Crabtree, Rohrbaugh & Associates

STATE COLLEGE AREA SCHOOL DISTRICT

Park Forest Middle School Update

SCHOOL BOARD MEETING

October 13, 2025


Current Schedule

SCHEDULE UPDATE

- Construction Documents/ 90% Submission (Submitted September 2025)
  - Steering Committee Review- Thursday, September 25, 2025
  - Final Interior Design Verification
  - Preliminary Code Review with Centre Region Code Administration
  - Final Coordination with SCASD Operations Team
    - IT, Systems & Specifications, Food Service, Safety & Security
- Construction Management Team Engaged (September-November 2026)
  - September 2025- RFP Released
  - October 3, 2025- Proposals Due
  - October 16, 2025- CM Interviews
  - October 27, 2025- Award CM Contract
- Third Party Cost Estimate (November 2025)
- Act 34 Hearing & Process (December 2025-January 2026)
  - November 17, 2025- Draft Booklet
  - December, 2025- Board Approval of Act 34 Booklet
  - January 2026- Act 34 Hearing
- Bidding (January-February 2026)
- Board of School Directors Review & Potential Approval (Feb.-Mar 2026)
- Start of Construction (March 2026)

State College Area School District

LEED Certification

Park Forest Middle School- LEED Certification Plan						LEED version 4 & 4.1	Crabtree, Rohrbaugh & Associates Architects							
CREDIT GOALS			LEED Project #- 1000196285				CRA Project #: 3798							September 18, 2025
								Design Team			CC	USGBC		
Category	Credit Name	Regional &/or LEED v4.1	Target Points	Responsible	Description	Specification	D/C	Coord. COMPLETE	ONGOING Coordination	Design Template Submitted	Constr. Credits	Design Review Complete	Construct Review Complete	REMARKS
Project Information														
PI	Project Information		Required	CRA			D							
Integrative Process			1		1 Total Points Possible			0	0	0	0	0	0	
IP Credit 1	Integrative Process		1	Verdacity	Develop Integrative Design Process from Pre-design		D							
Location and Transportation			5		15 Total Points Possible			0	0	0	0	0	0	
LT Credit 1	LEED for Neighborhood Development Location		0		Locate the project within a LEED for New Development project boundary.		D							N/A
LT Credit 2	Sensitive Land Protection		1	CRA	locate the project on land previously developed. Addition/ Renovation Project Complies		D							
LT Credit 3	High Priority Site		0	CRA	Locate project on site w/ Priority Designation or on site that requires Brownfield Remediation.		D/C							Will Likely not be achievable.
LT Credit 4	Surrounding Density and Diverse Uses	v4.1 Subst.	1	CRA	Locate project entrance within1/2 mile of existing and available publicly diverse uses. 4-7 = 1pt; 8+ = 2pts		D							Infill Site, v4.1
LT Credit 5	Access to Quality Transit and Pedestrain Access		?	CRA	Locate project within 1/4 mile walking of bus stop(s) or have 50%-70% walkers within 3/4 mile walking of the school.		D	0						May not be achievable due to current off site locations, confirm.
LT Credit 6	Bicycle Facilities		1	CRA	Bike storage for 5% of users, provide shower and changing for 0.5% (FTE) staff		D							Likely achievable.
LT Credit 7	Reduced Parking Footprint	v4.1 Subst.	1	CRA	Reduce parking capacity below local code requirement and/or below base ratios.		D							This should be attainable.
LT Credit 8	Green Vehicles		1	CRA/ ELA	Provide preferred parking for low emission and fuel efficient vehicles for 5% of the total provided parking spaces AND alternative fuel stations		D							

LEED CERTIFICATION PLAN- LOCATION AND TRANSPORTATION

Sustainable Sites			12		12 Total Points Possible			0	0	0	0	0	0	
SS Prereq 1	**Construction Activity Pollution Prevention**		Required	CRA	Erosion and Sedimentation Control Plan		C							
SS Prereq 2	**Environmental Site Assessment**		Required	CRA	Conduct Phase 1 Environmental Site Assessment. If contamination is suspected conduct Phase 2 Environmental Site Assessment.		D							
SS Credit 1	**Site Assessement**		1	Verdacity	Complete and document a site survey and assessment		D							
SS Credit 2	Site Development- Protect or Restore Habitat	**Regional Priority**	2		Preserve 40% of the greenfield area and restore 30% of site with native vegetation		C							**Not anitcpated at this time.**
SS Credit 3	**Open Space**	**LEED v4.1, Regional Priority**	1	CRA	Provide outdoor space greater than 30% AND 25% vegetated areas (turf grass does not count)		D							
SS Credit 4	**Rainwater Management**	**LEED v4.1, Regional Priority**	3	ELA	Manage the site for 95th or 98th percentile of rainfall events using low-impact development (LID)		D							
SS Credit 5	**Heat Island Reduction**		2	CRA	Combination of 75% Roof Areas with SRI 82 or better and 50% of non roof areas SRI of .28 or shaded.		D							May be acheivable for 2 points, but in process at this time.
SS Credit 6	**Light Pollution Reduction**		1	Moore	Reduce light from the building and site at night		D							
SS Credit 7	**Site Master Plan**		1	CRA	Ensure the environmental issues in the initial development are continued throughout future development		D							Need to achieve SS Open Space, SS Rainwater, SS Heat Island, SS Light Pollution, 4 credits total.
SS Credit 8	**Joint Use of Facilities**		1	CRA	Enable the school and its playing fields to be used by the community for non-school events and functions		D							

