

The High School Project



Cost Considerations

School Board Meeting

December 20, 2018



Every Student Succeeds

Informational Framework

This document includes examples of concepts and professional cost modeling formulas to assist the School Board and the public as they consider the recommendations placed before the Board on this matter on November 8 and November 26, 2018.

It is intended to be instructive and informational only, and is in no way representative of final approaches or decisions. The costs, graphics and technical representations contained herein are not based on any *specific site*, sites or locations. The information is also intended to provide a better understanding of the assumptions and possibilities upon which the recommendations were based and a framework for further research and development.

The staff believes that the connected high school network of school buildings recommendation will provide ACPS with an adaptable and innovative long term strategy for space and academic programming; a clear project direction for efficient implementation of The High School Project; and the way forward for addressing school capacity growth in the City of Alexandria.

Essential Questions

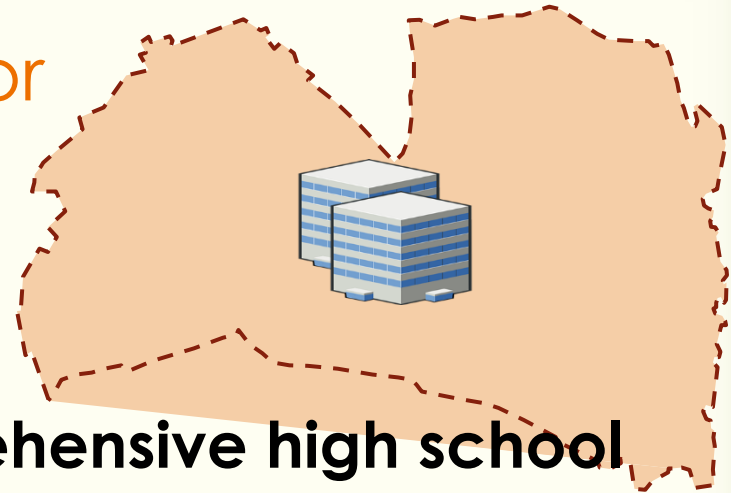
- What are the comparative costs between a new comprehensive high school and the 'connected high school network' model identified in the November 26 staff recommendation?
- What are the guiding assumptions of the cost model?
- What other factors, coupled with cost, will drive the discussion to establish qualitative values for final decision making?

Comparative components for The High School Project

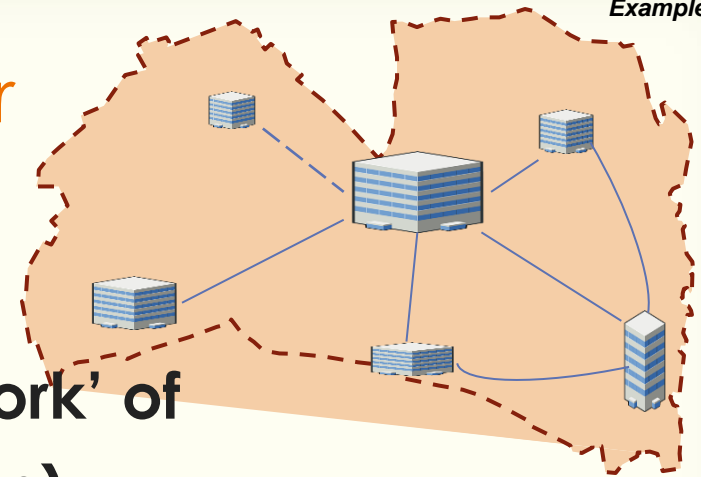
What we are comparing

1. A second Alexandria comprehensive high school and building:

- A single additional school with the same or equivalent program of studies and academic options as what exists for TC Williams High School;
- Includes the full range of standard high school instructional, administrative, student services, operational resources and extracurricular and community space options in and around the building on a site at one single location.



