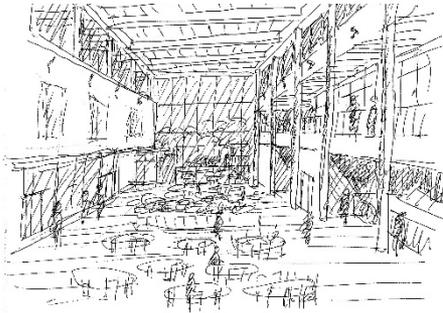
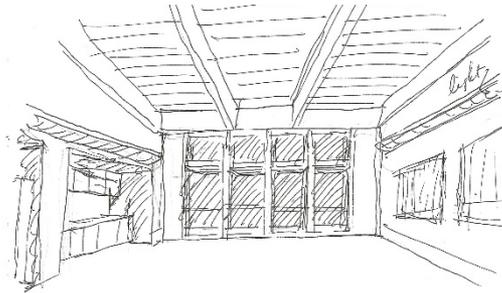


Town of Mansfield  
**Elementary School Update**  
**Town Council Meeting**

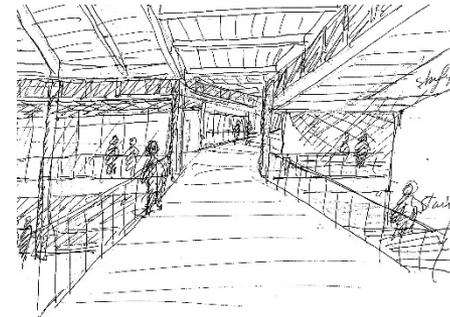
April 13, 2020



*Cafeteria*



*CLASS ROOM*



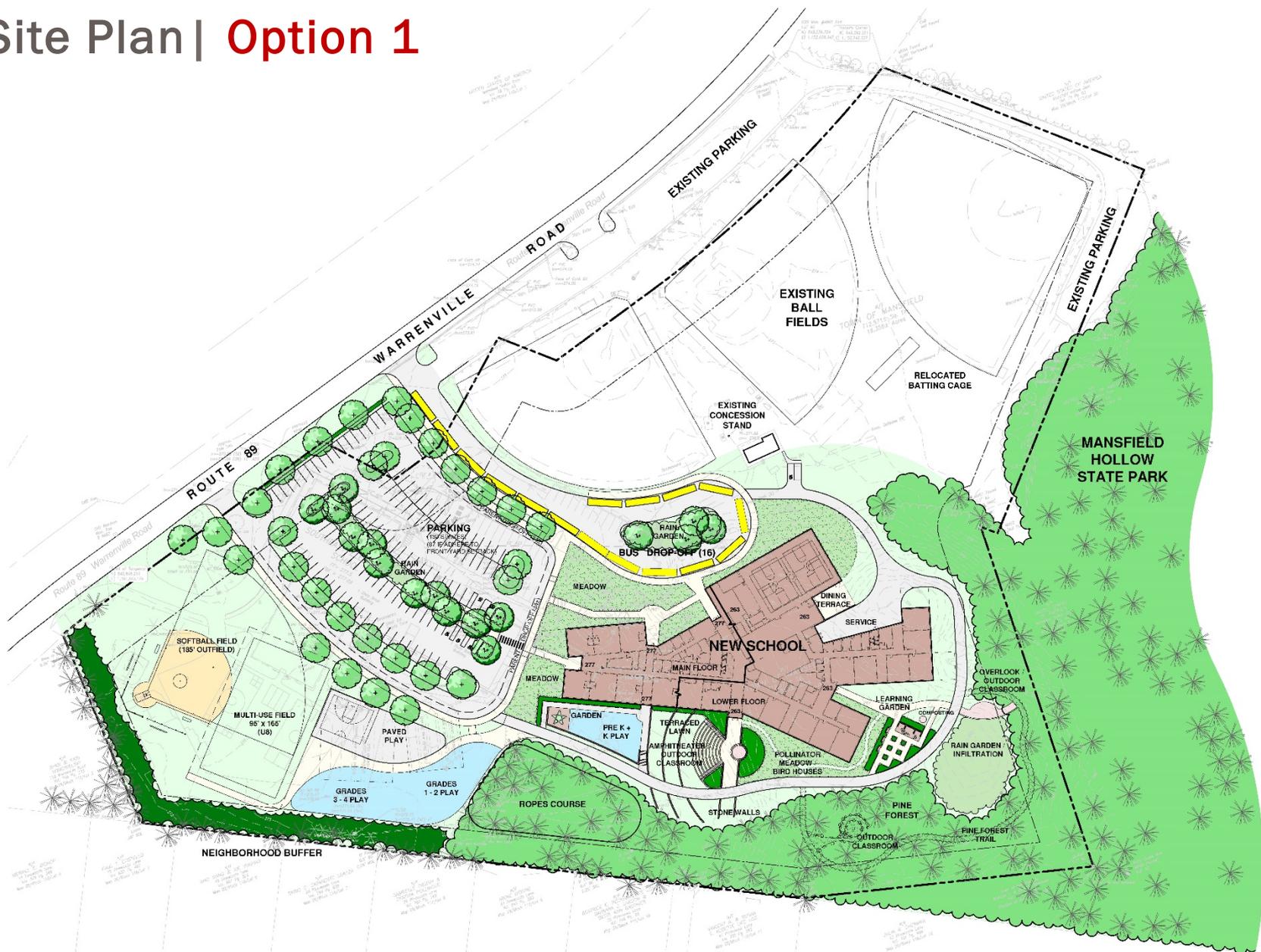
*Main Corridor looking down*

**TSKP** ARCHITECTURE | PLANNING | INTERIORS  
**STUDIO**

# Where We Left Off | Understanding the Site



# Site Plan | Option 1



MANSFIELD  
ELEMENTARY SCHOOL  