LEED CERTIFICATION PLAN- SUSTAINABLE SITES

Water Efficiency			6		12 Total Points Possible			0	0	0	0	0	0	
WE Prereq 1	**Outdoor Water Use Reduction,** 30% Reduction		Required	CRA	Show landscape does not require permanent irrigation OR Use **30%** less water than the baseline calculation for the site		D							
WE Prereq 2	**Indoor Water Use Reduction,** 20% Reduction		Required	Moore	Use 20% less water than the baseline calculation		D							
WE Prereq 3	**Building-Level Water Metering**		Required	Moore	Install Permanent Water Meter for total building and grounds		D							
WE Credit 1	**Outdoor Water Use Reduction**, 100% Reduction or No Irrigation		2	CRA	Show landscape does not require permanent irrigation OR Use **50%** less water than the baseline calculation for the site		D							
WE Credit 2	**Indoor Water Use Reduction**, 25-45% Reduction	**Regional Priority**	3	Moore	Use 25-45% less water than the baseline calculation (1-5 pts available)		D							Evaluate w/ Moore & Verdacity
WE Credit 3	**Cooling Tower Water Use**		?	Moore	Coling Tower Water Use		D							This is a difficult credit to achieve, however evaluate first with current design due to likely changes due to geothermal.
WE Credit 4	**Water Metering**		1	Moore	Install permanent water meter for two or more of certain water subsystems		D							

Energy & Atmosphere			26		31 Total Points Possible			0	0	0	0	0	0	
EA Prereq 1	**Fundamental Commissioning and Verification**		Required	CxA/ Owner	Verify installation & Performance of Systems	01353, TAB & Commissioning	C							
EA Prereq 2	**Minimum Energy Performance**		Required	Moore	Establish a minimum level of energy efficiency		D							
EA Prereq 3	**Building-Level Energy Metering**		Required	Moore	Install Building wide Energy metering.		D							
EA Prereq 4	**Fundamental Refrigerant Management**		Required	Moore	Zero use of CFC-based refrigerants in building		D							
EA Credit 1	**Enhanced Commissioning**		5	CxA	Additional commissioning requirement in addition to EAp1 including Envelope.	01353, TAB & Commissioning	C							May be achievable to attain 5 points with Building Envelope CxA.
EA Credit 2	**Optimize Energy Performance**	**Regional Priority**	**16**	Verdacity/ Moore	Achieve an improved energy performance for building		D							**With 630 kW solar array 16 points is possibly achievable, confirm via energy modeling.**
EA Credit 3	Advanced Energy Metering		0	Moore	Advanced Energy Meteing tracking any part of the buildign utilizing more than 10% of the building energy.		D							Evaluate cost impact.
EA Credit 4	**Demand Response**		0		Design to tie into Demand response programs, shedding of 10% of energy use during peak electrical demand.		C							
EA Credit 5	**Renewable Energy Production**	**LEED v4.1, Regional Priority**	5	Moore/ CRA	Use on-site renewable energy systems to offset building energy costs		D							**ALTERNATE, Confirm via energy modeling.**
EA Credit 6	**Enhanced Refrigerant Management**		?	Moore			D							Confirm with Moore/ Food Service if this can be achieved, due to new mandated refrigerants that have lower efficiency levels.
EA Credit 7	**Green Power & Carbon Offsets**		0		Provide 50% of electricity from renewable sources with 5-year contract		C							

Materials & Resources			8		13 Total Points Possible			0	0	0	0	0	0	
MR Prereq 1	**Storage and Collection of Recyclables**		Required	CRA	Designate area/ storage bins		D							
MR Prereq 2	**Construction and Demolition Waste Management Planning**		Required	CRA/ Contractors	Designate area/ storage bins		C							Waste Management plan requirement in specs, COMPLETE. Receive from general contractor at the start of construction.
MR Credit 1	**Building Life-Cycle Impact Reduction**		3	Verdacity	Building and Material Reuse		D							
MR Credit 2	**Building Product Disclosure and Optimization-** Environmental Product Declarations	**v4.1 Subst.**	1	Verdacity	Use products and materials that have life-cycle info available and have favorable life-cycle impacts		C							Possible 1 point, Verdacity.
MR Credit 3	**Building Product Disclosure and Optimization-** Sourcing of Raw Materials	**v4.1 Subst.**	1	Verdacity	Use products and materials that have life-cycle info available and have favorable life-cycle impacts		C							Possible 1 point, Verdacity.
MR Credit 4	**Building Product Disclosure and Optimization-** Material Ingredients	**v4.1 Subst.**	1	Verdacity	Use products and materials that have life-cycle info available and have favorable life-cycle impacts		C							Possible 1 point, Verdacity.
MR Credit 5	**Construction and Demolition Waste Management**, Divert 50-75% from Disposal		2	GC / CRA	Divert 50-75% of construction debris from disposal in landfill.	01524 Const. Waste, 01352 LEED Req.	C							50%= 1pt, 75%= 2pts

