



ROSE TREE MEDIA SCHOOL DISTRICT



A LEGENCE Company

SCHRADERGROUP

A HORD COPLAN MACHT STUDIO

GDHOUTMAN & SON, INC.

CIVIL ENGINEERS LAND SURVEYORS

K-1 EARLY LEARNING CENTER Board Update

8 May 2025

DISCUSSION

- 01 PRIOR DISCUSSIONS
- 02 UPDATED INFORMATION
- 03 SITE CONCEPT DEVELOPMENT
- 04 BUILDING SYSTEMS EVALUATION & LIFE CYCLE COST COMPARISON
- 05 INITIAL COMMUNITY FEEDBACK GATHERED THROUGH THOUGHTEXCHANGE®
- 06 NEXT STEPS

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01 PRIOR DISCUSSIONS

SITE DESIGN

MASTER PLANNING CONCEPT

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PROPOSED SITE

RIDDLE PROPERTY

PENNCREST HIGH SCHOOL

W. ROSE TREE ROAD

SMEDLEY PROPERTY

RIDDLE PROPERTY

LONGVIEW PARK

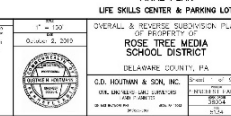
GRANITE RUN MALL

S.R. 352 MIDDLETOWN ROAD

VERNON LANE
VAN LEER AVENUE

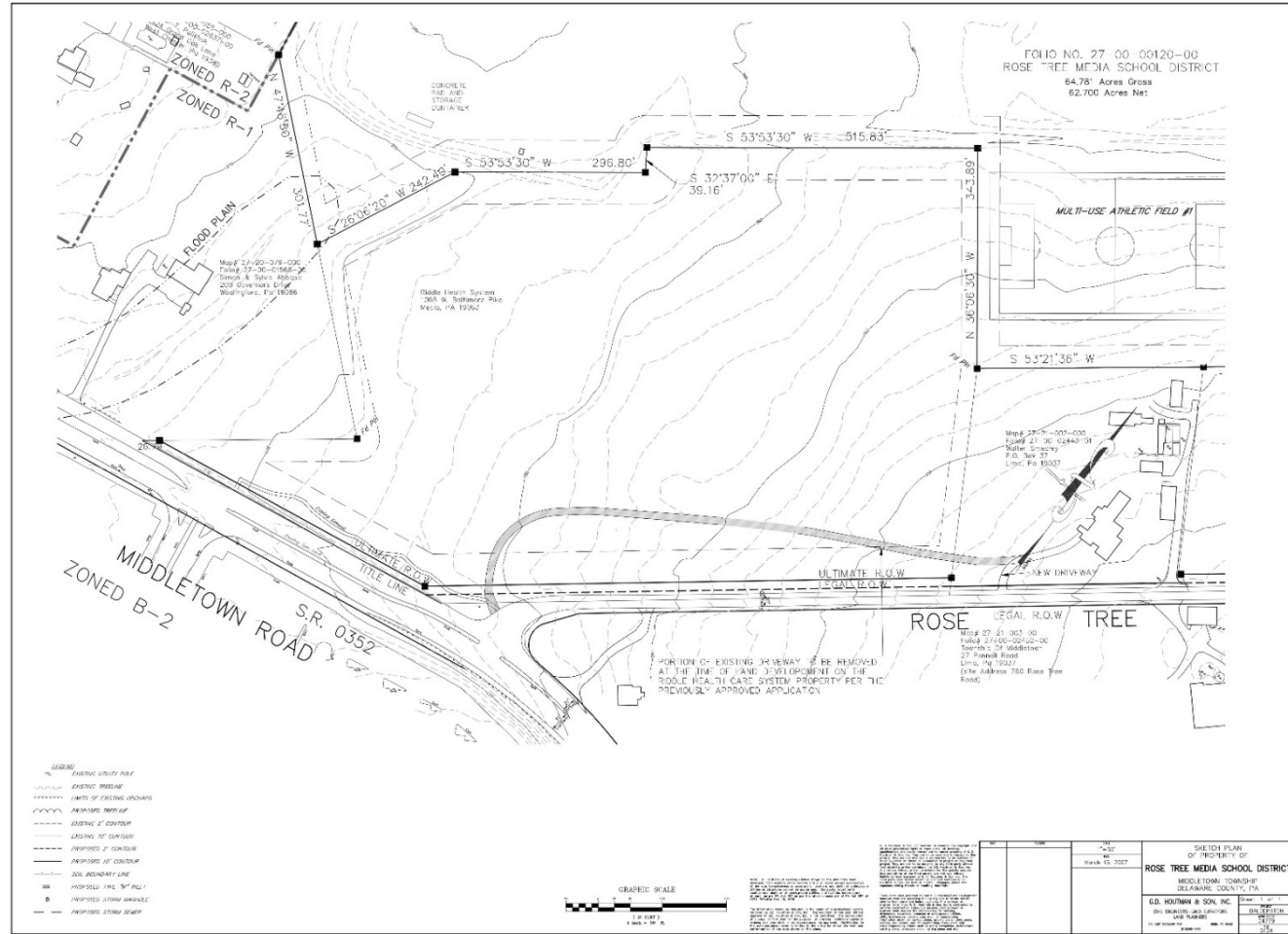
BARREN ROAD

CS with SCHRADERGROUP



PROPOSED SITE

SURVEY WITH TOPOGRAPHY



Notes:

