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# **Conceptual Design / Feasibility Cost Estimate Report**

Report Date: November 10, 2011 Prepared for:

SHW Group

# **Arlington Public Schools**Oakridge Elementary School

# Additions and Interior Renovations Arlington, Virginia





# COST ESTIMATE CLARIFYING NOTES, ASSUMPTIONS & EXCLUSIONS

- We have incorporated construction costs for a single Contractor procurement via lump sum General Contract. It is assumed that at least 5 General Contractor bids will be received. It is assumed that the facility will be occupied during construction and the project will be phased accordingly. We include phased sequenced construction costs. We do not include relocation cost, or temporary modular classrooms for the current occupants.
- We include hard construction and soft construction costs. The Soft construction costs are budgeted as 22.5% of the construction hard costs. Please refer to the main project summary for the outline of all budgeted items.
- The Limits of Construction are those indicated on the documents provided.
- We exclude all <u>HAZMAT abatement costs for</u> Lead Paint, Asbestos, PCB's or Mold. Any type of HAZMAT remediation cost is not included in our analysis.
- Design Contingency accounts for the costs of yet unidentified scope requirements and engineering. A 15% Design Contingency has been included.
- Construction Contingency accounts for the costs of change orders due to unforeseen conditions and / or owner generated changes. A <u>5% Construction Contingency has</u> been included.
- Escalation accounts for the inflationary effects of elapsed time. Escalation costs have been included at an average of 4% per year commencing in third quarter of FY 2012.
- All cost data is based on Open shop wage and burden rates.



# SOFT COSTS INCLUDED IN OUR COSTS ANALYSIS

We are utilizing a 22.5 % Construction Soft Cost multiplier for the project budget. It is assumed that the Soft Cost multiplier will include the following items:

## FURNITURE, FIXTURE & EQUIPMENT [FF&E]

- Loose, unattached system furniture, traditional furniture, etc.
- Special fixtures relevant to subject facility operations and uses
- Communications equipment, such as servers, telephone sets, communications cables, instruments, & accessories
- Vending equipment purchases and/or leases, etc.
- Exterior equipment, such as exercise equipment, pay telephones.

#### **MOVING & STORAGE COSTS**

- Contract and/or internal staff implemented moving costs.
- Temporary storage and insurance.
- Removal and disposal of furnishings of no salvage value.

#### TEMPORARY FACILITIES

- Non-contractor temporary storage trailers.
- Non-contractor temporary utilities.

#### **REAL ESTATE**

- Land acquisitions, leases, easements and rights of way.
- Real estate taxes.
- Transfer taxes.
- Recordation fees & taxes.
- Brokerage commissions.
- Settlement charges.
- Legal fees.

## **MANAGEMENT** *Indirect* Owner Mgt Expenses

- Real estate necessary to house management & staff.
- Utilities.
- Insurance.
- Furniture, fixture & equipment.
- Project management salaries.
- Communications, telephone, facsimile expenses, e-mail, etc.
- Travel, parking, courier services, etc.
- Security.
- Office equipment & supplies.



# COMMON OWNER SOFT CONSTRUCTION COSTS (continued)

- Cable TV company fees
- State & local highway fees
- Mandatory completion bonds

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LOC REF	SYS#	UNIFORMAT SYSTEM	SPECIFICATION	QUANTITY	U/M	UNIT COST	EXTENSION

## **PROJECT CONSTRUCTION COST SUMMARY**

Arlington Public Schools - Oakridge Elementary School

Two Story Addtion 21,600.00 Gross Square Feet
Renovation 1,500.00 Gross Square Feet
Total 23,100.00 Gross Square Feet

**CONSTRUCTION COSTS** 

HARD COSTS	Two Story Addition to Existing Building	Carried forward	Cost per SF 229.75	\$4,962,659
HARD COSTS	Renovations to Existing Building	Carried forward	139.94	\$209,912
HARD COSTS HARD COSTS	Sitework	Carried forward	N/A	\$972,275
HARD COSTS HARD COSTS HARD COSTS	Subtotal Escalation to construction mid point - see table below	0.00%		\$6,144,846 \$0
HARD COSTS	Subtotal	0.0070		\$6,144,846

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# ADDITIONS HVAC BASE BID & ALTERNATE COMPARASION SUMMARY

Cost per SFBase Bid System -ityand Alone SystemARY

Report: Feasibility Study Const Cost Estimate
Project: Oakridge Elementary School Feasibility Study

Prepared by: Downey & Scott, LLC

Status:

