

COMMONWEALTH OF VIRGINIA
STATE BOARD OF EDUCATION
RICHMOND

June 5, 1926

Supt. O.L. Emerick
Purcellville, Virginia

My dear Mr. Emerick:

In accordance with your request of June 3rd I am herewith handing you data and information gathered by this division concerning school building costs.

In 1924 we made a rather elaborate and detailed comparison of school building costs, selecting buildings in different sections of the State of the multiple story and the single story type, attempting as far as possible to select buildings of about the same quality of construction, i.e. multiple story buildings were selected of brick, with wood partitions and floors, auditorium, central heating plant, usually of steam, inside toilets, electric lights, office, library, etc., and the same conditions maintained in single story structures selected for comparison.

You will note by referring to the chart under "School Building Costs" that according to the N.E.A. Candle of Efficiency in school house planning that in practically every item the single story structure excelled the multiple story structure. By referring to the graphs indicating the comparative costs you will note that the multiple story structure costs 15.93¢ per cu. ft. while the one story costs 11.40¢ per cu. ft. The multiple story costs \$4.62 per sq. ft. of instructional floor area while the one story costs \$3.61 per sq. ft. of instructional floor area. The difference in these costs comes about in several ways.

First: The actual corridor space utilized in the one story plans prepared by this division is negligible while it is necessary to specify rather expensive corridors in multiple story buildings, and it costs about as much per sq. ft. of floor area to build corridors as it costs to build classrooms and auditoriums.

Second: The single story type of construction utilizes short timbers throughout except in a few cases where long spans are necessary. In the major portion of the construction, however, girders resting on piers run under the classrooms, and 2 x 10's in 12' lengths are employed for floor joists, whereas in the multiple type of construction, particularly on the second floor, it is necessary to use 2 x 12's, 12" o.c., 24' long as floor joists. These timbers are expensive and difficult to get. For the ceiling joists and roof rafters we use a lattice truss over the classrooms and can safely use 2 x 6's, 12' long, which are relative very inexpensive.