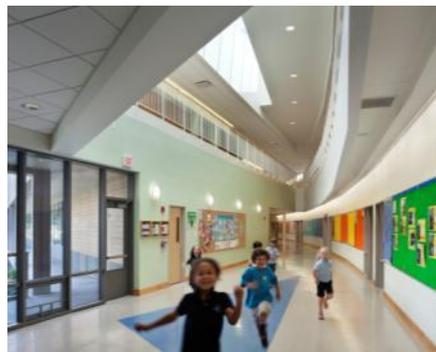


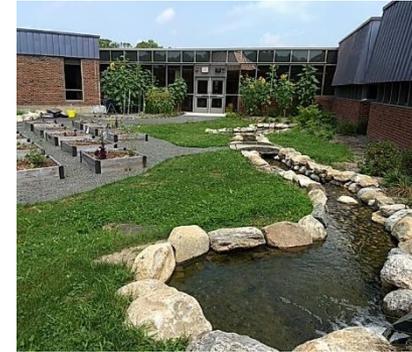
# New Mansfield Elementary School Project Update Community Meeting

April 24, 2019



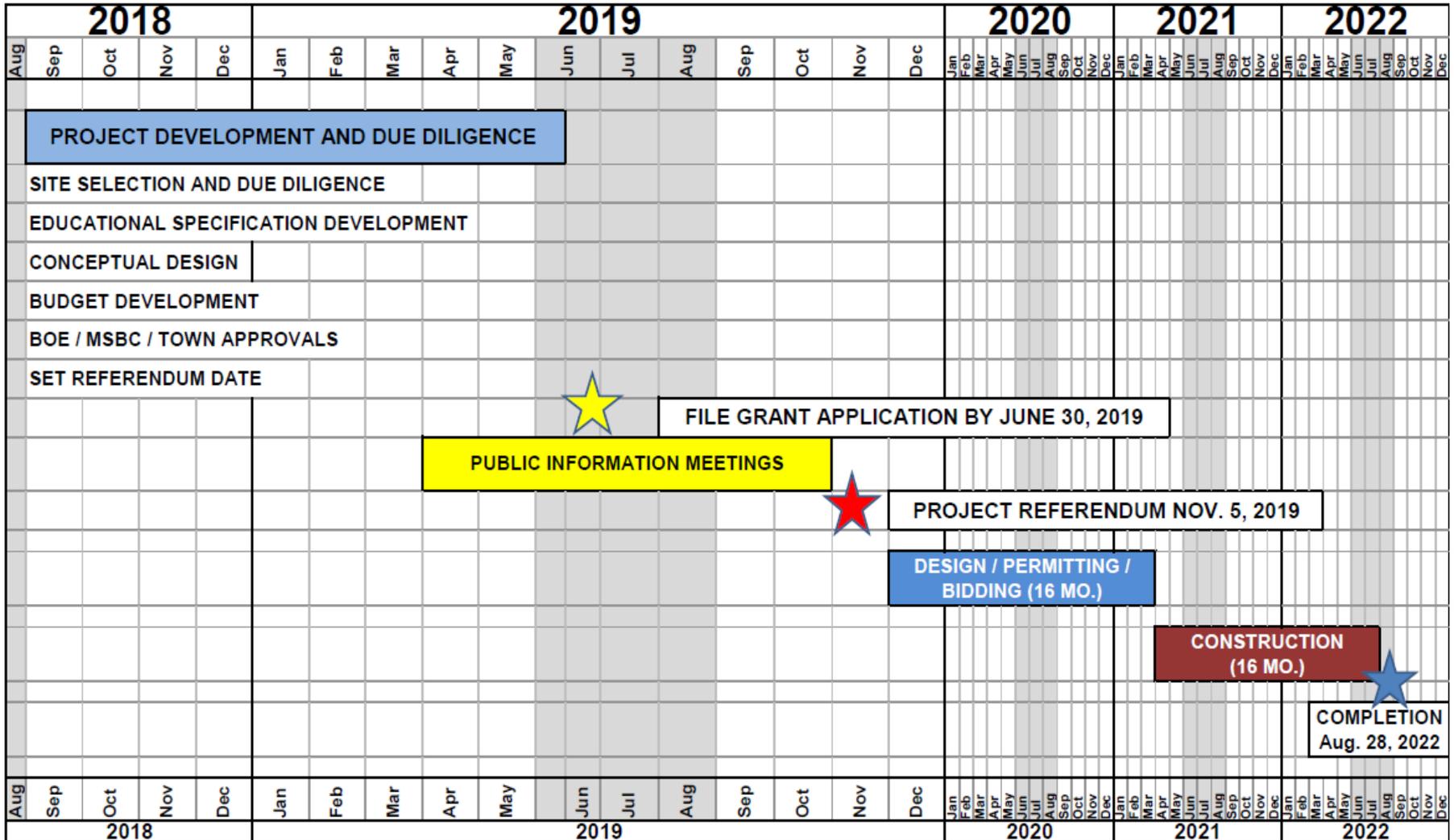
**TSKP** ARCHITECTURE | PLANNING | INTERIORS  
STUDIO

# Project Update | **Agenda**



- 1 Project Schedule
- 2 Existing Buildings
- 3 Ed Specs for New Building
- 4 State Guidelines
- 5 Conceptual Building Plan
- 6 Net Zero and Sustainability
- 7 Site Evaluation

# Project Schedule | Next Steps



# What We Observed | Teacher Innovation



# Space Summary from Ed Specs:

LINE NO.	QUANT	NAME	UNIT	PER SQ FT	ADDS IN SF
<b>ACADEMIC CLASSROOM COMMUNITIES</b>					
<b>SPECIALIZED CLASSROOMS</b>					
1					
2	30	1	ART CLASSROOM	30	900 900
3	31	1	ART STORAGE		50 50
4	32	1	JOHN ROOM		200 200
5	33				
<b>ADMINISTRATIVE AREA</b>					
6	34	37	1	RECEPTION & CLERICAL AREA	700 700
7	35	38	2	ADMINISTRATIVE OFFICES	300 300
8	36	39			
9	37	40			
<b>COMMON AREAS</b>					
10	38	41	1	LEARNING COMMONS (Library, Media, etc.)	2,400 2,400
11	39	42	1	LEARNING COMMONS STORAGE	200 200
12	40	43			
<b>SERVICE AREAS &amp; GROSSING FACTOR (area, common, etc.)</b>					
13	41	44	1		
14	42	45	1	IT WORK ROOM	500 500
15	43	46	1	MOP ROOM	50 50
16	44	47	2	ED ROOMS	50 100
17	45	48	1	CUSTODIAL OFFICE AND LOCKER	150 150
18	46	49	3	CUSTODIAL CLOSETS	10 30
19	47	50	1	CUSTODIAL OUTDOOR STORAGE	150 150
20	48	51	1	GENERAL STORAGE	200 200
21	49	52	1	RECEPTION	200 200
22	50	53	1	MEDICAL	800 800
23	51	54	1	ELECTRICAL SERVICE	150 150
24	52	55	2	ELECTRICAL CLOSET	40 80
25	53	56	1	PAE PROTECTION SERVICE	150 150
26	54	57		SUBTOTAL OF ABOVE	2,540
27	55	58		GROSSING FACTOR (area, common, etc.)	21,740
28	56	59		<b>SERVICE AREAS &amp; GROSSING FACTOR *</b>	<b>24,280</b>
<b>III TOTAL GROSS SQUARE FOOTAGE</b>					<b>85,165</b>

## ED SPECS:

566 Pupils, Grades PK-4, in 33 Classrooms, 3 Groupings, plus Support Spaces.

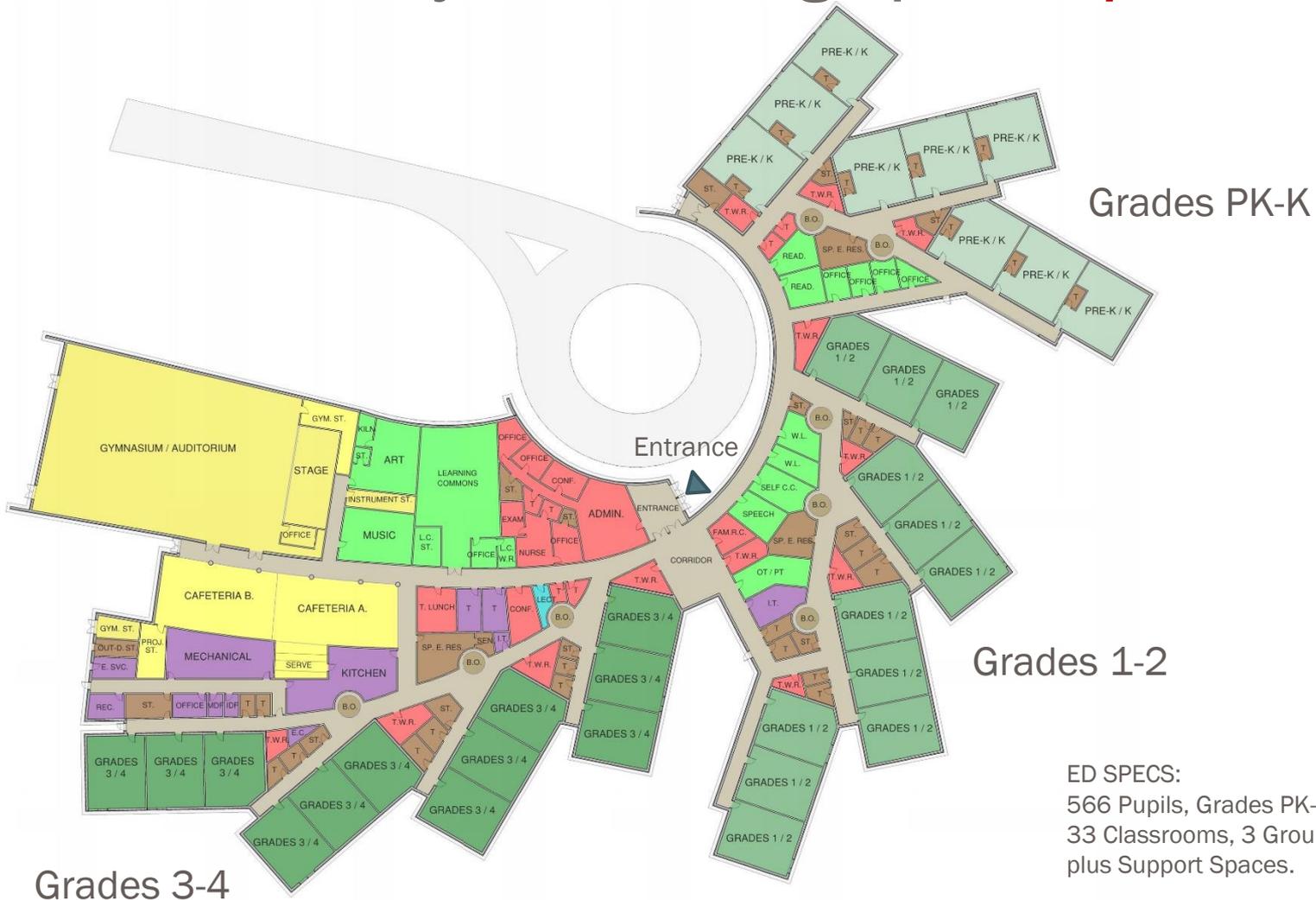
Net Program SF	60,865
x 40%	<u>24,300</u>
Total Gross SF	85,165 *

\* Preliminary Estimate, and Subject to Change

\* The Grossing Factor shown in this table is a preliminary estimate at this time, and is subject to change. The final Grossing Factor will be calculated after the floor plans are completed. The estimated Total Gross Square Footage of 85,165 shown in this table exceeds the State's Space Guidelines. The final Total Gross Square Footage will be determined after floor plans are completed and approved by the State.