SITE CONCEPT PLAN

SCALE: 1" = 40'-0"  
9 April 2020  
LANDSCAPE ARCHITECT  
Richter Cegan Inc.



# Site Plan | Option 2

## PARKING OPTIONS:

INITIAL PARKING LOT (W/ PARKING IN SETBACK + STATE R.O.W) 130 SPACES

REVISED MAIN PARKING LOT (IF ADHERE TO SETBACK) 86 SPACES

**PARKING ALTERNATIVE 1** +40 SPACES  
ISSUES (126 TOTAL)

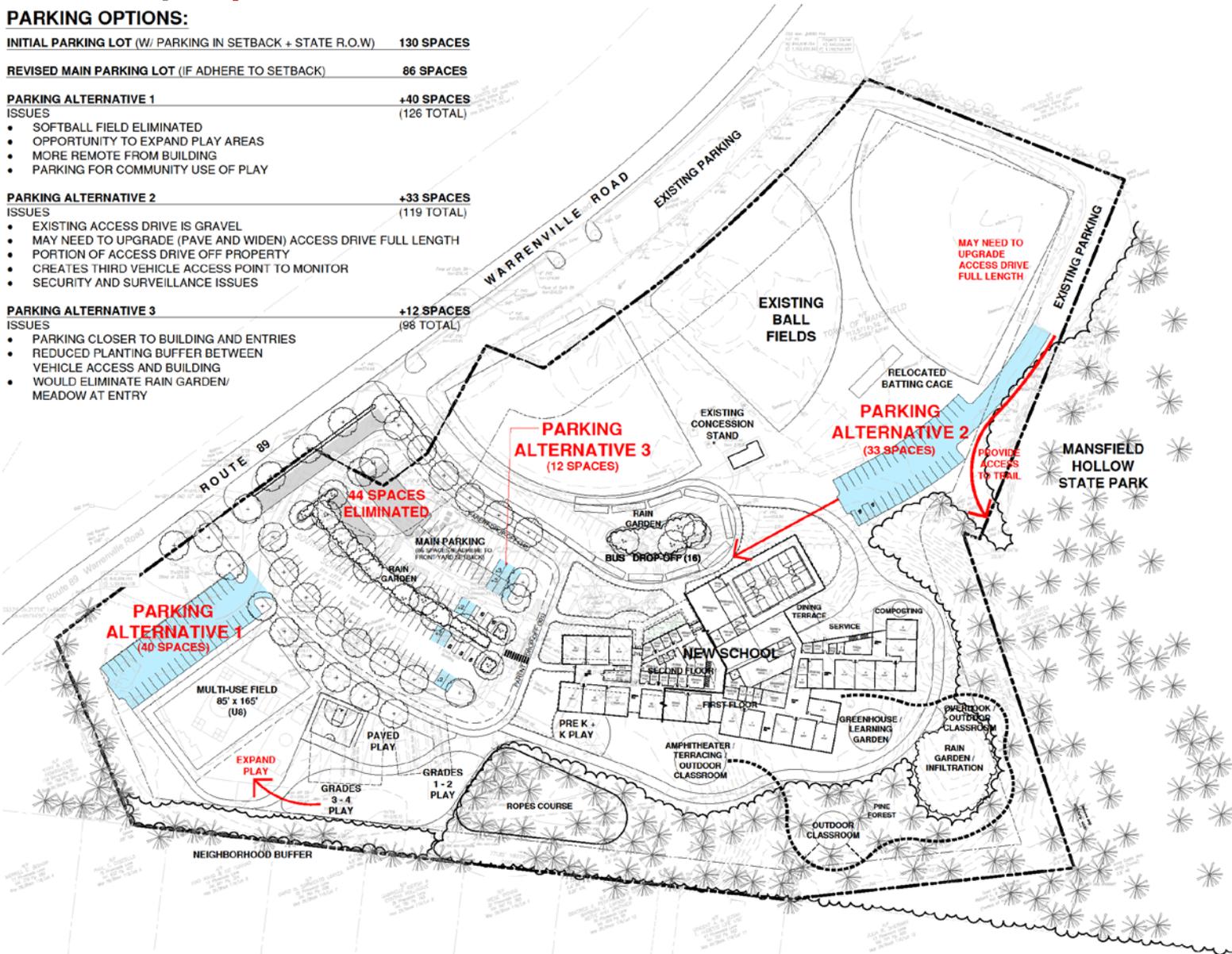
- SOFTBALL FIELD ELIMINATED
- OPPORTUNITY TO EXPAND PLAY AREAS
- MORE REMOTE FROM BUILDING
- PARKING FOR COMMUNITY USE OF PLAY