Indoor Environmental Quality			12		16 Total Points Possible			0	0	0	0	0	0	
EQ Prereq 1	**Minimum Indoor Air Quality Performance**		Required	CxA/ Moore	Establish minimum indoor air quality performance based on ASHRAE Code		D							
EQ Prereq 2	**Environmental Tobacco Smoke Control**		Required	CRA	No smoking in building or on property.		D							
EQ Prereq 3	**Minimum Acoustical Performance**		Required	CRA	Design classrooms and core learning spaces to meet Acoustical performance criteria		D							NEED: 1) verify background noise 40dBA or lower in classrooms 2) method used to demonstate max noise level? CRA will be engaging Metropolitian as Acoustician.
EQ Credit 1	**Enhanced Indoor Air Quality Strategies**		1	CRA/ Moore	Combination of v3 IEQc1 Outdoor Air Delivery Monitoring, IEQc2 Incresed Ventilation & IEQc5 Indoor Pollutant		D							Possible 1 point is achievable, confirm with Moore. 2 points possible, confirm with Moore, possibly CO2 sensors will achieve this requirement.
EQ Credit 2	**Low Emitting Materials**	**v4.1 Subst.**	3	Verdacity	Use products of low VOC content and emmissions		C							3 points, possible 3 points.
EQ Credit 3	**Construction Indoor Air Quality Management Plan**		1	CRA/ Contractors	Reduce indoor air quality problems from construction		C							
EQ Credit 4	**Indoor Air Quality Assessment**		2	GC/ CXA/ CRA/ Testing	Reduce indoor air quality problems from construction. Testing of Air Quality before occupation.		C							
EQ Credit 5	**Thermal Comfort**		1	CRA/ Moore	Provide comfortable thermal environment		D							
EQ Credit 6	**Interior Lighting**		1	Moore	Provide high level of lighting system control by occupants		D							
EQ Credit 7	**Daylight**		2	Verdacity	Achieve day lighting in 55%/75% of regularly occupied spaces and 1 point for quality of daylight.		D							55% for 2 Points, possible 75% for 3 points
EQ Credit 8	**Quality Views**		1	Verdactity	Achieve View to outdoor spaces for 75% of all regularly occupied spaces		D							
EQ Credit 9	**Acoustic Performance**		0	Acoustic Dimensions/ Moore/ CRA	Design classrooms and core learning spaces to meet Acoustical performance criteria above the prerequisite		D							

Indoor Environmental Quality			12		16 Total Points Possible			0	0	0	0	0	0	
EQ Prereq 1	**Minimum Indoor Air Quality Performance**		Required	CxA/ Moore	Establish minimum indoor air quality performance based on ASHRAE Code		D							
EQ Prereq 2	**Environmental Tobacco Smoke Control**		Required	CRA	No smoking in building or on property.		D							
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EQ Credit 2	**Low Emitting Materials**	**v4.1 Subst.**	3	Verdacity	Use products of low VOC content and emmissions		C							3 points, possible 3 points.
EQ Credit 3	**Construction Indoor Air Quality Management Plan**		1	CRA/ Contractors	Reduce indoor air quality problems from construction		C							
EQ Credit 4	**Indoor Air Quality Assessment**		2	GC/ CXA/ CRA/ Testing	Reduce indoor air quality problems from construction. Testing of Air Quality before occupation.		C							
EQ Credit 5	**Thermal Comfort**		1	CRA/ Moore	Provide comfortable thermal environment		D							
EQ Credit 6	**Interior Lighting**		1	Moore	Provide high level of lighting system control by occupants		D							
EQ Credit 7	**Daylight**		2	Verdacity	Achieve day lighting in 55%/75% of regularly occupied spaces and 1 point for quality of daylight.		D							55% for 2 Points, possible 75% for 3 points
EQ Credit 8	**Quality Views**		1	Verdactity	Achieve View to outdoor spaces for 75% of all regularly occupied spaces		D							
EQ Credit 9	**Acoustic Performance**		0	Acoustic Dimensions/ Moore/ CRA	Design classrooms and core learning spaces to meet Acoustical performance criteria above the prerequisite		D							

LEED CERTIFICATION PLAN- INDOOR ENVIRONMENTAL QUALITY

Innovation			**6**		**6 Total Points Possible**			0	0	0	0	0	0	
IN Credit 1	**Innovation** - Purchasing Lamps		1	CRA	All Lighting in building must be LED.		D							
IN Credit 2	**Innovation** - Design for Active Occupants		1	CRA	Provide Stair circulation for more than 50% of FTE & utilize techniques to encourage use & document exercise equipment.		D							
IN Credit 3	**Exemplary Performance-** Renewable Energy		1		Achieve 25% On-Site Renewable Use and/or 60% off-site renewable (SCASD Collaboration)		D							This should be acheiveable with solar array and SCASD Solar Collaborative.
IN Credit 4	**Exemplary Performance-**Optimize Energy Performance		1		Reduce parking capacity below local code requirement and/or below base ratios.		D							We will likely achieve this with solar
IN Credit 5	**Innovation or Pilot**		1	Verdacity	Achieve at least 100 lux for 25% of the nonregularly occupied floor area for 1-2 floor buildings.		D							Evaluate w/ Verdacity, Non regular spaces- Daylighting???
IN Credit 6	**LEED® Accredited Professional**		1	CRA	Have at least one Accredited Professional (BD&C) on the team.		D/C							
Regional Priority Credits			**4**		**4 Total Points Possible**			0	0	0	0	0	0	
RP Credit 1	**Regional Priority:** SS credit Open Space		1	CRA	Provide outdoor space greater than 30% AND 25% vegetated areas (turf grass does not count)		D							
RP Credit 2	**Regional Priority:** SS credit Rainwater Management		1	ELA	Manage the site for 95th or 98th percentile of rainfall events using low-impact development (LID)		D							Achieve 2 points and achieve Regional Priority
RP Credit 3	**Regional Priority:** EA credit Optimize Energy Performance		1	Moore	Achieve an improved energy performance for building	9% Energy Reducation/ 3 Base Credits Required	D							Achieve 3 points and achieve Regional Priority
RP Credit 4	**Regional Priority:** EA credit Renewable Energy		1	Moore	Use on-site renewable energy systems to offset building energy costs	6% Required/ 2 credits Base Required	D							Achieve 2 points and achieve Regional Priority
Total Point Goal			**80**		**110 Total Points Available**									
Current Credits Coordinated with Design Team								0						
Current Design Credits in Process of being documented for Design Submission.									0					
Current Credits Submitted to the USGBC by the Design Team*									0	0				
Construction Credits Completed														
Current Construction Credits Anticipated											0	0		
Design Review Credits Completed by the USGBC **												0		
Construction Review Completed by the USGBC													0	

* This column will be zero until the responsible party uploads documentation to LEED Online and completes Online Credit template.