# Elementary School Design | Conceptual Plan

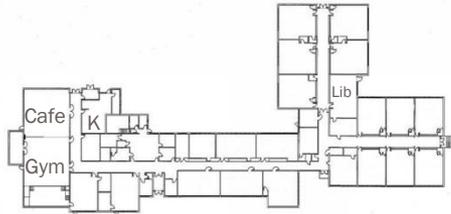


ED SPECS:  
 566 Pupils, Grades PK-4, in  
 33 Classrooms, 3 Groupings,  
 plus Support Spaces.

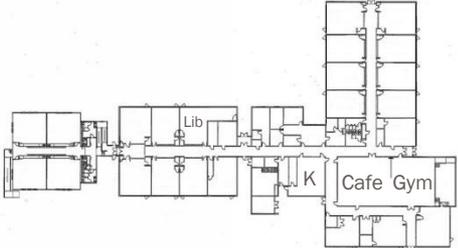
Net Program SF	60,865
x Approx. 28%	<u>17,135</u>
Approx. Gross SF	78,000

**CONCEPTUAL PLAN**  
 New Elementary School  
 Approx. 78,000 (per State) GSF

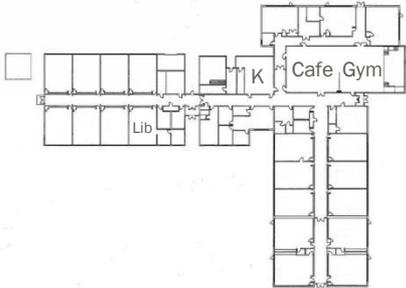
# Elementary School Design | SF: Existing vs New



Vinton  
34,800 (per State) GSF

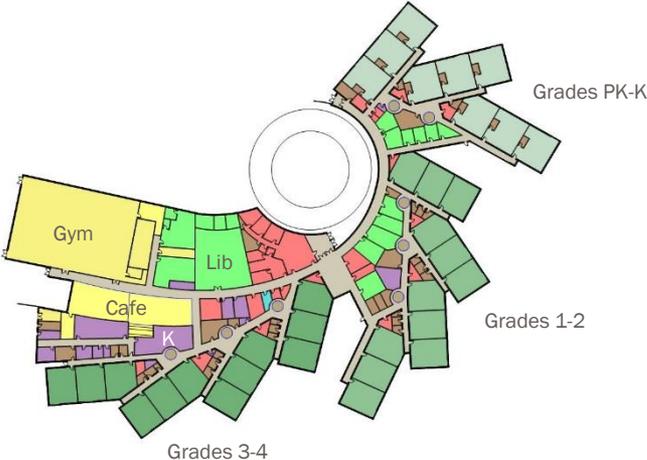


Southeast  
38,400 (per State) GSF



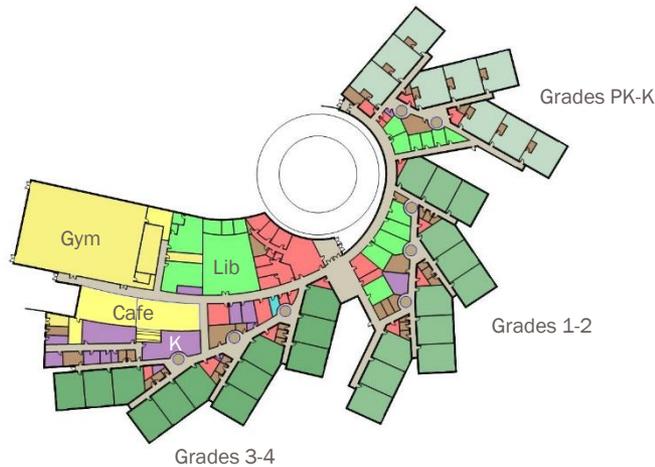
Goodwin  
37,980 (per State) GSF

Existing Elementary Schools  
111,180 SF



New Elementary School  
Approx. 78,000 SF

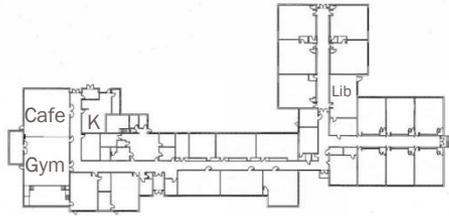
# Elementary School Design | Net Zero Energy



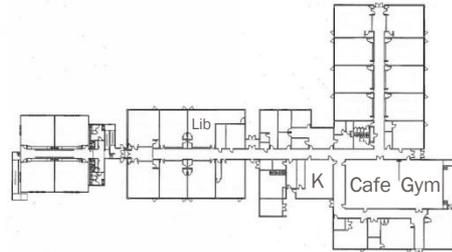
New Elementary School  
One Story  
Approx. 78,000 SF

Building Characteristics for Net Zero Energy	
EUI – 27 to 29 kBtu/sf/year	
Building Type	School with 50% summer occupancy
Climate Zone	5A
Walls	R-13 + R-15ci
Roof	R-30ci
Floor Slabs on Grade	R-15 for 24 inches
Glazing	U-0.35
Infiltration	50% tighter than Code
Lights	0.55 W/sf
Lighting Controls	Occupancy / Vacancy Sensors
Daylighting Controls	Maximized Daylighting with Controls
Load Controls	Automatic Receptacle Controls
Heating & Cooling Plant	Geothermal Ground Source
Photovoltaic Capacity	576 – 618 kW
PV Area	35,500 sf
Glazing Ratio	35% to 45% of Exterior Walls

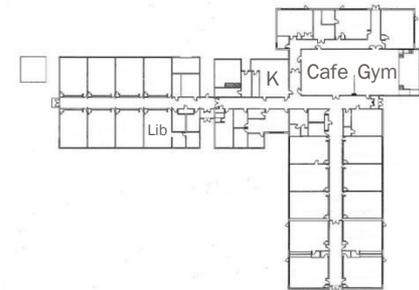
# Elementary School Design | Utility Costs: Existing vs New



Vinton  
at existing Rate 40  
\$67,047 / year

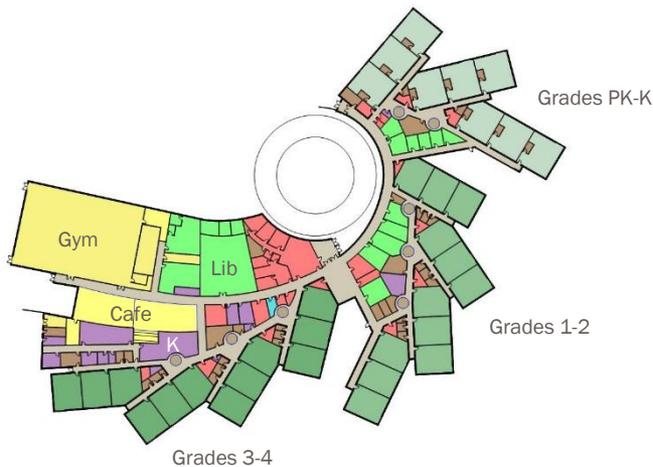


Southeast  
at existing Rate 40  
\$79,449 / year



Goodwin  
at existing Rate 40  
\$59,465 / year

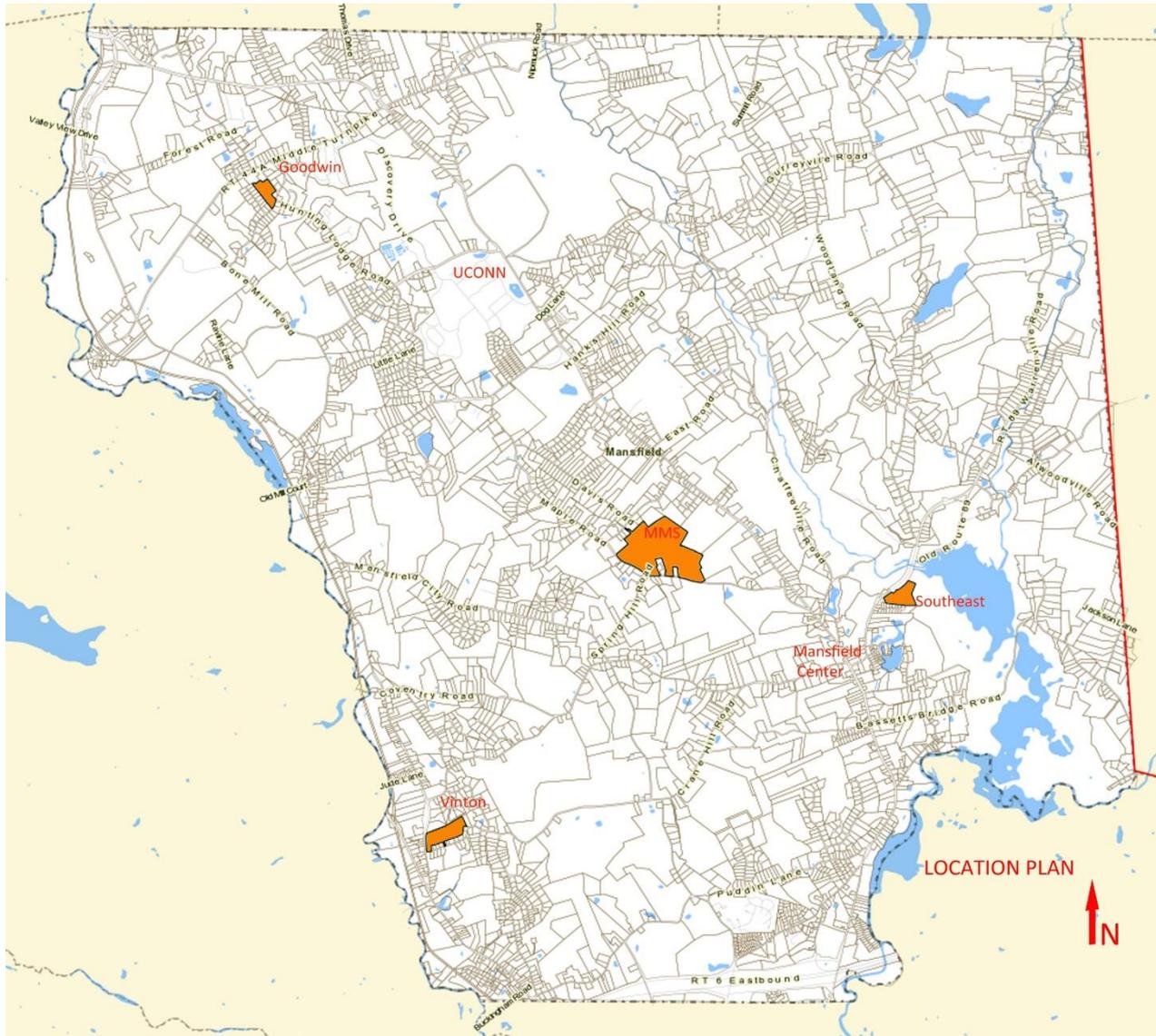
Existing Elementary Schools  
\$205,961 / year



