Structure/Circulation/Mech/Utility</b>		21000		
<b>TOTAL GROSS AREA (SF)</b>		42788			<b>TOTAL GROSS AREA (SF)</b>		59855		
<b>GROSS SF PER STUDENT</b>			108		<b>GROSS SF PER STUDENT *</b>			151	

\* Maine DOE guidelines call for 140 SF/Student with increases for special programs



# Budget description Section “A-Construction”

Renovation Reconfiguration	Area		\$/SF	Total
Structural/Architectural				
Renovation	25,949 sf	x	\$43	\$1,116,815.85
Reconfiguration	19,594 sf	x	\$63	\$1,230,513
Mechanical/Plumbing/Sprinkler	45,543 sf	x	\$47	\$2,162,112
Electrical	45,543 sf	x	\$29	\$1,342,928
<b>Subtotal Renovation</b>				<b>\$5,852,369</b>

The work included in the Renovation/Reconfiguration line item includes improvements to the existing building. The renovation line covers replacement of flooring, doors, ceilings and other finishes within the parts of the building not being reconfigured. In addition, it covers the upgrades to the plumbing and mechanical systems, installation of a sprinkler system and new electrical work in these spaces. The reconfiguration line carries additional cost for selective demolition and construction of new walls.

Renovation non-equity model		Total
Repoint and repair façade		\$448,748
Replace roof		\$522,688
Sediment forebay drain		\$4,414
Replace storm drain line		\$16,038
Playground improvements		\$117,705
Outdoor learning adjustment		\$66,209
Asbestos abatement		\$463,462
<b>Subtotal Renovation non-equity model</b>		<b>\$1,639,264</b>

The renovation non-equity model includes deferred maintenance items and improvements not originally carried in the BFOF project budgets. These are items that were planned to be completed through other funding sources such as private fundraising or the City CIP program.

New Construction/Addition	Area	\$/SF	Total
Building additions	15,844	\$204	<b>\$3,232,078</b>

The new construction includes all costs associated with construction of the building addition including foundations, structure, interior and exterior finishes, mechanical, electrical and plumbing expenses.

Built In Equipment	Total
Built In Equipment	<b>\$699,444</b>

Built in equipment covers the cost of fixed equipment and products installed by the general contractor. This work includes items such as millwork, whiteboards and tackboards, kitchen equipment and other fixed products.

Site Development	Total
Site Development	<b>\$1,135,151</b>

Site development includes all changes to the exterior site portions of the building including the parent drop off, bus loops, parking areas, and changes to the playground and learning areas.



# Budget description Section “B-Administrative Costs and Reserves”

Moveable Equipment	Construction Cost	Percentage	
Moveable Equipment	\$11,423,155	6%	\$685,389
Technology	\$11,423,155	3%	\$342,695
<b>Subtotal Moveable Equipment</b>			<b>\$1,028,084</b>

Moveable equipment money is used to purchase furniture and equipment for the school. Typical expenses include classroom furniture, office furniture, shelving for the library, trash cans and other support products. In some cases, schools have purchased items such as snow blowers or lawn maintenance equipment for use at the school. This reserve is used at the discretion of Portland Public Schools/City of Portland.

The technology portion of this reserve is used to purchase equipment to run the school's computer and data networks. This typically includes routers, switches, servers and wireless access points.

Advertising and Legal	
Bond sale expenses	\$55,000

The Advertising and Legal line is an administrative reserve line. Funds will be used for advertising project notices, review of contracts (if required) and for the sale of the bond. The total cost has been divided between the four projects.

Project Reserves	
LEED Certification	\$35,000

Funding for registering the project with USGBC, completing the application process as well as additional fees associated with the documentation process have been carried.

Project Reserves	Construction Cost	Percentage	
Bid Contingency	\$12,558,305	5%	\$627,915
Construction Contingency	\$12,558,305	5%	\$627,915
<b>Subtotal Project Contingency</b>			<b>\$1,255,831</b>

The bid contingency will be used in the event of higher than estimated contractor bids. With a multi-year planning process, it is important to reserve funds for increases in material and labor costs. Use of these funds is at the discretion of Portland Public Schools and the City of Portland.

