Northeast Area Elementary School

PRELIMINARY DESIGN PRESENTATION

The Board of Education of Baltimore County
S. Dallas Dance, Superintendent

NORTHEAST AREA ELEMENTARY SCHOOL
July 12, 2016
AGENDA

• General Information
• Project Goals
• Project Value Engineering Measures
• Project Location
• Site Conditions
• Building Organization
• Renderings and 3D Animations
• Project Schedule Overview
• Questions
GENERAL INFORMATION

• Northeast Area Elementary School
  • New school located on relatively undeveloped site
  • Evolution of the prototype for Lyons Mill, Westowne, and Relay Elementary Schools
    • We reexamined everything…

• Enrollment Information
  • Target SRC 735

• Regional Programs
  • None
PROJECT GOALS

• **Support 21st Century Learning Techniques**
  • Create collaborative expanded learning spaces
    • Shared breakout learning space between classrooms
    • Large group learning spaces away from the classroom
    • Outdoor classroom spaces
    • Centralized multi-functional media center
    • Flexible learning spaces (maker space and digital learning)
  • Utilize state-of-the-art technology

• **Implement Sustainable Design Strategies**
  • Achieve LEED Silver™ rating (Leadership in Energy and Environmental Design) from the United States Green Building Council (USGBC)
  • Maximize energy efficiency
    • Building envelope with high thermal resistance
    • Geothermal heating and cooling
  • Vegetated (green) roof design that also supports 21st Century Learning
Promote Safety and Security Objectives
- Provide convenient access to the site with safety as the priority
  - Extend sidewalks along Joppa Road for pedestrians
  - Design vehicular access to the site that calms traffic on Joppa Road
    - Minimize risk of motor vehicle accidents
    - Minimize risk to pedestrians
- Separate bus traffic from other vehicular traffic
  - Separate Bus Drop-off Entry from Main Entry with strong visible connection
- Provide site lighting that maximizes security but minimizes light pollution
- Electronic access control for school building
  - Security cameras
  - Card readers

Evolution of the Prototype and Unique Design Features
- Classroom area configuration provides ultimate flexibility
- Provides more efficient building circulation
- Provides greater access to Rooftop Collaborative Learning Space
- Improves functionality of Heath Suite
- Increases visibility in the Media Center
PROJECT VALUE ENGINEERING MEASURES

- **Civil/Site**
  - Conduct more intensive geotechnical investigations
  - Classify the site soils
  - Limit quantity of earth disturbance

- **Architectural**
  - Improve building efficiency
  - Simplification of building footprint
  - Gypsum wallboard/metal stud interior partitions
    - Limit use of concrete masonry unit partitions
  - Exterior metal stud walls with alternative finishing materials
  - Standardize spaces
  - Standardize window and door openings
  - Building adapts to site conditions (as opposed to site adapting to building)
PROJECT VALUE ENGINEERING MEASURES

• Structural
  • Conduct more intensive geotechnical investigations to determine the extent (if any) of specialty foundation systems
  • Mostly structural steel frame (all but Gymnasium/Cafeteria)
    • Significantly minimize bearing walls

• Mechanical
  • Provide hybrid geothermal system (reducing well field by 50%)
    • Reduces first cost with slight reduction in energy efficiency from a full geothermal system
    • Responds to site limitations for installation of well field

• Electrical
  • Emergency generator is sized to meet code and BCPS requirements
  • Provide connection for Maryland Emergency Management Agency (MEMA) portable generator when building is used as an emergency shelter

• We are committed and continuing to examine ways of reducing costs without a reduction in quality.
SITE CONDITIONS
NATURAL FEATURES

Specimen Tree to Remain

Specimen Tree to be Removed
Mitigation Possible
Honeygo Run

Forest Buffer Delineation

(2) Specimen Trees to Remain

Mitigation Unlikely

Forest Buffer Delineation

Irrigation Pond

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SITE CONDITIONS
CIRCULATION

- Staff / Rec & Parks Parking
- Service
- Student Drop-off
- Visitor Parking
- Bus Loop
- Access Drive
- School Entry & Joppa Road Improvements

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NORTHEAST AREA ELEMENTARY SCHOOL
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SITE CONDITIONS
SERVICES & FEATURES

Stormwater Management
Geothermal Well Field

Stormwater Management

Stormwater Management

Tributary Stream Crossing
(Requires permits beyond usual requirements)

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DESIGN EVOLUTION

Original GWWO Prototype Elementary School
Relay Elementary School
(Lyons Mill ES and Westowne ES similar)

Evolved GWWO Prototype Elementary School
Northeast Area Elementary School

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NORTHEAST AREA ELEMENTARY SCHOOL
July 12, 2016
View of Entry from Pedestrian Approach
Southeast Elevation
View of Main Entry from Visitor Parking Lot
Southeast Elevation
View of Bus Entry Courtyard Collaborative Learning Space
Southeast Elevation
Bird’s Eye View - Rear of School Building
Looking Northeast
View of Rooftop Collaborative Learning Space from Educational Gardens

Southwest Elevation
Entry Lobby/Primary Stair Collaborative Learning Space
View from Upper Level Corridor
Primary Stair Collaborative Learning Space
View from Lower Level Bus Entry Lobby
Typical Classroom
Standard Arrangement

NORTHEAST AREA ELEMENTARY SCHOOL
July 12, 2016
Typical Classroom
Standard Arrangement
## PROPOSED PROJECT SCHEDULE OVERVIEW

<table>
<thead>
<tr>
<th>Phase/Activity</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Design Kick-Off</td>
<td>January 2016</td>
</tr>
<tr>
<td>Advertisement for Bid</td>
<td>December 2016</td>
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<tr>
<td>Board Approval</td>
<td>February 2017</td>
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<tr>
<td>Notice to Proceed</td>
<td>March 2017</td>
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<tr>
<td>Building Substantial Completion</td>
<td>August 2018</td>
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Thank You

Questions and Answers