Concept Design

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TWO STORY ADDITION TWO STORY ADDITION	00.00	•	BUILDING ADDITION		•		•	
TWO STORY ADDITION	00.50	SELECT BLDG. DEMO	Misc. demo at tie-in Misc. prep/patch Misc R&R for MEP tie-ins Segregated debris disposal off site LEED Disposal Fee / Recycling Hazmat abatement - asbestos Hazmat abatement - lead	1.00 1.00 60.00	LS	3,800.00 2,500.00 5,000.00 30.00 37.00 Costs are Exc	2,500.00 5,000.00 1,800.00 1,110.00	
TWO STORY ADDITION TWO STORY ADDITION TWO STORY ADDITION	01.00	FOUNDATIONS	Elevator pit, sgl, incl w.p. & drains Foundations	90.00 10,800.00		135.00 7.87	,	
TWO STORY ADDITION TWO STORY ADDITION TWO STORY ADDITION TWO STORY ADDITION	02.00	SUBSTRUCTURE	Minor SOG repairs in ex. bldg., allowance SOG Exterior stoops & slabs	750.00 10,800.00 200.00	GSF	12.00 8.30 8.00	89,640.00	
TWO STORY ADDITION	03.00	SUPERSTRUCTURE	2nd floor framing & deck SOMD for 2nd floor Roof framing & deck Elev hoist bm & hoistway roof deck Elev hoistway SOMD Stairways Misc metals Misc Wood Blocking	10,800.00 10,800.00 10,800.00 90.00 1.00 21,600.00 21,600.00	GSF GSF SF SF EA GSF	13.25 4.00 10.30 4.50 8.75 12,500.00 2.20 1.05	43,200.00 111,240.00 405.00 5 787.50 12,500.00 47,520.00	
TWO STORY ADDITION	04.00	EXTERIOR CLOSURE	Lt. gage exterior wall framing & sheathing Brick veneer at It. gage wall framing Ground face CMU veneer at It. gage wall framing Metal panels wall covering at It. gage wall framing Exterior wall vapor barrier Windows Storefront entrances	11,600.00 5,800.00 2,900.00 2,900.00 11,600.00 21,600.00	) SF ) SF ) SF ) SF ) SF ) GSF	9.50 18.50 16.00 22.00 3.75 7.20 1.25	110,200.00 107,300.00 46,400.00 0 63,800.00 6 43,500.00 155,520.00	

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TWO STORY ADDITION	9.20	PLUMBING	Water Closet	18.0	n <b>F</b> A	464.50	8.361.0
	3.20	LOWIDING	Urinal		DEA	385.22	-,
TWO STORY ADDITION TWO STORY ADDITION			Automatic Flush Valve	20.0		163.20	
				18.0		313.85	-, -
TWO STORY ADDITION			Lavatory, countertop mounted Classroom Sink	16.0		485.10	-,
TWO STORY ADDITION			Electric Water Cooler		D EA		, -
TWO STORY ADDITION						1,163.50	
TWO STORY ADDITION			Janitor Sink Floor Drain		DEA	733.54	, -
TWO STORY ADDITION					DEA	168.60	, -
TWO STORY ADDITION			Roof Drain		DEA	384.50	-, -
TWO STORY ADDITION			Wall Hydrant		DEA	252.94	
TWO STORY ADDITION			Water Heater		DEA	4,822.00	
TWO STORY ADDITION			Circulating Pump		DEA	725.00	
TWO STORY ADDITION			Sewer Ejector Pump		DEA	12,500.00	
TWO STORY ADDITION			Elevator Sump Pump, oil minder type		D EA	6,550.00	,
TWO STORY ADDITION			Domestic Water Piping	21,600.0		2.69	
TWO STORY ADDITION			DWV Piping	21,600.0		1.76	
TWO STORY ADDITION			Storm Piping	21,600.0		1.48	- ,
TWO STORY ADDITION			Plumbing Insulation	21,600.0		0.81	
TWO STORY ADDITION			Coordination Drawings	21,600.0		0.22	
TWO STORY ADDITION			Tie into Existing Plumbing Systems	1.0	D LS	2,650.00	2,650.
TWO STORY ADDITION		FIDE ODDINI// FD	0	04.000.0			0.4 500
TWO STORY ADDITION	9.30	FIRE SPRINKLER	Sprinkler	21,600.0		2.85	- ,
TWO STORY ADDITION			Fire Pump	1.0	D LS	65,000.00	65,000.
TWO STORY ADDITION							
TWO STORY ADDITION	10.00	ELECTRICAL	Switchboards - modify existing	21,600.0		0.15	-, -
TWO STORY ADDITION			Panelboards	21,600.0		0.65	
TWO STORY ADDITION			Bus Duct & Transformers	21,600.0		0.40	- /
TWO STORY ADDITION			Generator/ATS - for addition & fire pump		DEA	55,000.00	
TWO STORY ADDITION			Light Fixtures - based on T8 fixtures	21,600.0		4.85	. ,
TWO STORY ADDITION			Light Switches	21,600.0		0.26	
TWO STORY ADDITION			Power Outlets	21,600.0		0.95	
TWO STORY ADDITION			Safety Cabinets & Disconnects	21,600.0		0.50	
TWO STORY ADDITION			Power Feeders	21,600.0	J GSF	2.50	54,000.