Construction contingency is used to cover costs for unforeseen conditions as well as changes to the scope of work for the general contractor.



# Budget description Section “C-Fees and Services”

Architect/Engineer Basic Services	Construction Cost	Percentage	
Architect basic services fee	\$12,558,306	7%	\$879,081
Renovation premium	\$9,326,228	2.5%	\$233,156
<b>Subtotal Architect/Engineer Basic Services</b>			<b>\$1,112,237</b>

The Fee for Architectural services is calculated using the Bureau of General Services guidelines for Architectural Services. A fee of 7% is used as the base fee and an additional 2.5% is applied to the renovation portion of the project.

Architect/Engineer Additional services	
Architect basic services fee	\$10,000

The planned additional services include a life cycle cost analysis.

Architect/Engineer Reimbursables	
Reimbursable expenses	\$39,400

Reimbursable expenses include printing of drawing sets, preparation of permit applications, permit fees for the State Fire Marshal application as well as expenses occurring through the construction process.

Permitting and Approvals	
Permitting and Approvals	\$18,760

Fees for submissions to the DEP and City of Portland along with submission preparation (excluding printing) are included in this line.

Survey and Soils	
Survey and Soils	\$39,500

A site survey will be conducted to document the site boundary and topography. Geotechnical explorations will be conducted to determine the bearing capacity of the soil.

Construction testing	
Construction testing	\$15,000

Throughout construction material testing will be conducted to verify the strength of concrete, compaction and inspection of structural steel as required by the building code.

Project Coordination	
Project Coordination	\$45,000

A project coordinator would be hired by the District/City to assist with the day to day management of the project. The project coordinator would be a part time person, likely 10-20 hours a week.

Clerk of the Works	
Clerk of the Works	\$84,000

The Clerk of the Works will be hired by the Architect and serve as the daily on site observer. This person will monitor the day to day construction activities and serve as a liaison between the Contractor, Architect and Owner. They will provide daily reports documenting the progression of the construction.

Commissioning	
Commissioning	\$65,000

The Commissioning Agent will provide a third party verification of the functionality of building mechanical and electrical systems. This subcontractor will be brought on prior to the completion of the construction documents and provide a review of the design.



Longfellow		
Selected program costs		
Reduce size of gym to ES size	\$	263,250
Locker Rooms	\$	163,800
Playground Improvements	\$	137,715
Outdoor Learning	\$	77,465
Generator pad/conduit	\$	7,297
Potential elevator work-Revolving Renovation Fund	\$	500,484





## A CONSTRUCTION

1 Construction Estimate	
Renovation/Reconfiguration	
Structural/Architectural	\$3,357,532
Mechanical/Plumbing/Sprinkler	\$3,469,776
Electrical	\$2,417,651
Renovation non-equity model	\$2,691,906
New Construction/Addition	\$1,235,621
Demolition	\$0
Built-in Equipment	\$481,236
Site Development	\$804,796
Elevator (CIP Project)	-\$800,000
	<b>Subtotal</b>
	<b>\$13,658,517</b>

## B ADMINISTRATIVE COSTS & RESERVES

2 Land Purchase and Related Costs	\$0
3 Moveable Equipment	\$1,180,835
4 Advertising and Legal	\$55,000
5 Percent for Art	\$0
6 Project Reserves	\$35,000
7 Project Contingency	\$1,365,852
	<b>Subtotal</b>
	<b>\$2,636,687</b>

## C FEES AND SERVICES

8 Architect / Engineer Basic Services	\$1,286,669
9 Architect / Engineer Additional Services	\$10,000
10 Architect / Engineer Reimbursables	\$39,400
11 Site Selection	\$0
12 Permitting & Approvals	\$18,760
13 Survey and Soils	\$39,500
14 Construction Testing	\$15,000
15 Project Coordination	\$0
16 Clerk of the Works	\$84,000
17 Commissioning	\$80,000
18 Other Professional Services	\$0
	<b>Subtotal</b>
	<b>\$1,573,329</b>