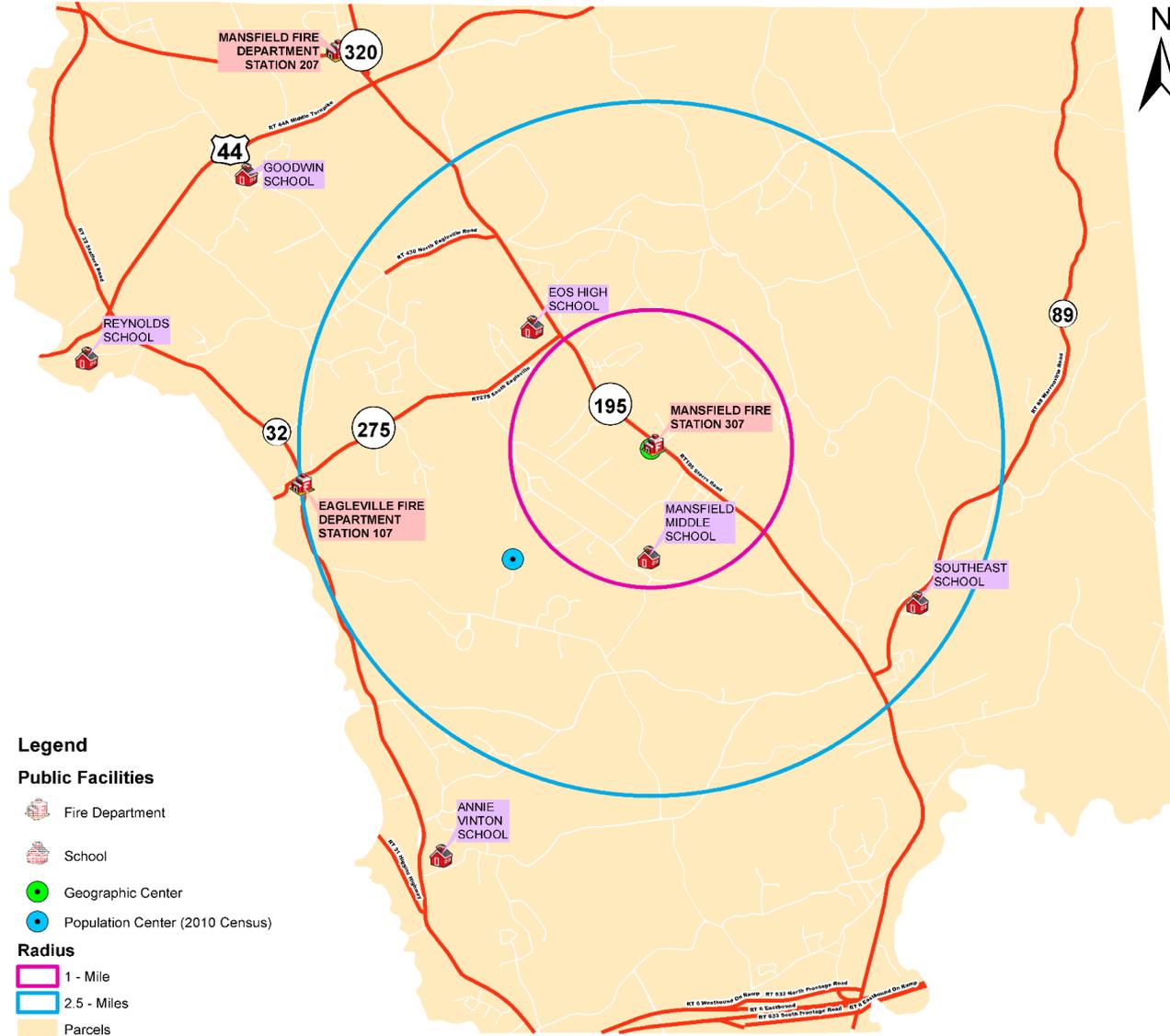
## New Elementary School

Rate Structure	Estimated Utility Costs	PV ZRECS Income	Est. Net Costs
Rate 37	\$141,000	\$0	\$141,000
Rate 37 with PV	\$70,000	\$45,000	\$25,000
Rate 56	\$153,000	\$0	\$153,000
Rate 56 with PV	\$80,000	\$45,000	\$35,000