**PARKING ALTERNATIVE 2** +33 SPACES  
ISSUES (119 TOTAL)

- EXISTING ACCESS DRIVE IS GRAVEL
- MAY NEED TO UPGRADE (PAVE AND WIDEN) ACCESS DRIVE FULL LENGTH
- PORTION OF ACCESS DRIVE OFF PROPERTY
- CREATES THIRD VEHICLE ACCESS POINT TO MONITOR
- SECURITY AND SURVEILLANCE ISSUES

**PARKING ALTERNATIVE 3** +12 SPACES  
ISSUES (96 TOTAL)

- PARKING CLOSER TO BUILDING AND ENTRIES
- REDUCED PLANTING BUFFER BETWEEN VEHICLE ACCESS AND BUILDING
- WOULD ELIMINATE RAIN GARDEN/MEADOW AT ENTRY



PARKING ALTERNATIVE PLAN  
MANSFIELD ELEMENTARY SCHOOL  
SITE CONCEPT PLAN

SCALE: 1" = 40'-0"  
25 MARCH 2020

LANDSCAPE ARCHITECT  
Richter & Cogan Inc.

16 0000 0001  
P.O. BOX 867  
ANN ARBOR, MI 48106  
PH: 734.769.2100

# Model Photo



# Site Plan | Geothermal Well

## Option 3: Field A

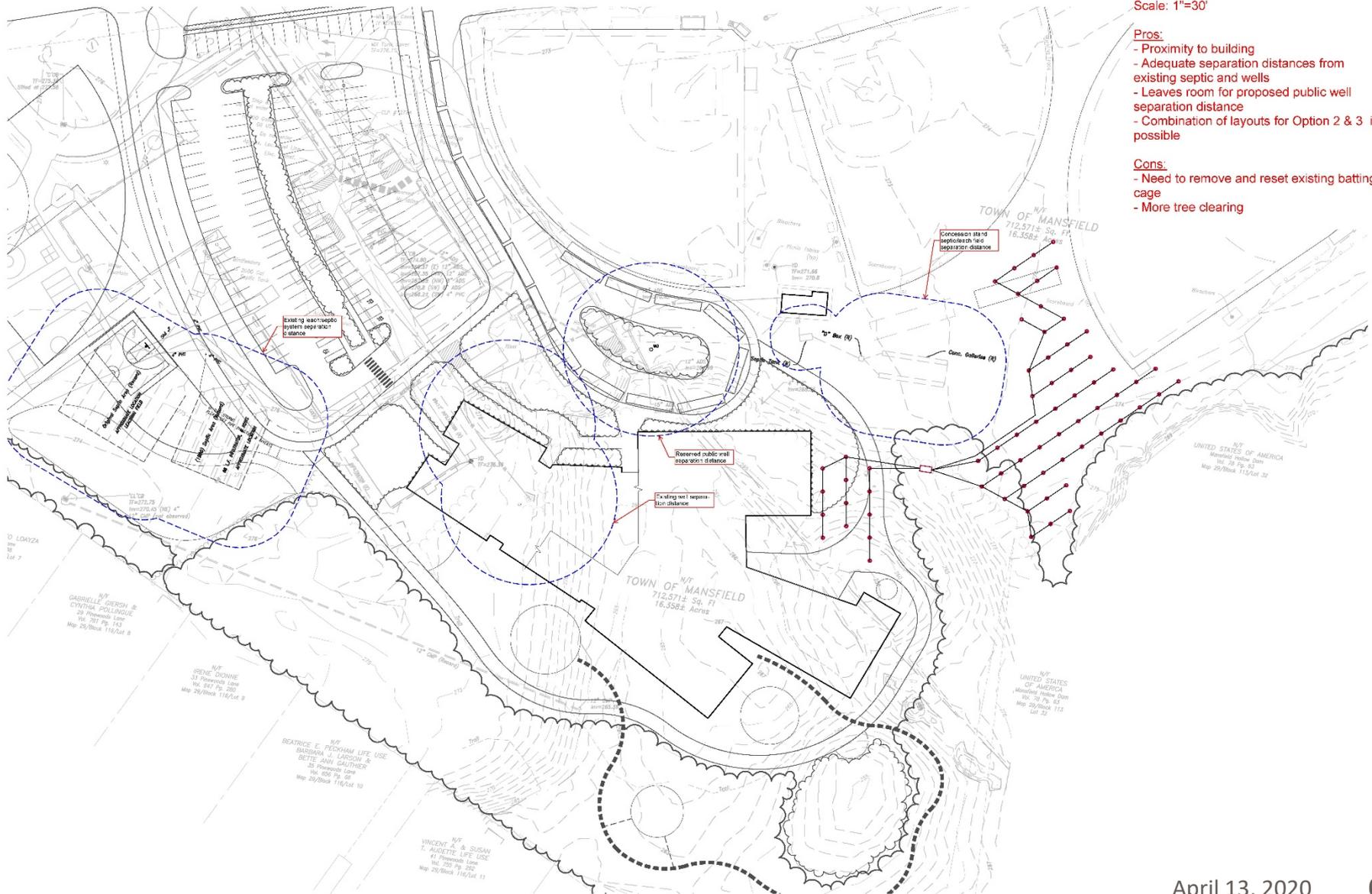
Scale: 1"=30'