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#### **HARD CONSTRUCTION COSTS**

BASE BID IN CURRENT MARKET DOLLARS

SUBTOTAL ESCALATION TO BID SUBTOTAL DESIGN CONTINGENCY		Cost per SF			
BUILDING RENOVATION		1,500 GSF	<u>\$139.94</u>	209,912	
SUBTOTAL	SUBTOTAL			209,912	
ESCALATION TO BID	REFER TO MAIN SUMMARY	0.00%		0	
SUBTOTAL	SUBTOTAL			209,912	
DESIGN CONTINGENCY	REFER TO MAIN SUMMARY	0.00%		0	
RENOVATION TOTAL	RENOVATION TOTAL			209,912	
		C	ost per SF		
			<u>\$139.94</u>		

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BUILDING RENOVATIONS

BUILDING RENOVATIONS

BUILDING RENOVATION
BUILDING RENOVATION

BUILDING RENOVATION

BUILDING RENOVATION

BUILDING RENOVATION

BUILDING RENOVATION

BUILDING RENOVATION

Temp protection & cleaning

1,500.00 GSF

0.37

555.00

Report: Project: Location: Documents Dated:	Feasibility Study Const Cost Estimate Oakridge Elementary School Feasibility Study Arlington Public Schools Nov. 4, 2011		6799 Kennedy Road, Suite F Clien Warrenton, Virginia 20187 Subn		Status: Concept Design Client: SHW Group Submissn: Nov. 10, 2011 Run Date: See footer		PM: ct/gs/ah Chckd by: bd/sm Job no: 11094	
LOC REF	SYS#	UNIFORMAT SYSTEM	SPECIFICATION	QUANTITY	U/M	UNIT COST	EXTENSION	
BUILDING RENOVATION	05.00	ROOFING	Misc. patching for mechanical penetrations	1,500.00	GSF	0.33	495.00	
BUILDING RENOVATION	06.00	INTERIOR CONST	Patch Masonry partitions allowance Interior finishes Prem add for restroom finishes Thermal insulation Sound transmission control insulation Interior glazing Interior doors, single, incl jambs, trim & hardware Misc cut and patching	1,500.00 1,500.00 1,100.00 1,500.00 1,500.00 1,500.00 1,500.00	GSF GSF GSF GSF GSF GSF GSF	0.65 9.70 12.40 0.45 0.19 2.72 3.74 0.30	14,550.0\\ 13,640.0\\ 675.0\\ 285.0\\ 4,080.0\\ 5,610.0\\	
BUILDING RENOVATION	07.00	SPECIAL EQUIPMENT	Div 10 specialties Div 11 misc equipment Div 12 furnishings Smart boards Kitchen / faculty lounge appliances allowance Student desks and work stations Office furnishings, sofas and chairs	1,500.00 1,500.00 1,500.00	GSF	2.22 0.50 2.85 None included Refer to FF&E Refer to FF&E	750.0 4,275.0 0.0	
BUILDING RENOVATION BUILDING RENOVATION BUILDING RENOVATION	08.00	CONVEYING	Section Not Used				0.0	