** This column will be zero until the USGBC approves the uploaded documentation and completed Online Credit Template.

Certified 40-49 points **Silver** 50-59 points **Gold** 60-79 points **Platinum** 80-110 points

LEED CERTIFICATION PLAN- INNOVATION, REGIONAL CREDITS & SUMMARY

SSc3 Open Space Calculations- v4.1

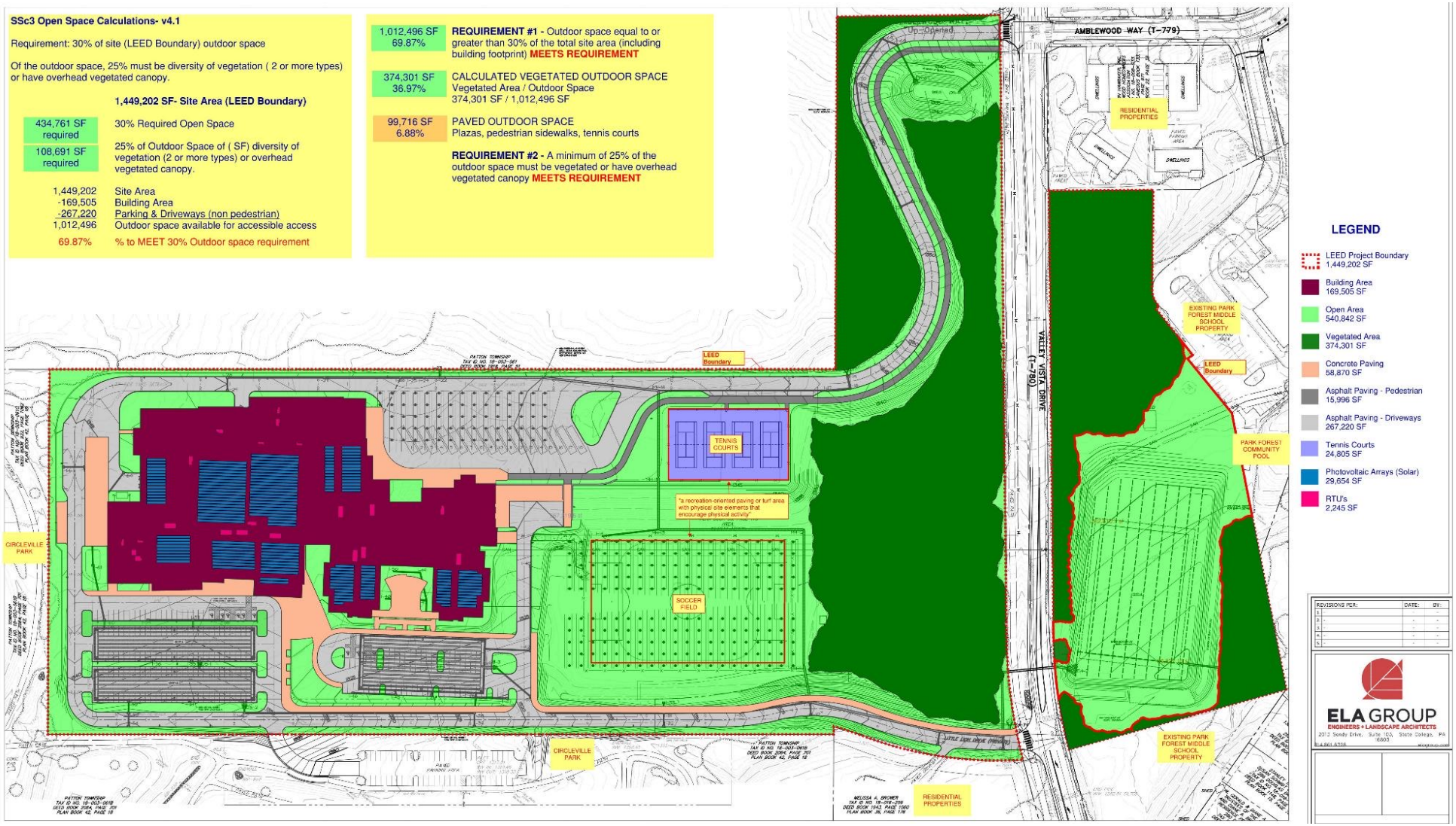
Requirement: 30% of site (LEED Boundary) outdoor space

Of the outdoor space, 25% must be diversity of vegetation (2 or more types) or have overhead vegetated canopy.