## D TOTAL PROJECT COST

**\$17,868,533**

# Reiche Community School

PROGRAM SPACE - EXISTING FACILITY					PROGRAM SPACE - PROPOSED FACILITY				
Subject	# of Rooms	Area (sf)	# of Students per Room	Capacity	Subject	# of Rooms	Area (sf)	Area difference between existing	Capacity
Pre-K	0	0	15	0	Pre-K	1	1075	1075	15
Kindergarten	4	3425	18	72	Kindergarten	4	4455	1030	72
Grade Level Classrooms (1-5)	14	14385	20-23	301	Grade Level Classrooms (1-5)	14	11040	-3345	301
Project Rooms/Group Rooms	0	0			Project Rooms/Group Rooms	6	2020	2020	
Math/Title 1	3	2265			Math/Title 1	3	1890	-375	
Title 1/Resource	3	2030			Title 1/Resource	3	2325	295	
Read 180	1	660			Read 180	1	660	0	
OT/PPT	1	315			OT/PPT	1	650	335	
Speech	1	130			Speech	1	125	-5	
ELL	3				ELL	3			
Language Facilitators	1	850			Language Facilitators	1	720	-130	
Observation	1	420			Observation	0	0	-420	
Test	0	0			Test	1	145	145	
Art	1	1900			Art	1	1425	-475	
Music	1	1540			Music	1	1275	-265	
Computer	1	790			Computer	1	790	0	
Library	1	4160			Library	1	4160	0	
Learning Works	1	625			Learning Works	1	625	0	
Greenhouse	2	450			Greenhouse	2	450	0	
Gym & support spaces	1	5685			Gym & support spaces	1	5685	0	
Cafeteria/Lobby	1	6050			Cafeteria/Lobby	1	6485	435	
Kitchen	1	475			Kitchen	1	1145	670	
Stage	1	800			Stage	1	800	0	
Main Office, Principal and support	1	1160			Main Office, Principal and support	1	1125	-35	
Teachers' Room	1	360			Teachers' Room	1	565	205	
Portland Parnership Developer	1	185			Portland Parnership Developer	1	140	-45	
Nurse	1	225			Nurse	1	315	90	
Social Worker	2	355			Social Worker	2	425	70	
Special Education Office	2	290			Special Education Office	1	165	-125	
Work Room	1	365			Work Room	2	510	145	
Community Space					Community Space				
Community Counseling	1	275			Community Counseling	0	0	-275	
Community Policing	1	175			Community Policing	1	180	5	
Rec Storage	1	295			Rec Storage	1	295	0	
Health Clinic	1	1740			Health Clinic	2	1880	140	
Community Room	1	1680			Community Room	1	1315	-365	
Discovery Lab	0	0			Discovery Lab	1	1460	1460	
<b>CAPACITY</b>			373		<b>CAPACITY</b>			388	
<b>TOTAL NET AREA (SF) *</b>		49895			<b>TOTAL NET AREA (SF) *</b>		51190		
<b>Structure/Circulation/Mech/Utility</b>		23371			<b>Structure/Circulation/Mech/Utility</b>		25521		
<b>TOTAL GROSS AREA (SF) *</b>		73266			<b>TOTAL GROSS AREA (SF) *</b>		76711		
<b>GROSS SF PER STUDENT</b>		196			<b>GROSS SF PER STUDENT**</b>		198		

\* Total area does **not** include community space

\*\* Maine DOE guidelines call for 140 SF/Student with increases for special programs



# Budget description Section “A-Construction”

Renovation Reconfiguration	Area		\$/SF	Total
Structural/Architectural				
Renovation	31,458 sf	x	\$37	\$1,178,076
Reconfiguration	44,459 sf	x	\$49	\$2,179,456
Mechanical/Plumbing/Sprinkler	75,917 sf	x	\$46	\$3,469,776
Electrical	75,917 sf	x	\$32	\$2,417,651
Elevator (CIP Project)				-\$800,000
<b>Subtotal Renovation</b>				<b>\$8,444,959</b>

The work included in the Renovation/Reconfiguration line item includes improvements to the existing building. The renovation line covers replacement of flooring, doors, ceilings and other finishes within the parts of the building not being reconfigured. In addition, it covers the upgrades to the plumbing and mechanical systems, installation of a sprinkler system and new electrical work in these spaces. The reconfiguration line carries additional cost for selective demolition and construction of new walls.

