

Facility Design Selection – 13th High School

Dave Cline, Associate Superintendent
Finance & Support Services

October 21, 2015



Prince William County

PUBLIC SCHOOLS

Providing A World-Class Education

®

Purpose

- Feedback from some School Board members:
 - Patriot prototype is too expensive
 - School Division needs more seats in the 13th High School
- Developed a “Hybrid” Design
 - Limited modifications to avoid complete redesign of the facility
 - Provides cost savings and increases the overall value
 - Allows for a 2020 opening of the 13th High School

Battlefield Prototype – Modifications

Item	Cost
Code Update Requirements	
Add Vestibules to entrances	\$ 750,000
Electrical upgrades; install motion sensors in rooms	\$ 200,000
Install dimmable LED lights	\$ -
Building envelope and roof changes - new energy code	\$ 400,000
Mechanical system / HVAC upgrades - new energy code	\$ 750,000
Firewall changes required	\$ 500,000
Seismic code changes	\$ 300,000
Additional women's bathroom facilities	\$ 250,000
ADA requirements for Auditorium	\$ 500,000
Code Update Requirements Total	\$ 3,650,000
Other Changes	
Change Weight Room to Fitness Center - Curriculum Req.	\$ 630,000
Install larger windows and some skylights	\$ 1,300,000
Total Battlefield modifications	\$ 5,580,000

Patriot Prototype

Cost-Reduction Modifications

Item	Cost Reduction
Modify building exterior; simplify architecture	\$ 2,000,000
Modify roof system to flat roof	\$ 3,000,000
Reduce auditorium capacity from 1,200 to 800	\$ 1,250,000
Total	\$ 6,250,000

Prototype Cost Comparison

Item	Value
Estimated Cost Differential – Patriot - Battlefield Prototype	\$ 18,300,000
Battlefield prototype – Facility modifications (net price increase for Battlefield)	\$ 5,580,000
Patriot prototype – Facility modifications (net price decrease for Patriot)	\$ (6,250,000)
New Cost Differential – Patriot (modified) - Battlefield (modified)	\$ 6,470,000

Creating Additional Capacity –

Patriot Redesign Increasing Capacity Effectively

- Reconfiguration of existing classrooms yields 7 additional classrooms
 - Capacity for 147 additional students
- Construct second floor atop CTE area
 - Yields 17 additional classrooms
 - Capacity for 357 additional students
 - 15,000 square feet
 - Estimated cost => \$3,375,000
 - Cost per Student = \$9,454, versus \$35,000 overall
 - Adds additional capacity within the existing footprint

Cost per Student Comparison

Prototype	Capacity	2018 Building-Only Cost	Cost per Student
Battlefield (with modifications)	2,053	\$ 75,000,000	\$ 36,532
Patriot Redesign Increasing Capacity Effectively - reconfiguration => + 7 classrooms - construction => + 17 classrooms	2,557	\$ 84,875,000	\$ 33,193



Administrative Recommendation

- Approve use of the Patriot Redesign Increasing Capacity Effectively
 - Modified exterior and simplified architecture
 - Maintains the high percentage of classes receiving daylighting
 - Modern, energy-efficient design
 - Potential to add capacity
 - Reconfiguration adds 7 classrooms, 147 seats
 - Second story atop CTE adds 17 classrooms, 357 seats
 - Increases capacity by 504 students
 - Reduces cost per student below that of Battlefield design prototype



Prince William County
PUBLIC SCHOOLS
Providing A World-Class Education

October 21, 2015



Prince William County
PUBLIC SCHOOLS
Providing A World-Class Education

October 21, 2015



Prince William County
PUBLIC SCHOOLS
Providing A World-Class Education

October 21, 2015