1,449,202 SF- Site Area (LEED Boundary)

434,761 SF required	30% Required Open Space
108,691 SF required	25% of Outdoor Space of (SF) diversity of vegetation (2 or more types) or overhead vegetated canopy.
1,449,202	Site Area
-169,505	Building Area
-267,220	Parking & Driveways (non pedestrian)
1,012,496	Outdoor space available for accessible access
69.87%	% to MEET 30% Outdoor space requirement

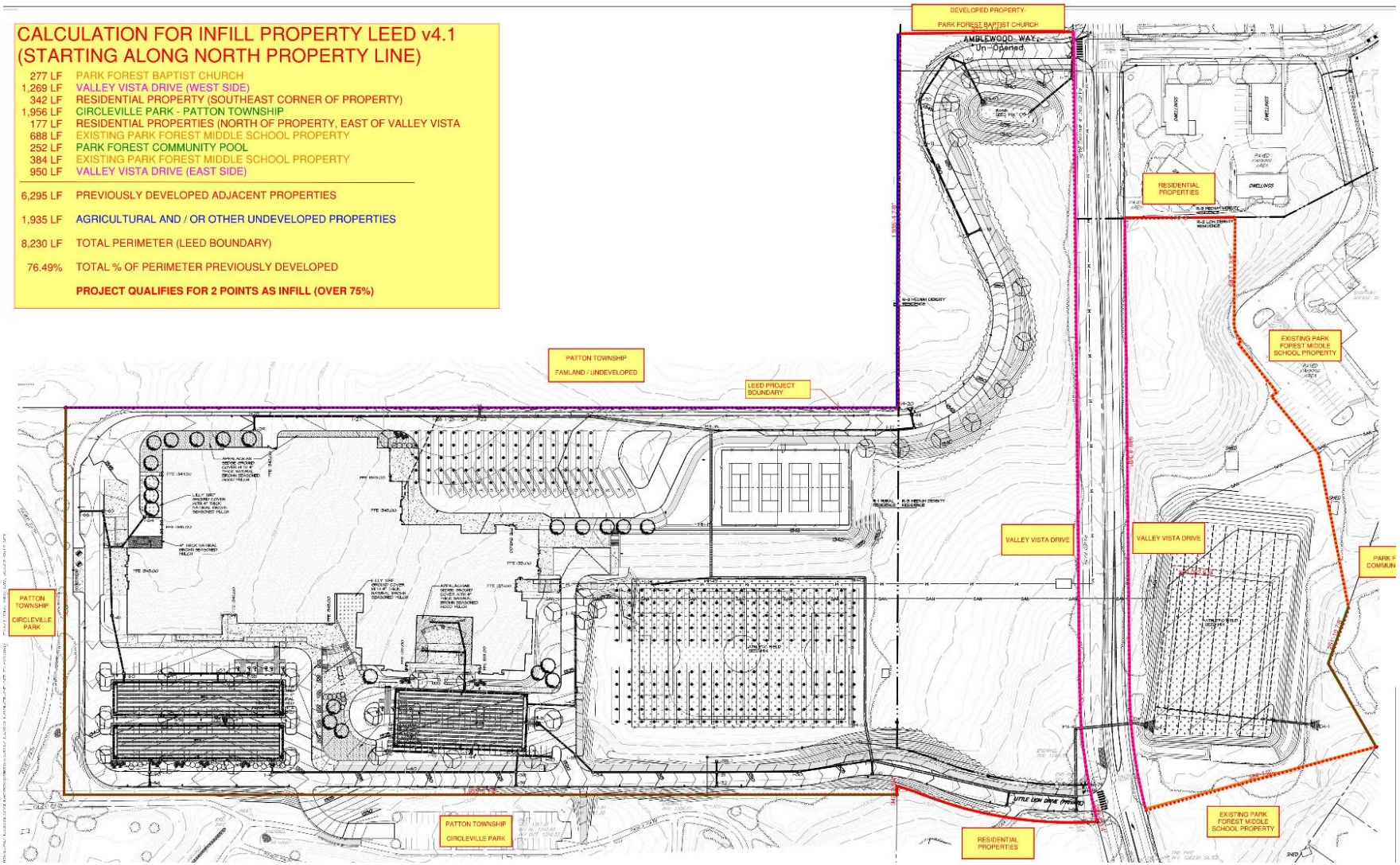
1,012,496 SF 69.87%	**REQUIREMENT #1 -** Outdoor space equal to or greater than 30% of the total site area (including building footprint) **MEETS REQUIREMENT**
374,301 SF 36.97%	CALCULATED VEGETATED OUTDOOR SPACE Vegetated Area / Outdoor Space 374,301 SF / 1,012,496 SF
99,716 SF 6.88%	PAVED OUTDOOR SPACE Plazas, pedestrian sidewalks, tennis courts
	REQUIREMENT #2 - A minimum of 25% of the outdoor space must be vegetated or have overhead vegetated canopy **MEETS REQUIREMENT**