Renovation non-equity model				
Solar domestic hot water				\$588,523
Roofing				\$871,750
Playground improvements				\$222,462
Retaining wall				\$58,850
Outdoor Learning Spaces				\$141,098
Level floor-rebuild library, replace stairs, skylights				\$809,220
<b>Subtotal Renovation non-equity model</b>				<b>\$2,691,903</b>

The renovation non-equity model includes deferred maintenance items and improvements not originally carried in the BFOF project budgets. These are items that were planned to be completed through other funding sources such as private fundraising or the City CIP program.

New Construction/Addition	Area		\$/SF	Total
Building additions	6,057		\$204	\$1,235,621

The new construction includes all costs associated with construction of the building addition including foundations, structure, interior and exterior finishes, mechanical, electrical and plumbing expenses.

Built In Equipment				
				<b>\$481,236</b>

Built in equipment covers the cost of fixed equipment and products installed by the general contractor. This work includes items such as millwork, whiteboards and tackboards, kitchen equipment and other fixed products.

Site Development				
				<b>\$804,796</b>

Site development includes all changes to the exterior site portions of the building including the parent drop off, bus loops, parking areas, and changes to the playground and learning areas.



# Budget description Section “B-Administrative Costs and Reserves”

Moveable Equipment	Construction Cost	Percentage	
Moveable Equipment	\$12,853,718	6%	\$771,223
Technology	\$13,653,718	3%	\$409,612
<b>Subtotal Moveable Equipment</b>			<b>\$1,180,835</b>

Moveable equipment money is used to purchase furniture and equipment for the school. Typical expenses include classroom furniture, office furniture, shelving for the library, trash cans and other support products. In some cases, schools have purchased items such as snow blowers or lawn maintenance equipment for use at the school. This reserve is used at the discretion of Portland Public Schools/City of Portland.

The technology portion of this reserve is used to purchase equipment to run the school's computer and data networks. This typically includes routers, switches, servers and wireless access points.

Advertising and Legal	
Bond sale expenses	\$55,000

This line is an administrative reserve line. Funds will be used for advertising project notices, review of contracts (if required) and for the sale of the bond. The total cost has been divided between the four projects.

Project Reserves	
LEED Certification	\$35,000

Funding for registering the project with USGBC, completing the application process as well as additional fees associated with the documentation process have been carried.

Project Reserves	Construction Cost	Percentage	
Bid Contingency	\$13,658,515	5%	\$682,926
Construction Contingency	\$13,658,515	5%	\$682,925.73
<b>Subtotal Project Contingency</b>			<b>\$1,365,851</b>

The bid contingency will be used in the event of higher than estimated contractor bids. With a multi-year planning process, it is important to reserve funds for increases in material and labor costs. Use of these funds is at the discretion of Portland Public Schools and the City of Portland.

Construction contingency is used to cover costs for unforeseen conditions as well as changes to the scope of work for the general contractor.

# Budget description Section “C-Fees and Services”

Architect/Engineer Basic Services	Construction Cost	Percentage	
Architect basic services fee	\$13,658,515	7%	\$956,096
Renovation premium	\$13,222,894	2.5%	\$330,572
<b>Subtotal Architect/Engineer Basic Services</b>			<b>\$1,286,668</b>

The Fee for Architectural services is calculated using the Bureau of General Services guidelines for Architectural Services. A fee of 7% is used as the base fee and an additional 2.5% is applied to the renovation portion of the project.

Architect/Engineer Additional services			
Architect basic services fee			\$10,000

The planned additional services include a life cycle cost analysis.

Architect/Engineer Reimbursables	Construction Cost	Percentage	
Reimbursable expenses			\$39,400

Reimbursable expenses include printing of drawing sets, preparation of permit applications, permit fees for the State Fire Marshal application as well as expenses occurring through the construction process.