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Location:		, ,		Submissn:	Nov. 10. 2		Job no: 11094
		Public Schools	Warrenton, Virginia 20187	Run Date:			JOD 110: 11094
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LOC REF	SYS#	UNIFORMAT SYSTEM	SPECIFICATION	QUANTITY	U/M	UNIT COST	EXTENSION
LUC REF	313#	UNIFORMAT SYSTEM	SPECIFICATION	QUANTITY	U/IVI	UNIT COST	EXTENSION
BUILDING RENOVATION	09.00	MECHANICAL HVAC	Equipment	1,500.00	GSF	12.20	18,300.00
BUILDING RENOVATION			Piping & Valves - renovation	1,500.00	GSF	4.20	6,300.00
BUILDING RENOVATION			Ductwork	1,500.00	GSF	5.85	8,775.00
BUILDING RENOVATION			Air Outlets	1,500.00	GSF	0.59	885.00
BUILDING RENOVATION			Ductwork Accessories	1,500.00	GSF	0.72	1,080.00
BUILDING RENOVATION			Insulation	1,500.00	GSF	1.95	2,925.00
BUILDING RENOVATION			Temperature Controls	1,500.00	GSF	4.10	6,150.00
BUILDING RENOVATION			Air & Water Balance	1,500.00	GSF	0.45	675.00
BUILDING RENOVATION			Systems Operation & Testing	1,500.00	GSF	0.25	375.00
BUILDING RENOVATION			HVAC Demolition	1,500.00	GSF	0.97	1,455.00
BUILDING RENOVATION							
BUILDING RENOVATION	9.20	PLUMBING	Water Closet	2.00	EA	464.50	929.00
BUILDING RENOVATION			Urinal	0.00	EA	385.22	2 0.00
BUILDING RENOVATION			Automatic Flush Valve	2.00	EA	163.20	326.40
BUILDING RENOVATION			Lavatory, countertop mounted	2.00	EA	313.85	627.70
BUILDING RENOVATION			Electric Water Cooler	0.00		1,163.50	
BUILDING RENOVATION			Janitor Sink	2.00	EA	733.54	1,467.08
BUILDING RENOVATION			Ice Machine/Refrigerator Connection	1.00	EA	125.00	125.00
BUILDING RENOVATION			Floor Drain	2.00	EA	168.60	337.20
BUILDING RENOVATION			Domestic Water Piping	1,500.00	GSF	2.69	
BUILDING RENOVATION			DWV Piping	1,500.00	GSF	1.76	2,640.00
BUILDING RENOVATION			Storm Piping	1,500.00	GSF	1.48	2,220.00
BUILDING RENOVATION			Plumbing Insulation	1,500.00		0.81	
BUILDING RENOVATION			Plumbing Demolition	1,500.00	GSF	0.95	1,425.00
BUILDING RENOVATION							
BUILDING RENOVATION	9.30	FIRE SPRINKLER	Sprinkler	1,500.00	GSF	2.85	4,275.00
BUILDING RENOVATION			Fire Pump			See Addition	

BUILDING RENOVATION

Report: Feasibility Study Const Cost Estimate Oakridge Elementary School Feasibility Study Arlington Public Schools Nov. 4, 2011 Project:

Location:

Documents Dated:

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LOC REF	SYS#	UNIFORMAT SYSTEM	SPECIFICATION	QUANTITY	U/M	UNIT COST	EXTENSION
SITEWORK			SITEWORK				
SITEWORK SITEWORK SITEWORK	12.00	TRAFFIC CONTROLS	Temporary traffic control measures	1.00	) LS	3,000.00	3,000.00
SITEWORK	12.05	SITE DEMO CLR/GRUB	Misc site demo Remove trees Remove curb and gutter Remove sidewalks 4" thick Remove concrete pads 8" thick Remove asphalt paving Demo asphalt paving at VDOT ROW Remove portions of existing SWM piping Remove existing utilities Remove gas meter Remove gas line		00 SF 1.50 00 SF 4.35		875.00 2,160.00 4,050.00 2,718.75
SITEWORK			Remove existing fence	185.00		5.00	925.00

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	SYS#	UNIFORMAT SYSTEM	SPECIFICATION	QUANTITY	U/M	UNIT COST	EXTENSIO
		HVAC ALTERNATE	·				
ADDITION HVAC BASE	09.00	MECHANICAL HVAC - Stand Alone System Note: Average cost between 4-pipe system, water source heat pump systems, and variable refrigerant flow system.  MARK-UPS	HVAC Equipment Piping & Valves Ductwork Air Outlets Ductwork Accessories Insulation Temperature Controls Air & Water Balance Coordination Drawings Systems Operation & Testing	21,600.00 21,600.00 21,600.00 21,600.00 21,600.00 21,600.00 21,600.00 21,600.00 21,600.00	0 GSF 0 GSF 0 GSF 0 GSF 0 GSF 0 GSF 0 GSF	16.50 5.50 6.75 0.59 0.72 2.15 4.10 0.45 0.22	118,800.0 145,800.0 12,744.0 15,552.0 46,440.0 88,560.0 9,720.0 4,752.0
ADDITION HVAC BASE ADDITION HVAC BASE ADDITION HVAC BASE ADDITION HVAC BASE ADDITION HVAC BASE ADDITION HVAC BASE ADDITION HVAC BASE	11.00		General Conditions Subtotal GC OH @ 5% plus Profit @ 5% Subtotal Bonds & insurance Subtotal	12.00% 10.00% 1.25% 21,600.00	6	\$46.44	96,500.1 900,668.1 90,066.8 990,734.9 12,384.1
ADDITION HVAC ALT ADDITION HVAC ALT ADDITION HVAC ALT	09.00	MECHANICAL HVAC - Geothermal	HVAC Equipment Piping & Valves Geothermal Bore. 24 bores at 600' depth	21,600.00 21,600.00 14,400.00	0 GSF	13.75 4.20 22.50	90,720.0