LEED- OPEN SPACE

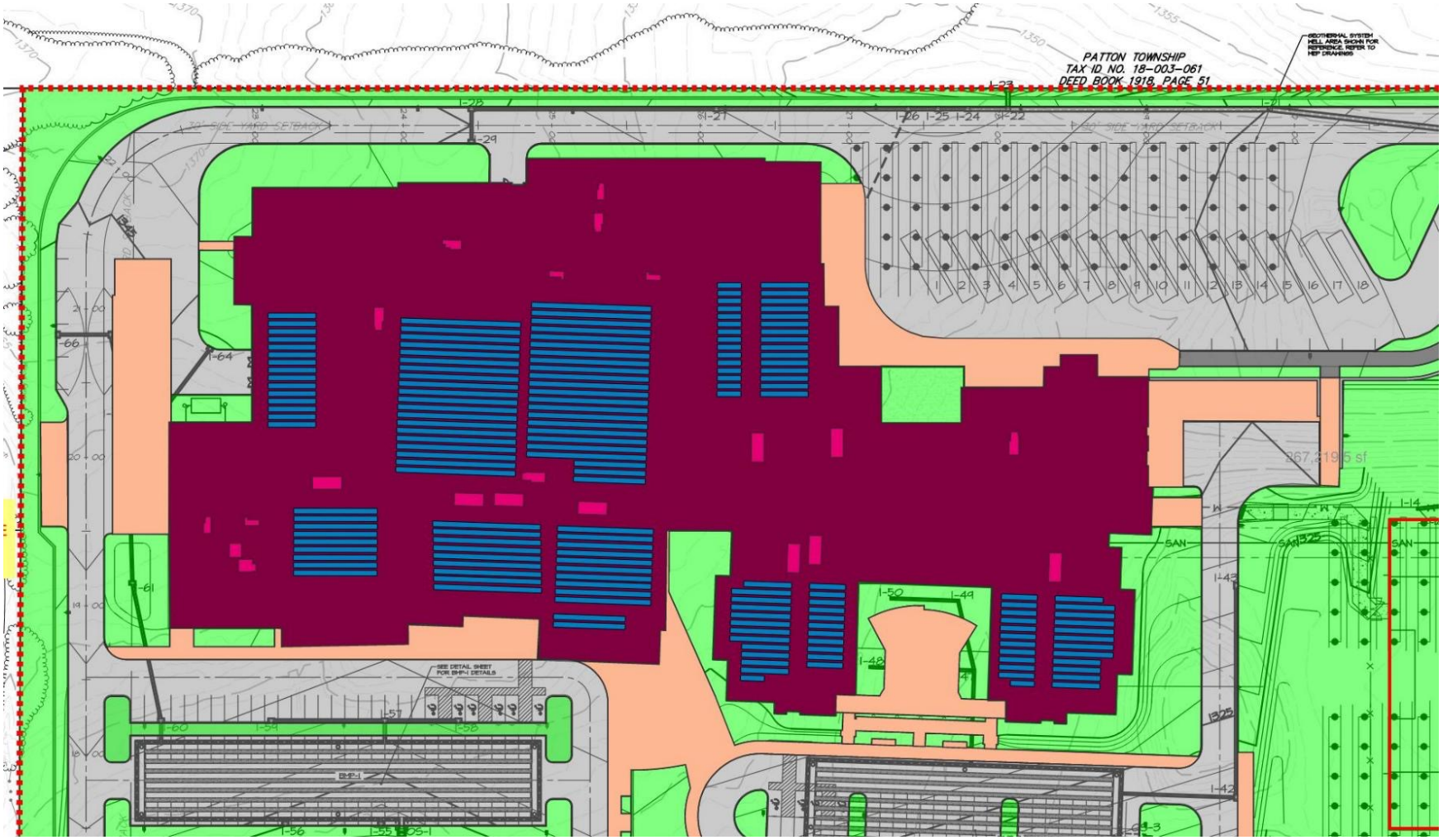
CALCULATION FOR INFILL PROPERTY LEED v4.1 (STARTING ALONG NORTH PROPERTY LINE)

277 LF	PARK FOREST BAPTIST CHURCH
1,269 LF	VALLEY VISTA DRIVE (WEST SIDE)
342 LF	RESIDENTIAL PROPERTY (SOUTHEAST CORNER OF PROPERTY)
1,956 LF	CIRCLEVILLE PARK - PATTON TOWNSHIP
177 LF	RESIDENTIAL PROPERTIES (NORTH OF PROPERTY, EAST OF VALLEY VISTA
688 LF	EXISTING PARK FOREST MIDDLE SCHOOL PROPERTY
252 LF	PARK FOREST COMMUNITY POOL
384 LF	EXISTING PARK FOREST MIDDLE SCHOOL PROPERTY
950 LF	VALLEY VISTA DRIVE (EAST SIDE)
6,295 LF	PREVIOUSLY DEVELOPED ADJACENT PROPERTIES
1,935 LF	AGRICULTURAL AND / OR OTHER UNDEVELOPED PROPERTIES
8,230 LF	TOTAL PERIMETER (LEED BOUNDARY)
76.49%	TOTAL % OF PERIMETER PREVIOUSLY DEVELOPED
	PROJECT QUALIFIES FOR 2 POINTS AS INFILL (OVER 75%)



LEED- SURROUNDING DENSITY

PLANS PURPOSELY OMITTED FOR SECURITY PURPOSES, WILL BE DISCUSSED AT IN PERSON MEETING



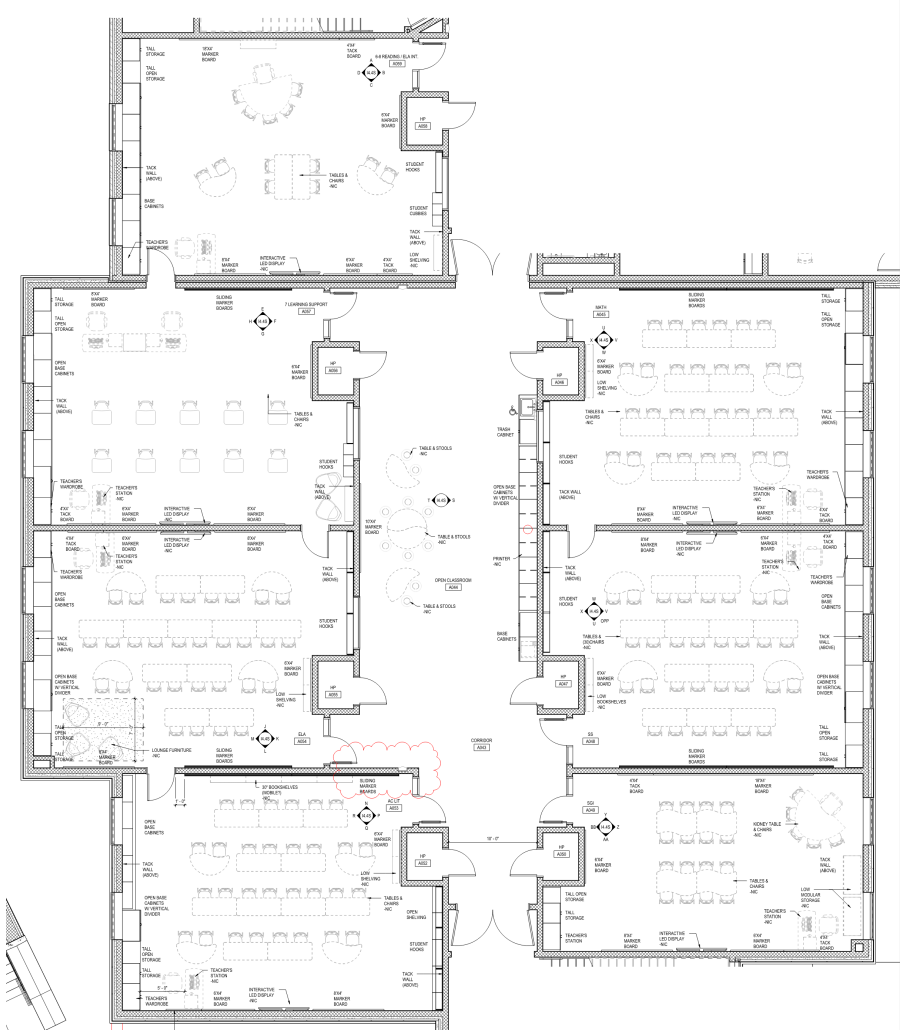
LEED- RENEWABLE ENERGY PRODUCTION (630 kW ARRAY BID AS AN ALTERNATE)