Permitting and Approvals	Construction Cost	Percentage	
			\$18,760

Fees for submissions to the DEP and City of Portland along with submission preparation (excluding printing) are included in this line.

Survey and Soils	Construction Cost	Percentage	
			\$39,500

A site survey will be conducted to document the site boundary and topography. Geotechnical explorations will be conducted to determine the bearing capacity of the soil.

Construction testing	Construction Cost	Percentage	
			\$15,000

Throughout construction material testing will be conducted to verify the strength of concrete, compaction and inspection of structural steel as required by the building code.

Project Coordination	Construction Cost	Percentage	
			\$0

A project coordinator would be hired by the District/City to assist with the day to day management of the project. The project coordinator would be a part time person, likely 10-20 hours a week.

Clerk of the Works	Construction Cost	Percentage	
			\$84,000

The Clerk of the Works will be hired by the Architect and serve as the daily on site observer. This person will monitor the day to day construction activities and serve as a liaison between the Contractor, Architect and Owner. They will provide daily reports documenting the progression of the construction.

Commissioning	Construction Cost	Percentage	
			\$80,000

The Commissioning Agent will provide a third party verification of the functionality of building mechanical and electrical systems. This subcontractor will be brought on prior to the completion of the construction documents and provide a review of the design.

Reiche	
Selected program costs	
Outdoor learning	\$ 177,783
Playground costs	\$ 280,302
Generator pad/conduit	\$ 7,859

Potential program enhancements	
Operable Partitions	\$ 214,200

## A CONSTRUCTION

1 Construction Estimate	
Renovation/Reconfiguration	
Structural/Architectural	\$1,684,560
Mechanical/Plumbing/Sprinkler	\$1,605,899
Electrical	\$963,067
Renovation non-equity model	\$683,502
New Construction/Addition	\$7,733,316
Demolition	\$60,744
Built-in Equipment	\$644,007
Site Development	\$2,356,216
	<b>Subtotal</b>
	<b>\$15,731,312</b>

## B ADMINISTRATIVE COSTS & RESERVES

2 Land Purchase and Related Costs	\$0
3 Moveable Equipment	\$1,198,292
4 Advertising and Legal	\$55,000
5 Percent for Art	\$0
6 Project Reserves	\$35,000
7 Project Contingency	\$1,573,131
	<b>Subtotal</b>
	<b>\$2,861,423</b>

## C FEES AND SERVICES

8 Architect / Engineer Basic Services	\$1,285,410
9 Architect / Engineer Additional Services	\$0
10 Architect / Engineer Reimbursables	\$39,400
11 Site Selection	\$0
12 Permitting & Approvals	\$27,532
13 Survey and Soils	\$45,500
14 Construction Testing	\$15,000
15 Project Coordination	\$45,000
16 Clerk of the Works	\$84,000
17 Commissioning	\$80,000
18 Other Professional Services	\$0
	<b>Subtotal</b>
	<b>\$1,621,842</b>