- Smedley driveway
- Direction of grading
- Water course
- Setbacks

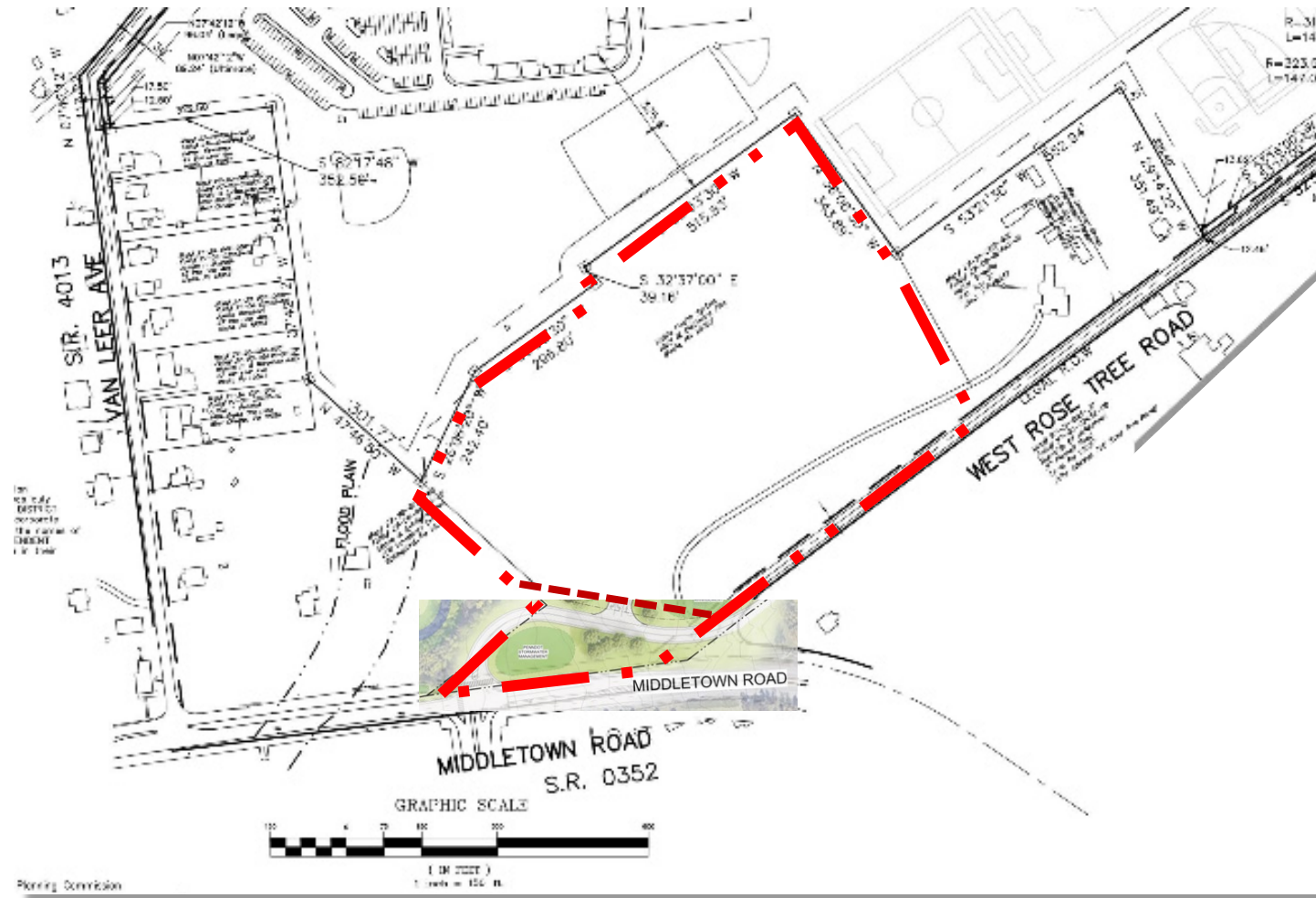
PENNDOT TOPICS

PROJECT STUDY AREA



PROPOSED SITE

ORDINANCE AND ZONING TOPICS – Net site is approximately 13.96 Acres after PennDOT exclusions



GDHOUTMAN & SON, INC.
CIVIL ENGINEERS LAND SURVEYORS

ICS with **SCHRADER GROUP**

ADJACENT DEVELOPMENT – Currently approved Land Development Plan

[illegible]