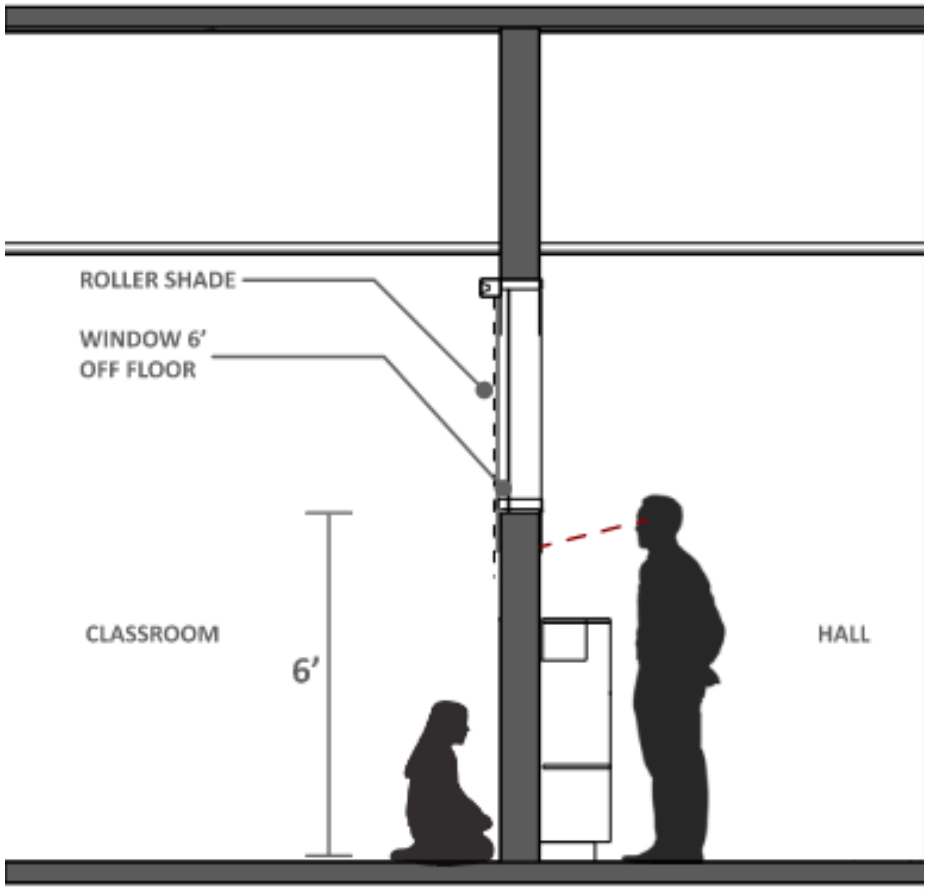
Geothermal Discussion

1. Final Soil Conditions and Conductivity Results have been completed over the past 2 months allowing final evaluation of geothermal for the Park Forest Middle School site.
2. Two major results make geothermal unfortunately viable for the PFMS site.
    1. Soil Quality- Due to soil conditions, voids and sinkholes discovered to depths of 400 feet, well would need to be 100% steel cased adding $40.00/LF ($4,200,000)
    2. Conductivity Results: Conductivity for the PFMS site versus MNES is reduced by 25%, resulting in 45 additional wells at a total cost of ($1,440,000)
    3. When Combined this results in an increase of $5,700,000 above a standard geothermal well field.
3. Based on the information provided above, the design team is recommending proceeding with a cooling tower in lieu of a well field in combination with water source heat pumps. This strategy was utilized at the recent (3) elementary schools and high school that resulted in schools that averaged 45% to 57% more efficient than the national average.