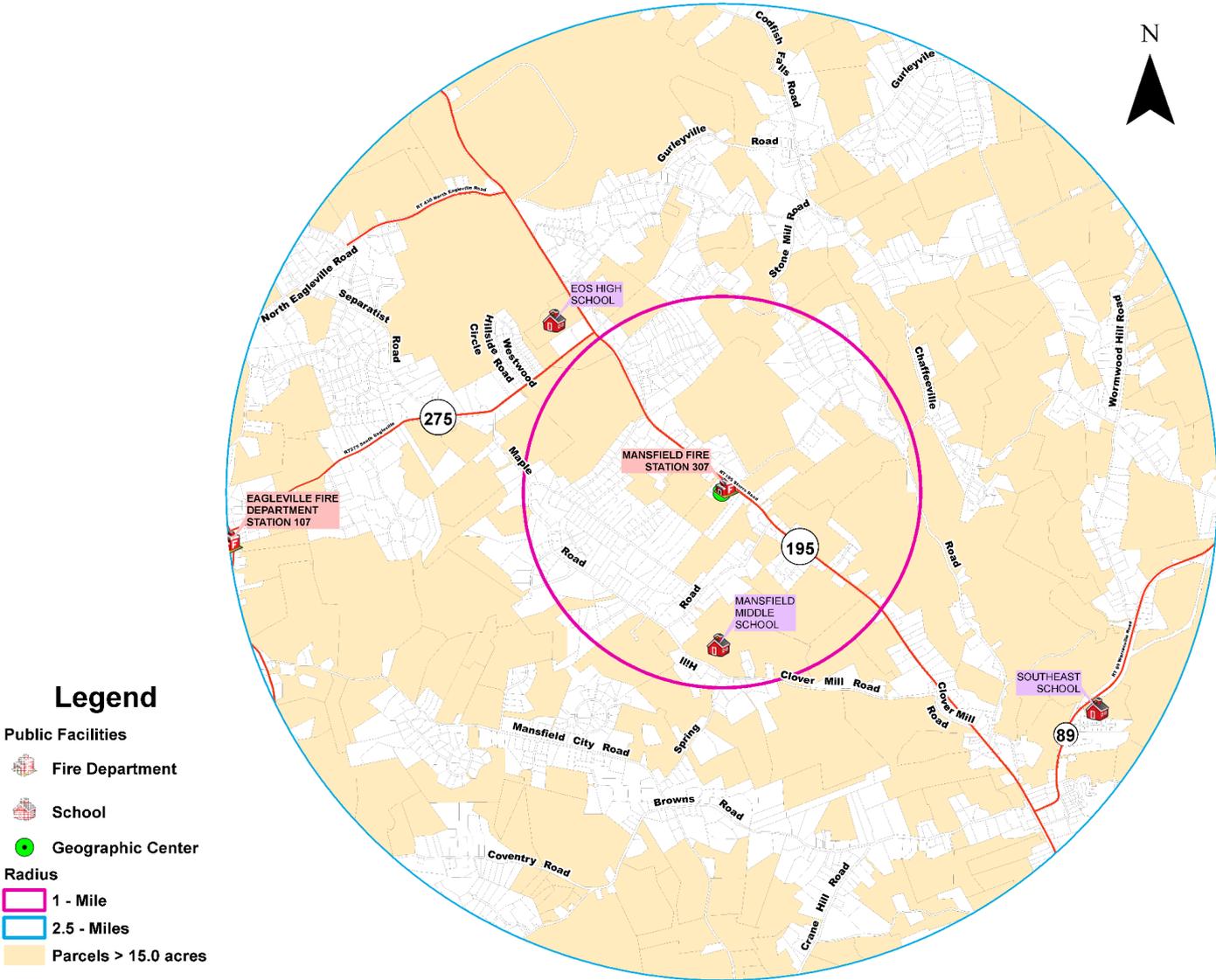
# Evaluation & Selection | **Town Map**



# Evaluation & Selection | 1-Mile and 2.5-Mile Radii



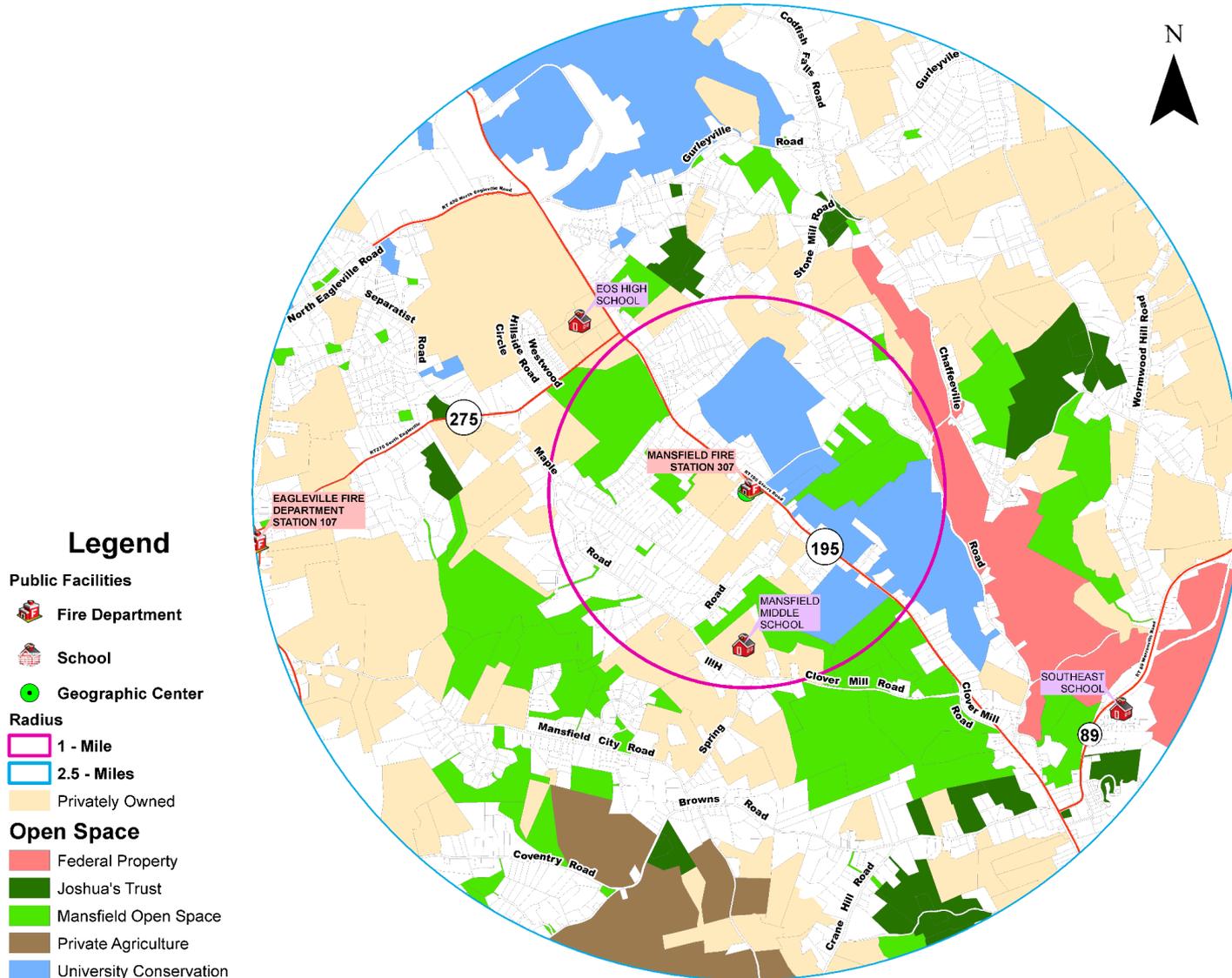
# Evaluation & Selection | Parcels $\geq 15$ Acres



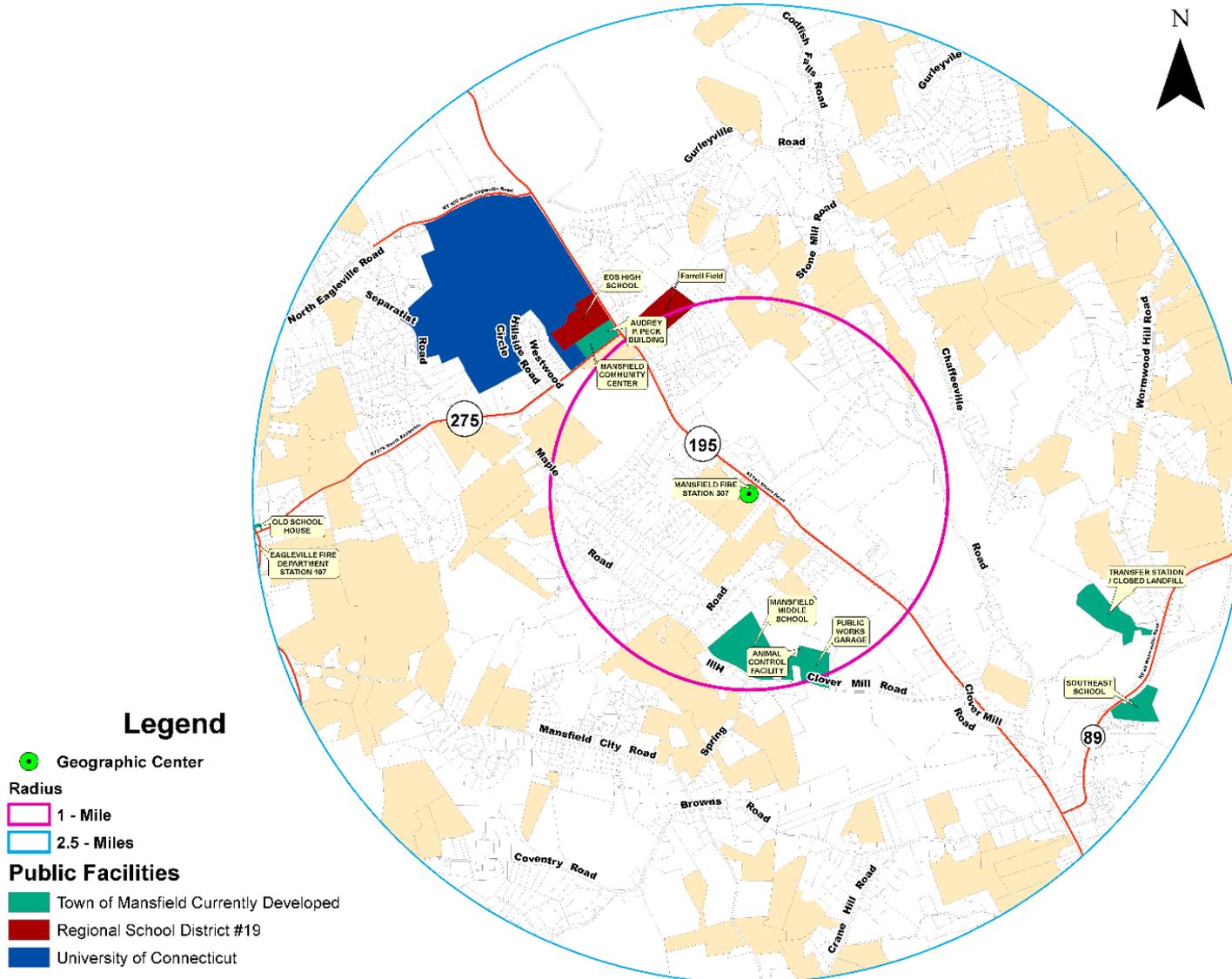
### Legend

- Public Facilities
  - Fire Department
  - School
  - Geographic Center
- Radius
  - 1 - Mile
  - 2.5 - Miles
- Parcels > 15.0 acres

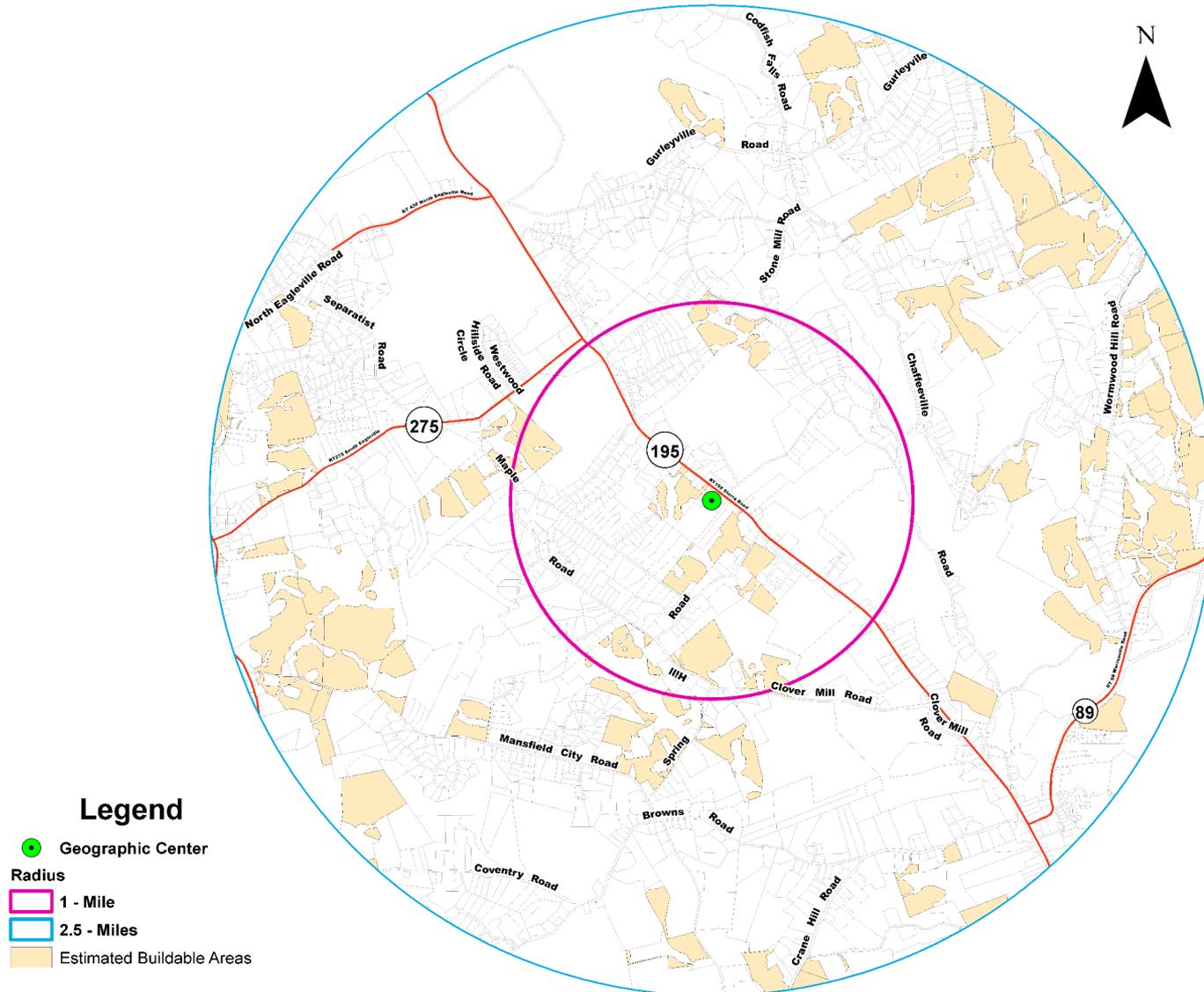
# Evaluation & Selection | Restricted Parcels



