

**ATTACHMENT #1**

**DICKENSON COUNTY PROPOSED NEW ELEMENTARY SCHOOL  
PRELIMINARY SITE SELECTION EVALUATION**

**Information for Consideration:**

1. COE contract requires elementary school of minimum size of 62,000 SF which equates to approximate minimum capacity of 500 students (assuming 125 SF per student based upon VA guidelines).
2. Guidelines for School Facilities in Virginia's Public Schools (Virginia DOE June 2010) recommends minimum of 4 acres for Pre-K through 7th grades plus additional acre per 100 students or minimum of 9 acres.
3. Construction cost of an elementary school in 2016-2017 per Virginia DOE cost data ranges from \$185/SF to \$250/SF. Average cost is \$210/SF.
4. In addition to hard construction costs, soft costs of approximately 18% of construction costs must be considered. These include design fees, special consultants, furnishings & equipment, testing & inspections, legal, construction project management, and other relevant costs.
5. Estimated cost at today's dollars, NOT considering premium for site costs and land acquisition (but including anticipated soft costs):

500 Student School (62,500 SF; 9 acres):	\$15,487,500	Assumes \$210/SF and 18% factor for soft costs
600 Student School (75,000 SF; 10 acres):	\$18,585,000	Assumes \$210/SF and 18% factor for soft costs
700 Student School (87,500 SF; 11 acres):	\$20,650,000	Assumes \$210/SF and 18% factor for soft costs
800 Student School (100,000 SF; 12 acres):	\$24,780,000	Assumes \$210/SF and 18% factor for soft costs
900 Student School (112,500 SF; 13 acres):	\$27,877,500	Assumes \$210/SF and 18% factor for soft costs

	Upper Backbone Ridge	Clinchco ES	Haysi HS	Ridgeview
<b>Assumed Elementary School Model</b>	Three school model	Two school model	Three school model	One school model
<b>Projected Size of School Needed</b>	500 student school	580 student school	500 student school	900 student school or smaller school if students incorporated into Ridgeview.
<b>Property Acquisition and Mineral Rights</b>	Land may be needed from up to 7 property owners. School Board owns old Fuller property (5.247 acres), but minimum of 8 to 9 acres needed. No current underground mining (per T&L study). Potential mineral rights issues.	No property acquisition or mineral rights issues.	No property acquisition. Potential mineral rights issues.	Will be required to acquire multiple parcels (up to 8 possible). Waiver of mineral rights.
<b>Assessed Property Value(s) - not acquisition cost (anticipate 5X to 10X of assessed value)</b>	\$74,600	N/A - Owned By School Board	N/A - Owned by County unless private property is needed	\$737,700
<b>Utilities</b>	Existing gas line would need relocated; Extensive piping required to achieve sanitary sewer connection and upgrades to pump station; Water service would need to come from Route 652; Potential AEP power line interference.	Utilities currently serve the site, but may need to be reworked; Existing pump station would need to be raised and/or relocated; Existing storm drainage culvert would need to be worked around or rebuilt.	Utilities currently serve the site, but may need to be reworked.	Extended and possibly upgraded utilities required.
<b>Road Construction</b>	\$\$\$ Off-site road improvements required (per T&L study)	\$: Minimal, unless VDOT upgrades are required.	\$\$: As required by VDOT.	\$: Minimal, unless VDOT upgrades are required.
<b>Environmental/Permitting Schedule Impacts</b>	NEPA document required. Significant schedule impact of potentially one year.	NEPA document required, however, some NEPA work is complete. Schedule impact of potentially nine months.	NEPA document required. Significant schedule impact of potentially one year.	Utilize existing permits. Schedule impact of potentially six months.
<b>Site Development Costs</b>	\$5.5M estimated site excavation (per T&L study); Does <u>not</u> include road improvements, utilities or other related site costs.	Similar to Upper Backbone site in terms of quantity of excavation and cost other than utilities and road improvements.	Very significant and most costly site costs of options being considered. Costs to include demolition of existing structures. Only roughly 8 acres outside flood way/flood plain available and would require a significant cut into the mountain side with retaining structure. Site must also consider flat areas for play and rec areas.	Least amount of excavation of the four options considered.