## D TOTAL PROJECT COST

**\$20,214,577**

# Lyseth Elementary School

PROGRAM SPACE - EXISTING FACILITY					PROGRAM SPACE - PROPOSED FACILITY				
Subject	# of Rooms	Area (sf)	# of Students per Room	Capacity	Subject	# of Rooms	Area (sf)	Area difference between existing	Capacity
Pre-K	0	0	15	0	Pre-K	2	1000	1000	30
Kindergarten	4	3210	18	72	Kindergarten	4	4025	815	72
Grade Level Classrooms (1-5)	20	16695	20-23	430	Grade Level Classrooms (1-5)	20	16670	(25)	430
Project Room	0	0			Project Room	2	1575	1575	
Gifted & Talented	1	260			Gifted & Talented/ Discovery Lab	1	775	515	
OT/PT	1	805			OT/PT	1	645	(160)	
Resource	3	1865			Resource	3	2400	535	
ELL (portable)	1	590			ELL	1	800	210	
Speech	2	185			Speech	1	410	225	
Literary Support (portable)	1	600			Read 180	1	805	690	
Reading	1	115							
Art	1	800			Art	1	1100	300	
Music	1	800			Music	1	1125	325	
Library	1	1565			Library	1	2450	885	
Gym/Cafeteria/PE Office	1	3575			Gym & support spaces		6490	2915	
Kitchen	1	650			Kitchen		1210	560	
Stage	0	0			Stage	1	965	965	
Cafeteria (shared with Gym)	0	0			Cafeteria	1	3400	3400	
Main Office, Principal and support	1	865			Main Office, Principal and support	1	1240	375	
Staff Break Room	1	290			Staff Break Room	1	775	485	
Book Room	1	240			Book Room	1	250	10	
Workrooms	0	0			Workrooms	3	1160	1160	
Nurse	1	250			Nurse	1	600	350	
Social Worker	2	250			Social Worker	3	560	310	
Credit Union	1	140			Credit Union	1	140	0	
<b>CAPACITY</b>		502			<b>CAPACITY</b>		532		
<b>TOTAL NET AREA (SF) *</b>		33750			<b>TOTAL NET AREA (SF)</b>		50570		
<b>Structure/Circulation/Mech/Utility</b>		17975			<b>Structure/Circulation/Mech/Utility</b>		26199		
<b>TOTAL GROSS AREA (SF) *</b>		51725			<b>TOTAL GROSS AREA (SF)</b>		76769		
<b>GROSS SF PER STUDENT</b>		103			<b>GROSS SF PER STUDENT **</b>		144		

\* Total area includes portable classrooms

\*\* Maine DOE guidelines call for 140 SF/Student with increases for special programs

# Budget description Section “A-Construction”

Renovation Reconfiguration	Area		\$/SF	Total
Structural/Architectural				
Renovation	23,249 sf	x	\$36	\$835,624.56
Reconfiguration	16,855 sf	x	\$50	\$848,934
Mechanical/Plumbing/Sprinkler	40,104 sf	x	\$40	\$1,605,899
Electrical	40,104 sf	x	\$24	\$963,067
Demolition				\$60,744
<b>Subtotal Renovation</b>				<b>\$4,314,269</b>

The work included in the Renovation/Reconfiguration line item includes improvements to the existing building. The renovation line covers replacement of flooring, doors, ceilings and other finishes within the parts of the building not being reconfigured. In addition, it covers the upgrades to the plumbing and mechanical systems, installation of a sprinkler system and new electrical work in these spaces. The reconfiguration line carries additional cost for selective demolition and construction of new walls.

Renovation non-equity model				
Porous pavement in Moore parking lot				\$78,715
Outdoor learning adjustment				\$58,852
Entrance improvements				\$349,509
Moore parking lot				\$117,705
Walking path				\$5,155
Playground improvements				\$66,209
Emergency generator pad and conduit				\$7,357
<b>Subtotal Renovation non-equity model</b>				<b>\$683,502</b>

The renovation non-equity model includes deferred maintenance items and improvements not originally carried in the BFOF project budgets. These are items that were planned to be completed through other funding sources such as private fundraising or the City CIP program.

New Construction/Addition	Area		\$/SF	Total
Building additions	37,908		\$204	\$7,733,316

The new construction includes all costs associated with construction of the building addition including foundations, structure, interior and exterior finishes, mechanical, electrical and plumbing expenses.

Built In Equipment				
Built In Equipment				\$644,007

Built in equipment covers the cost of fixed equipment and products installed by the general contractor. This work includes items such as millwork, whiteboards and tackboards, kitchen equipment and other fixed products.

Site Development				
Site Development				\$2,356,216

Site development includes all changes to the exterior site portions of the building including the parent drop off, bus loops, parking areas, changes to the playground and learning areas as well as improvements to the athletic fields.