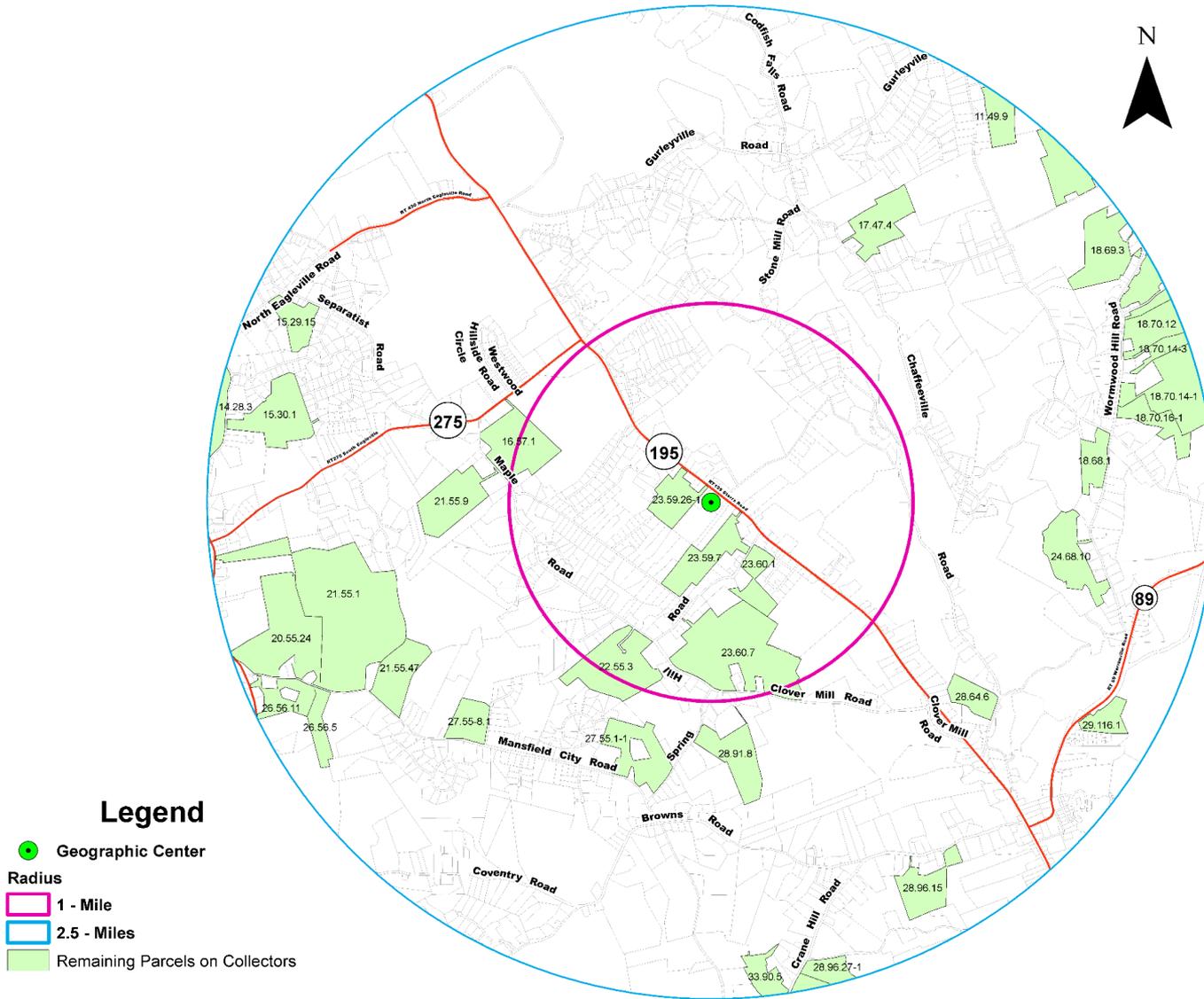
# Evaluation & Selection | Public Facilities