Virginia Department Of Education

Annual Cost Data Report

2016 - 17 New Elementary School(s)

Project Number	Project Name	Grades	Division Name	Contract Award Date	Maximum Operating Cap (b)	Building Cost	Site Cost	Total Cost (a)	Total Sq. Feet	Sq. Feet/ Pupil	Total Cost/ Sq. Feet	Building Only Cost/Sq Feet	Total Cost/Pupil
202-01-00-102	Colonial Beach Elementary	PK-7	Colonial Beach (202)	Jul-16	442	\$ 7,160,934	\$ 766,066	\$ 7,927,000	50,079	113	\$ 158.29	\$ 142.99	\$ 17,934
029-05-02-100	Fort Belvoir Elementary School II	PK-6	Fairfax County (029)	Apr-15	576	\$ 17,330,700	\$ 4,840,320	\$ 22,171,020	95,341	166	\$ 232.54	\$ 181.78	\$ 38,481
113-12-00-100	New Harrisonburg Elementary	K-5	Harrisonburg City (113)	Mar-16	916	\$ 21,414,376	\$ 4,496,390	\$ 25,910,766	103,703	113	\$ 249.86	\$ 206.50	\$ 28,287
044-05-01-100	Meadow View Elementary	PK-5	Henry County (044)	Jul-16	776	\$ 19,691,800	\$ 963,900	\$ 20,655,700	96,000	124	\$ 215.16	\$ 205.12	\$ 26,618
053-37-00-101	Loudoun Elementary-ES K-5 28	K-5	Loudoun County (053)	Feb-17	988	\$ 24,310,000	\$ 4,000,000	\$ 28,310,000	136,200	138	\$ 207.86	\$ 178.49	\$ 28,854
075-113-01-100	Potomac Shores ES	K-5	Prince William County (075)	Mar-16	889	\$ 16,846,000	\$ 4,185,000	\$ 20,831,000	101,246	114	\$ 205.75	\$ 164.41	\$ 23,432
127-09-00-100	Northern Suffolk Elementary (Bowser Replacement)	PK-5	Suffolk City (127)	Jun-16	984	\$ 18,190,000	\$ 2,630,000	\$ 20,820,000	114,881	117	\$ 181.23	\$ 158.34	\$ 21,159
<b>Total</b>					5,571	\$ 124,743,810	\$ 21,881,676	\$ 146,625,486	697,450				
<b>Statewide Average</b>										125	\$ 210.23	\$ 178.86	\$ 26,319

(a) Usually includes construction, site development, water system, sewage disposal, built-in equipment and demolition. A ; E fees, value engineering, construction management fees, cost of site, loose equipment, and furniture are excluded.

(b) Pre-kindergarten classrooms counted at 16 students, grades K-3 classrooms counted at 24:1, Grades 4-5 counted at 25:1.

(c) See Appendix A for project specific comments

### 3.2 Size of New School Site

A. The following minimum usable site sizes are recommended:

School Type	Basic Acreage	Additional Acreage Per 100 Pupils in Ultimate Enrollment
Primary or Elementary (grades pk-7)	4	1
Middle School, Intermediate, Jr. High	10	1
Senior High or Combined School	10	1

B. Other considerations recommended to evaluate existing or potential school sites are:

1. Adequate site acreage to separate pedestrian, bus, and car traffic
2. Adequate site acreage to meet the needs of the outdoor physical education program
3. Adequate road frontage and ease of access
4. Availability of utilities
5. Proximity to noise and other pollution sources (airport, traffic, industrial)
6. Additional considerations would be the shape of the site, topography, and soil conditions
7. Adequate perimeter road circulation for emergency response vehicles.
8. Where possible, locate new schools in attendance areas that will promote students to walk or ride bicycles safely to school. When developing a new school site or altering an existing site the design should include features that encourage pedestrian or bicycle access to and from the school site.

C. The total area of the site and total usable area should be indicated on final plans.

### 3.3 Size of Existing School Sites

A. When permanent additions are made to an existing school facility, it is recommended that the minimum usable area of the site be in reasonable compliance with the recommendations for new school sites.

### 3.4 Driveways

A. It is recommended that driveways and service drives do not encircle the school, nor serve as pedestrian walks unless provided with traffic controls such as fences, barriers, signs or lights.