### Pros:

- Proximity to building
- Adequate separation distances from existing septic and wells
- Leaves room for proposed public well separation distance
- Combination of layouts for Option 2 & 3 is possible

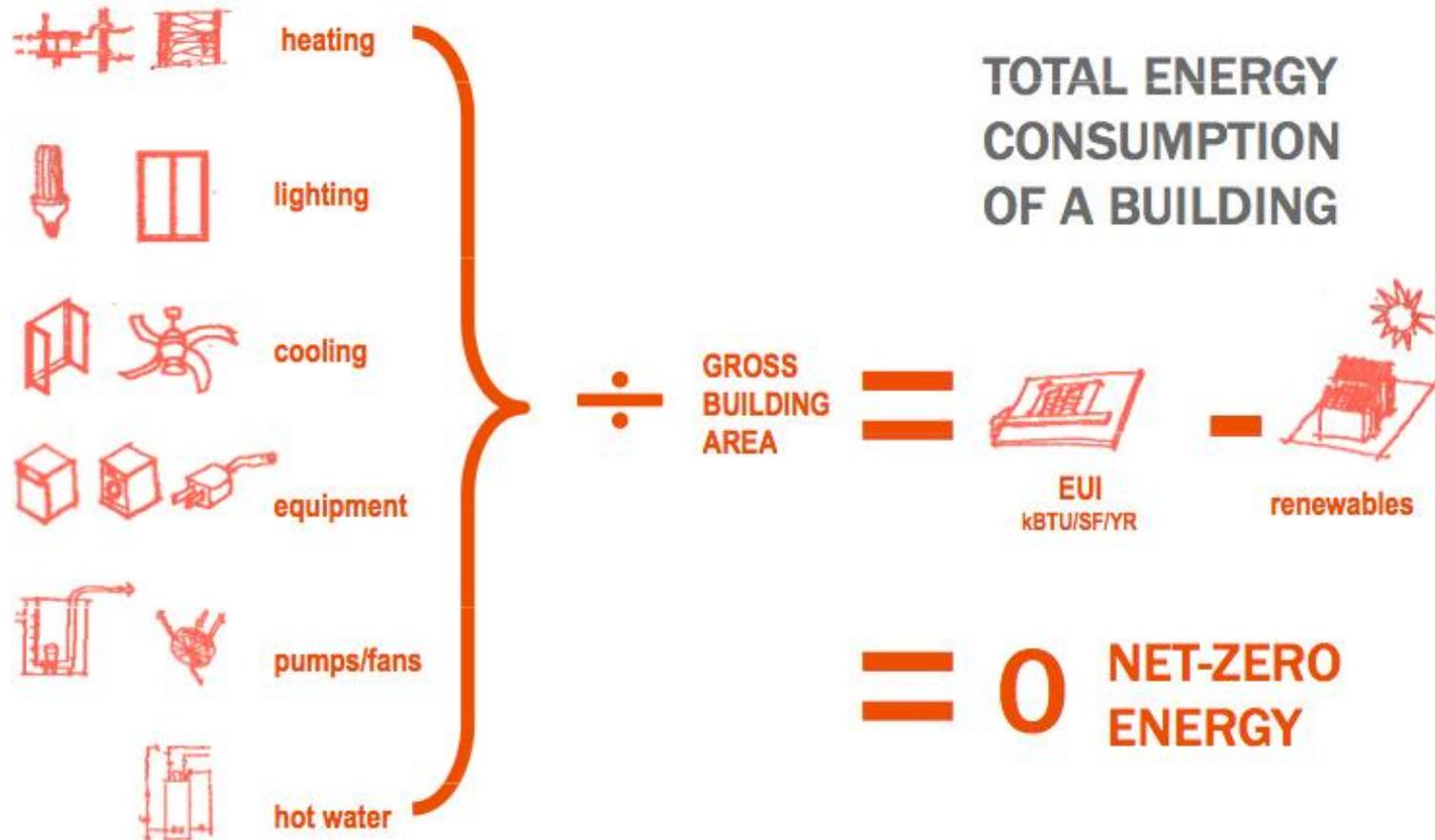
### Cons:

- Need to remove and reset existing batting cage
- More tree clearing

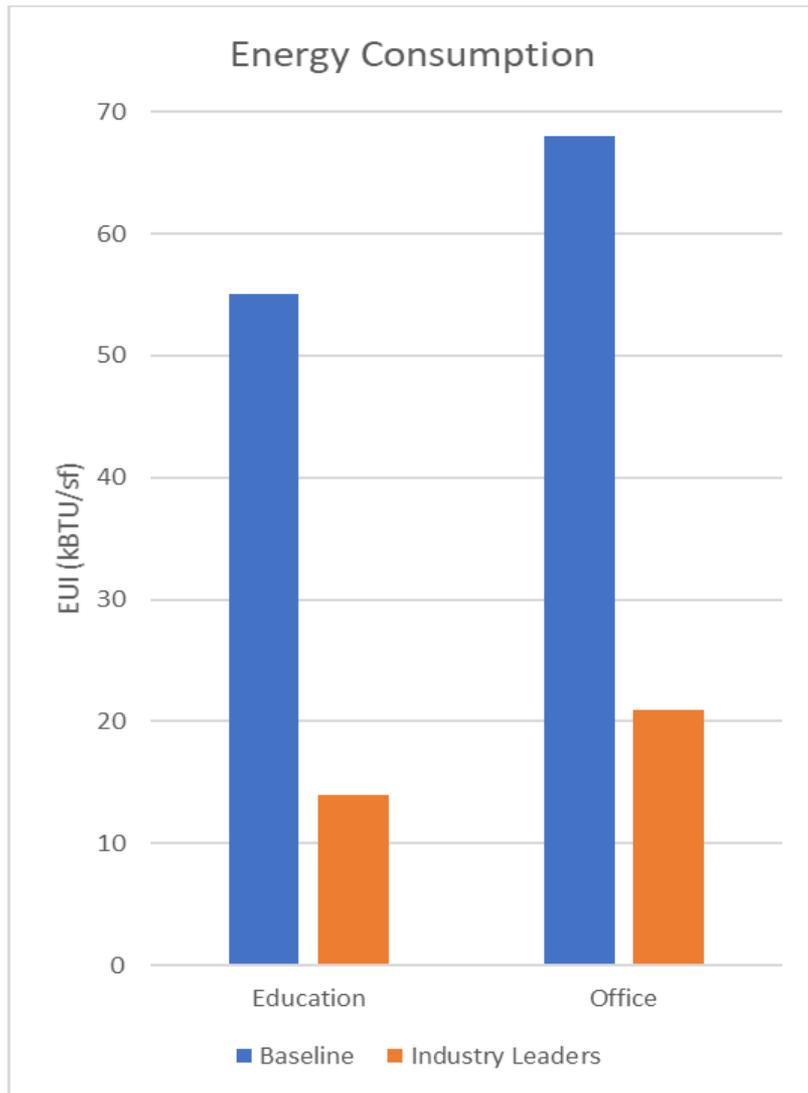


# Net Zero Definition

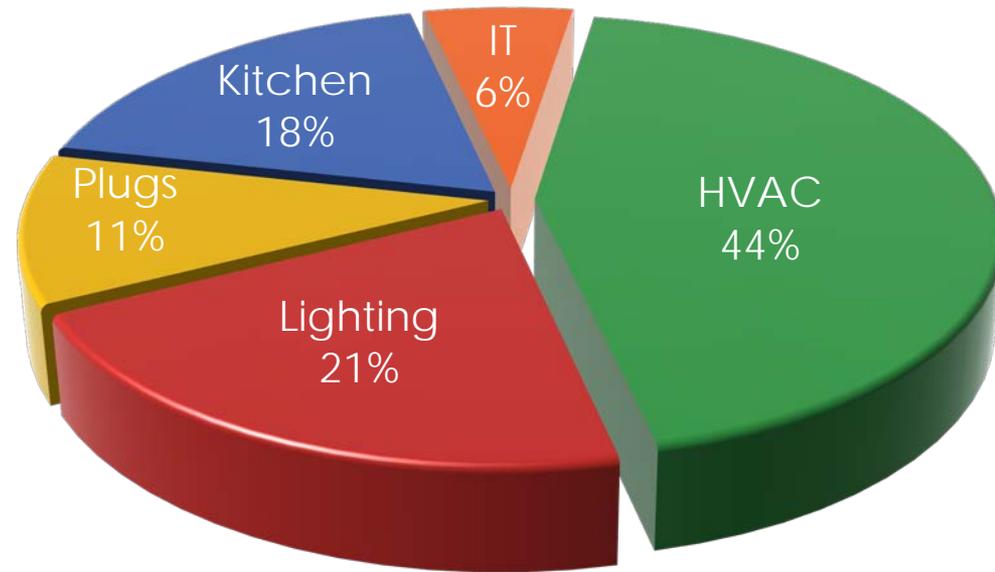
A Net Zero Energy school returns as much energy to the power grid as it uses in a year