# Evaluation & Selection | Buildable Areas

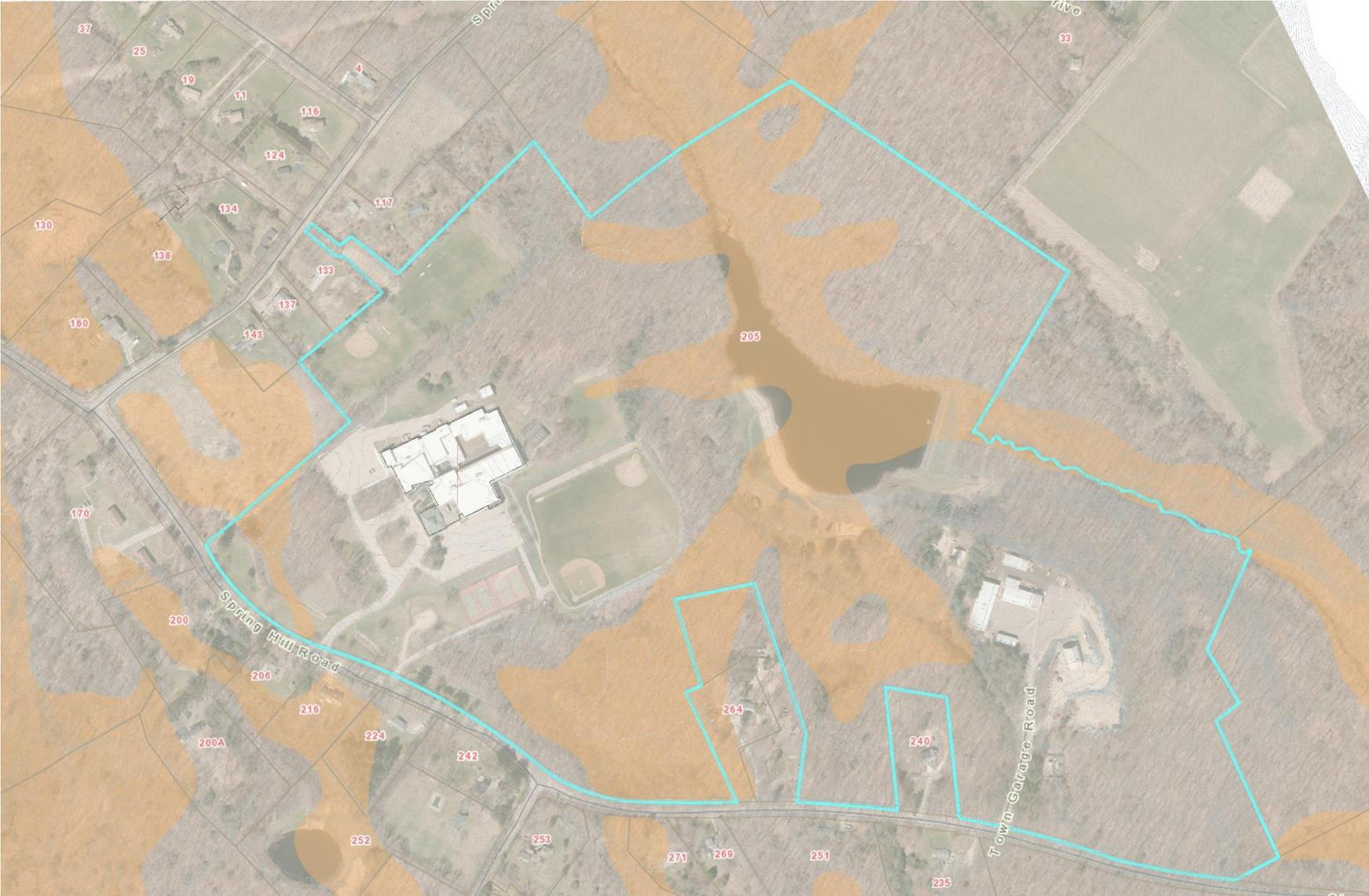


# Evaluation & Selection | Remaining Parcels on Collectors



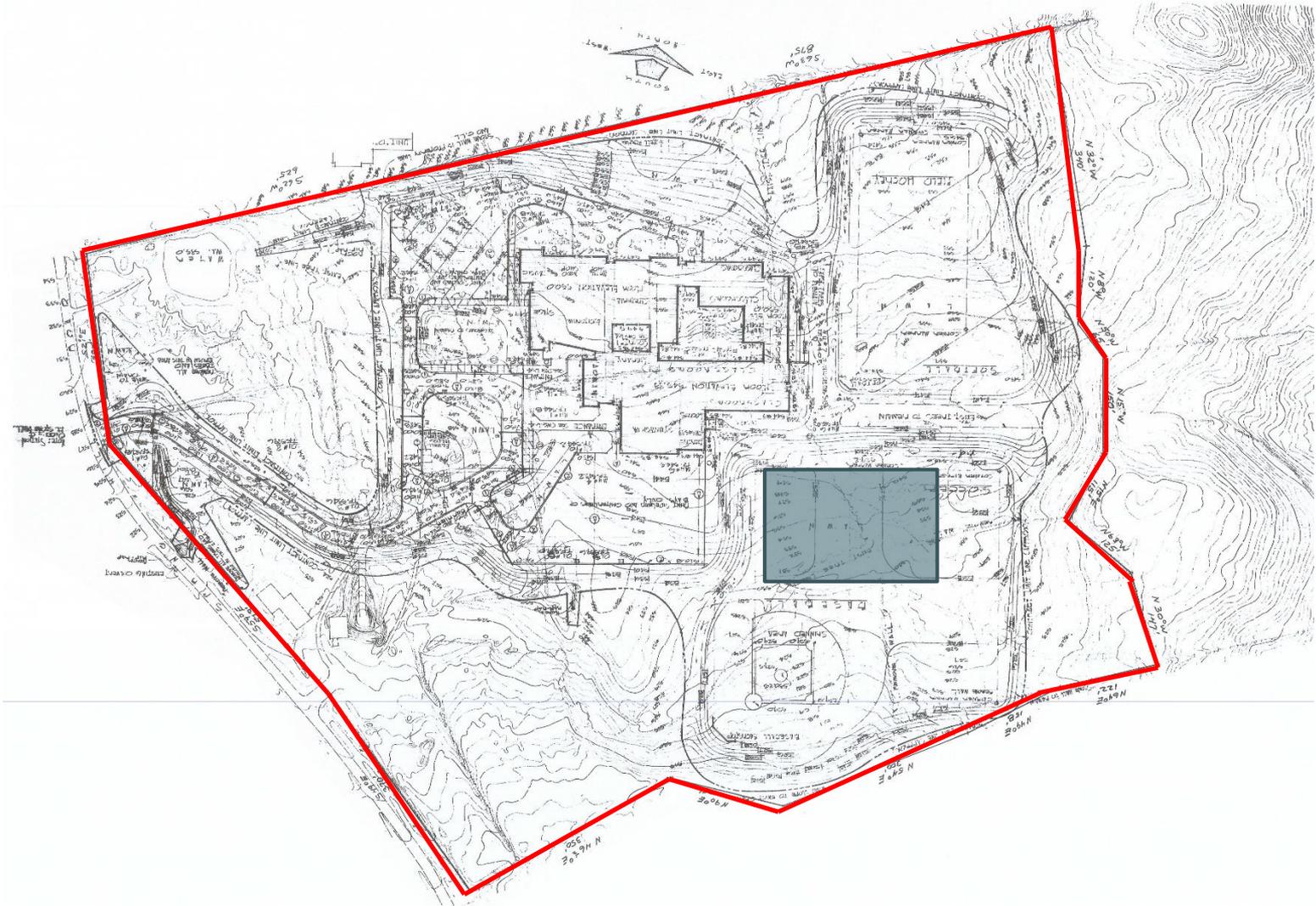


# Parcel A | Constraints





# Parcel A | Constraints



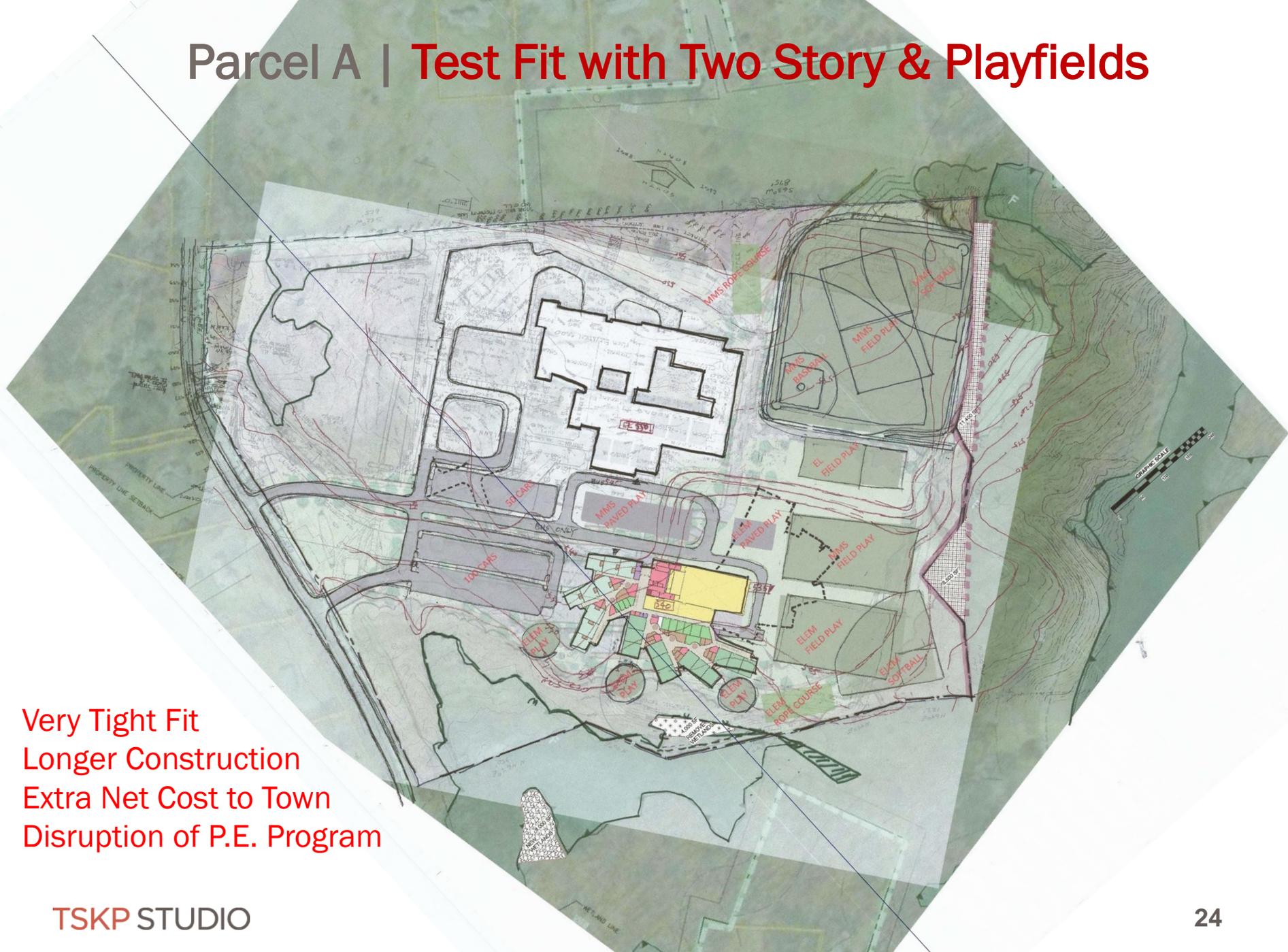
# Evaluation & Selection | Parcel A - Middle School Site