PRIOR CONCEPT SITE PLAN

RIDDLE PROPERTY

VAN LEER AVENUE

W ROSE TREE ROAD

MIDDLETOWN ROAD

NEW K-1 EARLY
LEARNING CENTER
2 STORY

OUTDOOR
LEARNING
COURT

PLAYGROUND #1

PLAYGROUND #2

DELIVERY
SERVICE

DISTRICT
STUDENT
SERVICES

LINKING
LEARNING TO
LIFE PROGRAM

BUS
ENTRY

PARENT
DROP OFF
ENTRY

PARENT DROP OFF

BUS DROP OFF

DISTRICT STUDENT
SERVICES PARKING
15 TOTAL PARKING SPACES

STAFF PARKING
56 TOTAL PARKING SPACES

PARENT/VISITOR PARKING
98 TOTAL PARKING SPACES

PRACTICE FIELD
55 YARDS X 100 YARDS

STORMWATER
MANAGEMENT

STORMWATER
MANAGEMENT

STORMWATER
MANAGEMENT

LEGAL ROW

PENNDOT
STORMWATER
MANAGEMENT

25' - 0"
SEPARATION
BUFFER

10 PARKING SPACES

SITE SETBACK

LEGAL ROW

NORTH



02 NEW INFORMATION

MASTER PLANNING

PENNCREST ATHLETIC FIELD MASTER PLAN & PROGRAMMING

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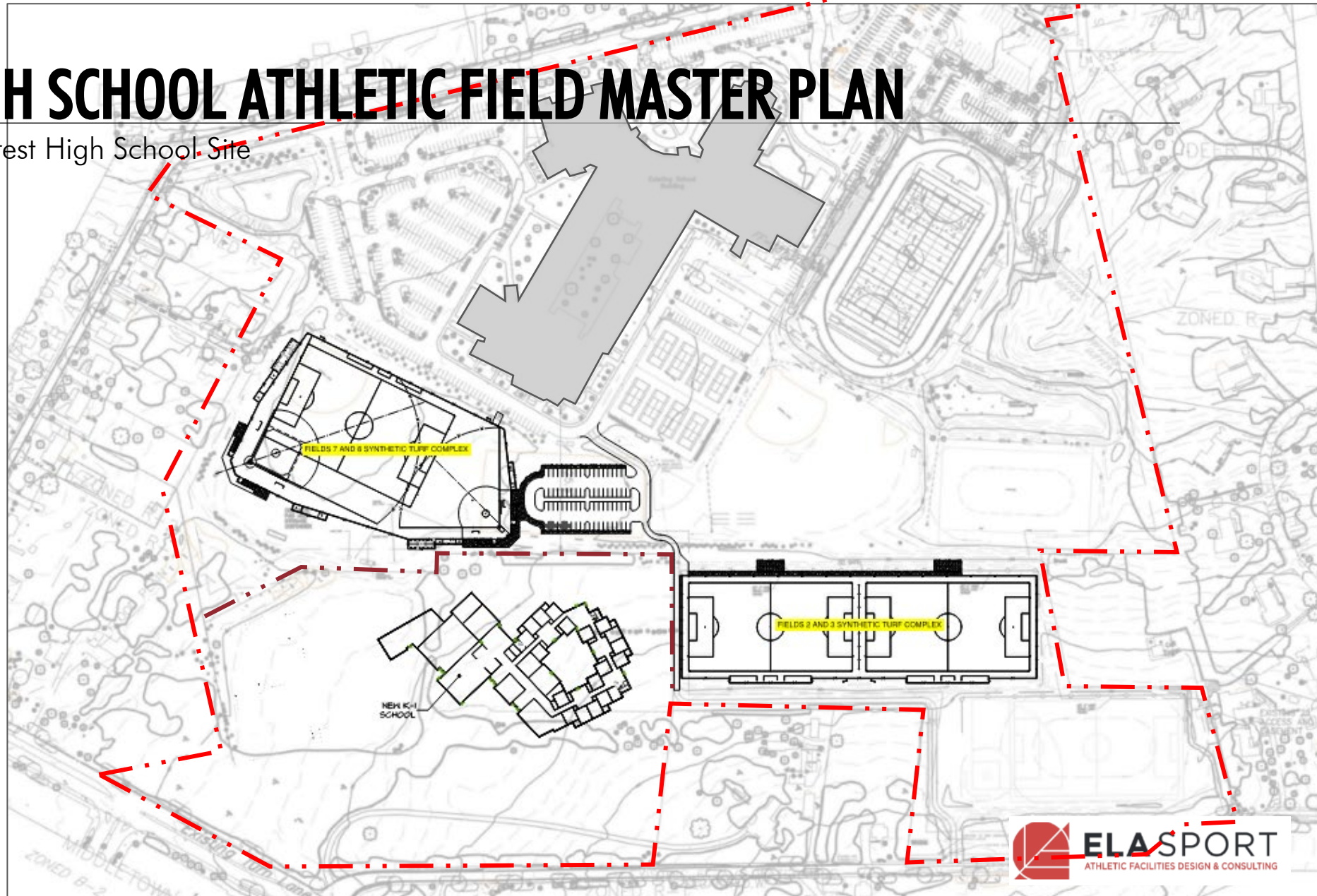
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HIGH SCHOOL ATHLETIC FIELD MASTER PLAN

Penncrest High School Site



CAMPUS PLAN

Penncrest and Riddle Sites



PROPOSED K-1 EARLY LEARNING CENTER PROGRAMMING

CONTINUED BUILDING PROGRAMMING EFFORT

NEW K-1 EARLY LEARNING CENTER

ROSE TREE MEDIA SCHOOL DISTRICT

04.01.2025 DRAFT

SCHRADERGROUP

04.16.2025 Update

PROGRAM				
	CAPACITY students	NET SQUARE FEET total	GROSSING factor	GROSS SQUARE FEET total
A. AREA SUMMARY				
1 Target Program Area		84,912 nsf	1.48 *	125,670 gsf
2 Existing Area in Plan				- gsf
Addition Area in Plan				- gsf
Total Area in Plan		- nsf	TBD *	- gsf
Difference		84,912 nsf		125,670 gsf
* Note that the PDE allowable grossing factor is 1.58. This number is reduced due to spaces included in Section 6				
B. CAPACITY SUMMARY				
1 Teaching Stations	40	908 students (Includes LLL program)		
2 Utilization Factor	90%			
3 Effective Student Capacity		817 students		
C. AREA ANALYSIS				
1 Square Feet per student: Planned		154 (Includes LLL Program)		817 gsf
2 Square Feet per student: actual		-		TBD gsf
D. AREA COMPARISON (Program)				
1 CORE STUDENT LEARNING SPACES		54,718		80,983 gsf
2 ADMINISTRATION AND STAFF SPACES		3,022		4,473 gsf
3 COMMUNITY SPACES		6,790		10,049 gsf
4 FITNESS AND WELLNESS		7,668		11,349 gsf
5 PERFORMING & VISUAL ARTS		2,250		3,330 gsf
6 FACILITY SUPPORT SPACES		4,970		7,356 gsf
7 LINKING LEARNING TO LIFE		5,494		8,131 gsf
TOTAL PRIMARY GSF		84,912 nsf		125,670 gsf
8 DISTRICT STUDENT SERVICES		3,444		5,097 gsf
TOTAL WITH ALTERNATE DISTRICT STUDENT SERVICES		88,356		130,767

TOTAL PROJECT
BUILDING AREA (for 817 students)

STUDY PHASE
TOTAL AREA @ STUDY PHASE 120,711 s.f.