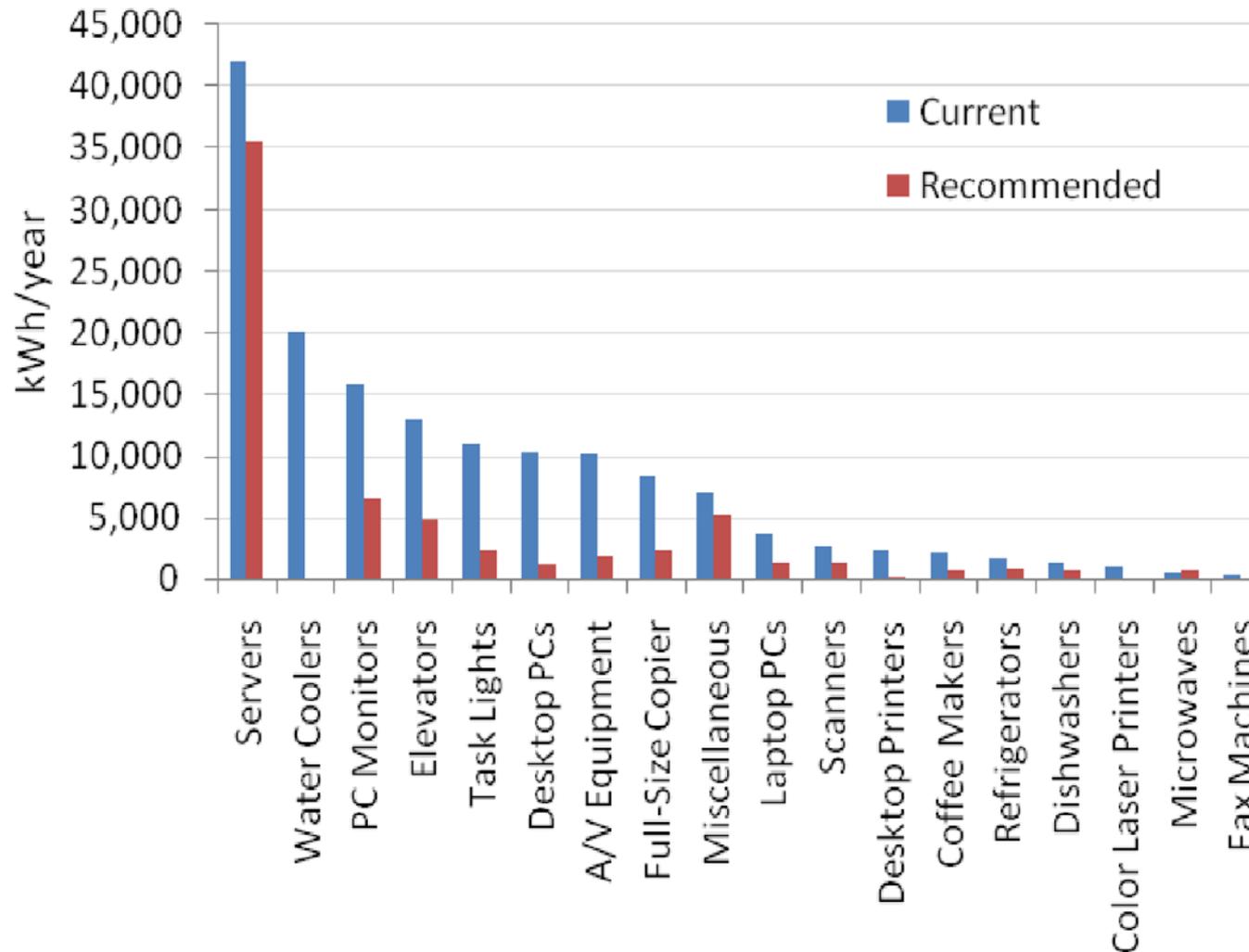
# Net Zero Energy Targets



## High Perf Energy Targets

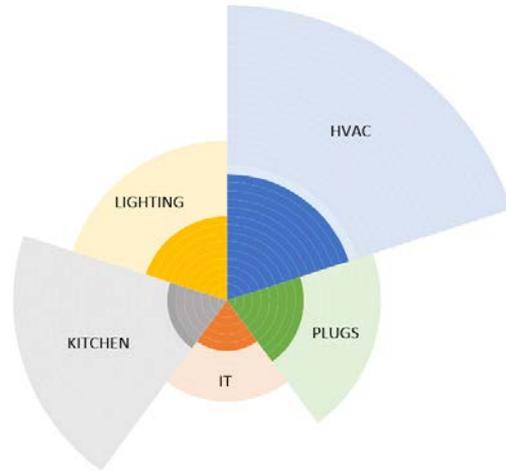


# Net Zero Energy – Plug Loads



*Annual Energy Consumption by Plug Load Category*

# Net Zero Energy – Food Service



Refrigeration  
**6%**



Lighting  
**13%**



Sanitation  
**18%**



HVAC  
**28%**

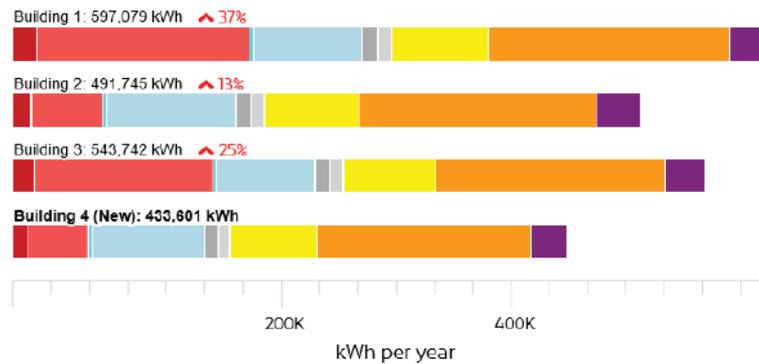


Food Preparation  
**35%**

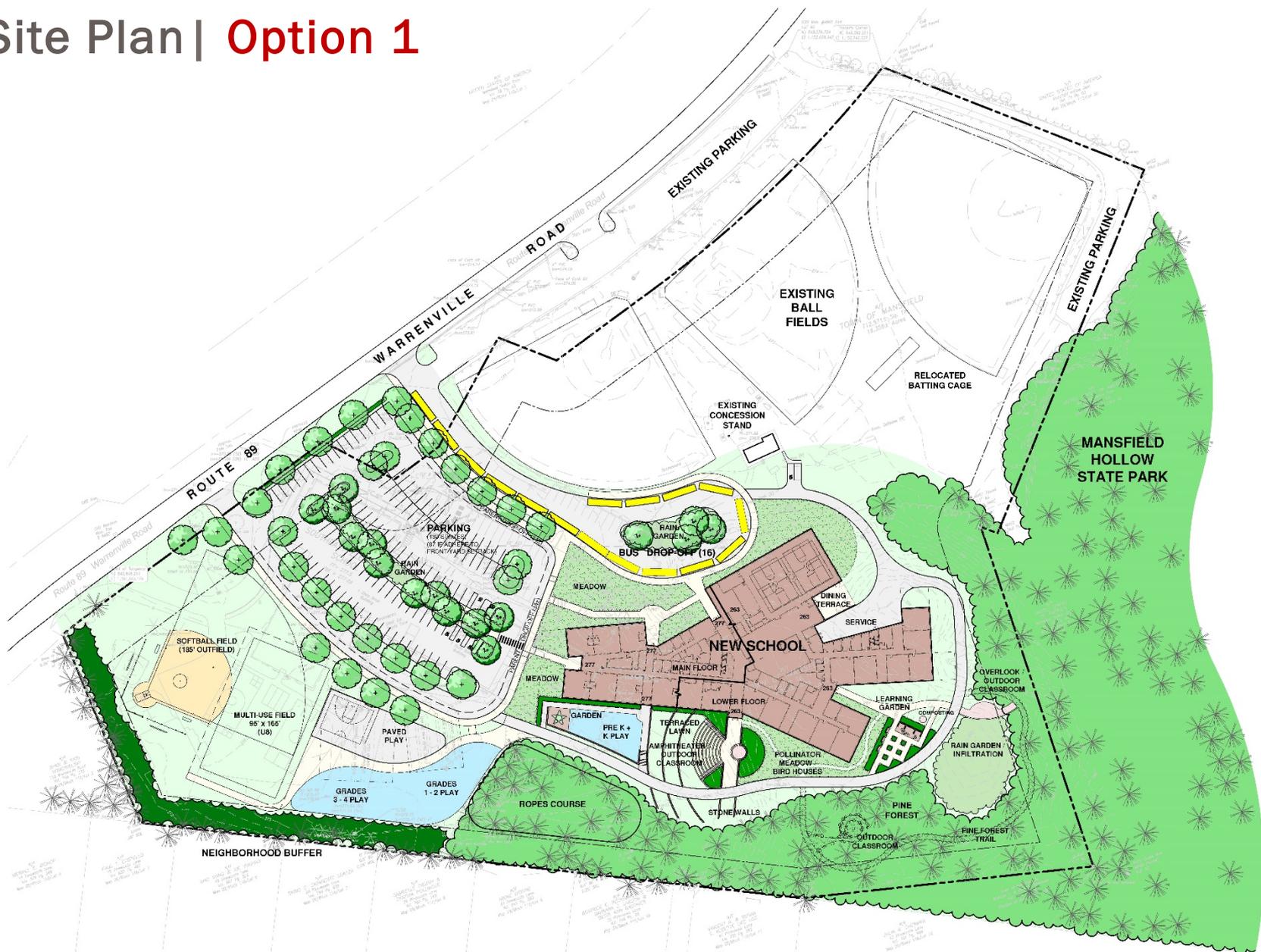