# Budget description Section “B-Administrative Costs and Reserves”

Moveable Equipment	Construction Cost	Percentage	
Moveable Equipment	\$13,314,350	6%	\$798,861
Technology	\$13,314,350	3%	\$399,431
<b>Subtotal Moveable Equipment</b>			<b>\$1,198,292</b>

Moveable equipment money is used to purchase furniture and equipment for the school. Typical expenses include classroom furniture, office furniture, shelving for the library, trash cans and other support products. In some cases, schools have purchased items such as snow blowers or lawn maintenance equipment for use at the school. This reserve is used at the discretion of Portland Public Schools/City of Portland.

The technology portion of this reserve is used to purchase equipment to run the school's computer and data networks. This typically includes routers, switches, servers and wireless access points.

Advertising and Legal	
Bond sale expenses	\$55,000

The Advertising and Legal line is an administrative reserve line. Funds will be used for advertising project notices, review of contracts (if required) and for the sale of the bond. The total cost has been divided between the four projects.

Project Reserves	
LEED Certification	\$35,000

Funding for registering the project with USGBC, completing the application process as well as additional fees associated with the documentation process have been carried.

Project Reserves	Construction Cost	Percentage	
Bid Contingency	\$15,731,310	5%	\$786,566
Construction Contingency	\$15,731,310	5%	\$786,566
<b>Subtotal Project Contingency</b>			<b>\$1,573,131</b>

The bid contingency will be used in the event of higher than estimated contractor bids. With a multi-year planning process, it is important to reserve funds for increases in material and labor costs. Use of these funds is at the discretion of Portland Public Schools and the City of Portland.

Construction contingency is used to cover costs for unforeseen conditions as well as changes to the scope of work for the general contractor.



# Budget description Section “C-Fees and Services”

Architect/Engineer Basic Services	Construction Cost	Percentage	
Architect basic services fee	\$15,731,311	6.9%	\$1,085,460
Renovation premium	\$7,997,994	2.5%	\$199,950
<b>Subtotal Architect/Engineer Basic Services</b>			<b>\$1,285,410</b>

The Fee for Architectural services is calculated using the Bureau of General Services guidelines for Architectural Services. A fee of 6.9% is used as the base fee and an additional 2.5% is applied to the renovation portion of the project.

Architect/Engineer Additional services	
Architect basic services fee	\$0

The planned additional services include a life cycle cost analysis.

Architect/Engineer Reimbursables	
Reimbursable expenses	\$39,400

Reimbursable expenses include printing of drawing sets, preparation of permit applications, permit fees for the State Fire Marshal application as well as expenses occurring through the construction process.

Permitting and Approvals	
Permitting and Approvals	\$27,532

Fees for submissions to the DEP and City of Portland along with submission preparation (excluding printing) are included in this line.

Survey and Soils	
Survey and Soils	\$45,500

A site survey will be conducted to document the site boundary and topography. Geotechnical explorations will be conducted to determine the bearing capacity of the soil.

Construction testing	
Construction testing	\$15,000

Throughout construction material testing will be conducted to verify the strength of concrete, compaction and inspection of structural steel as required by the building code.

Project Coordination	
Project Coordination	\$45,000

A project coordinator would be hired by the District/City to assist with the day to day management of the project. The project coordinator would be a part time person, likely 10-20 hours a week.

Clerk of the Works	
Clerk of the Works	\$84,000

The Clerk of the Works will be hired by the Architect and serve as the daily on site observer. This person will monitor the day to day construction activities and serve as a liaison between the Contractor, Architect and Owner. They will provide daily reports documenting the progression of the construction.

Commissioning	
Commissioning	\$80,000

The Commissioning Agent will provide a third party verification of the functionality of building mechanical and electrical systems. This subcontractor will be brought on prior to the completion of the construction documents and provide a review of the design.



Lyseth	
Selected program costs	
Reduce size of gym to ES size	\$ 320,112
Locker Rooms	\$ 131,976
Playground Improvements	\$ 77,465
Outdoor Learning	\$ 68,857
All additions on one floor W/ES GYM)	\$ 1,260,000
Generator pad/conduit	\$ 7,297
Potential program enhancements	
Cost for additional Pre-K	\$ 282,240



OAK POINT  
ASSOCIATES

architecture  
engineering  
planning