PROGRAM EVOLUTION
K1 Building 125,670 s.f.
(includes Linking Learning to Life Program)

Possible Alternate for
District Student Services 5,097 s.f.
total possible 130,767 s.f.

DESIGN ASPIRATION IMAGES



03 SITE CONCEPT

SITE EVOLUTION

DEVELOPMENT OF OPTIONS

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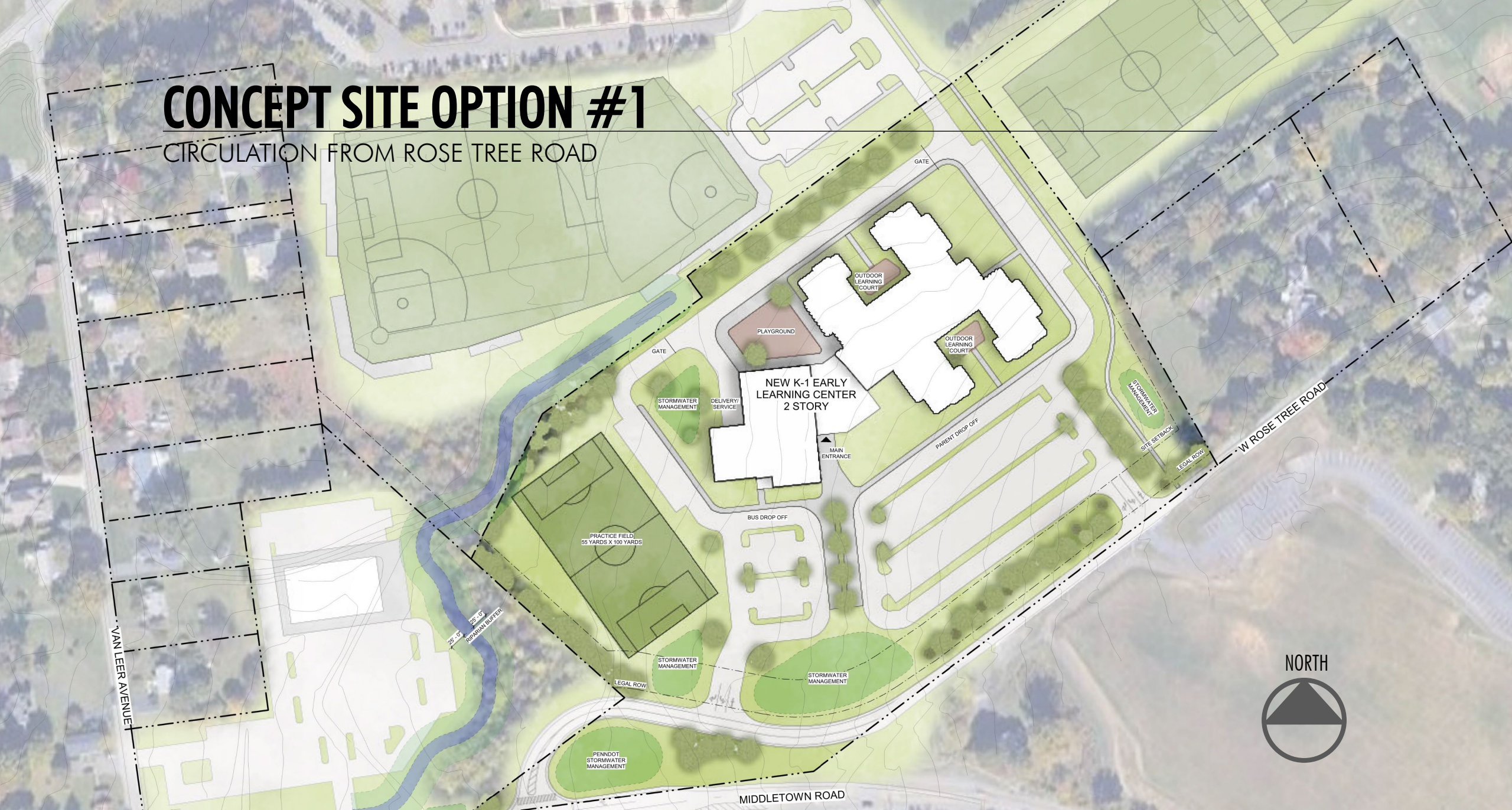
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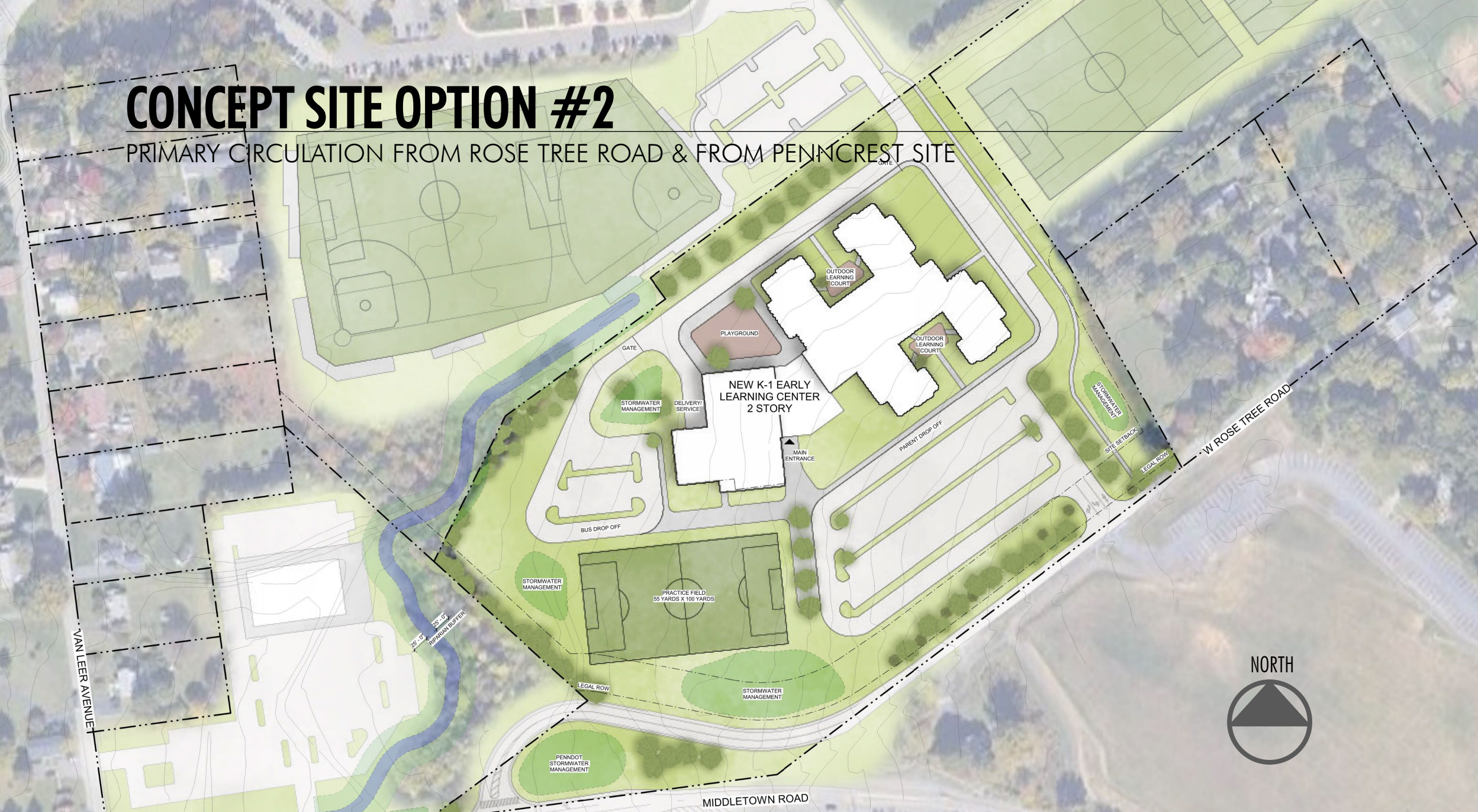
CONCEPT SITE OPTION #1