# Net Zero Energy – Building Factors

## Massing Model Summary

			EUI	Annual Electricity De...	Annual Net CO <sub>2e</sub> Em...	Annual Energy Cost ...
	Building 1	Water Source Heat Pump	23	▲ 21% 597,079 ▲ 37%	315,854 ▲ 37%	\$1.3 ▲ 30%
	Building 2	Water Source Heat Pump	19	— 0% 491,744 ▲ 13%	260,186 ▲ 13%	\$1.1 ▲ 10%
	Building 3	Water Source Heat Pump	22	▲ 15% 543,742 ▲ 25%	287,699 ▲ 25%	\$1.2 ▲ 19%
	<b>Building 4 (New)</b>	HVAC System Type Water Source Heat Pump	19 kBtu/ft <sup>2</sup> /yr	<b>433,601 kWh</b>	<b>229,375 lbCO<sub>2e</sub>/yr</b>	<b>\$1.0 /ft<sup>2</sup></b>



# Site Plan | Option 1



MANSFIELD  
ELEMENTARY SCHOOL  
SITE CONCEPT PLAN

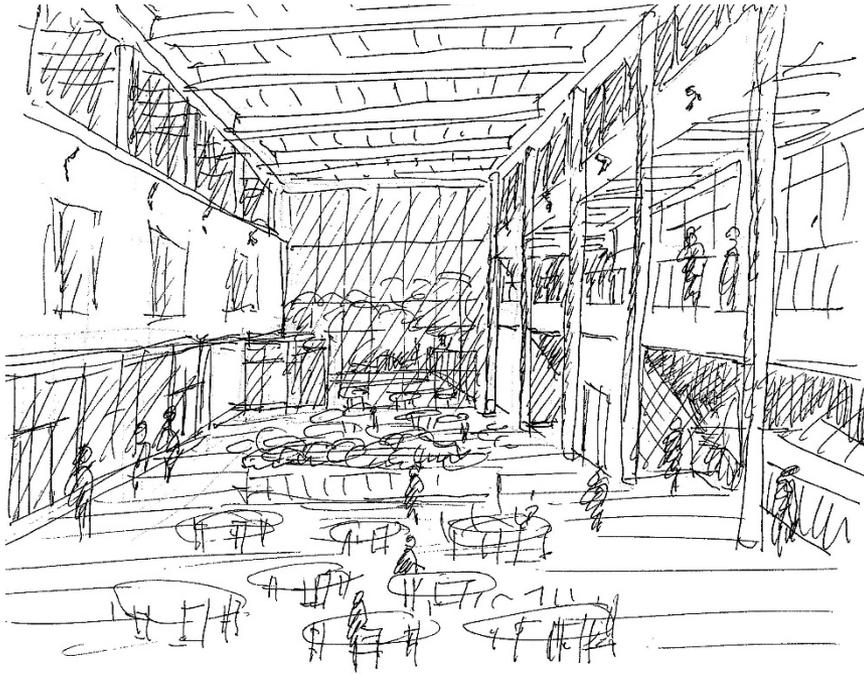
SCALE: 1" = 40' - 0"  
9 April 2020  
LANDSCAPE ARCHITECT  
Richter & Cegan Inc.  
48 CRAIG COURT  
P.O. BOX 897  
MANSFIELD, OHIO 44868-0897

# Plan | Main Level





# Interior | Space Study



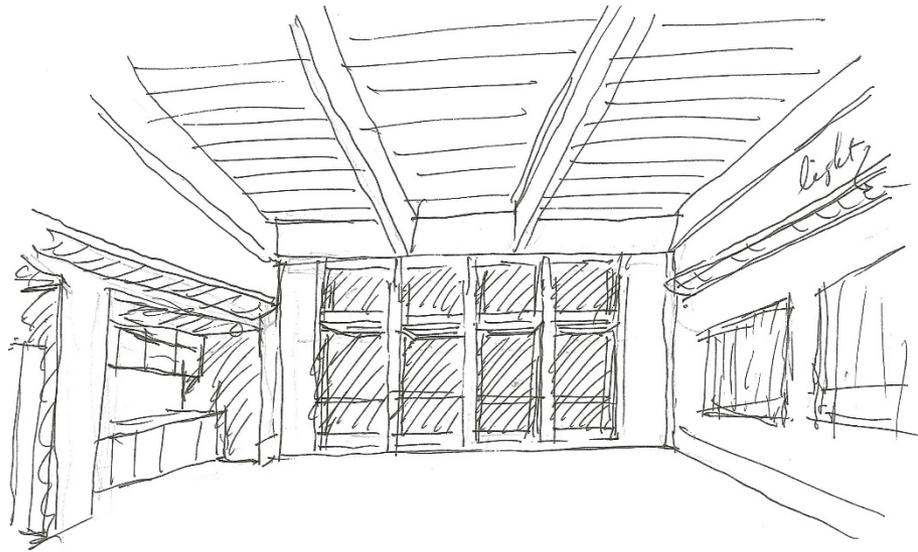
Cafeteria



# Interior | Space Study



# Interior | Space Study



CLASS ROOM



The End