# Parcel A | Test Fit with One Story & Playfields

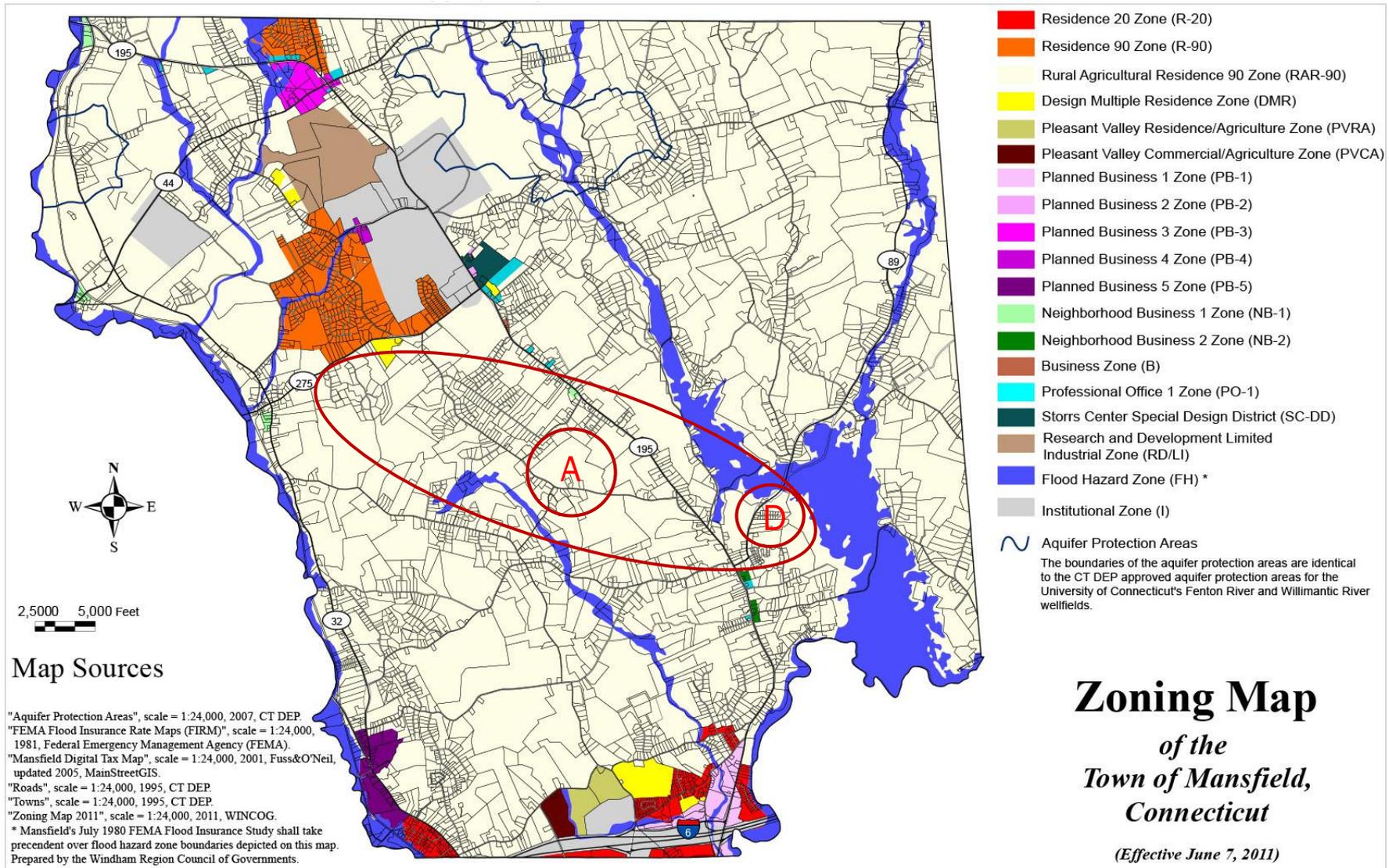


# Parcel A | Test Fit with Two Story & Playfields

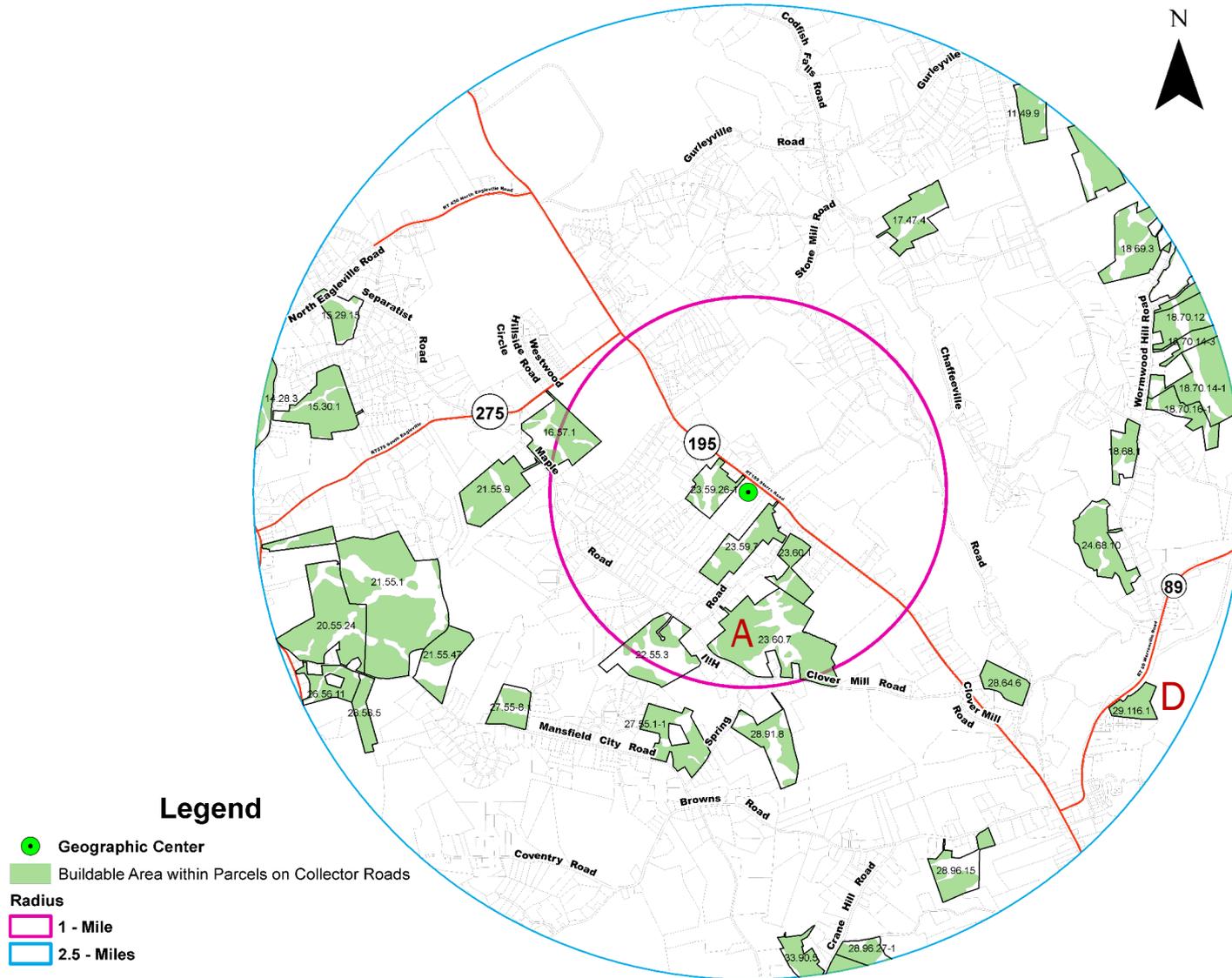


Very Tight Fit  
Longer Construction  
Extra Net Cost to Town  
Disruption of P.E. Program

# Possible Sites | Town Zoning Map



# Evaluation & Selection | Buildable Areas on Remaining



# Evaluation & Selection | Parcel D – Southeast School Site

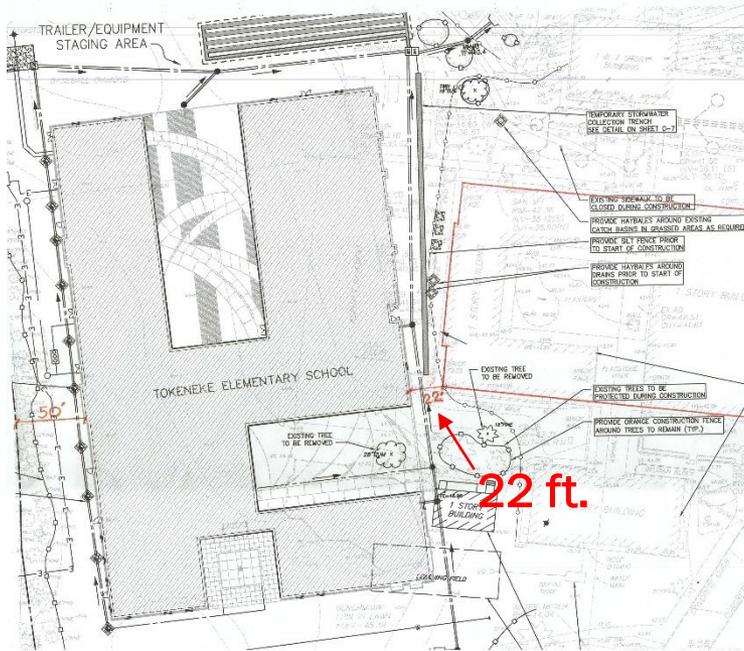


# Evaluation & Selection | Parcel D – Southeast School Site

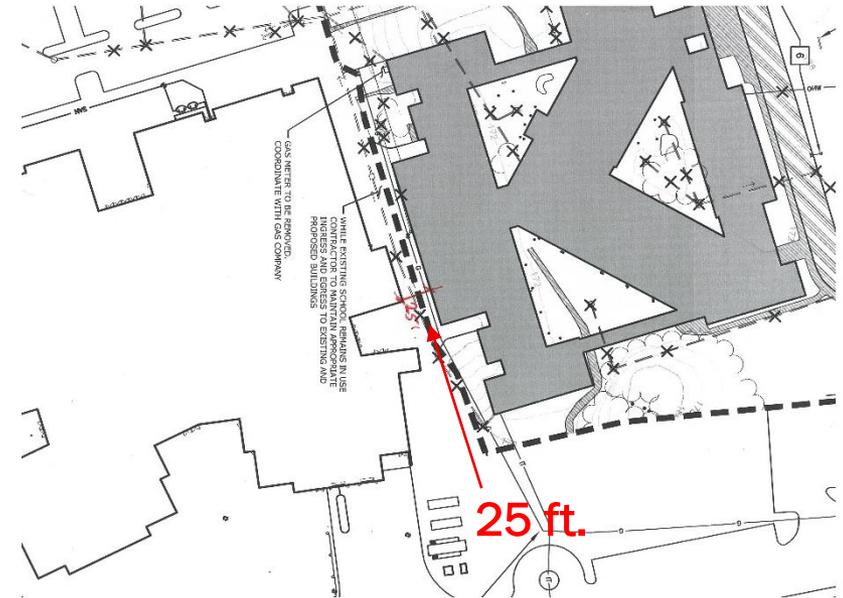
The existing building, parking, and playfields remain in use during construction of the New Building.