CIRCULATION FROM ROSE TREE ROAD



CONCEPT SITE OPTION #2

PRIMARY CIRCULATION FROM ROSE TREE ROAD & FROM PENNCREST SITE



COMBINED SITE DEVELOPMENT

Opportunities and Challenges



- Site elements related to zoning
- Program synergies
- Parking
- Site and off-site circulation analysis
- Land development process
- Timeline

04 BUILDING SYSTEMS

HVAC SYSTEMS SELECTION PROCESS

EVALUATION & LIFE CYCLE COSTING

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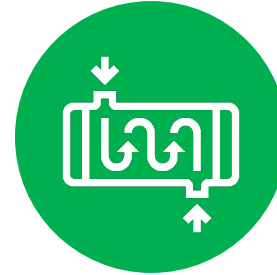
Integrated Design Process



**Building
Orientation &
Massing**



**Building
Envelope**



**High Performance
MEP Systems**



**On Site
Renewables**

Student Benefits

Daylight & Views

Thermal Comfort

Indoor Air Quality

Acoustics

District Benefits

Sustainable

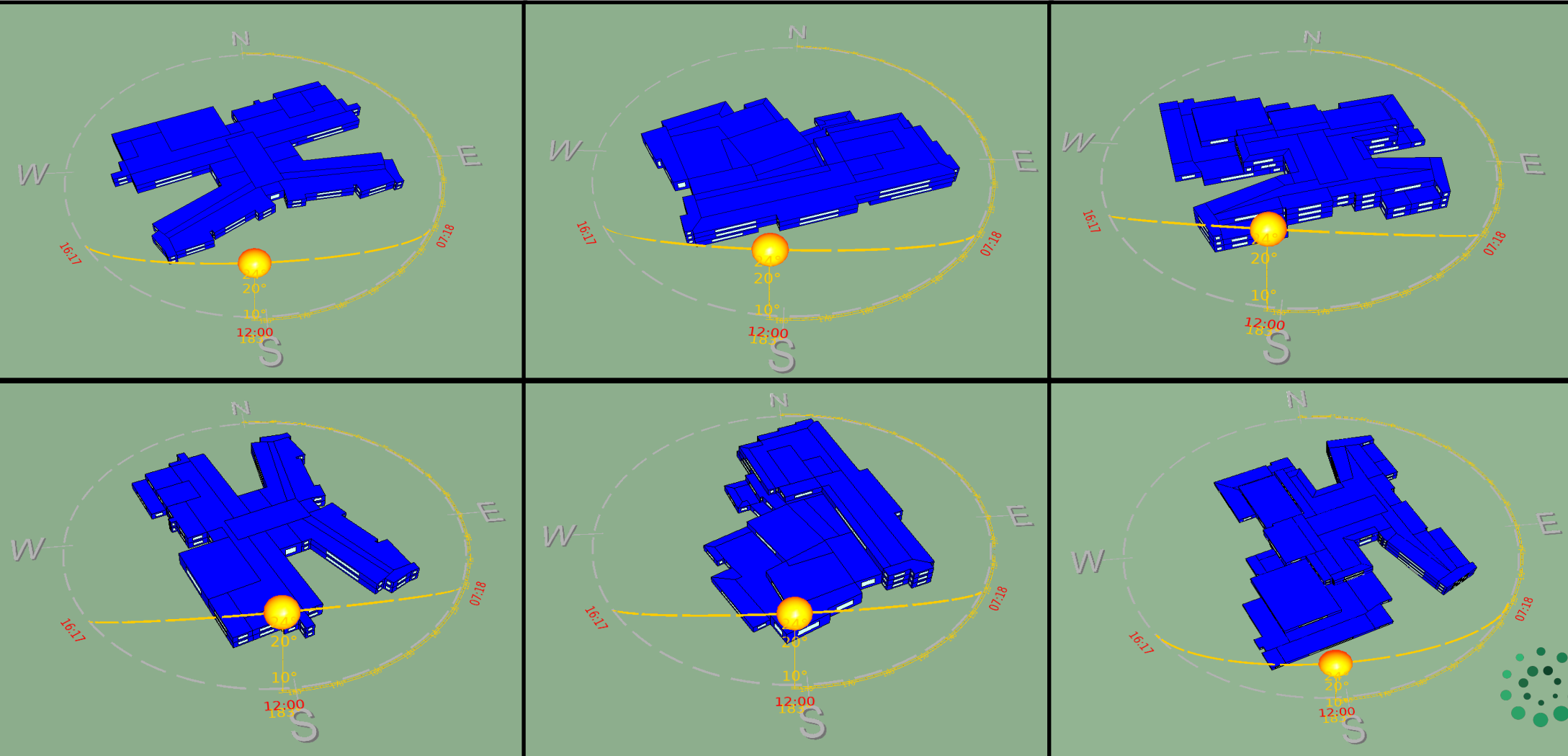
Less Operational Costs

Right Sizing Systems

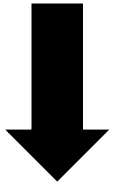
Less is More



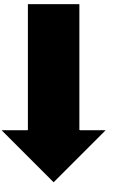
Massing & Orientation



23.7



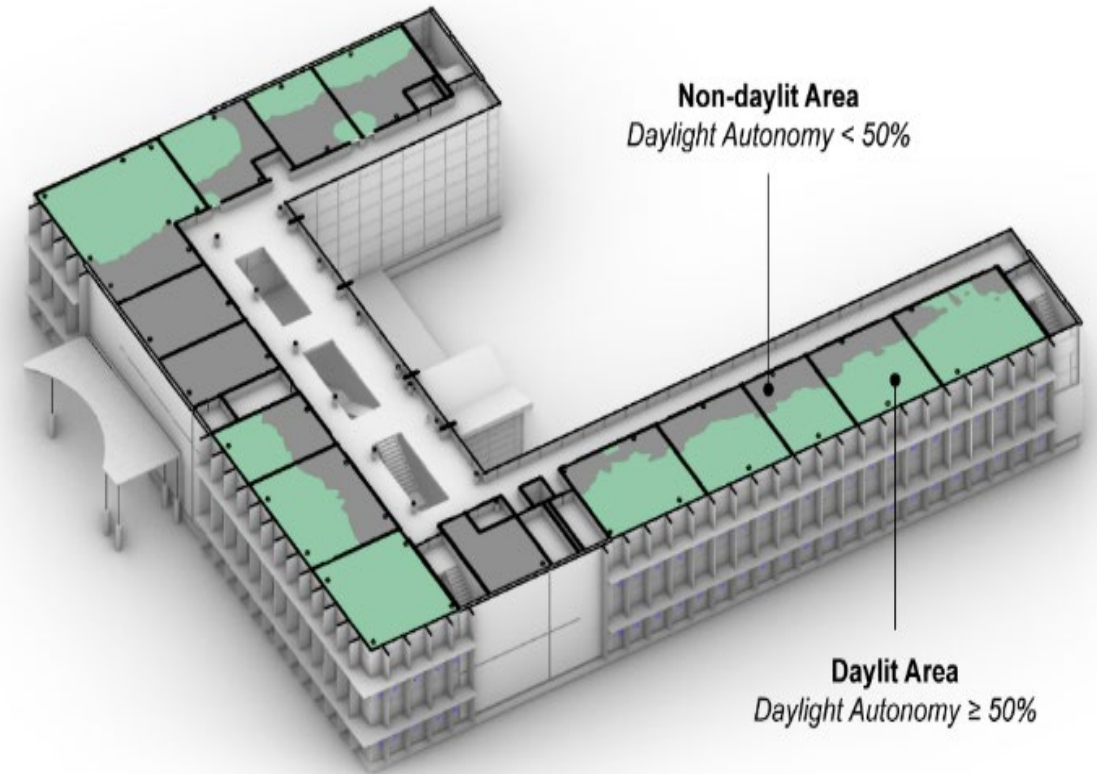
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3% Better

Daylighting

Reduced exposure to daylight has been linked to the onset of depression and impairment of cognitive function in individuals. — WELL Standard v2