Geothermal Conductivity Results

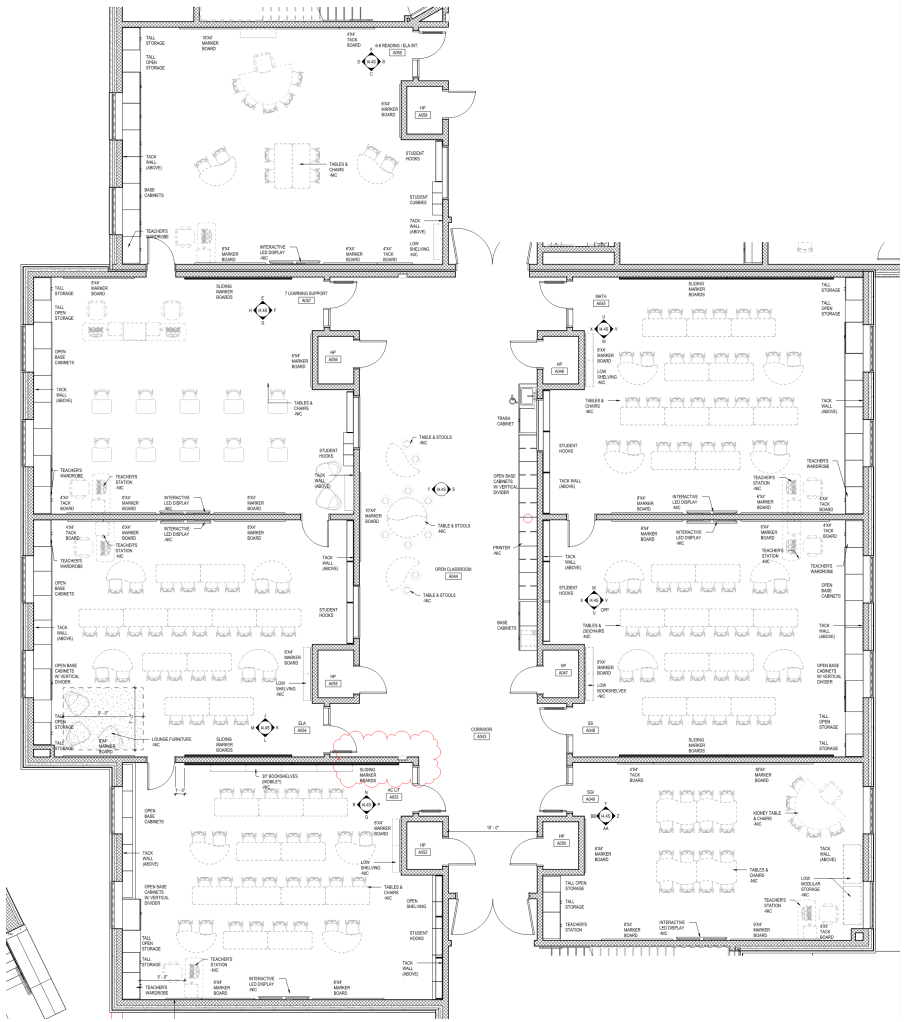
Glazing Discussions

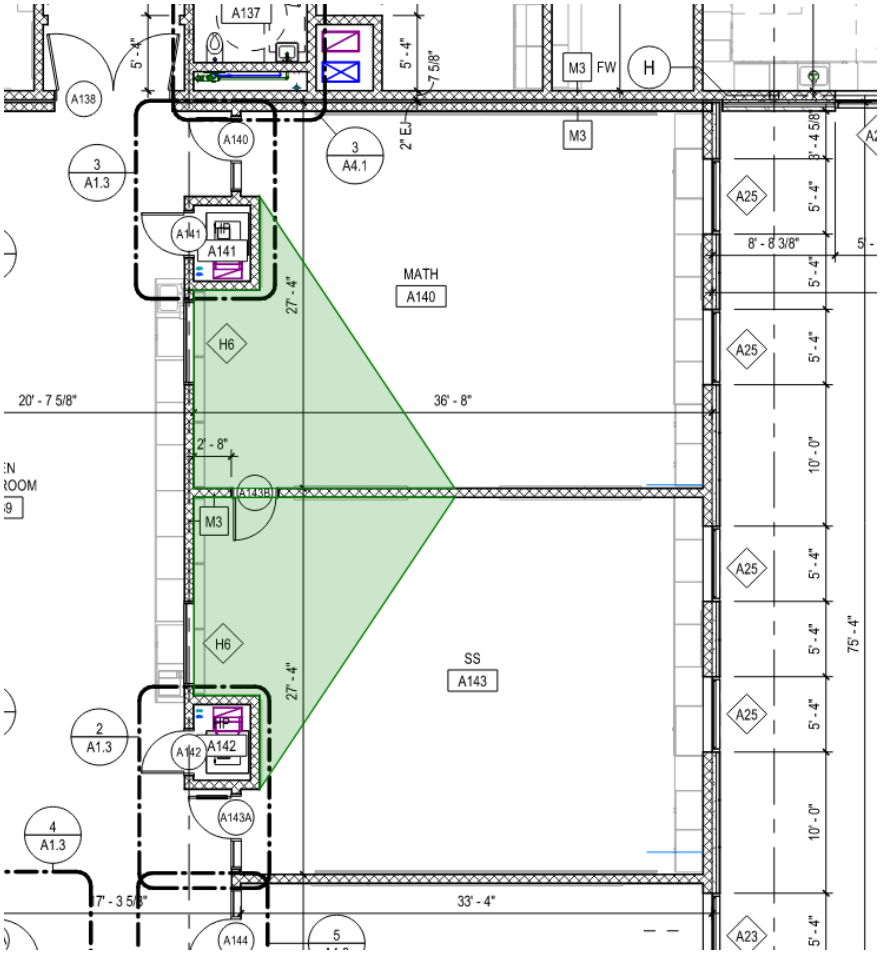




6' ABOVE FLOOR WINDOW WITH CASEWORK IN HALLWAY

Interior Glazing- CPTED Discussion





Interior Glazing- CPTED Discussion


STATE COLLEGE AREA SCHOOL DISTRICT
We are the future!
QUESTIONS
CR