



Creative Reimagining of Outdoor School Environments



Robyn M. Niss, P.E.

Introduction

- BS Civil Engineering, Michigan Tech, 2006
- LEED Accredited Professional, 2008
- Professional Engineer in VA and NC
- 17 years of K-12 site design experience
- Designed 24 new schools or significant modernizations, primarily in Virginia



Agenda

- Site Requirements
- Site Constraints
- Stakeholders
- Solutions
 - Existing Site Opportunities
 - School Use
 - Community Use



Site Requirements

- Building
- Parking
- Play and Athletic Areas



Site Requirements

- Stormwater Management
- Site Security
- Dedicated Drop Off
- Separated Bus Loop
- Staff vs. Parent Parking
- Service Access
- Bike/Pedestrian Access
- Outdoor Classrooms



Why Can't We Have It All?

- Limited Parcel Area
- Access Constraints
- Wetland Constraints
- Occupied Construction
- Finite Budget



What's the Solution?

Look for ways to create multi-functional spaces that serve multiple users.



Learning By Design
Fall 2022 Award of Excellence Criteria

“ Eliminate single-use spaces in favor of shared spaces in all types of campus buildings, including residential, classroom, social, and administrative ”

“ Organize and provide spaces that directly support the health, wellness, and use of the surrounding community. ”





Grand Prize Award

EARLY CHILDHOOD SCHOOL/ELEMENTARY SCHOOL
IVAN G SMITH ELEMENTARY SCHOOL
Danvers, MA
Tappé Architects

Photos: ©2022 Ed Wonsek Artworks

Jury comment:

“This is a beautiful school and site location with direct and highly visible connection between shared learning areas and flexible classrooms.”



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EA0 [@Niss, Robyn] [@Sacknoff, Melissa] can either of you send me the original file for this so I see if I can put this on the slide in a way that doesn't make it so fuzzy

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How Do You Use Your
Neighborhood School Site?

Who are the Stakeholders ?

- Facilities Director
- School Administration
- Students
- Teachers
- Faculty
- Neighborhood



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Existing Site Opportunities

Thoroughgood Elementary School Tree Preservation



Princess Anne Middle School Stormwater Management



West Point Elementary School – Play Area



West Point Elementary School Site Contour Representation



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Multi-Functional
School Use

Old Donation School Stormwater Experiments



Princess Anne Middle School Stormwater Classroom



Kellam High School Stormwater Classroom



Old Donation School PE Space



Western Branch High School Driver's Education



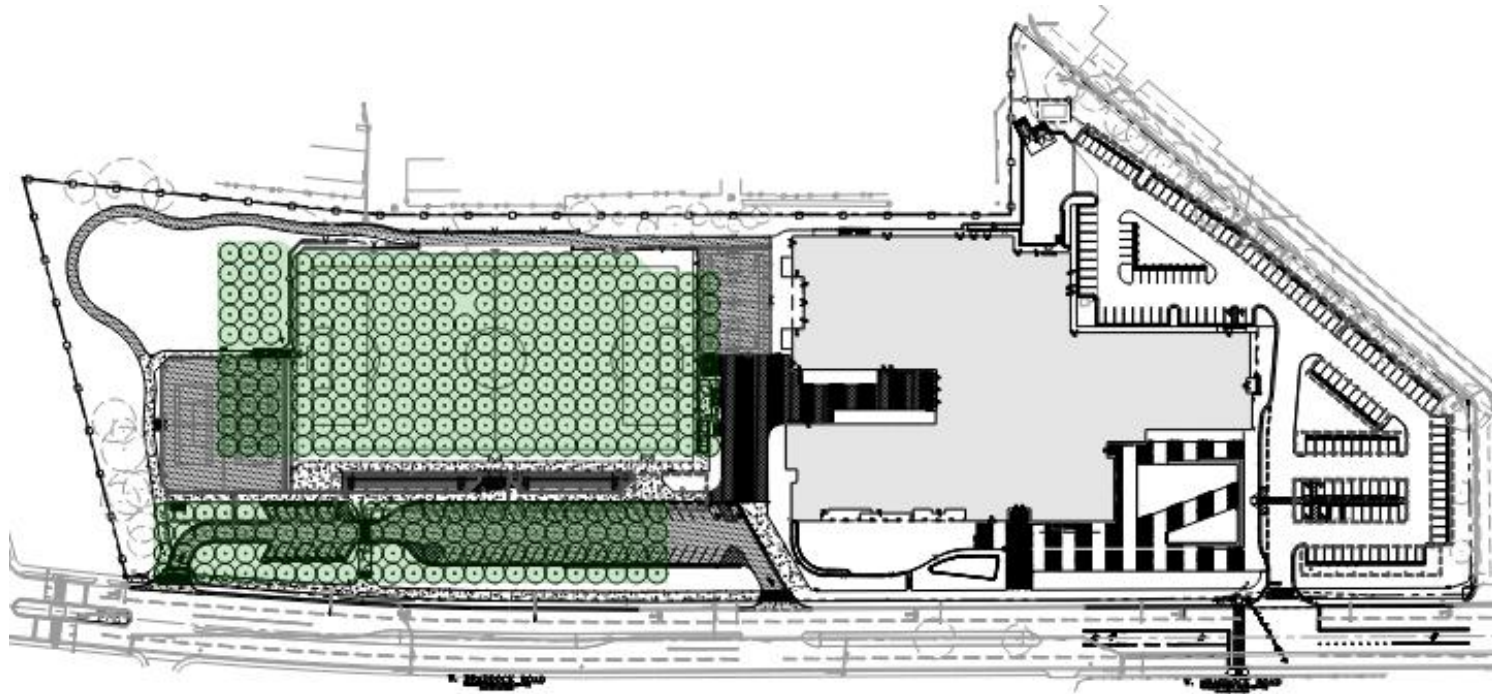
East Avenue Middle School Performance Space



Minnie Howard High School Photovoltaic Shade



Minnie Howard High School Geothermal



Maude Moore Elementary School Security and Seating



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Community Use

Thoroughgood Elementary Community Basketball



John B. Dey Elementary Community Garden



Campostella STEM Academy Community Courts



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Jefferson Houston K-8 School Athletic Community Opportunities



Larchmont Elementary School Community Recreation Use



Crossroads Elementary School Community Center



Old Donation School Hurricane Shelter



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FC Hammond Middle School Fitness Equipment



Who Do We Work For?



The
students



The school
community



The
community
at large



Goal of Site Design



Greatest
Impact



Greatest
Number
of People



Greatest
Amount
of Time



Thank You

Kimley»»Horn



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