HVAC Systems Options



	Geothermal Water Source Heat Pumps (Basis of Design)	Water Source Heat Pumps (Tower / Boiler)	4-Pipe Fan Coil Units (Air-Cooled Chiller / Boiler)
First Costs	\$\$\$	\$\$	\$
Energy Performance	Excellent	Good	Fair
Maintainability & Simplicity	Excellent	Fair	Fair
Aesthetics & Acoustics	Excellent	Fair	Fair
Life Cycle Costs	Excellent	Good	Fair
On-Site Fossil Fuel Emissions	None, All Electric	Yes, Boilers	Yes, Boilers



Life Cycle Cost Analysis



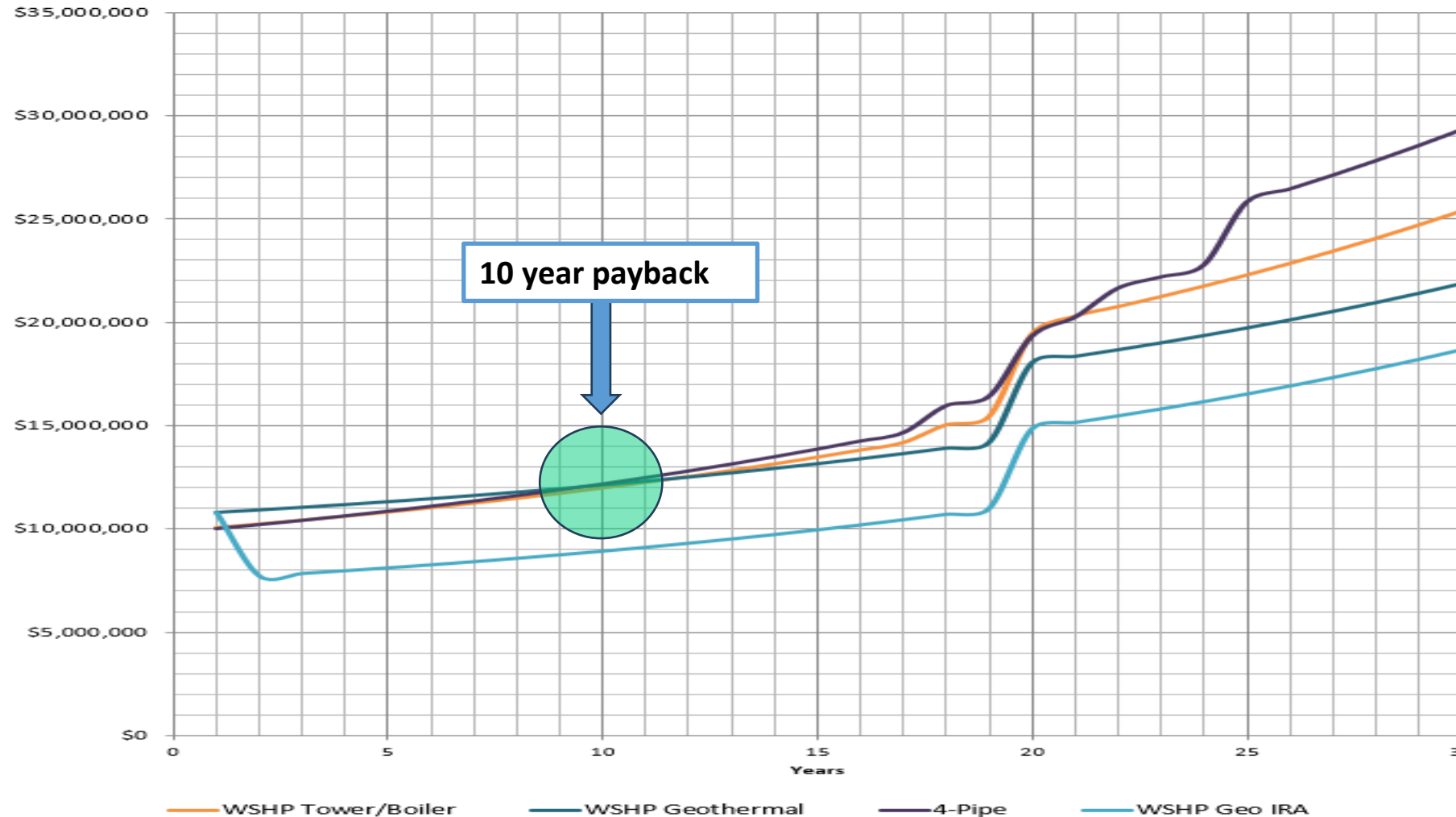
	Geothermal Water Source Heat Pumps (Basis of Design)	Water Source Heat Pumps (Tower / Boiler)	4-Pipe Fan Coil Units (Air-Cooled Chiller / Boiler)
First Costs	\$10,660,000	\$9,750,000	\$9,680,000
Floor Area & Screening	\$0	\$150,000	\$150,000
Energy Performance	\$95,000/yr	\$126,000/yr	\$148,000/yr
Maintainability & Simplicity	\$19,500/yr	\$39,000/yr	\$39,000/yr
Life Cycle Costs (30 yr)	\$21,900,000	\$25,400,000	\$29,300,000
Energy Tax Credit (IRA)	\$3,200,000	\$0	\$0



Life Cycle Cost Analysis



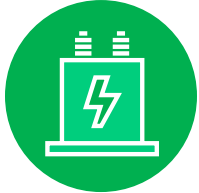
Life Cycle Cost Comparison - HVAC Systems Rose Tree Media K1 Learning Center