# Evaluation & Selection | Proximity to Construction



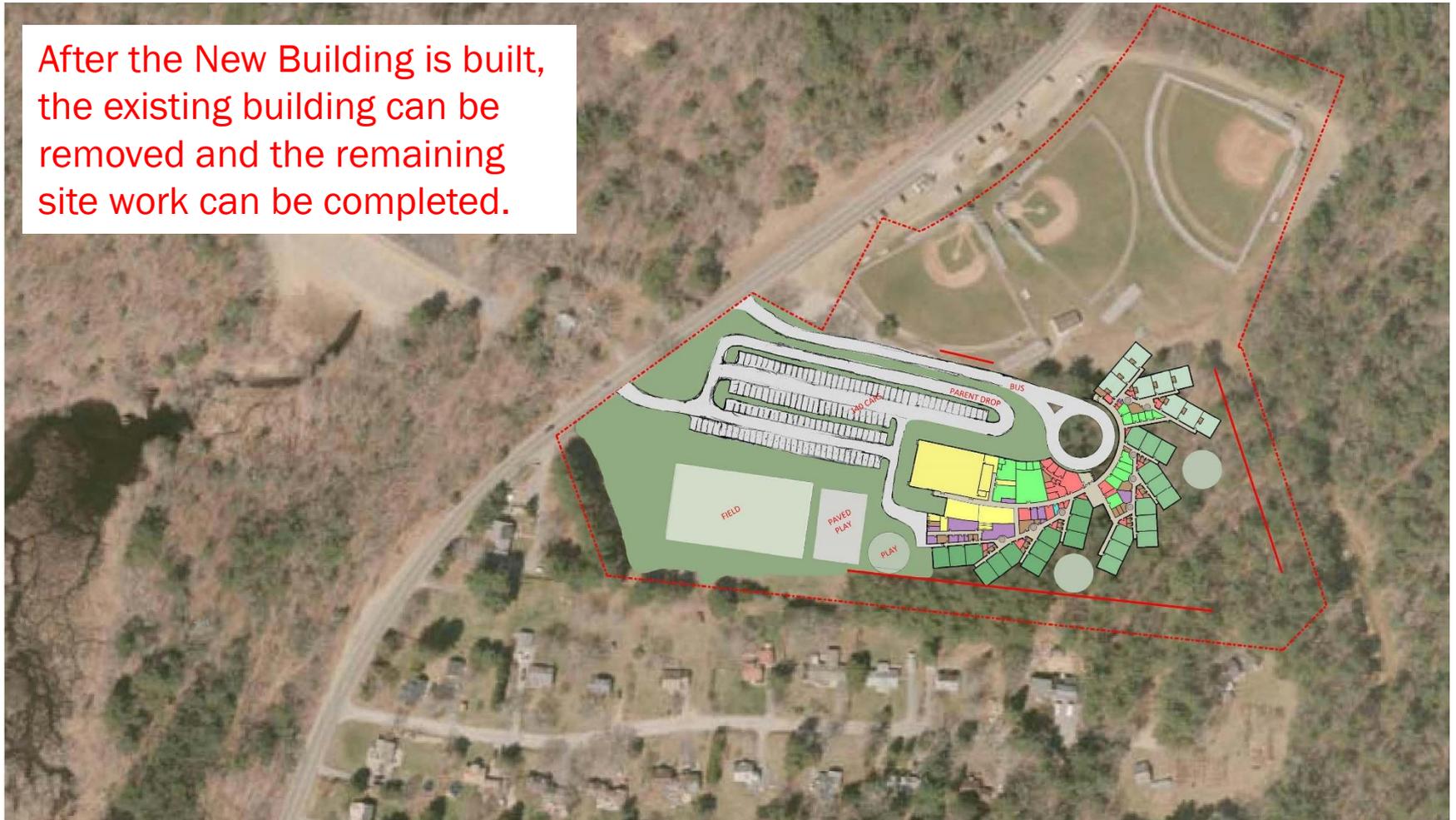
Example:  
Tokeneke Elementary School



Example:  
Guilford High School

# Evaluation & Selection | Parcel D – Southeast School Site

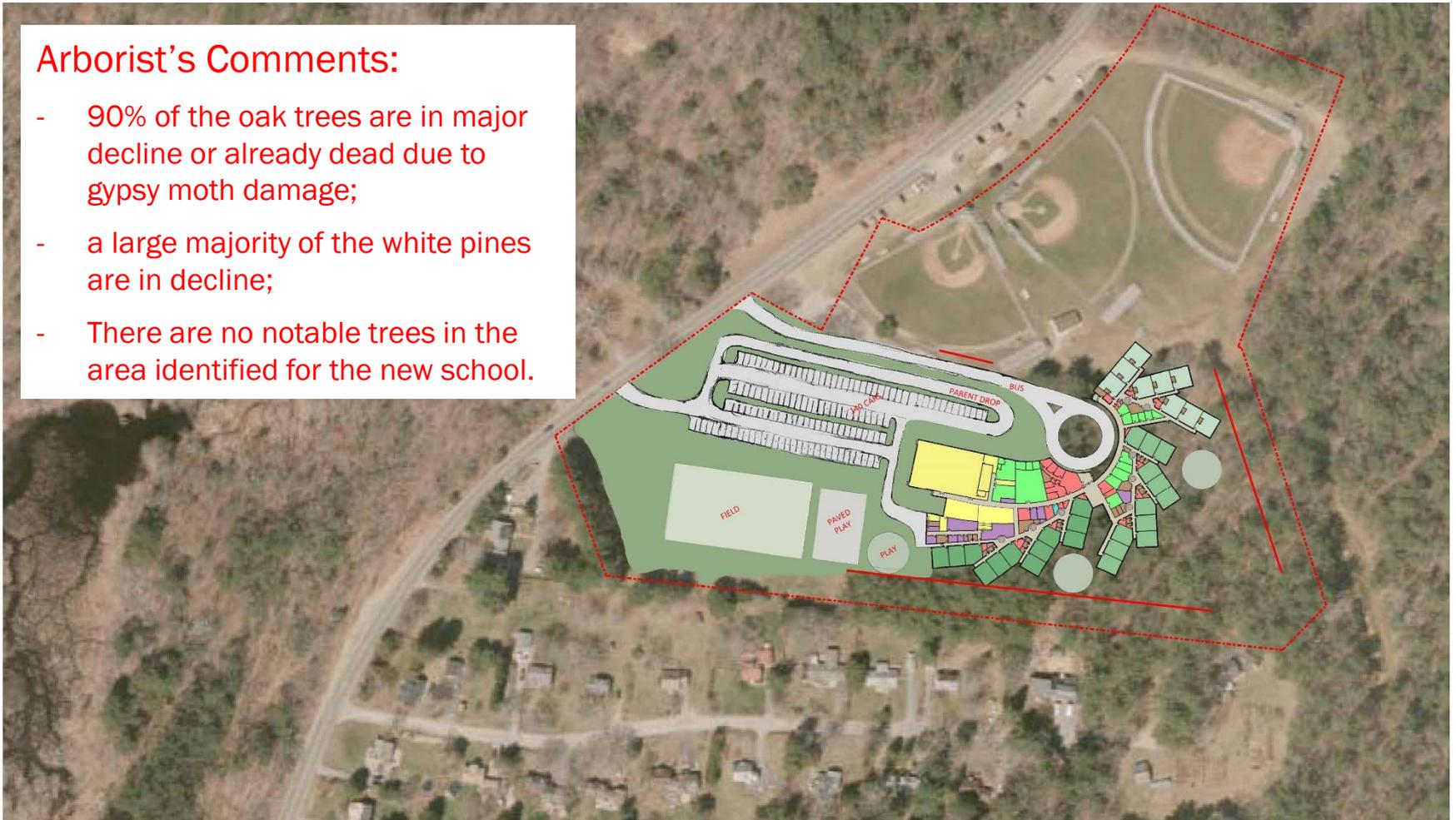
After the New Building is built, the existing building can be removed and the remaining site work can be completed.



# Evaluation & Selection | Parcel D – Southeast School Site

## Arborist's Comments:

- 90% of the oak trees are in major decline or already dead due to gypsy moth damage;
- a large majority of the white pines are in decline;
- There are no notable trees in the area identified for the new school.



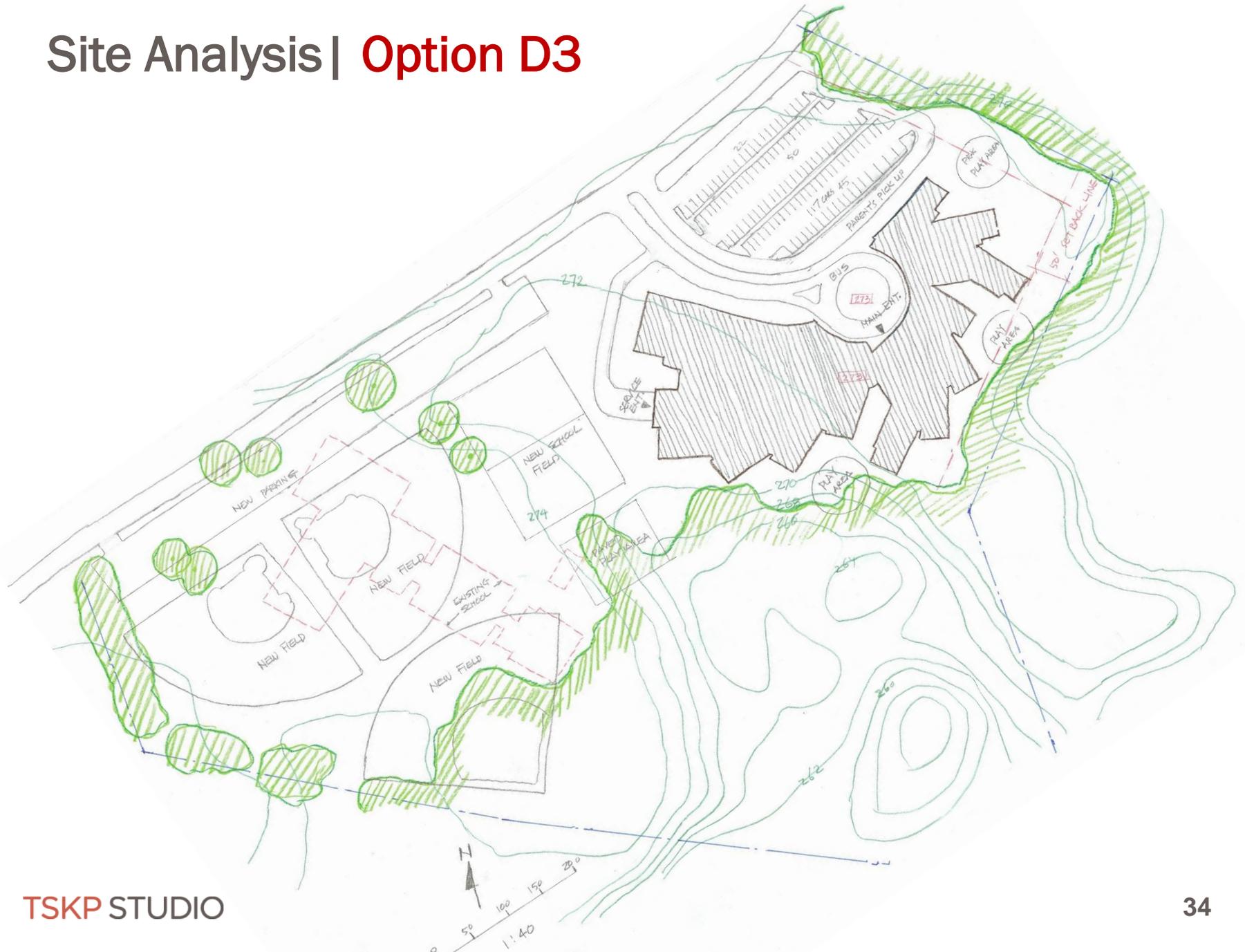
# Site Analysis | Option D1



# Site Analysis | Option D2



# Site Analysis | Option D3



# Evaluation & Selection | **Site Costs**

	Parcel A Estimated Costs	Parcel D Approx. Costs
Building Height	1 or 2 Story	1 or 2 Story
Admin.	\$ 50,000	\$ 50,000
Erosion Con.	\$ 44,290	\$ 40,000
Earthwork	\$ 2,912,500	\$ 710,000
Surfaces Imp.	\$ 1,542,550	\$ 1,000,000
Drainage	\$ 1,050,300	\$ 800,000
Site Utilities	\$ 3,857,450	\$ 1,900,000
<b>TOTAL</b>	<b>\$ 9,457,090</b>	<b>\$ 4,500,000</b>
Abatement, Demo	TBD	\$ 500,000
		<b>\$ 5,000,000</b>
+Escalation,Contingency		

# Mansfield Elementary School Site Selection Matrix

4/15/2019

Working Draft

Criteria	Parcel A	Parcel D
Construction Duration	30 Months. Early Phase.	24 Months
One Story Achievable	Yes, but site will be tight.	Yes.
Future Expansion	Yes. 11 Classrooms	Yes. 11 Classrooms +
Cost of Land	0	0
Site Development Costs	\$9.5 Million *	Prob. \$5.0 Million *
Ineligible Site Costs	\$2.6 Million *	0
Avoids Wetlands	No. Will encroach.	Yes.
Loss of Tax Revenue	None.	None.
Available Public Utilities	Gas and electricity only.	Electricity only.
Septic System Costs	\$2.5 Million *	Prob. \$700,000 *
Available PV Area	Yes, but limited.	Yes.
Potential Geothermal	Yes. Under new building.	Yes. Under new building.
Traffic Safety/Access	OK, but congested.	OK
Environmental Concerns	Remove UST.	Remove UST.

\* Plus Escalation and Contingency



# Project Schedule | Next Steps

- Develop financial information
  - Project Budget
  - Operating Cost Projections
  - Affect on Mill Rate
- Joint meeting of Town Council, BOE, SBC (May 1)
- Planning and Zoning Commission – Site approval
- Town Council approval of November referendum
- Application to Department of Administrative Services  
Office of School Construction Grants & Review
- Public Information Meetings (May 7, 10, 11)
  - Financial information
  - Transportation
  - Referendum Process

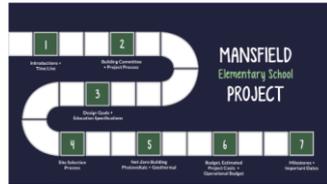
# School Building Project | **Learn More**

## To Learn More:

- Attend the next information sessions:

**May 7, May 10, May 11**

- Watch our Video:



- Visit our Website:  
<http://MansfieldElementaryProject.org>
- Send Questions to:  
[MansfieldElementaryProject@mansfieldct.org](mailto:MansfieldElementaryProject@mansfieldct.org)

## To Add Your Voice to the Conversation:

- Complete the Feedback Form
- Send Comments to:  
[MansfieldElementaryProject@mansfieldct.org](mailto:MansfieldElementaryProject@mansfieldct.org)
- Sign-up to receive communications and help us share information

# Q & A | Discussion