Comparative components for The High School Project

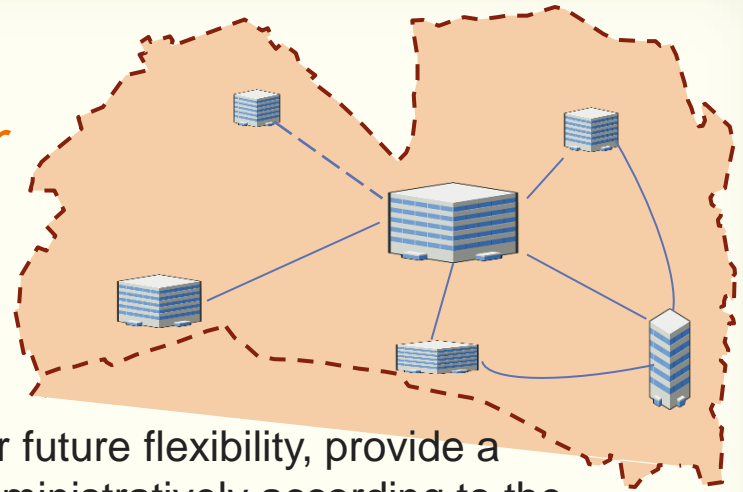


2. A ‘connected high school network’ of buildings (staff recommendation)

Approaches to consider;

- a. **Multiple buildings or spaces** - “connected” to the home campus (TCW) for core academics. Each building houses one large focused program or targeted area of study OR multiple related interdisciplinary programs (like the International Academy along with World languages, World history and/or World Culture and other courses).
- b. Another example could be **co-locating programs** that share space and benefit from similar learning attributes, objectives or specially-built classrooms even though they cross disciplines, such as laboratory or technology spaces that support multiple courses, like chemistry, forensic sciences AND cosmetology or engineering.

Comparative components for The High School Project



- c. A **connected network** school can be designed for future flexibility, provide a variety of select program courses, and operate administratively according to the needs of the high school:
- Any network building or program could be an ‘all inclusive’ site and largely independent of TCW. Students would only utilize the TCW campus, as needed, for extracurricular activities like music and sports (such as the proposed TCW/Early College Program at NOVA).
 - And/or – Students can move between one or more network buildings/programs and the TCW campus according to their schedule via supplemental ACPS ‘circulator’ shuttle service with Student Accountability tracking. An example might be an arts focused network campus.

Comparative components for The High School Project

Benchmarks

- Current TC Williams HS King Street
160 SF/Student
- Independence HS (Loudoun)
175 SF/Student
- George Mason HS (Falls Church)
195 SF/Student

Building/Space requirement for planning

A total building size of **409,500 square feet (sf)** is needed to house **2,100 students**

Basis of size requirement:

- Current TC Williams HS building - 460,000 sf
- The maximum number of students it should house is approximately 2,900 (based upon educational specification evaluation of classroom space, 2017)
- The planned projected number of students/seats is **5,000**
- Therefore - space for **2,100 more students** is the planning requirement
- 195 sf/student x 2,100 students = 409,500 sf

Initial sites under evaluation

Based upon current information, staff and consultants will begin the evaluation process to evaluate 15 sites in 4 categories:

- Currently being used for schools
- City owned, but not currently used for schools
- Designated for future school use (by the city and zoning)
- Privately - owned sites including land, existing buildings for sale or lease, other development opportunities

Important – *this list is not all inclusive as this list may change as a result of next steps in the process.*

Site evaluation criteria:

The site evaluation methodology will include many factors.

Aligning the recommended future high school **Educational Vision is essential:**

(a) Community Connectedness, (b) Diversity as a Strength, (c) Experiential Learning,

<https://www.acps.k12.va.us/Page/2260>

Sampling of Quantitative factors (not in any particular order):

- Price (per FAR cost)
- Location
- Accessibility to public transit
- Zoning
- Delivery timeframe
- Measurable proximity to other ACPS facilities
- Security issues
- Site limitations
- Access to utilities

Sampling of Qualitative factors (not in any particular order):

- Proximity to amenities
- Community support/opposition
- Rights of way issues
- Encumbrances
- Local economic impact
- Ability to meet administrative, operational and/or instructional requirements
- Promotion of the educational vision
- Ability to address capacity deficit at other grade levels

Cost Components For (all) School Projects

Capital Costs

- Site Costs – acquisition and development
- Building (Hard) Costs – new construction and/or renovation
- Soft Costs – professional services and project management, permits, contingency, furniture & equipment (FF&E), etc.