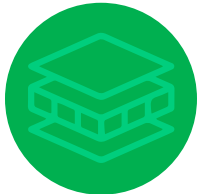
Geothermal Heat Pumps



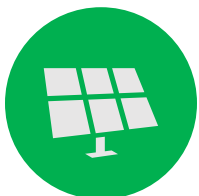
Solar-Ready Design



Electrical switchgear sections and pathways included in the design



Roof structural capacity to be included in the design



Array sizing for Net Zero to be modeled during design



05 INITIAL FEEDBACK

OPEN HOUSE COMMUNITY FEEDBACK

INITIAL COMMUNITY INPUT COLLECTED
VIA THOUGHTEXCHANGE®

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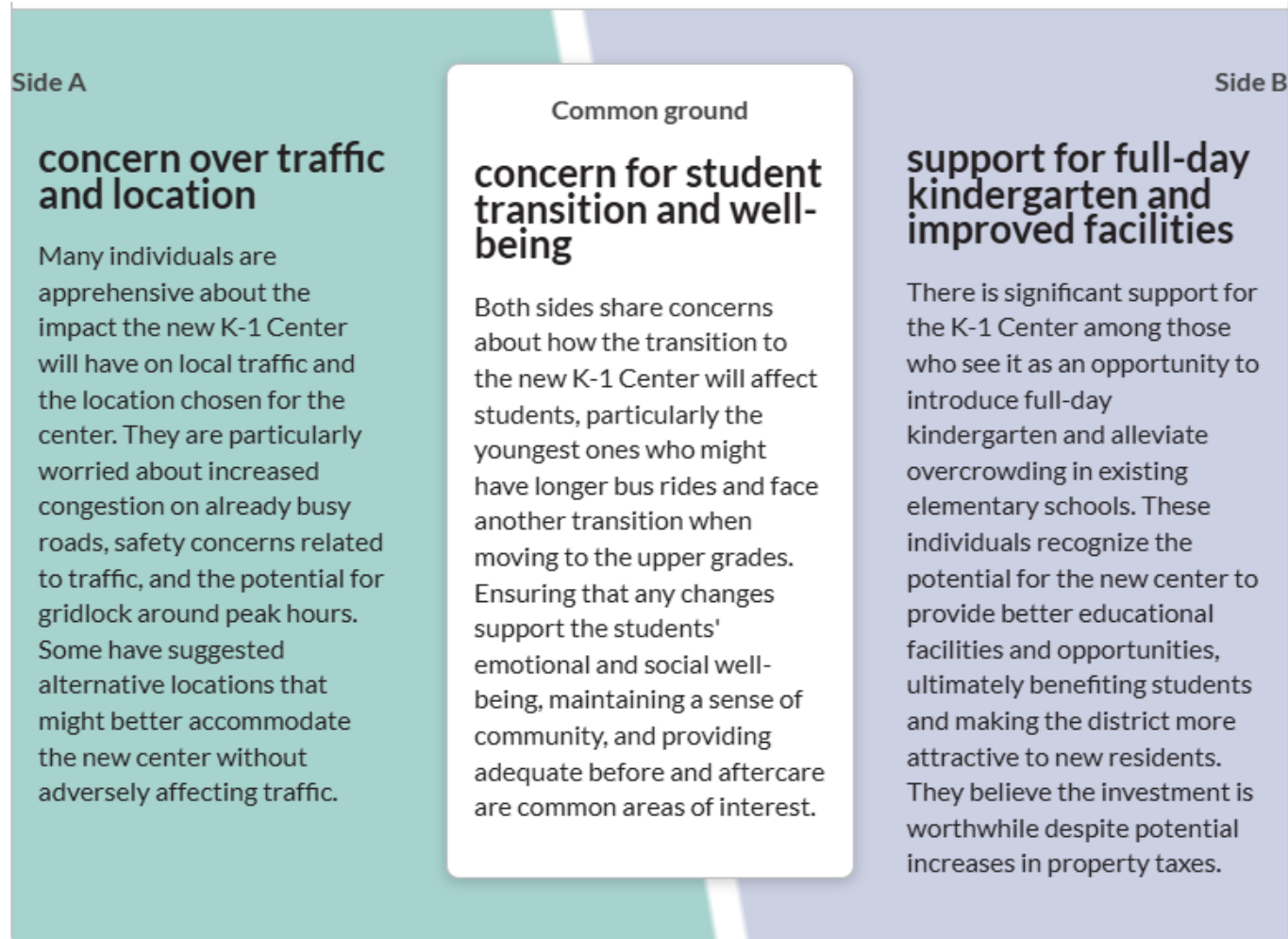
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INITIAL FEEDBACK FROM THE RTMSD COMMUNITY

- An Open House was held by the District on April 30th, 2025
- A survey was open to the public for responses during the presentation
- Two key questions were asked about the information:
 - What questions to you have about the District's plan for the K-1 Center?
 - What advice do you have for the School Board and District Administration as they develop this Long-Range Capital Plan?
- 309 Responded so far with 112 completing the survey
- The presentation was posted online to gather additional feedback via the survey

What questions to you have about the District's facilities plan for the K-1 Center?



Top 5 Themes:

1. Timing and Construction
2. Logistics and Transportation
3. Budgets and Cost
4. School Operations
5. Location and Infrastructure

What advice do you have for the School Board and District Administration as they further develop the K-1 Center?



Top 5 Themes:

1. Community Engagement
2. Curriculum and Program
3. Location and Transportation
4. Environmental Considerations
5. Financial Transparency

06 NEXT STEPS

PROJECT DEVELOPMENT

FOR JUNE

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NEXT STEPS FOR PROJECT DEVELOPMENT



- Finalize combined campus plan
- Finalize budget for combined plan
- Continue building design evolution
- Determine HVAC systems
- Calibrate timeline to approval process



with



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