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Operating Costs

- Staffing (*Instructional, Administrative, Support*)
- Maintenance
- Transportation
- Food service
- Utility bills

The existing High School Project budget

- Approved FY 2019-2028 CIP \$103,712,469 for hard costs
- Funding was based upon the Educational Specification prototype for 1,600 students or approximately 270,000 sf of new construction
- As a result, the budget may require adjustments

References: <https://www.acps.k12.va.us/lrefp>
[Long Range Educational Facilities Plan](#)
[High School Educational Specification](#)

Capital costs – different construction types totaling 409,000 sf

Construction Type	Site Cost	Hard Cost	Soft Cost	Total Capital Costs
Purchase site(s) with completed development for retrofit	\$ 83,845,000	\$ 102,250,000	\$ 25,562,500	\$ 211,657,500
Purchase site(s) with no developments and do new construction	\$ 36,810,000	\$ 143,150,000	\$ 35,787,500	\$ 215,747,500

Assumptions:

409,000 total square feet needed

\$205 per developable square foot for sites with buildings

\$90 per developable square foot for sites with no improvements

\$250 per square foot of renovation hard costs

\$350 per square foot of new construction hard costs

25% of hard costs for soft cost estimate

NOTE: An accurate assessment of the difference in capital costs between a second comprehensive high school and a connected high school network can not be accurately evaluated at this time. The above chart is only intended to illustrate the capital cost differences between buying land to build a new building and buying property with building(s) to retrofit into a school. This chart is not illustrating the difference in capital costs for a comprehensive high school model versus connected high school network model.

Operating Cost Impacts by Model

Model	Staffing	Maintenance	Food Service	Transportation	Utilities
Additional Comprehensive High School	=	-	+	-	=
Connected High School Network	=	+	-	+	=
Why?	Instructional staffing is expected to be largely based on enrollment. Facilities staffing is typically based on square footage. These are expected to be equal in either model. Some variables may cause changes such as increased administrators or reduction of duplicated staff at multiple campuses; however, based on discussions and information to date, we would evaluate staffing costs as equal for both models.	While maintenance is typically based on square footage, incorporating multiple systems and management across campuses of maintenance activities may cause a cost exposure. We would therefore evaluate maintenance costs to be higher in a connected high school network. These costs; however, could be mitigated if all programs could be consolidated to one additional building in the connected high school network.	In either scenario, all students will need to have access to food. We assume that an additional comprehensive high school would require the establishment and maintenance of an additional kitchen and kitchen management team while the connected high school network may only require an expansion of kitchen services at T.C. Williams and distribution of food service as needed on a smaller scale in a connected high school network. We would therefore evaluate food service costs to be lower in a connected high school network.	Both scenarios are expected to impact transportation in some way. A connected high school network may allow for more students to be considered within a walk zone depending on placement of campuses and thereby decreasing transportation requirements. However, the connected high school network will require a significant effort to ensure safe, efficient and reliable transportation of students between campuses during the school day. We would therefore evaluate transportation costs to be higher in a connected high school network.	Utility costs are based on the energy efficiency and water use of a building. Some variability in costs may be realized such as increased costs for operating multiple facilities or decreased costs for eliminating the need to recreate large, open and energy-use heavy core spaces in a connected high school network model. However, at this time utility costs would just be assessed using square footage. We would therefore evaluate utility costs to be equal in both models.

Key Takeaways

- Costs at this early planning phase do not indicate a significant cost savings or exposure of any specific high school model.
- Capital costs cannot be compared with accuracy between models at this time. A purchase and retrofit or a purchase and new build are evaluated close to the same based on early assumptions – actual site location, market conditions and availability will all drive costs.
- Some operational exposures or savings may be realized with a connected high school model.

Costs, timing, feasibility and other project specific factors will be determined in spring of 2019.

Questions?

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